

High speed spindles

CATALOGUE



High speed precision spindles



High speed precision spindles

CATALOGUE

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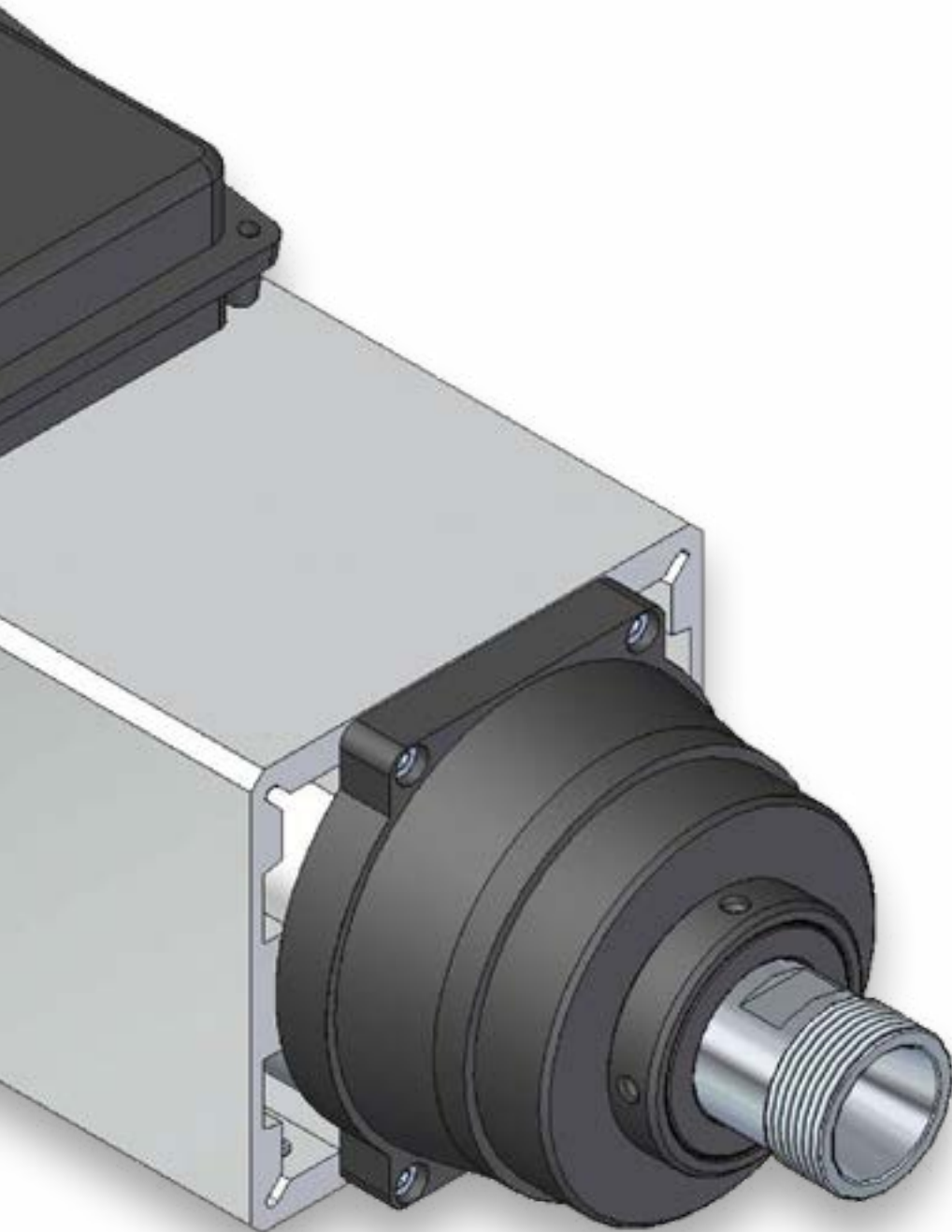
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High speed precision spindles

DATASHEET

STANDARD Series



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KNS 21 Series

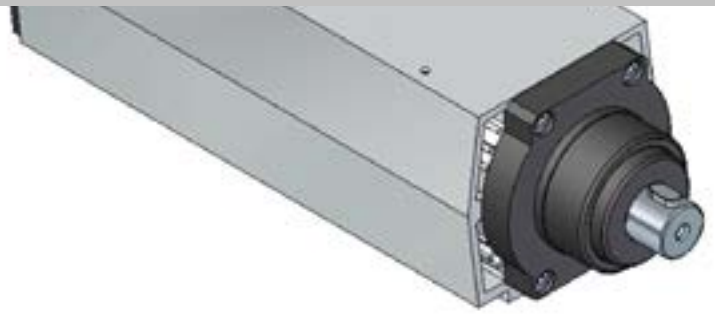
KNS 21 SC
KNS 21 SCF
KNS 21 SF

STK 21 Series

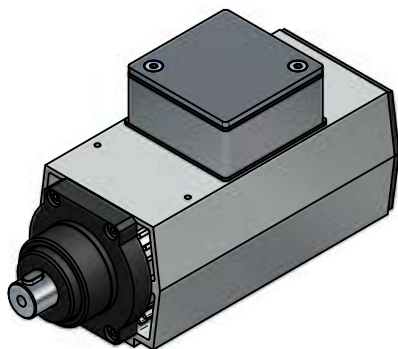
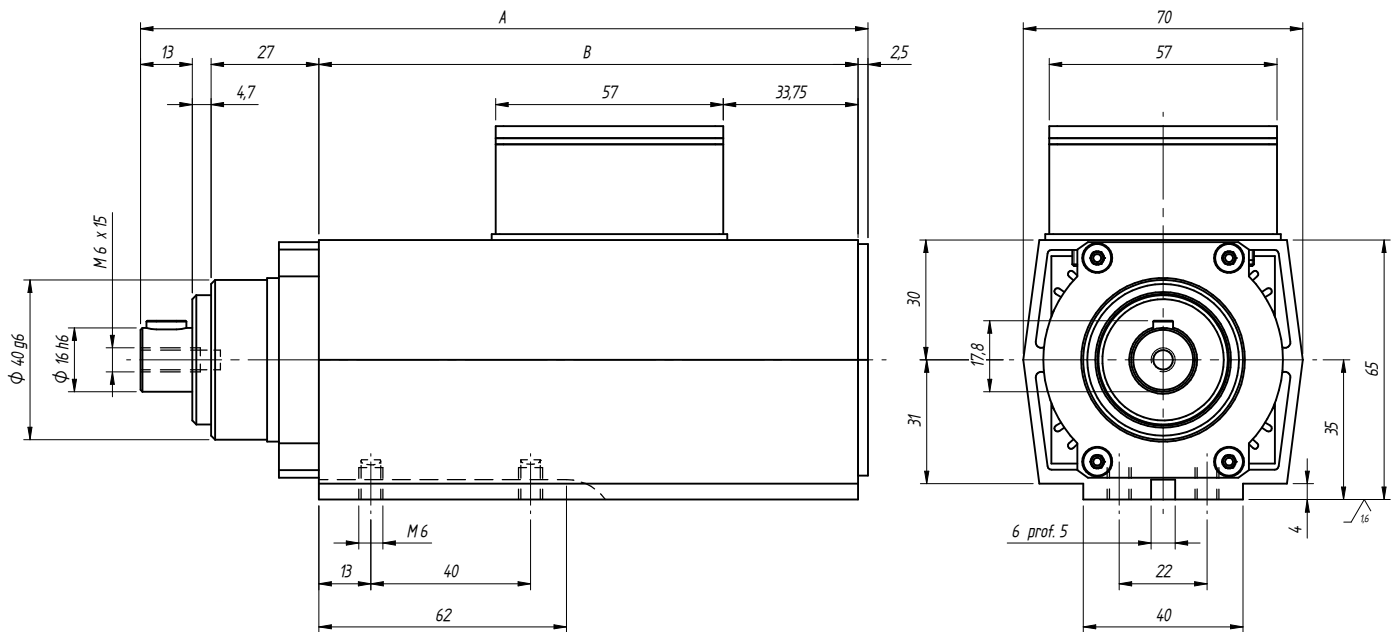
STK 21 SC

STK 21 SCF

STK 21 SF



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
STK21 6.5/2	220/380	100	6000	0,13	1,00/0,58	0,63	2,5
STK21 6.5/2	220/380	200	12000	0,35	2,00/1,16	0,69	2,5
STK21 6.5/2	220/380	300	18000	0,41	2,20/1,27	0,70	2,5
STK21 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	3
STK21 9/2	220/380	200	12000	0,55	2,55/1,50	0,70	3
STK21 9/2	220/380	300	18000	0,75	3,70/2,14	0,71	3

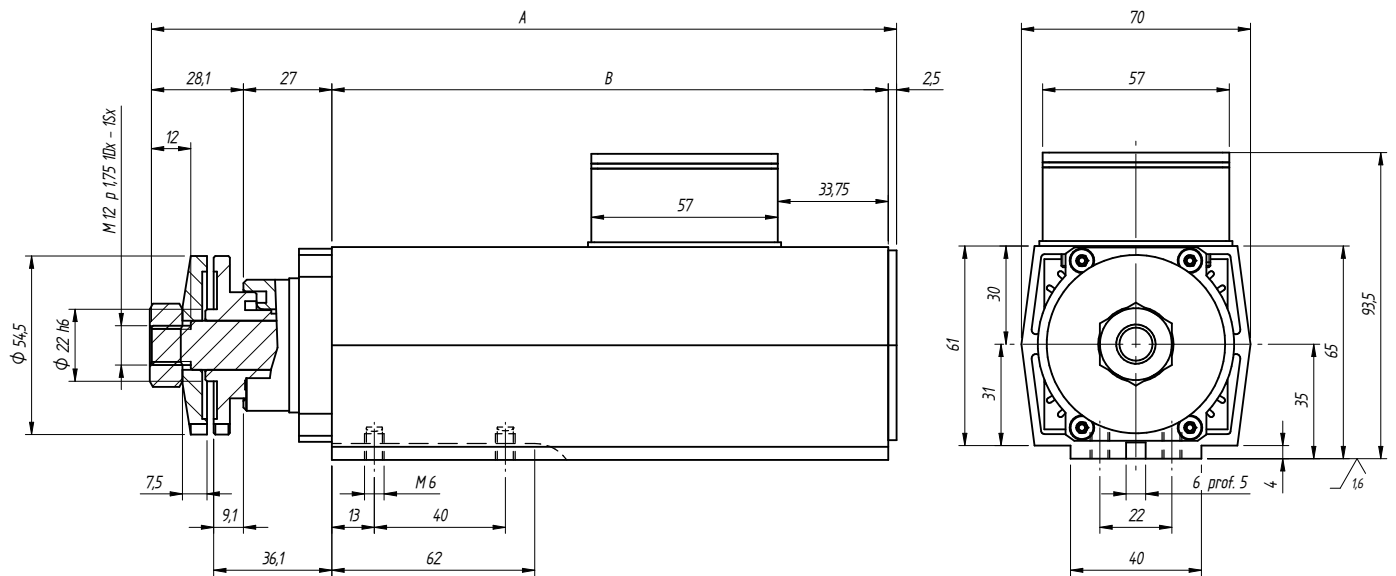


TIPO	A	B
STK21 6.5/2	182	135
STK21 9/2	217	170

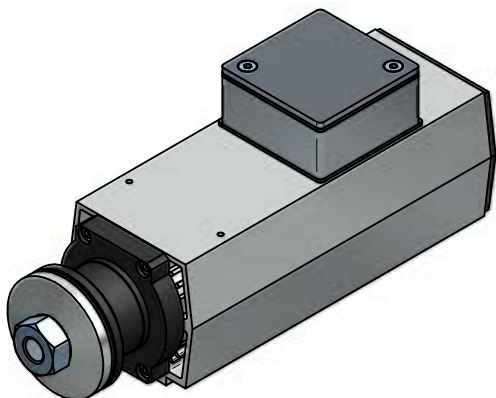




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
STK21 6.5/2	220/380	100	6000	0,13	1,00/0,58	0,63	2,5
STK21 6.5/2	220/380	200	12000	0,35	2,00/1,16	0,69	2,5
STK21 6.5/2	220/380	300	18000	0,41	2,20/1,27	0,70	2,5
STK21 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	3
STK21 9/2	220/380	200	12000	0,55	2,55/1,50	0,70	3
STK21 9/2	220/380	300	18000	0,75	3,70/2,14	0,71	3



TIPO	A	B
STK21 6.5/2	192.5	135
STK21 9/2	227.5	170



EVS Series

EVS 31 SC

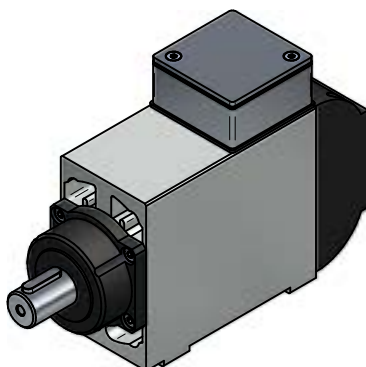
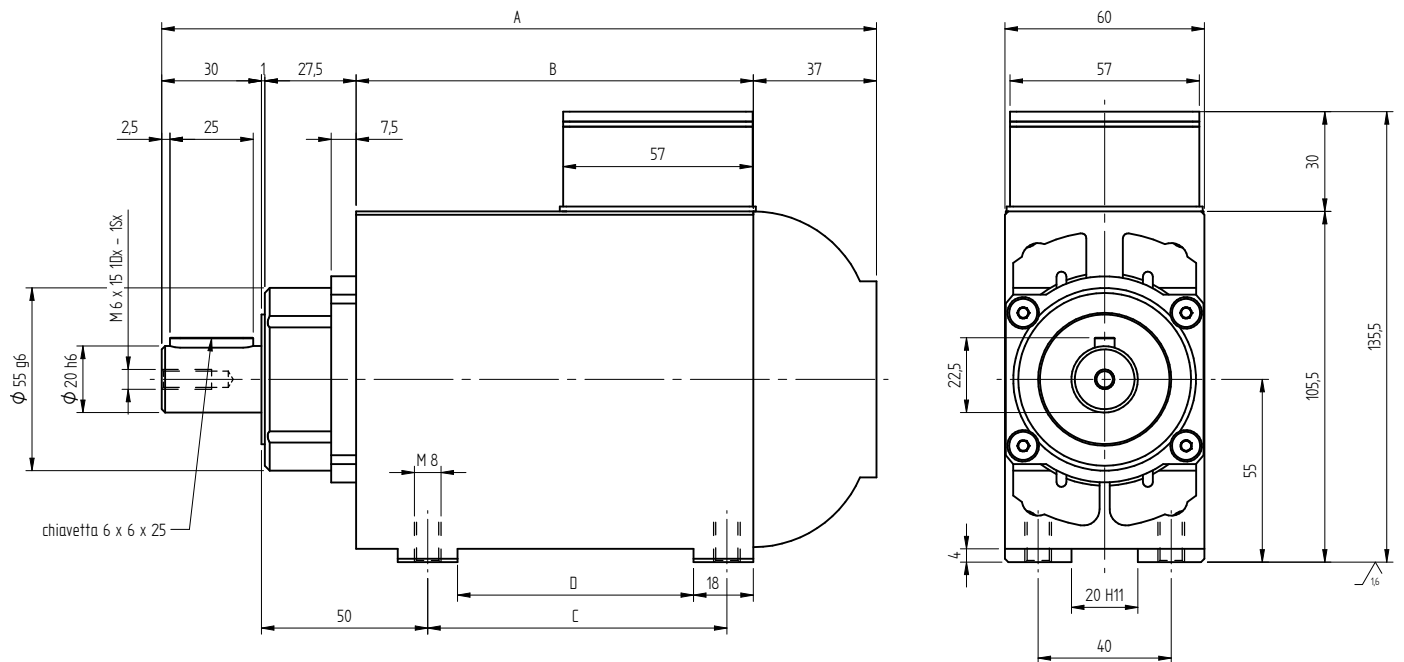
EVS 31 SLF

EVS 40 SC

EVS 40 SLF



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
EVS31 6.5/2	220/380	100	6000	0,13	1,00/0,58	0,63	2,8
EVS31 6.5/2	220/380	200	12000	0,35	2,00/1,16	0,69	2,8
EVS31 6.5/2	220/380	300	18000	0,41	2,20/1,27	0,70	2,8
EVS31 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	3,4
EVS31 9/2	220/380	200	12000	0,55	2,55/1,50	0,70	3,4
EVS31 9/2	220/380	300	18000	0,75	3,70/2,14	0,71	3,4

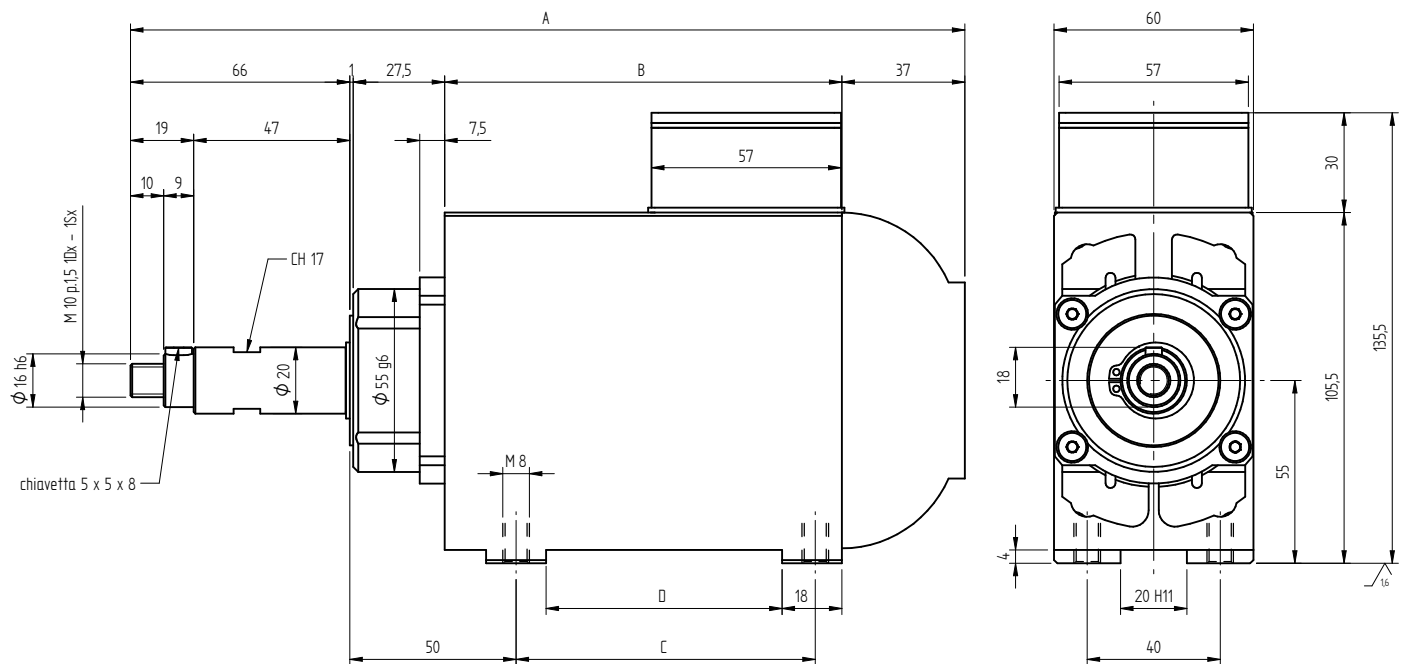


TIPO	A	B	C	D
EVS 31 6,5/2	215	119,5	90	72
EVS 31 9/2	245	149,5	120	102





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
EVS31 6.5/2	220/380	100	6000	0,13	1,00/0,58	0,63	2,8
EVS31 6.5/2	220/380	200	12000	0,35	2,00/1,16	0,69	2,8
EVS31 6.5/2	220/380	300	18000	0,41	2,20/1,27	0,70	2,8
EVS31 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	3,4
EVS31 9/2	220/380	200	12000	0,55	2,55/1,50	0,70	3,4
EVS31 9/2	220/380	300	18000	0,75	3,70/2,14	0,71	3,4

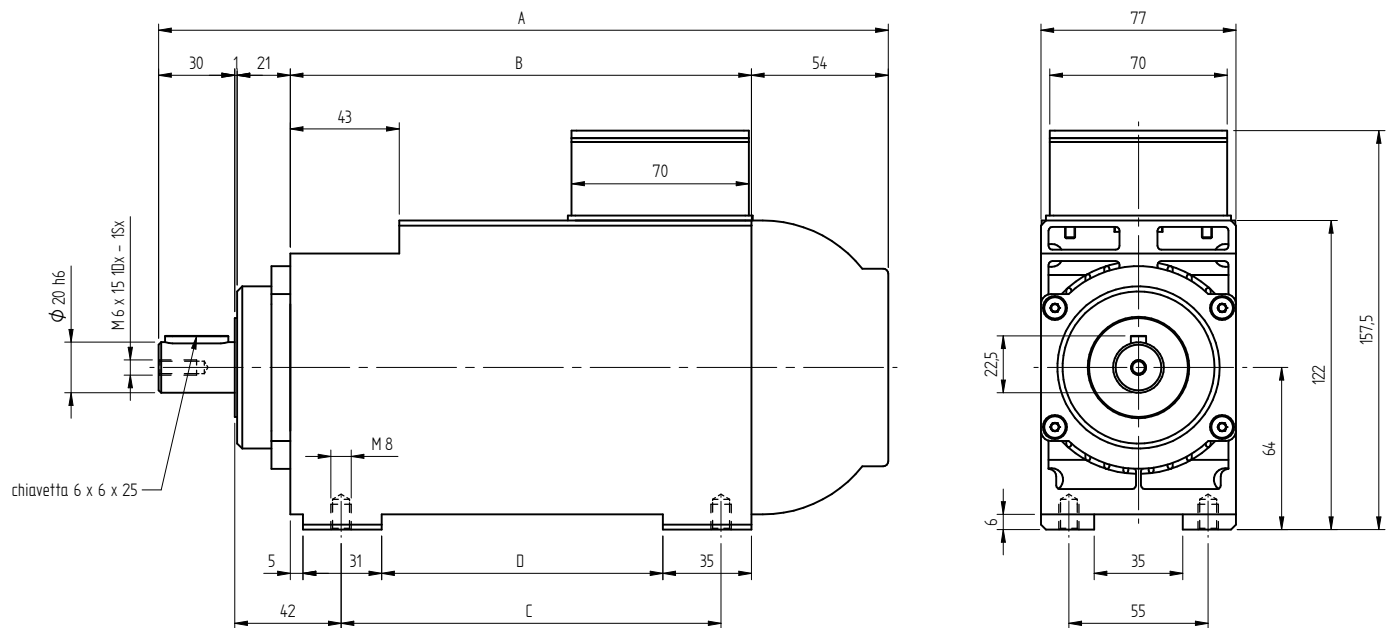


TIPO	A	B	C	D
EVS 31 6,5/2	251	119,5	90	72
EVS 31 9/2	281	149,5	120	102





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
EVS40 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	5,8
EVS40 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	5,8
EVS40 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	5,8
EVS40 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	5,8
EVS40 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	7
EVS40 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	7
EVS40 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	7
EVS40 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	7
EVS40 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	8,2
EVS40 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	8,2
EVS40 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	8,2
EVS40 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	8,2

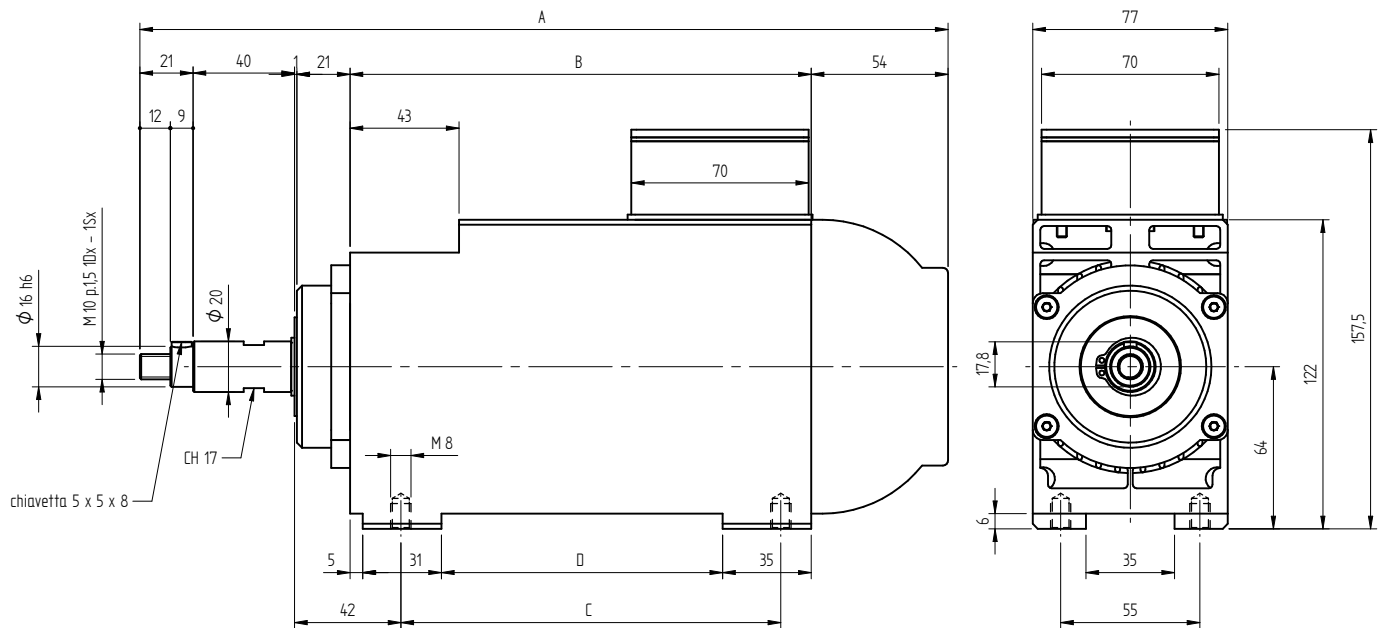


TIPO	A	B	C	D
EVS 40 9/2	288	182	150	111
EVS 40 12/2	348	242	210	171
EVS 40 14/2	348	242	210	171





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
EVS40 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	5,8
EVS40 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	5,8
EVS40 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	5,8
EVS40 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	5,8
EVS40 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	7
EVS40 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	7
EVS40 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	7
EVS40 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	7
EVS40 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	8,2
EVS40 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	8,2
EVS40 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	8,2
EVS40 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	8,2



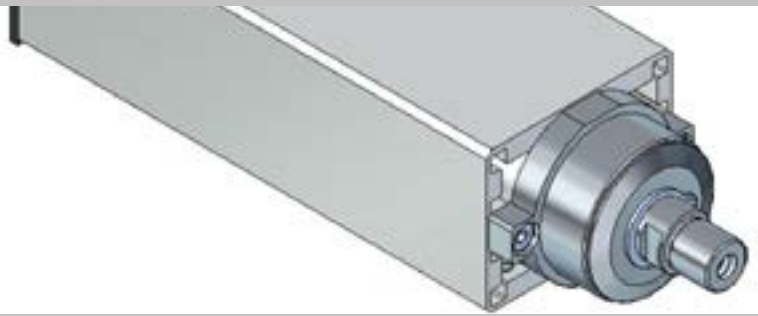
TIPO	A	B	C	D
EVS 40 9/2	319	182	150	111
EVS 40 12/2	379	242	210	171
EVS 40 14/2	379	242	210	171



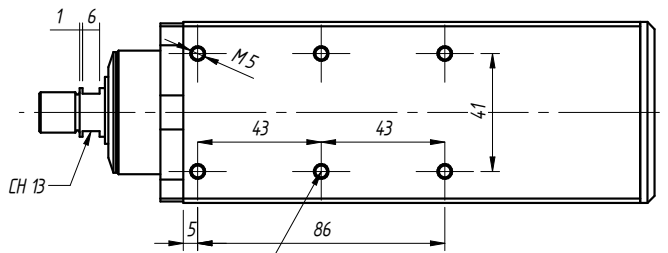
PE 0 Series

PE 0 SL

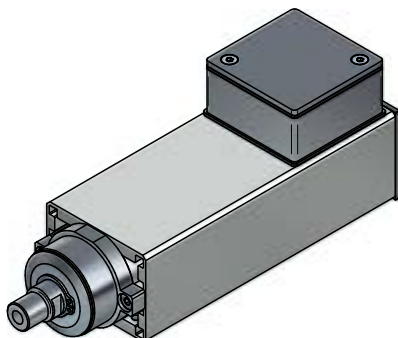
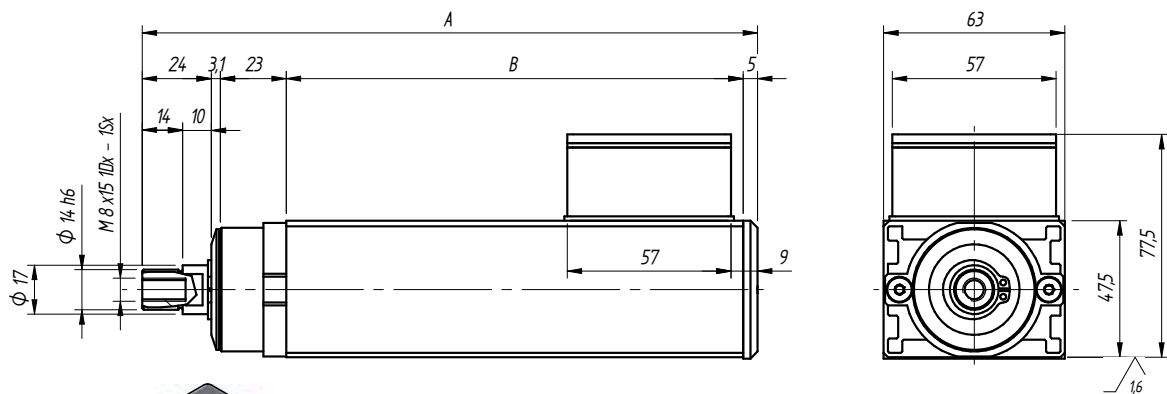
PE 0 SF



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PEO 3.5/2	220/380	200	12000	0,08	0,60/0,34	0,65	1,5
PEO 3.5/2	220/380	300	18000	0,12	0,78/0,45	0,69	1,5
PEO 6/2	220/380	100	6000	0,05	0,45/0,26	0,61	1,8
PEO 6/2	220/380	200	12000	0,15	0,80/0,45	0,68	1,8
PEO 6/2	220/380	300	18000	0,30	1,70/1,00	0,70	1,8
PEO 8/2	220/380	100	6000	0,07	0,55/0,32	0,61	2
PEO 8/2	220/380	200	12000	0,18	1,20/0,69	0,64	2
PEO 8/2	220/380	300	18000	0,35	1,70/1,00	0,70	2



Solo per versione PEO 6-8/2

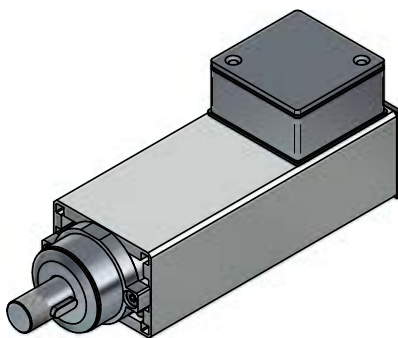
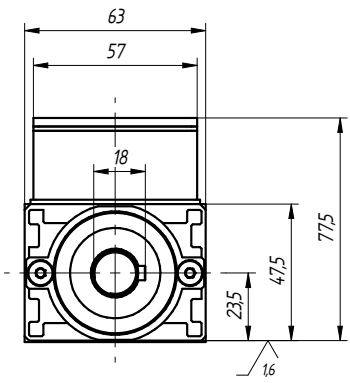
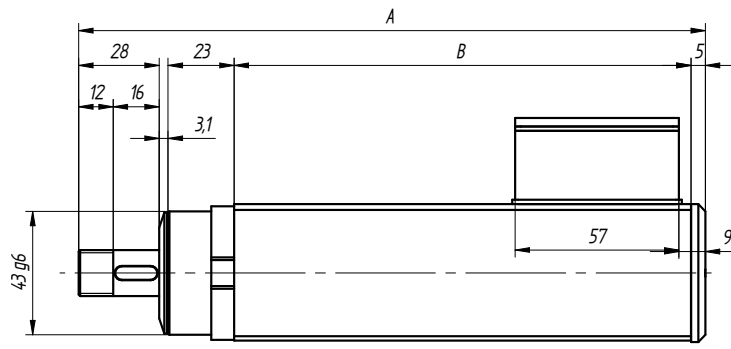
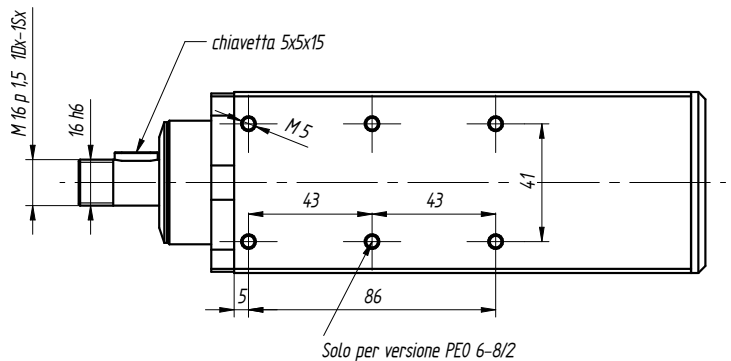


TIPO	A	B
PEO 3.5/2	174	119
PEO 6/2	199	144
PEO 8/2	214	159





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PEO 3.5/2	220/380	200	12000	0,08	0,60/0,34	0,65	1,5
PEO 3.5/2	220/380	300	18000	0,12	0,78/0,45	0,69	1,5
PEO 6/2	220/380	100	6000	0,05	0,45/0,26	0,61	1,8
PEO 6/2	220/380	200	12000	0,15	0,80/0,45	0,68	1,8
PEO 6/2	220/380	300	18000	0,30	1,70/1,00	0,70	1,8
PEO 8/2	220/380	100	6000	0,07	0,55/0,32	0,61	2
PEO 8/2	220/380	200	12000	0,18	1,20/0,69	0,64	2
PEO 8/2	220/380	300	18000	0,35	1,70/1,00	0,70	2



TIPO	A	B
PEO 3.5/2	178	119
PEO 6/2	203	144
PEO 8/2	218	159



PE 1/2 Series

PE 1/2 SC S

PE 1/2 SC L

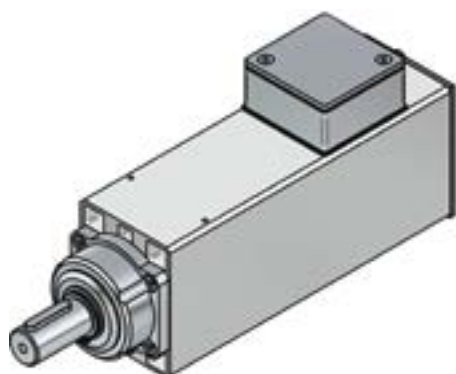
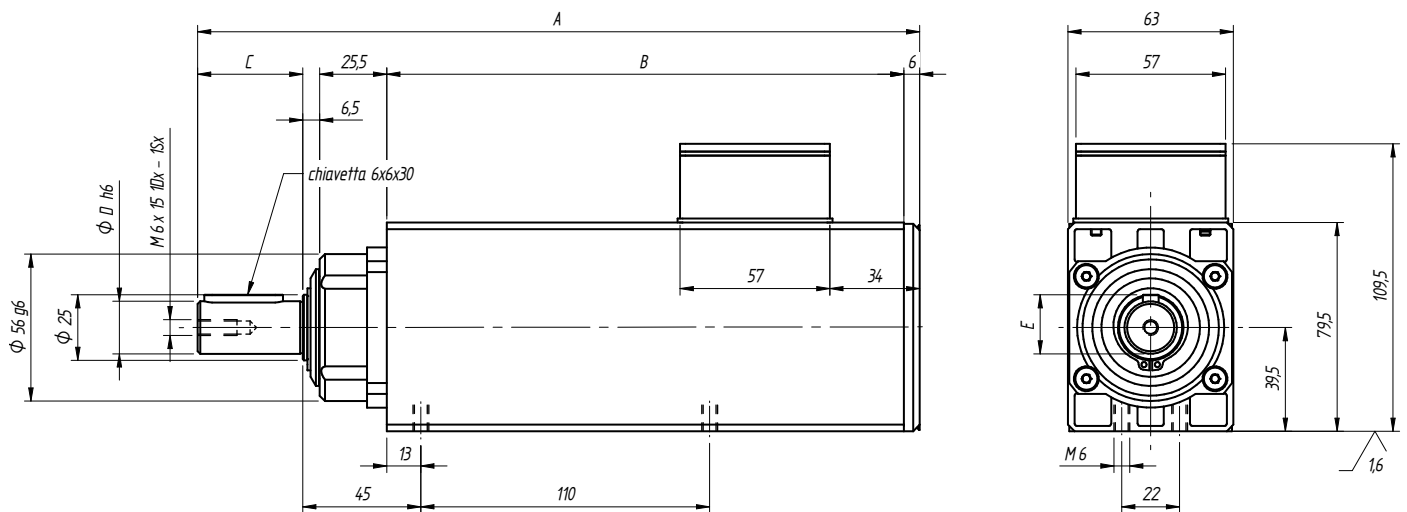
PE 1/2 SF

PE 1/2 SLF

PE 1/2 SL

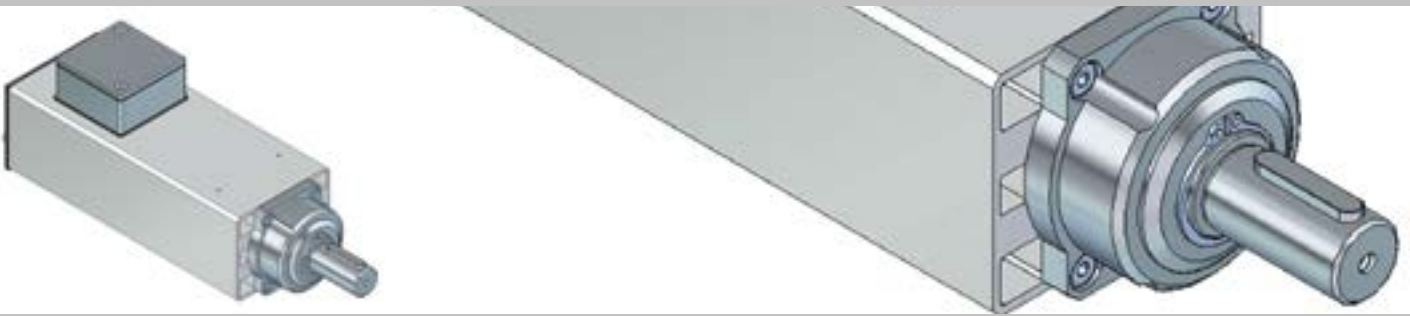


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE1 6/2	220/380	100	6000	0.07	0.43/0.25	0.70	2,5
PE1 6/2	220/380	200	12000	0.16	1.35/0.78	0.70	2,5
PE1 6/2	220/380	300	18000	0.22	2.20/1.25	0.70	2,5
PE1 7/2	220/380	100	6000	0.10	0.70/0.40	0.70	2,8
PE1 7/2	220/380	200	12000	0.22	1.65/0.95	0.70	2,8
PE1 7/2	220/380	300	18000	0.33	2.40/1.40	0.70	2,8
PE1 8.5/2	220/380	100	6000	0.22	1.35/0.78	0.68	3,1
PE1 8.5/2	220/380	200	12000	0.37	2.00/1.15	0.69	3,1
PE1 8.5/2	220/380	300	18000	0.55	3.00/1.73	0.70	3,1
PE2 9/2	220/380	50	3000	0.10	0.85/0.50	0.60	3,5
PE2 9/2	220/380	100	6000	0.22	1.47/0.85	0.65	3,5
PE2 9/2	220/380	200	12000	0.55	2.60/1.50	0.73	3,5
PE2 9/2	220/380	300	18000	0.75	3.70/2.15	0.71	3,5

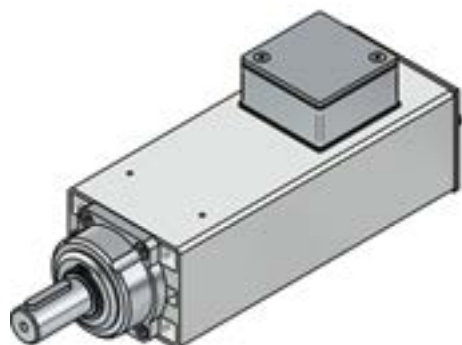
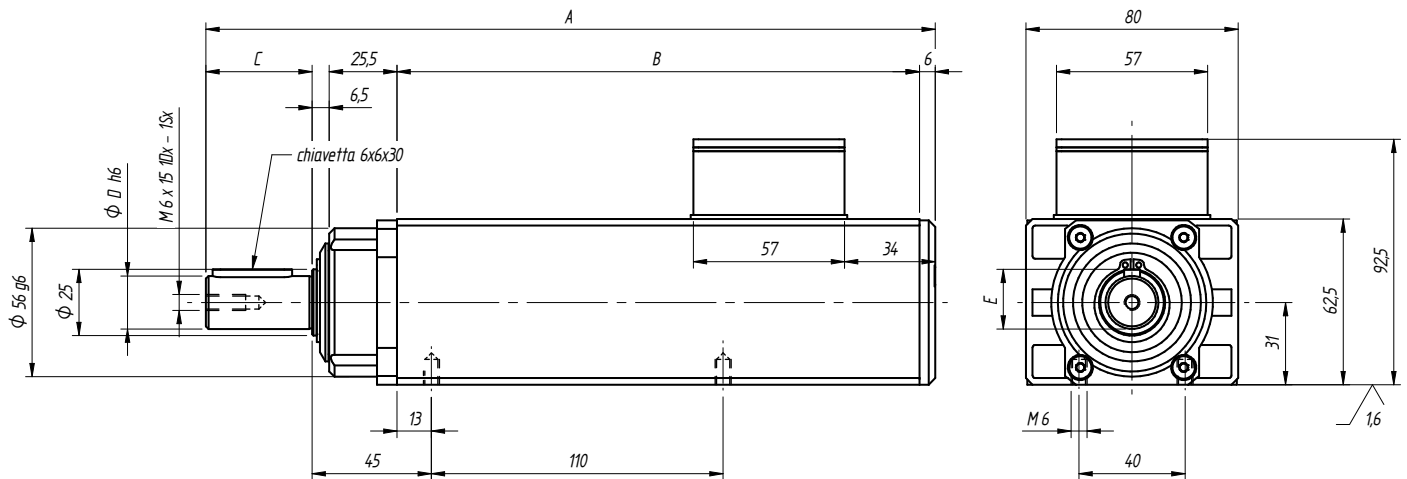


TIPO	A	B	C	D	E
PE1 6/2	246	178	30	14	16
PE1 7/2	246	178	30	14	16
PE1 8,5/2	246	178	30	14	16
PE2 9/2	275	197	40	20	22,5



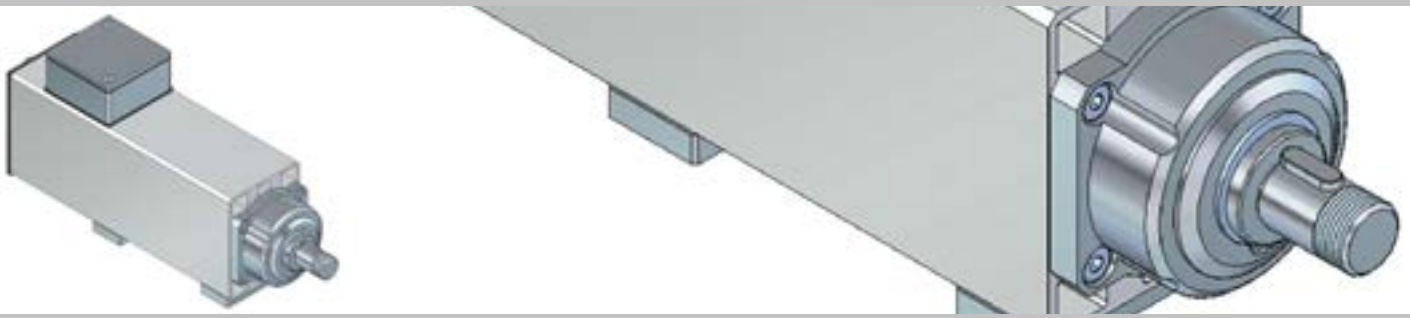


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE1 6/2	220/380	100	6000	0.07	0.43/0.25	0.70	2,5
PE1 6/2	220/380	200	12000	0.16	1.35/0.78	0.70	2,5
PE1 6/2	220/380	300	18000	0.22	2.20/1.25	0.70	2,5
PE1 7/2	220/380	100	6000	0.10	0.70/0.40	0.70	2,8
PE1 7/2	220/380	200	12000	0.22	1.65/0.95	0.70	2,8
PE1 7/2	220/380	300	18000	0.33	2.40/1.40	0.70	2,8
PE1 8.5/2	220/380	100	6000	0.22	1.35/0.78	0.68	3,1
PE1 8.5/2	220/380	200	12000	0.37	2.00/1.15	0.69	3,1
PE1 8.5/2	220/380	300	18000	0.55	3.00/1.73	0.70	3,1
PE2 9/2	220/380	50	3000	0.10	0.85/0.50	0.60	3,5
PE2 9/2	220/380	100	6000	0.22	1.47/0.85	0.65	3,5
PE2 9/2	220/380	200	12000	0.55	2.60/1.50	0.73	3,5
PE2 9/2	220/380	300	18000	0.75	3.70/2.15	0.71	3,5

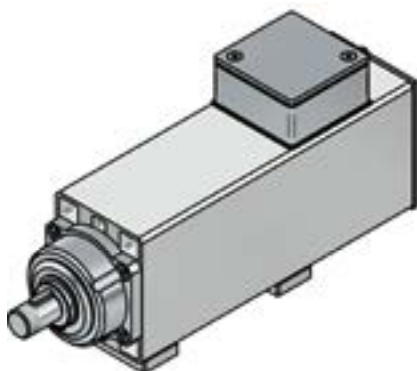
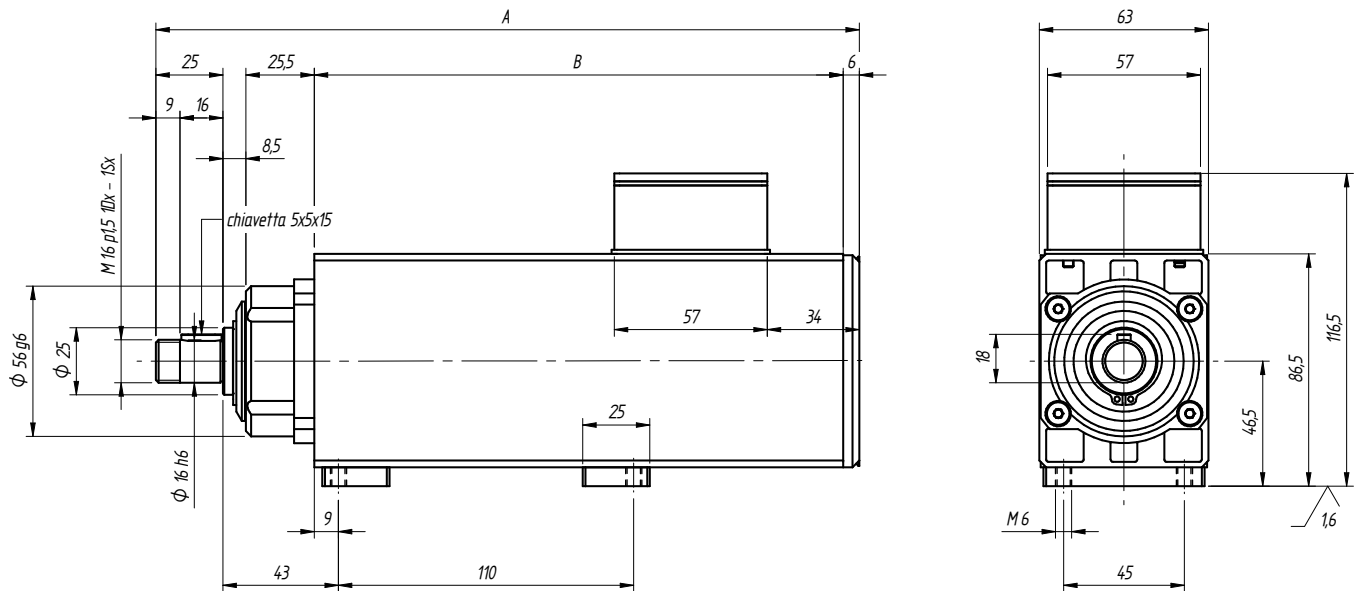


TIPO	A	B	C	D	E
PE1 6/2	246	178	30	14	16
PE1 7/2	246	178	30	14	16
PE1 8,5/2	246	178	30	14	16
PE2 9/2	275	197	40	20	22,5

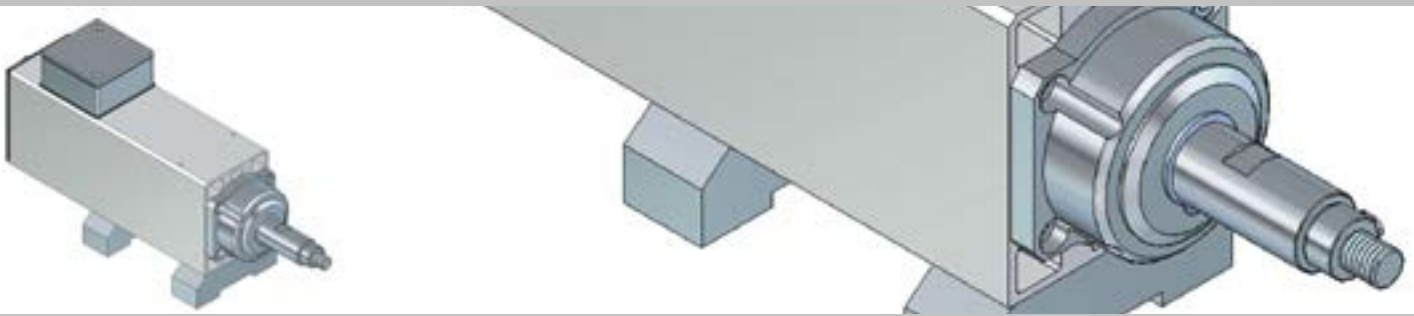




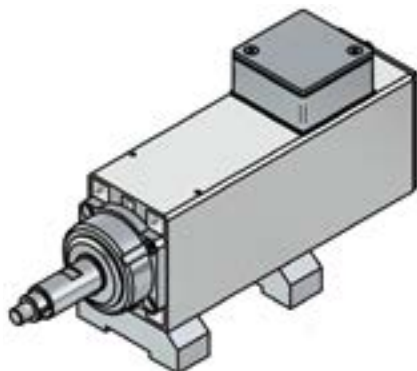
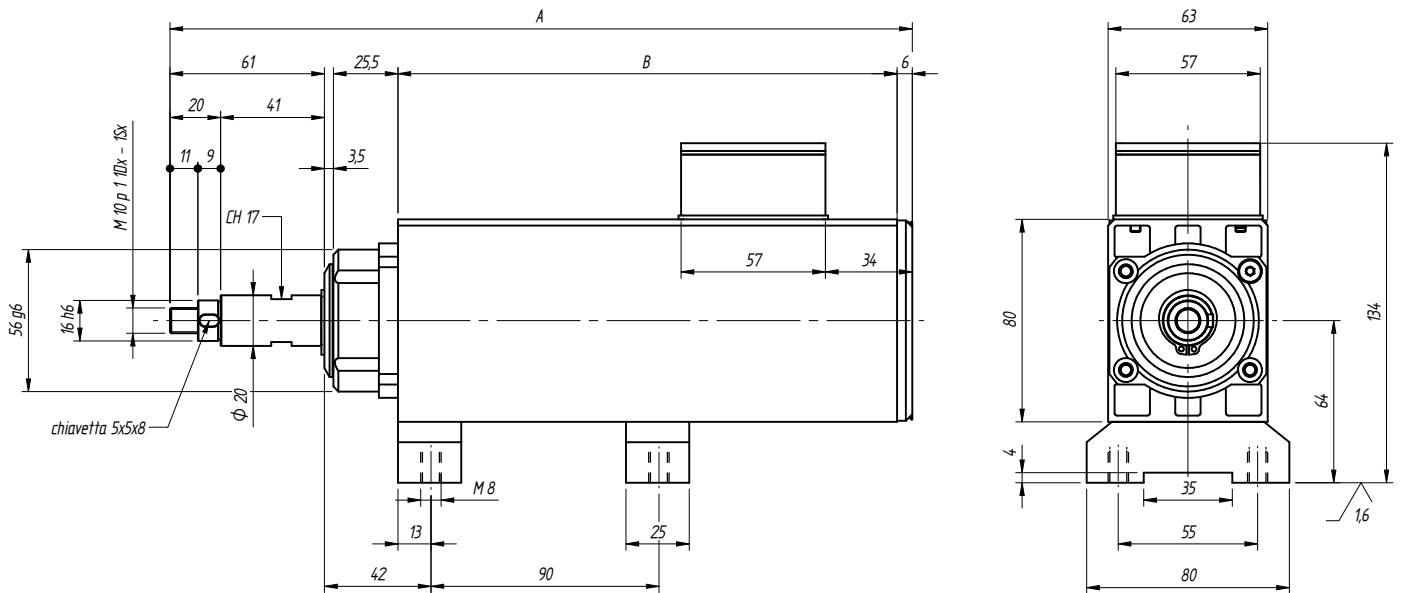
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE1 6/2	220/380	100	6000	0.07	0.43/0.25	0.70	2,5
PE1 6/2	220/380	200	12000	0.16	1.35/0.78	0.70	2,5
PE1 6/2	220/380	300	18000	0.22	2.20/1.25	0.70	2,5
PE1 7/2	220/380	100	6000	0.10	0.70/0.40	0.70	2,8
PE1 7/2	220/380	200	12000	0.22	1.65/0.95	0.70	2,8
PE1 7/2	220/380	300	18000	0.33	2.40/1.40	0.70	2,8
PE1 8.5/2	220/380	100	6000	0.22	1.35/0.78	0.68	3,1
PE1 8.5/2	220/380	200	12000	0.37	2.00/1.15	0.69	3,1
PE1 8.5/2	220/380	300	18000	0.55	3.00/1.73	0.70	3,1
PE2 9/2	220/380	50	3000	0.10	0.85/0.50	0.60	3,5
PE2 9/2	220/380	100	6000	0.22	1.47/0.85	0.65	3,5
PE2 9/2	220/380	200	12000	0.55	2.60/1.50	0.73	3,5
PE2 9/2	220/380	300	18000	0.75	3.70/2.15	0.71	3,5



TIPO	A	B
PE1 6/2	243	178
PE1 7/2	243	178
PE1 8,5/2	243	178
PE2 9/2	262	197



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE1 6/2	220/380	100	6000	0.07	0.43/0.25	0.70	2,5
PE1 6/2	220/380	200	12000	0.16	1.35/0.78	0.70	2,5
PE1 6/2	220/380	300	18000	0.22	2.20/1.25	0.70	2,5
PE1 7/2	220/380	100	6000	0.10	0.70/0.40	0.70	2,8
PE1 7/2	220/380	200	12000	0.22	1.65/0.95	0.70	2,8
PE1 7/2	220/380	300	18000	0.33	2.40/1.40	0.70	2,8
PE1 8.5/2	220/380	100	6000	0.22	1.35/0.78	0.68	3,1
PE1 8.5/2	220/380	200	12000	0.37	2.00/1.15	0.69	3,1
PE1 8.5/2	220/380	300	18000	0.55	3.00/1.73	0.70	3,1
PE2 9/2	220/380	50	3000	0.10	0.85/0.50	0.60	3,5
PE2 9/2	220/380	100	6000	0.22	1.47/0.85	0.65	3,5
PE2 9/2	220/380	200	12000	0.55	2.60/1.50	0.73	3,5
PE2 9/2	220/380	300	18000	0.75	3.70/2.15	0.71	3,5

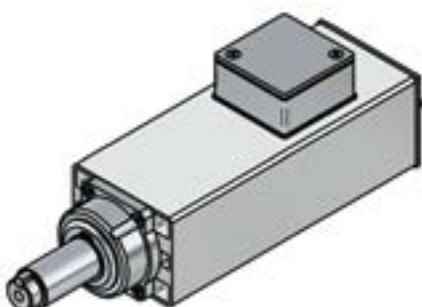
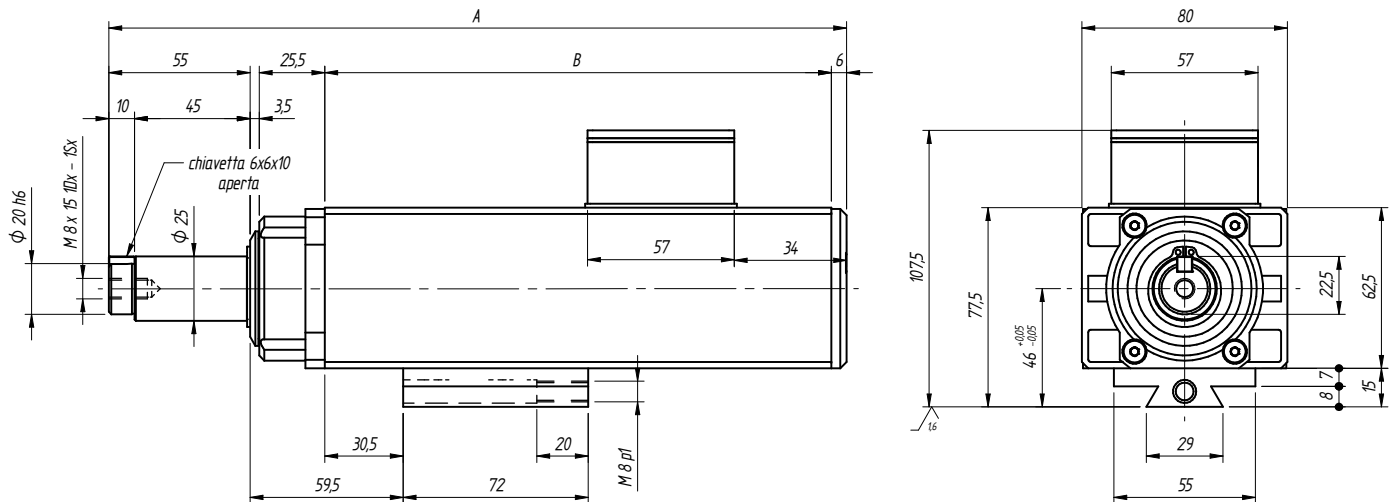


TIPO	A	B
PE1 6/2	274	178
PE1 7/2	274	178
PE1 8,5/2	274	178
PE2 9/2	262	197





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE1 6/2	220/380	100	6000	0.07	0.43/0.25	0.70	2,5
PE1 6/2	220/380	200	12000	0.16	1.35/0.78	0.70	2,5
PE1 6/2	220/380	300	18000	0.22	2.20/1.25	0.70	2,5
PE1 7/2	220/380	100	6000	0.10	0.70/0.40	0.70	2,8
PE1 7/2	220/380	200	12000	0.22	1.65/0.95	0.70	2,8
PE1 7/2	220/380	300	18000	0.33	2.40/1.40	0.70	2,8
PE1 8.5/2	220/380	100	6000	0.22	1.35/0.78	0.68	3,1
PE1 8.5/2	220/380	200	12000	0.37	2.00/1.15	0.69	3,1
PE1 8.5/2	220/380	300	18000	0.55	3.00/1.73	0.70	3,1
PE2 9/2	220/380	50	3000	0.10	0.85/0.50	0.60	3,5
PE2 9/2	220/380	100	6000	0.22	1.47/0.85	0.65	3,5
PE2 9/2	220/380	200	12000	0.55	2.60/1.50	0.73	3,5
PE2 9/2	220/380	300	18000	0.75	3.70/2.15	0.71	3,5



TIPO	A	B
PE1 6/2	268	178
PE1 7/2	268	178
PE1 8,5/2	268	178
PE2 9/2	287	197



PE 3 Series

PE 3 SC S

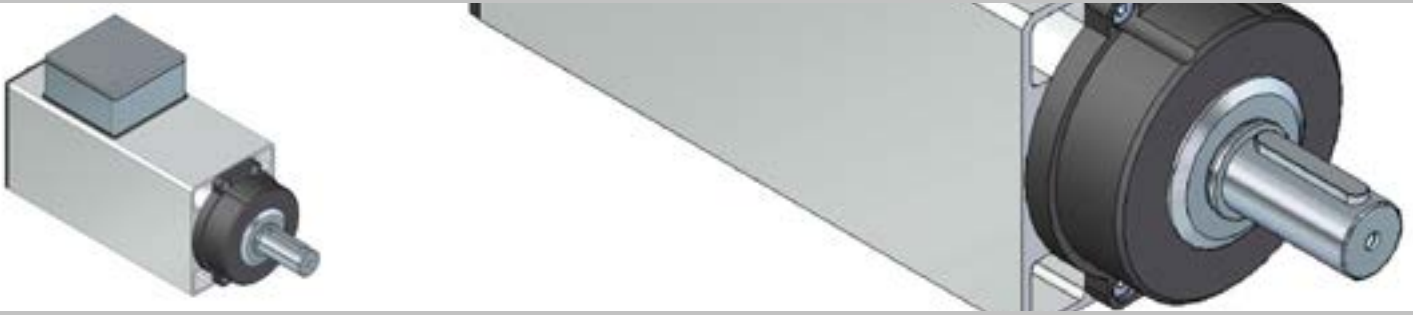
PE 3 SC L

PE 3 SF S

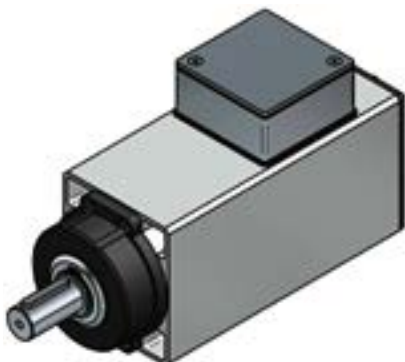
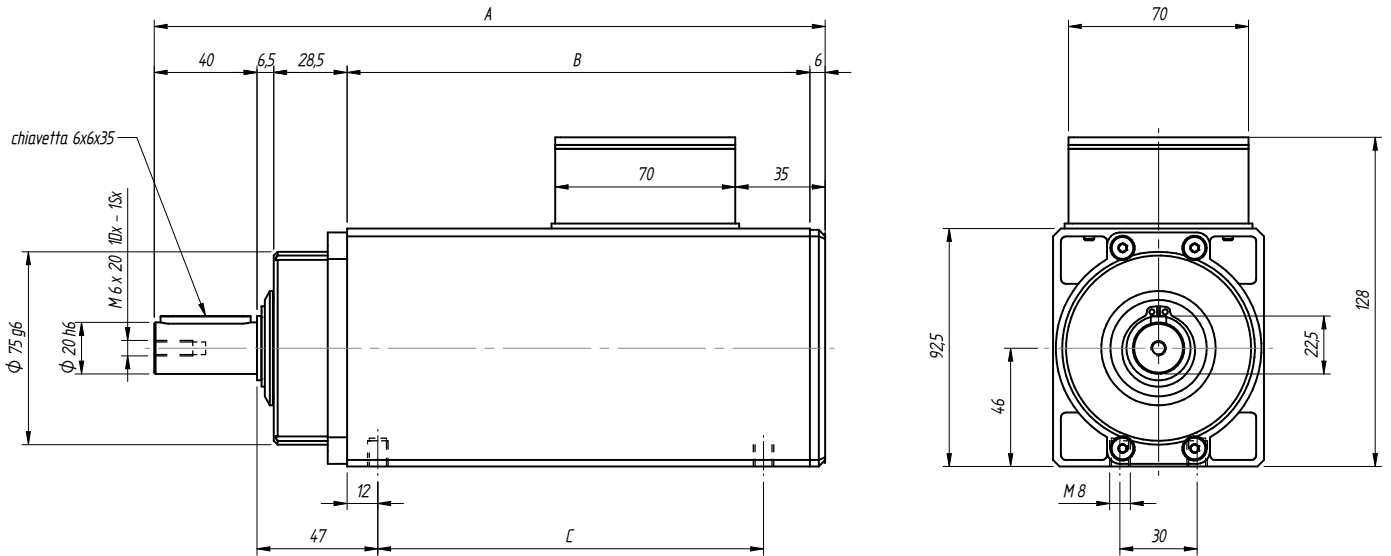
PE 3 SF L

PE 3 SLF

PE 3 SL

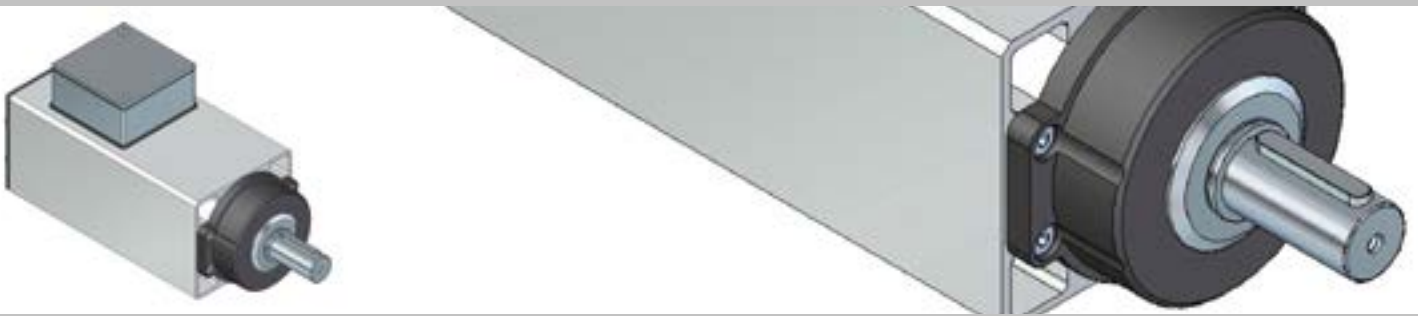


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE3 7/2	220/380	50	3000	0,15	1,35/0,78	0,68	3,7
PE3 7/2	220/380	100	6000	0,30	1,73/1,00	0,68	3,7
PE3 7/2	220/380	200	12000	0,60	3,41/1,97	0,68	3,7
PE3 7/2	220/380	300	18000	0,85	4,60/2,70	0,70	3,7
PE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	4,8
PE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	4,8
PE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	4,8
PE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	4,8
PE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	6,5
PE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	6,5
PE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	6,5
PE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	6,5
PE3 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	7,5
PE3 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	7,5
PE3 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	7,5
PE3 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	7,5

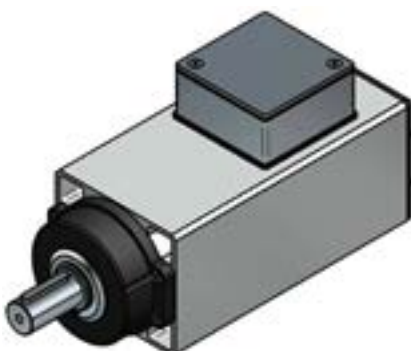
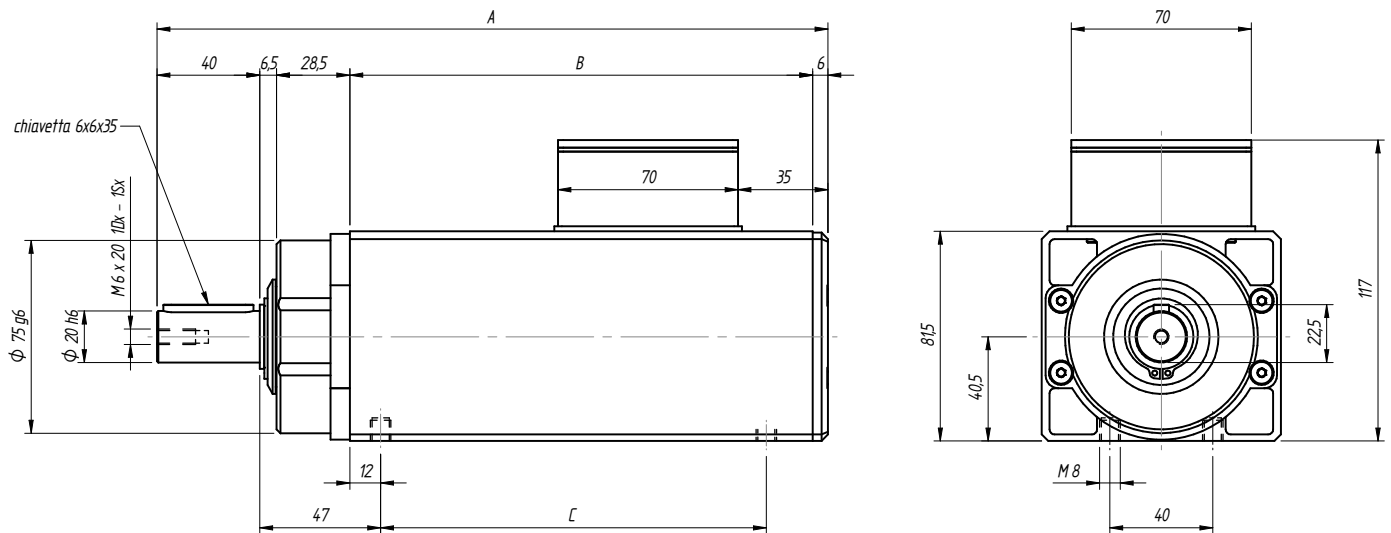


TIPO	A	B	C
PE3 7/2	261	180	150
PE3 9/2	281	200	170
PE3 12/2	321	240	170
PE3 14/2	321	240	170





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE3 7/2	220/380	50	3000	0,15	1,35/0,78	0,68	3,7
PE3 7/2	220/380	100	6000	0,30	1,73/1,00	0,68	3,7
PE3 7/2	220/380	200	12000	0,60	3,41/1,97	0,68	3,7
PE3 7/2	220/380	300	18000	0,85	4,60/2,70	0,70	3,7
PE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	4,8
PE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	4,8
PE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	4,8
PE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	4,8
PE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	6,5
PE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	6,5
PE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	6,5
PE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	6,5
PE3 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	7,5
PE3 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	7,5
PE3 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	7,5
PE3 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	7,5

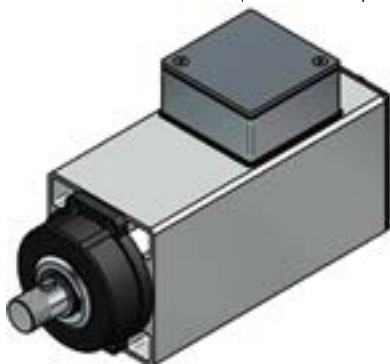
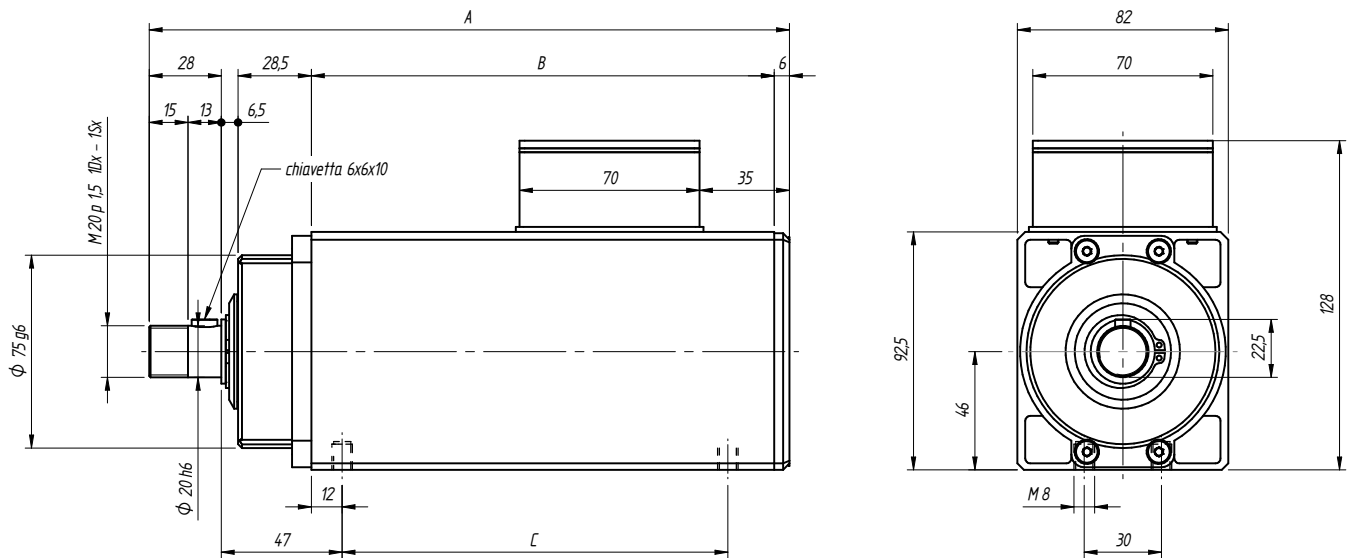


TIPO	A	B	C
PE3 7/2	261	180	150
PE3 9/2	281	200	170
PE3 12/2	321	240	170
PE3 14/2	321	240	170



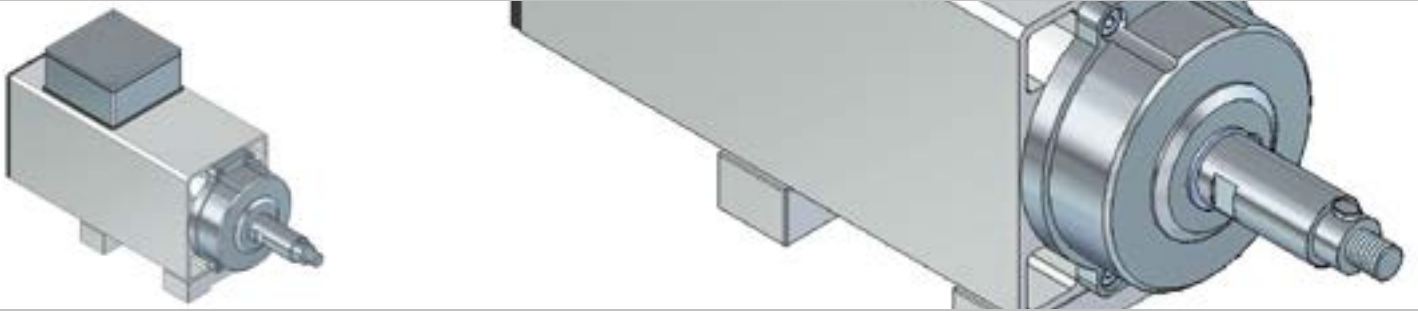


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE3 7/2	220/380	50	3000	0,15	1,35/0,78	0,68	3,7
PE3 7/2	220/380	100	6000	0,30	1,73/1,00	0,68	3,7
PE3 7/2	220/380	200	12000	0,60	3,41/1,97	0,68	3,7
PE3 7/2	220/380	300	18000	0,85	4,60/2,70	0,70	3,7
PE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	4,8
PE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	4,8
PE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	4,8
PE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	4,8
PE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	6,5
PE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	6,5
PE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	6,5
PE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	6,5
PE3 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	7,5
PE3 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	7,5
PE3 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	7,5
PE3 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	7,5

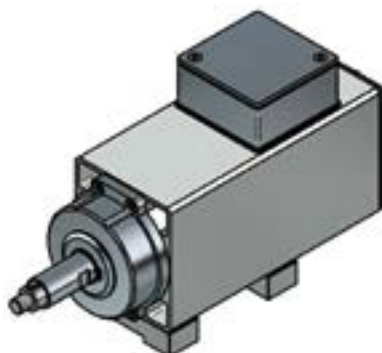
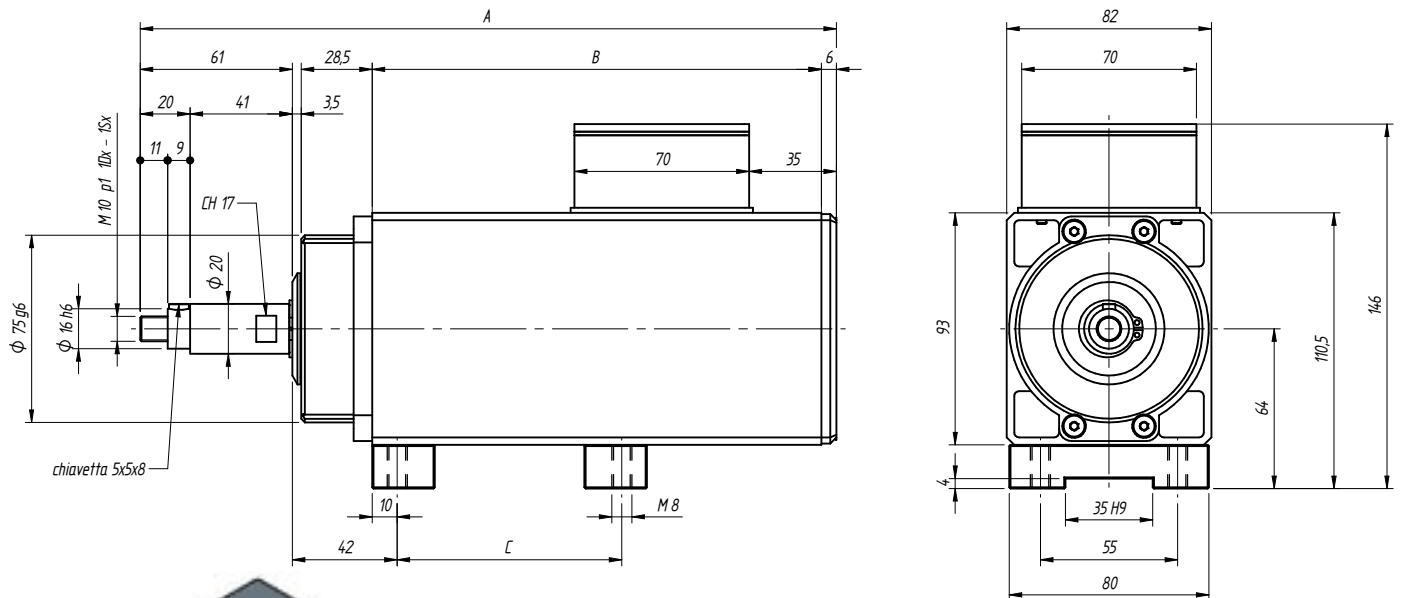


TIPO	A	B	C
PE 3 7/2	249	180	150
PE 3 9/2	269	200	170
PE 3 12/2	309	240	170
PE 3 14/2	309	240	170



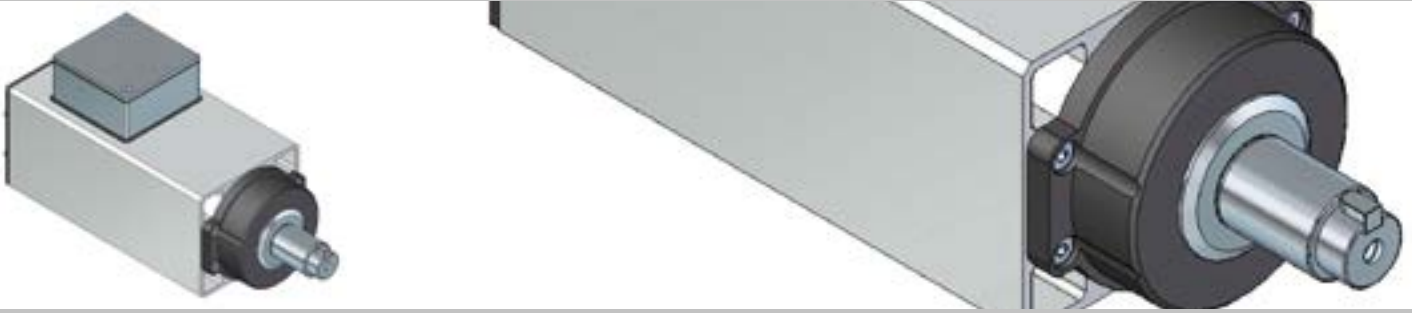


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE3 7/2	220/380	50	3000	0,15	1,35/0,78	0,68	3,7
PE3 7/2	220/380	100	6000	0,30	1,73/1,00	0,68	3,7
PE3 7/2	220/380	200	12000	0,60	3,41/1,97	0,68	3,7
PE3 7/2	220/380	300	18000	0,85	4,60/2,70	0,70	3,7
PE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	4,8
PE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	4,8
PE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	4,8
PE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	4,8
PE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	6,5
PE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	6,5
PE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	6,5
PE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	6,5
PE3 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	7,5
PE3 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	7,5
PE3 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	7,5
PE3 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	7,5

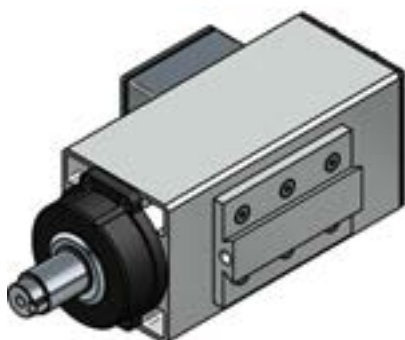
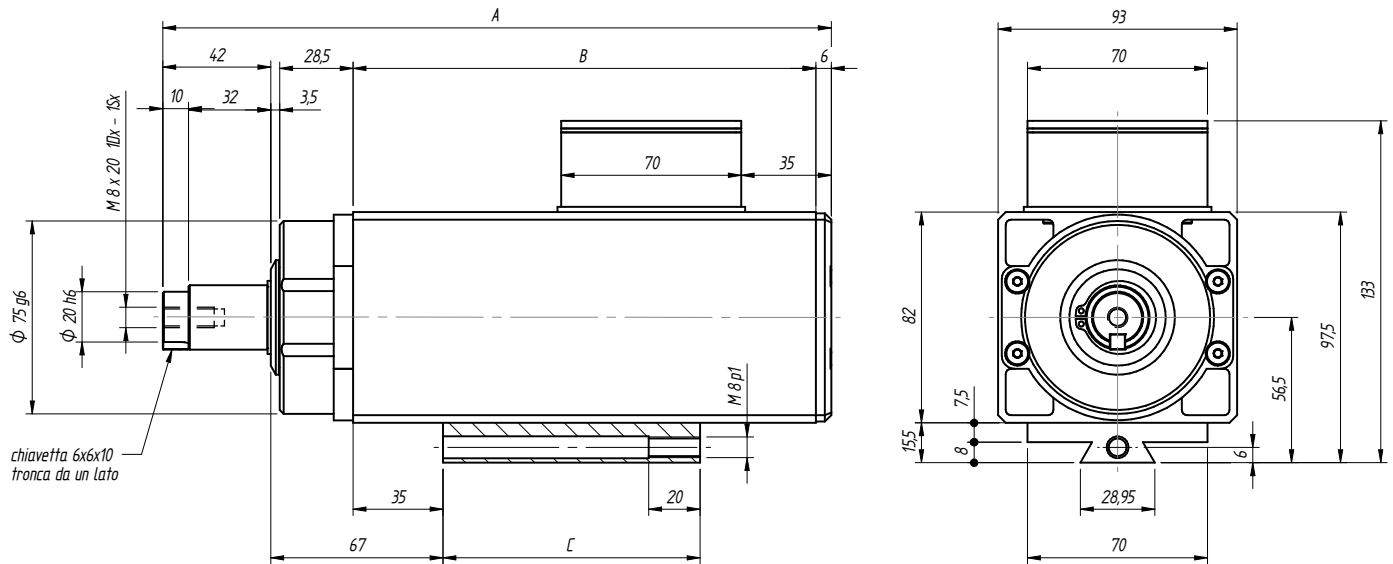


TIPO	A	B	C
PE 3 7/2	279	180	90
PE 3 9/2	299	200	150
PE 3 12/2	339	240	150
PE 3 14/2	339	240	150





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE3 7/2	220/380	50	3000	0,15	1,35/0,78	0,68	3,7
PE3 7/2	220/380	100	6000	0,30	1,73/1,00	0,68	3,7
PE3 7/2	220/380	200	12000	0,60	3,41/1,97	0,68	3,7
PE3 7/2	220/380	300	18000	0,85	4,60/2,70	0,70	3,7
PE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	4,8
PE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	4,8
PE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	4,8
PE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	4,8
PE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	6,5
PE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	6,5
PE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	6,5
PE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	6,5
PE3 14/2	220/380	50	3000	0,45	2,78/1,60	0,68	7,5
PE3 14/2	220/380	100	6000	0,95	4,36/2,52	0,73	7,5
PE3 14/2	220/380	200	12000	1,80	8,20/4,70	0,70	7,5
PE3 14/2	220/380	300	18000	2,20	10,00/5,80	0,73	7,5



TIPO	A	B
PE3 7/2	260	180
PE3 9/2	280	300
PE3 12/2	320	240
PE3 14/2	320	240



PE 4 Series

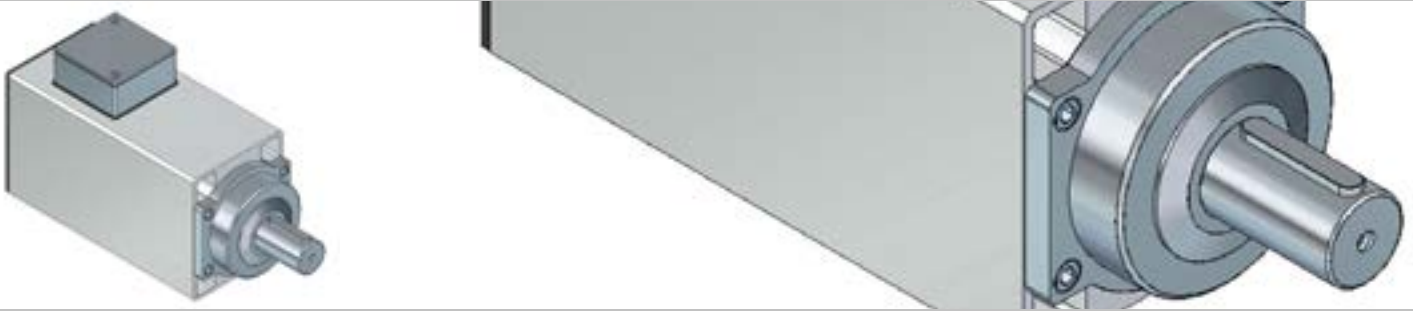
PE 4 SC S

PE 4 SC L

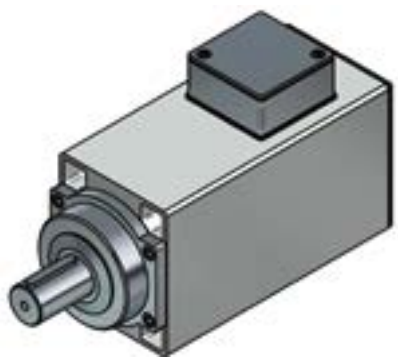
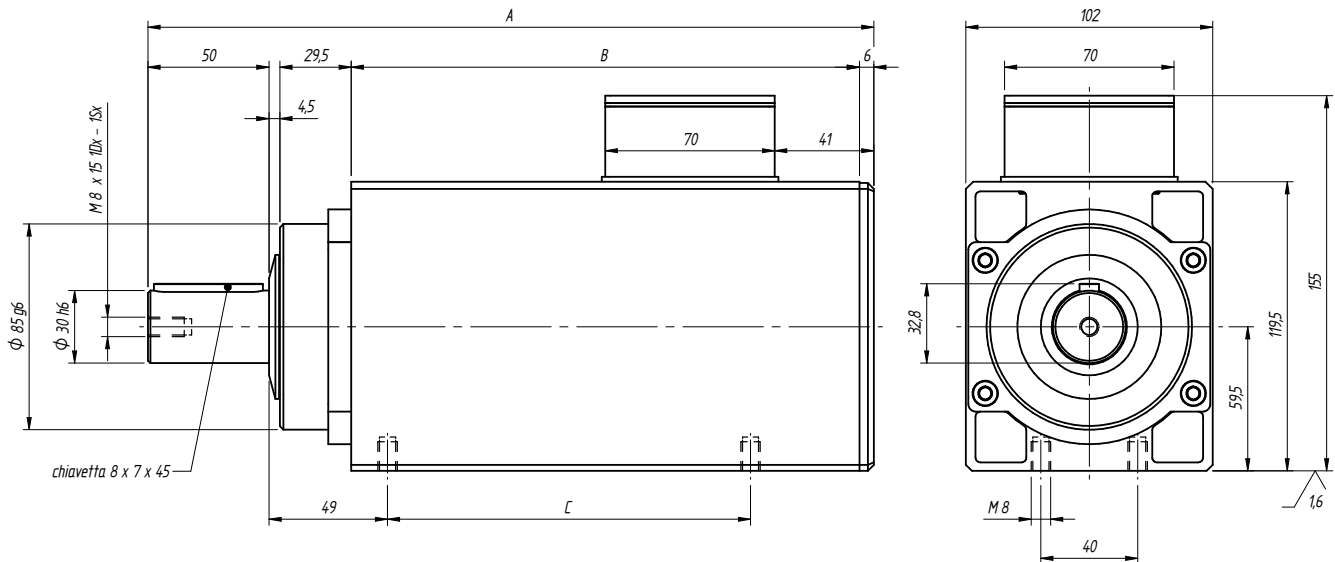
PE 4 SF S

PE 4 SF L

PE 4 SFC



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	9
PE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	9
PE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	9
PE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	9
PE4 11/2	220/380	50	3000	0,75	4,50/2,60	0,74	9,8
PE4 11/2	220/380	100	6000	1,50	6,60/3,80	0,75	9,8
PE4 11/2	220/380	200	12000	2,60	10,40/6,00	0,83	9,8
PE4 11/2	220/380	300	18000	3,30	13,40/7,80	0,82	9,8
PE4 13/2	220/380	50	3000	1,00	4,90/2,85	0,77	11,2
PE4 13/2	220/380	100	6000	2,00	7,70/4,45	0,82	11,2
PE4 13/2	220/380	200	12000	3,00	12,50/7,20	0,80	11,2
PE4 13/2	220/380	300	18000	4,00	16,40/9,50	0,80	11,2
PE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	12
PE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	12
PE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	12
PE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	12

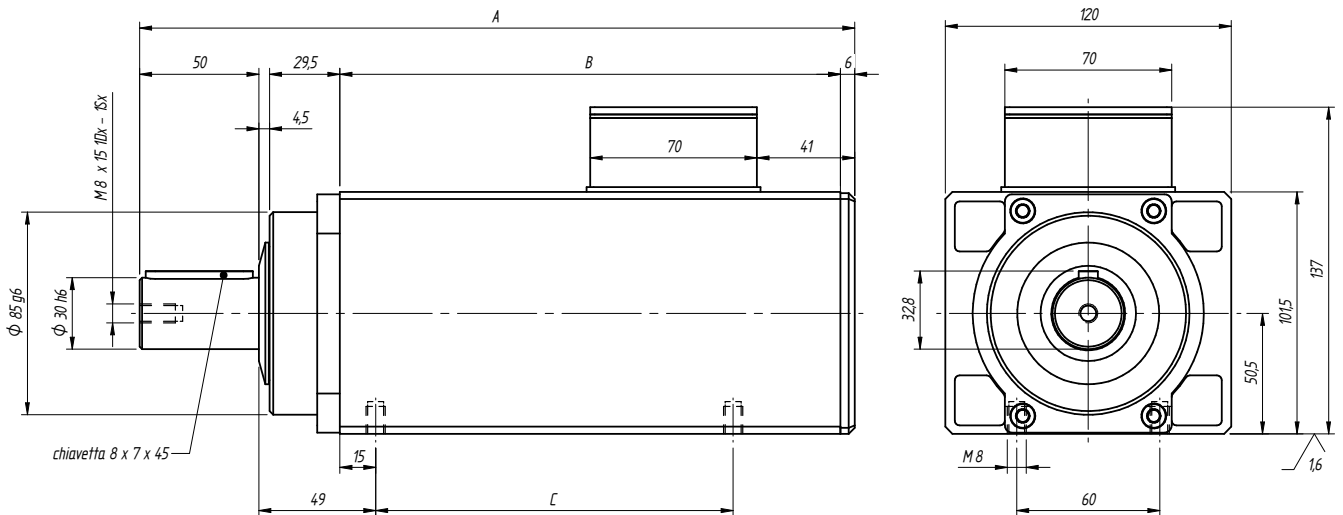


TIPO	A	B	C
PE 4 10/2	300	210	150
PE 4 11/2	340	250	200
PE 4 13/2	340	250	200
PE 4 14/2	340	250	200

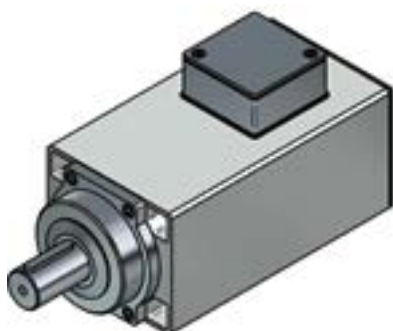




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	9
PE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	9
PE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	9
PE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	9
PE4 11/2	220/380	50	3000	0,75	4,50/2,60	0,74	9,8
PE4 11/2	220/380	100	6000	1,50	6,60/3,80	0,75	9,8
PE4 11/2	220/380	200	12000	2,60	10,40/6,00	0,83	9,8
PE4 11/2	220/380	300	18000	3,30	13,40/7,80	0,82	9,8
PE4 13/2	220/380	50	3000	1,00	4,90/2,85	0,77	11,2
PE4 13/2	220/380	100	6000	2,00	7,70/4,45	0,82	11,2
PE4 13/2	220/380	200	12000	3,00	12,50/7,20	0,80	11,2
PE4 13/2	220/380	300	18000	4,00	16,40/9,50	0,80	11,2
PE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	12
PE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	12
PE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	12
PE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	12

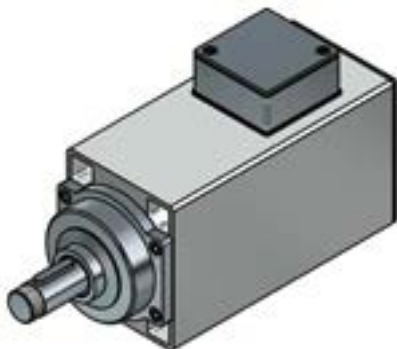
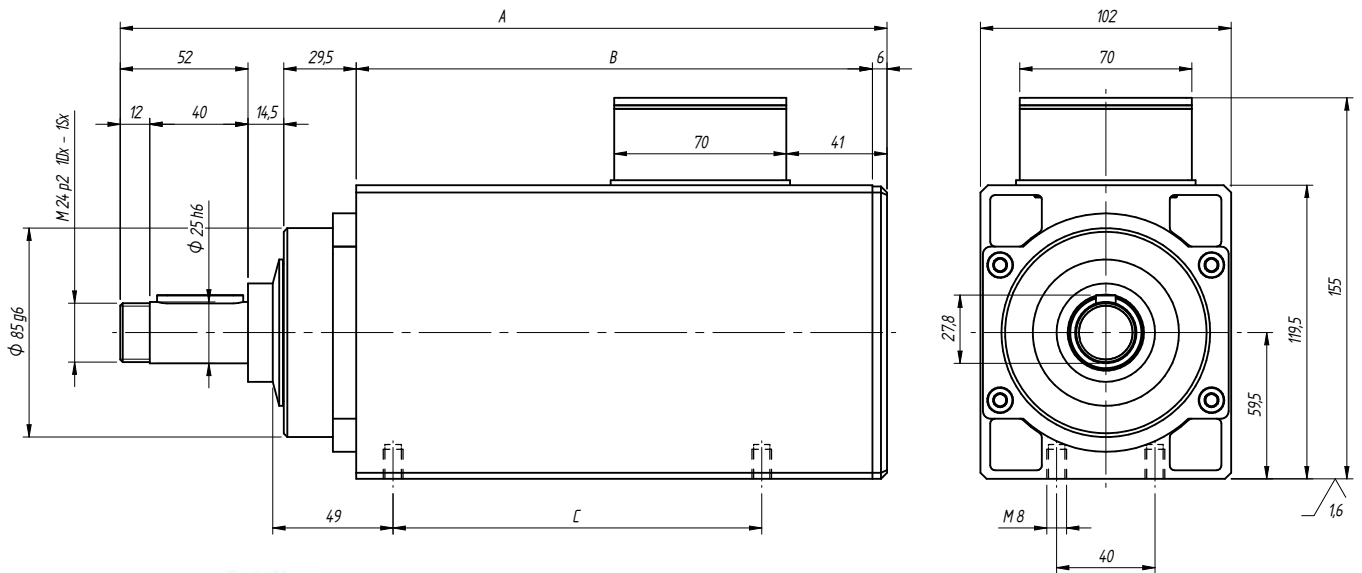


TIPO	A	B	C
PE 4 10/2	300	210	150
PE 4 11/2	340	250	200
PE 4 13/2	340	250	200
PE 4 14/2	340	250	200



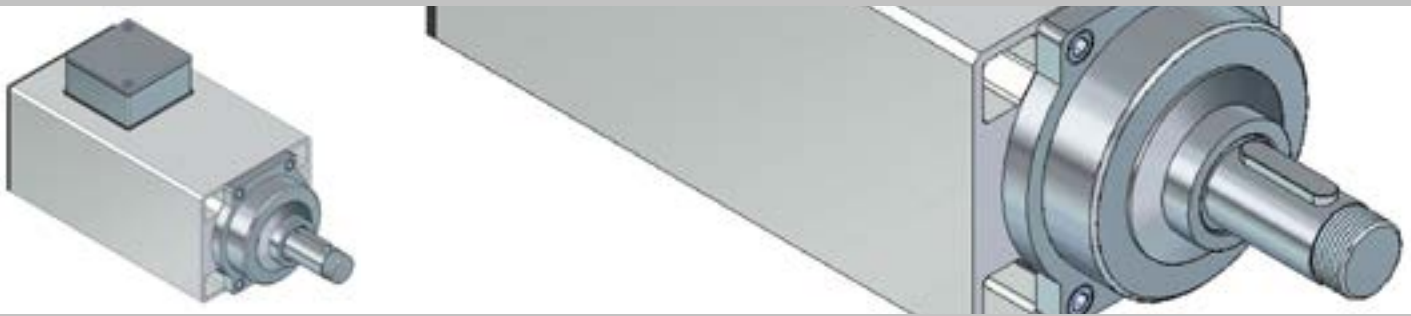


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	9
PE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	9
PE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	9
PE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	9
PE4 11/2	220/380	50	3000	0,75	4,50/2,60	0,74	9,8
PE4 11/2	220/380	100	6000	1,50	6,60/3,80	0,75	9,8
PE4 11/2	220/380	200	12000	2,60	10,40/6,00	0,83	9,8
PE4 11/2	220/380	300	18000	3,30	13,40/7,80	0,82	9,8
PE4 13/2	220/380	50	3000	1,00	4,90/2,85	0,77	11,2
PE4 13/2	220/380	100	6000	2,00	7,70/4,45	0,82	11,2
PE4 13/2	220/380	200	12000	3,00	12,50/7,20	0,80	11,2
PE4 13/2	220/380	300	18000	4,00	16,40/9,50	0,80	11,2
PE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	12
PE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	12
PE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	12
PE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	12

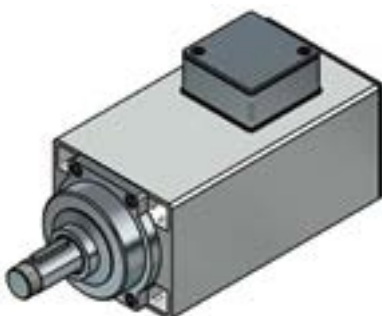
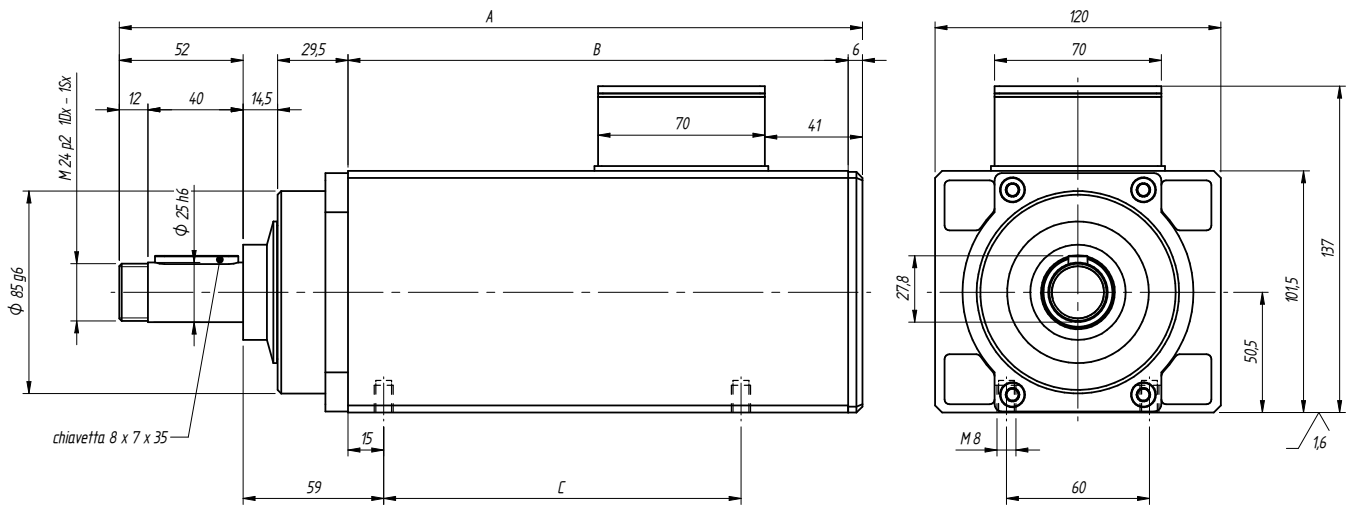


TIPO	A	B	C
PE 4 10/2	312	210	150
PE 4 11/2	352	250	200
PE 4 13/2	352	250	200
PE 4 14/2	352	250	200



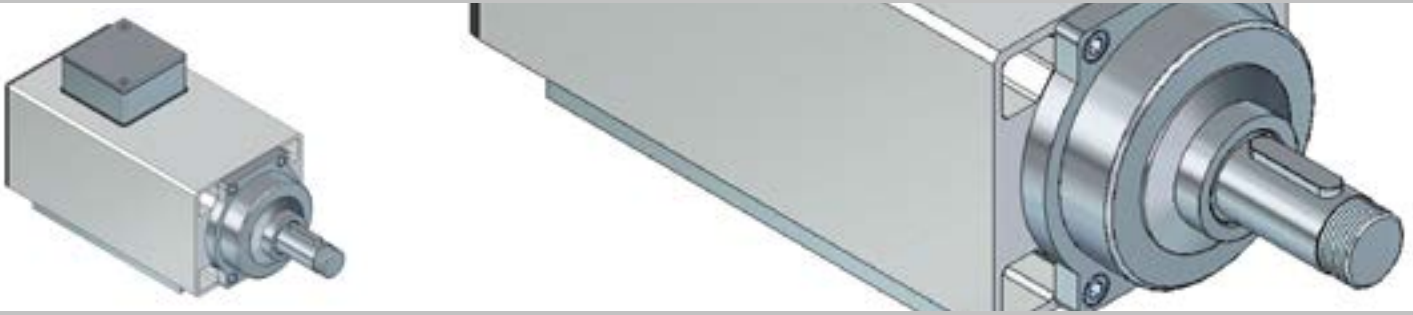


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	9
PE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	9
PE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	9
PE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	9
PE4 11/2	220/380	50	3000	0,75	4,50/2,60	0,74	9,8
PE4 11/2	220/380	100	6000	1,50	6,60/3,80	0,75	9,8
PE4 11/2	220/380	200	12000	2,60	10,40/6,00	0,83	9,8
PE4 11/2	220/380	300	18000	3,30	13,40/7,80	0,82	9,8
PE4 13/2	220/380	50	3000	1,00	4,90/2,85	0,77	11,2
PE4 13/2	220/380	100	6000	2,00	7,70/4,45	0,82	11,2
PE4 13/2	220/380	200	12000	3,00	12,50/7,20	0,80	11,2
PE4 13/2	220/380	300	18000	4,00	16,40/9,50	0,80	11,2
PE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	12
PE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	12
PE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	12
PE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	12

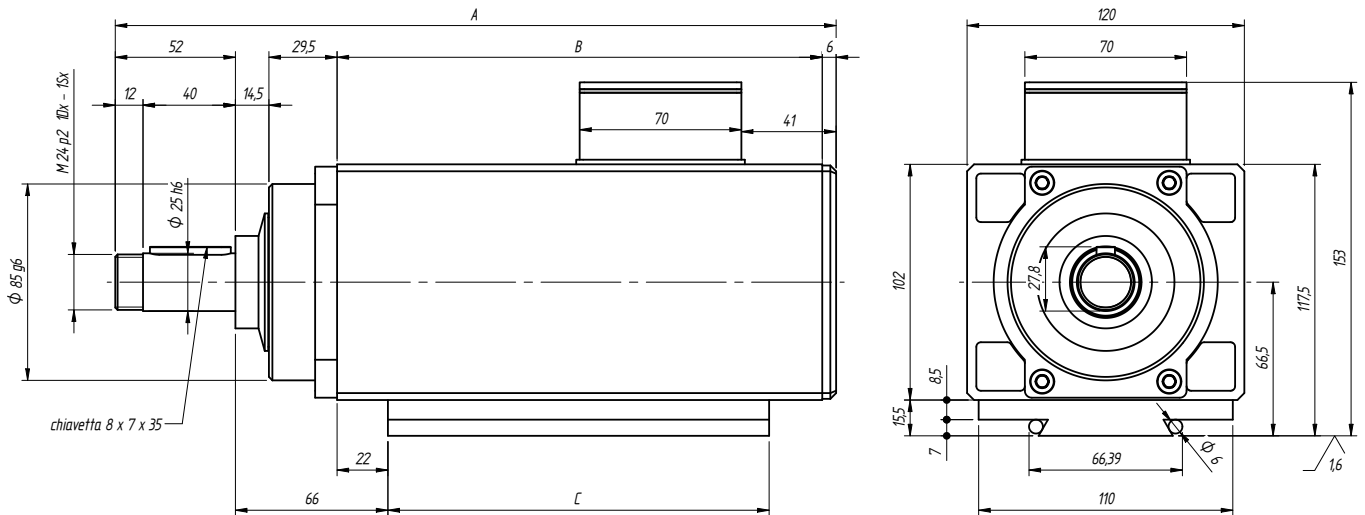


TIPO	A	B	C
PE 4 10/2	312	210	150
PE 4 11/2	352	250	200
PE 4 13/2	352	250	200
PE 4 14/2	352	250	200

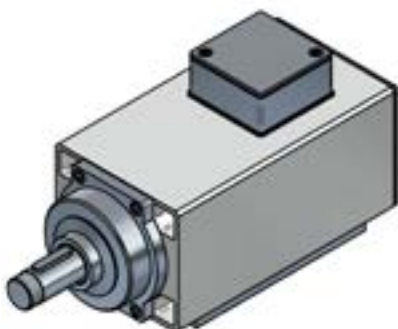




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	9
PE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	9
PE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	9
PE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	9
PE4 11/2	220/380	50	3000	0,75	4,50/2,60	0,74	9,8
PE4 11/2	220/380	100	6000	1,50	6,60/3,80	0,75	9,8
PE4 11/2	220/380	200	12000	2,60	10,40/6,00	0,83	9,8
PE4 11/2	220/380	300	18000	3,30	13,40/7,80	0,82	9,8
PE4 13/2	220/380	50	3000	1,00	4,90/2,85	0,77	11,2
PE4 13/2	220/380	100	6000	2,00	7,70/4,45	0,82	11,2
PE4 13/2	220/380	200	12000	3,00	12,50/7,20	0,80	11,2
PE4 13/2	220/380	300	18000	4,00	16,40/9,50	0,80	11,2
PE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	12
PE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	12
PE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	12
PE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	12



TIPO	A	B	C
PE4 10/2	312	210	165
PE4 11/2	352	250	205
PE4 13/2	352	250	205
PE4 14/2	352	250	205



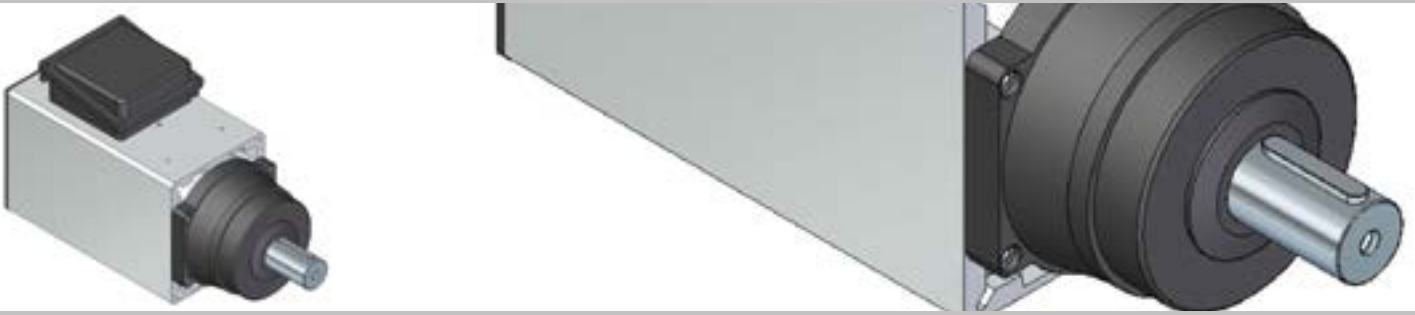
PE 5 Series

PE 5 SC S

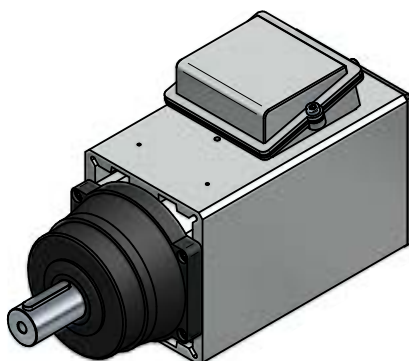
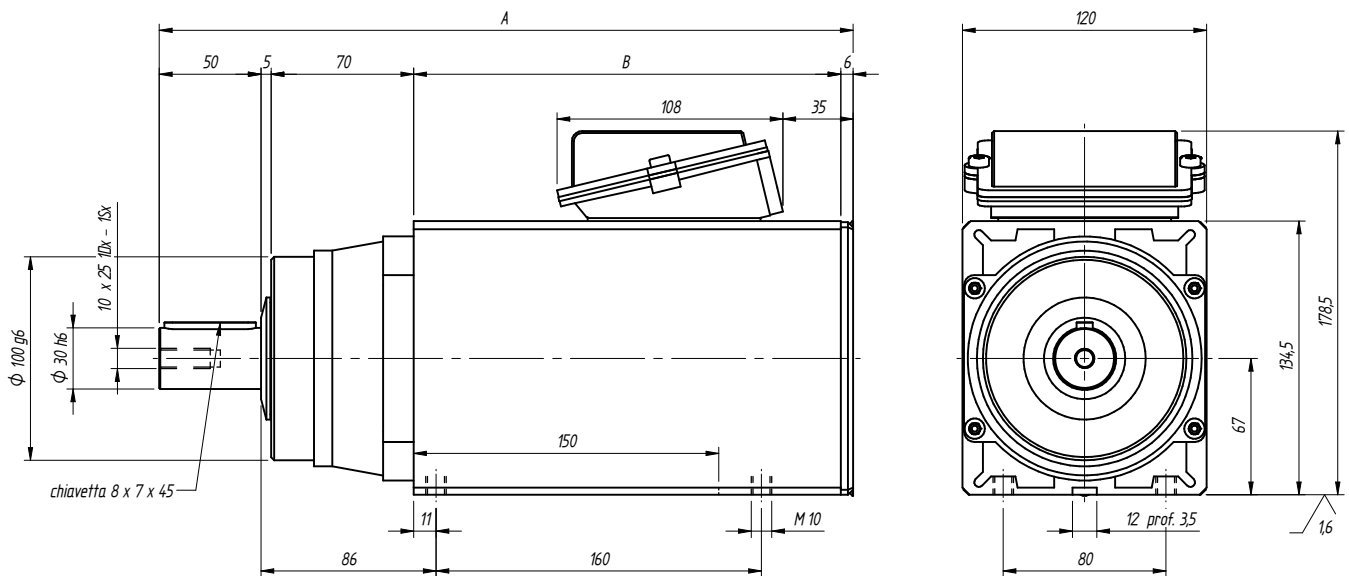
PE 5 SC L

PE 5 SF S

PE 5 SF L



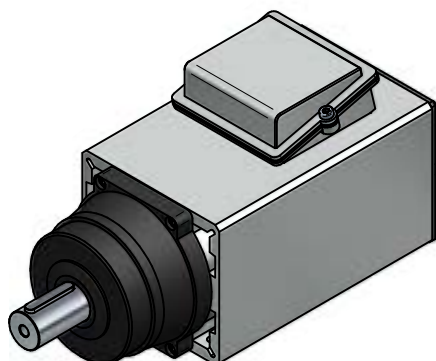
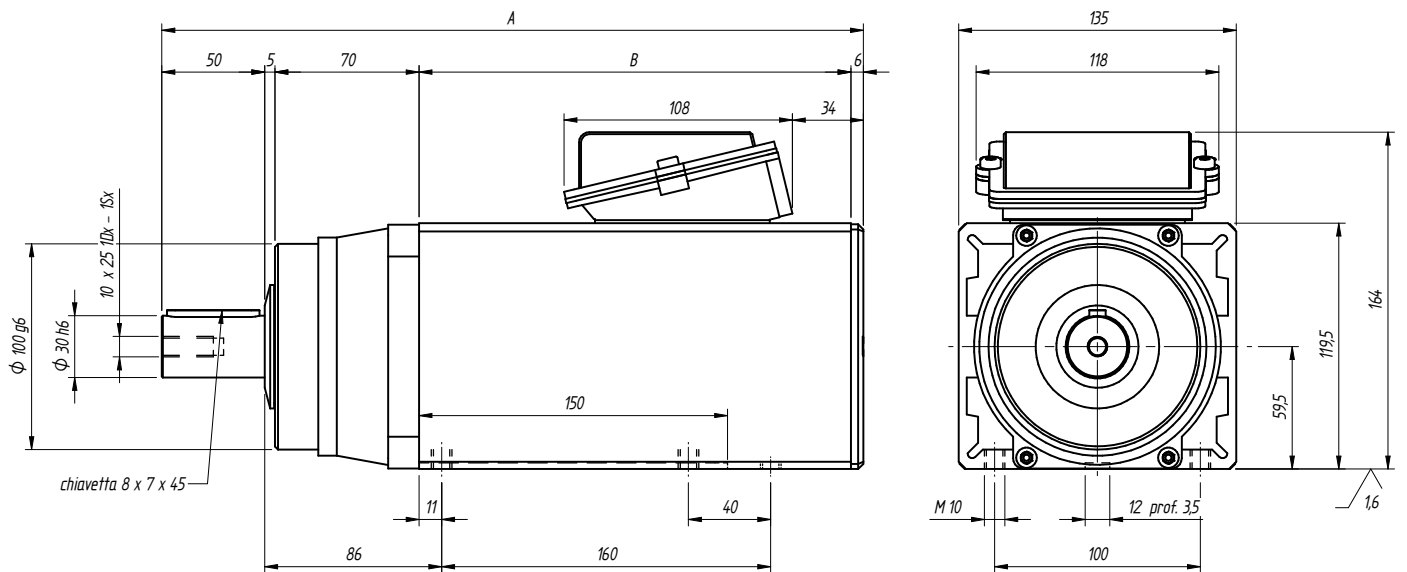
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	12
PE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	12
PE5 10/2	220/380	200	12000	3,00	12,3/7,10	0,80	12
PE5 10/2	220/380	300	18000	4,50	18,0/10,0	0,81	12
PE5 14/2	220/380	50	3000	3,00	11,5/6,60	0,82	19,5
PE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
PE5 14/2	220/380	200	12000	4,50	18,2/10,60	0,85	19,5
PE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5



TIPO	A	B
PE 5 10/2	341	210
PE 5 14/2	381	250



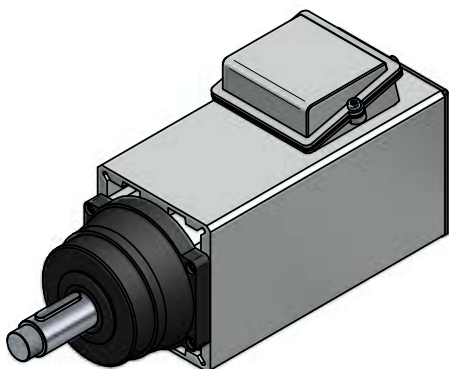
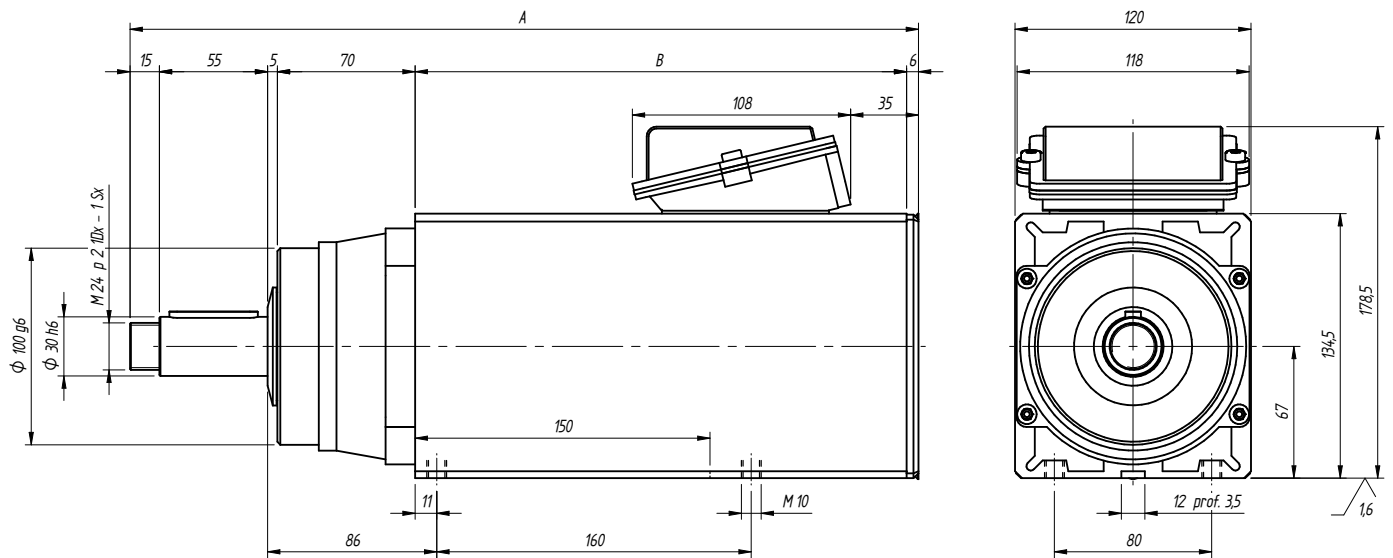
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	12
PE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	12
PE5 10/2	220/380	200	12000	3,00	12,3/7,10	0,80	12
PE5 10/2	220/380	300	18000	4,50	18,0/10,0	0,81	12
PE5 14/2	220/380	50	3000	3,00	11,5/6,60	0,82	19,5
PE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
PE5 14/2	220/380	200	12000	4,50	18,2/10,60	0,85	19,5
PE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5



TIPO	A	B
PE 5 10/2	341	210
PE 5 14/2	381	250

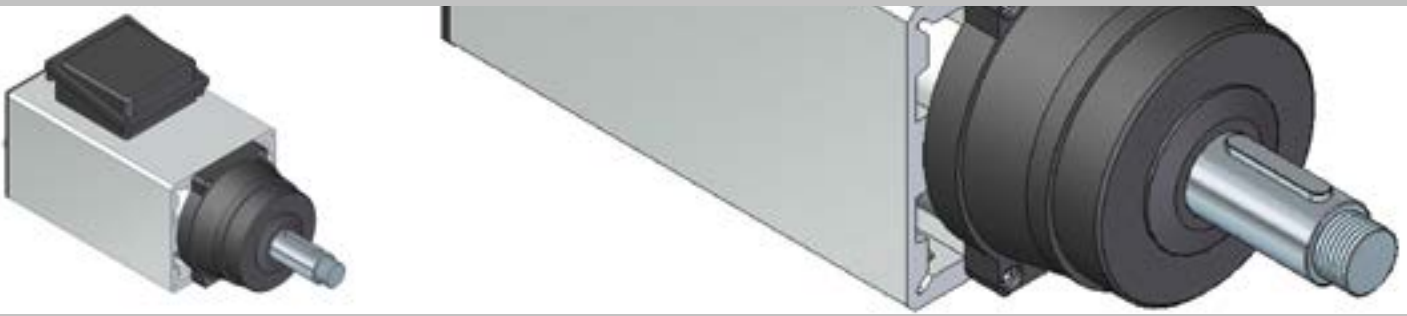


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	12
PE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	12
PE5 10/2	220/380	200	12000	3,00	12,3/7,10	0,80	12
PE5 10/2	220/380	300	18000	4,50	18,0/10,0	0,81	12
PE5 14/2	220/380	50	3000	3,00	11,5/6,60	0,82	19,5
PE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
PE5 14/2	220/380	200	12000	4,50	18,2/10,60	0,85	19,5
PE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5

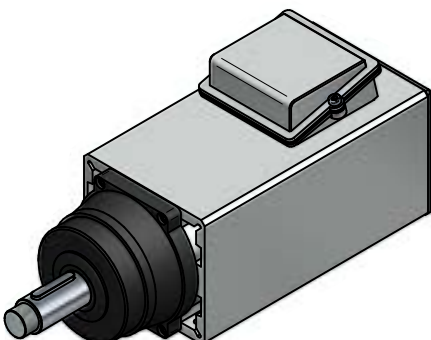
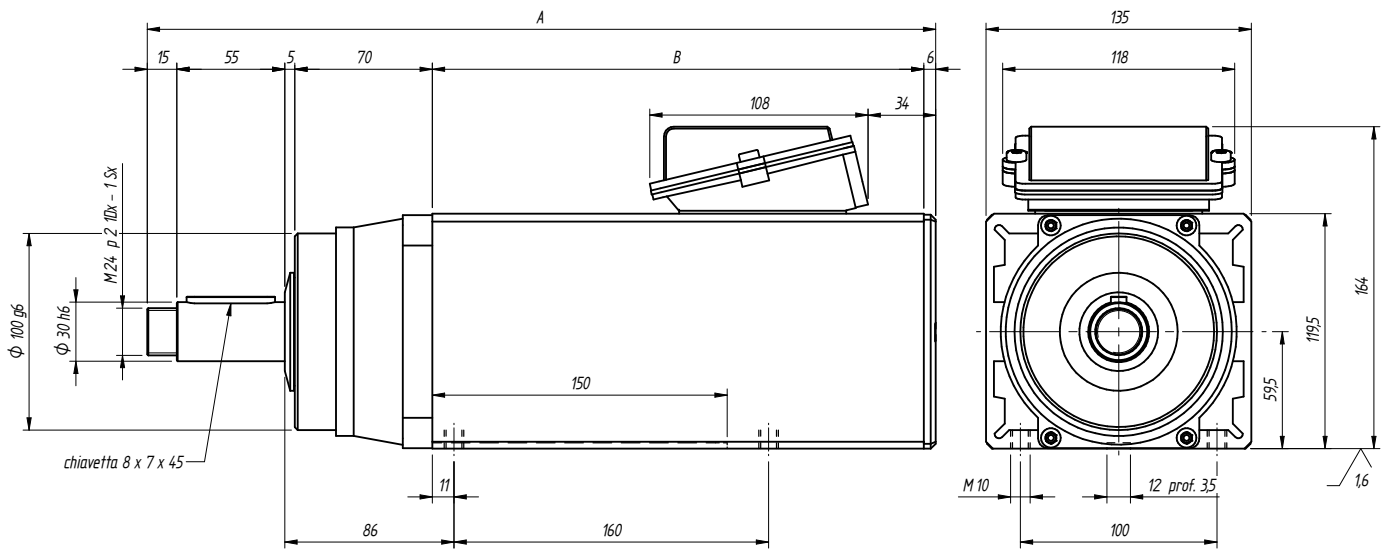


TIPO	A	B
PE 5 10/2	361	210
PE 5 14/2	401	250





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	12
PE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	12
PE5 10/2	220/380	200	12000	3,00	12,3/7,10	0,80	12
PE5 10/2	220/380	300	18000	4,50	18,0/10,0	0,81	12
PE5 14/2	220/380	50	3000	3,00	11,5/6,60	0,82	19,5
PE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
PE5 14/2	220/380	200	12000	4,50	18,2/10,60	0,85	19,5
PE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5



TIPO	A	B
PE 5 10/2	361	210
PE 5 14/2	401	250

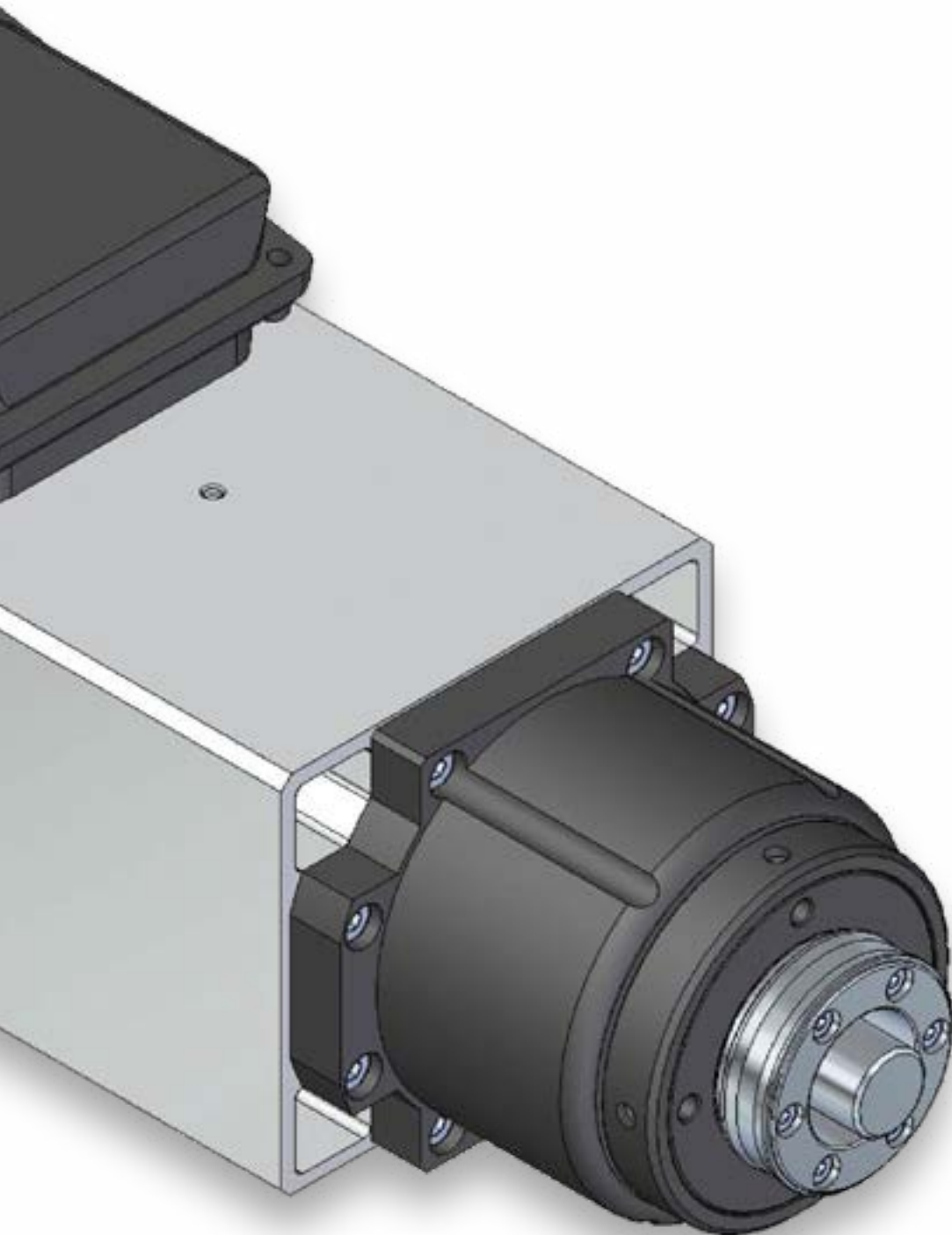




High speed precision spindles

DATASHEET

TM PE Series



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TMPE 3 ER25 L

TMPE 3 ER25 S

TMPE 3 SC L

TMPE 3 SC S

TMPE 4 MORSE TAPER L

TMPE 4 MORSE TAPER S

TMPE 4 ER25 L

TMPE 4 ER25 S

TMPE 4 ER32 L

TMPE 4 ER32 S

TMPE 4 SC L

TMPE 4 SC S

TMPE 5 MORSE TAPER L

TMPE 5 MORSE TAPER S

TMPE 5 ER25 L

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TMPE 5 ER32 L

TMPE 5 ER32 S

TMPE 5 SC L

TMPE 5 SC S

TMPE 6 MORSE TAPER 2/3

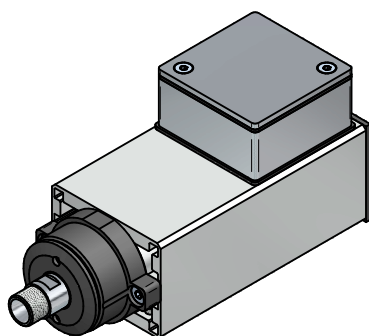
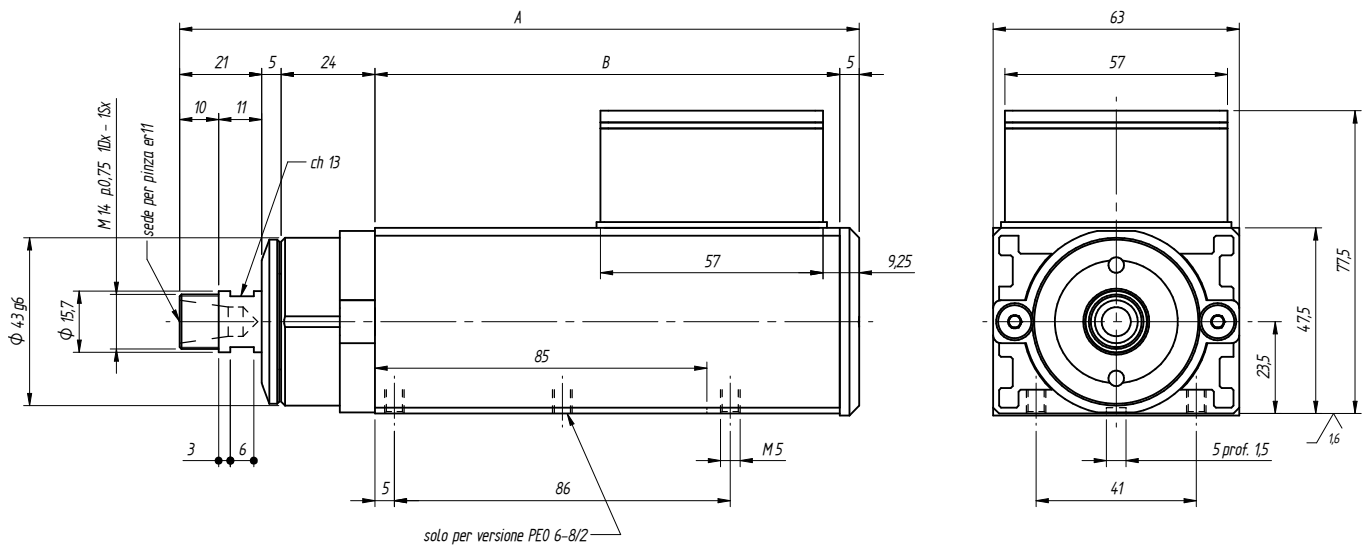
TMPE 6 ER40

TMPE 6 SC

TMPE 7 ER40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPEO 3.5/2	220/380	200	12000	0,08	0,60/0,34	0,65	1,5
TMPEO 3.5/2	220/380	300	18000	0,12	0,78/0,45	0,69	1,5
TMPEO 3.5/2	220/380	400	24000	0,15	0,90/0,52	0,70	1,5
TMPEO 6/2	220/380	100	6000	0,05	0,45/0,26	0,61	1,7
TMPEO 6/2	220/380	200	12000	0,15	0,80/0,45	0,68	1,7
TMPEO 6/2	220/380	300	18000	0,30	1,70/1,00	0,70	1,7
TMPEO 6/2	220/380	400	24000	0,35	1,90/1,10	0,70	1,7
TMPEO 8/2	220/380	100	6000	0,07	0,55/0,32	0,61	2,0
TMPEO 8/2	220/380	200	12000	0,18	1,20/0,69	0,64	2,0
TMPEO 8/2	220/380	300	18000	0,35	1,70/1,00	0,70	2,0
TMPEO 8/2	220/380	400	24000	0,40	2,10/1,20	0,70	2,0



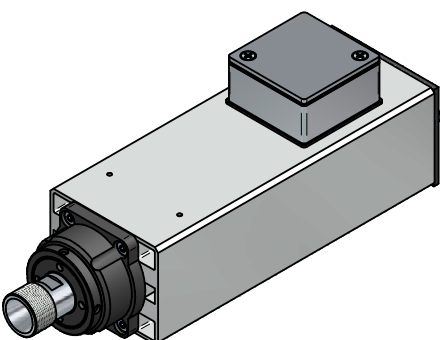
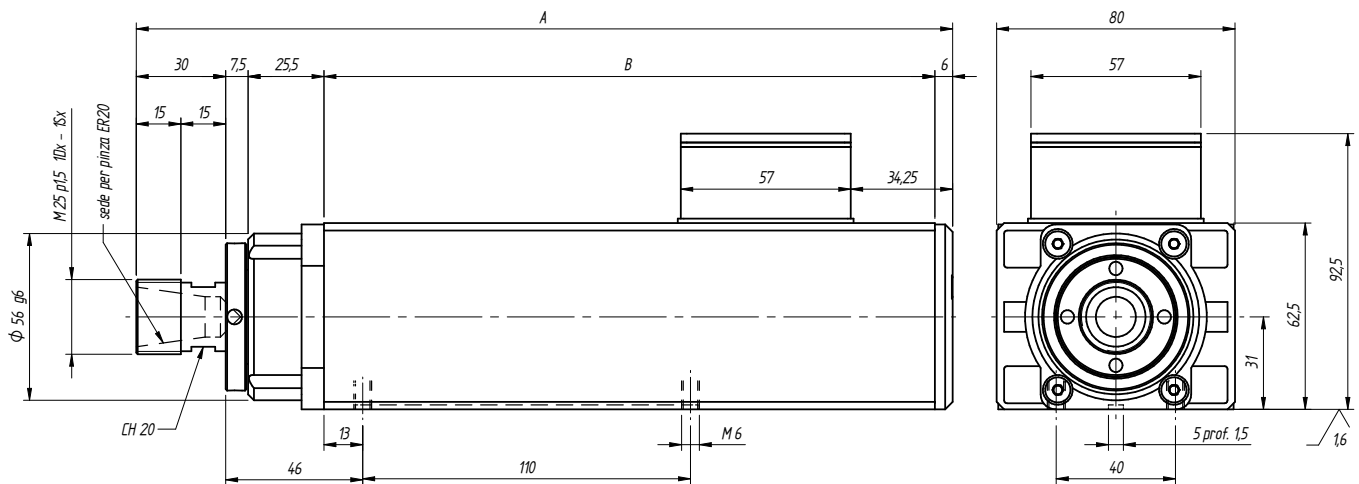
TIPO	A	B
TM PEO 3,5/2	174	119
TM PEO 6/2	199	144
TM PEO 8/2	214	159



TMPE 1/2 ER20 L



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE1 6,5/2	220/380	100	6000	0,13	1,00/0,58	0,63	3,5
TMPE1 6,5/2	220/380	200	12000	0,35	2,00/1,16	0,69	3,5
TMPE1 6,5/2	220/380	300	18000	0,41	2,20/1,27	0,70	3,5
TMPE1 6,5/2	220/380	400	24000	0,41	2,20/1,27	0,70	3,5
TMPE2 9/2	220/380	50	3000	0,10	0,85/0,50	0,60	4
TMPE2 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	4
TMPE2 9/2	220/380	200	12000	0,55	2,60/1,50	0,73	4
TMPE2 9/2	220/380	300	18000	0,75	3,70/2,15	0,71	4
TMPE2 9/2	220/380	400	24000	0,80	4,10/2,40	0,71	4



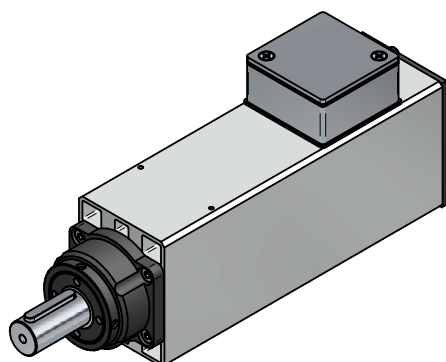
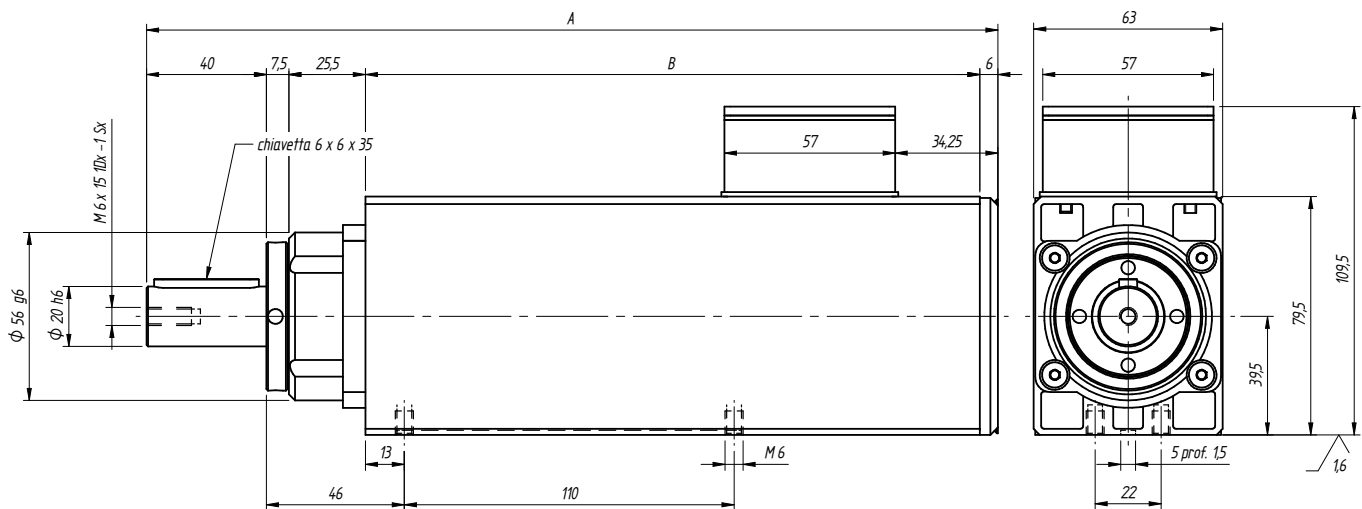
TIPO	A	B
TM PE1 6,5/2	254	185
TM PE2 9/2	274	205



TMPE 1/2 ER20 S



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE1 6,5/2	220/380	100	6000	0,13	1,00/0,58	0,63	3,5
TMPE1 6,5/2	220/380	200	12000	0,35	2,00/1,16	0,69	3,5
TMPE1 6,5/2	220/380	300	18000	0,41	2,20/1,27	0,70	3,5
TMPE1 6,5/2	220/380	400	24000	0,41	2,20/1,27	0,70	3,5
TMPE2 9/2	220/380	50	3000	0,10	0,85/0,50	0,60	4
TMPE2 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	4
TMPE2 9/2	220/380	200	12000	0,55	2,60/1,50	0,73	4
TMPE2 9/2	220/380	300	18000	0,75	3,70/2,15	0,71	4
TMPE2 9/2	220/380	400	24000	0,80	4,10/2,40	0,71	4

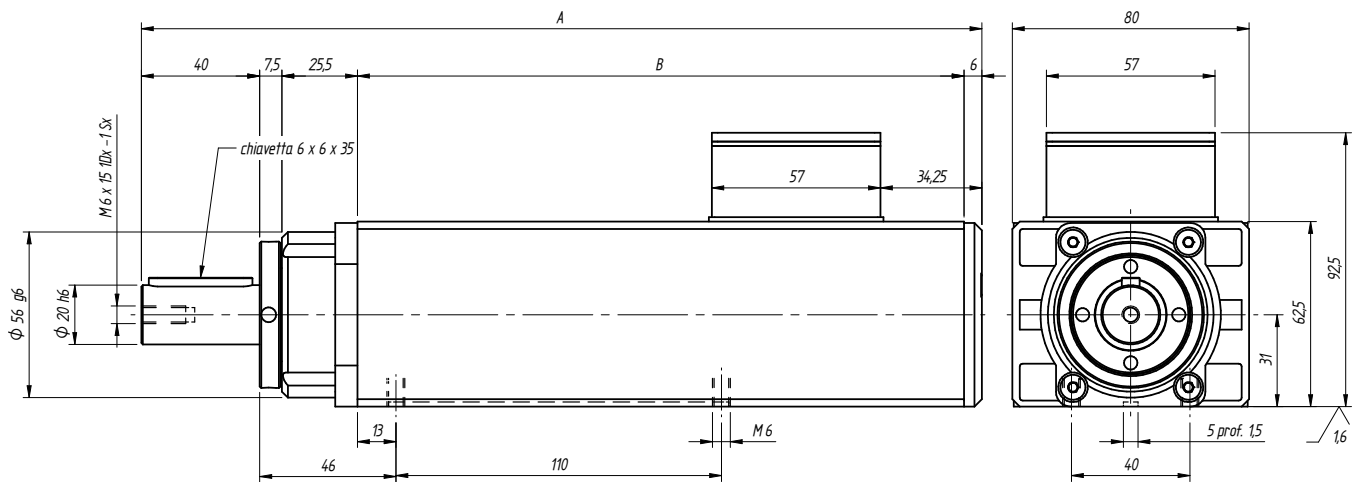


TIPO	A	B
TM PE1 6,5/2	264	185
TM PE2 9/2	284	205

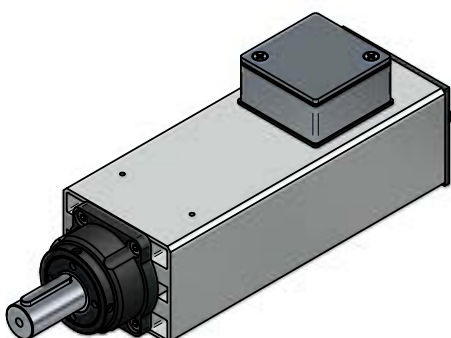




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE1 6,5/2	220/380	100	6000	0,13	1,00/0,58	0,63	3,5
TMPE1 6,5/2	220/380	200	12000	0,35	2,00/1,16	0,69	3,5
TMPE1 6,5/2	220/380	300	18000	0,41	2,20/1,27	0,70	3,5
TMPE1 6,5/2	220/380	400	24000	0,41	2,20/1,27	0,70	3,5
TMPE2 9/2	220/380	50	3000	0,10	0,85/0,50	0,60	4
TMPE2 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	4
TMPE2 9/2	220/380	200	12000	0,55	2,60/1,50	0,73	4
TMPE2 9/2	220/380	300	18000	0,75	3,70/2,15	0,71	4
TMPE2 9/2	220/380	400	24000	0,80	4,10/2,40	0,71	4

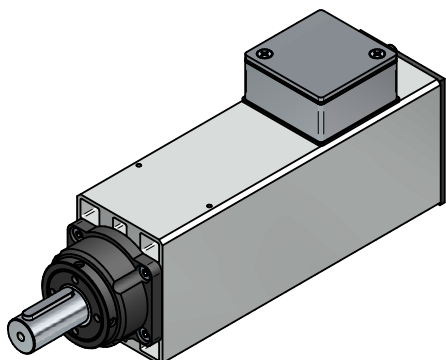
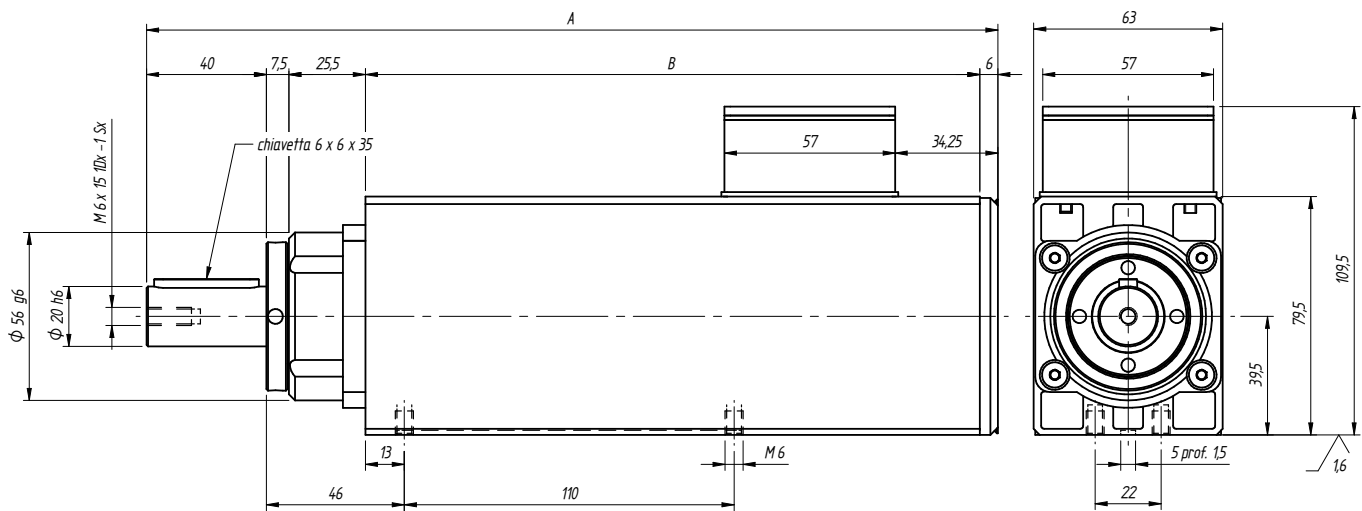


TIPO	A	B
TM PE 1 6,5/2	264	185
TM PE 2 9/2	284	205





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE1 6,5/2	220/380	100	6000	0,13	1,00/0,58	0,63	3,5
TMPE1 6,5/2	220/380	200	12000	0,35	2,00/1,16	0,69	3,5
TMPE1 6,5/2	220/380	300	18000	0,41	2,20/1,27	0,70	3,5
TMPE1 6,5/2	220/380	400	24000	0,41	2,20/1,27	0,70	3,5
TMPE2 9/2	220/380	50	3000	0,10	0,85/0,50	0,60	4
TMPE2 9/2	220/380	100	6000	0,22	1,47/0,85	0,65	4
TMPE2 9/2	220/380	200	12000	0,55	2,60/1,50	0,73	4
TMPE2 9/2	220/380	300	18000	0,75	3,70/2,15	0,71	4
TMPE2 9/2	220/380	400	24000	0,80	4,10/2,40	0,71	4



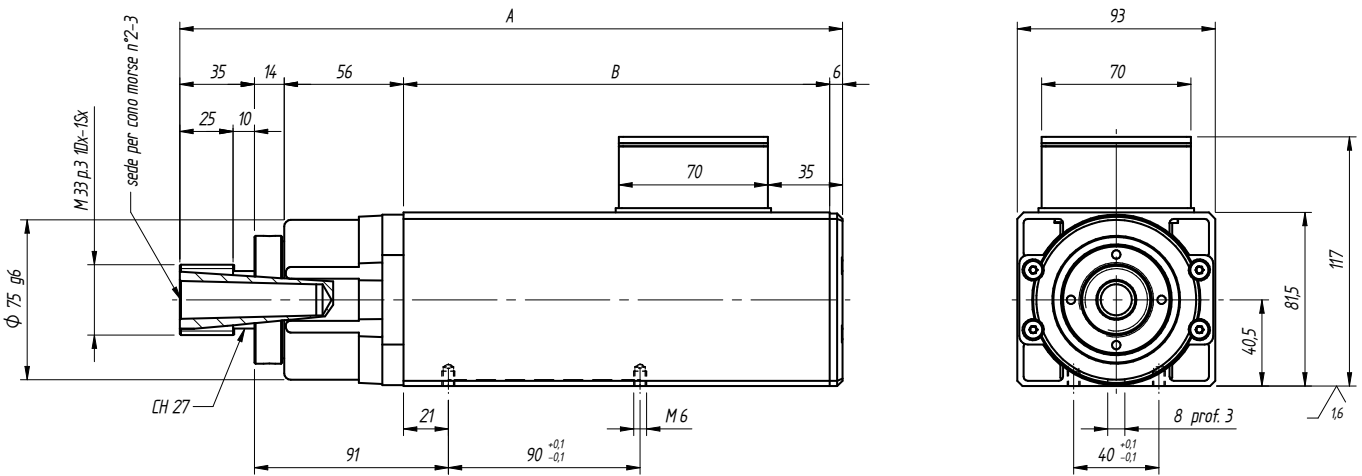
TIPO	A	B
TM PE1 6,5/2	264	185
TM PE2 9/2	284	205



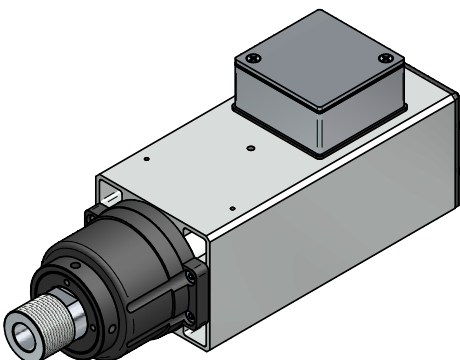
TMPE 3 MORSE TAPER L



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8



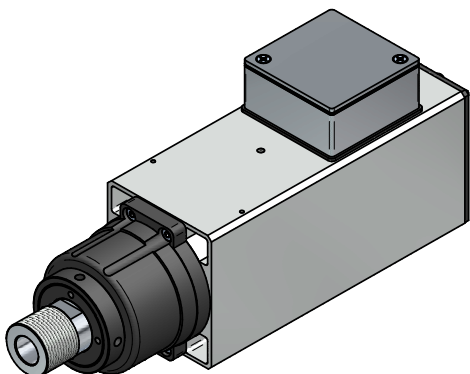
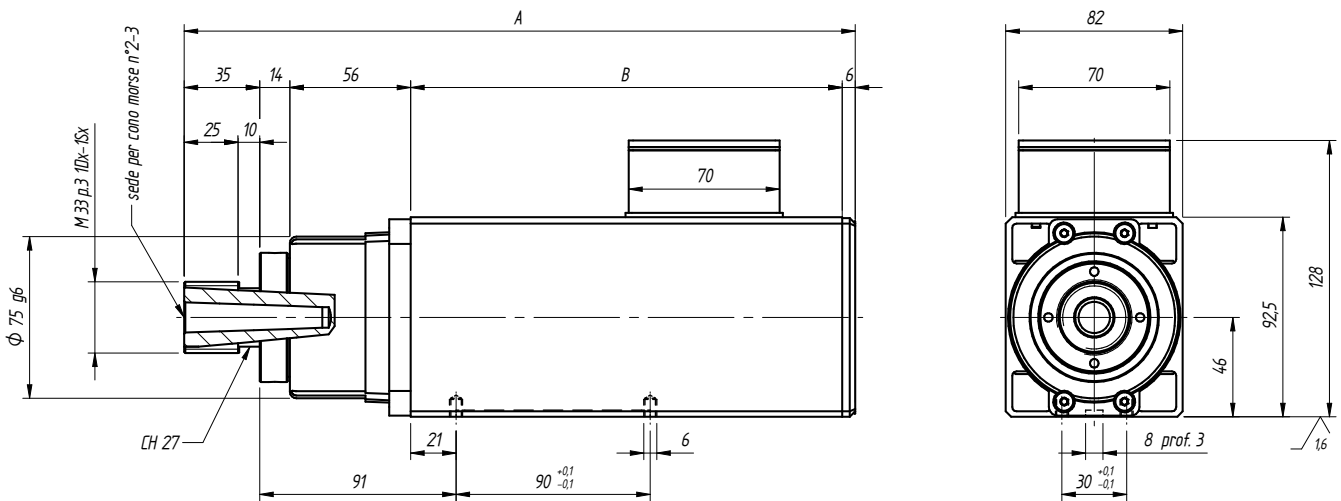
TIPO	A	B
TM PE3 9/2	311	200
TM PE3 12/2	351	240



TMPE 3 MORSE TAPER S



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8

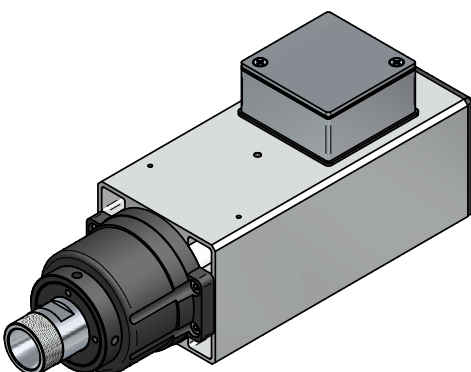
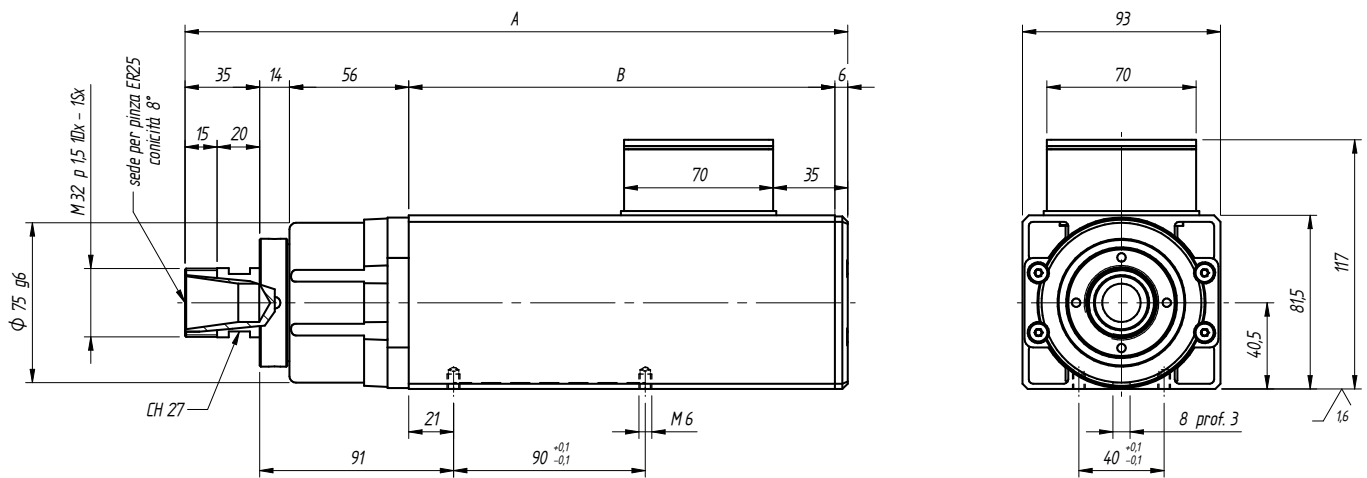


TIPO	A	B
TM PE3 9/2	311	200
TM PE3 12/2	351	240





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8

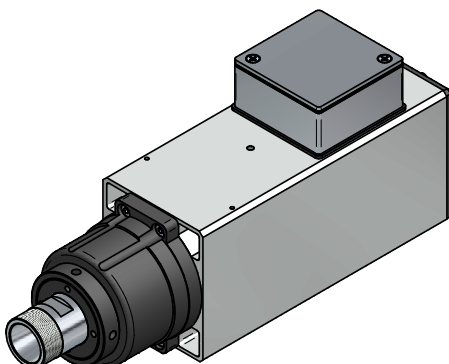
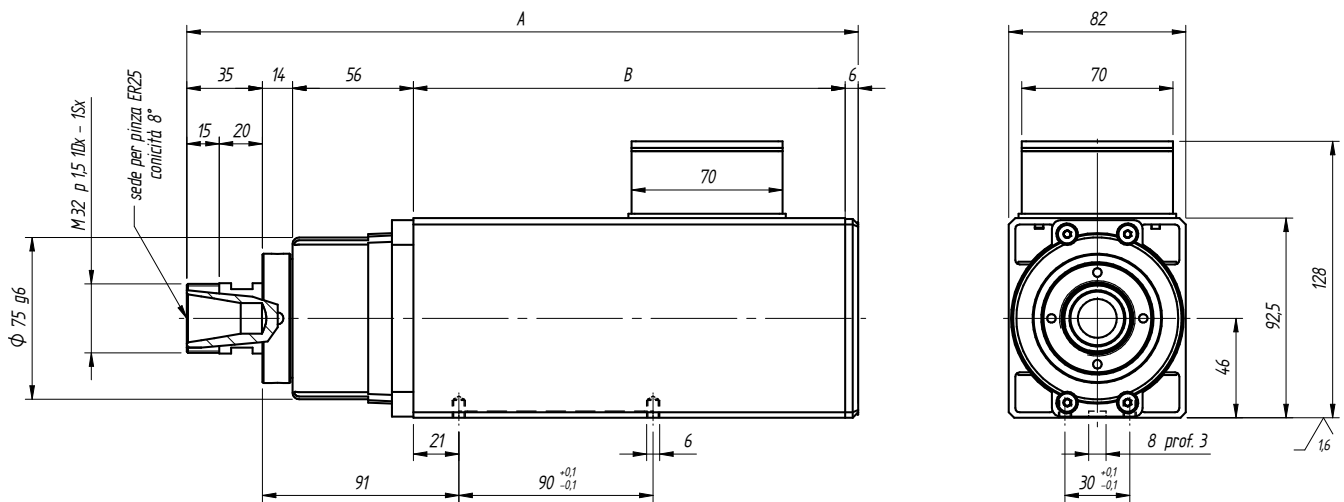


TIPO	A	B
TM PE3 9/2	311	200
TM PE3 12/2	351	240



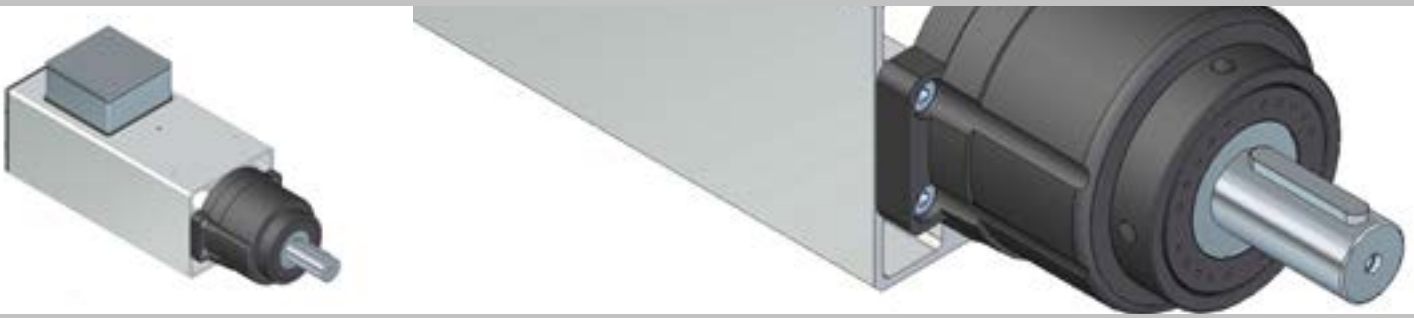


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8

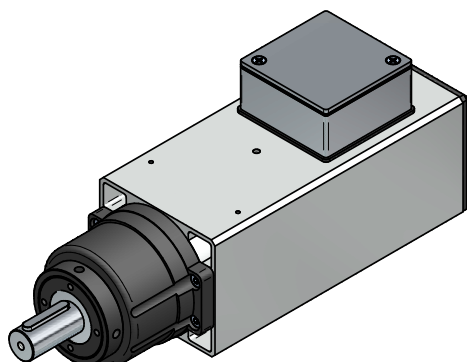
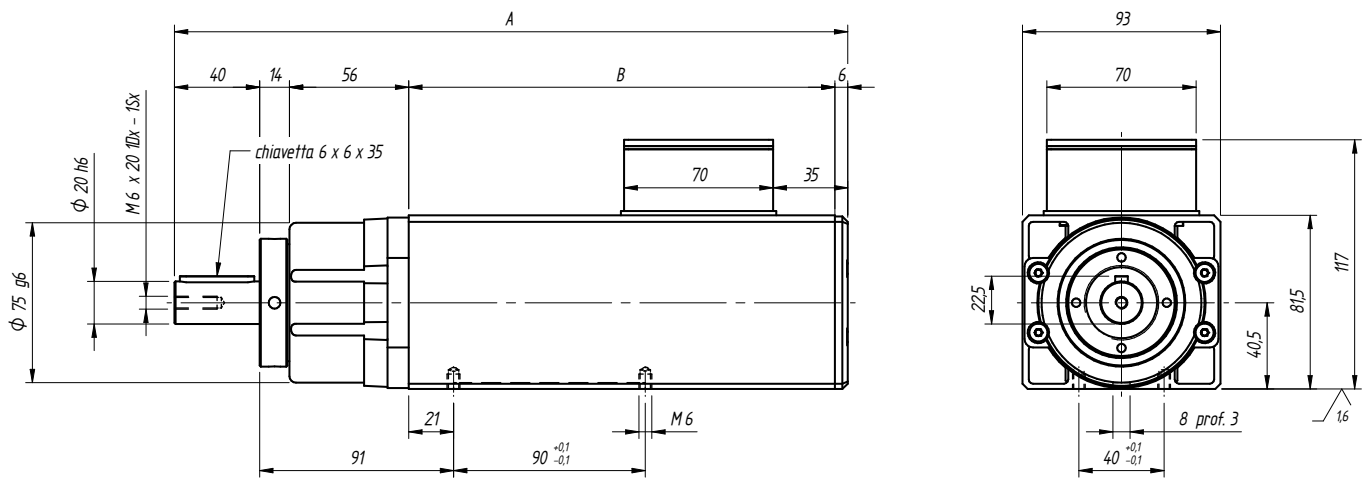


TIPO	A	B
TM PE3 9/2	311	200
TM PE3 12/2	351	240





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8

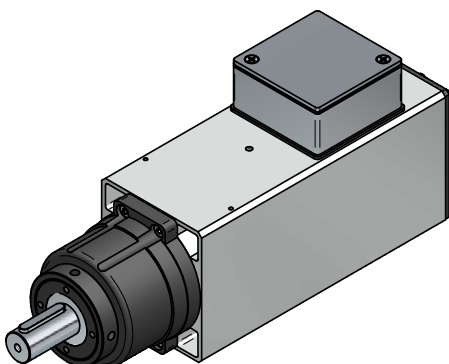
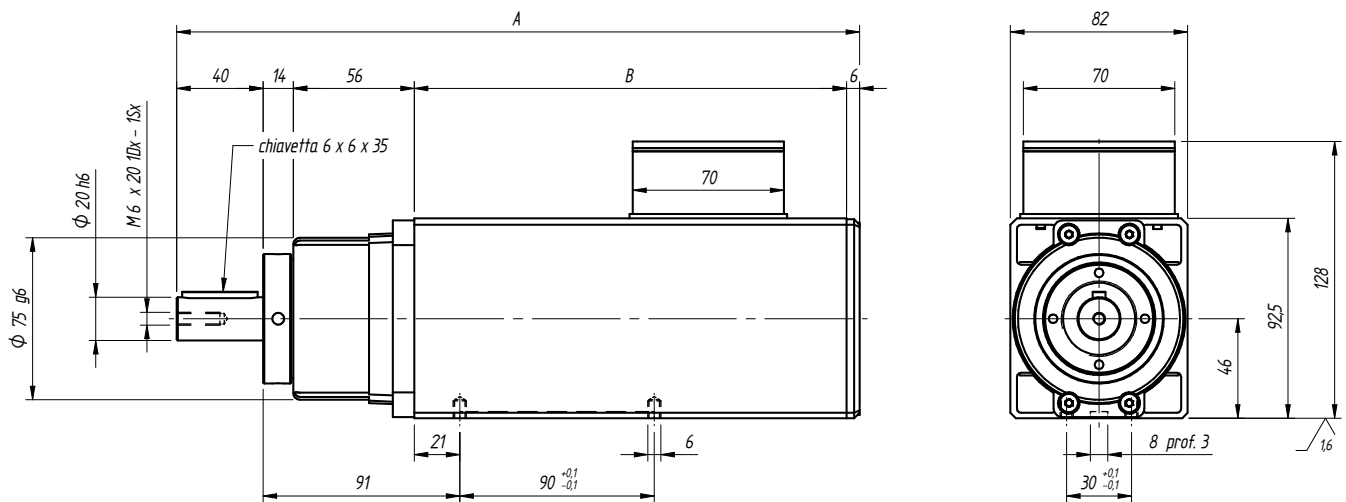


TIPO	A	B
TM PE3 9/2	316	200
TM PE3 12/2	356	240





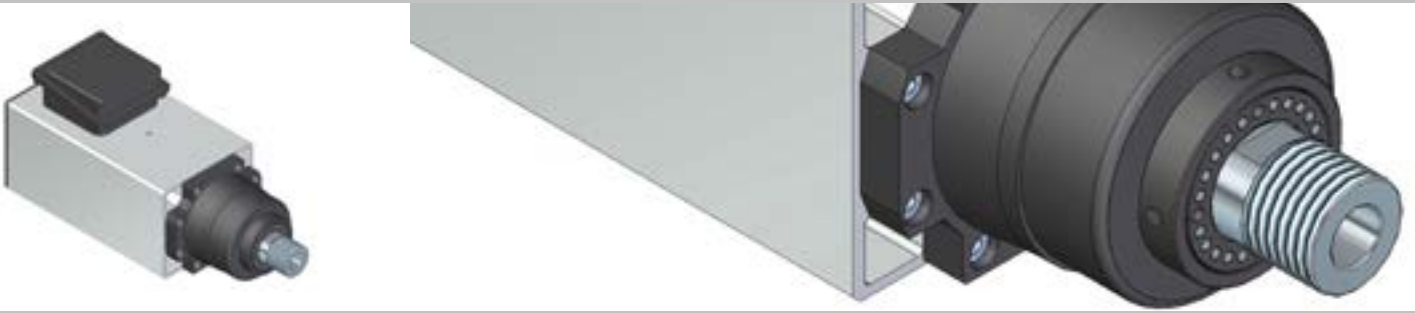
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	1,50/0,90	0,70	7
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	7
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	7
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	7
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	7
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8
TMPE3 12/2	220/380	200	12000	1,50	6,30/3,60	0,79	8
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,50	0,80	8



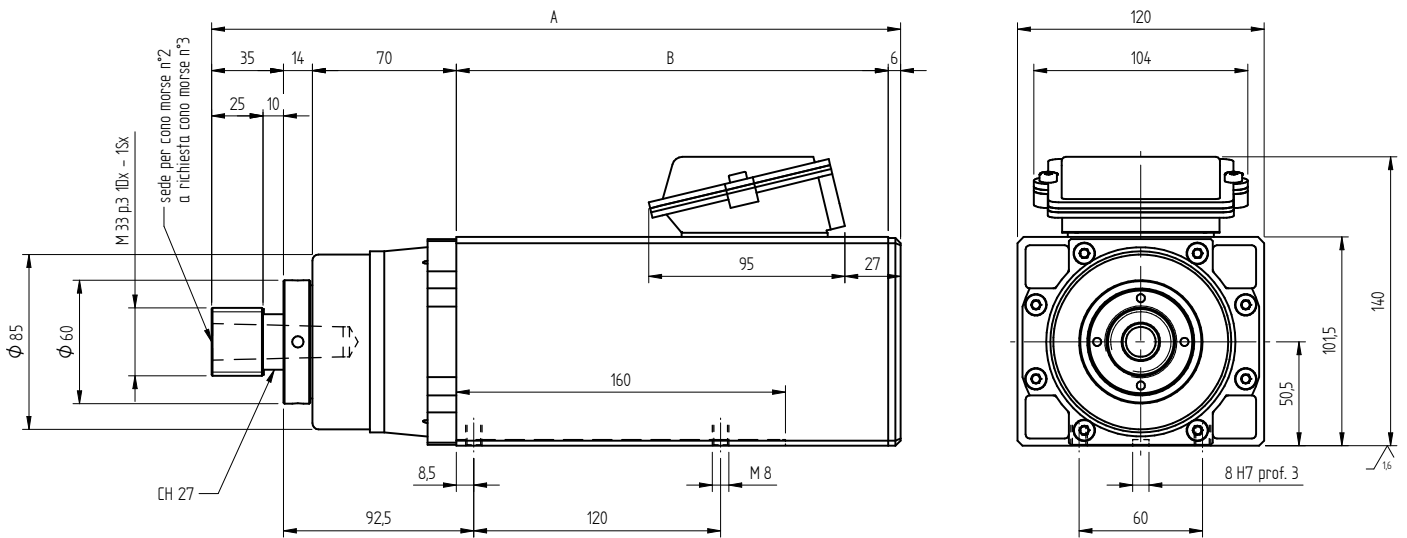
TIPO	A	B
TM PE3 9/2	316	200
TM PE3 12/2	356	240



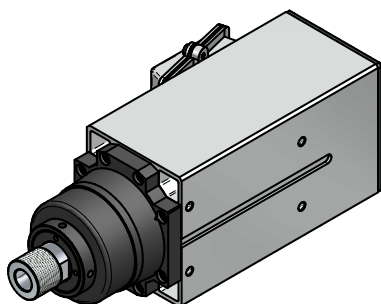
TMPE 4 MORSE TAPER L



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5



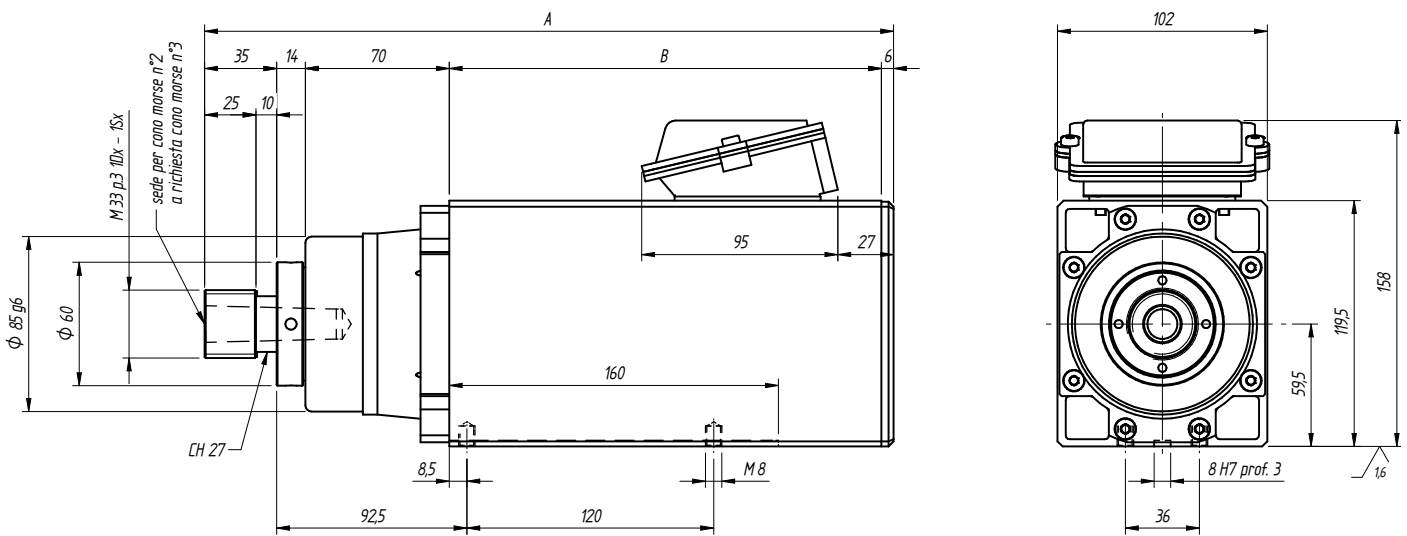
TIPO	A	B
TM PE4 10/2	335	210
TM PE4 14/2	375	250



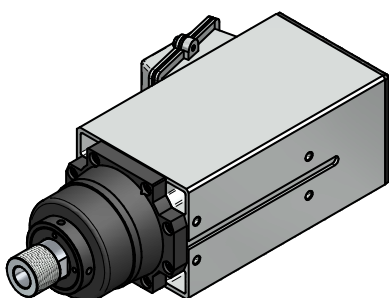
TMPE 4 MORSE TAPER S



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

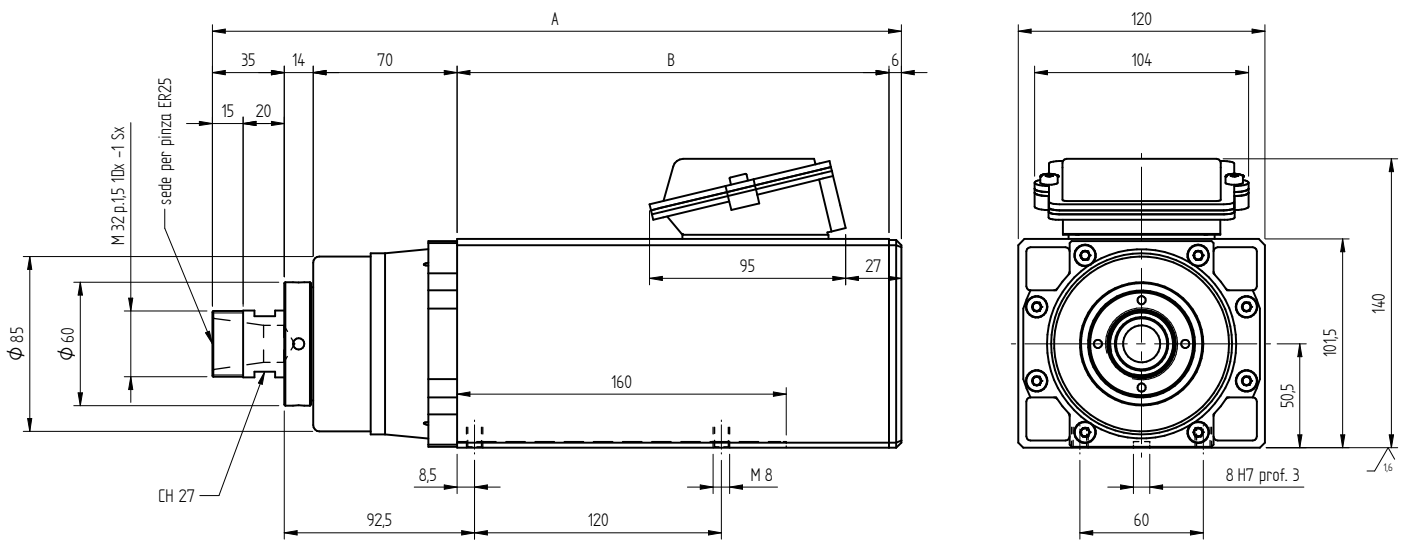


TIPO	A	B
TM PE4 10/2	335	210
TM PE4 14/2	375	250

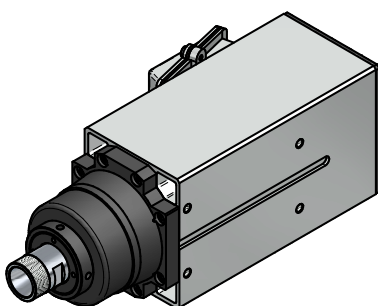


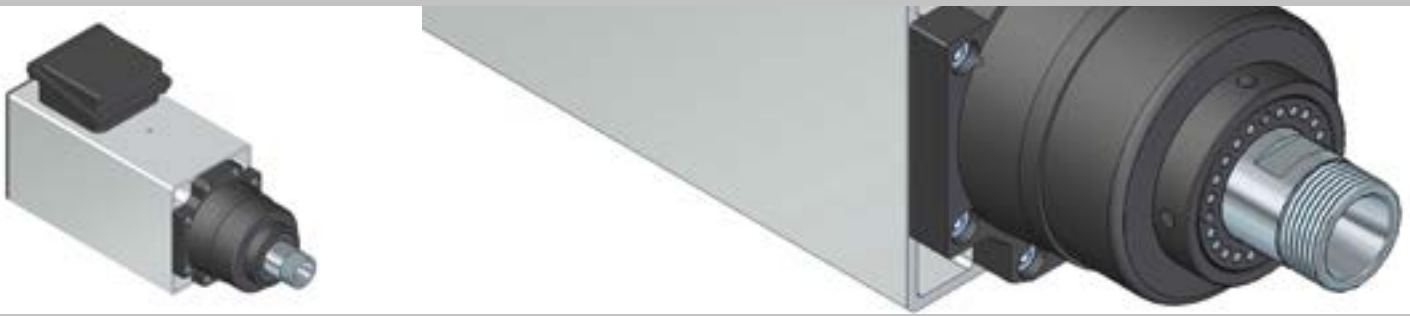


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

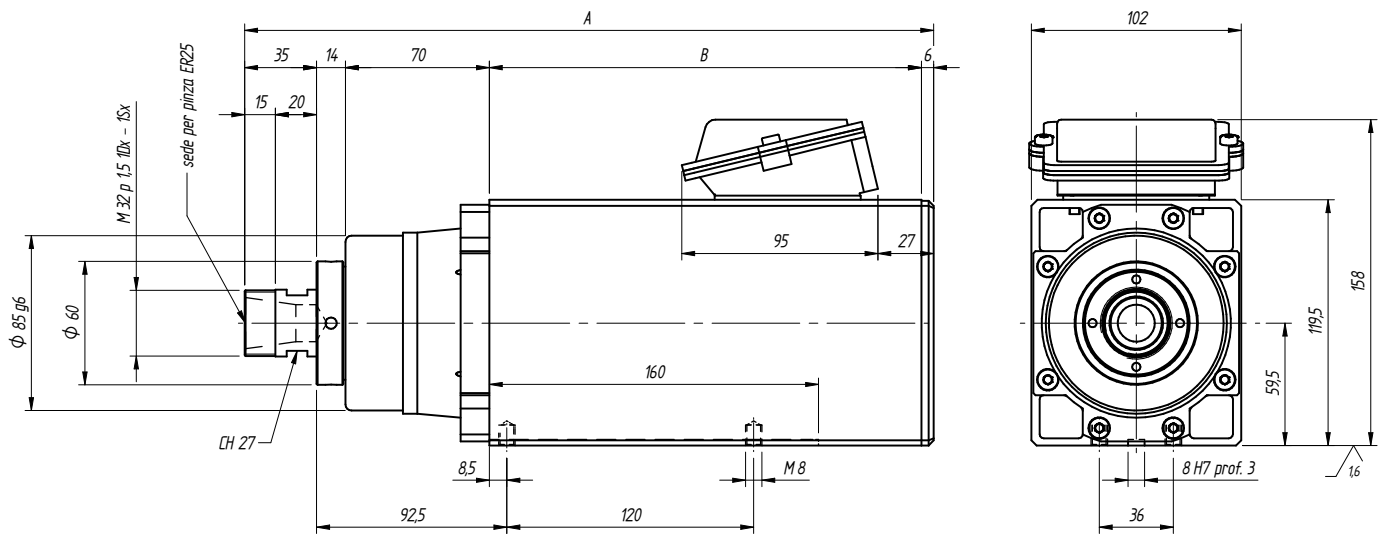


TIPO	A	B
TM PE4 10/2	335	210
TM PE4 14/2	375	250

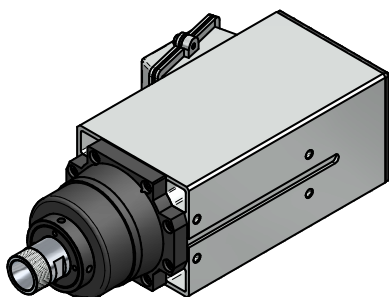


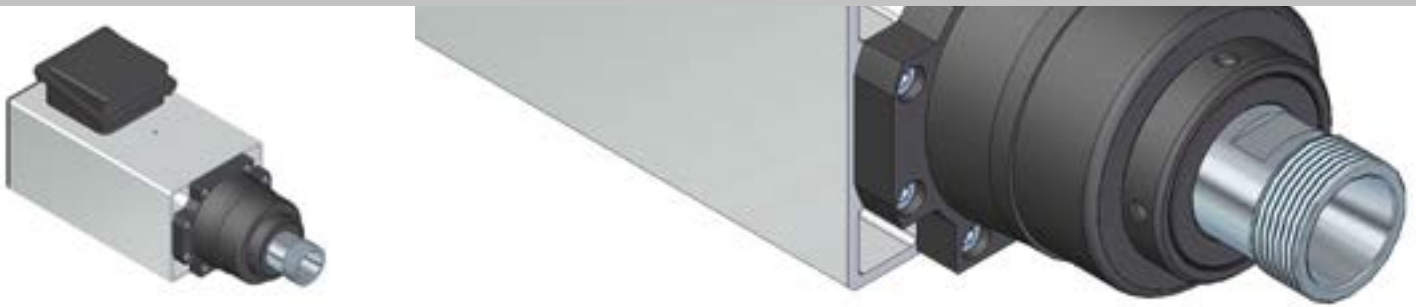


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

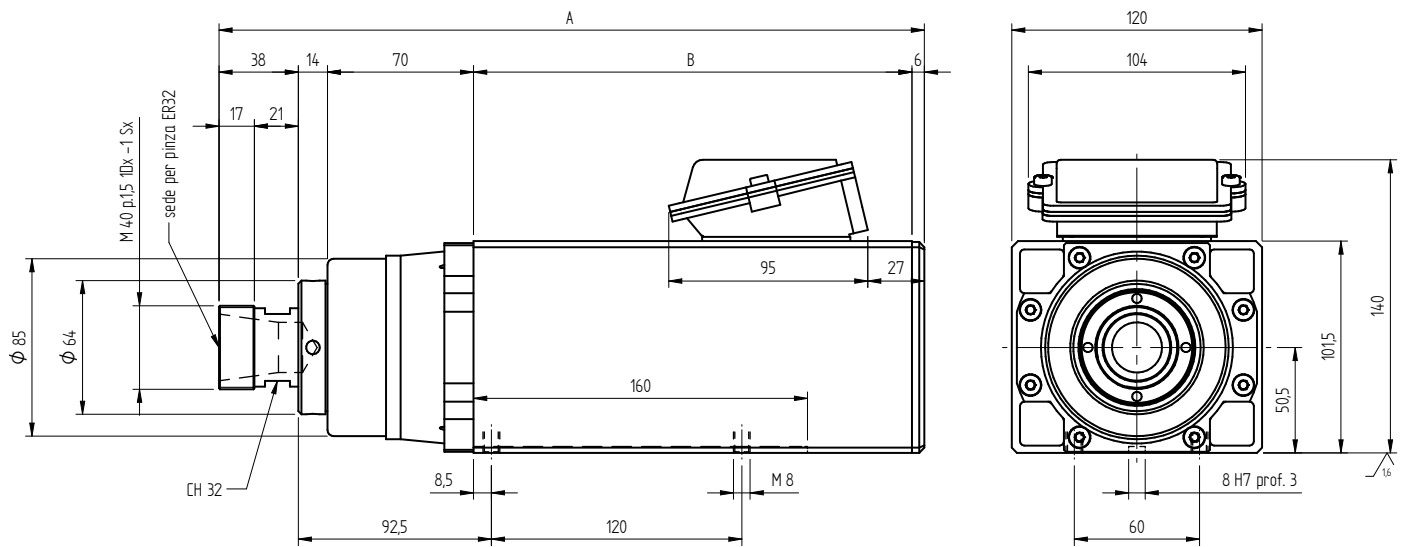


TIPO	A	B
TM PE4 10/2	335	210
TM PE4 14/2	375	250

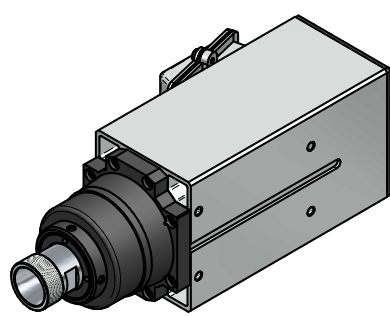




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

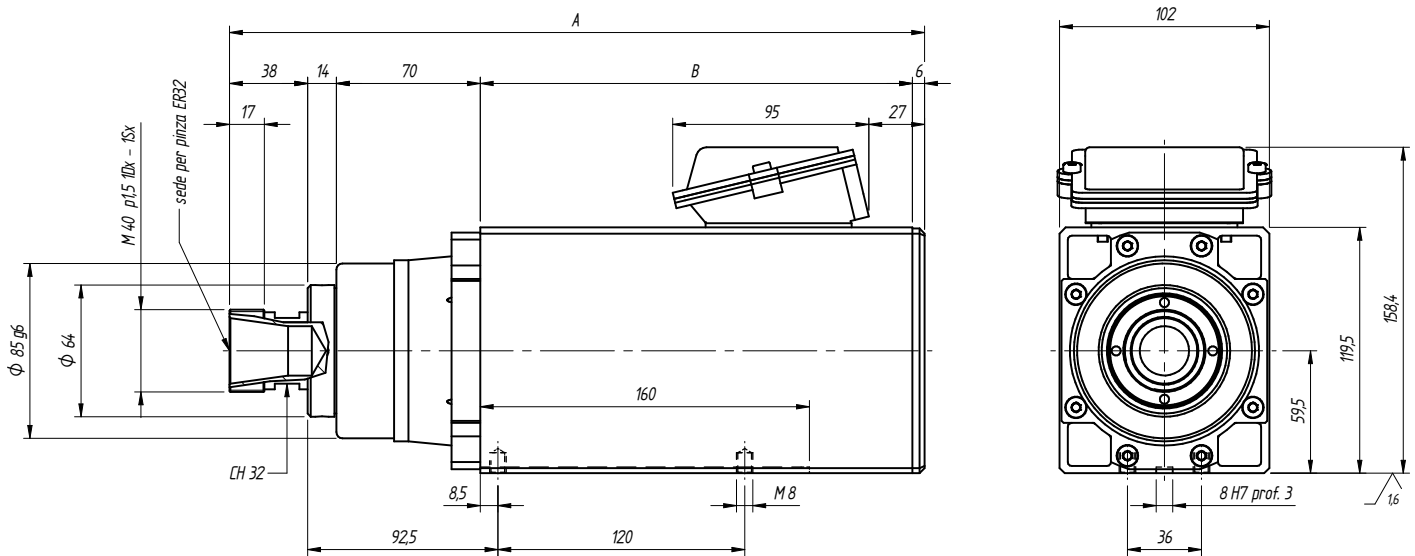


TIPO	A	B
TM PE4 10/2	338	210
TM PE4 14/2	378	250

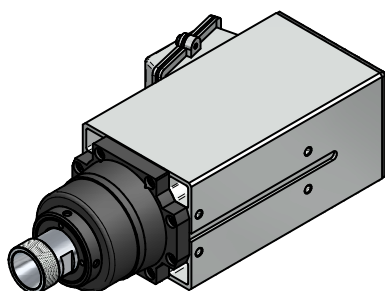




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

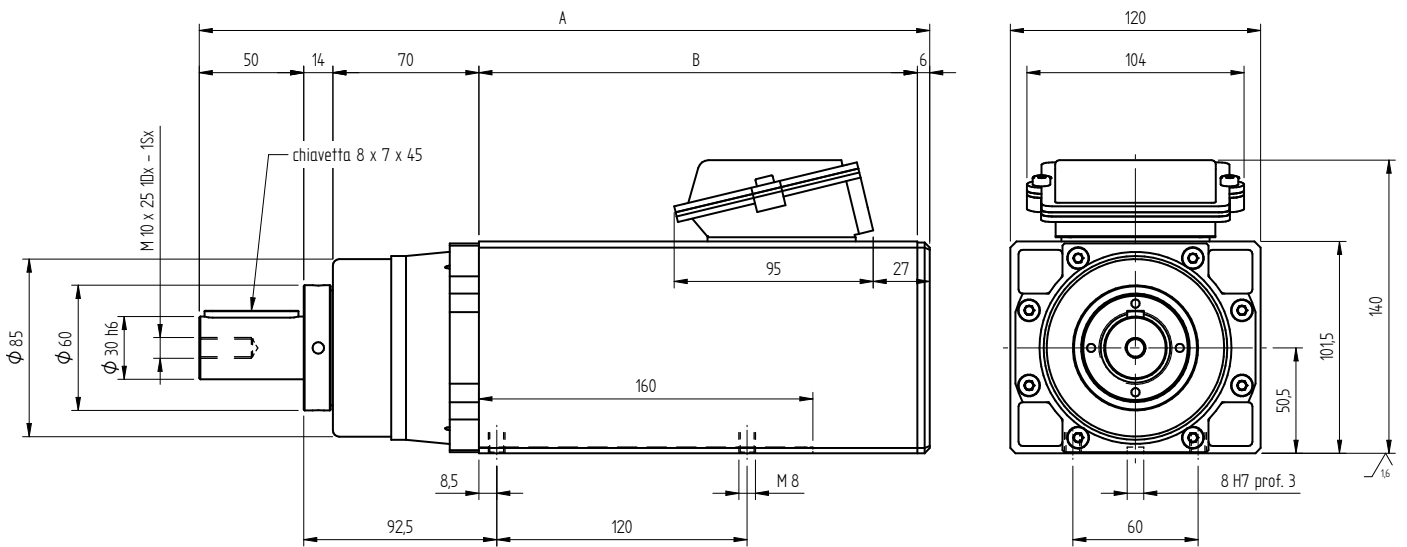


TIPO	A	B
TM PE4 10/2	338	210
TM PE4 14/2	378	250

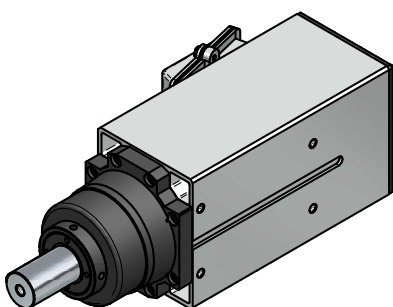




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5

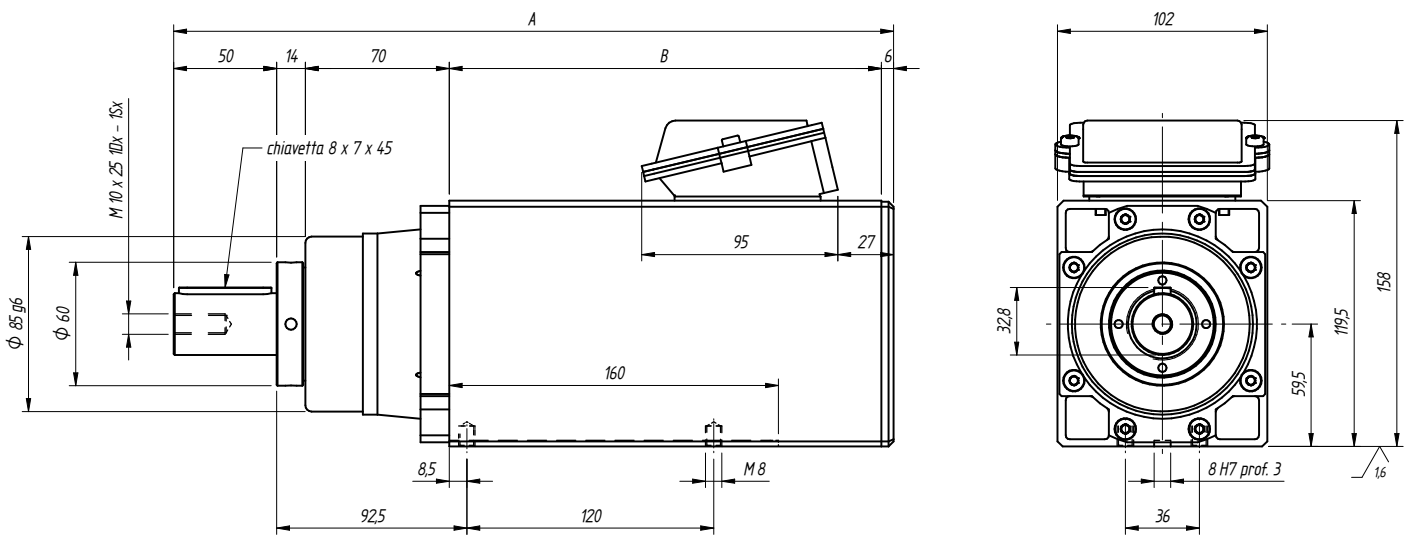


TIPO	A	B
TM PE4 10/2	350	210
TM PE4 14/2	390	250

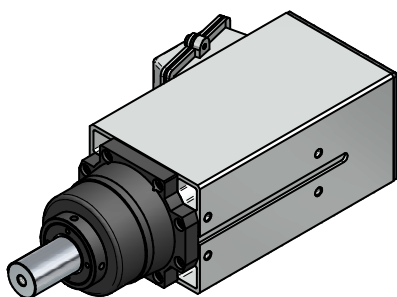




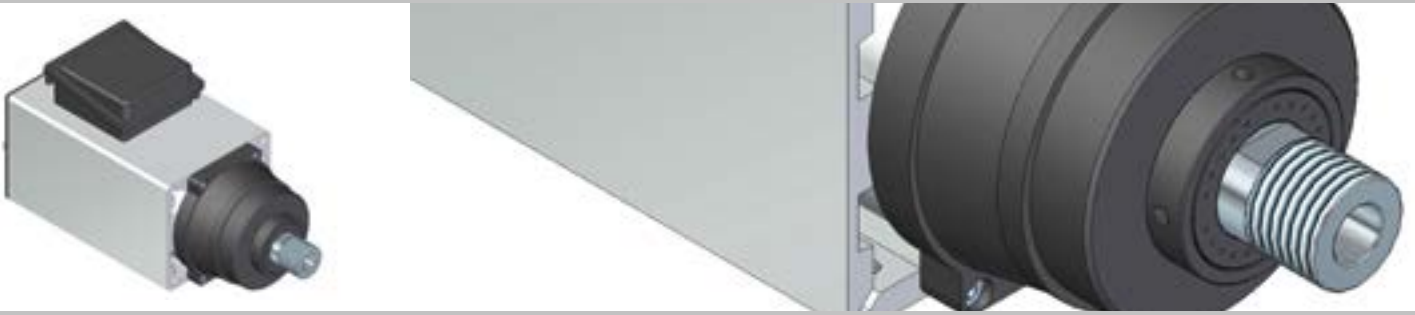
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	11,5
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	11,5
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	11,5
TMPE4 10/2	220/380	300	18000	3,30	13,70/7,90	0,80	11,5
TMPE4 10/2	220/380	400	24000	3,30	13,70/7,90	0,80	11,5
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	13,5
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	13,5
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	13,5
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	13,5
TMPE4 14/2	220/380	400	24000	5,60	20,00/11,50	0,85	13,5



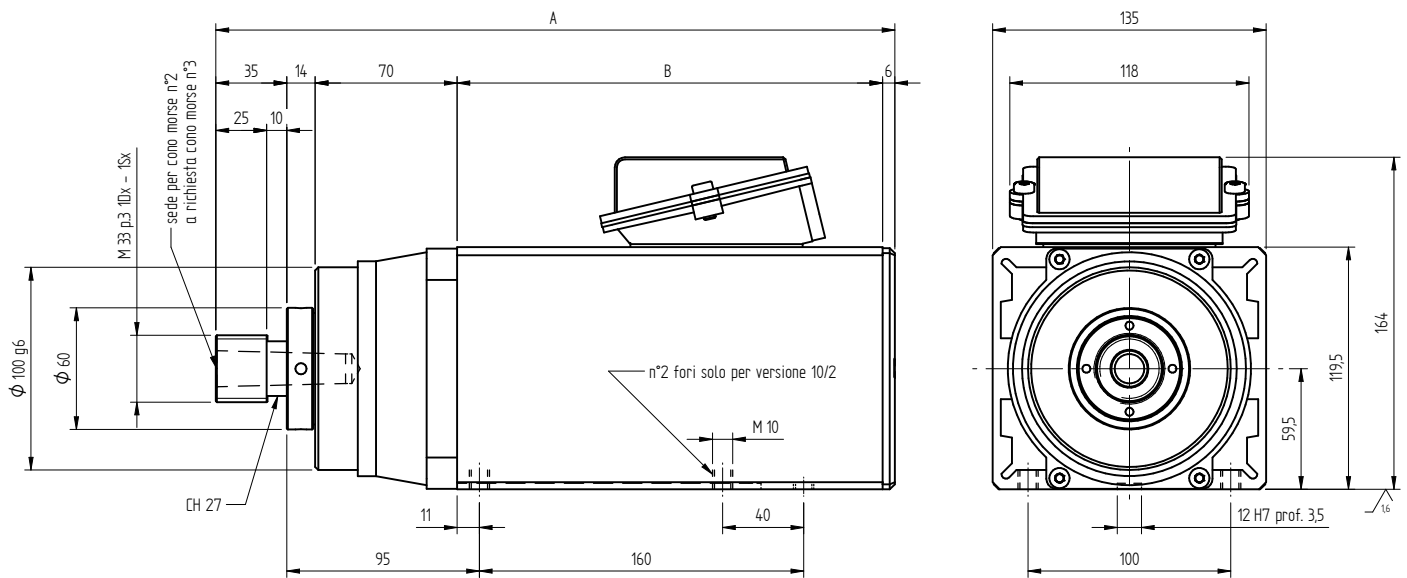
TIPO	A	B
TM PE4 10/2	335	210
TM PE4 14/2	375	250



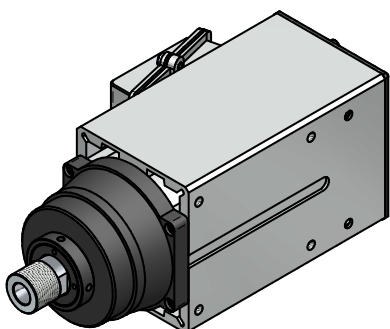
TMPE 5 MORSE TAPER L



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5



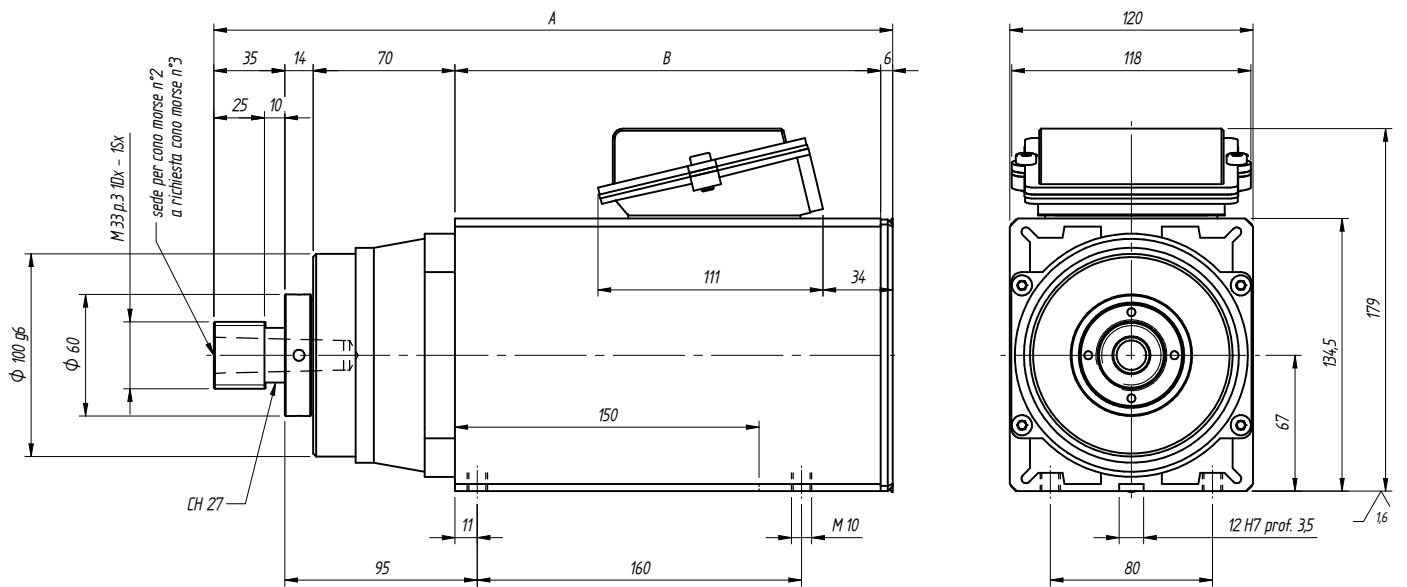
TIPO	A	B
TM PE5 10/2	335	210
TM PE5 14/2	375	250



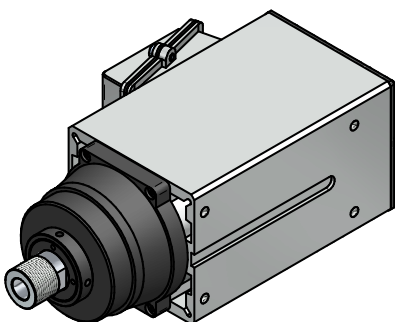
TMPE 5 MORSE TAPER S



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

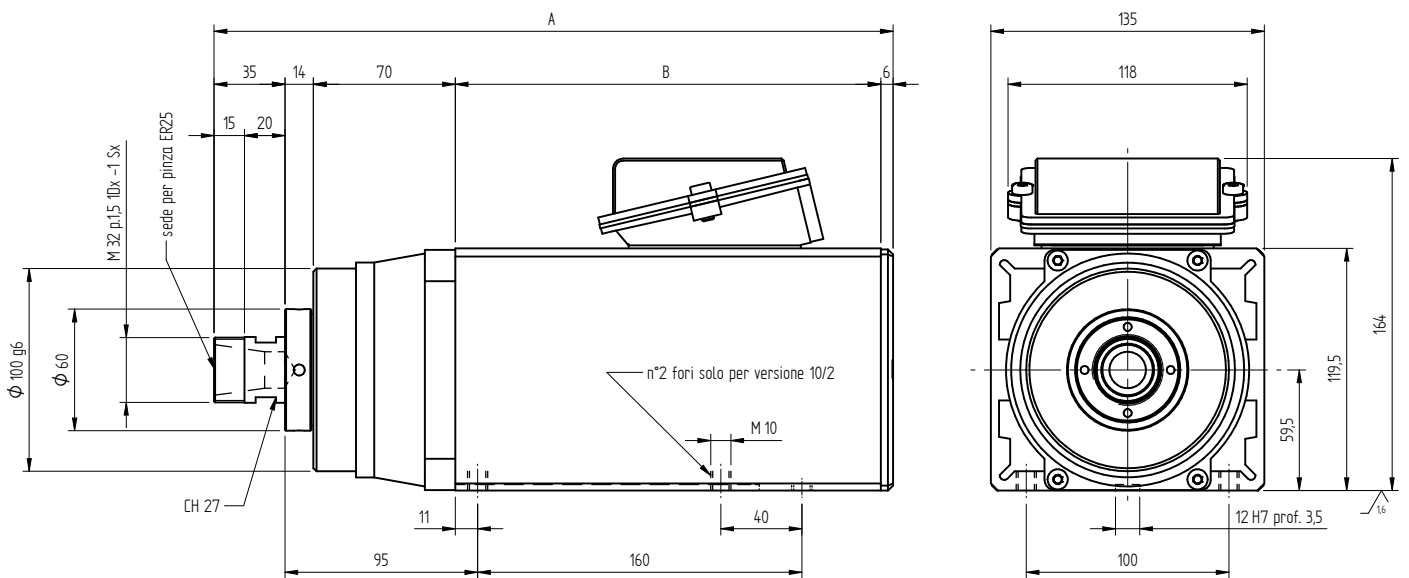


TIPO	A	B
TM PE5 10/2	335	210
TM PE5 14/2	375	250

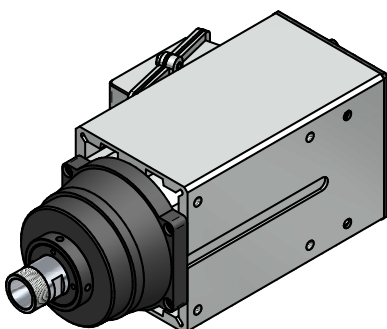




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

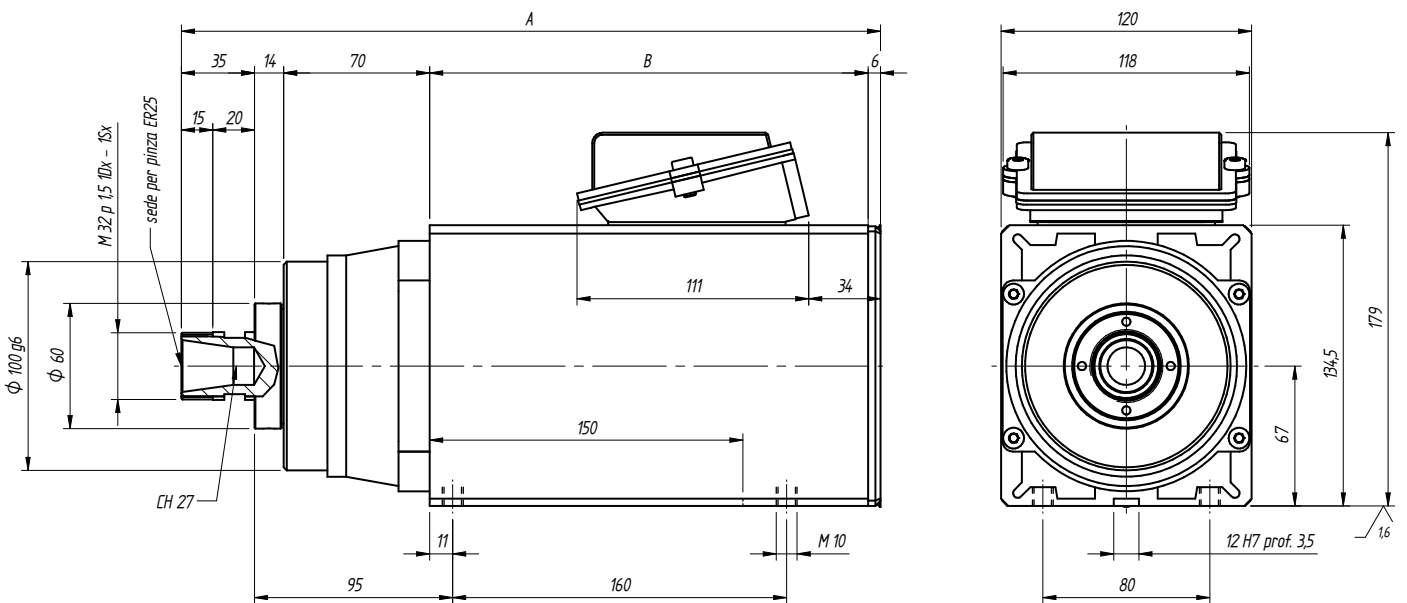


TIPO	A	B
TM PE5 10/2	335	210
TM PE5 14/2	375	250

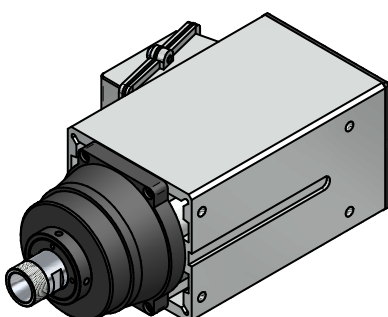




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

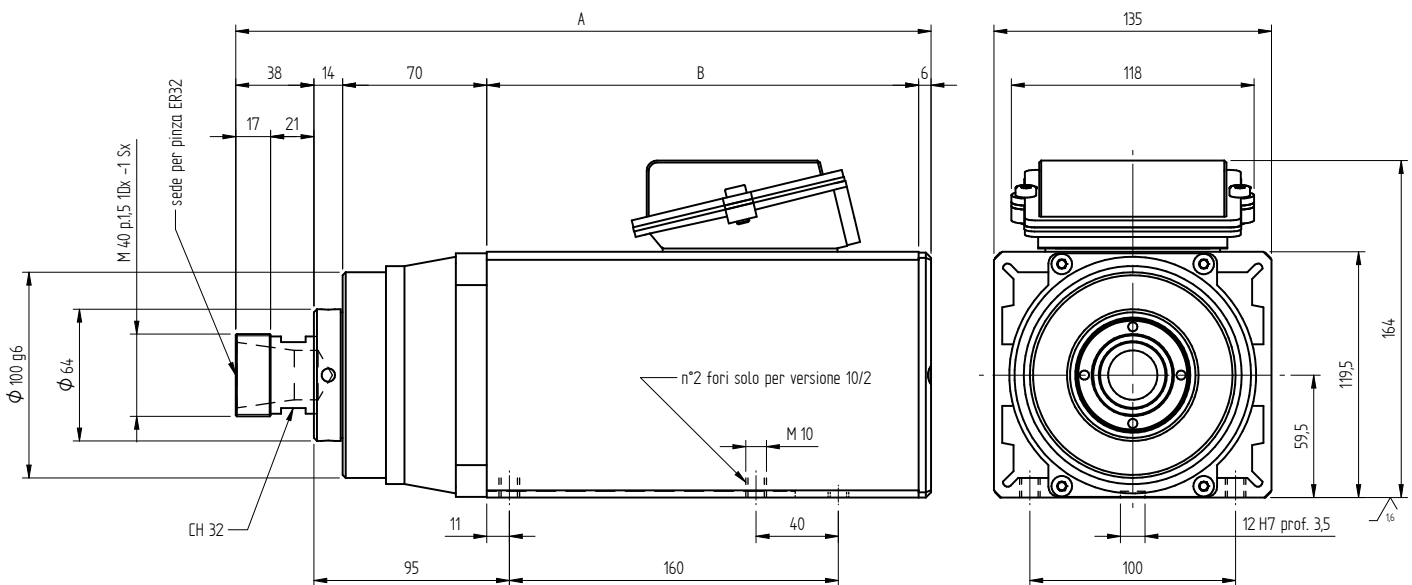


TIPO	A	B
TM PE5 10/2	335	210
TM PE5 14/2	375	250

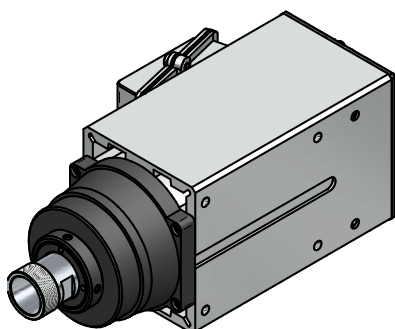




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

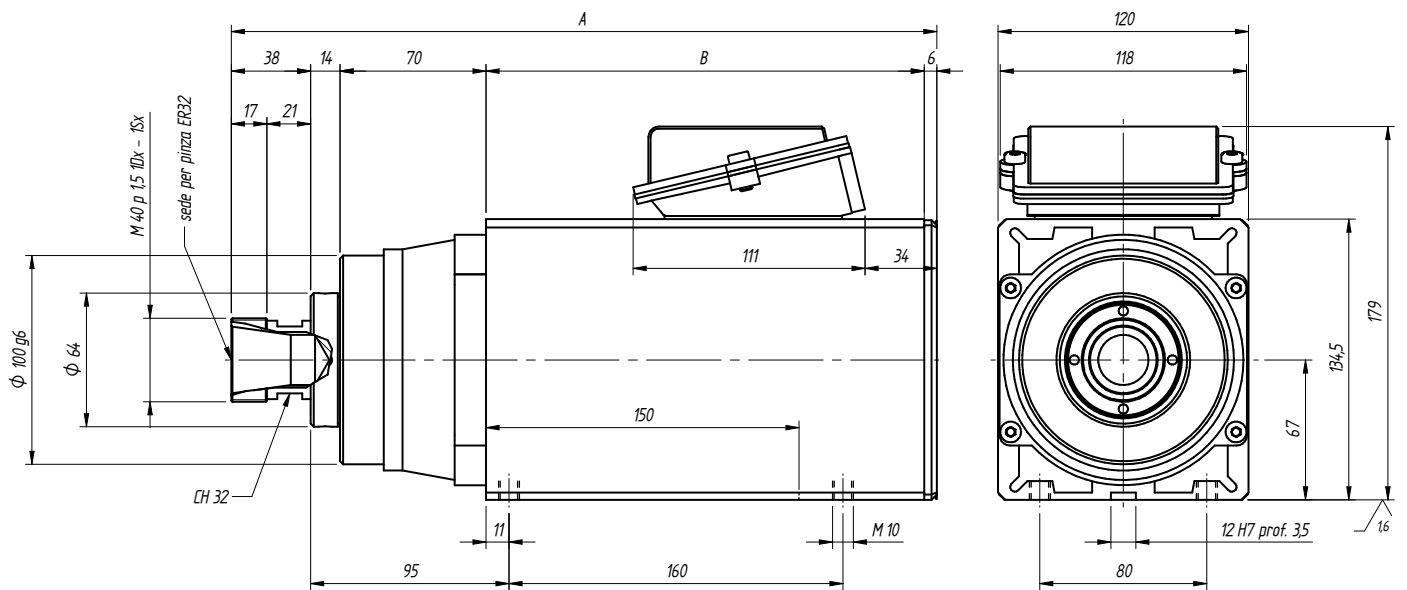


TIPO	A	B
TM PE5 10/2	338	210
TM PE5 14/2	378	250

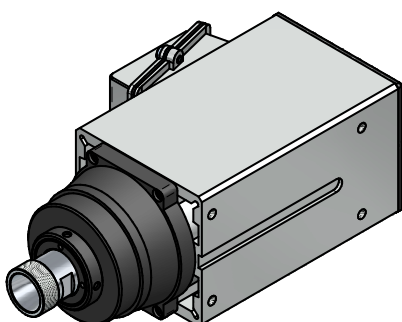


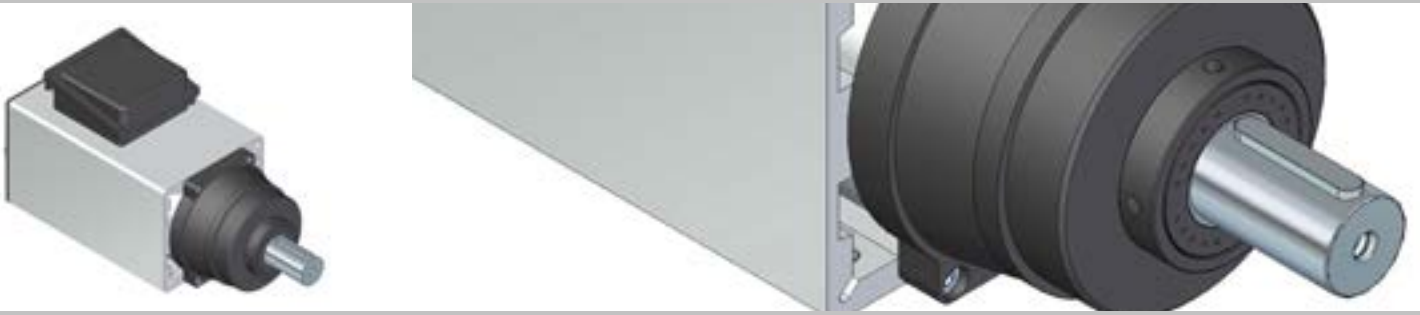


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

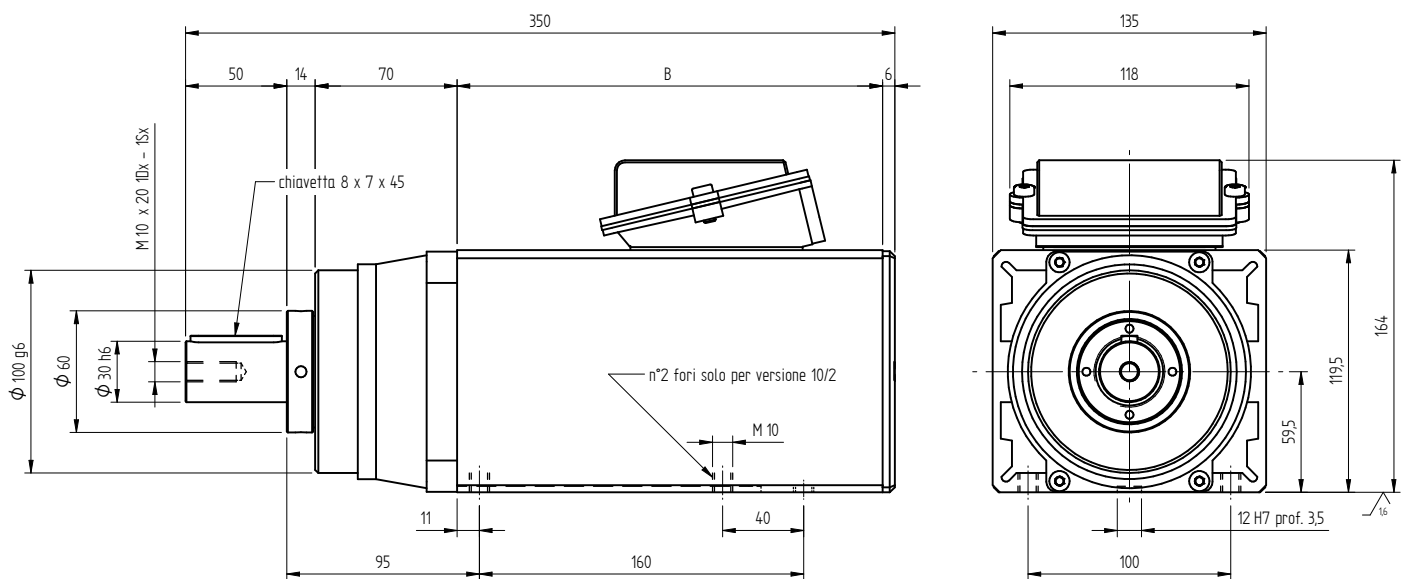


TIPO	A	B
TM PE5 10/2	338	210
TM PE5 14/2	378	250

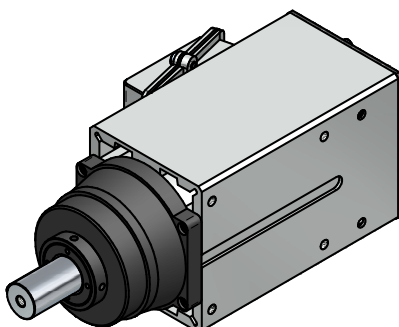




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5

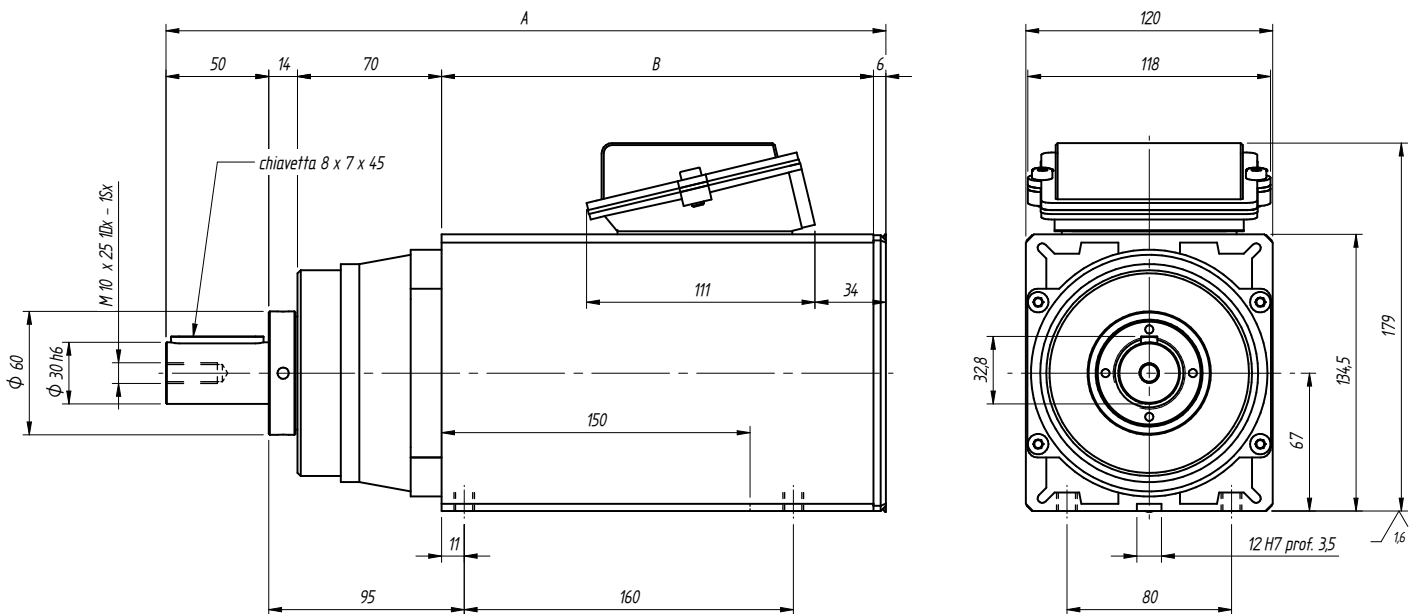


TIPO	A	B
TM PE5 10/2	350	210
TM PE5 14/2	390	250

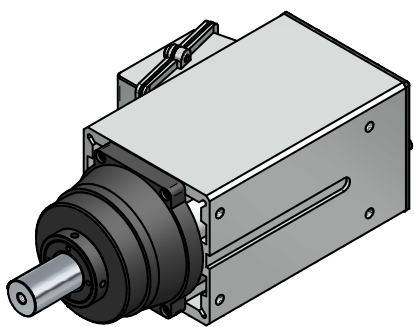




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	16
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	16
TMPE5 10/2	220/380	200	12000	3,00	12,30/7,10	0,80	16
TMPE5 10/2	220/380	300	18000	4,50	18,00/10,00	0,81	16
TMPE5 10/2	220/380	400	24000	4,50	18,00/10,00	0,91	16
TMPE5 14/2	220/380	50	3000	3,00	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,00	15,20/8,80	0,84	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	300	18000	7,00	25,00/14,50	0,86	19,5
TMPE5 14/2	220/380	400	24000	7,00	25,00/14,50	0,86	19,5



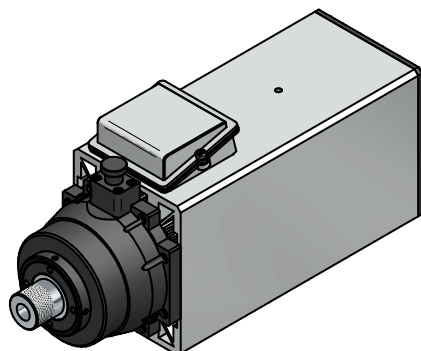
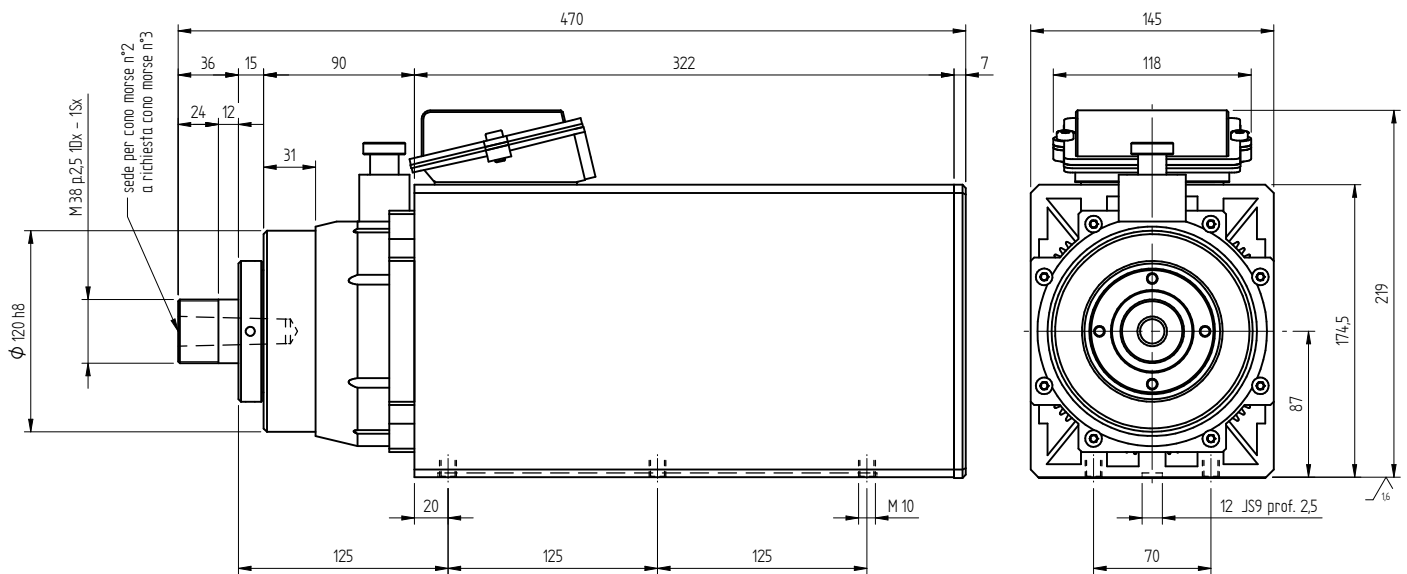
TIPO	A	B
TM PE5 10/2	350	210
TM PE5 14/2	380	250



TMPE 6 MORSE TAPER 2/3

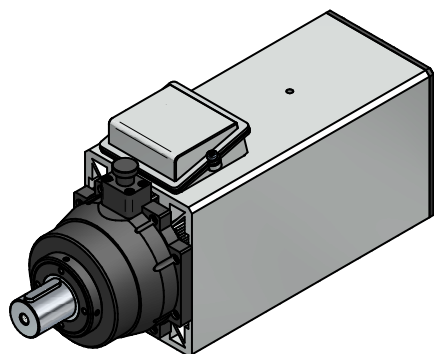
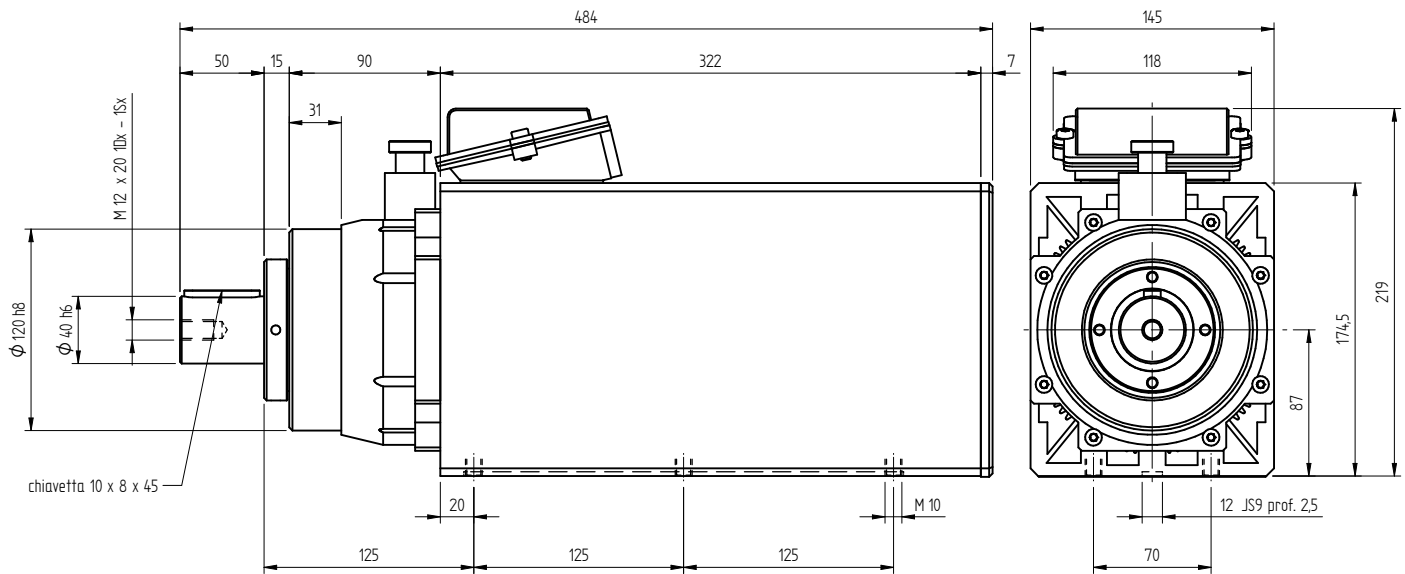


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 15/2	220/380	50	3000	3,40	13,6/7,8	0,83	34,5
TMPE6 15/2	220/380	100	6000	5,60	19,9/11,5	0,84	34,5
TMPE6 15/2	220/380	200	12000	8,50	32,7/18,9	0,84	34,5
TMPE6 15/2	220/380	300	18000	9,50	36,4/21,0	0,84	34,5



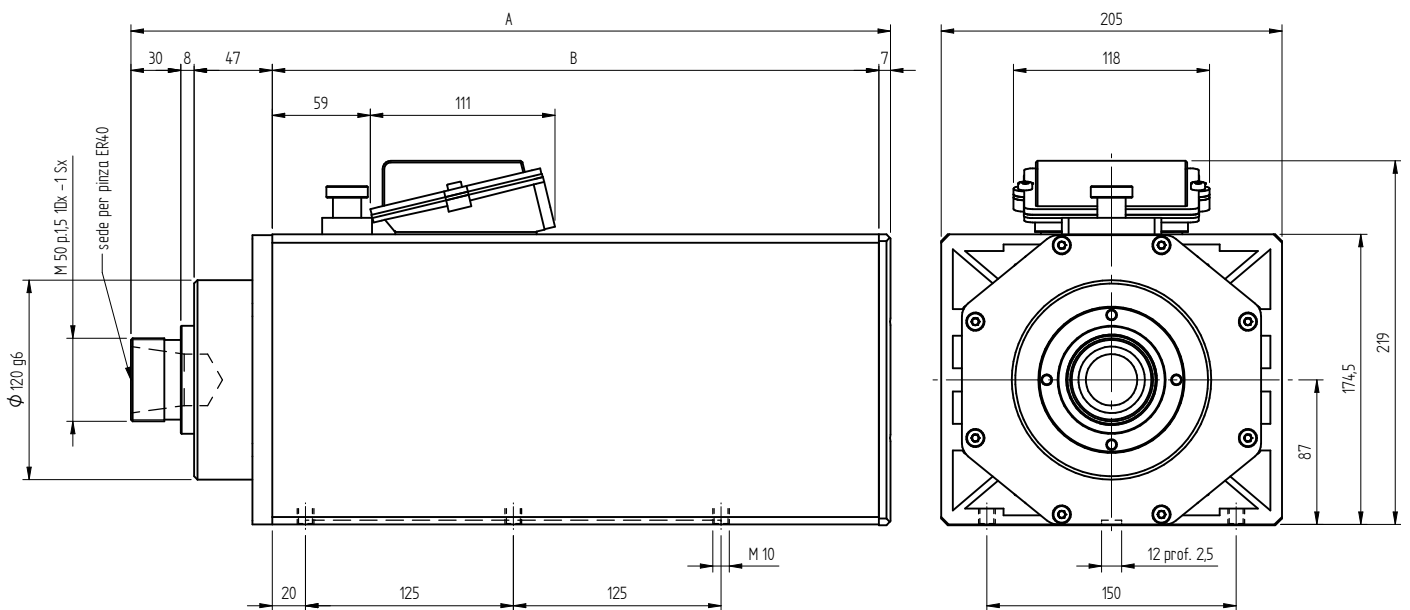


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 15/2	220/380	50	3000	3,40	13,6/7,8	0,83	34,5
TMPE6 15/2	220/380	100	6000	5,60	19,9/11,5	0,84	34,5
TMPE6 15/2	220/380	200	12000	8,50	32,7/18,9	0,84	34,5
TMPE6 15/2	220/380	300	18000	9,50	36,4/21,0	0,84	34,5

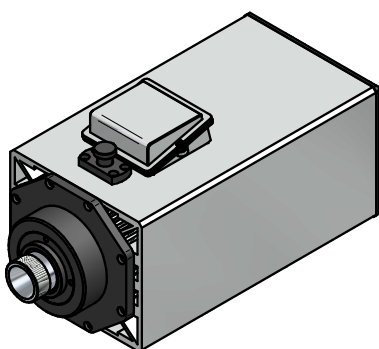




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE7 15/2	220/380	50	3000	5,6	20,2/11,7	0,80	47
TMPE7 15/2	220/380	100	6000	8,2	30,7/17,7	0,80	47
TMPE7 15/2	220/380	200	12000	12,0	44,1/25,5	0,84	47
TMPE7 17/2	220/380	50	3000	7,5	27,5 /5,9	0,80	53,5
TMPE7 17/2	220/380	100	6000	10,5	37,2/21,5	0,85	53,5
TMPE7 17/2	220/380	200	12000	15,0	53,9/31,1	0,86	53,5
TMPE7 19/2	220/380	50	3000	8,2	29,8/17,2	0,84	59,5
TMPE7 19/2	220/380	100	6000	12,0	44,3/25,6	0,87	59,5
TMPE7 19/2	220/380	200	12000	18,0	63,4/36,6	0,87	59,5



TIPO	A	B
TM PE7 15/2	457	365
TM PE7 17/2	507	415
TM PE7 19/2	507	415



TM PE LA Series

TMPE 2 LA ER20

TMPE 3 LA ER25

TMPE 4 LA ER25

TMPE 4 LA ER32

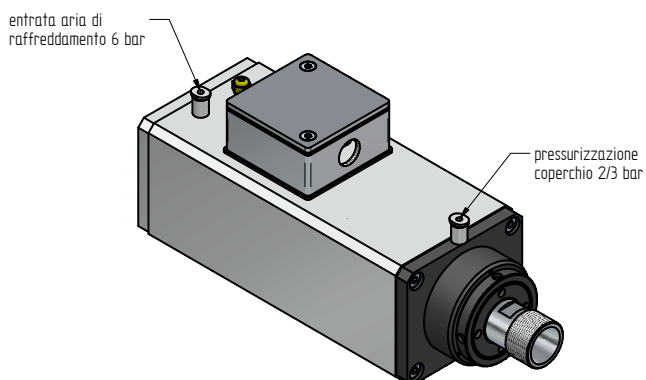
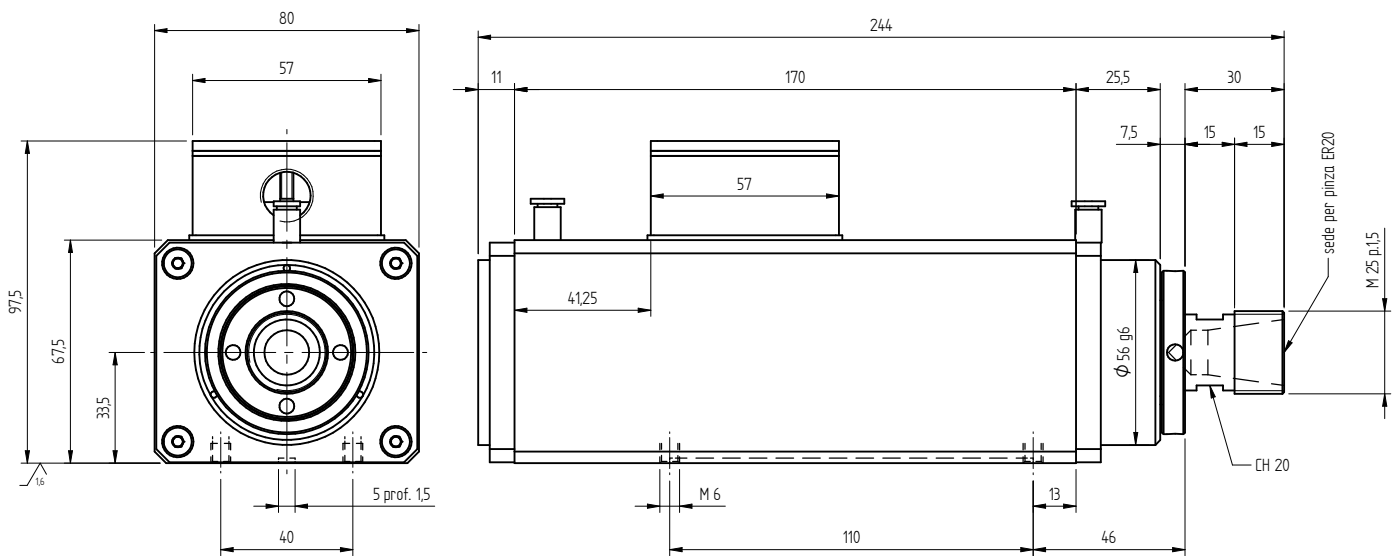
TMPE 5 LA ER25

TMPE 5 LA ER32

TMPE 6 LA ER40

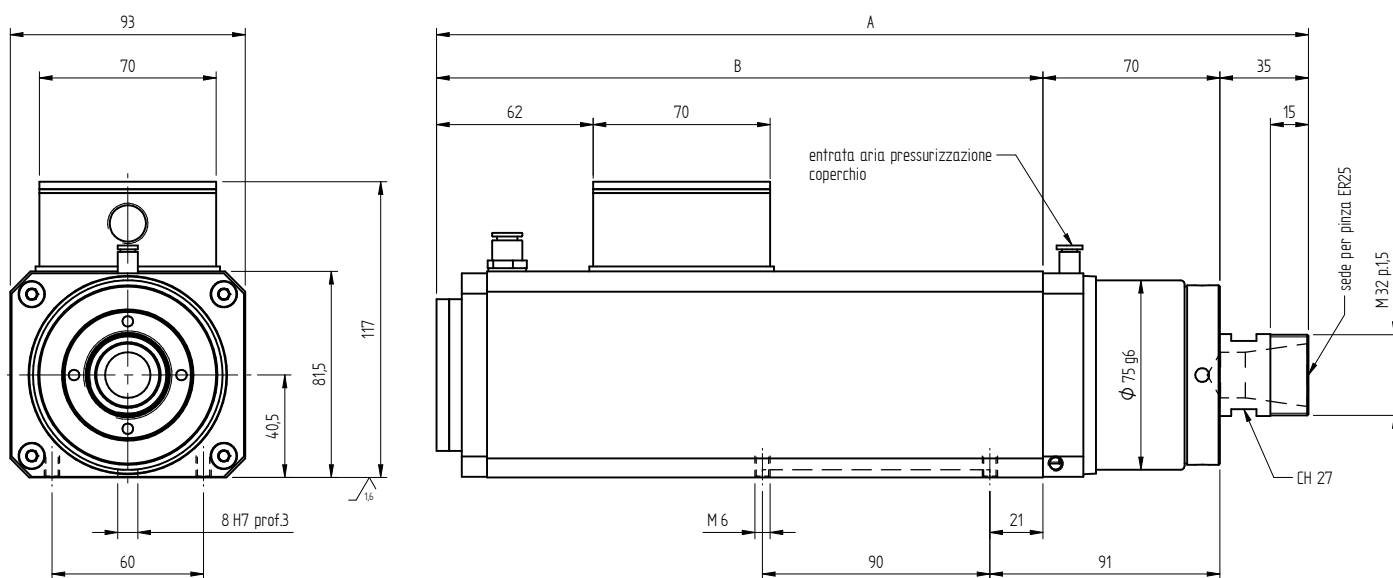


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE2 9/2 RR compressed air	220/380	50	3000	0,10	0,85/0,50	0,60	4
9/2 RR liquid	220/380	50	3000	0,12	1,00/0,60	0,60	4
TMPE2 9/2 RR compressed air	220/380	100	6000	0,22	1,47/0,85	0,65	4
9/2 RR liquid	220/380	100	6000	0,25	1,66/1,96	0,65	4
TMPE2 9/2 RR compressed air	220/380	200	12000	0,55	2,60/1,50	0,73	4
9/2 RR liquid	220/380	200	12000	0,60	2,80/1,60	0,73	4
TMPE2 9/2 RR compressed air	220/380	300	18000	0,75	3,70/2,15	0,71	4
9/2 RR liquid	220/380	300	18000	0,80	3,80/2,20	0,71	4
TMPE2 9/2 RR compressed air	220/380	400	24000	0,80	4,10/2,40	0,71	4
9/2 RR liquid	220/380	400	24000	0,85	4,50/2,60	0,71	4



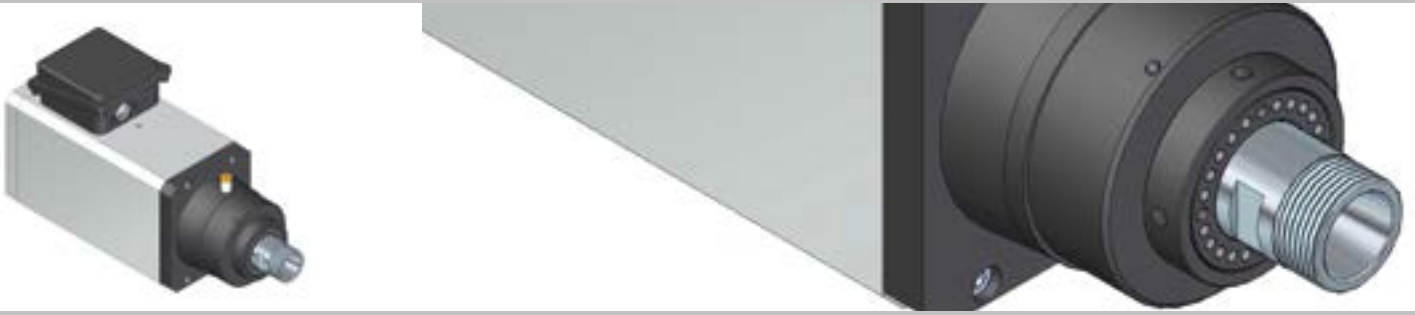


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2 RR compressed air	220/380	50	3000	0,20	1,50/0,90	0,70	7
9/2 RR liquid	220/380	50	3000	0,26	1,90/1,10	0,70	7
TMPE3 9/2 RR compressed air	220/380	100	6000	0,45	2,40/1,40	0,75	7
9/2 RR liquid	220/380	100	6000	0,50	2,60/1,50	0,75	7
TMPE3 9/2 RR compressed air	220/380	200	12000	0,75	4,00/2,30	0,75	7
9/2 RR liquid	220/380	200	12000	0,85	4,50/2,60	0,75	7
TMPE3 9/2 RR compressed air	220/380	300	18000	1,00	5,50/2,30	0,75	7
9/2 RR liquid	220/380	300	18000	1,30	6,70/3,90	0,75	7
TMPE3 9/2 RR compressed air	220/380	400	24000	1,00	5,50/3,20	0,75	7
9/2 RR liquid	220/380	400	24000	1,20	6,00/3,50	0,75	7
TMPE3 12/2 RR compressed air	220/380	50	3000	0,30	1,70/1,00	0,70	9
12/2 RR liquid	220/380	50	3000	0,36	2,00/1,20	0,70	9
TMPE3 12/2 RR compressed air	220/380	100	6000	0,75	3,30/1,90	0,75	9
12/2 liquid	220/380	100	6000	0,82	3,60/2,10	0,75	9
TMPE3 12/2 RR compressed air	220/380	200	12000	1,50	6,30/3,60	0,79	9
12/2 RR liquid	220/380	200	12000	1,80	7,40/4,30	0,79	9
TMPE3 12/2 RR compressed air	220/380	300	18000	2,00	9,00/5,20	0,80	9
12/2 RR liquid	220/380	300	18000	2,20	9,50/5,50	0,80	9
TMPE3 12/2 RR compressed air	220/380	400	24000	2,20	9,50/5,50	0,80	9
12/2 RR liquid	220/380	400	24000	2,50	10,7/6,20	0,80	9

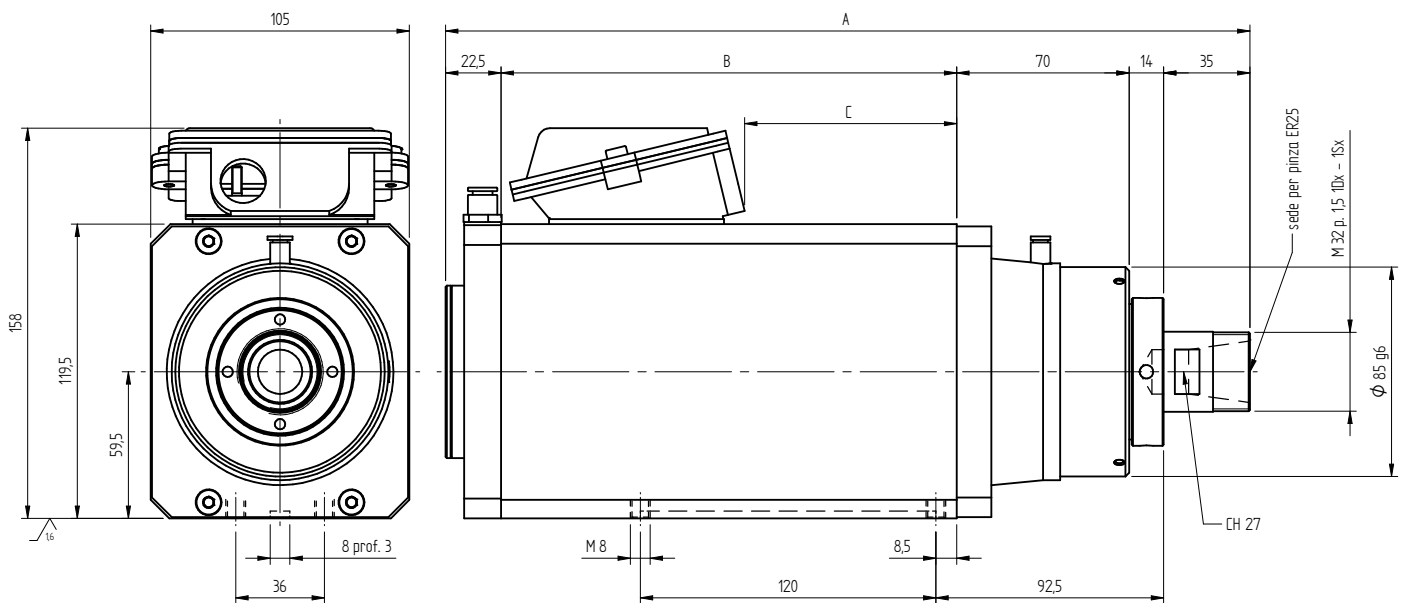


TIPO	A	B
TM PE3 9/2	305	200
TM PE3 12/2	345	240





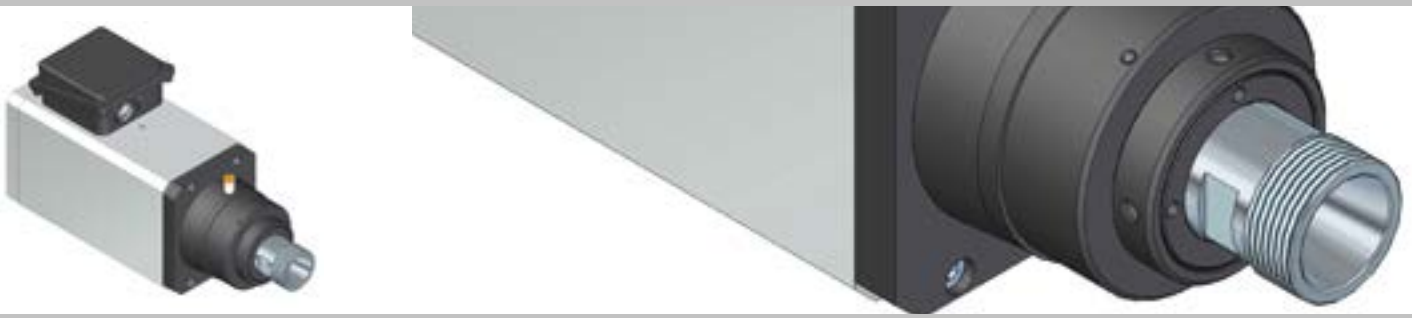
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2 RR compressed air	220/380	50	3000	0,65	3,30/1,90	0.72	12,8
10/2 RR liquid	220/380	50	3000	0,70	3,40/2,00	0.72	12,8
OTMPE4 10/2 RR compressed air	220/380	100	6000	1,10	4,90/2,80	0.77	12,8
10/2 RR liquid	220/380	100	6000	1,30	5,70/3,30	0.77	12,8
TMPE4 10/2 RR compressed air	220/380	200	12000	2,20	9,70/5,60	0.77	12,8
10/2 RR liquid	220/380	200	12000	2,50	11,00/6,40	0.77	12,8
TMPE4 10/2 RR compressed air	220/380	300	18000	3,30	13,7/7,90	0.80	12,8
10/2 RR liquid	220/380	300	18000	3,60	14,7/8,50	0.80	12,8
TMPE4 10/2 RR compressed air	220/380	400	24000	3,30	13,7/7,90	0.80	12,8
10/2 RR liquid	220/380	400	24000	3,60	14,70/8,50	0.80	12,8
TMPE4 14/2 RR compressed air	220/380	50	3000	1,10	5,50/3,15	0.72	14,8
14/2 RR liquid	220/380	50	3000	1,30	6,4/3,70	0.72	14,8
TMPE4 14/2 RR compressed air	220/380	100	6000	2,20	9,50/5,50	0.77	14,8
14/2 RR liquid	220/380	100	6000	2,50	10,50/6,10	0.77	14,8
TMPE4 14/2 RR compressed air	220/380	200	12000	3,70	15,00/8,70	0.78	14,8
14/2 RR liquid	220/380	200	12000	4,00	15,70/9,10	0.78	14,8
TMPE4 14/2 RR compressed air	220/380	300	18000	5,60	20,0/11,5	0.85	14,8
14/2 RR liquid	220/380	300	18000	6,00	21,0/12,20	0.85	14,8
TMPE4 14/2 RR compressed air	220/380	400	24000	5,60	20,0/11,5	0.85	14,8
14/2 RR liquid	220/380	400	24000	6,00	21,00/12,20	0.85	14,8



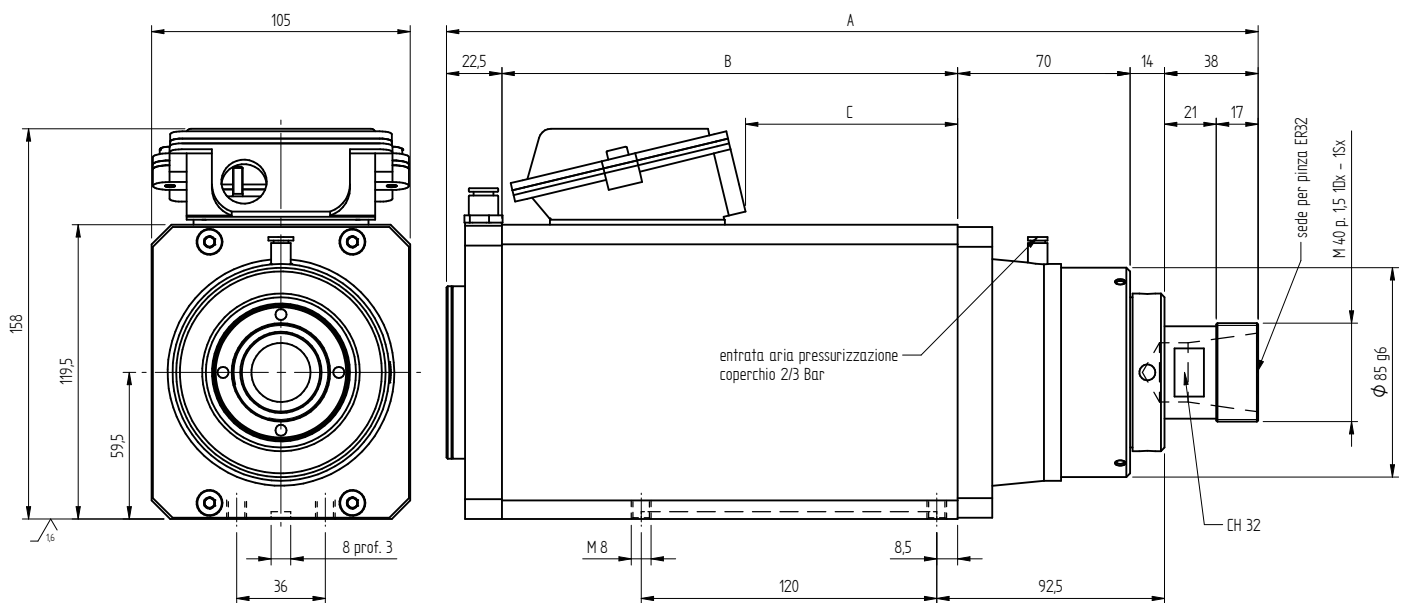
TIPO	A	B	C
TM PE4 10/2 L-A	326,5	185	86
TM PE4 14/2 L-A	366,5	225	126



TMPE 4 LA ER32



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2 RR compressed air	220/380	50	3000	0,65	3,30/1,90	0.72	12,8
10/2 RR liquid	220/380	50	3000	0,70	3,40/2,00	0.72	12,8
OTMPE4 10/2 RR compressed air	220/380	100	6000	1,10	4,90/2,80	0.77	12,8
10/2 RR liquid	220/380	100	6000	1,30	5,70/3,30	0.77	12,8
TMPE4 10/2 RR compressed air	220/380	200	12000	2,20	9,70/5,60	0.77	12,8
10/2 RR liquid	220/380	200	12000	2,50	11,00/6,40	0.77	12,8
TMPE4 10/2 RR compressed air	220/380	300	18000	3,30	13,7/7,90	0.80	12,8
10/2 RR liquid	220/380	300	18000	3,60	14,7/8,50	0.80	12,8
TMPE4 10/2 RR compressed air	220/380	400	24000	3,30	13,7/7,90	0.80	12,8
10/2 RR liquid	220/380	400	24000	3,60	14,70/8,50	0.80	12,8
TMPE4 14/2 RR compressed air	220/380	50	3000	1,10	5,50/3,15	0.72	14,8
14/2 RR liquid	220/380	50	3000	1,30	6,4/3,70	0.72	14,8
TMPE4 14/2 RR compressed air	220/380	100	6000	2,20	9,50/5,50	0.77	14,8
14/2 RR liquid	220/380	100	6000	2,50	10,50/6,10	0.77	14,8
TMPE4 14/2 RR compressed air	220/380	200	12000	3,70	15,00/8,70	0.78	14,8
14/2 RR liquid	220/380	200	12000	4,00	15,70/9,10	0.78	14,8
TMPE4 14/2 RR compressed air	220/380	300	18000	5,60	20,0/11,5	0.85	14,8
14/2 RR liquid	220/380	300	18000	6,00	21,0/12,20	0.85	14,8
TMPE4 14/2 RR compressed air	220/380	400	24000	5,60	20,0/11,5	0.85	14,8
14/2 RR liquid	220/380	400	24000	6,00	21,00/12,20	0.85	14,8



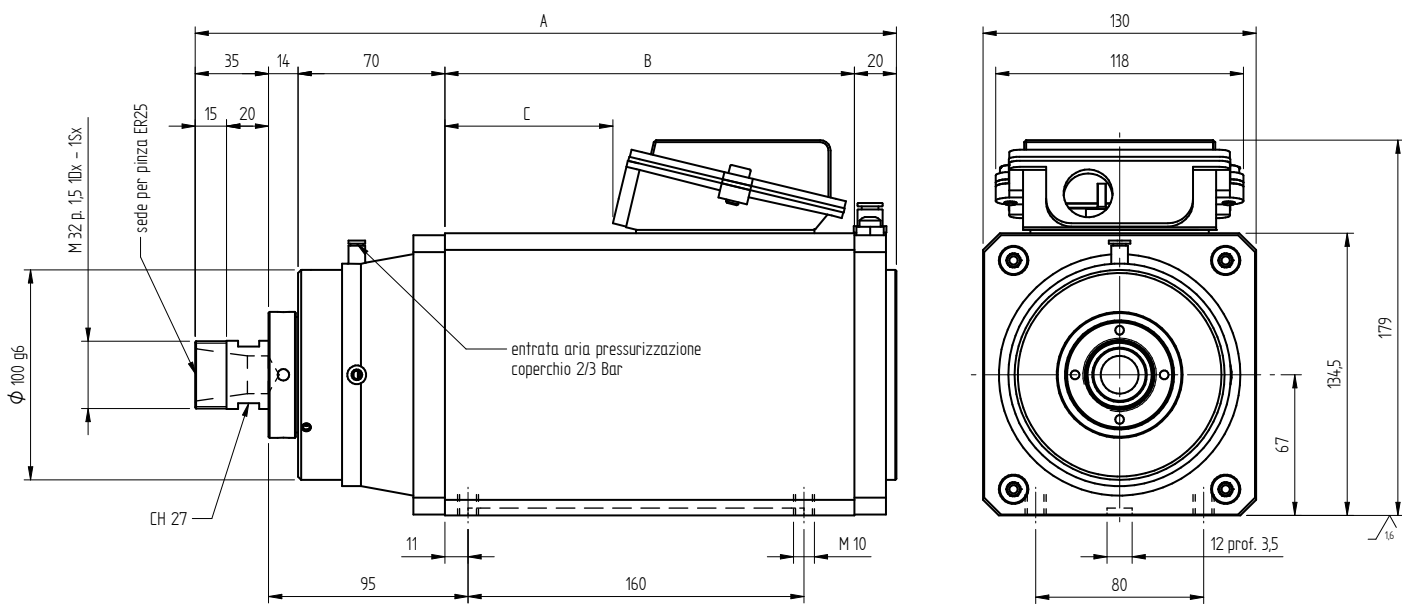
TIPO	A	B	C
TM PE4 10/2 L-A	329,5	185	86
TM PE4 14/2 L-A	369,5	225	126



TMPE 5 LA ER25



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2 RR compressed air	220/380	50	3000	1,25	5,60/3,20	0,78	13
10/2 RR liquid	220/380	50	3000	1,35	5,80/3,40	0,78	13
TMPE5 10/2 RR compressed air	220/380	100	6000	1,90	7,55/4,35	0,83	13
10/2 RR liquid	220/380	100	6000	2,10	8,30/4,80	0,83	13
TMPE5 10/2 RR compressed air	220/380	200	12000	3,00	12,1/7,00	0,80	13
10/2 RR liquid	220/380	200	12000	3,20	12,60/7,30	0,80	13
TMPE5 10/2 RR compressed air	220/380	300	18000	4,50	18,0/10,0	0,81	13
10/2 RR liquid	220/380	300	18000	4,70	18,50/10,70	0,81	13
TMPE5 10/2 RR compressed air	220/380	400	24000	4,50	18,0/10,0	0,91	13
10/2 RR liquid	220/380	400	24000	4,70	18,50/10,70	0,91	13
TMPE5 14/2 RR compressed air	220/380	50	3000	3,00	11,5/6,60	0,82	20,5
14/2 RR liquid	220/380	50	3000	3,20	11,90/6,90	0,82	20,5
TMPE5 14/2 RR compressed air	220/380	100	6000	4,00	15,2/8,80	0,84	20,5
14/2 RR liquid	220/380	100	6000	4,20	15,70/9,10	0,84	20,5
TMPE5 14/2 RR compressed air	220/380	200	12000	4,50	18,2/10,6	0,85	20,5
14/2 RR liquid	220/380	200	12000	4,70	19,10/11,00	0,85	20,5
TMPE5 14/2 RR compressed air	220/380	300	18000	7,00	24,7/1,30	0,86	20,5
14/2 RR liquid	220/380	300	18000	7,20	30,60/14,70	0,86	20,5
TMPE5 14/2 RR compressed air	220/380	400	24000	7,00	25,0/14,50	0,86	20,5
14/2 RR liquid	220/380	400	24000	7,20	30,60/14,70	0,86	20,5

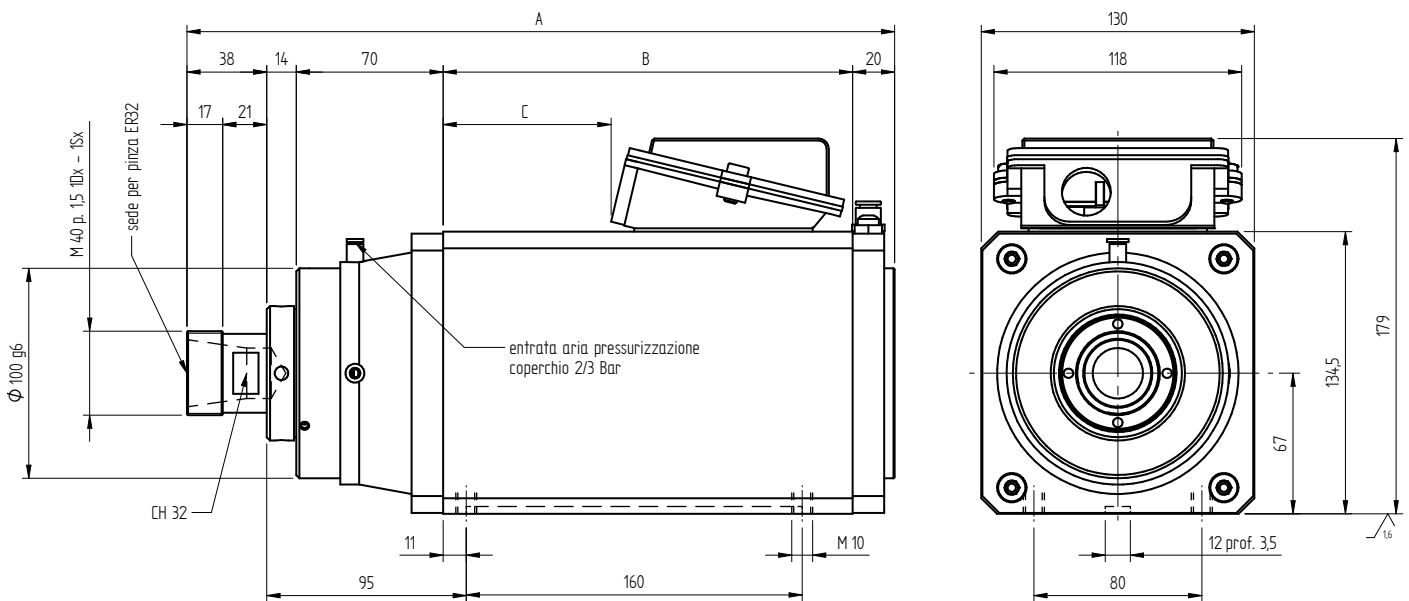


TIPO	A	B	C
TM PE5 10/2 L-A	334	195	80
TM PE5 14/2 L-A	374	235	120





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2 RR compressed air	220/380	50	3000	1,25	5,60/3,20	0,78	13
10/2 RR liquid	220/380	50	3000	1,35	5,80/3,40	0,78	13
TMPE5 10/2 RR compressed air	220/380	100	6000	1,90	7,55/4,35	0,83	13
10/2 RR liquid	220/380	100	6000	2,10	8,30/4,80	0,83	13
TMPE5 10/2 RR compressed air	220/380	200	12000	3,00	12,1/7,00	0,80	13
10/2 RR liquid	220/380	200	12000	3,20	12,60/7,30	0,80	13
TMPE5 10/2 RR compressed air	220/380	300	18000	4,50	18,0/10,0	0,81	13
10/2 RR liquid	220/380	300	18000	4,70	18,50/10,70	0,81	13
TMPE5 10/2 RR compressed air	220/380	400	24000	4,50	18,0/10,0	0,91	13
10/2 RR liquid	220/380	400	24000	4,70	18,50/10,70	0,91	13
TMPE5 14/2 RR compressed air	220/380	50	3000	3,00	11,5/6,60	0,82	20,5
14/2 RR liquid	220/380	50	3000	3,20	11,90/6,90	0,82	20,5
TMPE5 14/2 RR compressed air	220/380	100	6000	4,00	15,2/8,80	0,84	20,5
14/2 RR liquid	220/380	100	6000	4,20	15,70/9,10	0,84	20,5
TMPE5 14/2 RR compressed air	220/380	200	12000	4,50	18,2/10,6	0,85	20,5
14/2 RR liquid	220/380	200	12000	4,70	19,10/11,00	0,85	20,5
TMPE5 14/2 RR compressed air	220/380	300	18000	7,00	24,7/1,30	0,86	20,5
14/2 RR liquid	220/380	300	18000	7,20	30,60/14,70	0,86	20,5
TMPE5 14/2 RR compressed air	220/380	400	24000	7,00	25,0/14,50	0,86	20,5
14/2 RR liquid	220/380	400	24000	7,20	30,60/14,70	0,86	20,5



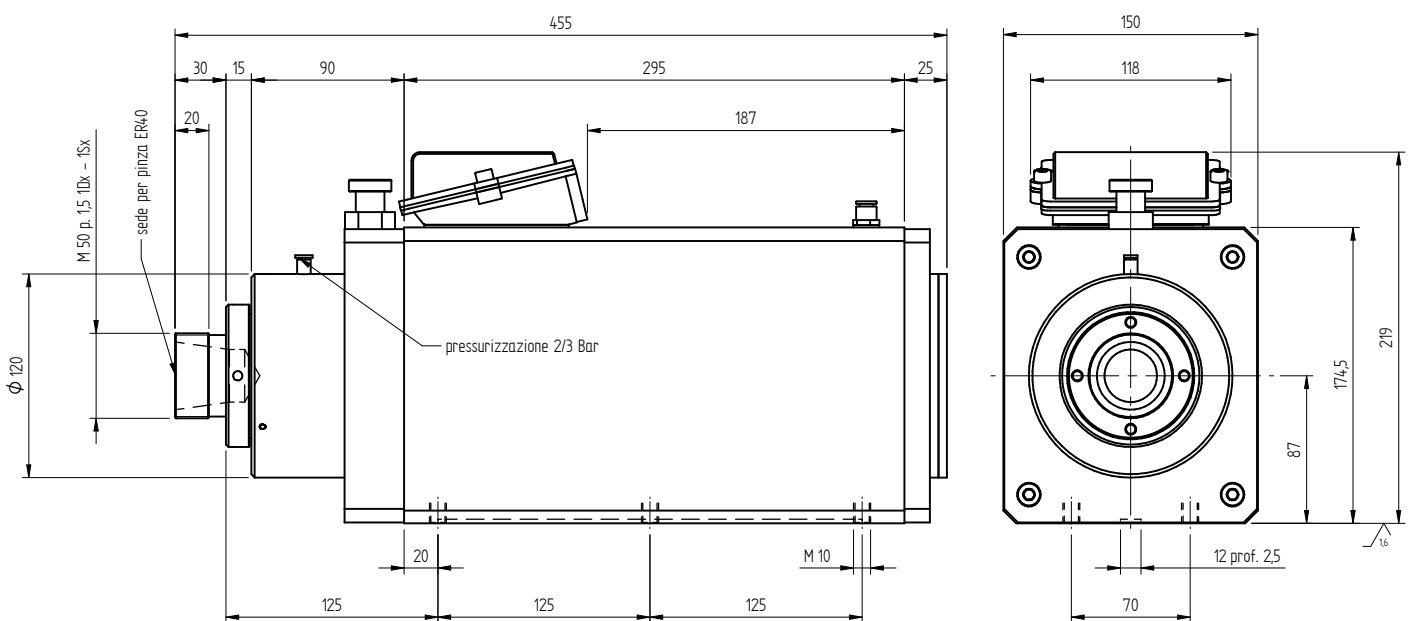
TIPO	A	B	C
TM PE5 10/2 L-A	337	195	80
TM PE5 14/2 L-A	377	235	120



TMPE 6 LA ER40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 15/2 RR compressed air	220/380	50	3000	3,40	13,60/7,80	0,83	29
TMPE6 15/2 RR liquid	220/380	50	3000	3,60	14,20/8,20	0,83	29
TMPE6 15/2 RR compressed air	220/380	100	6000	5,60	19,90/11,5	0,84	29
TMPE6 15/2 RR liquid	220/380	100	6000	5,80	20,60/11,90	0,84	29
TMPE6 15/2 RR compressed air	220/380	200	12000	8,50	32,70/18,9	0,84	29
TMPE6 15/2 RR liquid	220/380	200	12000	9,00	33,40/19,30	0,84	29
TMPE6 15/2 RR compressed air	220/380	300	18000	9,50	36,40/21,0	0,84	29
TMPE6 15/2 RR liquid	220/380	300	18000	10,50	39,50/22,80	0,84	29



TM PE EV Series

TMPE 2 EV ER20

TMPE 3 EV ER25

TMPE 4 EV ER25

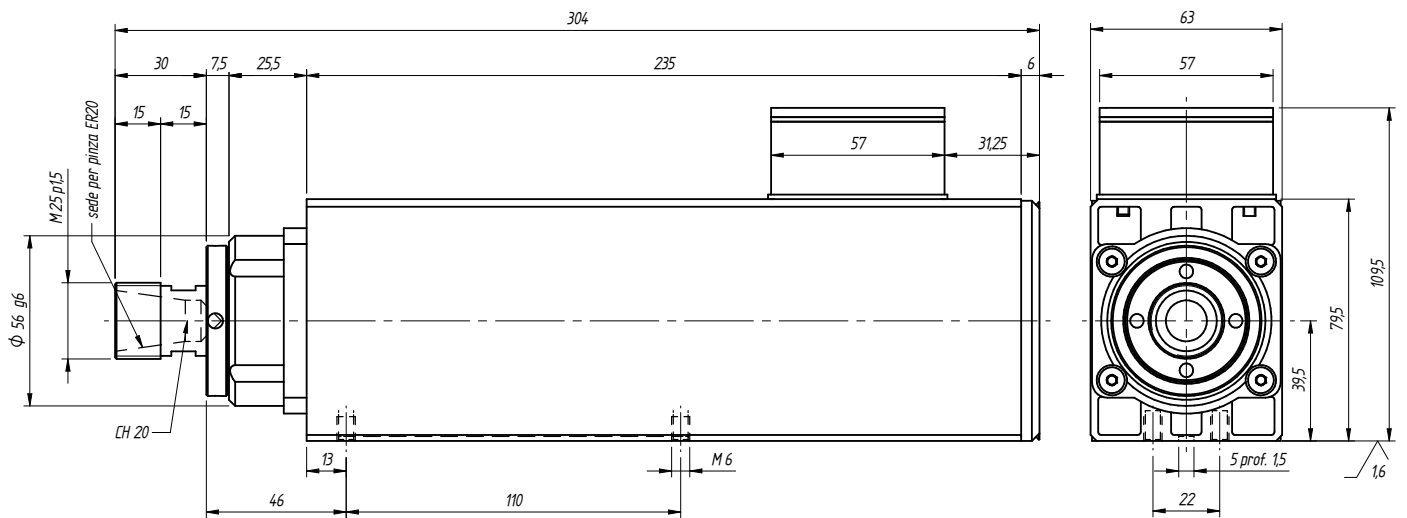
TMPE 4 EV ER32

TMPE 5 EV ER25

TMPE 5 EV ER32



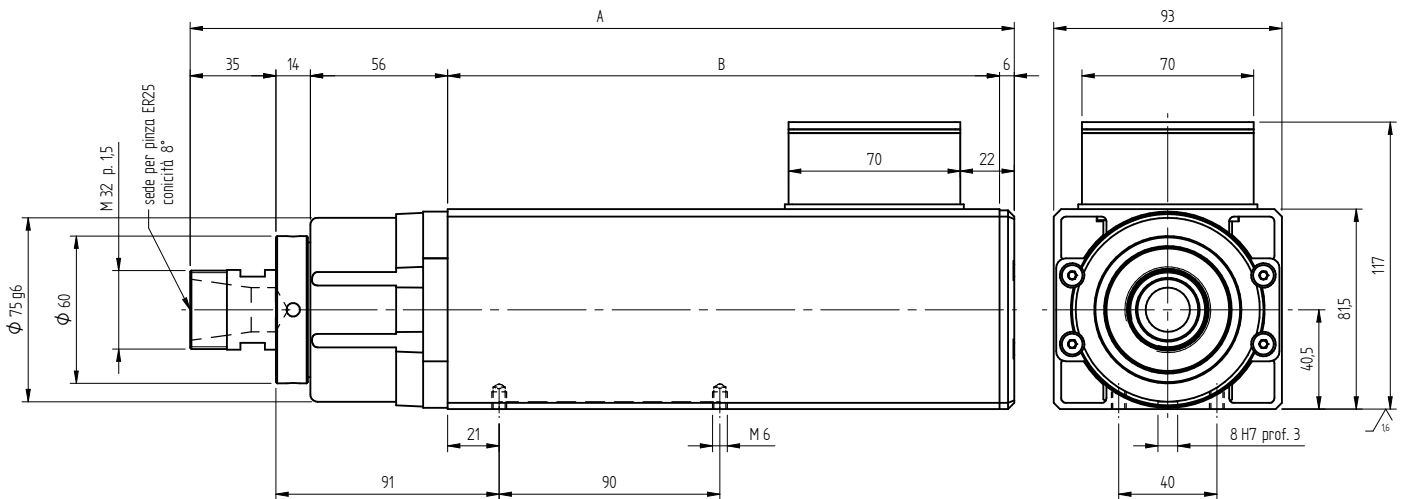
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE2 9/2	220	300	18000	0,55	2,4	0,72	4,5	65
TMPE2 9/2	380	300	18000	0,55	1,4	0,72	4,5	65
TMPE2 9/2	220/380	300	18000	0,55	2,4/1,4	0,72	4,5	65
TMPE2 9/2	220	400	24000	0,55	2,4	0,72	4,5	68
TMPE2 9/2	380	400	24000	0,55	1,4	0,72	4,5	68
TMPE2 9/2	220/380	400	24000	0,55	2,4/1,4	0,72	4,5	68



V electric fan	A electric fan	W electric fan
24 Vdc	320 mA	7,7 W



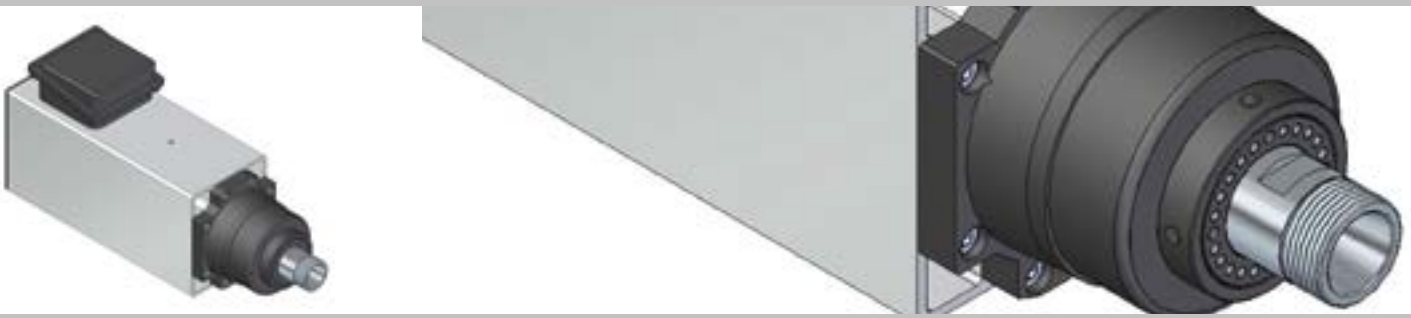
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE3 9/2 EV	220	300	18000	1,0	5,2	0,75	6,5	65
TMPE3 9/2 EV	380	300	18000	1,0	3,0	0,75	6,5	65
TMPE3 9/2 EV	220/380	300	18000	1,0	5,2/3,0	0,75	6,5	65
TMPE3 9/2 EV	220	400	24000	1,0	5,2	0,75	6,5	68
TMPE3 9/2 EV	380	400	24000	1,0	3,0	0,75	6,5	68
TMPE3 9/2 EV	220/380	400	24000	1,0	5,2/3,0	0,75	6,5	68
TMPE3 12/2 EV	220	300	18000	2,0	8,5	0,80	6,5	68
TMPE3 12/2 EV	380	300	18000	2,0	4,9	0,80	6,5	68
TMPE3 12/2 EV	220/380	300	18000	2,0	8,5/4,9	0,80	6,5	68
TMPE3 12/2 EV	220	400	24000	2,0	8,5	0,80	6,5	68
TMPE3 12/2 EV	380	400	24000	2,0	4,9	0,80	9	68
TMPE3 12/2 EV	220/380	400	24000	2,0	8,5/4,9	0,80	9	68



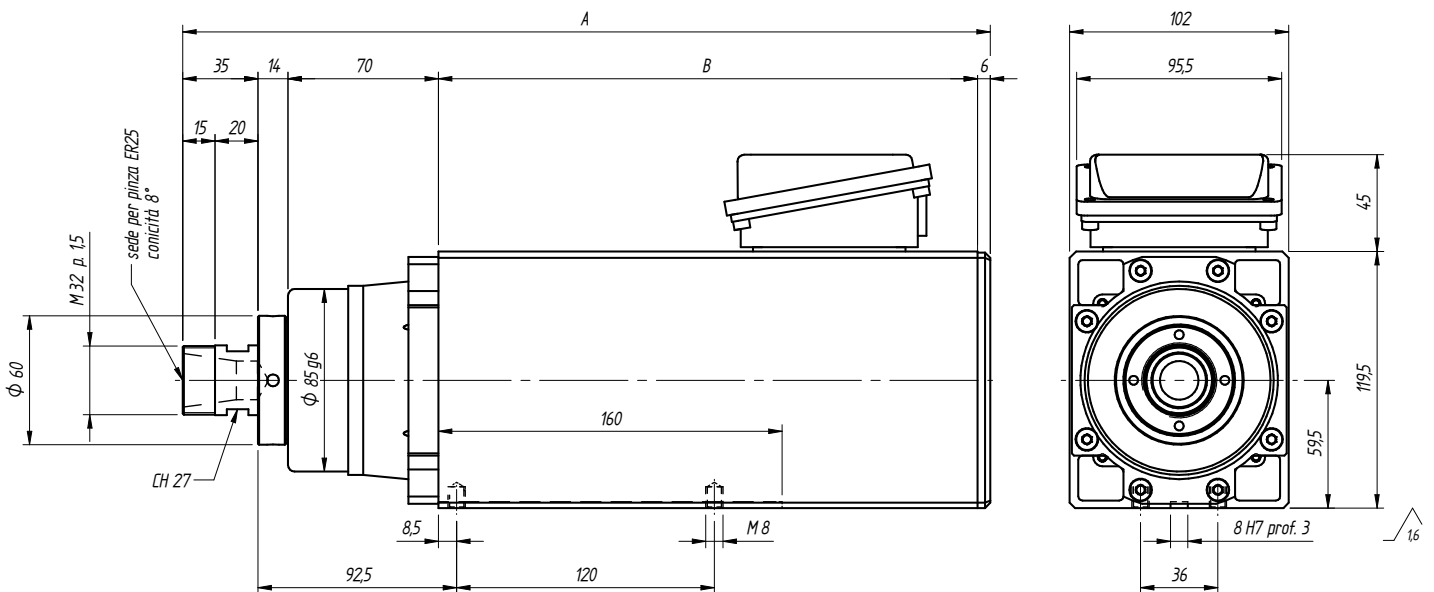
V electric fan	A electric fan	W electric fan
24 Vdc	320 mA	7,7 W

TIPO	A	B
TM PE3 9/2 EV	336	225
TM PE3 12/2 EV	376	265





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE4 10/2	220	300	18000	3,3	13,3	0,80	12,8	70
TMPE4 10/2	380	300	18000	3,3	7,7	0,80	12,8	70
TMPE4 10/2	220/380	300	18000	3,3	13,3/7,7	0,80	12,8	70
TMPE4 10/2	220	400	24000	3,3	13,3	0,80	12,8	70
TMPE4 10/2	380	400	24000	3,3	7,7	0,80	12,8	70
TMPE4 10/2	220/380	400	24000	3,3	13,3/7,7	0,80	12,8	70
TMPE4 14/2	220	300	18000	5,6	19,3	0,85	12,8	72
TMPE4 14/2	380	300	18000	5,6	11,2	0,85	12,8	72
TMPE4 14/2	220/380	300	18000	5,6	19,3/11,2	0,85	12,8	72
TMPE4 14/2	220	400	24000	5,6	19,3	0,85	12,8	72
TMPE4 14/2	380	400	24000	5,6	11,2	0,85	14,8	72
TMPE4 14/2	220/380	400	24000	5,6	19,3/11,2	0,85	14,8	72



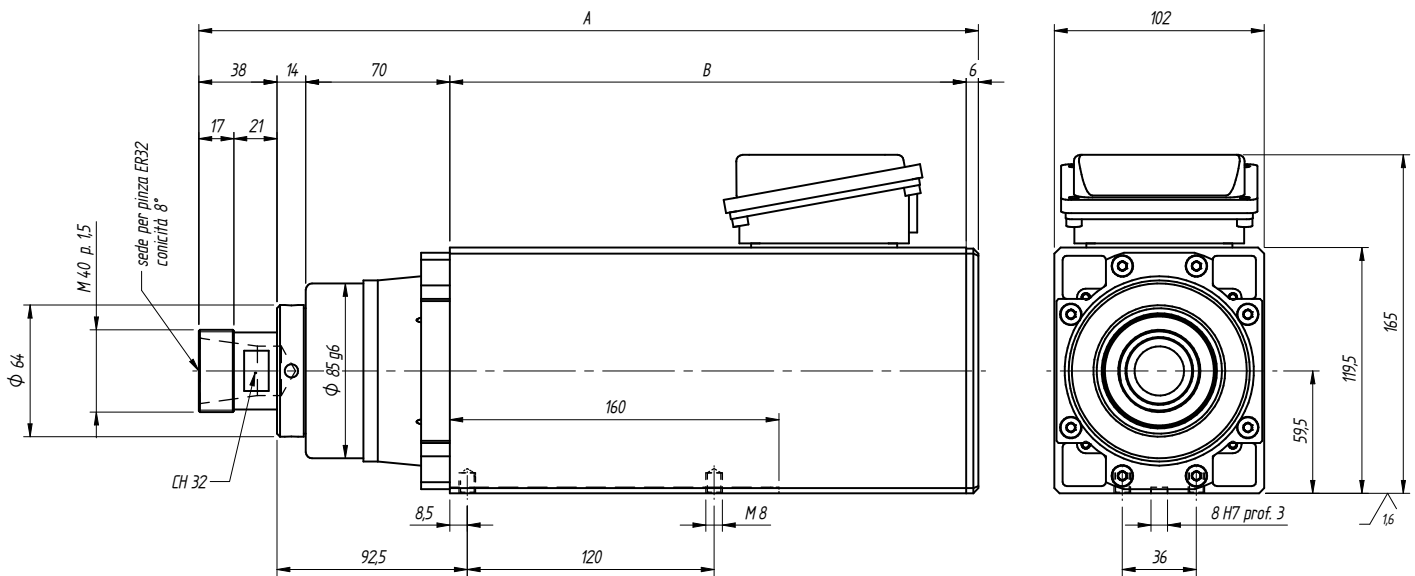
V electric fan	A electric fan	W electric fan
24 Vdc	1,1 A	26 W

TIPO	A	B
TM PE4 10/2 EV	376	251
TM PE4 14/2 EV	416	291

TMPE 4 EV ER32



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE4 10/2	220	300	18000	3,3	13,3	0,80	12,8	70
TMPE4 10/2	380	300	18000	3,3	7,7	0,80	12,8	70
TMPE4 10/2	220/380	300	18000	3,3	13,3/7,7	0,80	12,8	70
TMPE4 10/2	220	400	24000	3,3	13,3	0,80	12,8	70
TMPE4 10/2	380	400	24000	3,3	7,7	0,80	12,8	70
TMPE4 10/2	220/380	400	24000	3,3	13,3/7,7	0,80	12,8	70
TMPE4 14/2	220	300	18000	5,6	19,3	0,85	12,8	72
TMPE4 14/2	380	300	18000	5,6	11,2	0,85	12,8	72
TMPE4 14/2	220/380	300	18000	5,6	19,3/11,2	0,85	12,8	72
TMPE4 14/2	220	400	24000	5,6	19,3	0,85	12,8	72
TMPE4 14/2	380	400	24000	5,6	11,2	0,85	14,8	72
TMPE4 14/2	220/380	400	24000	5,6	19,3/11,2	0,85	14,8	72



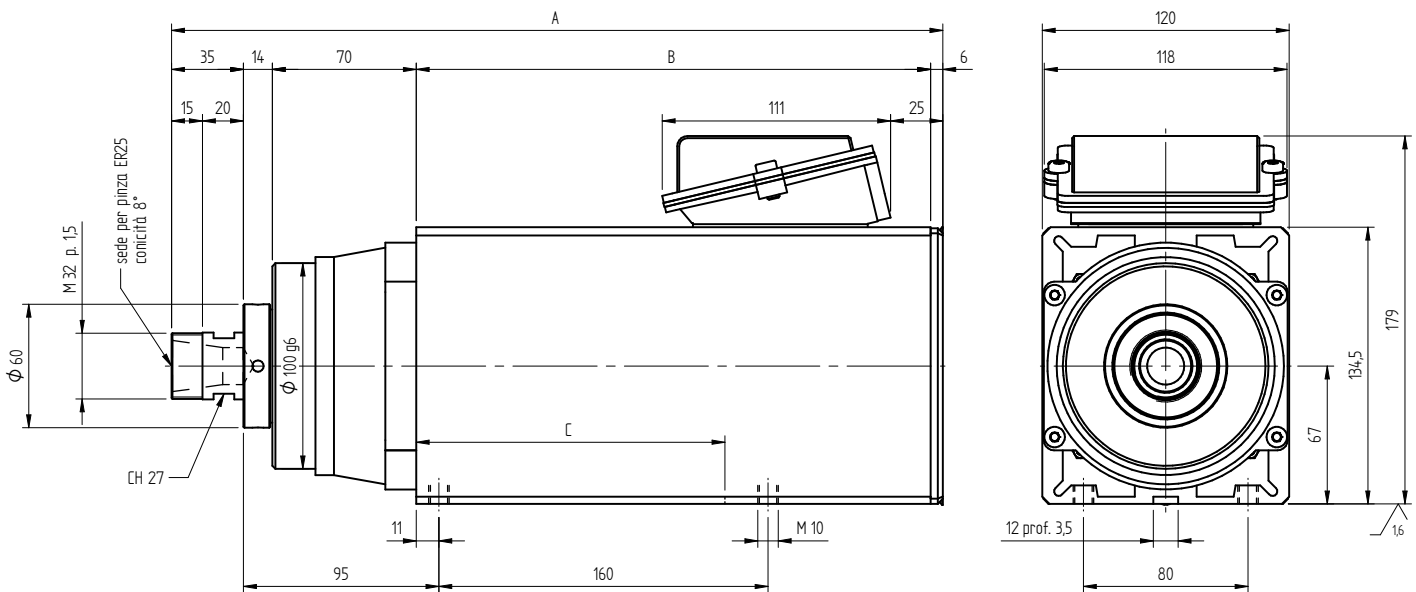
V electric fan	A electric fan	W electric fan
24 Vdc	1,1 A	26 W

TIPO	A	B
TM PE4 10/2 EV	379	251
TM PE4 14/2 EV	419	291





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE5 10/2	220	300	18000	4,5	16,9	0,81	12,8	76
TMPE5 10/2	380	300	18000	4,5	9,8	0,81	12,8	76
TMPE5 10/2	220/380	300	18000	4,5	16,9/9,8	0,81	12,8	76
TMPE5 10/2	220	400	24000	4,5	16,9	0,81	12,8	76
TMPE5 10/2	380	400	24000	4,5	9,8	0,81	12,8	76
TMPE5 10/2	220/380	400	24000	4,5	16,9/9,8	0,81	12,8	76
TMPE5 14/2	220	300	18000	7,0	24,4	0,86	12,8	76
TMPE5 14/2	380	300	18000	7,0	14,1	0,86	12,8	76
TMPE5 14/2	220/380	300	18000	7,0	14,4/14,1	0,86	12,8	76
TMPE5 14/2	220	400	24000	7,0	24,4	0,86	12,8	76
TMPE5 14/2	380	400	24000	7,0	14,1	0,86	14,8	76
TMPE5 14/2	220/380	400	24000	7,0	24,4/14,1	0,86	14,8	76



TM PE5 10/2	V electric fan	A electric fan	W electric fan
	24 Vdc	2,1 A	50 W

TM PE5 14/2	V electric fan	A electric fan	W electric fan
	24 Vdc	2,8 A	65 W

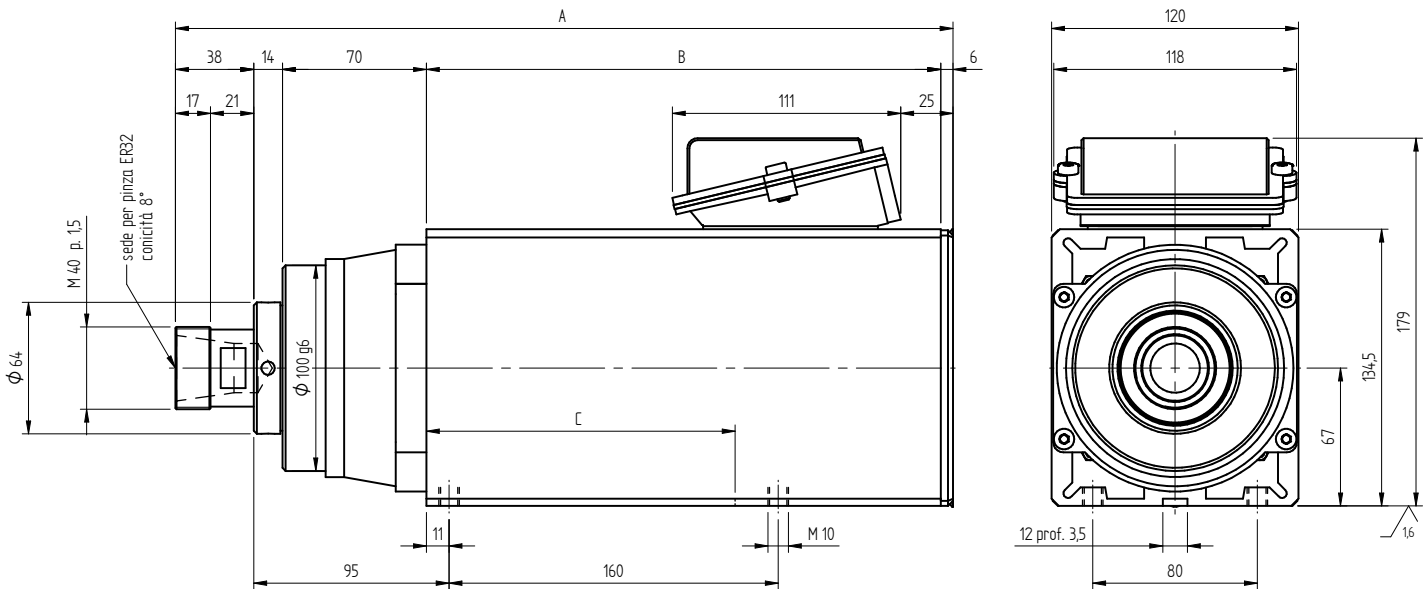
TIPO	A	B	C
TM PE5 10/2 EV	375	250	150
TM PE5 14/2 EV	415	290	190



TMPE 5 EV ER32



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]	dB
TMPE5 10/2	220	300	18000	4,5	16,9	0,81	12,8	76
TMPE5 10/2	380	300	18000	4,5	9,8	0,81	12,8	76
TMPE5 10/2	220/380	300	18000	4,5	16,9/9,8	0,81	12,8	76
TMPE5 10/2	220	400	24000	4,5	16,9	0,81	12,8	76
TMPE5 10/2	380	400	24000	4,5	9,8	0,81	12,8	76
TMPE5 10/2	220/380	400	24000	4,5	16,9/9,8	0,81	12,8	76
TMPE5 14/2	220	300	18000	7,0	24,4	0,86	12,8	76
TMPE5 14/2	380	300	18000	7,0	14,1	0,86	12,8	76
TMPE5 14/2	220/380	300	18000	7,0	14,4/14,1	0,86	12,8	76
TMPE5 14/2	220	400	24000	7,0	24,4	0,86	12,8	76
TMPE5 14/2	380	400	24000	7,0	14,1	0,86	14,8	76
TMPE5 14/2	220/380	400	24000	7,0	24,4/14,1	0,86	14,8	76



TM PE5 10/2	V electric fan	A electric fan	W electric fan
	24 Vdc	2,1 A	50 W

TM PE5 14/2	V electric fan	A electric fan	W electric fan
	24 Vdc	2,8 A	65 W

TIPO	A	B	C
TM PE5 10/2 EV	378	250	150
TM PE5 14/2 EV	418	290	190



TM PE HSK Series

TMPE 3 HSK A32 L

TMPE 3 HSK A32 S

TMPE 4 HSK A40 L

TMPE 4 HSK A40 S

TMPE 5 HSK A50 L

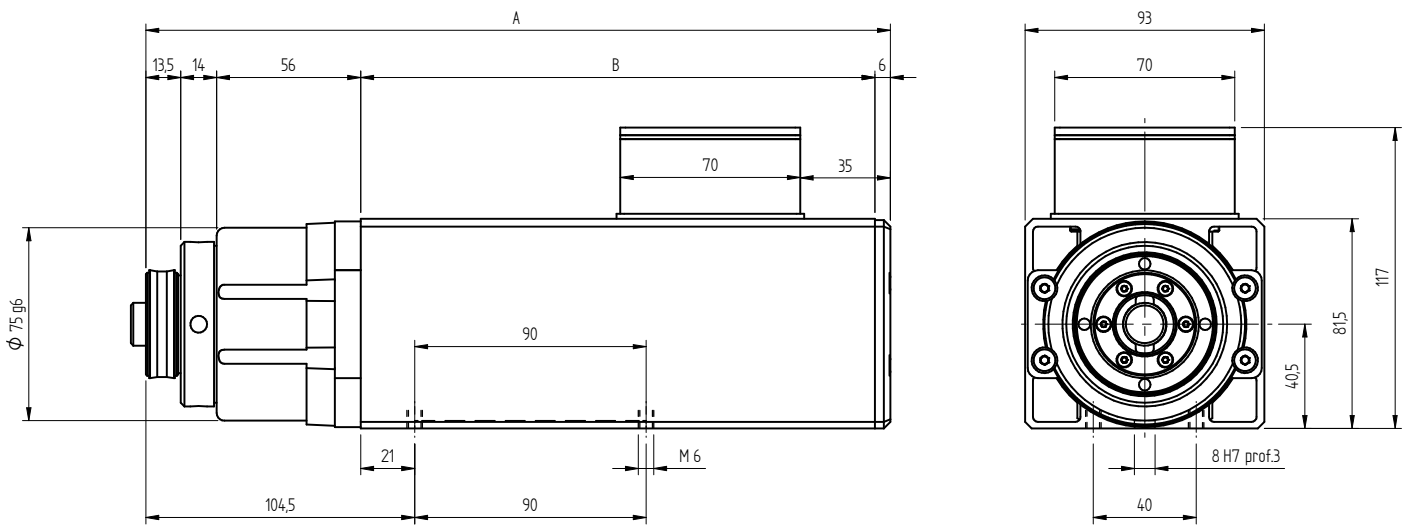
TMPE 5 HSK A50 S

TMPE 6 HSK A63

TMPE 7 HSK A63

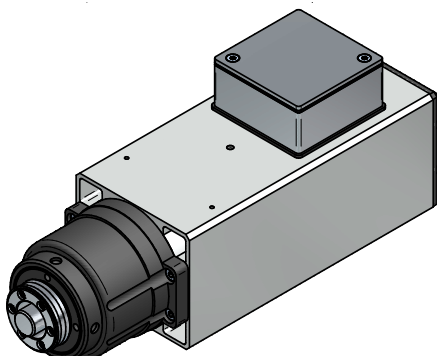


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	0,90/1,50	0,70	6
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	6
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	6
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	6
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	6
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8,5
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8,5
TMPE3 12/2	220/380	200	12000	1,5	6,30/3,60	0,79	8,5
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8,5
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,5	0,80	8,5



ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

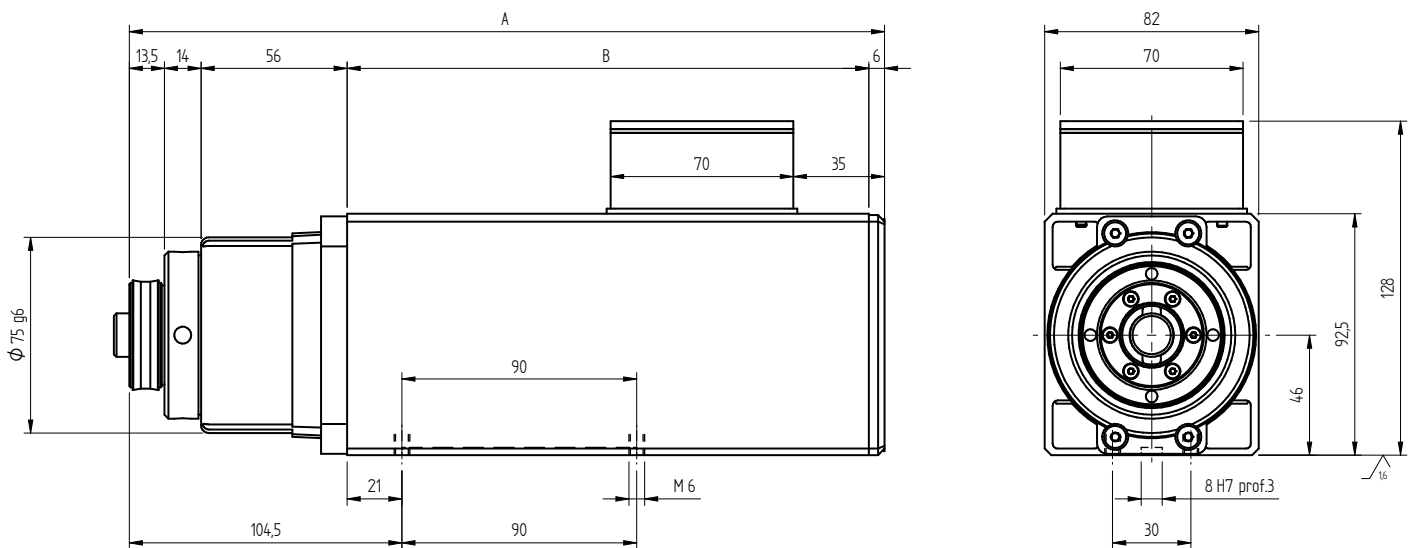
TIPO	A	B
TM PE3 9/2	289,5	200
TM PE3 12/2	329,5	240



TMPE 3 HSK A32 S

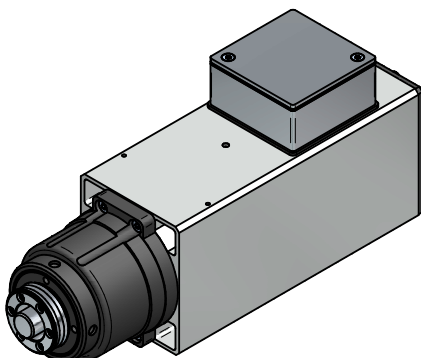


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2	220/380	50	3000	0,20	0,90/1,50	0,70	6
TMPE3 9/2	220/380	100	6000	0,45	2,40/1,40	0,75	6
TMPE3 9/2	220/380	200	12000	0,75	4,00/2,30	0,75	6
TMPE3 9/2	220/380	300	18000	1,00	5,50/3,20	0,75	6
TMPE3 9/2	220/380	400	24000	1,00	5,50/3,20	0,75	6
TMPE3 12/2	220/380	50	3000	0,30	1,70/1,00	0,70	8,5
TMPE3 12/2	220/380	100	6000	0,75	3,30/1,90	0,75	8,5
TMPE3 12/2	220/380	200	12000	1,5	6,30/3,60	0,79	8,5
TMPE3 12/2	220/380	300	18000	2,00	9,00/5,20	0,80	8,5
TMPE3 12/2	220/380	400	24000	2,20	9,50/5,5	0,80	8,5



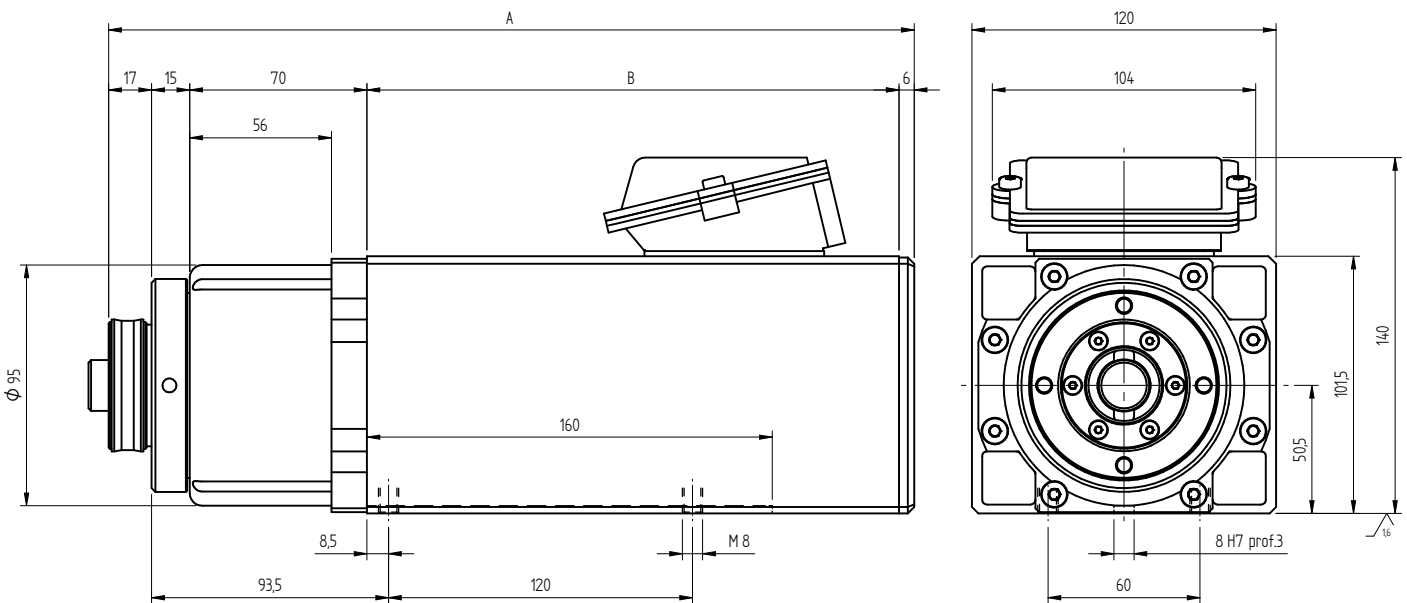
ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

TIPO	A	B
TM PE3 9/2	289,5	200
TM PE3 12/2	329,5	240



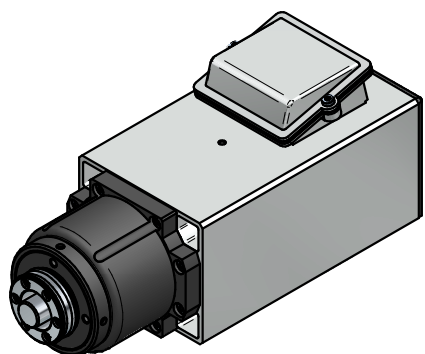


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	13
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	13
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	13
TMPE4 10/2	220/380	300	18000	3,30	13,7/9,90	0,80	13
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	15
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	15
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	15
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	15



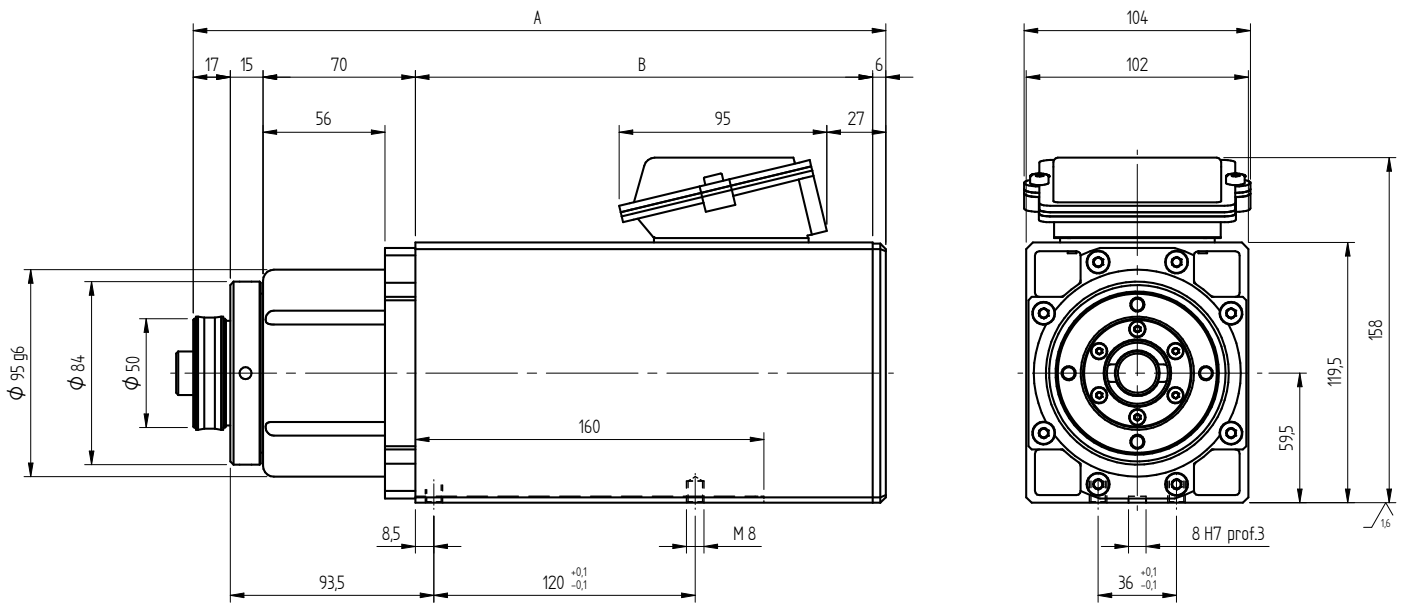
ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

TIPO	A	B
TM PE4 10/2	318	210
TM PE4 14/2	358	250



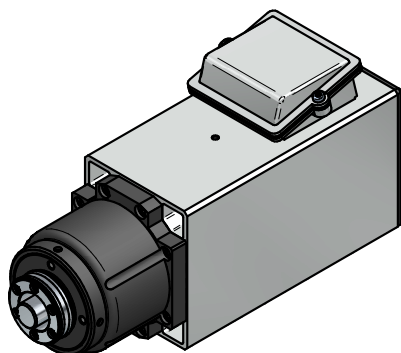


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380	50	3000	0,65	3,30/1,90	0,72	13
TMPE4 10/2	220/380	100	6000	1,10	4,90/2,80	0,77	13
TMPE4 10/2	220/380	200	12000	2,20	9,70/5,60	0,77	13
TMPE4 10/2	220/380	300	18000	3,30	13,7/9,0	0,80	13
TMPE4 14/2	220/380	50	3000	1,10	5,50/3,15	0,72	15
TMPE4 14/2	220/380	100	6000	2,20	9,50/5,50	0,77	15
TMPE4 14/2	220/380	200	12000	3,70	15,00/8,70	0,78	15
TMPE4 14/2	220/380	300	18000	5,60	20,00/11,50	0,85	15



ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

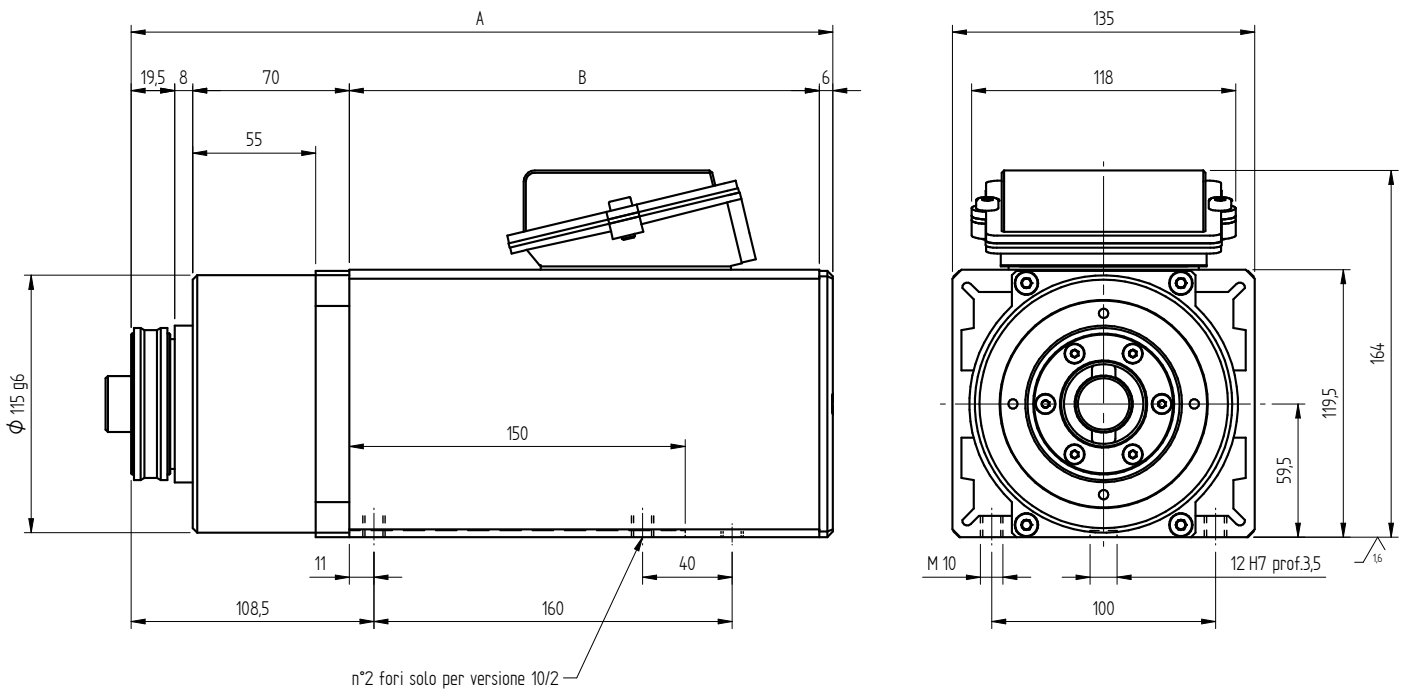
TIPO	A	B
TM PE4 10/2	318	210
TM PE4 14/2	358	250



TMPE 5 HSK A50 L

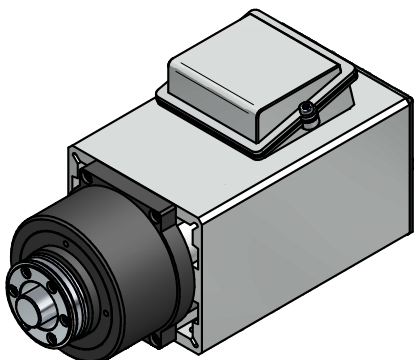


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	17,5
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	17,5
TMPE5 10/2	220/380	200	12000	3,0	12,30/7,10	0,80	17,5
TMPE5 10/2	220/380	250	15000	3,60	14,30/8,20	0,81	17,5
TMPE5 14/2	220/380	50	3000	3,0	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,0	15,20/8,80	0,82	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	250	15000	6,0	21,70/12,50	0,86	19,5



ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

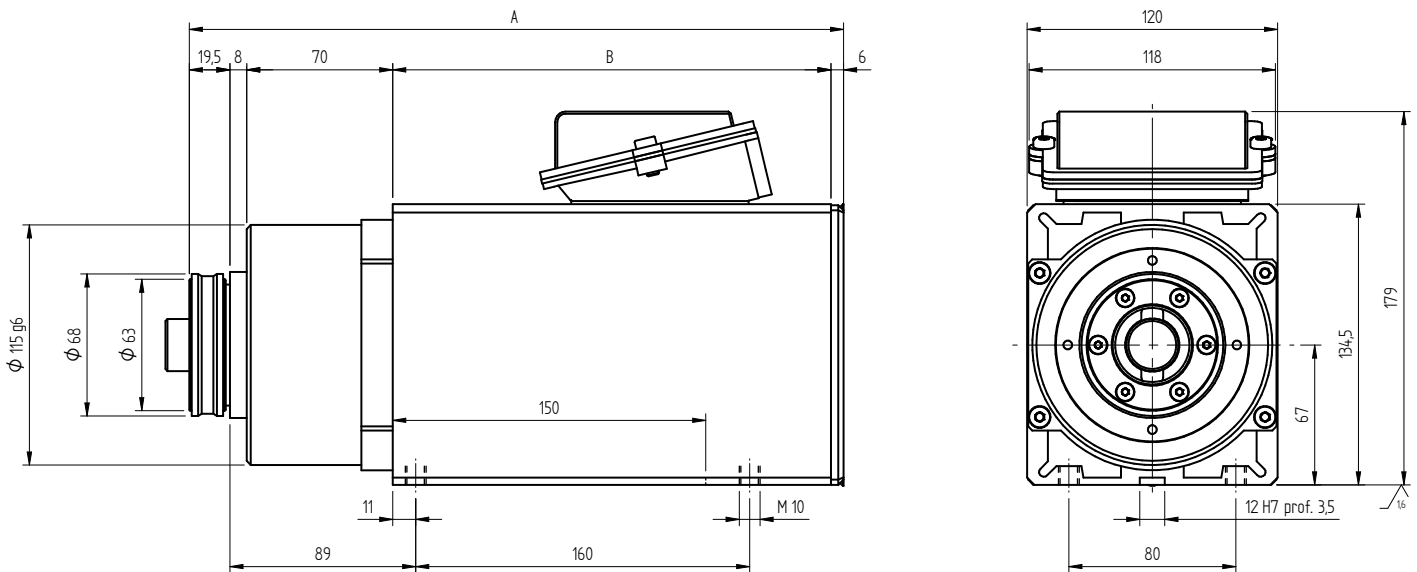
TIPO	A	B
TM PE5 10/2	313,5	210
TM PE5 14/2	353,5	250



TMPE 5 HSK A50 S

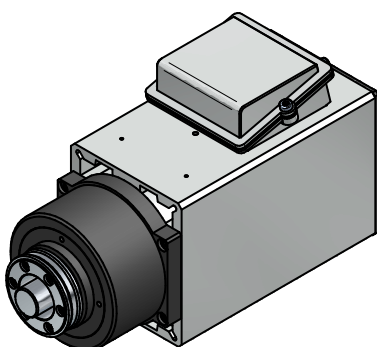


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 10/2	220/380	50	3000	1,25	5,60/3,20	0,78	17,5
TMPE5 10/2	220/380	100	6000	1,90	7,55/4,35	0,83	17,5
TMPE5 10/2	220/380	200	12000	3,0	12,30/7,10	0,80	17,5
TMPE5 10/2	220/380	250	15000	3,60	14,30/8,20	0,81	17,5
TMPE5 14/2	220/380	50	3000	3,0	11,50/6,60	0,82	19,5
TMPE5 14/2	220/380	100	6000	4,0	15,20/8,80	0,82	19,5
TMPE5 14/2	220/380	200	12000	4,50	18,20/10,60	0,85	19,5
TMPE5 14/2	220/380	250	15000	6,0	21,70/12,50	0,86	19,5



ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

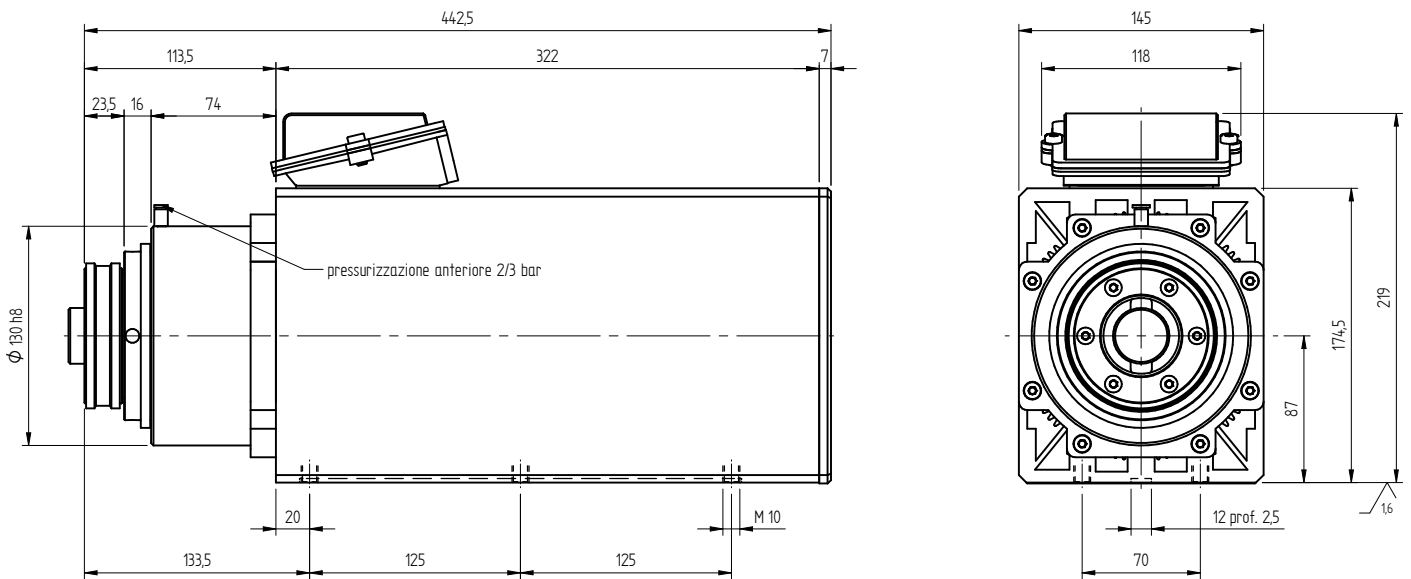
TIPO	A	B
TM PE5 10/2	313,5	210
TM PE5 14/2	353,5	250



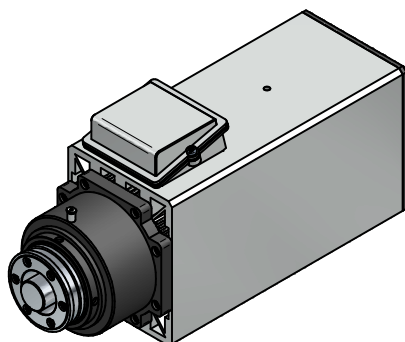
TMPE 6 HSK A63



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 15/2	220/380	500	3000	3,40	13,6/7,80	0,83	28
TMPE6 15/2	220/380	100	6000	5,6	19,9/11,5	0,84	28
TMPE6 15/2	220/380	200	12000	8,50	32,7/18,9	0,84	28



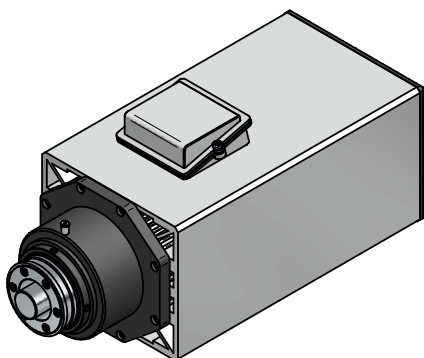
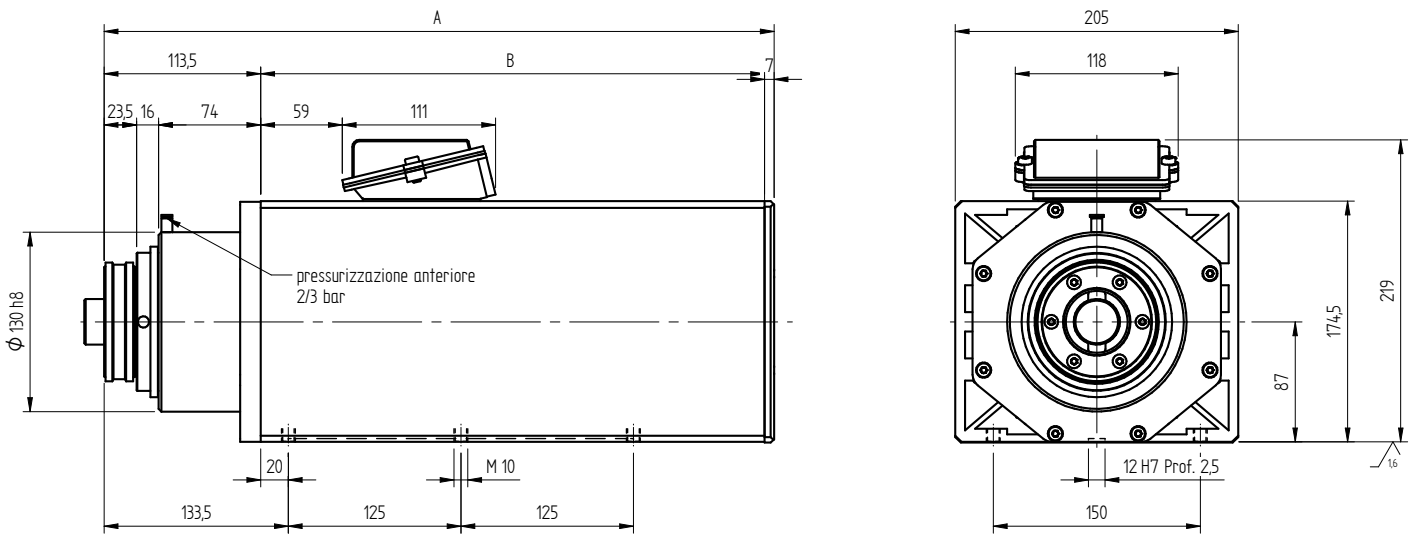
ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm



TMPE 7 HSK A63



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE7 15/2	220/380	50	3000	5,6	20,2/11,7	0,70	47,5
TMPE7 15/2	220/380	100	6000	8,2	30,7/11,7	0,75	47,5
TMPE7 15/2	220/380	200	12000	12,0	44,1/25,5	0,75	47,5
TMPE7 17/2	220/380	50	3000	7,5	27,5/15,9	0,75	54
TMPE7 17/2	220/380	100	6000	10,5	44,3/25,6	0,75	54
TMPE7 17/2	220/380	200	12000	15,0	53,9/31,1	0,70	54
TMPE7 19/2	220/380	50	3000	8,2	29,8/17,2	0,75	60
TMPE7 19/2	220/380	100	6000	12,0	44,3/25,6	0,79	60
TMPE7 19/2	220/380	200	12000	18,0	63,4/36,6	0,87	60



ECCENTRICITA' MAX ALLA FINE DEL PORTAPINZA 0,02 mm

TIPO	A	B
TM PE7 15/2	485,5	365
TM PE7 17/2	534,5	415
TM PE7 19/2	534,5	415



DOUBLE ENDED SHAFT TM PE Series

DOUBLE ENDED SHAFT TMPE 0 ER11

DOUBLE ENDED SHAFT TMPE 2 ER20

DOUBLE ENDED SHAFT TMPE 3 ER25

DOUBLE ENDED SHAFT TMPE 4 ER32

DOUBLE ENDED SHAFT TMPE 5 ER32

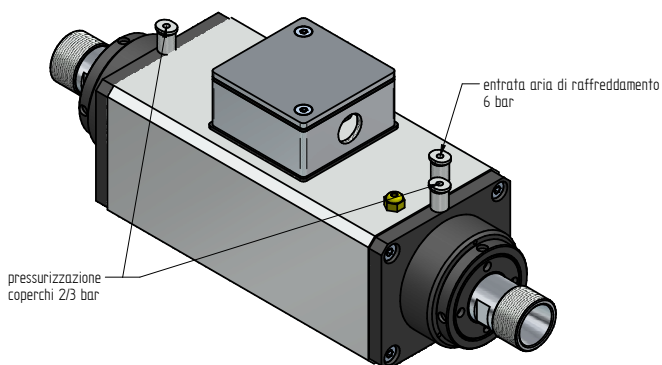
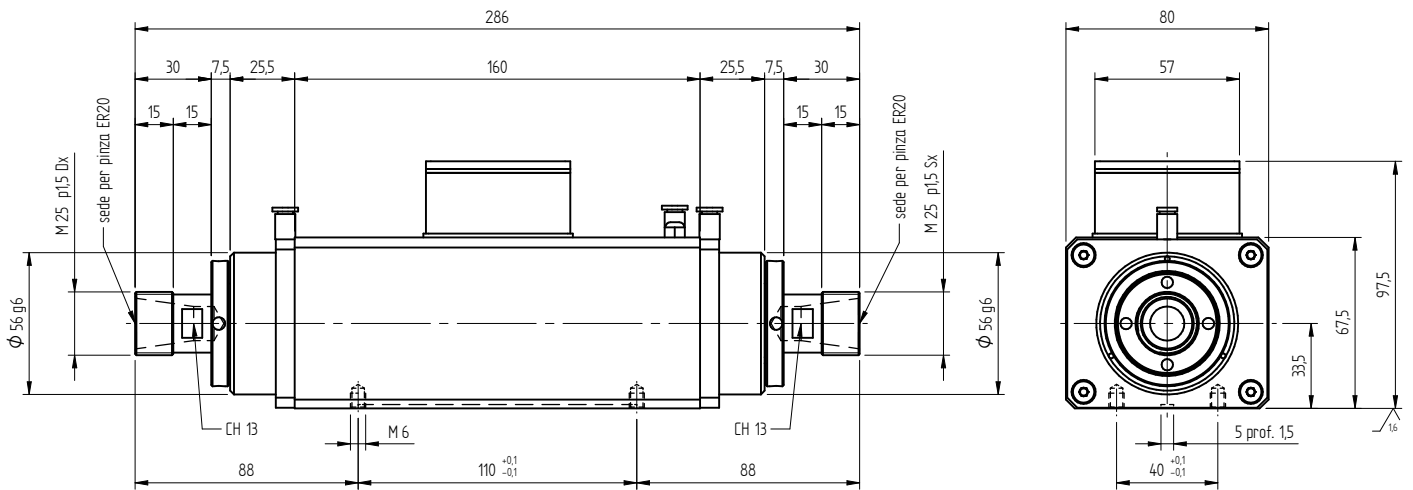
DOUBLE ENDED SHAFT TMPE 6 ER40

DOUBLE ENDED SHAFT TMPE 7 ER40

DOUBLE ENDED SHAFT TMPE 2 ER20



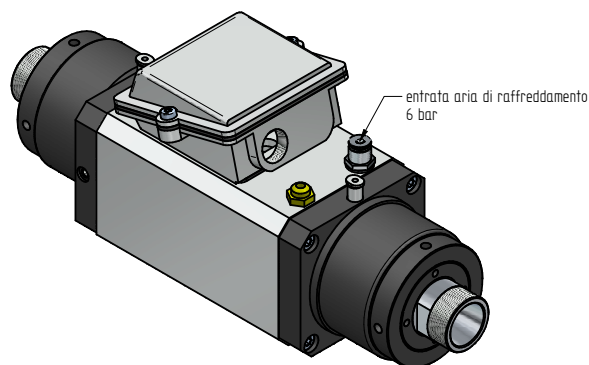
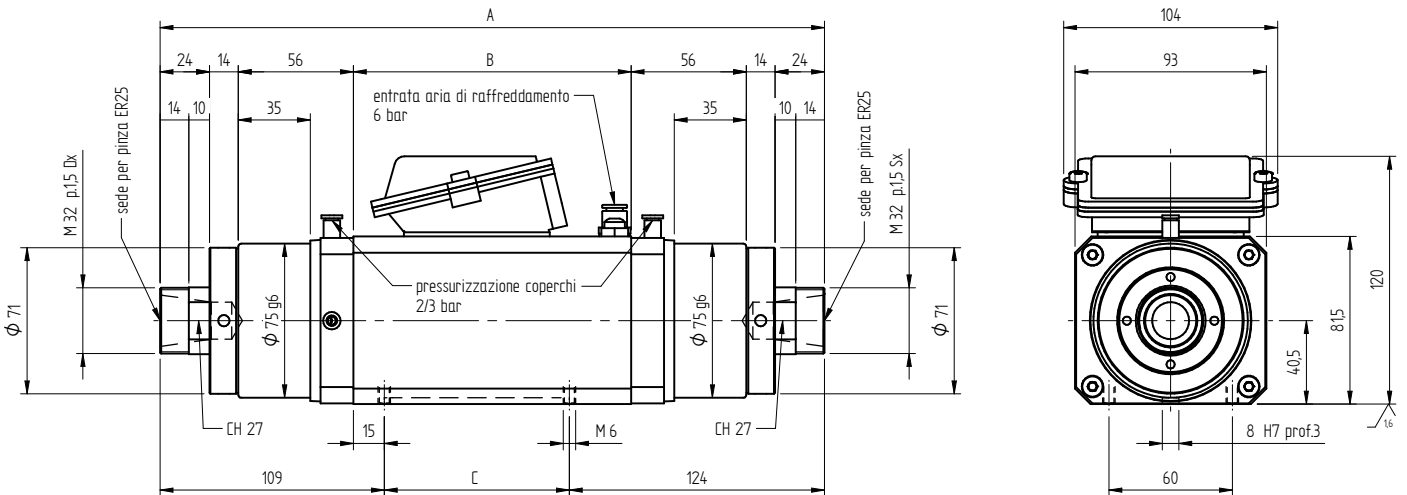
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE2 9/2 compressed air	220/380	200	12000	0,55	2,60/1,50	0,73	4,5
TMPE2 9/2 liquid	220/380	200	12000	0,60	2,80/1,60	0,73	4,5
TMPE2 9/2 compressed air	220/380	300	18000	0,75	3,70/2,10	0,71	4,5
TMPE2 9/2 liquid	220/380	300	18000	0,80	3,80/2,20	0,71	4,5



DOUBLE ENDED SHAFT TMPE 3 ER25



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2 compressed air	220/380	50	3000	0,20	1,50/0,90	0,70	7,5
TMPE3 9/2 liquid	220/380	50	3000	0,26	1,90/1,10	0,70	7,5
TMPE3 9/2 compressed air	220/380	100	6000	0,45	2,40/1,40	0,75	7,5
TMPE3 9/2 liquid	220/380	100	6000	0,50	2,60/1,50	0,75	7,5
TMPE3 9/2 compressed air	220/380	200	12000	0,75	4,00/2,30	0,75	7,5
TMPE3 9/2 liquid	220/380	200	12000	0,85	4,50/2,60	0,75	7,5
TMPE3 9/2 compressed air	220/380	300	18000	1,00	5,50/3,20	0,75	7,5
TMPE3 9/2 liquid	220/380	300	18000	1,30	6,70/3,90	0,75	7,5
TMPE3 12/2 compressed air	220/380	50	3000	0,30	1,70/1,00	0,70	9,5
TMPE3 12/2 liquid	220/380	50	3000	0,36	2,00/1,20	0,70	9,5
TMPE3 12/2 compressed air	220/380	100	6000	0,75	3,30/1,90	0,75	9,5
TMPE3 12/2 liquid	220/380	100	6000	0,82	3,60/2,10	0,75	9,5
TMPE3 12/2 compressed air	220/380	200	12000	1,50	6,30/3,60	0,80	9,5
TMPE3 12/2 liquid	220/380	200	12000	1,80	7,40/4,30	0,80	9,5
TMPE3 12/2 compressed air	220/380	300	18000	2,00	9,00/5,20	0,80	9,5
TMPE3 12/2 liquid	220/380	300	18000	2,20	9,50/5,50	0,80	9,5



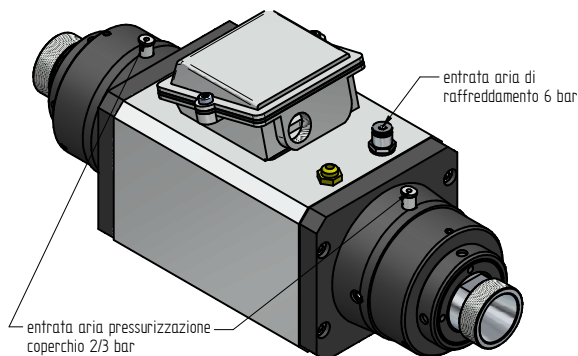
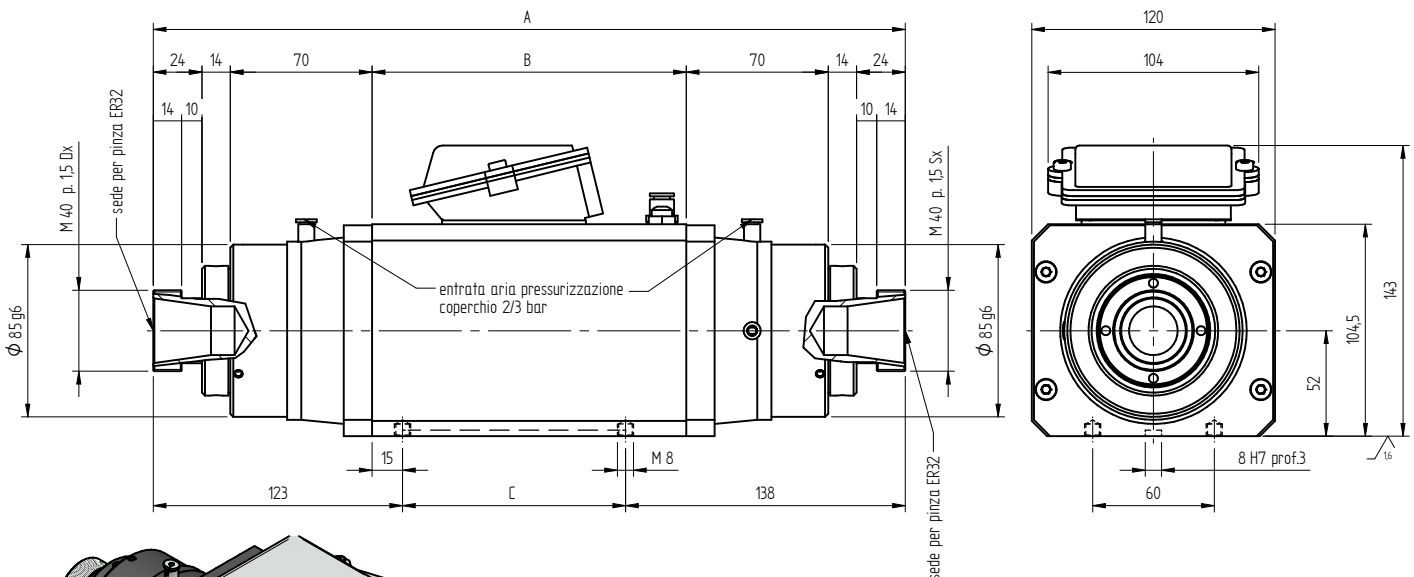
TIPO	A	B	C
TM PE3 9/2	323	135	90
TM PE3 12/2	353	165	120



DOUBLE ENDED SHAFT TMPE 4 ER32



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2 compressed air	220/380	50	3000	0,65	3,30/1,90	0,72	15,5
TMPE4 10/2 liquid	220/380	50	3000	0,70	3,40/2,00	0,72	15,5
TMPE4 10/2 compressed air	220/380	100	6000	1,10	4,90/2,80	0,77	15,5
TMPE4 10/2 liquid	220/380	100	6000	1,30	5,70/3,30	0,77	15,5
TMPE4 10/2 compressed air	220/380	200	12000	2,20	9,70/5,60	0,77	15,5
TMPE4 10/2 liquid	220/380	200	12000	2,50	11,00/6,40	0,77	15,5
TMPE4 10/2 compressed air	220/380	300	18000	3,30	13,70/7,90	0,80	15,5
TMPE4 10/2 liquid	220/380	300	18000	3,60	14,7/8,50	0,80	15,5
TMPE4 14/2 compressed air	220/380	50	3000	1,10	5,50/3,15	0,72	17
TMPE4 14/2 liquid	220/380	50	3000	1,30	6,4/3,70	0,72	17
TMPE4 14/2 compressed air	220/380	100	6000	2,20	9,50/5,50	0,77	17
TMPE4 14/2 liquid	220/380	100	6000	2,50	10,50/6,10	0,77	17
TMPE4 14/2 compressed air	220/380	200	12000	3,70	15,00/8,70	0,78	17
TMPE4 14/2 liquid	220/380	200	12000	4,00	15,70/9,10	0,78	17
TMPE4 14/2 compressed air	220/380	300	18000	5,60	20,00/11,50	0,85	17
TMPE4 14/2 liquid	220/380	300	18000	6,00	21,10/12/20	0,85	17



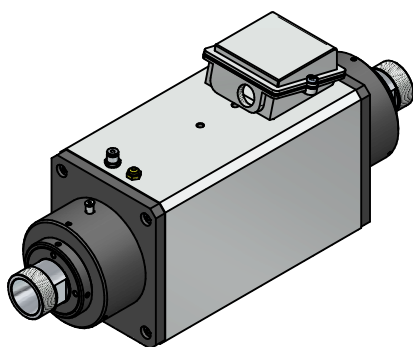
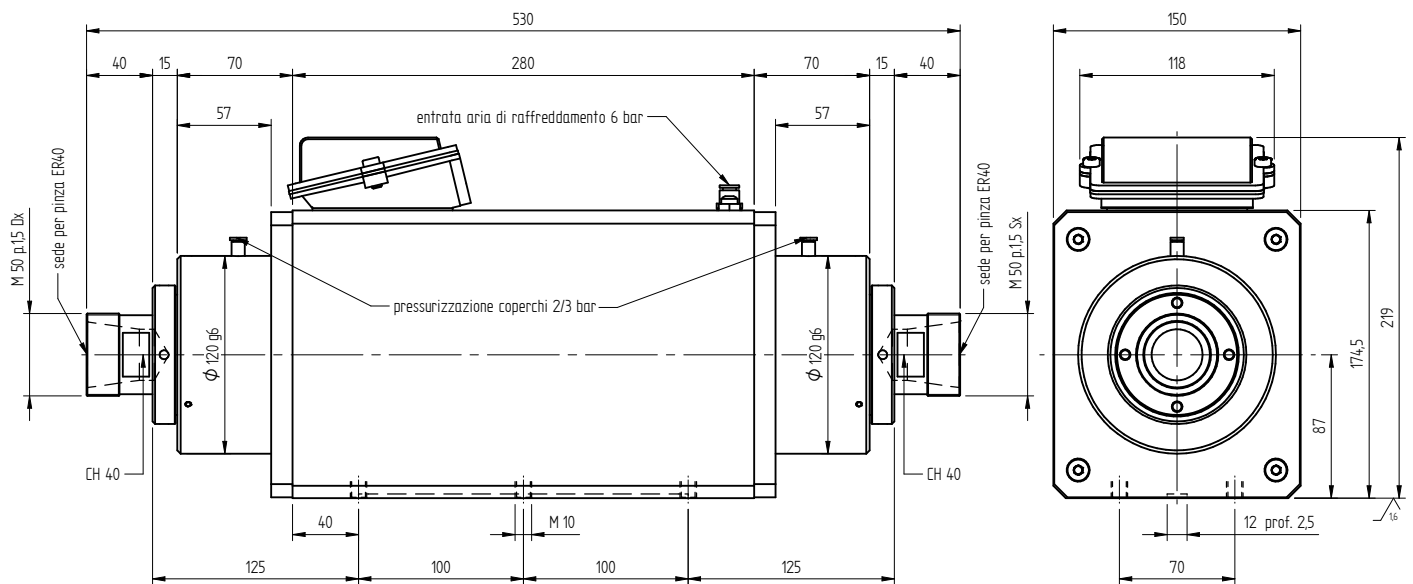
TIPO	A	B	C
TM PE4 10/2	371	155	110
TM PE4 14/2	411	195	150



DOUBLE ENDED SHAFT TMPE 6 ER40



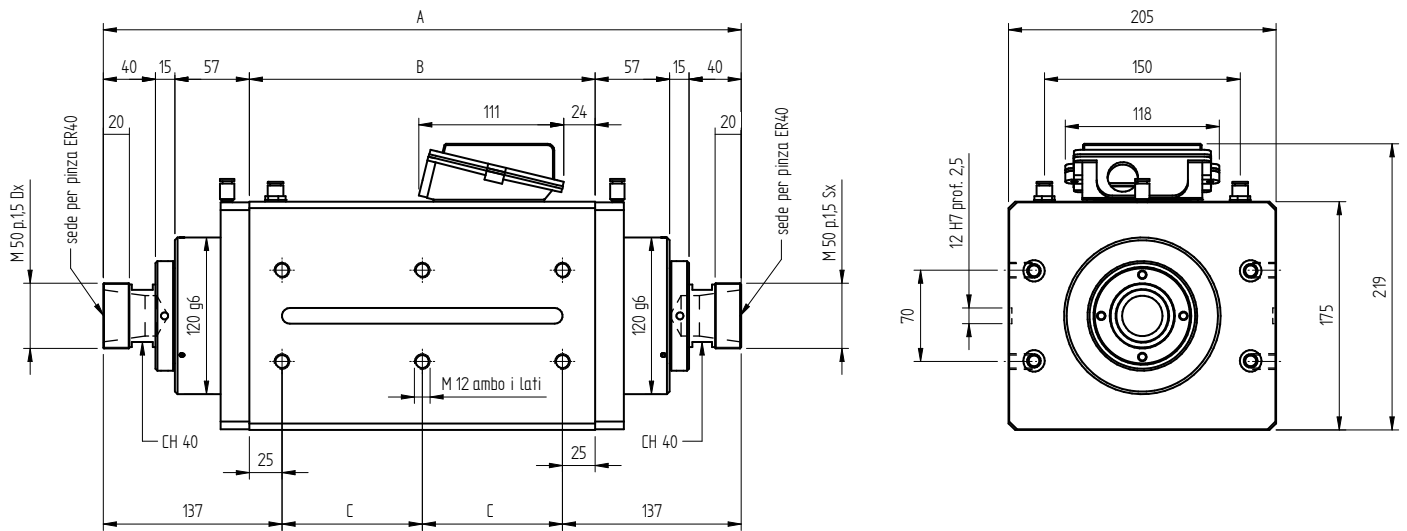
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 15/2 compressed air	220/380	50	3000	3,40	13,60/7,80	0,83	38
TMPE6 15/2 liquid	220/380	50	3000	3,60	14,20/8,20	0,83	38
TMPE6 15/2 compressed air	220/380	100	6000	5,60	19,90/11,50	0,84	38
TMPE6 15/2 liquid	220/380	100	6000	5,80	20,60/11,90	0,84	38
TMPE6 15/2 compressed air	220/380	200	12000	8,50	32,7/18,90	0,84	38
TMPE6 15/2 liquid	220/380	200	12000	9,00	33,4/19,30	0,84	38
TMPE6 15/2 compressed air	220/380	300	18000	9,50	36,4/21,00	0,84	38
TMPE6 15/2 liquid	220/380	300	18000	10,50	39,50/22,80	0,84	38



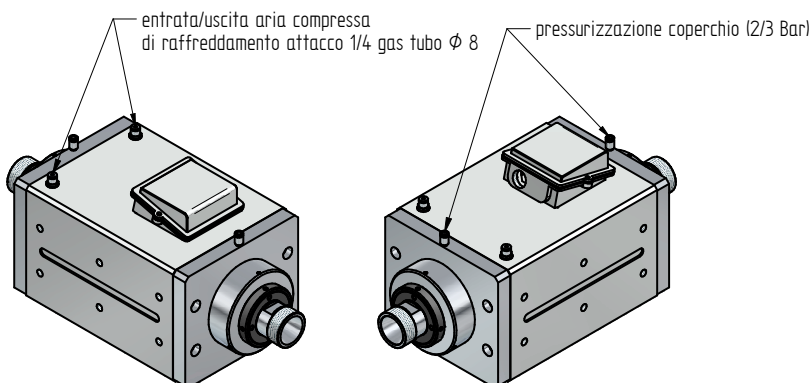
DOUBLE ENDED SHAFT TMPE 7 ER40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j
TMPE7 11/2	220/380	50	3000	4,0	15,7/9,1	0,82
TMPE7 11/2	220/380	100	6000	5,8	22,3/12,9	0,82
TMPE7 11/2	220/380	200	12000	8,0	30,8/17,8	0,82
TMPE7 15/2	220/380	50	3000	5,6	11,7/20,2	0,80
TMPE7 15/2	220/380	100	6000	8,2	17,7/30,7	0,80
TMPE7 15/2	220/380	200	12000	12,0	25,5/44,1	0,84
TMPE7 17/2	220/380	50	3000	7,5	15,9/27,5	0,80
TMPE7 17/2	220/380	100	6000	10,5	21,5/37,2	0,85
TMPE7 17/2	220/380	200	12000	15,0	31,1/53,9	0,86



TIPO	A	B	C
TM PE7 11/2	489	265	107,5
TM PE7 15/2	529	305	127,5
TM PE7 17/2	549	325	137,5

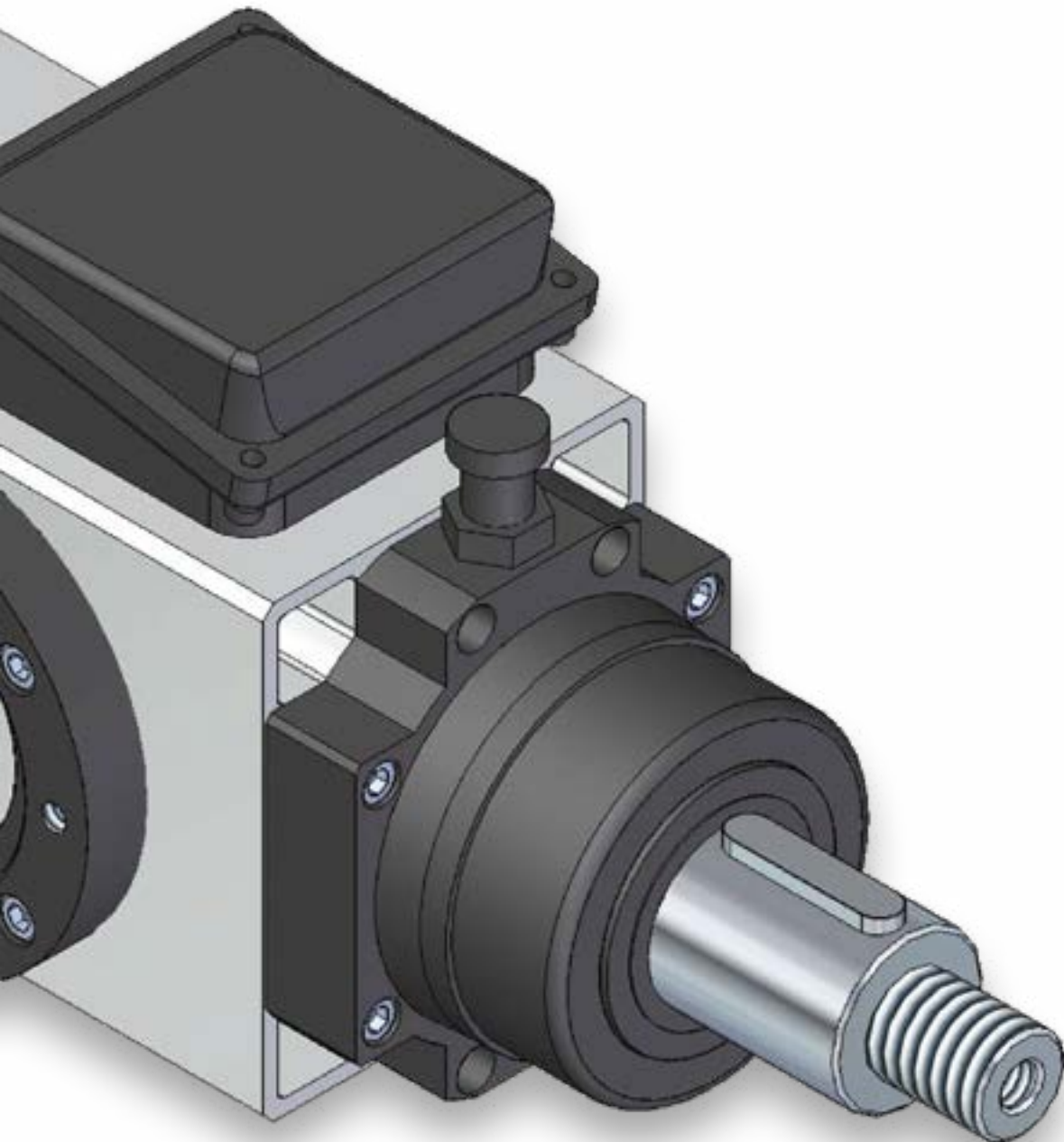




High speed precision spindles

DATASHEET

PANEL SAW Series





High speed precision spindles

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TM PE

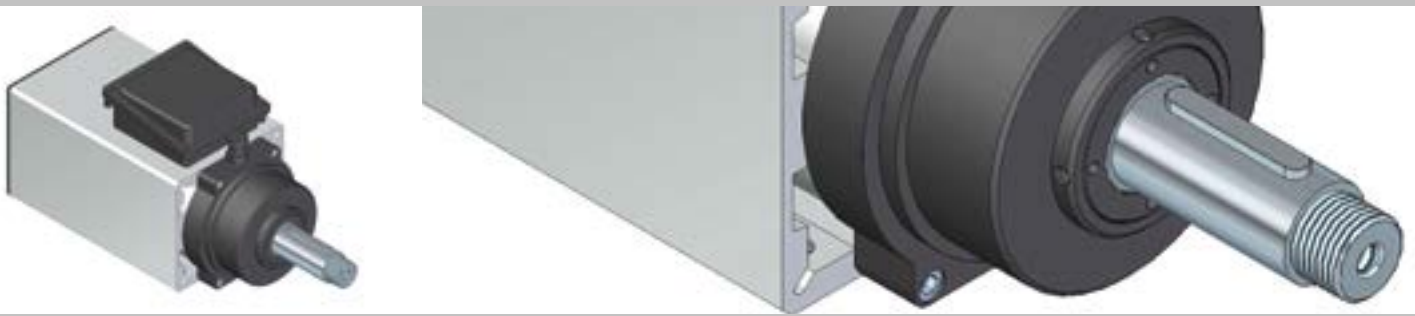
TMPE 4 ø 35	119
TMPE 4 ø 40	120
TMPE 6	121
TMPE 8	122

PE PANEL SAW Series

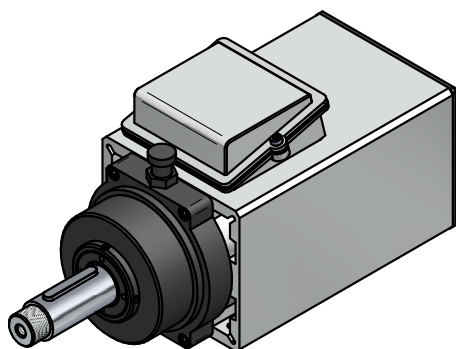
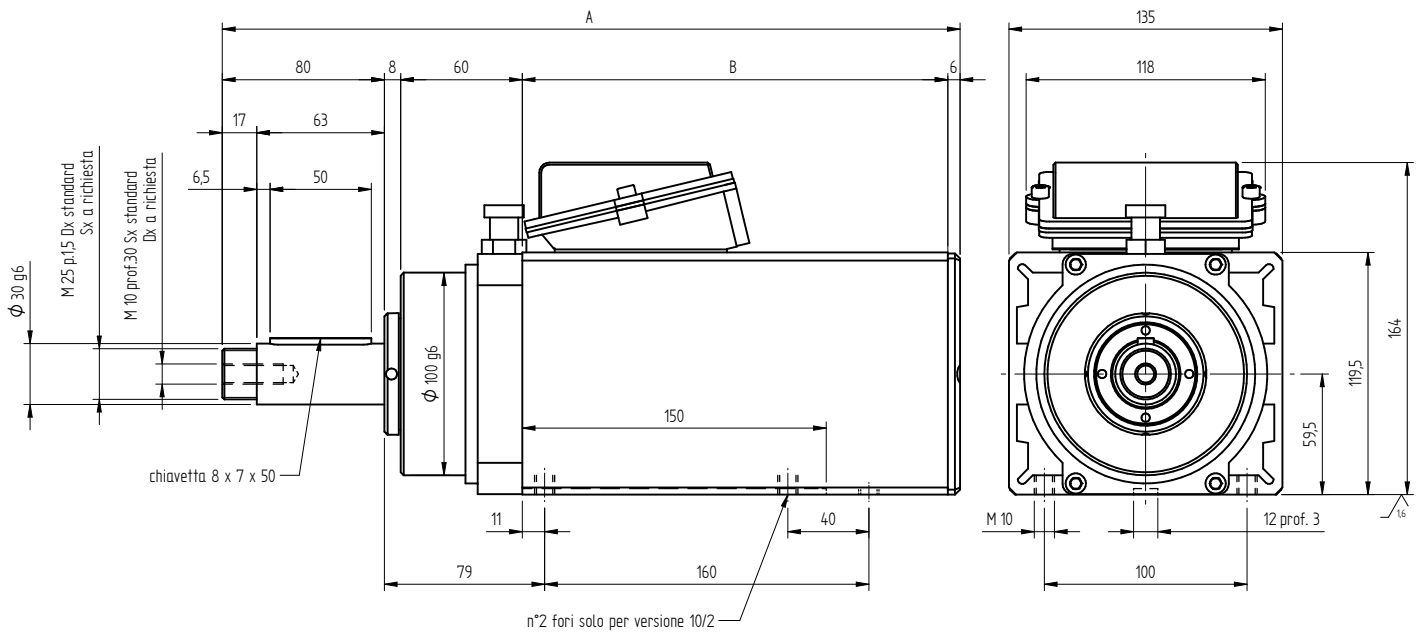
PE 5

PE 6

PE 7



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380 380Δ	50 100	3000 6000	1,25 1,90	5,6/3,2 4,35Δ	0,78 0,78	10
PE5 14/2	220/380 380Δ	50 100	3000 6000	3,00 4,00	11,5/6,6 8,8Δ	0,82 0,82	17

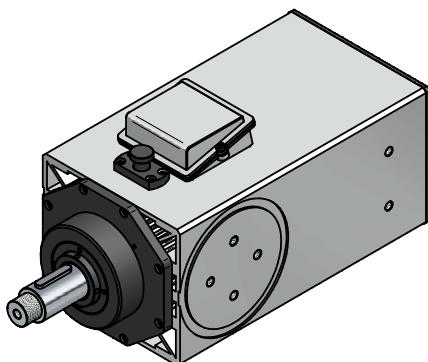
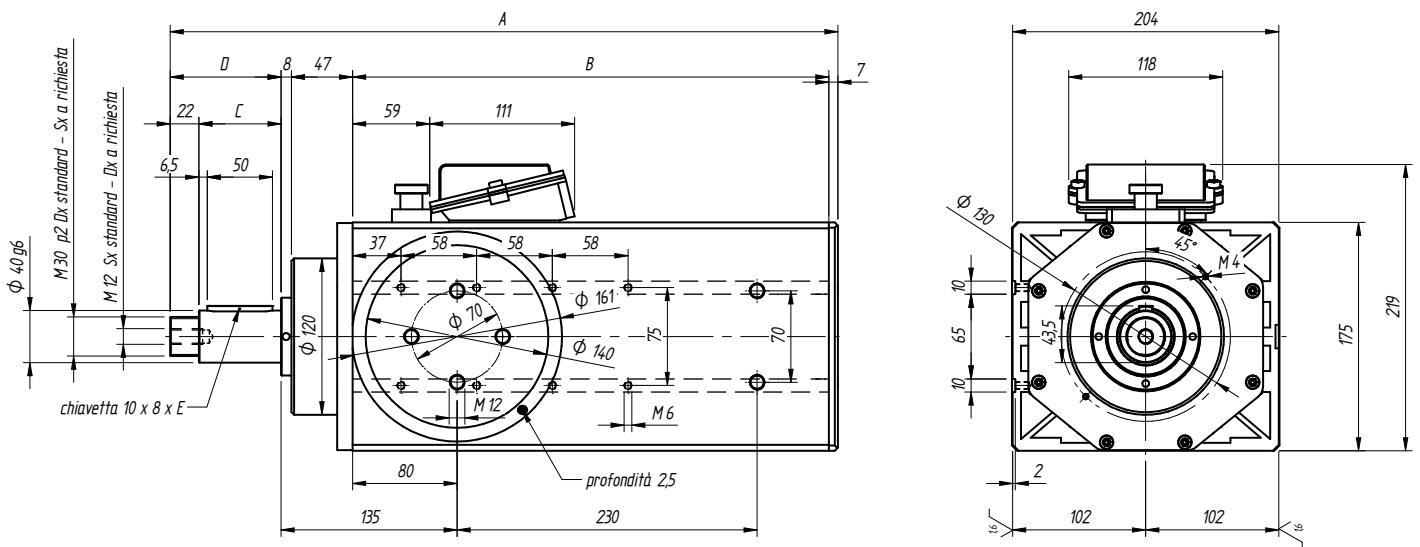


TIPO	A	B
PE5 10/2	364	210
PE5 14/2	404	250





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE7 11/2	220/380	50	3000	4,0	15,7/9,1	0,82	38
	380Δ	100	6000	5,8	12,9Δ		
PE7 15/2	220/380	50	3000	5,6	20,2/11,7	0,80	45
	380Δ	100	6000	8,2	17,7Δ		
PE7 17/2	220/380	50	3000	6,2	24,0/13,8	0,80	50
	380Δ	100	6000	8,8	19,6Δ		



TIPO	A	B	C	D	E
PE7 11/2	512	365	63	85	50
PE7 11/2	542	365	93	115	80
PE7 11/2	567	365	118	140	100
PE7 15/2	512	365	63	85	50
PE7 15/2	542	365	93	115	80
PE7 15/2	567	365	118	140	100
PE7 17/2	562	415	63	85	50
PE7 17/2	592	415	93	115	80
PE7 17/2	617	415	118	140	100



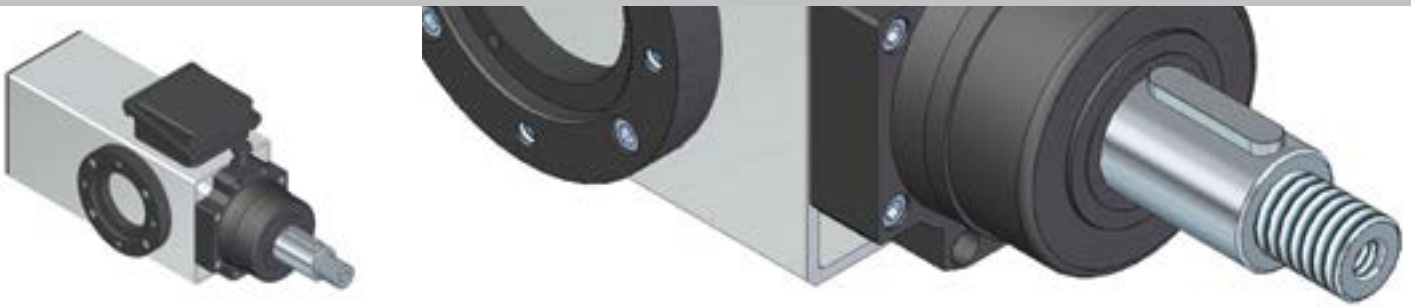
TM PE PANEL SAW Series

TMPE 4 ø 35

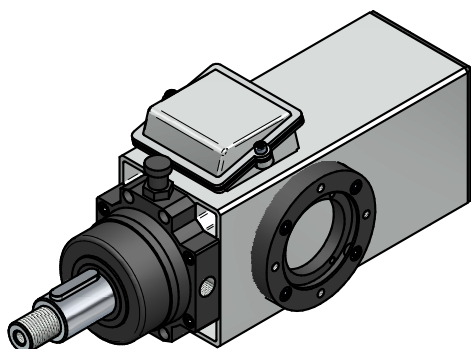
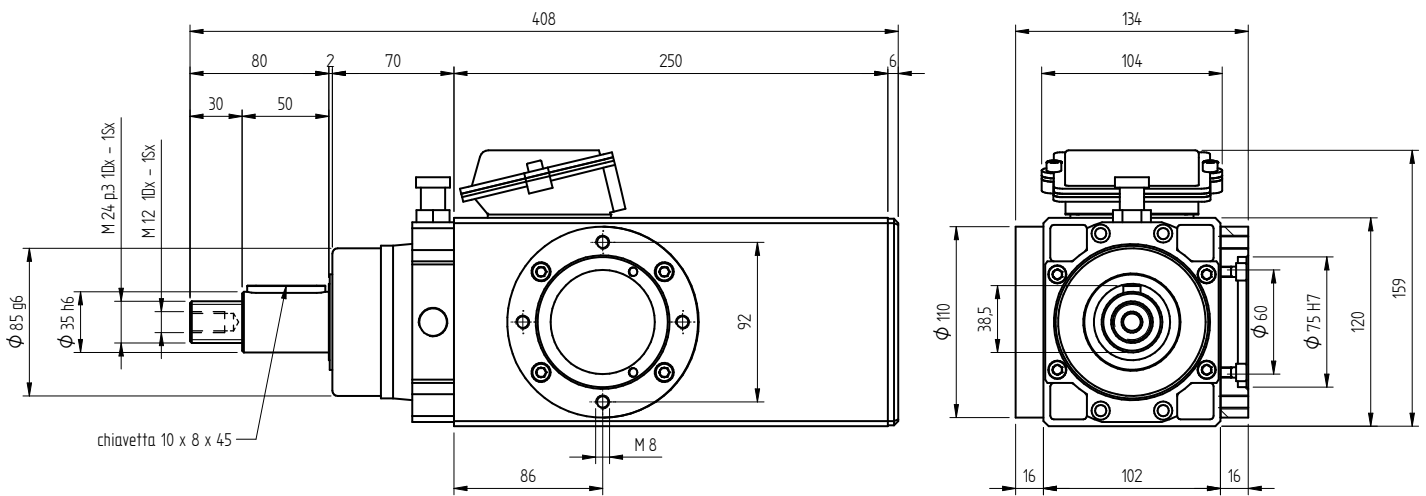
TMPE 4 ø 40

TMPE 6

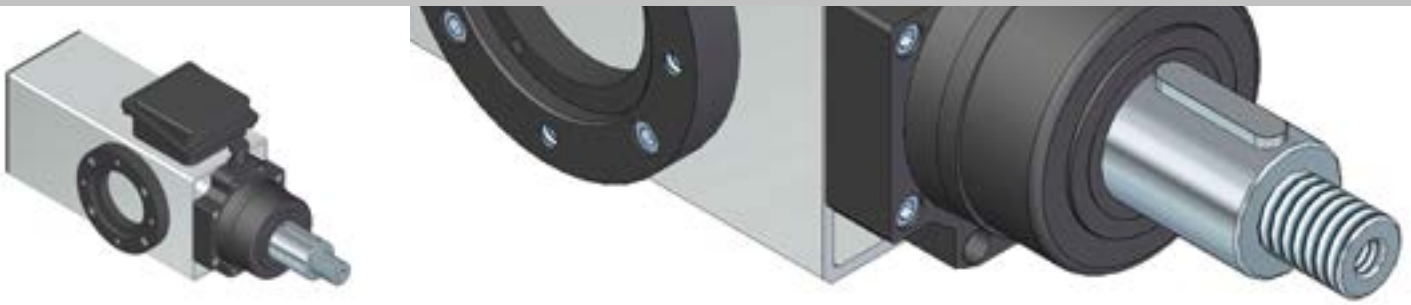
TMPE 8



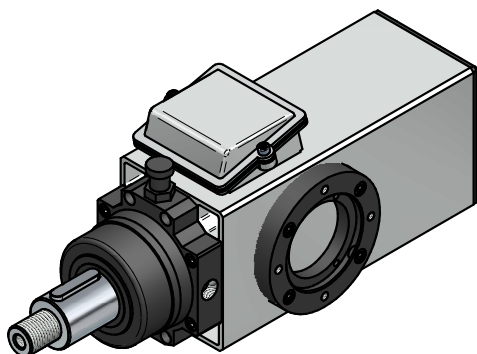
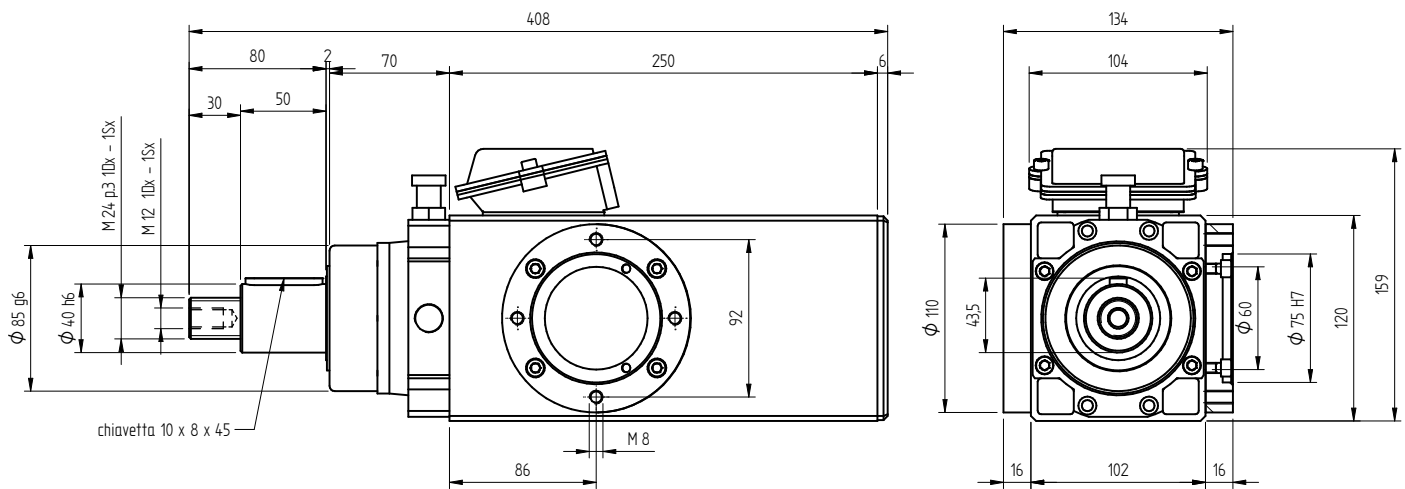
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380 380 Δ	50 100	3000 6000	0,65 1,10	3,30/1,90 2,85 Δ	0,72	9,5
TMPE4 11/2	220/380 380 Δ	50 100	3000 6000	0,75 1,50	3,50/2,00 3,80 Δ	0,74	10
TMPE4 13/2	220/380 380 Δ	50 100	3000 6000	1,00 2,00	4,90/2,85 4,45 Δ	0,77	10,5
TMPE4 14/2	220/380 380 Δ	50 100	3000 6000	1,10 2,20	5,50/3,15 5,50 Δ	0,77	11

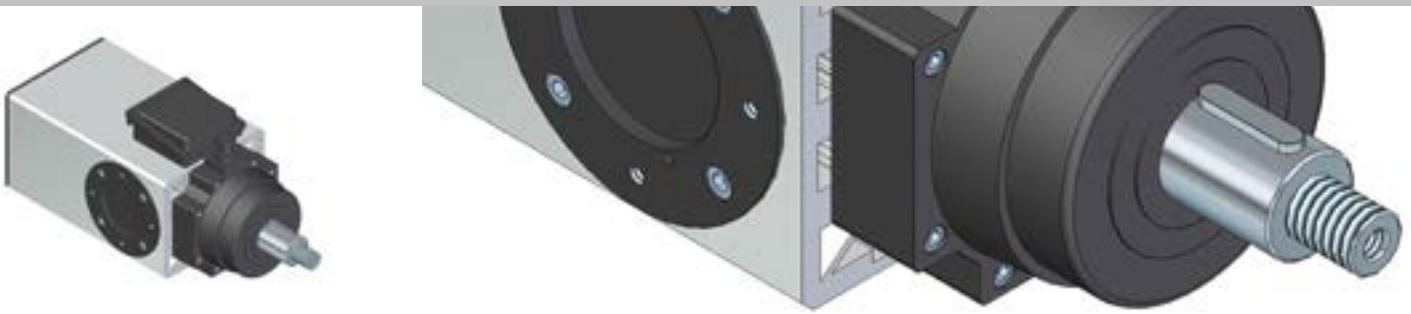


TMPE 4 ϕ 40

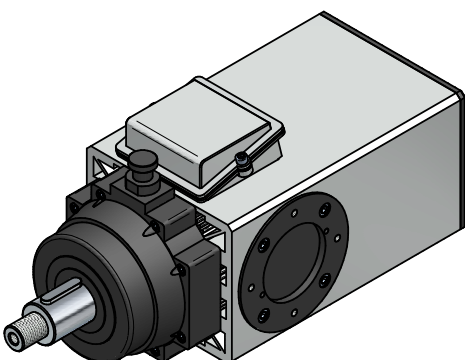
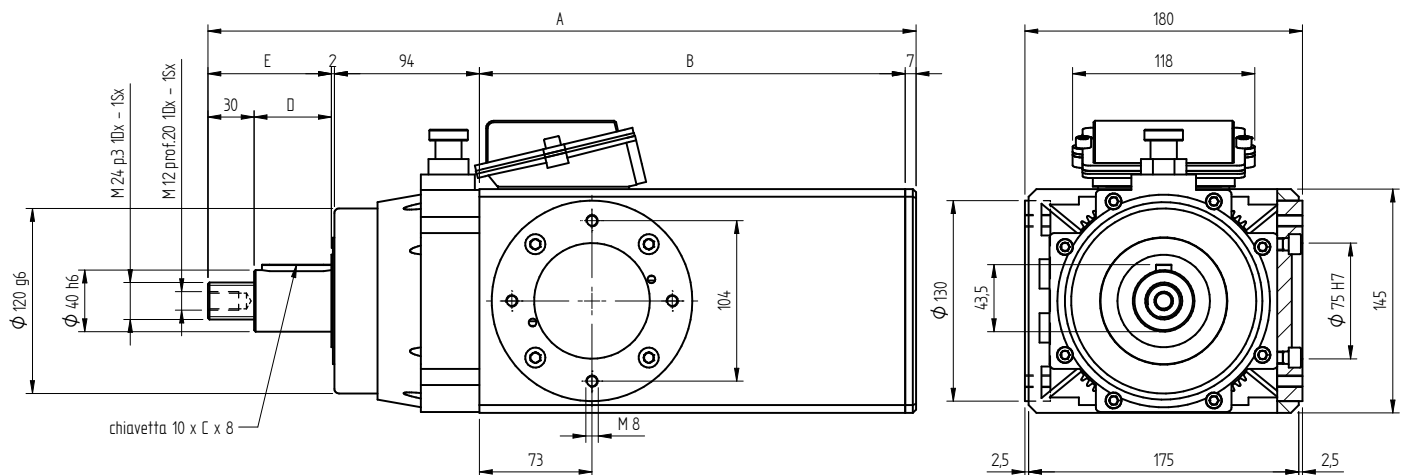


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE4 10/2	220/380 380 Δ	50 100	3000 6000	0,65 1,10	3,30/1,90 2,85 Δ	0,72	9,5
TMPE4 11/2	220/380 380 Δ	50 100	3000 6000	0,75 1,50	3,50/2,00 3,80 Δ	0,74	10
TMPE4 13/2	220/380 380 Δ	50 100	3000 6000	1,00 2,00	4,90/2,85 4,45 Δ	0,77	10,5
TMPE4 14/2	220/380 380 Δ	50 100	3000 6000	1.10 2,20	5,50/3,15 5,50 Δ	0,77	11





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE6 13/2	220/380 380Δ	50 100	3000 6000	2,90 4,80	11,45/6,60 10,90v	0,82	9,5
TMPE6 15/2	220/380 380Δ	50 100	3000 6000	3,40 5,60	13,60/7,80 11,50Δ	0,83	10
TMPE6 17/2	220/380 380Δ	50 100	3000 6000	1,00/2,00	14,90/8,60 14,90Δ	0,83	36



TIPO	A	B	C	D	E
TM PE6 13/2	459	276	45	50	80
TM PE6 13/2	499	276	80	90	120
TM PE6 15/2	505	322	45	50	80
TM PE6 15/2	545	322	80	90	120
TM PE6 17/2	555	372	45	50	80
TM PE6 17/2	595	372	80	90	120

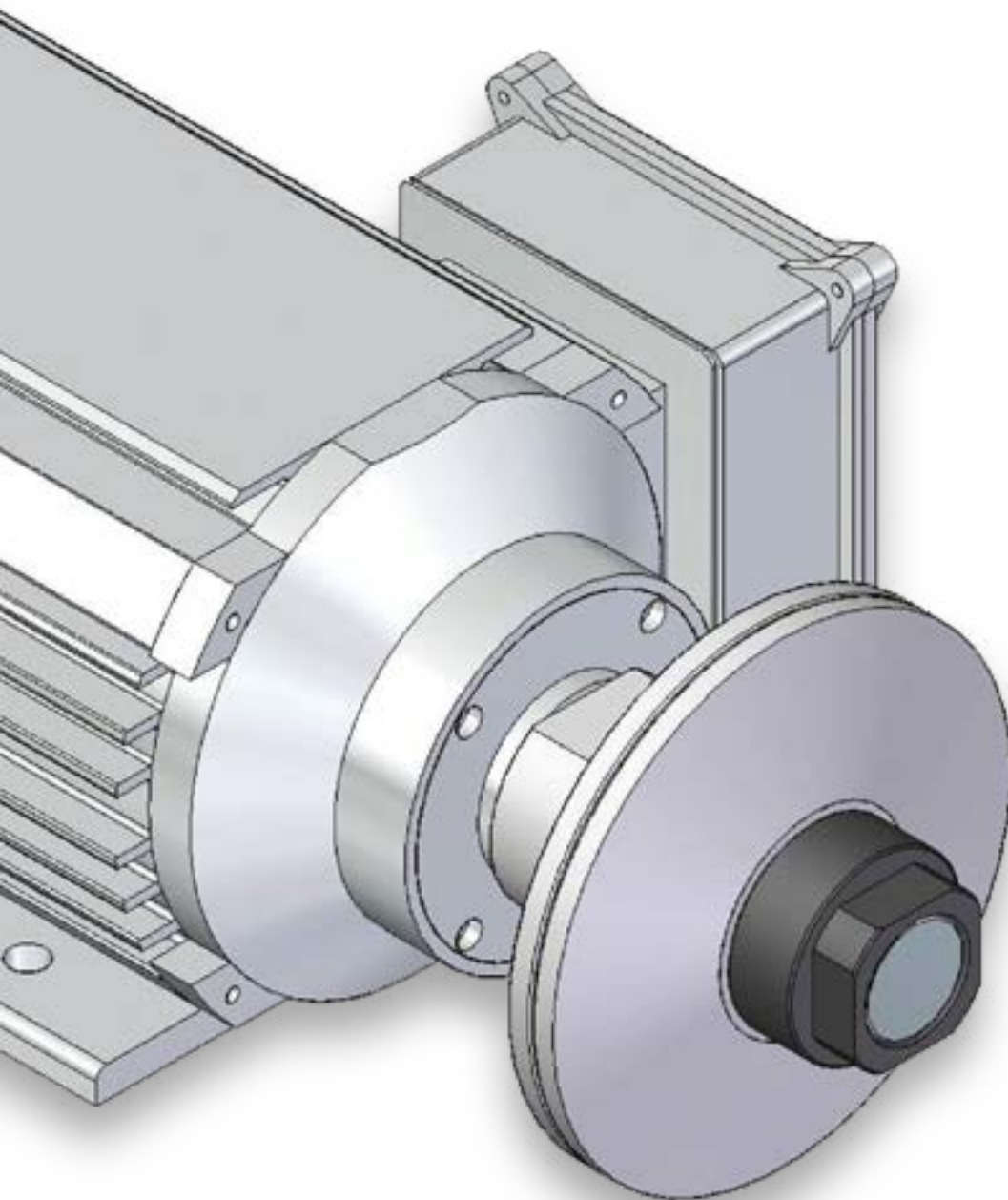




High speed precision spindles

DATASHEET

CIRCULAR SAW Series





High speed precision spindles

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PE Series

PE 5 SF

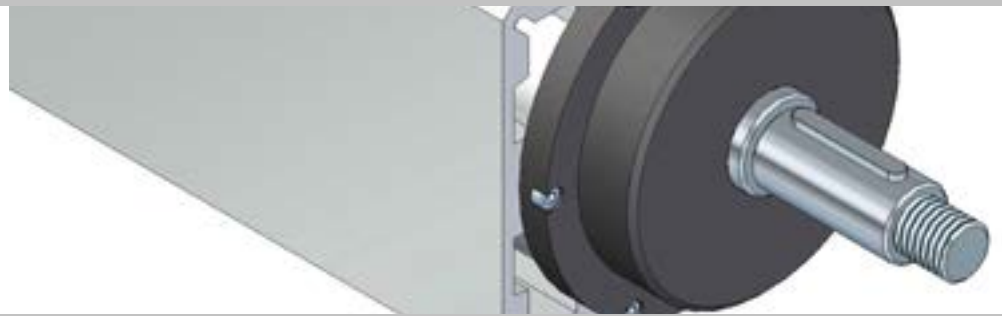
PE 5 SCF

PE 6 SF

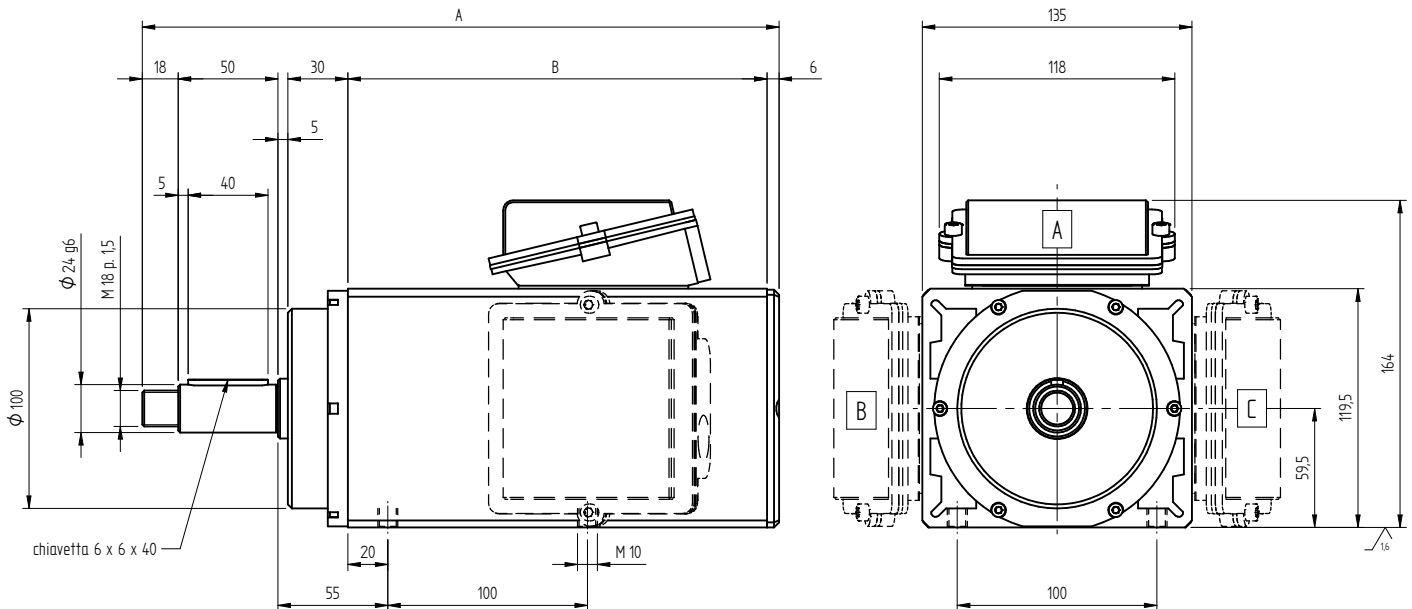
PE 6 SCF

PE 7 SF

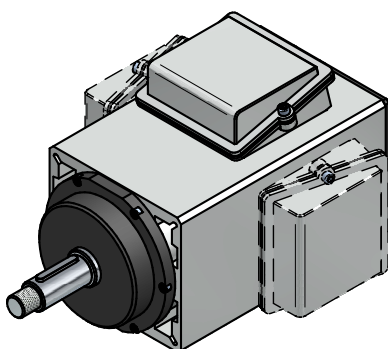
PE 7 SCF

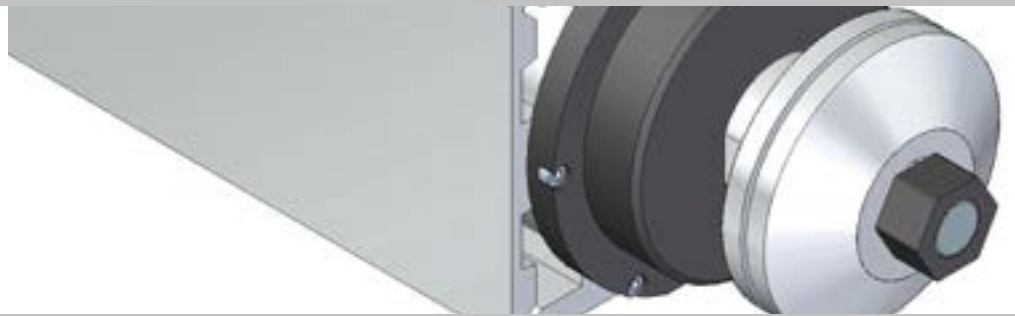


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,00	4,7/2,7	0,78	14,8
PE5 12/2	220/380	50	3000	1,50	6,9/4,0	0,83	15
PE5 14/2	220/380	50	3000	2,20	7,9/4,6	0,80	18
PE5 10/4	220/380	50	1500	0,75	3,5/2,0	0,83	14,8
PE5 12/4	220/380	50	1500	1,10	5,0/2,9	0,83	15
PE5 14/4	220/380	50	1500	1,50	4,8/2,8	0,83	18
PE5 10/2	220/380	100	6000	2,00	7,9/4,6	0,82	14,8
PE5 12/2	220/380	100	6000	3,00	12,0/6,9	0,85	15
PE5 14/2	220/380	100	6000	4,00	15,2/8,8	0,85	18
PE5 10/4	220/380	100	3000	1,50	6,4/3,7	0,84	14,8
PE5 12/4	220/380	100	3000	2,20	9,4/5,4	0,84	15
PE5 14/4	220/380	100	3000	3,00	12,8/7,4	0,84	18

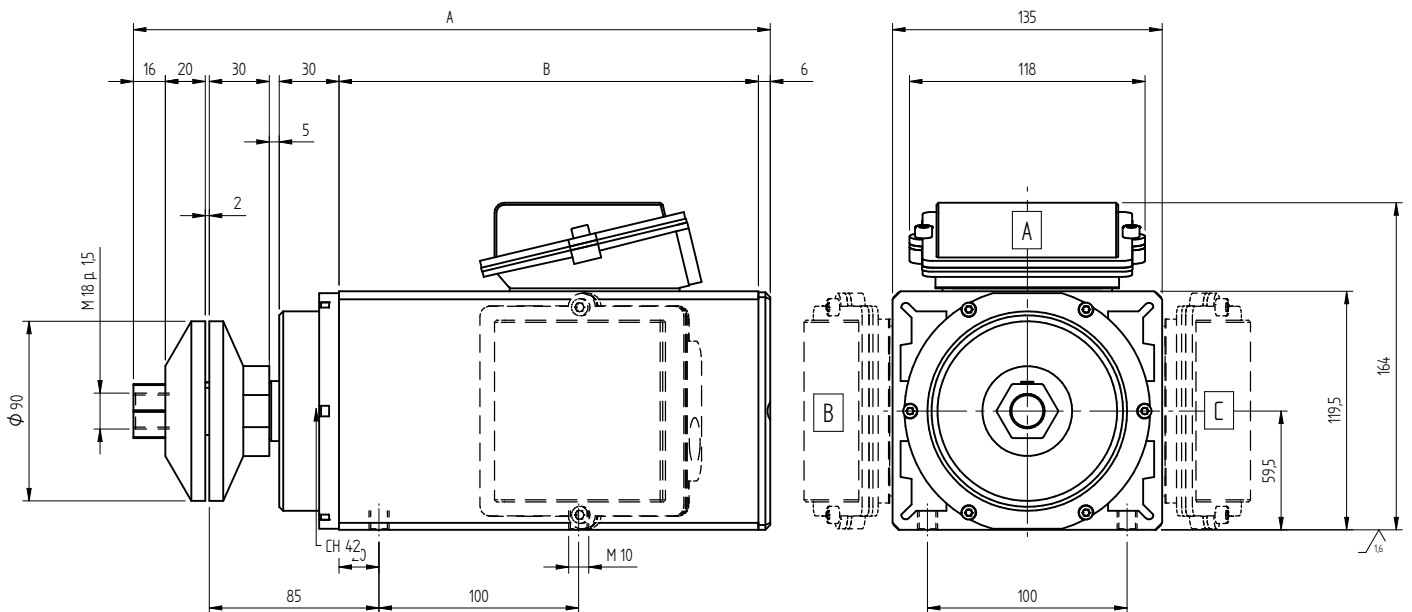


TIPO	A	B
PE5 10/2	319	210
PE5 12/2	339	230
PE5 14/2	359	250

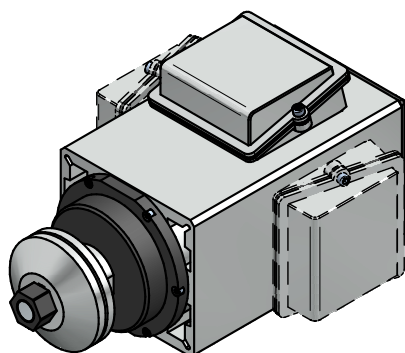


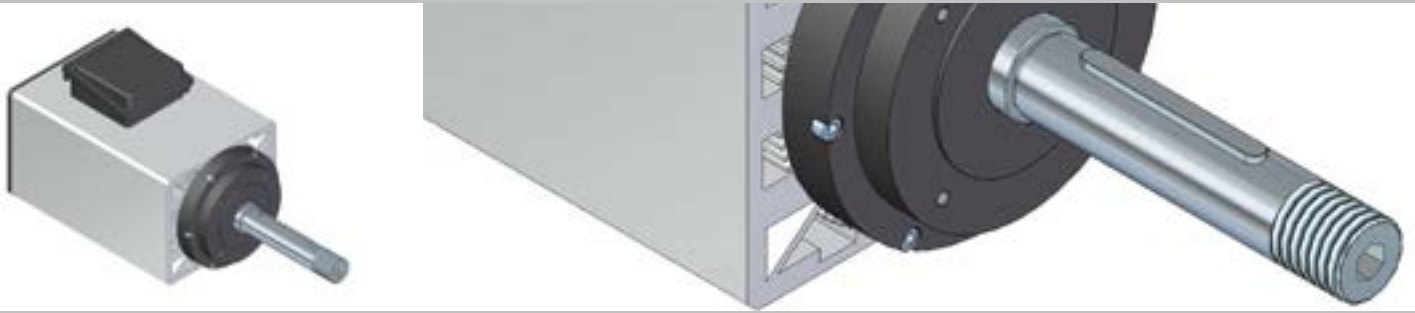


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE5 10/2	220/380	50	3000	1,00	4,7/2,7	0,78	14,8
PE5 12/2	220/380	50	3000	1,50	6,9/4,0	0,83	17,7
PE5 14/2	220/380	50	3000	2,20	7,9/4,6	0,80	20,6
PE5 10/4	220/380	50	1500	0,75	3,5/2,0	0,83	14,8
PE5 12/4	220/380	50	1500	1,10	5,0/2,9	0,83	17,7
PE5 14/4	220/380	50	1500	1,50	4,8/2,8	0,83	20,6
PE5 10/2	220/380	100	6000	2,00	7,9/4,6	0,82	14,8
PE5 12/2	220/380	100	6000	3,00	12,0/6,9	0,85	17,7
PE5 14/2	220/380	100	6000	4,00	15,2/8,8	0,85	20,6
PE5 10/4	220/380	100	3000	1,50	6,4/3,7	0,84	14,8
PE5 12/4	220/380	100	3000	2,20	9,4/5,4	0,84	17,7
PE5 14/4	220/380	100	3000	3,00	12,8/7,4	0,84	20,6

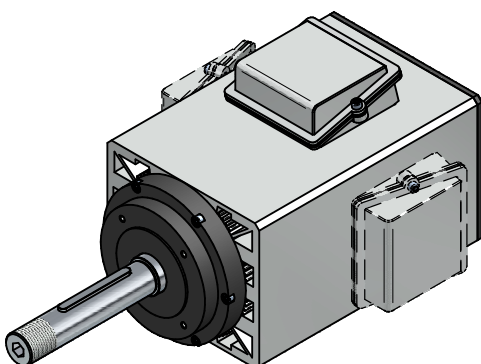
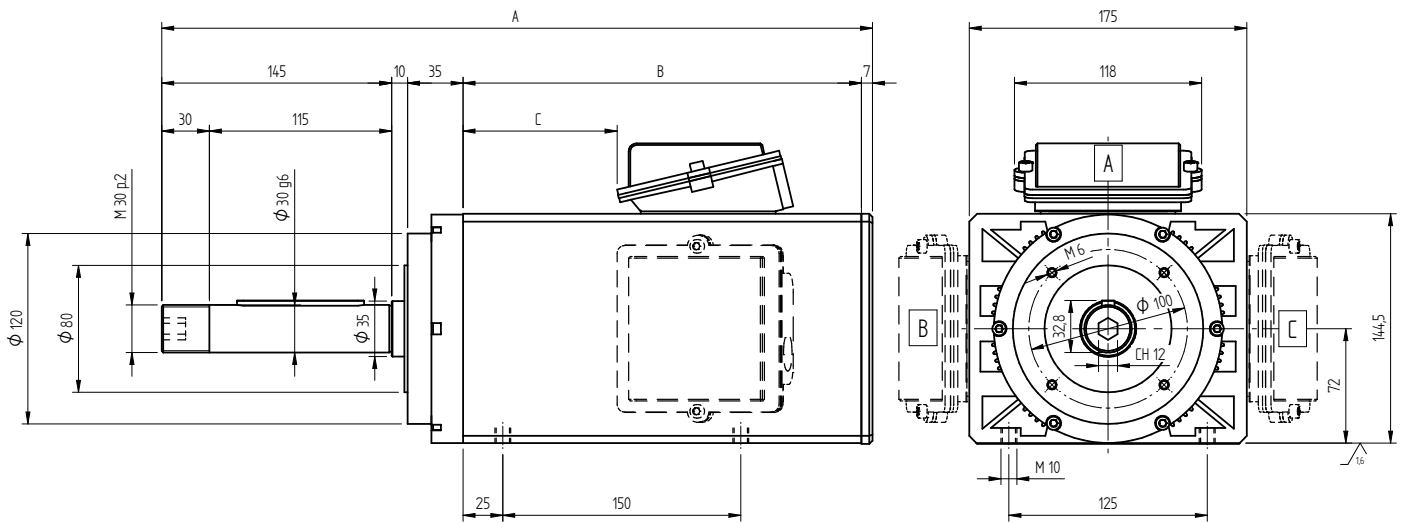


TIPO	A	B
PE5 10/2	319	210
PE5 12/2	339	230
PE5 14/2	359	250





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE6 11/2	220/380	50	3000	2,30	9,5/5,5	0,82	24,0
PE6 13/2	220/380	50	3000	3,0	11,7/6,7	0,82	29,0
PE6 17/2	220/380	50	3000	4,0	15,1/8,7	0,83	37,5
PE6 11/4	220/380	50	1500	1,5	8,8/5,1	0,70	24,0
PE6 13/4	220/380	50	1500	2,20	9,4/5,4	0,73	29,0
PE6 17/4	220/380	50	1500	3,0	11,8/6,8	0,81	37,5
PE6 11/2	220/380	100	6000	2,30	10,0/5,8	0,82	24,0
PE6 11/2	220/380	100	6000	3,00	11,7/6,7	0,84	24,0
PE6 13/2	220/380	100	6000	4,00	14,7/8,5	0,84	24,0
PE6 13/2	220/380	100	6000	5,50	21,6/12,5	0,82	29,0

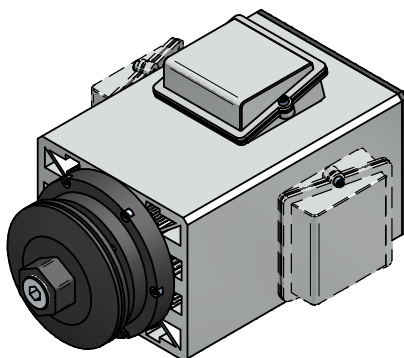
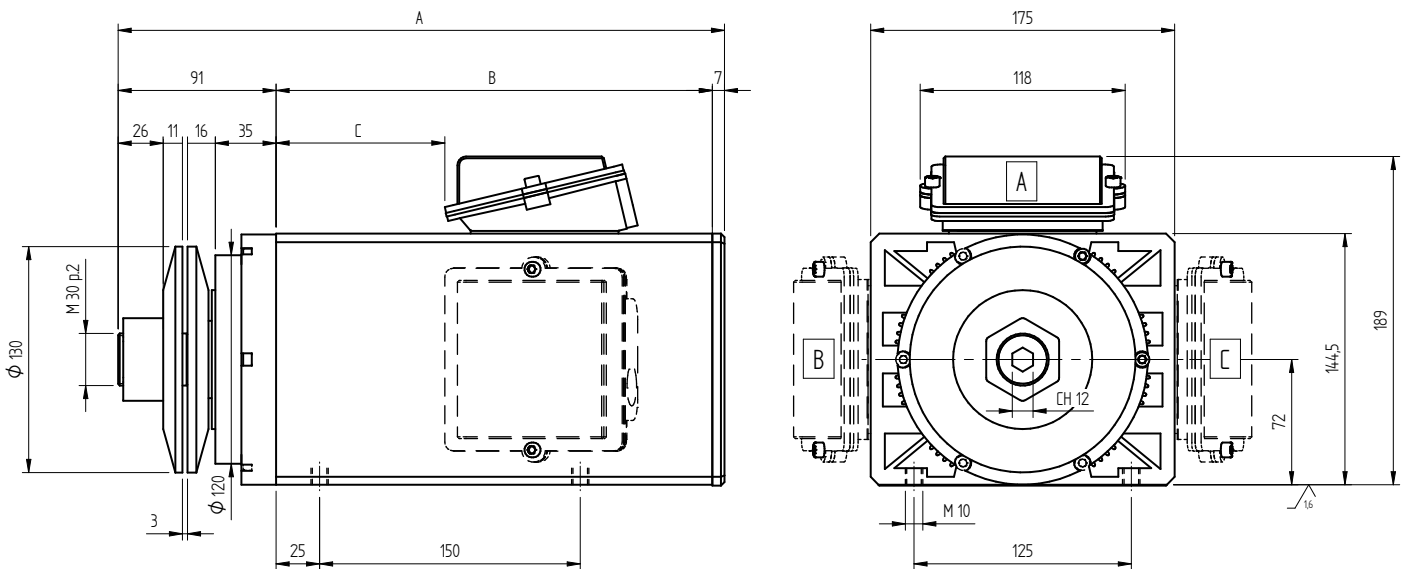


TIPO	A	B	C
PE6 11/2-4	448	251	98
PE6 13/2-4	468	271	118
PE6 17/2-4	508	311	158

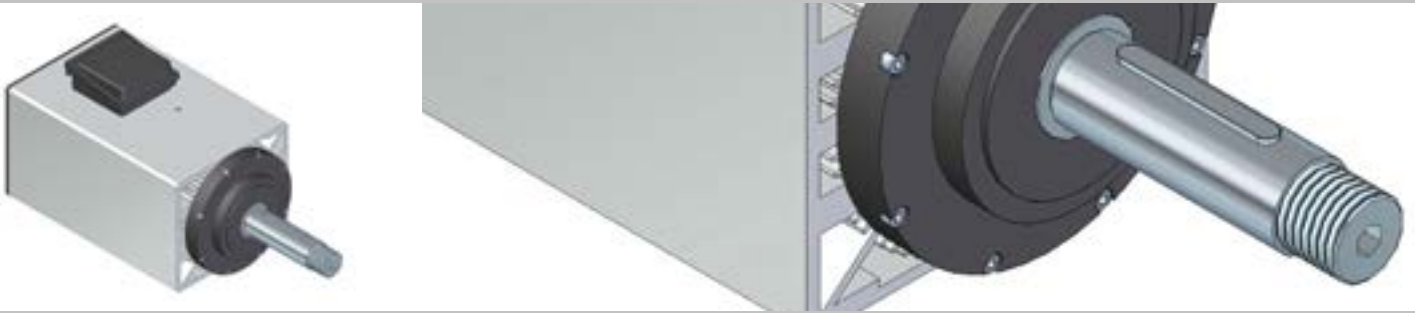




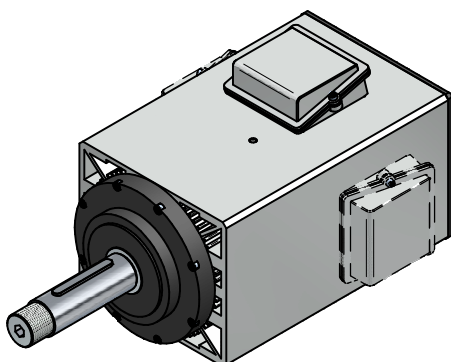
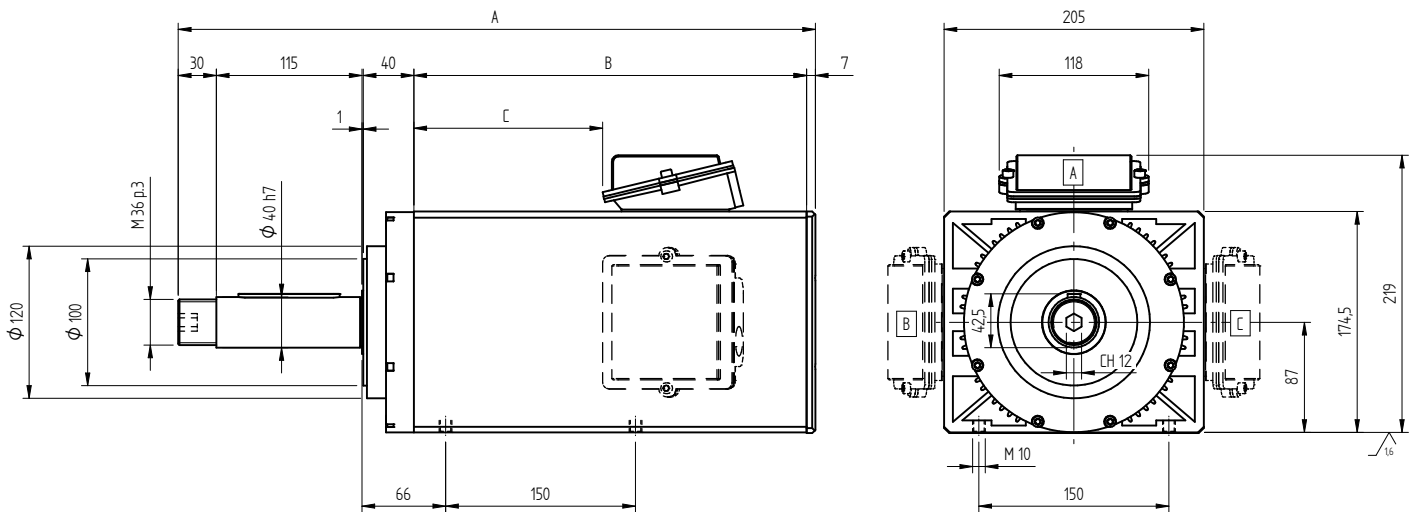
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE6 11/2	220/380	50	3000	2,30	9,5/5,5	0,82	24,0
PE6 13/2	220/380	50	3000	3,0	11,7/6,7	0,82	29,0
PE6 17/2	220/380	50	3000	4,0	15,1/8,7	0,83	37,5
PE6 11/4	220/380	50	1500	1,5	8,8/5,1	0,70	24,0
PE6 13/4	220/380	50	1500	2,20	9,4/5,4	0,73	29,0
PE6 17/4	220/380	50	1500	3,0	11,8/6,8	0,81	37,5
PE6 11/2	220/380	100	6000	2,30	10,0/5,8	0,82	24,0
PE6 11/2	220/380	100	6000	3,00	11,7/6,7	0,84	24,0
PE6 13/2	220/380	100	6000	4,00	14,7/8,5	0,84	24,0
PE6 13/2	220/380	100	6000	5,50	21,6/12,5	0,82	29,0



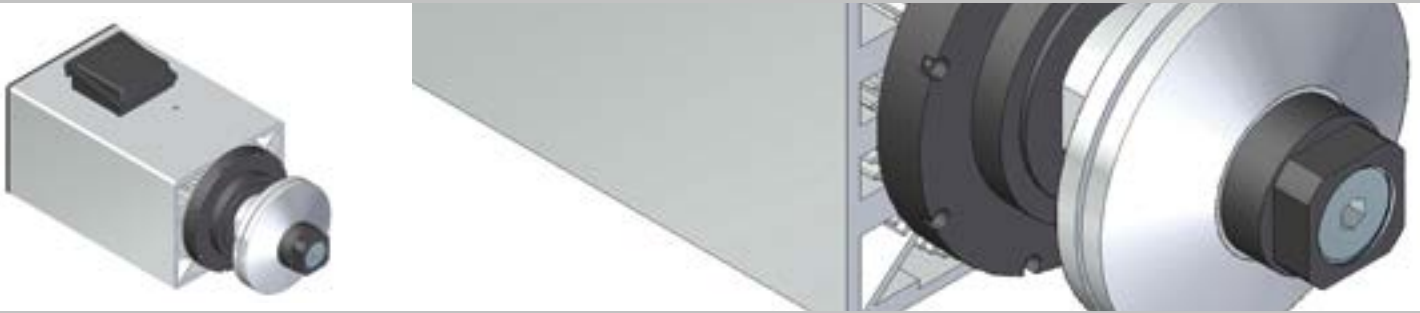
TIPO	A	B	C
PE6 11/2-4	349	251	98
PE6 13/2-4	369	271	118
PE6 17/2-4	409	311	158



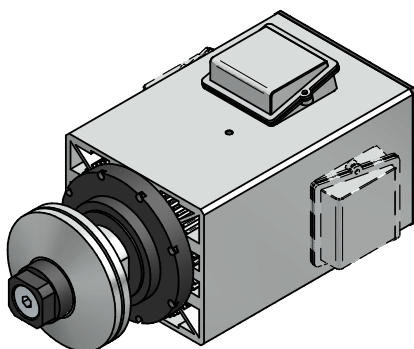
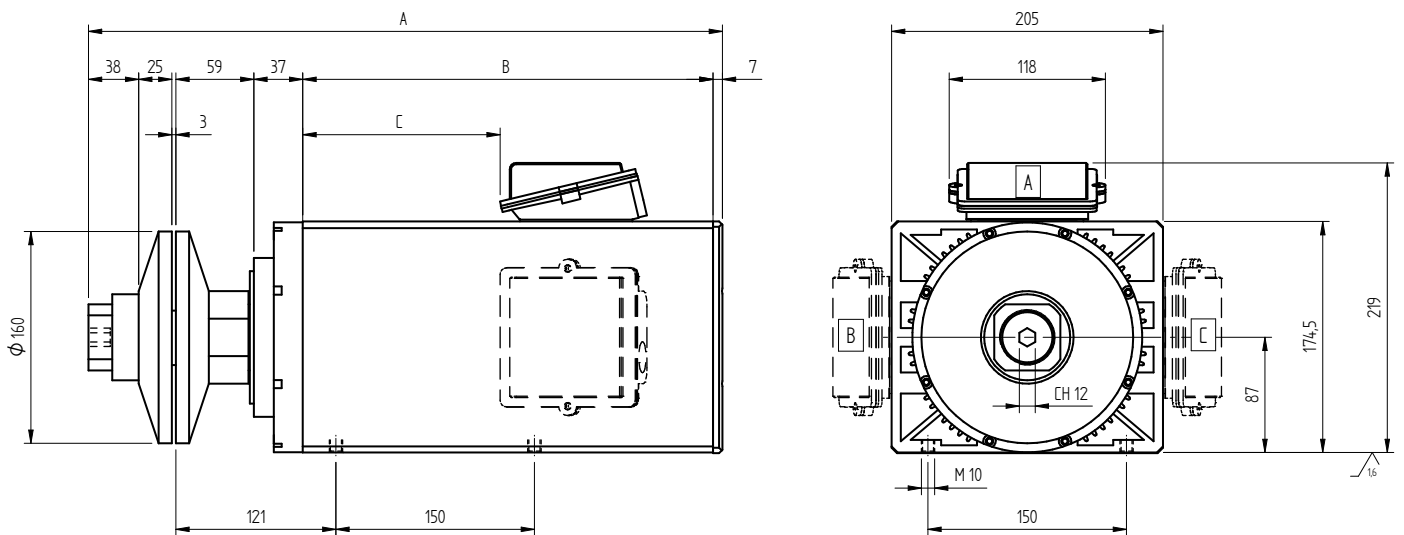
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE7 15/2	220/380	50	3000	6,50	21,8/12,6	0,81	45,3
PE7 17/2	220/380	50	3000	7,50	27,9/16,1	0,81	51,0
PE7 19/2	220/380	50	3000	8,50	31,7/18,3	0,80	57,0
PE7 19/2 RR	220/380	50	3000	10,0	36,5/21,1	0,83	57,0
PE7 15/2	220/380	100	6000	8,50	31,4/18,4	0,80	45,3
PE7 17/2	220/380	100	6000	10,50	40,0/23,1	0,81	51,0
PE7 19/2	220/380	100	6000	12,0	44,3/25,6	0,80	57,0
PE7 19/2 RR	220/380	100	6000	14,5	51,6/29,8	0,84	57,0
PE7 15/4	220/380	50	1500	4,0	16,1/9,3	0,80	45,3
PE7 17/4	220/380	50	1500	4,5	18,1/10,5	0,81	51,0
PE7 19/4	220/380	50	1500	5,0	20,2/11,7	0,81	57,0
PE7 15/4	220/380	100	3000	6,4	27,0/15,6	0,80	45,3
PE7 17/4	220/380	100	3000	7,5	30,2/17,8	0,82	51,0
PE7 19/4	220/380	100	3000	8,5	34,2/19,9	0,81	57,0



TIPO	A	B	C
PE7 15/2-4	503	310	150
PE7 17/2-4	523	330	170
PE7 19/2-4	543	350	190



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE7 15/2	220/380	50	3000	6,50	21,8/12,6	0,81	45,3
PE7 17/2	220/380	50	3000	7,50	27,9/16,1	0,81	51,0
PE7 19/2	220/380	50	3000	8,50	31,7/18,3	0,80	57,0
PE7 19/2 RR	220/380	50	3000	10,0	36,5/21,1	0,83	57,0
PE7 15/2	220/380	100	6000	8,50	31,4/18,4	0,80	45,3
PE7 17/2	220/380	100	6000	10,50	40,0/23,1	0,81	51,0
PE7 19/2	220/380	100	6000	12,0	44,3/25,6	0,80	57,0
PE7 19/2 RR	220/380	100	6000	14,5	51,6/29,8	0,84	57,0
PE7 15/4	220/380	50	1500	4,0	16,1/9,3	0,80	45,3
PE7 17/4	220/380	50	1500	4,5	18,1/10,5	0,81	51,0
PE7 19/4	220/380	50	1500	5,0	20,2/11,7	0,81	57,0
PE7 15/4	220/380	100	3000	6,4	27,0/15,6	0,80	45,3
PE7 17/4	220/380	100	3000	7,5	30,2/17,8	0,82	51,0
PE7 19/4	220/380	100	3000	8,5	34,2/19,9	0,81	57,0



TIPO	A	B	C
PE7 15/2-4	479	310	150
PE7 17/2-4	499	330	170
PE7 19/2-4	519	350	190

S Series

S 1 SC

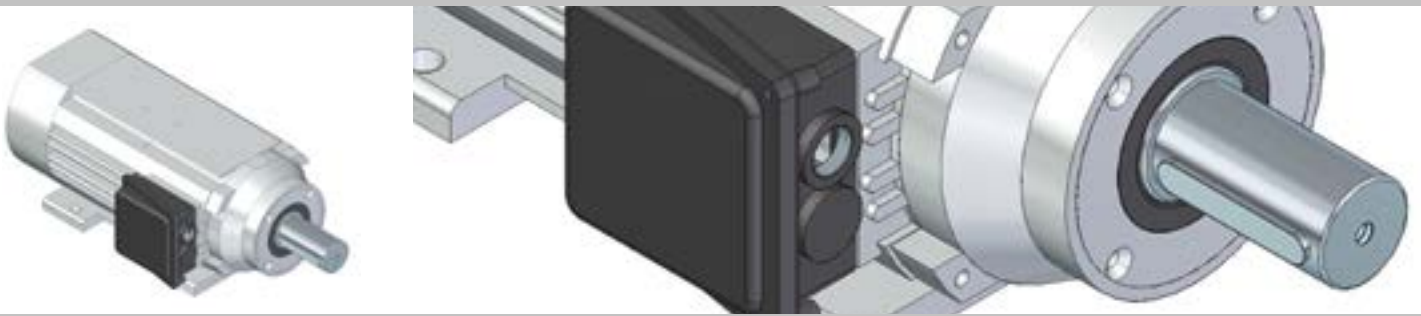
S 1 SCF

S 2 SC

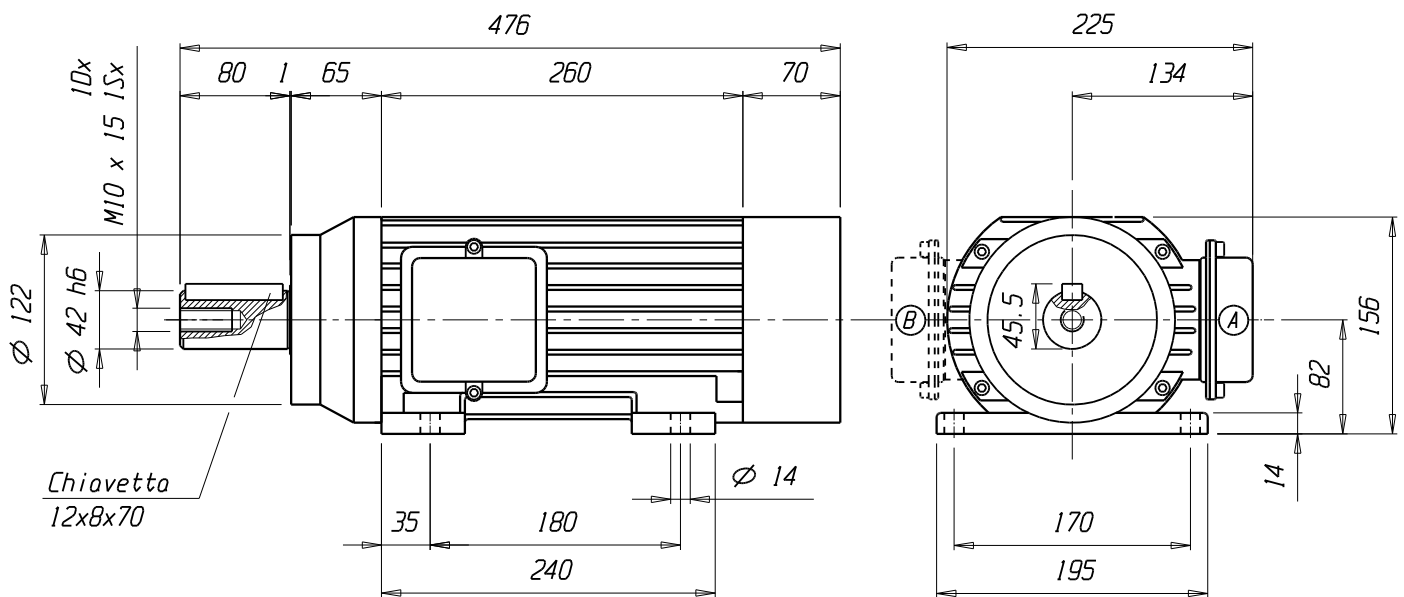
S 2 SCF

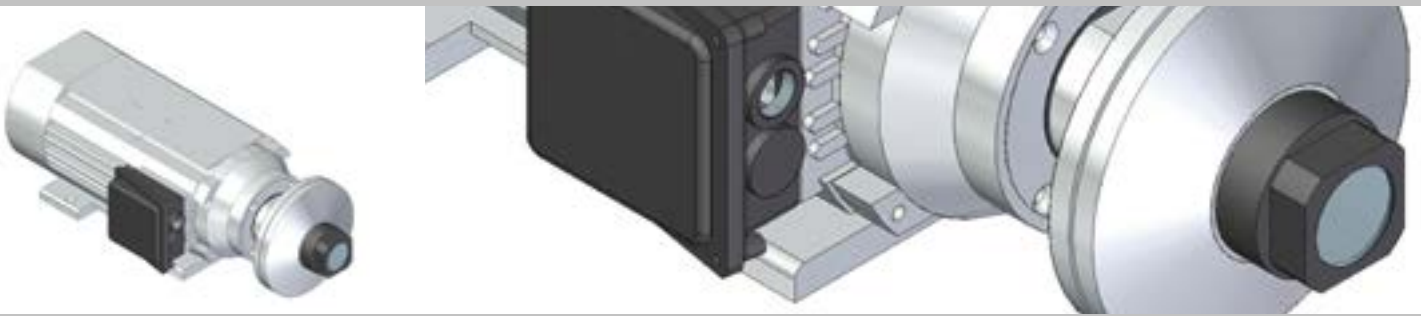
S 3 SC

S 3 SCF

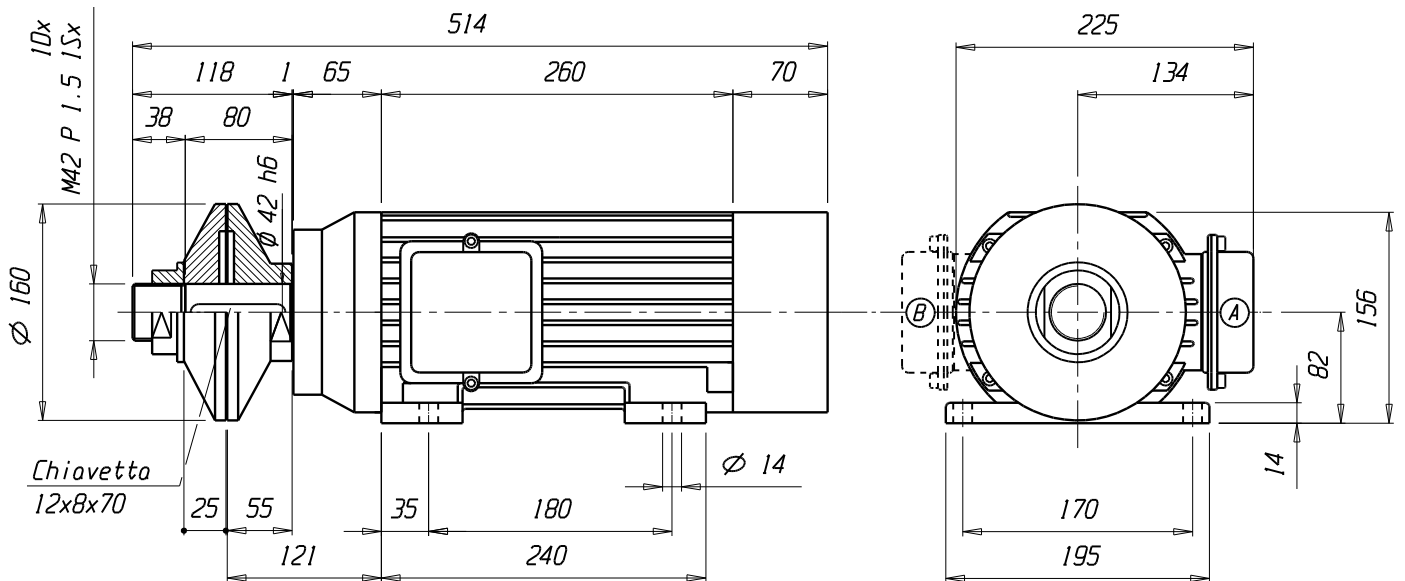


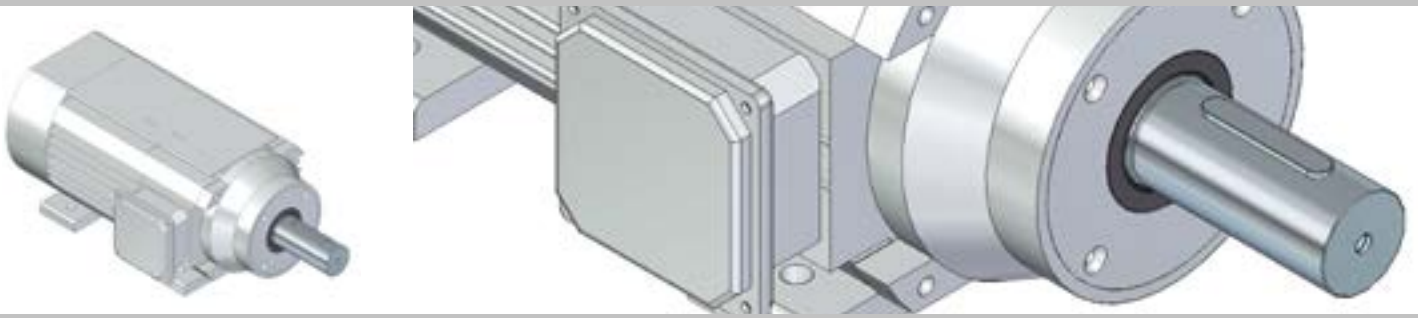
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S1 12/2	220/380 380Δ	50 100	3000 6000	2,90 4,80	11,5/6,6 10,90	0,83 0,83	25
S1 14/2	220/380 380Δ	50 100	3000 6000	4,00 6,65	15,5/8,90 14,9	0,83 0,84	27
S1 13/4	220/380 380Δ	50 100	1500 3000	2,20 3,60	9,3/5,3 8,2	0,80 0,82	25
S1 17/4	220/380 380Δ	50 100	1500 3000	3,00 4,50	11,8/6,80 10,2	0,80 0,82	27



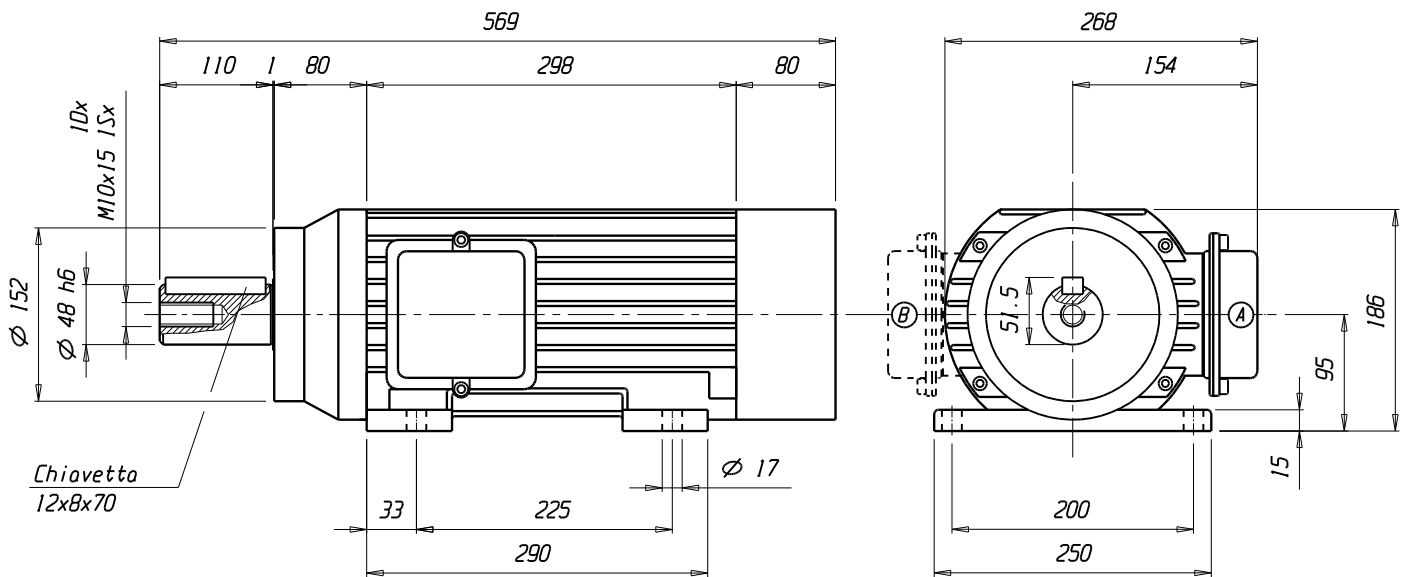


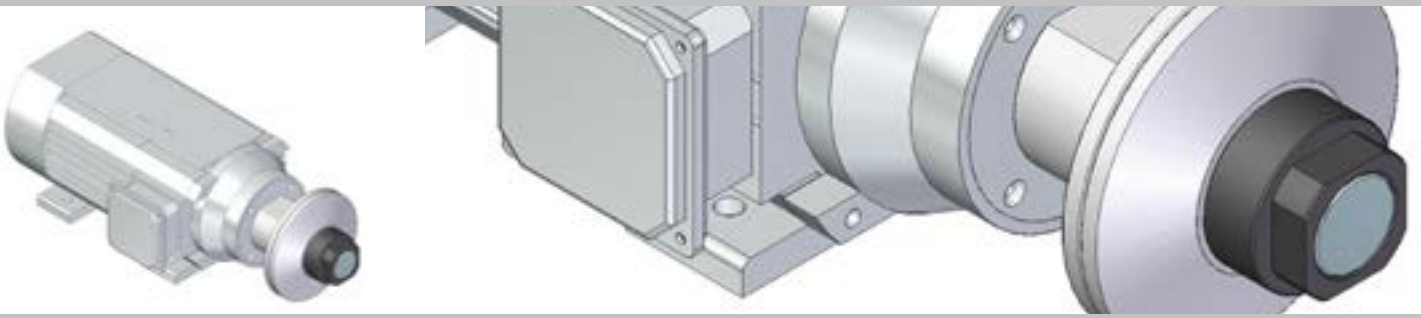
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S1 12/2	220/380	50	3000	2,90	11,5/6,6	0,83	25
	380Δ	100	6000	4,80	10,90	0,83	
S1 14/2	220/380	50	3000	4,00	15,5/8,90	0,83	27
	380Δ	100	6000	6,65	14,9	0,84	
S1 13/4	220/380	50	1500	2,20	9,3/5,3	0,80	25
	380Δ	100	3000	3,60	8,2	0,82	
S1 17/4	220/380	50	1500	3,00	11,8/6,80	0,80	27
	380Δ	100	3000	4,50	10,2	0,82	



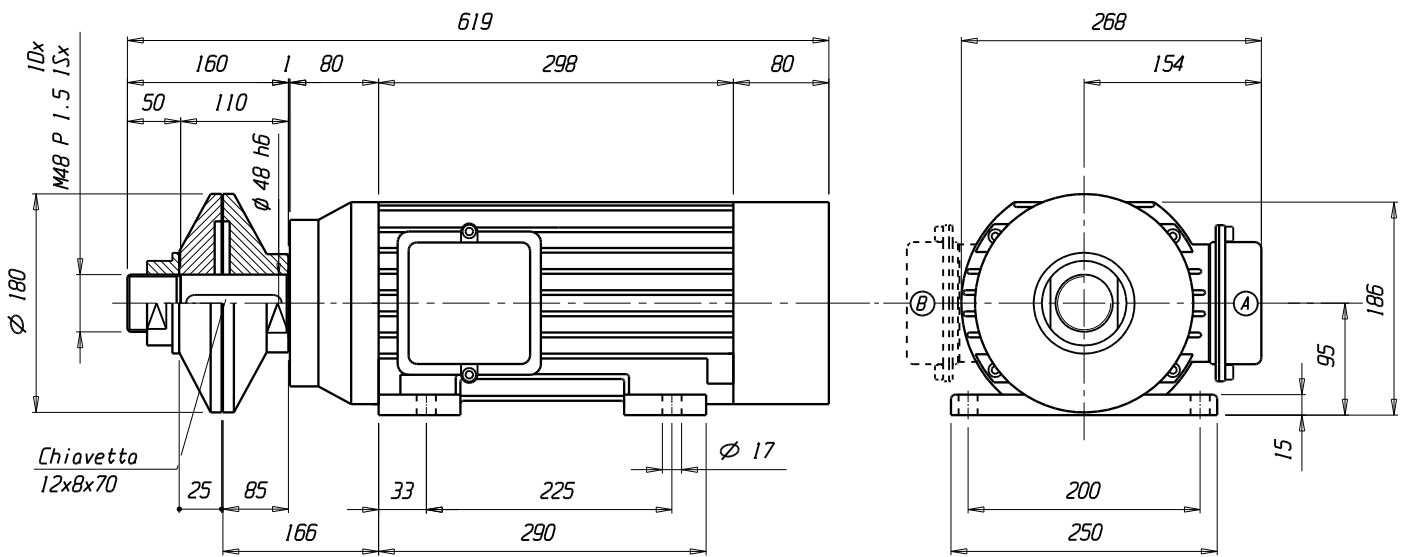


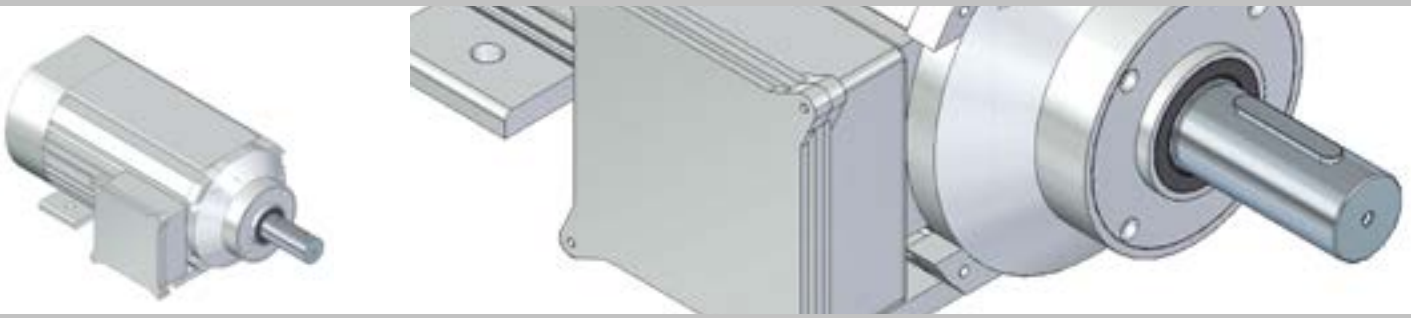
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S2 12/2	220/380 380Δ	50 100	3000 6000	5,20 7,30	20,0/11,4 16,2	0,82 0,83	45
S2 15/2	220/380 380Δ	50 100	3000 6000	7,00 9,20	27,0/15,6 20,0	0,82 0,83	60
S2 12/4	220/380 380Δ	50 100	1500 3000	3,70 5,40	14,9/8,6 12,0	0,80 0,82	45
S2 14/4	220/380 380Δ	50 100	1500 3000	4,50 6,35	17,7/10,2 14,0	0,80 0,82	60



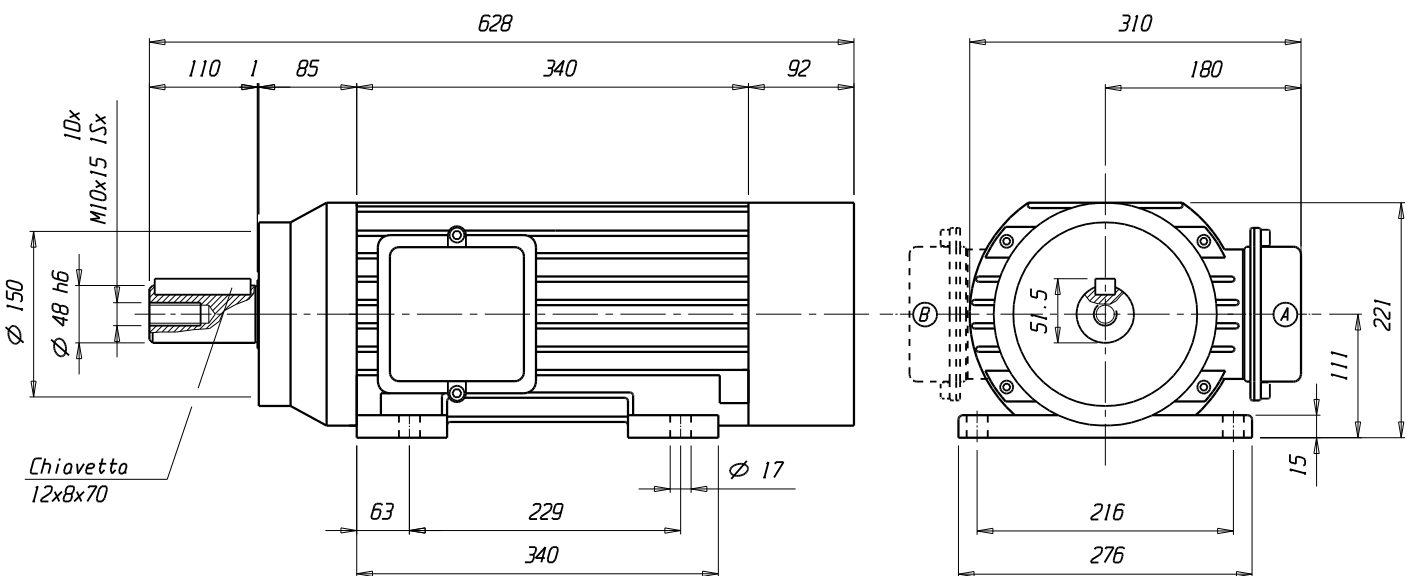


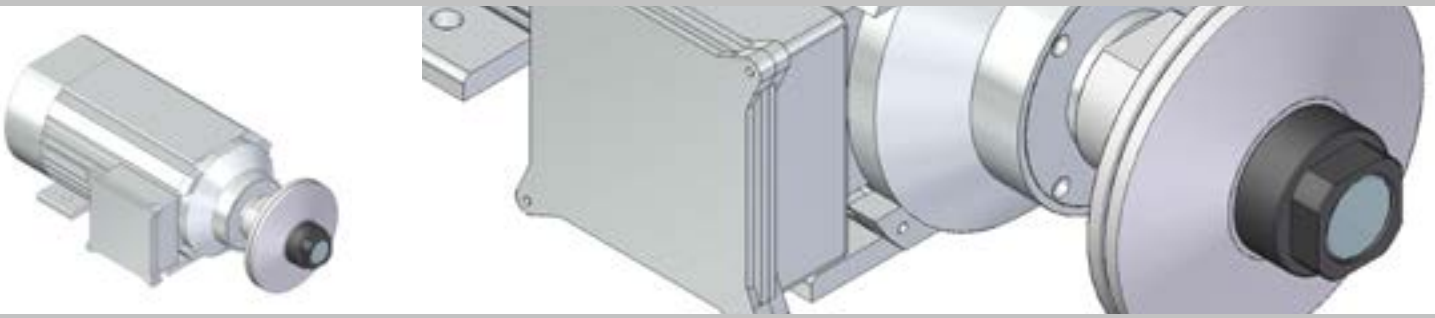
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S2 12/2	220/380	50	3000	5,20	20,0/11,4	0,82	45
	380Δ	100	6000	7,30	16,2	0,83	
S2 15/2	220/380	50	3000	7,00	27,0/15,6	0,82	60
	380Δ	100	6000	9,20	20,0	0,83	
S2 12/4	220/380	50	1500	3,70	14,9/8,6	0,80	45
	380Δ	100	3000	5,40	12,0	0,82	
S2 14/4	220/380	50	1500	4,50	17,7/10,2	0,80	60
	380Δ	100	3000	6,35	14,0	0,82	



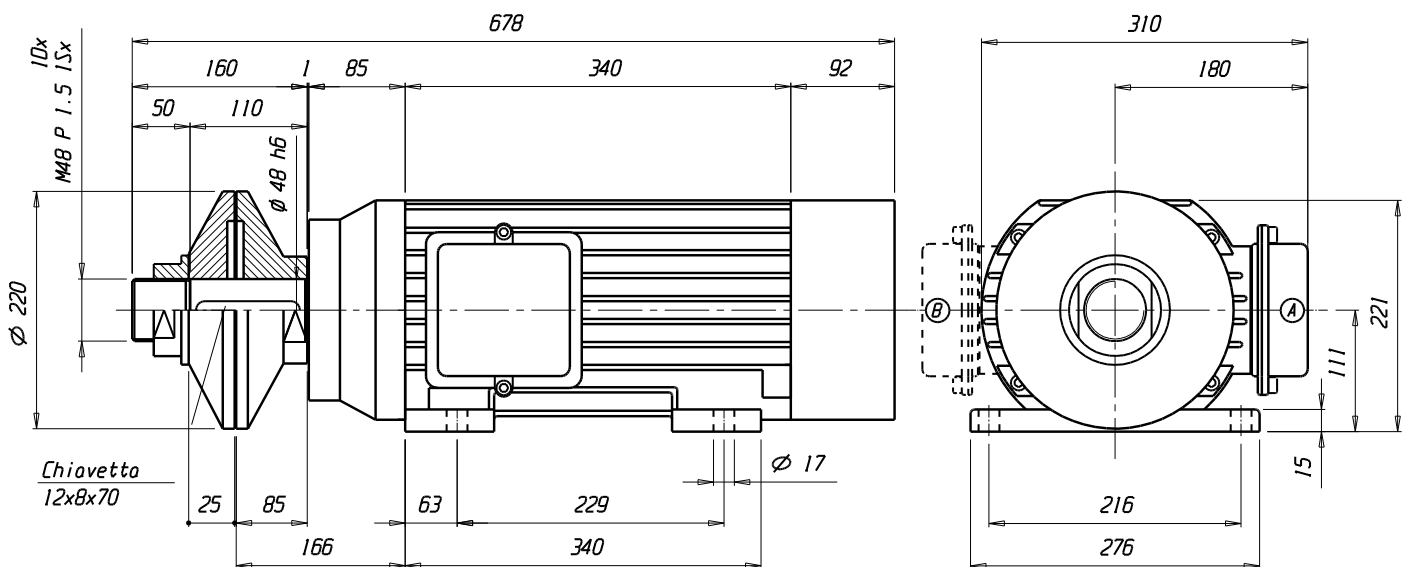


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S3 9/2	220/380 380Δ	50 100	3000 6000	5,50 8,50	20,1/11,6 17,8	0,86 0,86	55
S3 12/2	220/380 380Δ	50 100	3000 6000	7,10 11,3	26,0/15,0 23,5	0,87 0,87	57
S3 14/2	220/380 380Δ	50 100	3000 6000	8,80 12,6	32,5/18,8 26,5	0,87 0,87	60
S3 16/2	220/380 380Δ	50 100	3000 6000	10,5 14,3	39,0/22,5 30,0	0,87 0,87	62
S3 20/2	220/380 380Δ	50 100	3000 6000	14,2 19,0	53,7/31,0 40,0	0,87 0,87	65
S3 12/4	220/380 380Δ	50 100	1500 3000	5,20 6,30	20,8/12,0 14,0	0,83 0,83	57
S3 16/4	220/380 380Δ	50 100	1500 3000	7,10 8,40	27,7/16,0 18,5	0,83 0,84	60
S3 18/4	220/380 380Δ	50 100	1500 3000	8,50 10,2	34,6/20,0 23,0	0,83 0,84	62
S3 20/4	220/380 380Δ	50 100	1500 3000	10,5 12,2	41,6/24,0 26,9	0,83 0,84	65





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
S3 9/2	220/380 380Δ	50 100	3000 6000	5,50 8,50	20,1/11,6 17,8	0,86 0,86	55
S3 12/2	220/380 380Δ	50 100	3000 6000	7,10 11,3	26,0/15,0 23,5	0,87 0,87	57
S3 14/2	220/380 380Δ	50 100	3000 6000	8,80 12,6	32,5/18,8 26,5	0,87 0,87	60
S3 16/2	220/380 380Δ	50 100	3000 6000	10,5 14,3	39,0/22,5 30,0	0,87 0,87	62
S3 20/2	220/380 380Δ	50 100	3000 6000	14,2 19,0	53,7/31,0 40,0	0,87 0,87	65
S3 12/4	220/380 380Δ	50 100	1500 3000	5,20 6,30	20,8/12,0 14,0	0,83 0,83	57
S3 16/4	220/380 380Δ	50 100	1500 3000	7,10 8,40	27,7/16,0 18,5	0,83 0,84	60
S3 18/4	220/380 380Δ	50 100	1500 3000	8,50 10,2	34,6/20,0 23,0	0,83 0,84	62
S3 20/4	220/380 380Δ	50 100	1500 3000	10,5 12,2	41,6/24,0 26,9	0,83 0,84	65





High speed precision spindles

DATASHEET

AF Series





High speed precision spindles

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AF Series

AF 38 LONGER FRAME

AF 38 \varnothing 3

AF 38 \varnothing 3 THROUGH

AF 42 \varnothing 3 - \varnothing 3.175 - \varnothing 4

AF 46 ER11

AF 60 2.5-2 ER11

AF 60 6-2 ER11

AF 80 ER20

AF 90 ER25

AF 100 ER20

AF 110 ER32

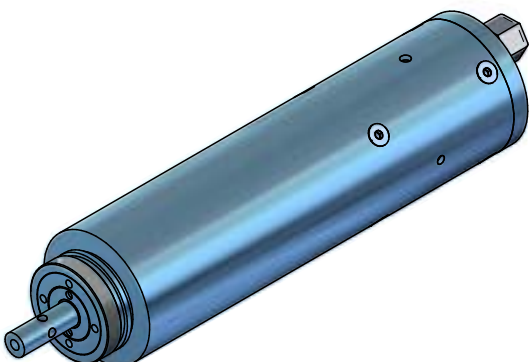
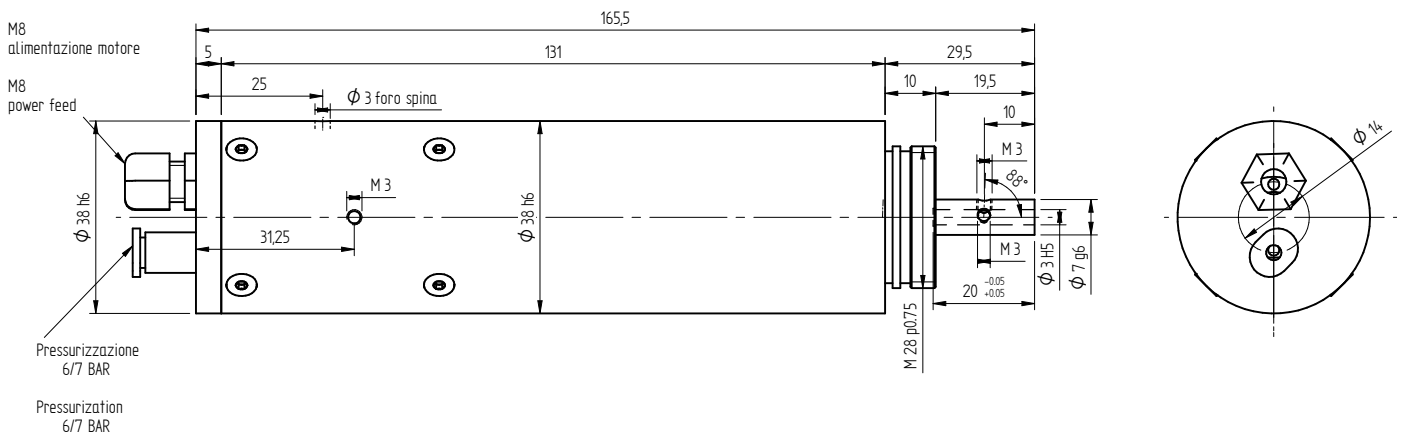
AF 110 ER40

AF 38 LONGER FRAME



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF38 4,5/2	220	500 / 580	30000 / 35000	0,08	0,3	0,78	1

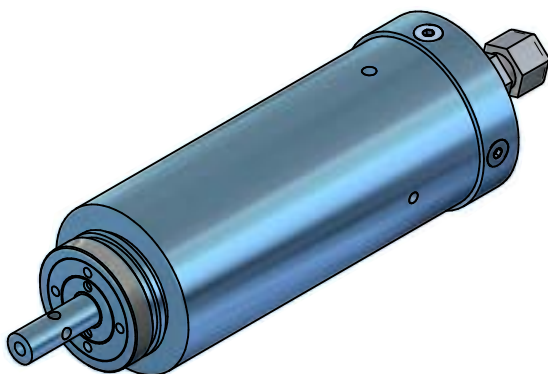
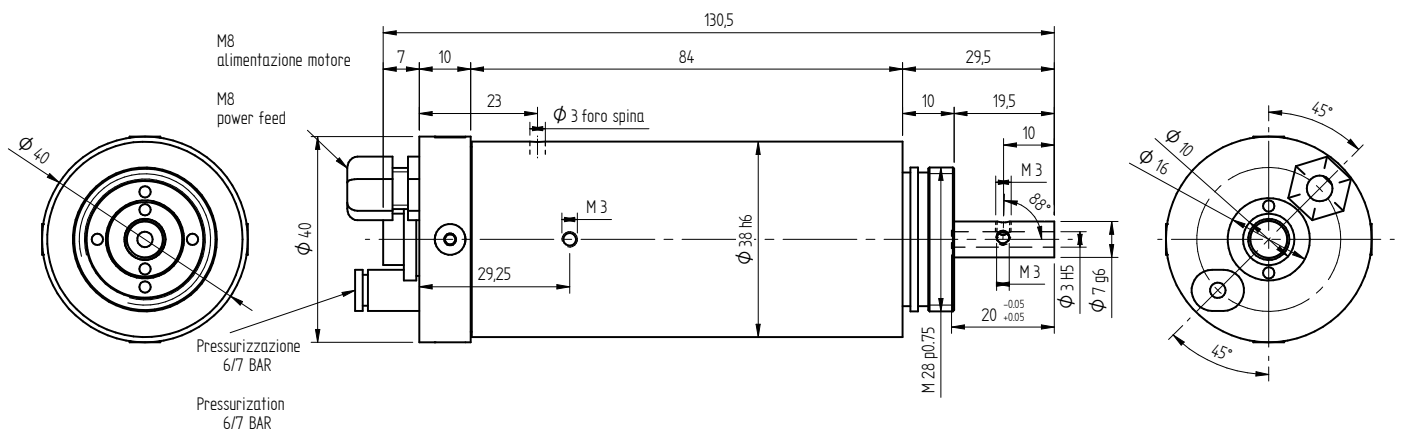
Collet spindle without cooling



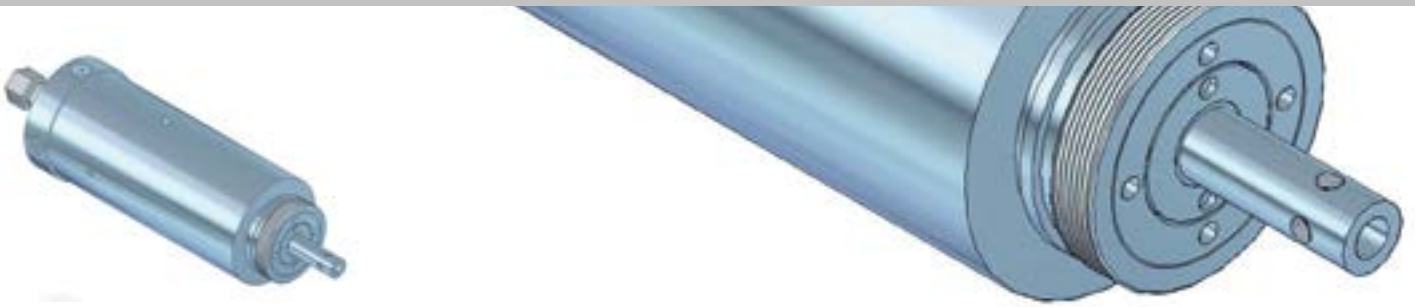


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF38 4,5/2	220	500 / 580	30000 / 35000	0,08	0,3	0,78	1

Collet spindle without cooling

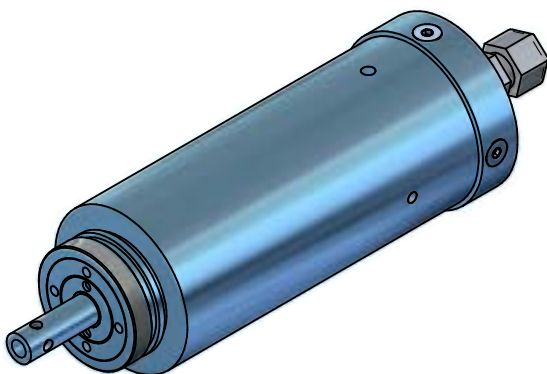
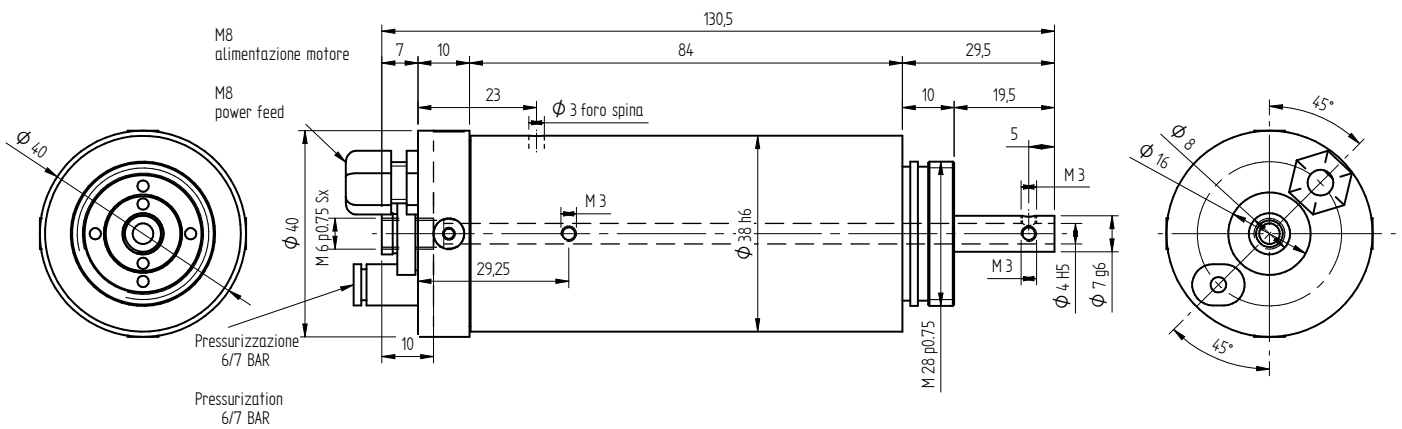


AF 38 Ø 3 THROUGH



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF38 4,5/2	220	500 / 580	30000 / 35000	0,08	0,3	0,78	1

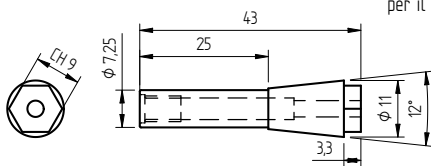
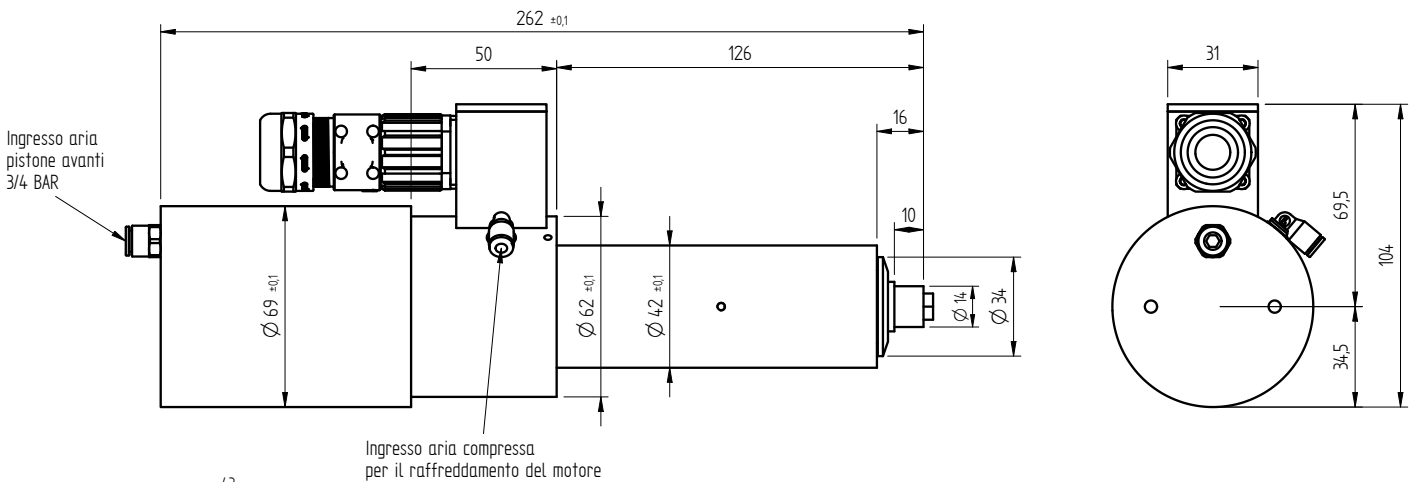
Collet spindle without cooling



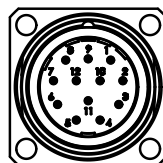
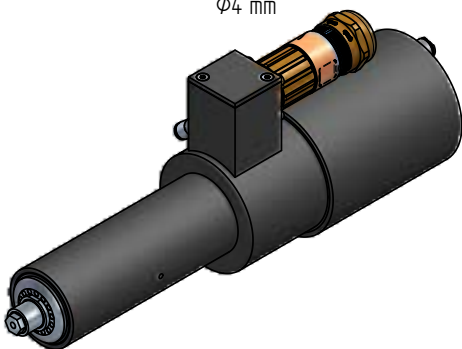
AF 42 \varnothing 3 - \varnothing 3.175 - \varnothing 4



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF42 4,5/2	220	700 / 1000	42000 / 60000	0,3	0,5	/	1



Campo di serraggio : \varnothing 3 mm
 \varnothing 3.175 mm
 \varnothing 4 mm



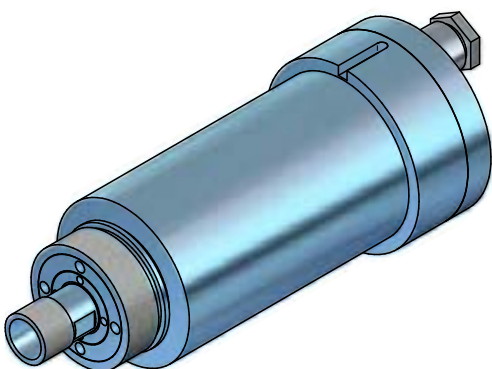
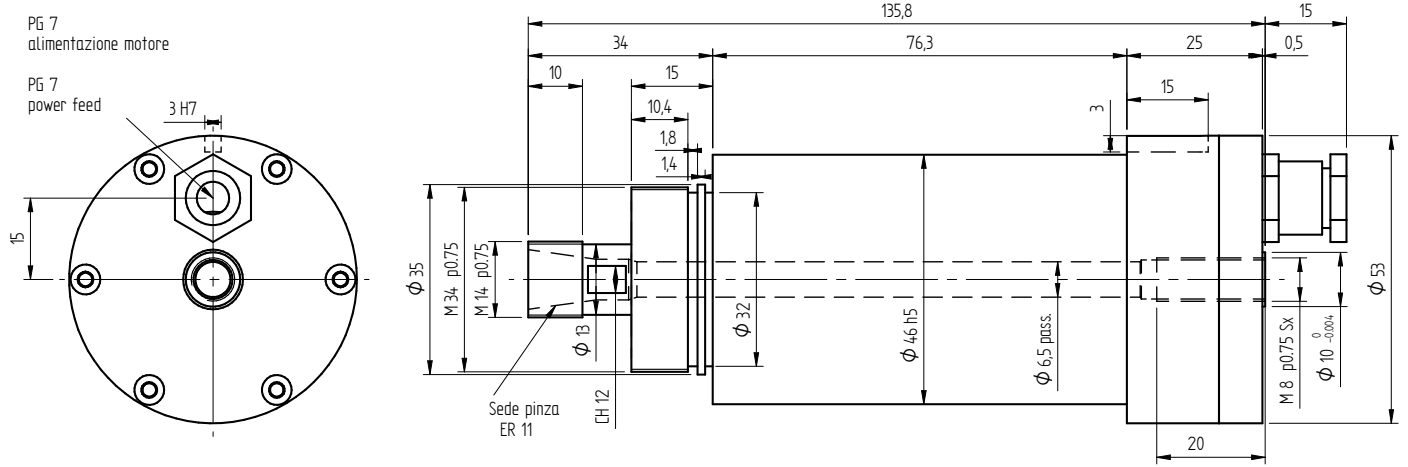
- 1 - Fase motore / Motor's phase - U
- 2 - Fase motore / Motor's phase - V
- 3 - Fase motore / Motor's phase - W
- 4 - Filo di massa / Earth wire PE
- 5 - Libero / free
- 6 - Libero / free
- 7 - Alimentazione / Card feed +24 Vdc - A
- 8 - Alimentazione / Card feed 0 Vdc - B
- 9 - Contagiri / Two impulses for revolution
- 10 - Libero / free
- 11 - Libero / free
- 12 - Libero / free





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF46 4.5/2	220	300 / 400	18000 / 24000	0,14	0,85	0,75	2

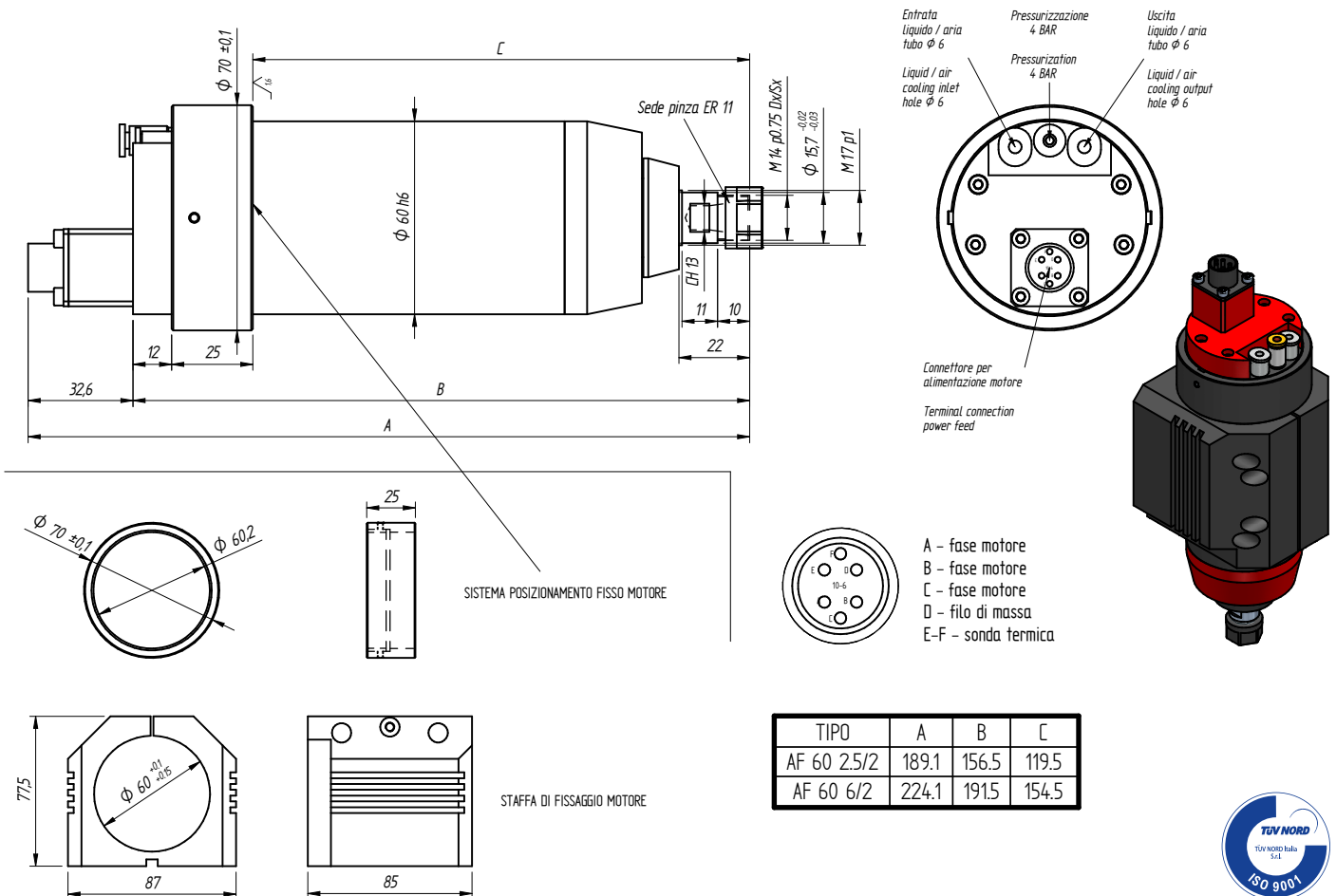
Collet spindle without cooling



AF 60 2.5-2 ER11



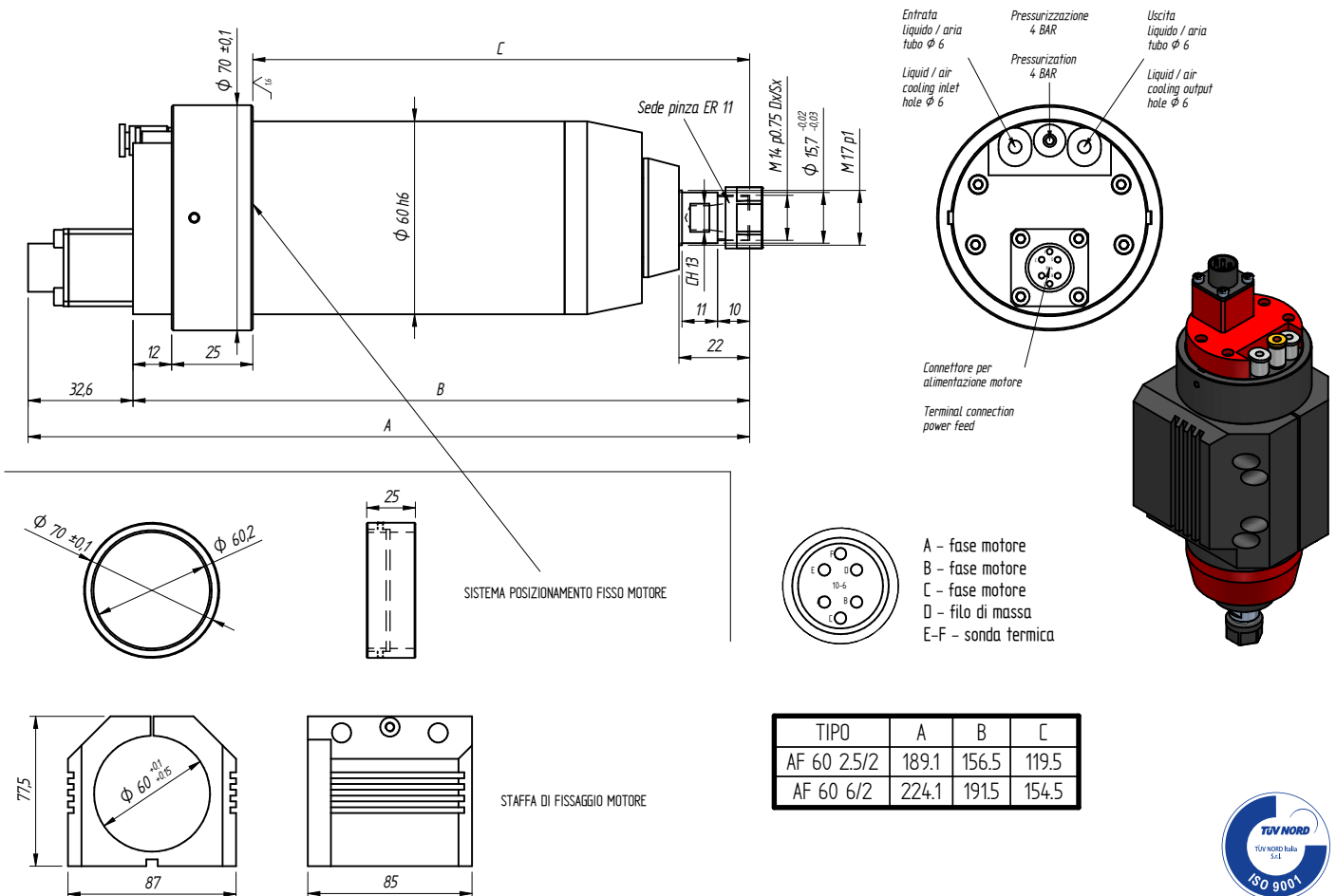
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF60 2.5/2 compressed air	220	400	24000	0,20	1,4	0,70	2
2.5/2 liquid	220	400	24000	0,25	1,8	0,70	2
AF60 2.5/2 compressed air	380	400	24000	0,20	0,8	0,70	2
2.5/2 liquid	380	400	24000	0,25	1,0	0,70	2
AF60 2.5/2 compressed air	220	400/670	24000/40000	0,20	1,4	0,70	2
2.5/2 liquid	220	400/670	24000/40000	0,25	1,0	0,70	2
AF60 2.5/2 compressed air	380	400/670	24000/40000	0,20	0,8	0,70	2
2.5/2 liquid	380	400/670	24000/40000	0,25	1,0	0,70	2
AF60 6/2 compressed air	220	400	24000	0,35	1,9	0,70	2,5
6/2 liquid	220	400	24000	0,55	2,6	0,75	2,5
AF60 6/2 compressed air	380	400	24000	0,35	1,1	0,75	2,5
6/2 liquid	380	400	24000	0,55	1,5	0,75	2,5
AF60 6/2 compressed air	220	400/670	24000/40000	0,35	1,9	0,75	2,5
6/2 liquid	220	400/670	24000/40000	0,55	2,6	0,75	2,5
AF60 6/2 compressed air	380	400/670	24000/40000	0,35	1,1	0,75	2,5
6/2 liquid	380	400/670	24000/40000	0,50	1,5	0,75	2,5



AF 60 6-2 ER11

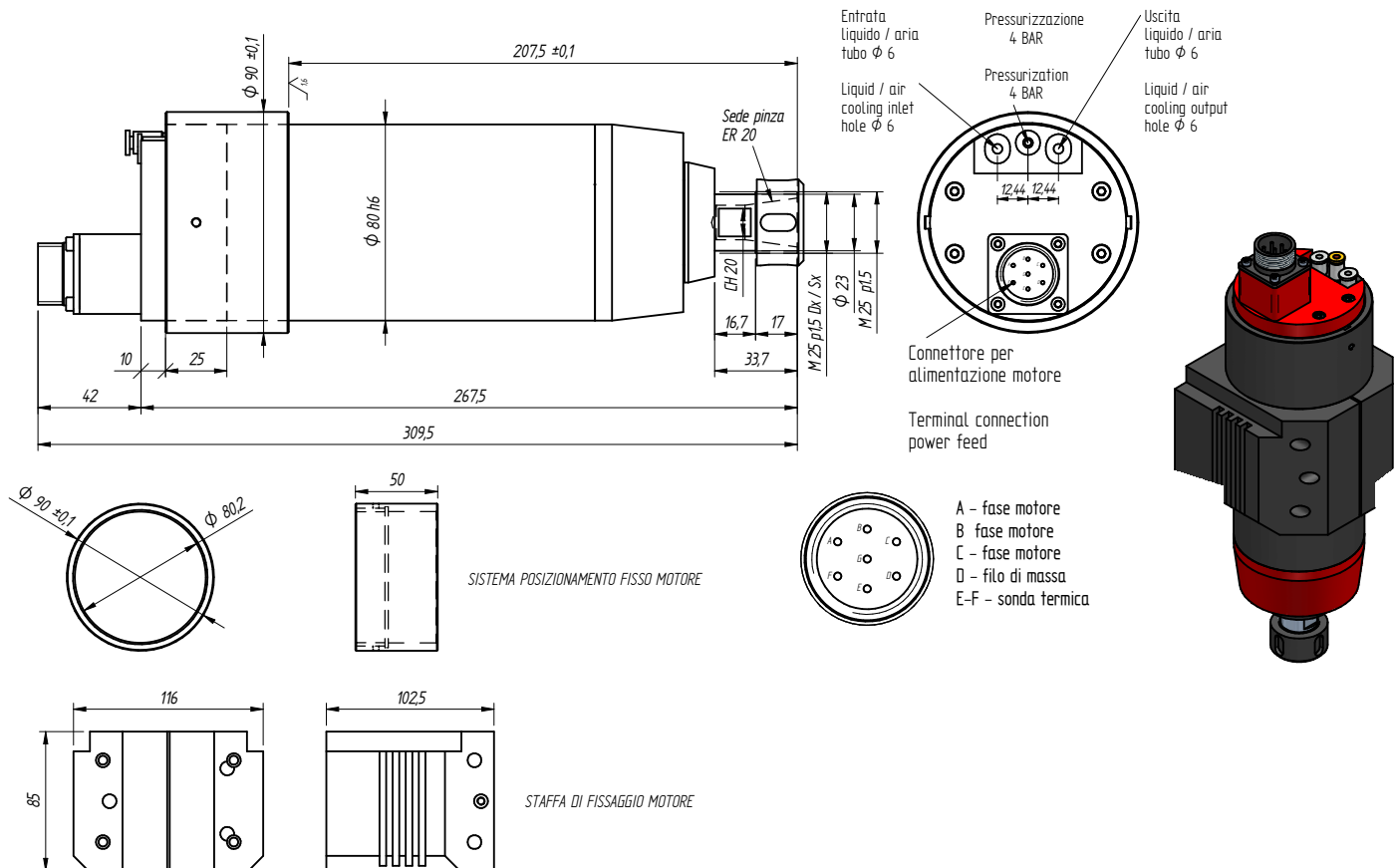


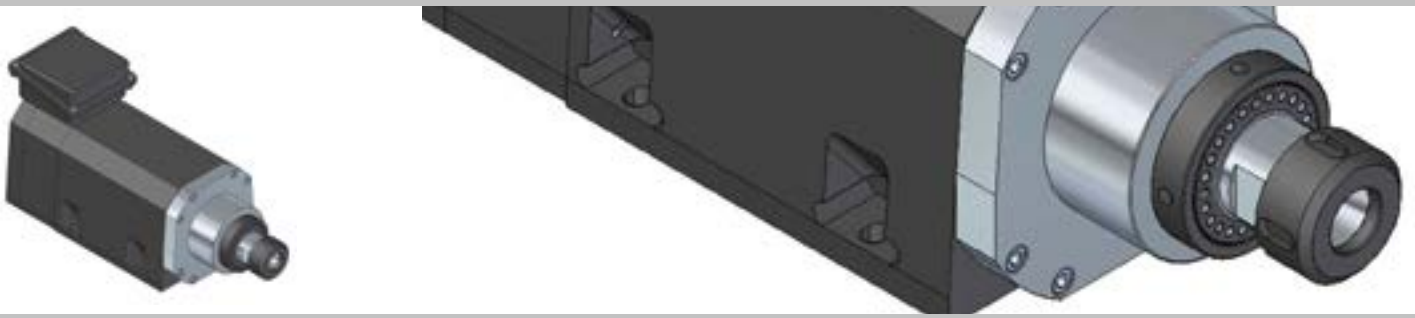
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF60 2.5/2 compressed air	220	400	24000	0,20	1,4	0,70	2
2.5/2 liquid	220	400	24000	0,25	1,8	0,70	2
AF60 2.5/2 compressed air	380	400	24000	0,20	0,8	0,70	2
2.5/2 liquid	380	400	24000	0,25	1,0	0,70	2
AF60 2.5/2 compressed air	220	400/670	24000/40000	0,20	1,4	0,70	2
2.5/2 liquid	220	400/670	24000/40000	0,25	1,0	0,70	2
AF60 2.5/2 compressed air	380	400/670	24000/40000	0,20	0,8	0,70	2
2.5/2 liquid	380	400/670	24000/40000	0,25	1,0	0,70	2
AF60 6/2 compressed air	220	400	24000	0,35	1,9	0,70	2,5
6/2 liquid	220	400	24000	0,55	2,6	0,75	2,5
AF60 6/2 compressed air	380	400	24000	0,35	1,1	0,75	2,5
6/2 liquid	380	400	24000	0,55	1,5	0,75	2,5
AF60 6/2 compressed air	220	400/670	24000/40000	0,35	1,9	0,75	2,5
6/2 liquid	220	400/670	24000/40000	0,55	2,6	0,75	2,5
AF60 6/2 compressed air	380	400/670	24000/40000	0,35	1,1	0,75	2,5
6/2 liquid	380	400/670	24000/40000	0,50	1,5	0,75	2,5



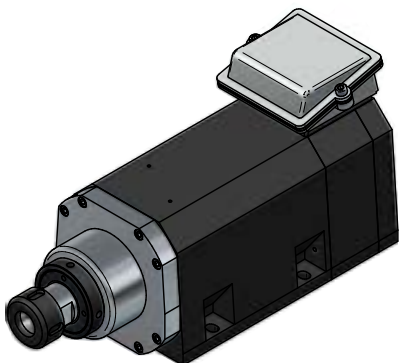
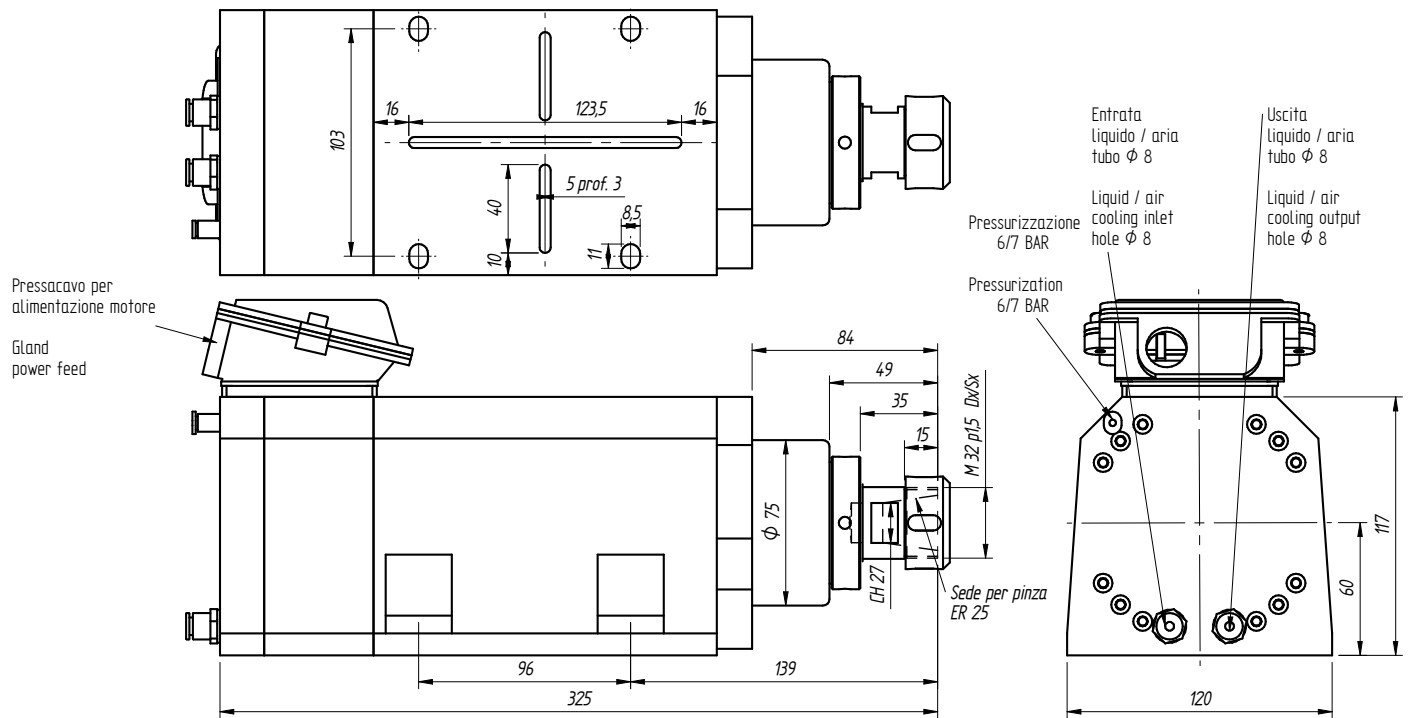


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF80 9/2 compressed air	220	400	24000	0,75	4,1	0,75	6,5
9/2 liquid	220	400	24000	1,1	5,2	0,75	6,5
AF80 9/2 compressed air	380	400	24000	0,75	2,4	0,75	6,5
9/2 liquid	380	400	24000	1,1	3,0	0,75	6,5
AF80 9/2 compressed air	220	400/670	24000/40000	1,0	4,8	0,75	6,5
9/2 liquid	220	400/670	24000/40000	1,4	5,8	0,75	6,5
AF80 9/2 compressed air	380	400/670	24000/40000	1,0	2,7	0,75	6,5
9/2 liquid	380	400/670	24000/40000	1,4	3,3	0,75	6,5



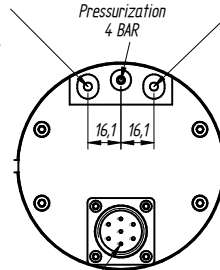
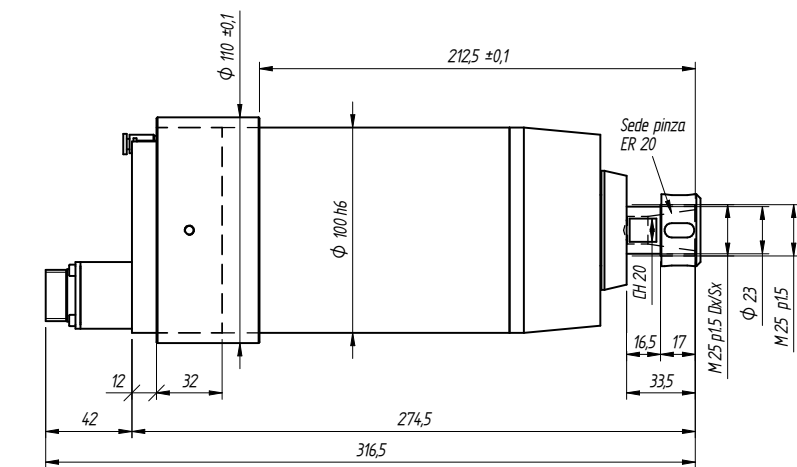


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF90 10/2 compressed air	380	200/300	12000/18000	3,6	8,6	0,81	14
10/2 liquid	380	200/300	12000/18000	4,0	8,7	0,81	14
AF90 10/2 compressed air	380	300/400	18000/24000	3,6	8,6	0,82	14
10/2 liquid	380	300/400	18000/24000	4,6	11,4	0,82	14



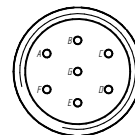
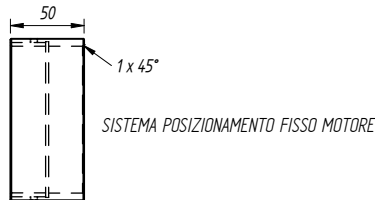
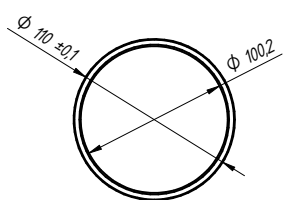
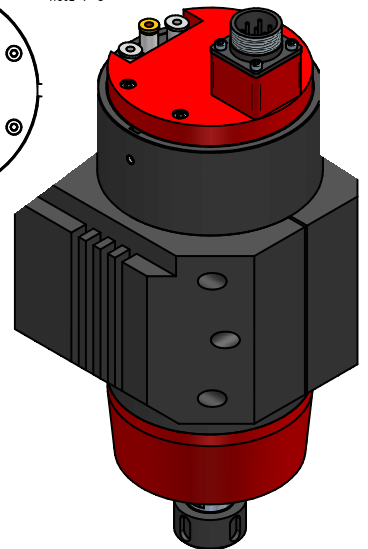


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF100 7/2 compressed air	220	400	24000	1,0	5,5	0,80	8
7/2 liquid	220	400	24000	1,8	7,8	0,80	8
AF100 7/2 compressed air	380	400	24000	1,0	3,2	0,80	8
7/2 liquid	380	400	24000	1,8	4,5	0,80	8
AF100 7/2 compressed air	220	400/670	24000/40000	1,8	7,8	0,80	8
7/2 liquid	220	400/670	24000/40000	2,2	8,5	0,80	8
AF100 7/2 compressed air	380	400/670	24000/40000	1,8	4,5	0,80	8
7/2 liquid	380	400/670	24000/40000	2,2	4,9	0,80	8

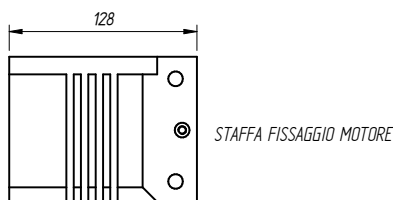
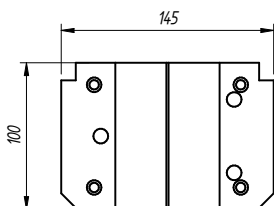


Connettore per alimentazione motore

Terminal connection power feed

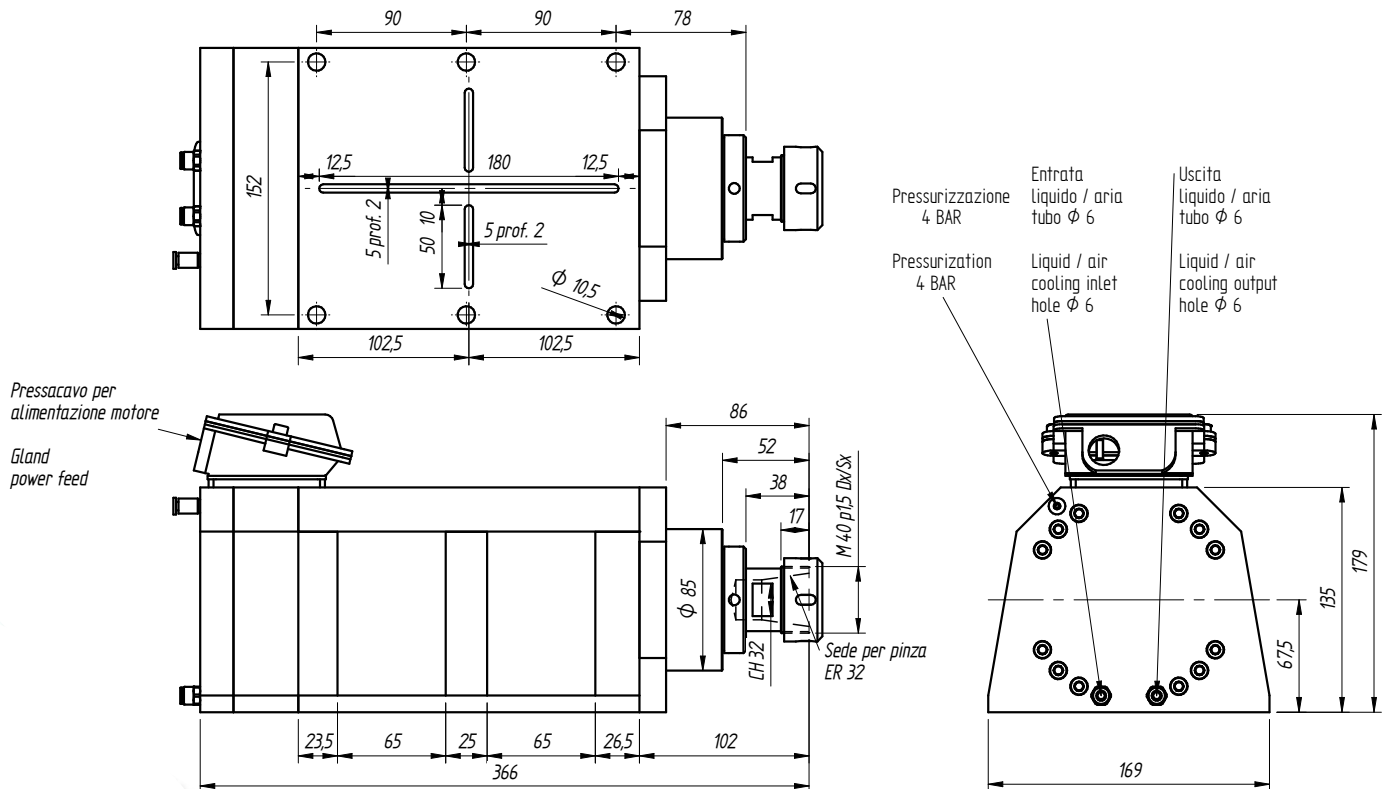


- A - fase motore
- B - fase motore
- C - fase motore
- D - filo di massa
- E-F - sonda termica





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 14/2 ER32 compressed air	380	200/300	12000/18000	7,0	14,5	0,85	28
14/2 ER32 liquid	380	200/300	12000/18000	7,5	16,8	0,85	28
AF110 14/2 ER32 compressed air	380	300/400	18000/24000	7,0	14,5	0,82	28
14/2 ER32 liquid	380	300/400	18000/24000	8,5	19,4	0,82	28
AF110 14/2 ER40 compressed air	380	100/200	6000/12000	4,0	8,8	0,82	28
14/2 ER40 liquid	380	100/200	6000/12000	5,0	10,0	0,82	28
AF110 14/2 ER40 compressed air	380	200/300	12000/18000	7,0	14,5	0,85	28
14/2 ER40 liquid	380	200/300	12000/18000	7,5	16,8	0,85	28

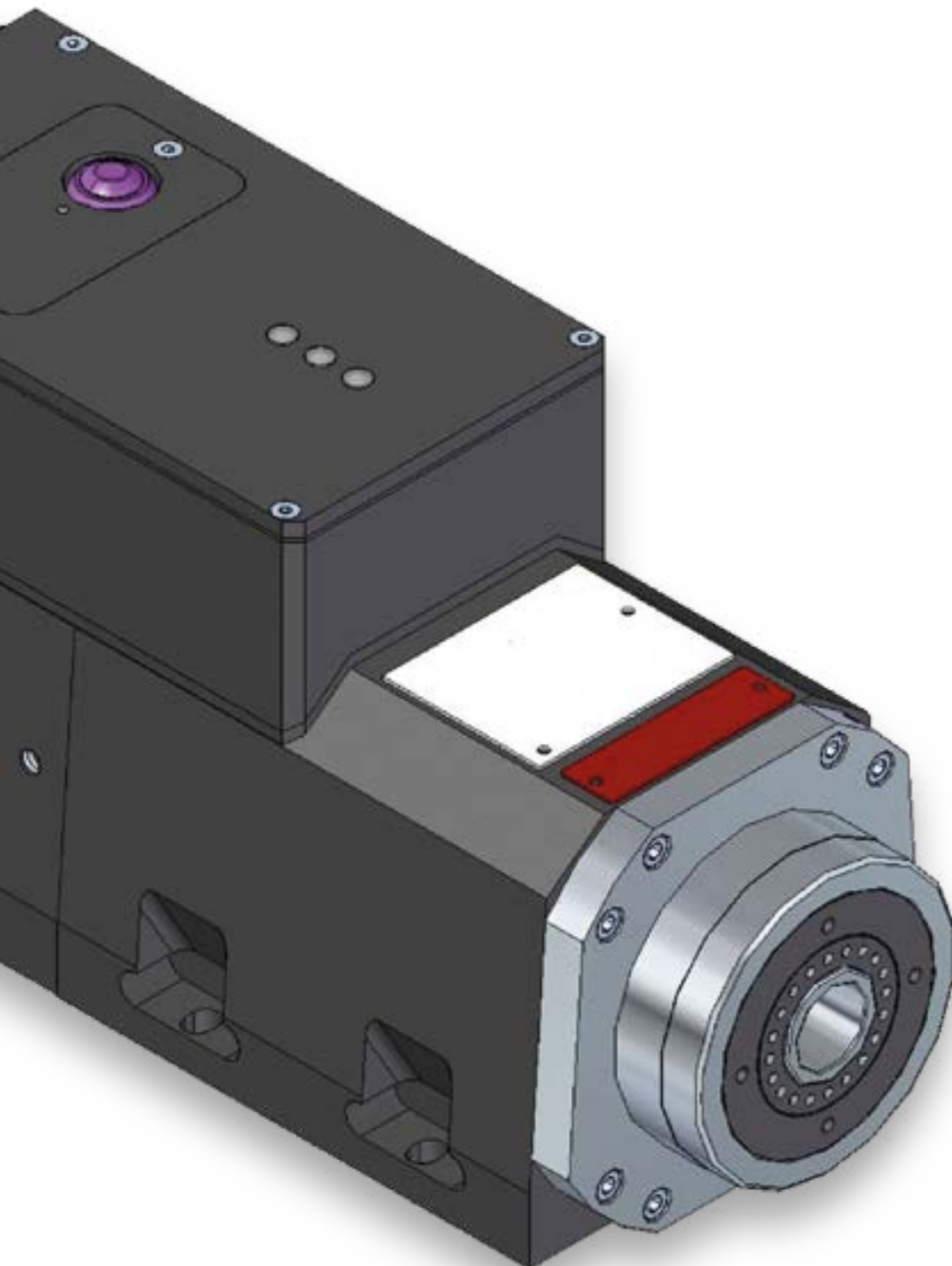




High speed precision spindles

DATASHEET

AF AUTOMATIC TOOL CHANGER Series



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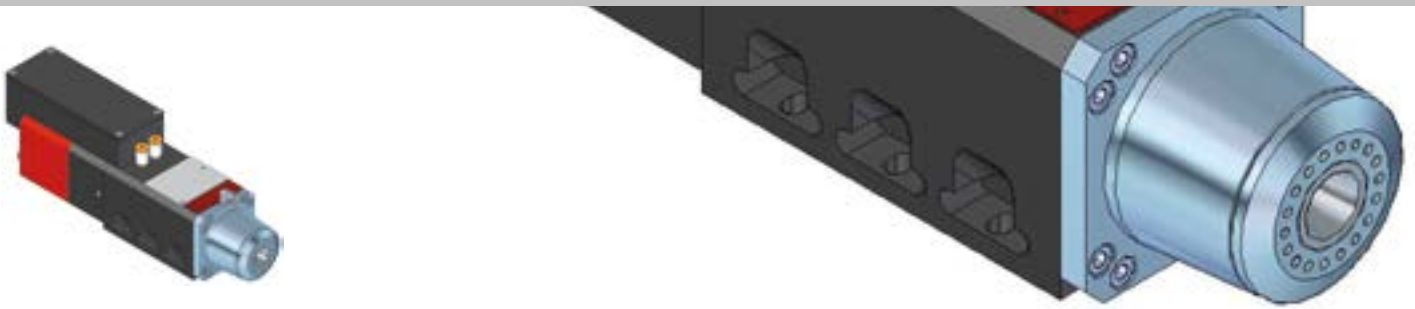
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AF CU Series

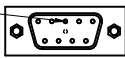
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AF 116 CU HSK F63
AF 152 CU HSK E63
AF 152 CU ISO 40
AF 165 CU HSK B80
AF 165 CU HSK B100
AF 165 CU ISO 50
AF 240 CU B100
AF 270 CU B100

AF 60 CU ISO 10

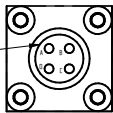


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF60 6/2 CU ISO10 compressed air	220	600/833	50000	0,55	2,1	0,75	3,0
ISO10 liquid	220	600/833	50000	1,0	4,7	0,75	3,0
AF60 6/2 CU ISO10 compressed air	380	600/833	50000	0,55	1,2	0,75	3,0
ISO10 liquid	380	600/833	50000	1,0	2,7	0,75	3,0

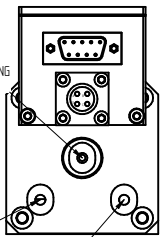
CONNETTORE BASSA TENSIONE
V. 24 Vdc
LOW TENSION CONNECTOR
V. 24 Vdc



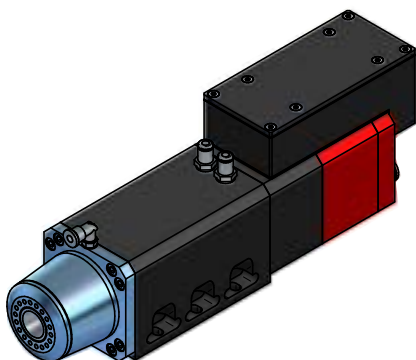
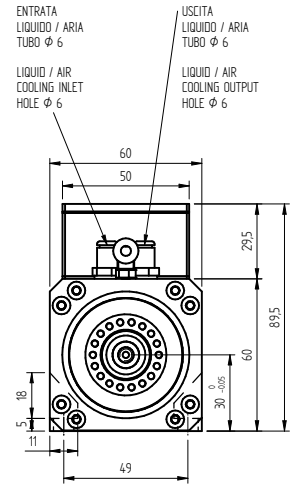
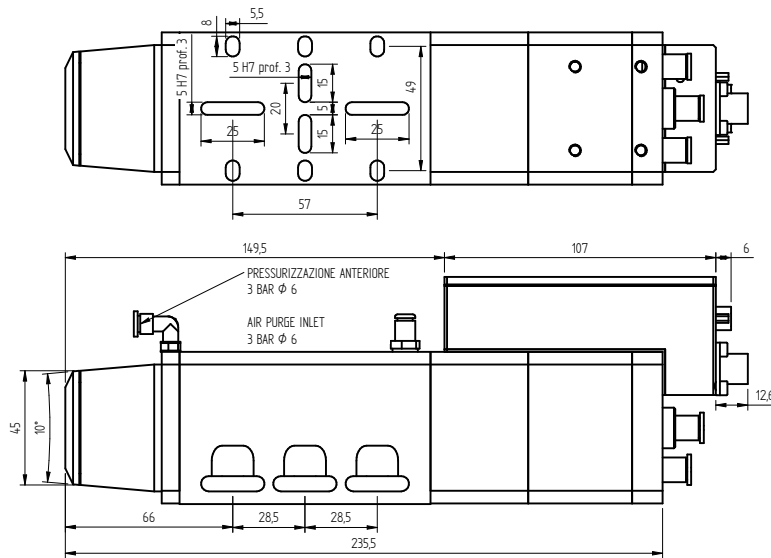
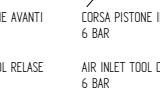
A-B-C = Alimentazione motore /
Power supply motor
D = Filo massa / Earth

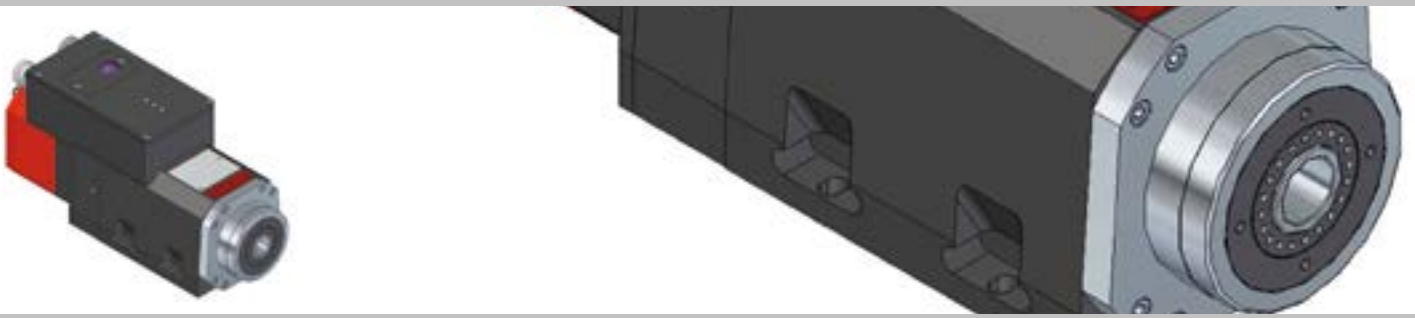


PULIZIA CONO
6 BAR
TAPER CLEANING
6 BAR

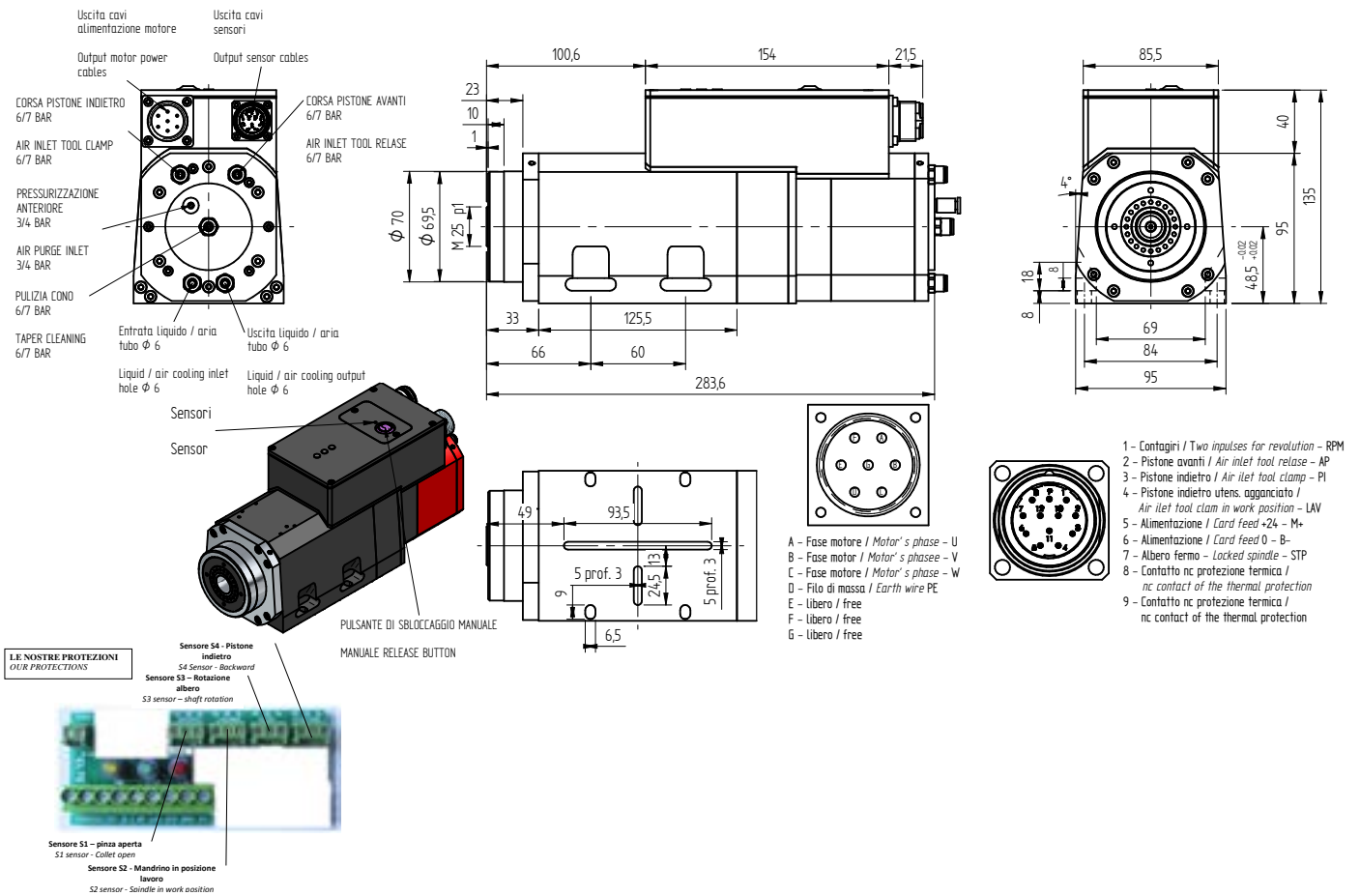


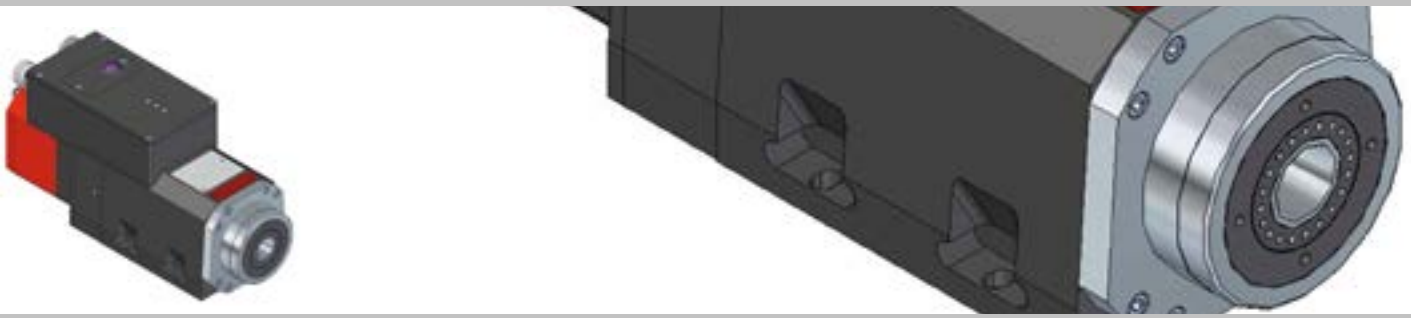
CORSA PISTONE AVANTI
6 BAR
CORSO PISTONE INDIETRO
6 BAR
AIR INLET TOOL RELEASE
6 BAR
AIR INLET TOOL CLAMP
6 BAR



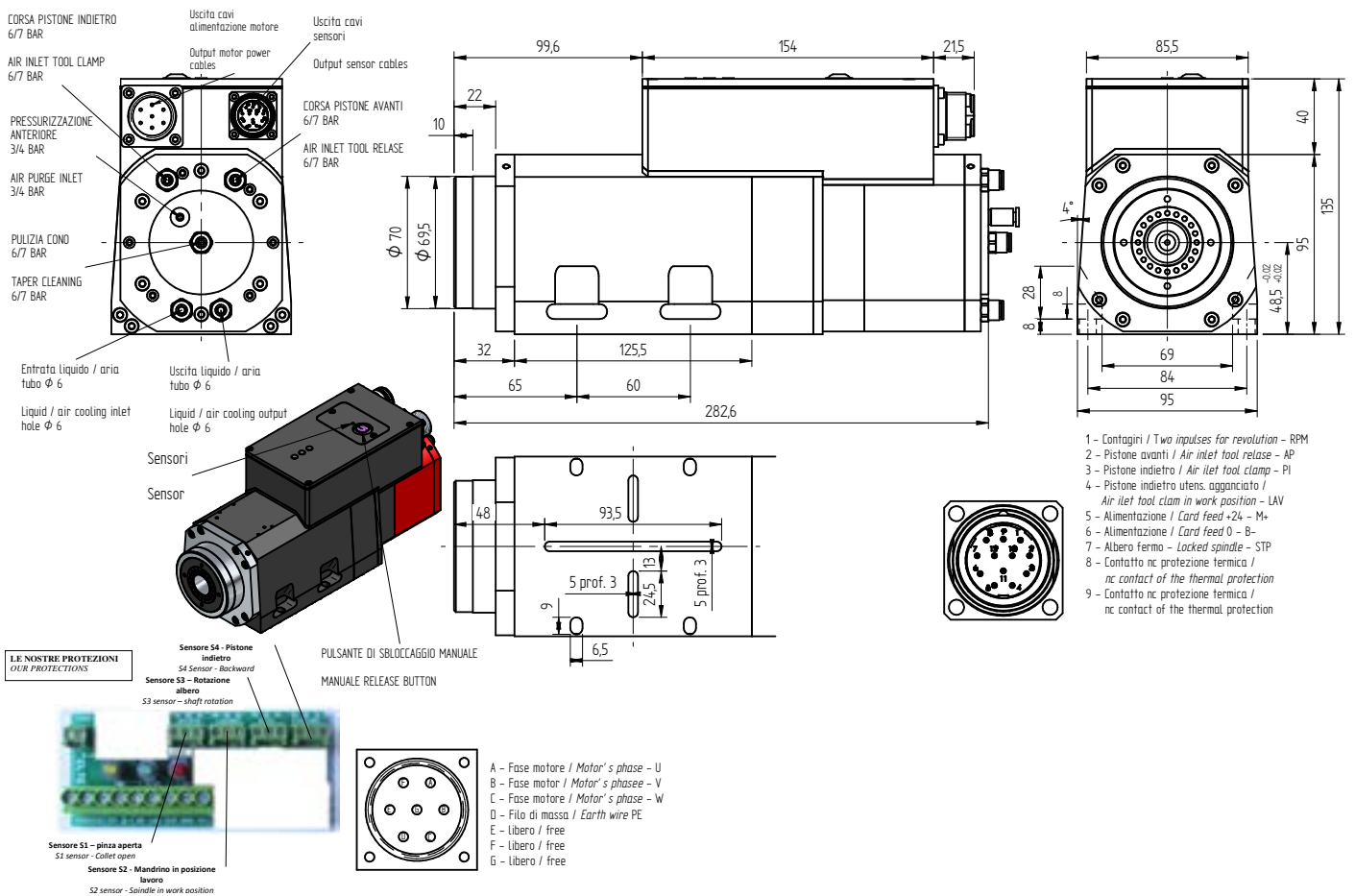


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF80 7/2 CU HSK E-25 compressed air	350	400 - 670	24000 - 40000	1,8	4,5	0,80	8,5
HSK E-25 liquid	350	400 - 670	24000 - 40000	2,2	4,9	0,80	8,5





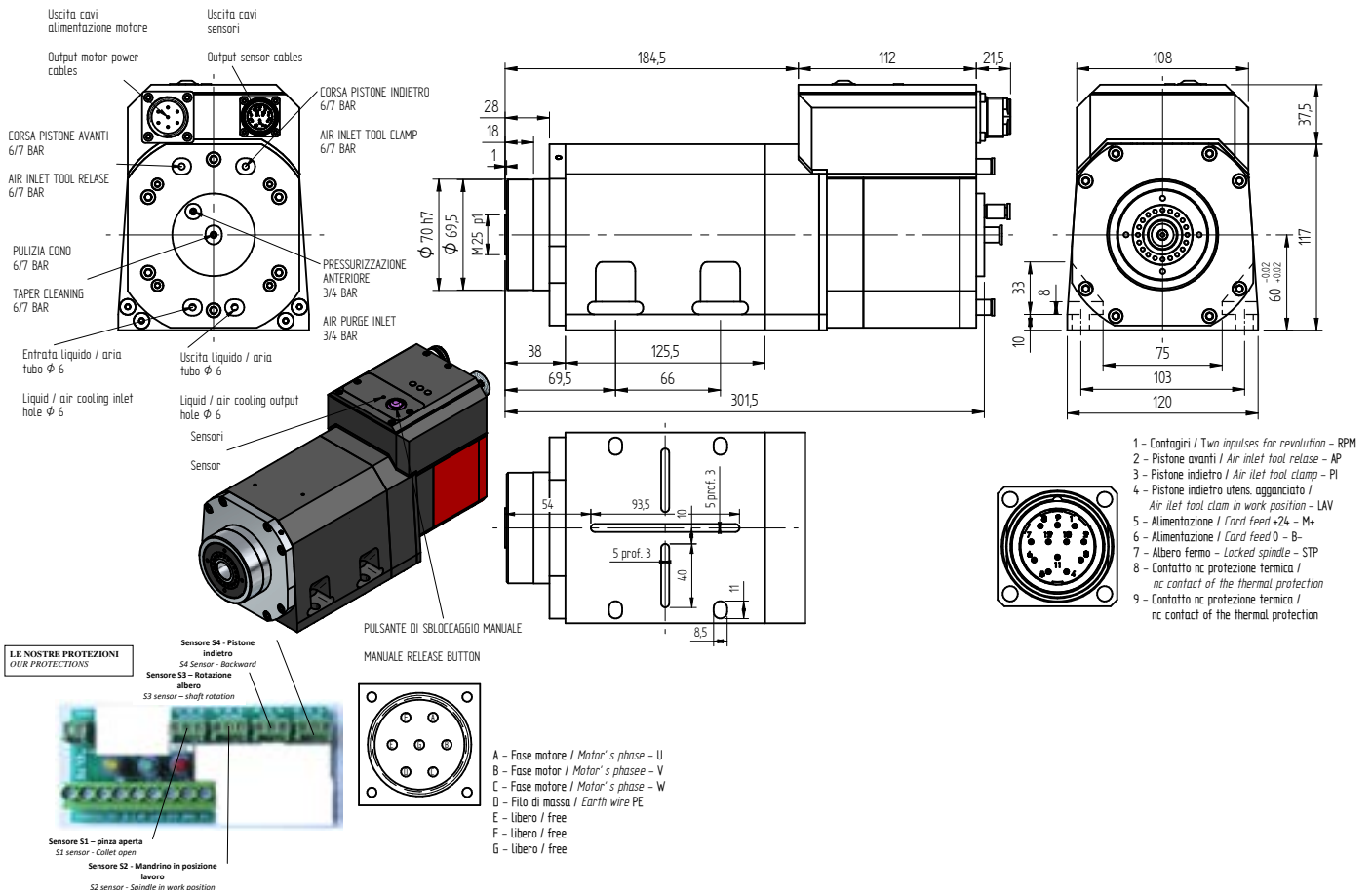
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF80 7/2 CU ISO 20 compressed air	350	400 - 670	24000 - 40000	1,8	4,5	0,80	8,5
ISO 20 liquid	350	400 - 670	24000 - 40000	2,2	4,9	0,80	8,5



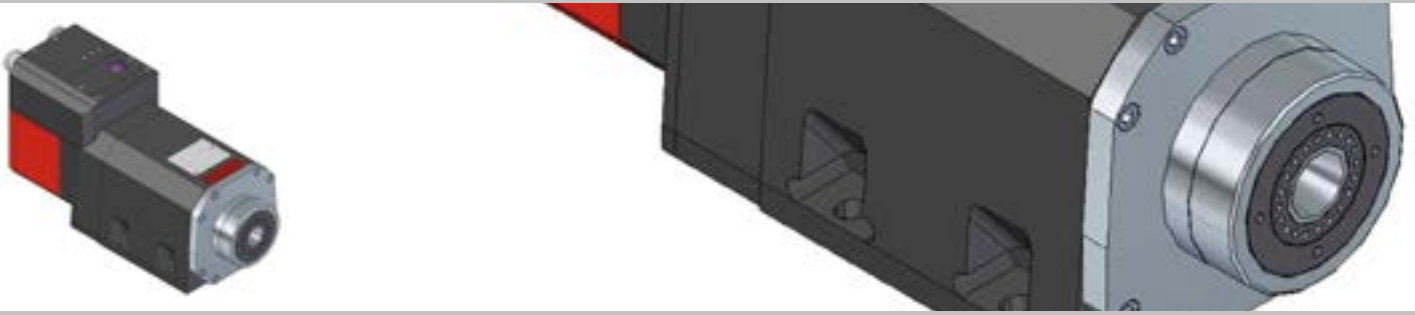
AF 90 CU 7-2 HSK E25



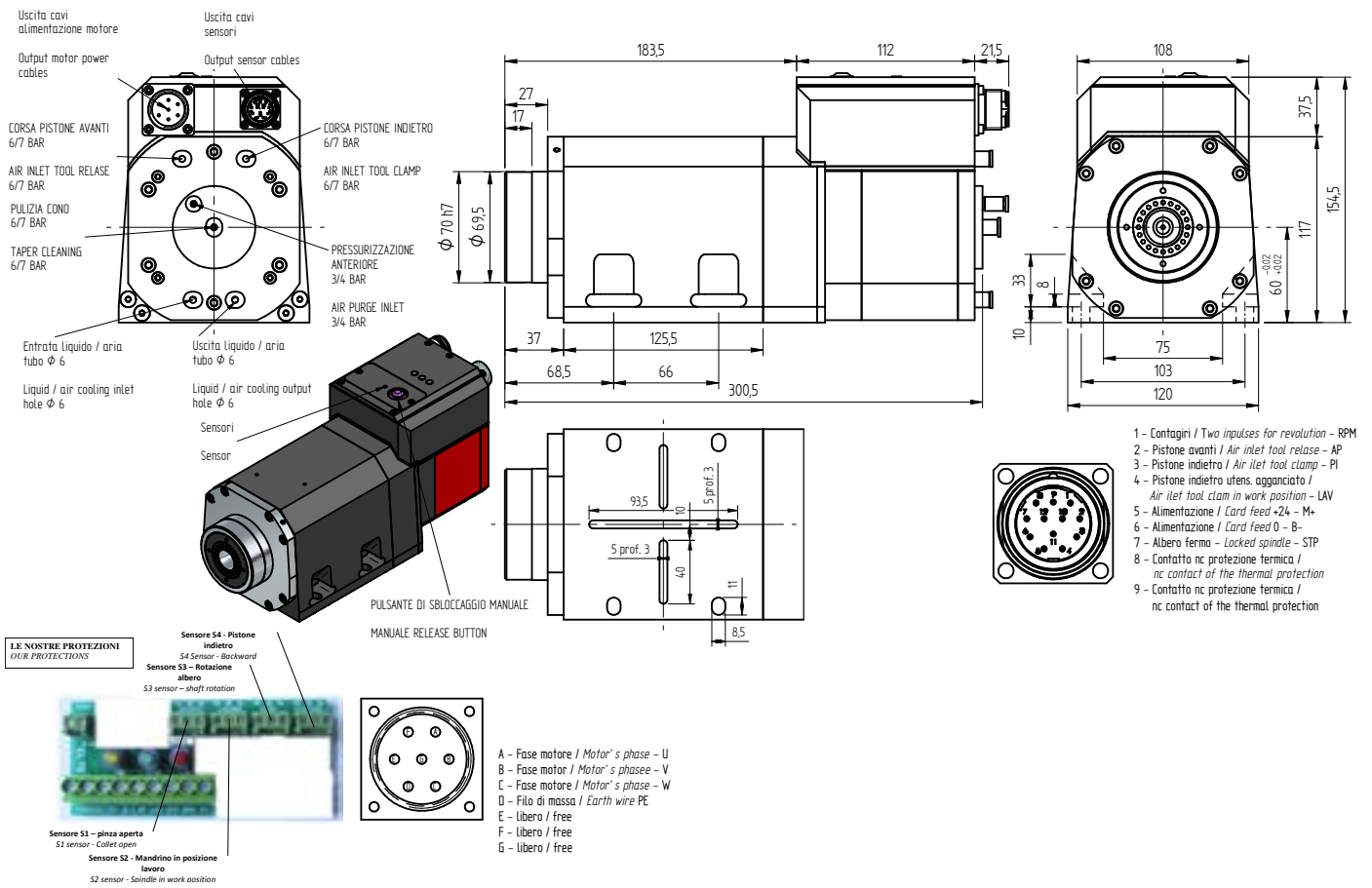
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF90 7/2 CU HSK E-25 compressed air	350	400 - 670	24000 - 40000	2,4	5,4	0,85	13
HSK E-25 liquid	350	400 - 670	24000 - 40000	3	6.9	0,85	13



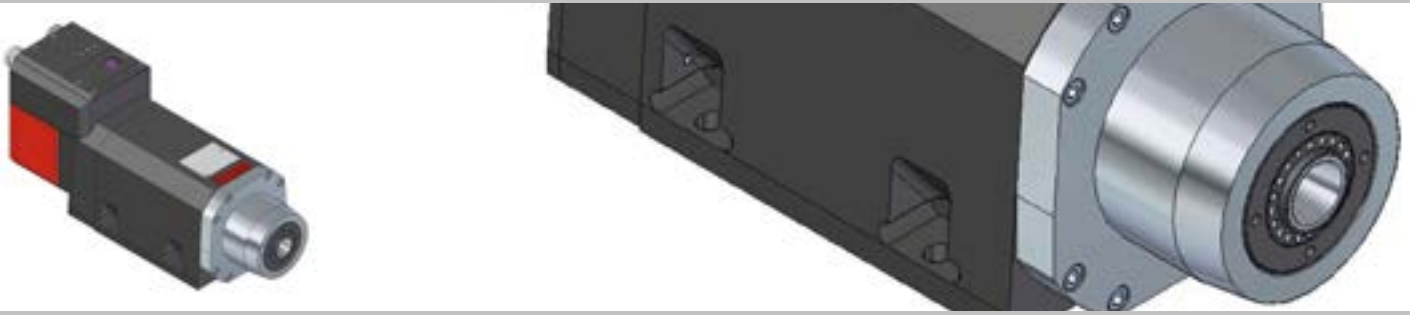
AF 90 CU 7-2 ISO 20



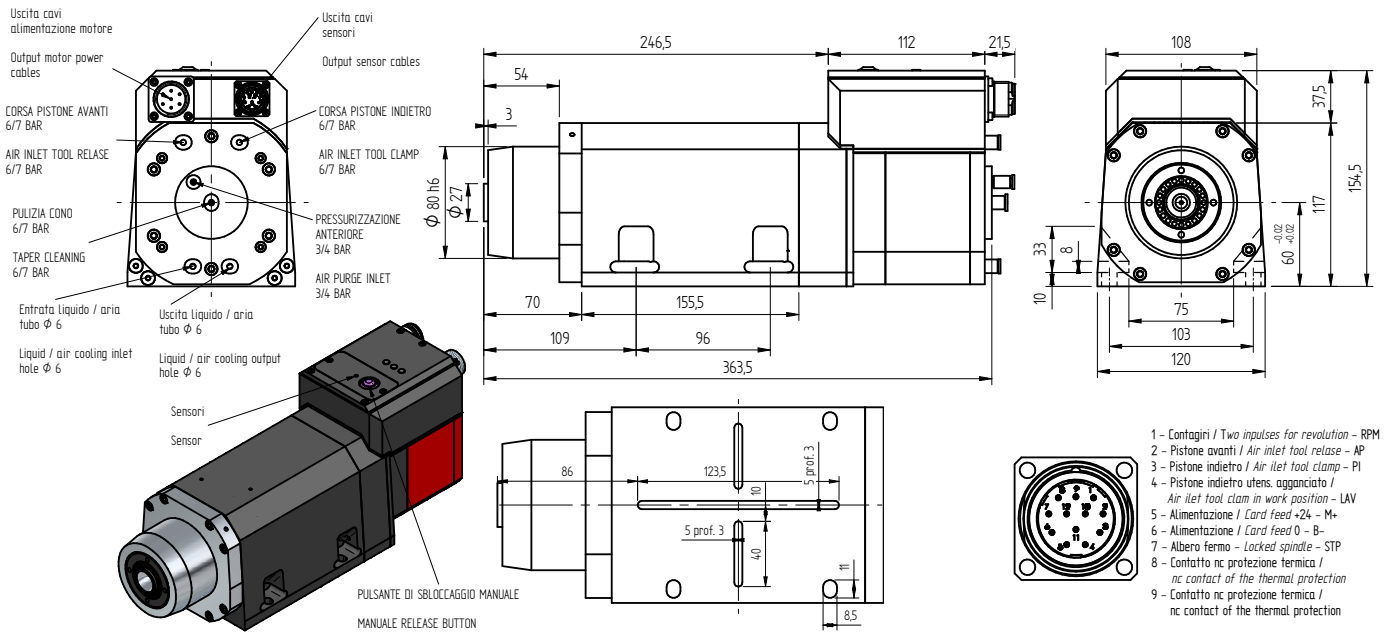
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF90 7/2 CU ISO 20 compressed air	350	400 - 670	24000 - 40000	2,4	5,4	0,85	13
ISO 20 liquid	350	400 - 670	24000 - 40000	3	6,9	0,85	13



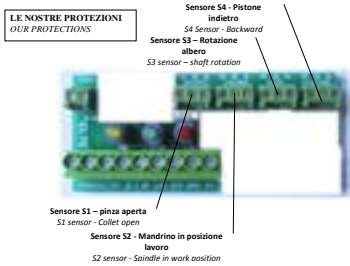
AF 90 CU 10-2 ISO 20



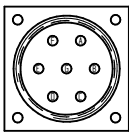
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF90 10/2 CU ISO 20 compressed air	350	300 - 400	18000 - 24000	3,6	8,6	0,84	16
ISO 20 liquid	350	300 - 400	18000 - 24000	4.5	10.4	0,84	16



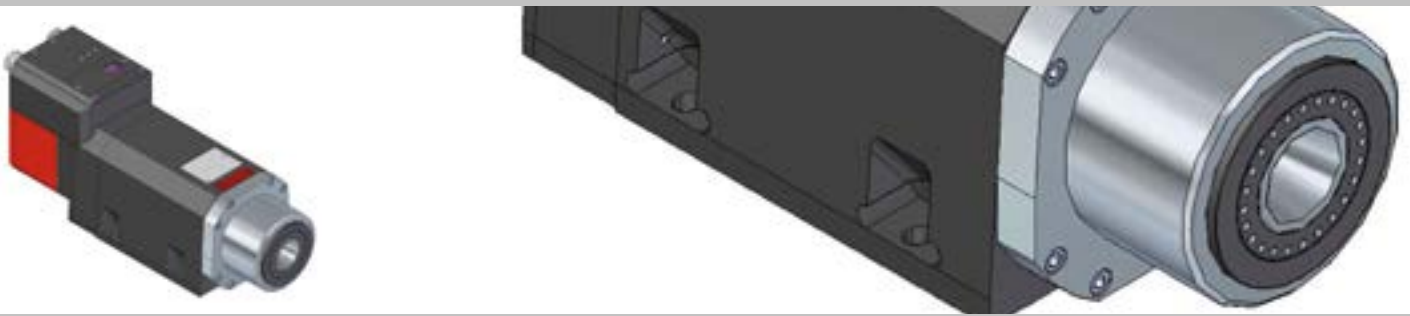
- 1 - Contagiri / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clam in work position - LAV
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP
- 8 - Contatto nc protezione termica / nc contact of the thermal protection
- 9 - Contatto nc protezione termica / nc contact of the thermal protection



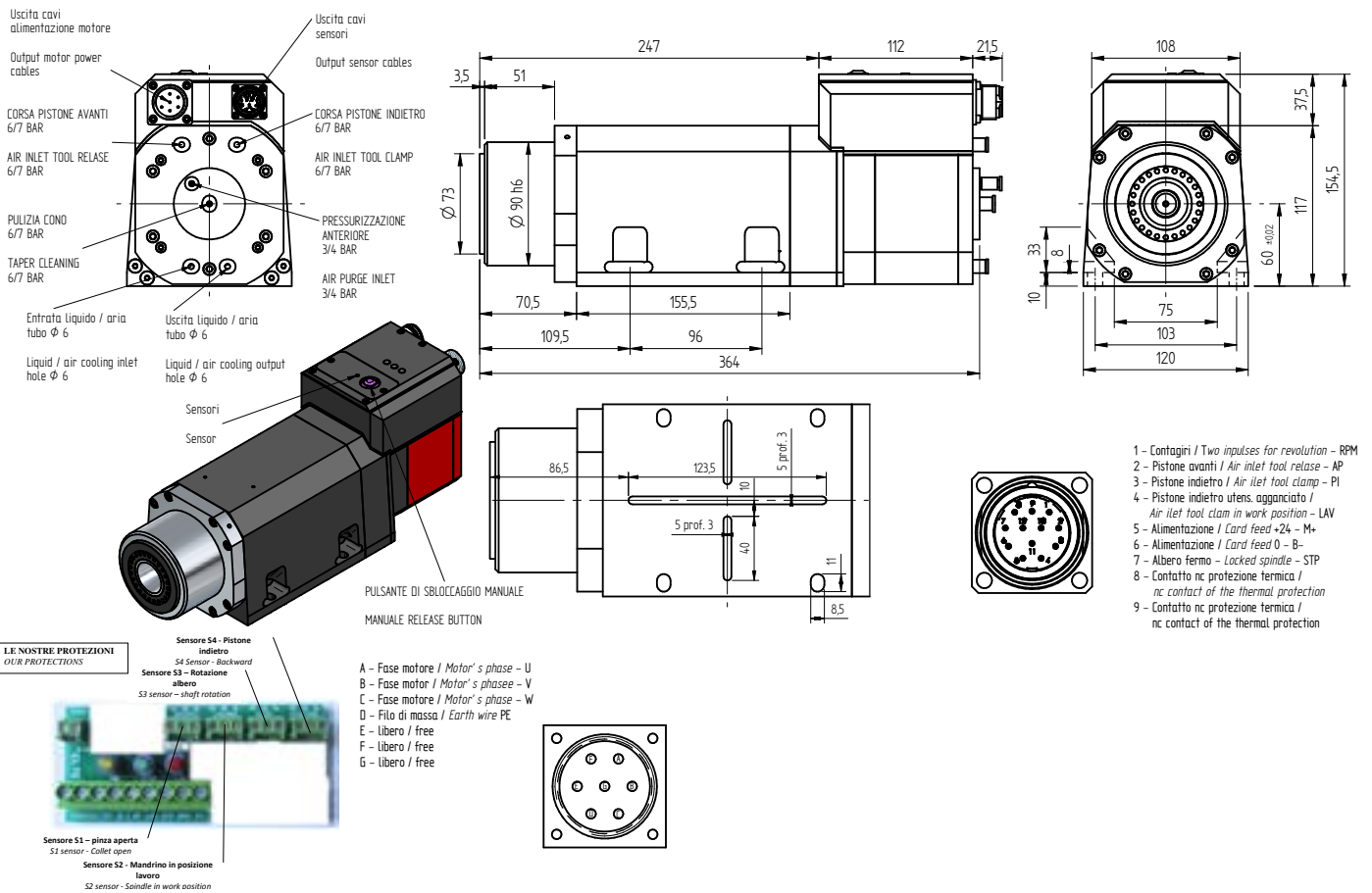
- A - Fase motore / Motor's phase - U
 B - Fase motore / Motor's phase - V
 C - Fase motore / Motor's phase - W
 D - Filo di massa / Earth wire PE
 E - Libero / free
 F - Libero / free
 G - Libero / free



AF 90 CU 10-2 ISO 30



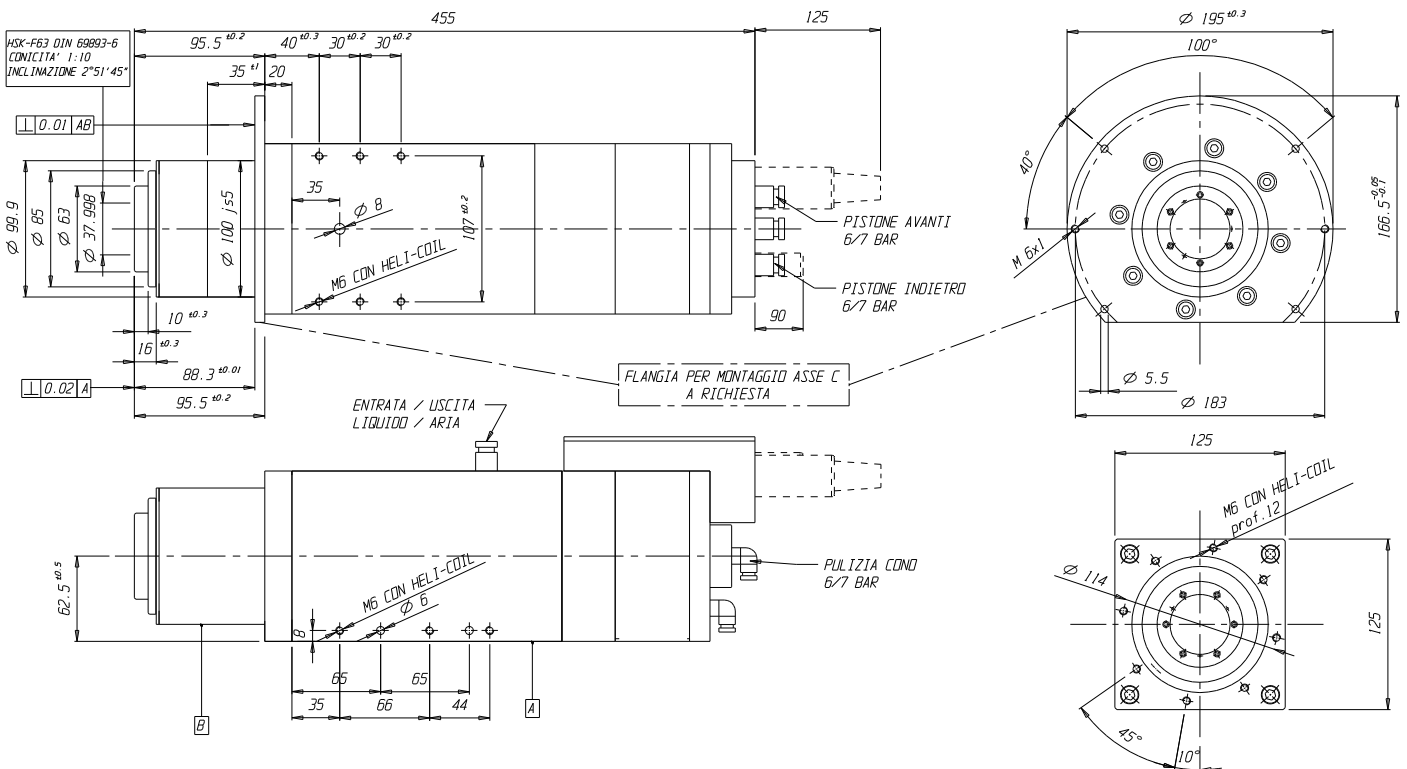
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF90 10/2 CU ISO 30 compressed air	350	300 - 400	18000 - 24000	3,6	8,6	0,84	16
ISO 30 liquid	350	300 - 400	18000 - 24000	4,5	10,4	0,84	16



AF 95 CU HSK F63



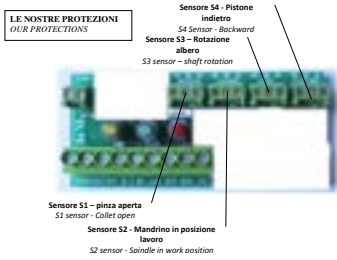
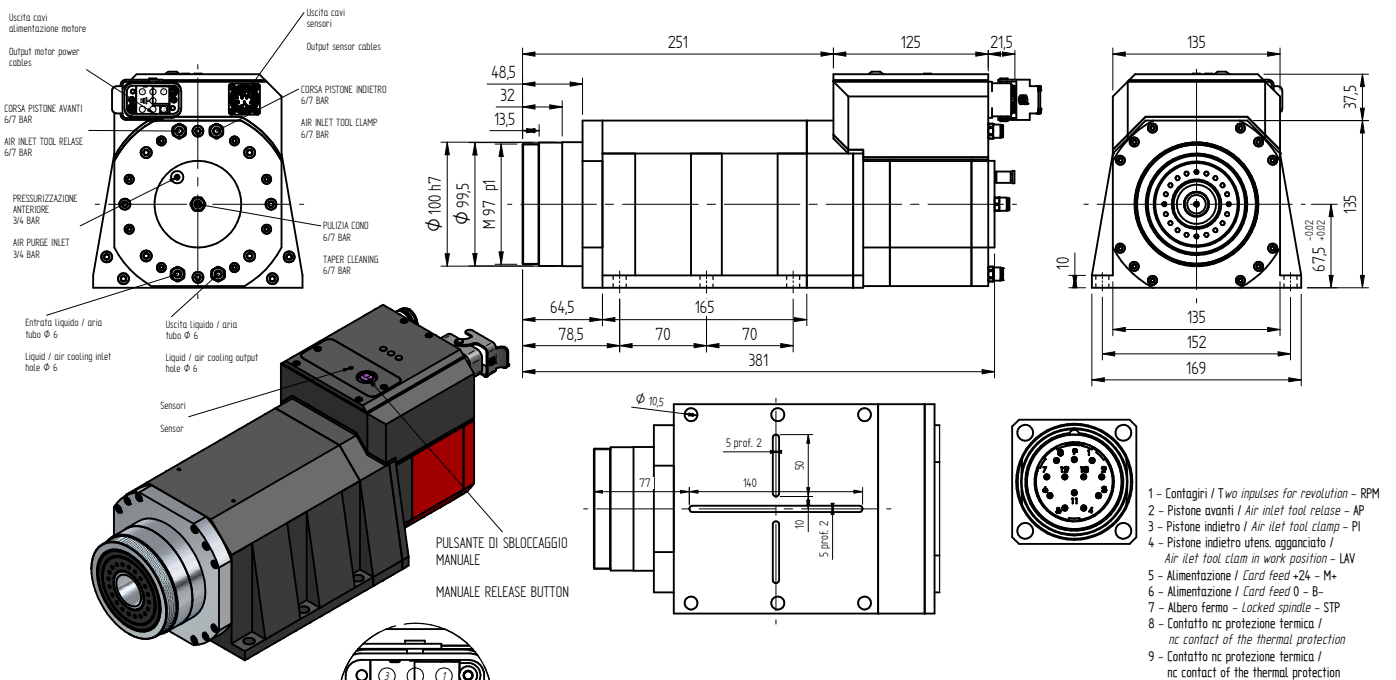
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF95 6/4 CU HSK F63	350	400 - 600	12000 - 18000	4,5	11,5	0,78	24



AF 110 CU 10-2 ISO 30



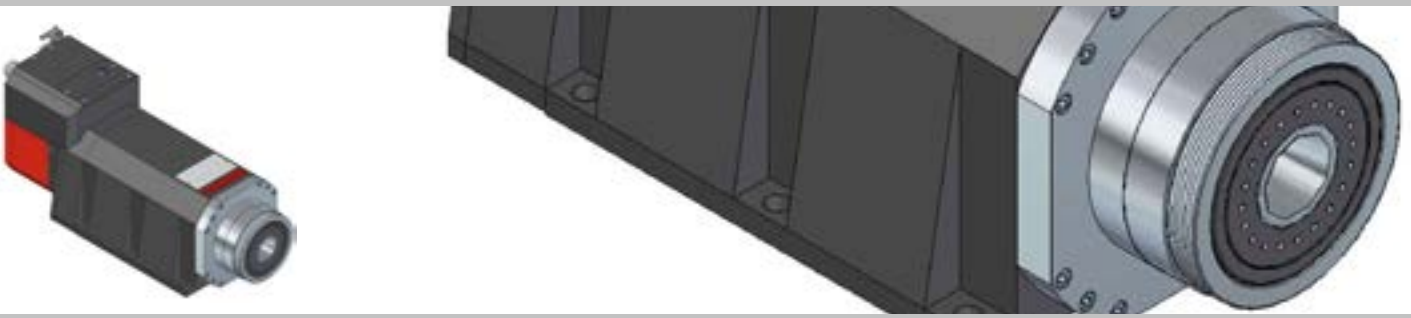
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 10/2 CU ISO 30 compressed air	350	300	18000	4,5	10,0	0,85	24
ISO 30 liquid	350	300	18000	5,5	12,0	0,85	24
AF110 10/2 CU ISO 30 compressed air	350	300 - 400	24000	4,5	10,0	0,82	24
ISO 30 liquid	350	300 - 400	24000	5,5	12,0	0,82	24



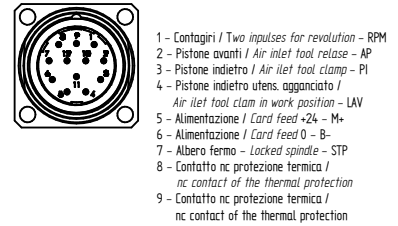
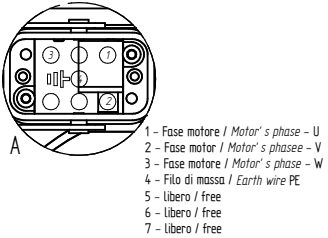
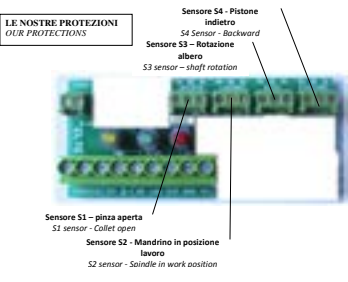
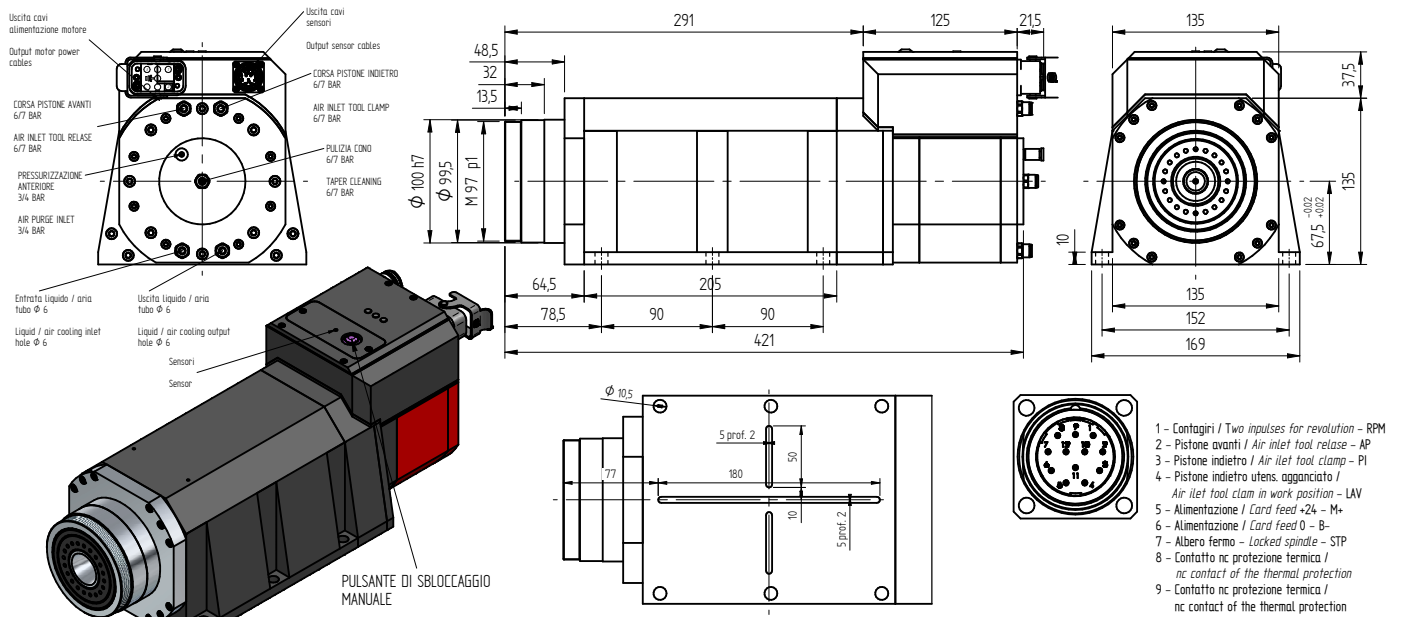
- 1 - Fase motore / Motor's phase - U
- 2 - Fase motore / Motor's phase - V
- 3 - Fase motore / Motor's phase - W
- 4 - Filo di massa / Earth wire PE
- 5 - libero / free
- 6 - libero / free
- 7 - libero / free



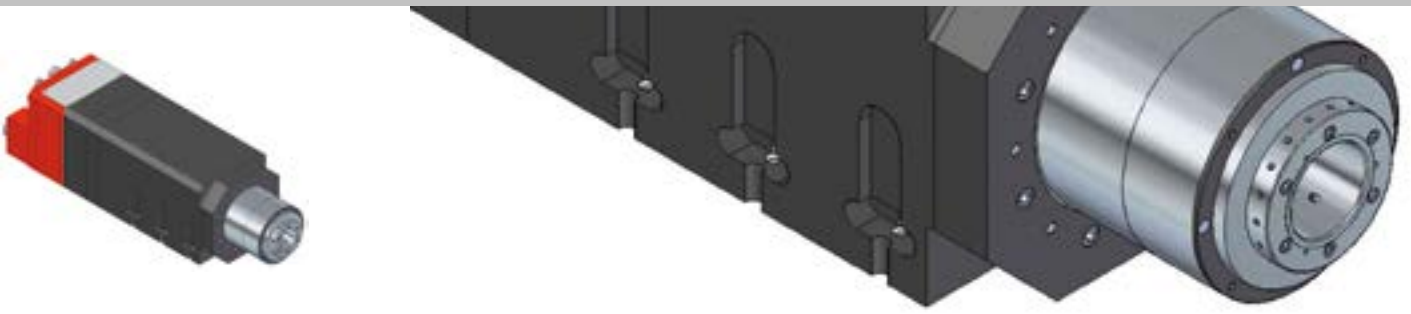
AF 110 CU 14-2 ISO 30



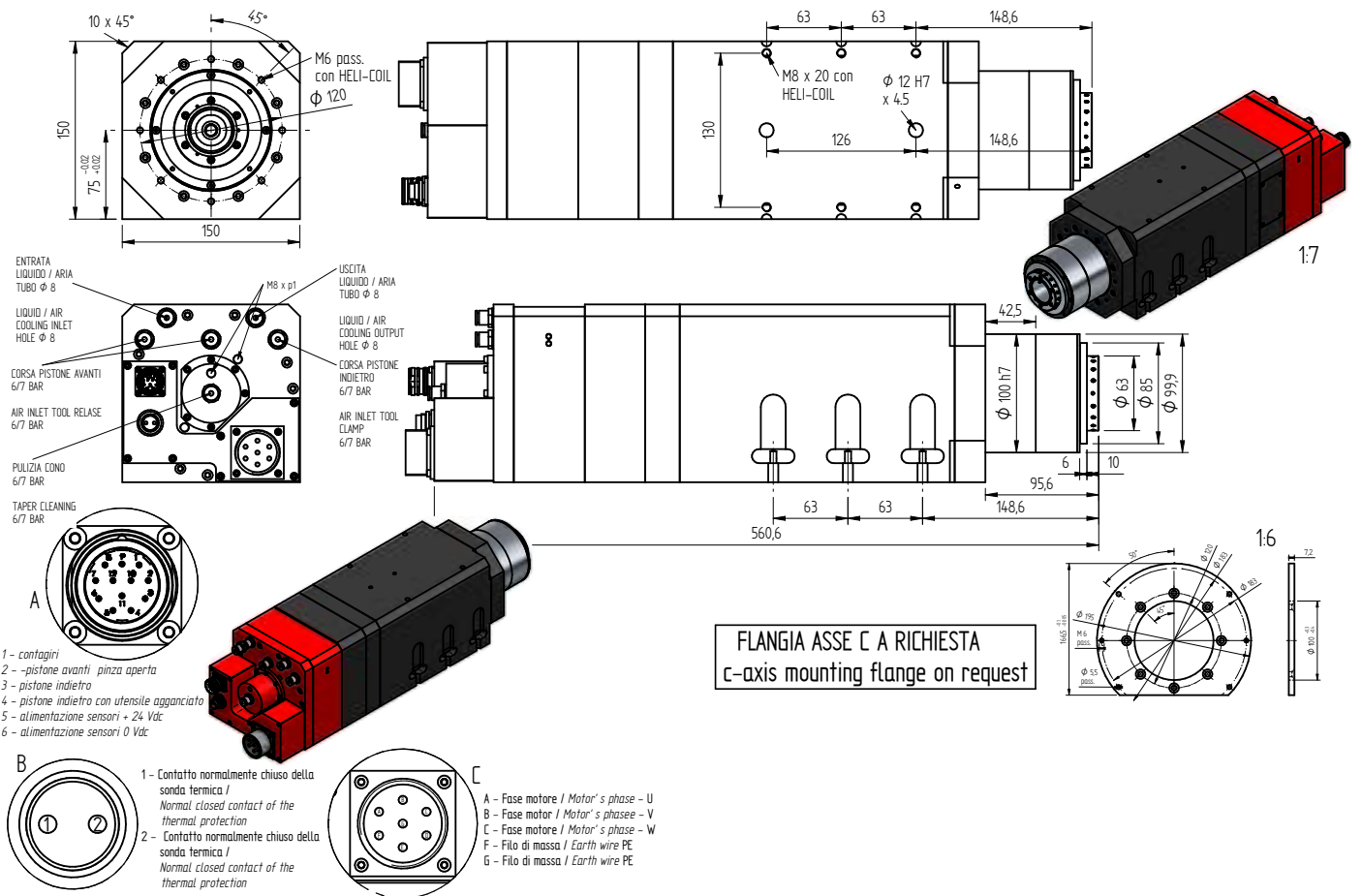
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 14/2 CU ISO 30 compressed air	350	200 - 300	12000 - 18000	7,0	16,0	0,85	28
ISO 30 liquid	350	200 - 300	12000 - 18000	7,5	18,0	0,85	28
AF110 14/2 CU ISO 30 compressed air	350	300 - 400	18000 - 24000	7,0	16,0	0,85	28
ISO 30 liquid	350	300 - 400	18000 - 24000	8,5	19,4	0,82	28

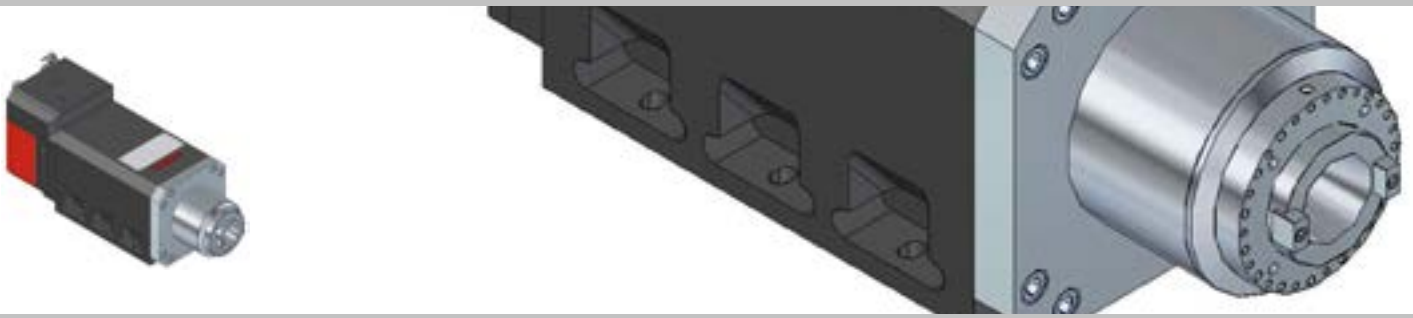


AF 116 CU HSK F63

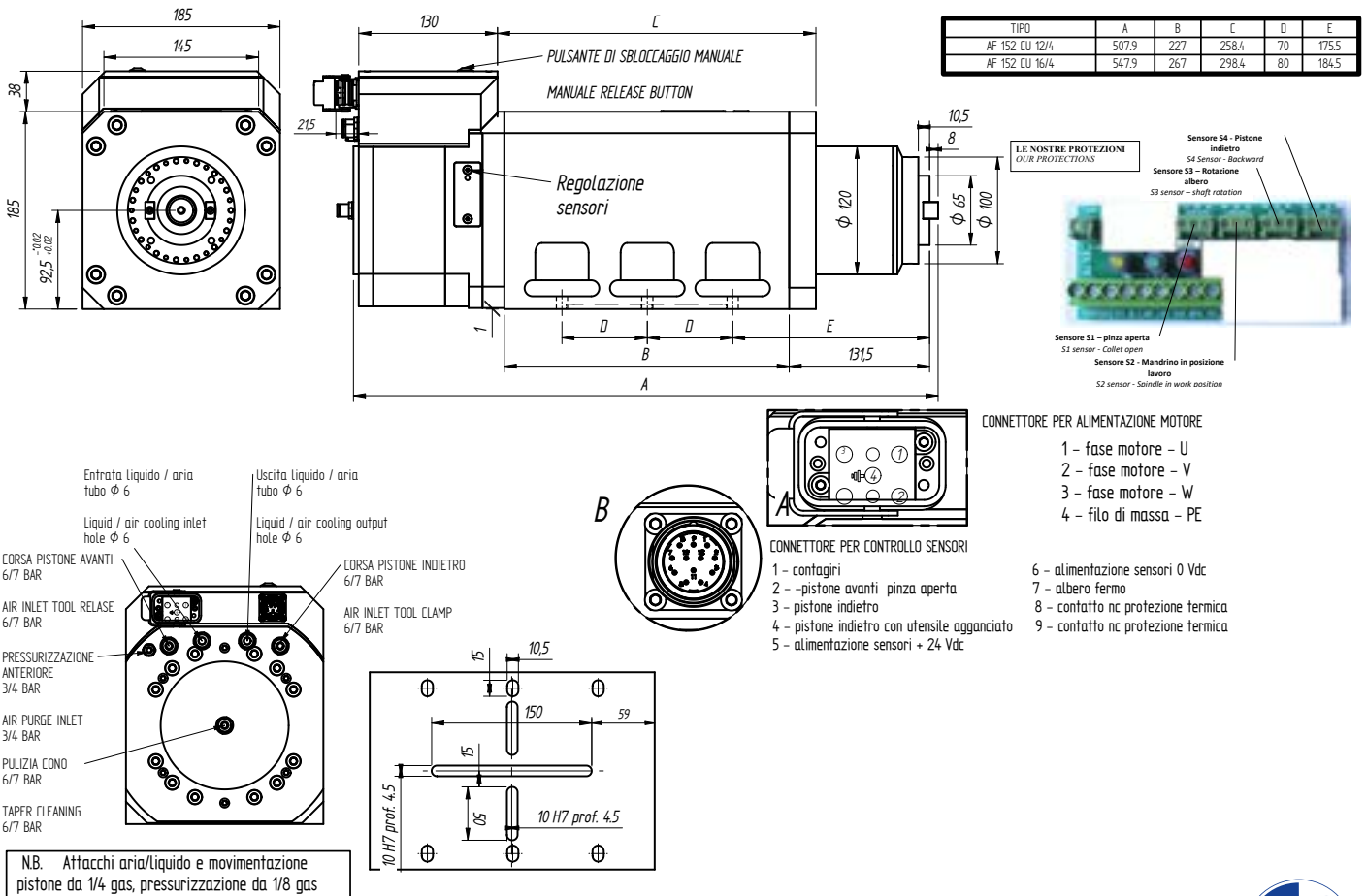


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF116 7/4 CU HSK F63	350	400 - 800	12000 - 24000	7,5	17,0	0,81	33





TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF152 12/4 CU ISO 40 compressed air	350	100 - 333	3000 - 10000	6,0	14,2	0,85	59
ISO 40 liquid	350	100 - 333	3000 - 10000	7,5	17,8	0,85	59
AF152 12/4 CU ISO compressed air	350	150 - 333	4500 - 10000	8,0	19,6	0,82	59
ISO 40 liquid	350	150 - 333	4500 - 10000	9,0	22,1	0,82	59
AF152 12/4 CU ISO 40 compressed air	350	200 - 400	6000 - 12000	10,0	23,4	0,82	59
ISO 40 liquid	350	200 - 400	6000 - 12000	12,0	28,1	0,82	59
AF152 16/4 CU ISO 40 compressed air	350	100 - 333	3000 - 10000	7,5	17,8	0,84	75
ISO 40 liquid	350	100 - 333	3000 - 10000	10,0	23,9	0,84	75
AF152 16/4 CU ISO 40 compressed air	350	150 - 333	4500 - 10000	9,0	22,1	0,82	75
ISO 40 liquid	350	150 - 333	4500 - 10000	12,0	29,4	0,82	75
AF152 16/4 CU ISO 40 compressed air	350	200 - 400	6000 - 12000	12,0	28,1	0,80	75
ISO 40 liquid	350	200 - 400	6000 - 12000	16,0	38,3	0,80	75



AF 165 CU HSK B80



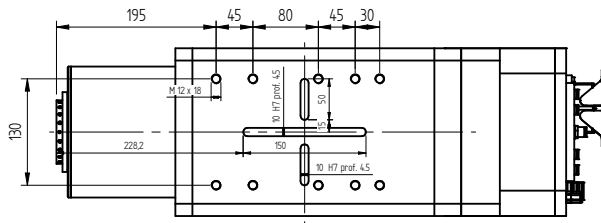
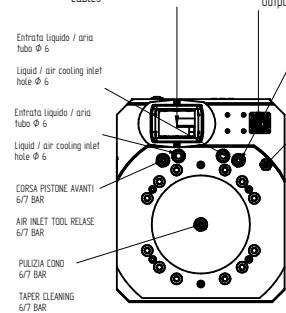
TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 165 CU 12/4 HSK B80	Liquid	350	400	12000	16,0	49	0,91	60
AF 165 CU 15/4 HSK B80		350	400	12000	20,0	49	0,91	75
AF 165 CU 17/4 HSK B80		350	400	12000	25,0	49	0,91	84

USCITA ALIMENTAZIONE MOTORE
OUTPUT MOTOR POWER CABLES

- A - Fase motore / Motor's phase - U
- B - Fase motore / Motor's phase - V
- C - Fase motore / Motor's phase - W
- D - Filo di massa / Earth wire PE
- E - Libero / free
- F - Libero / free
- G - Libero / free

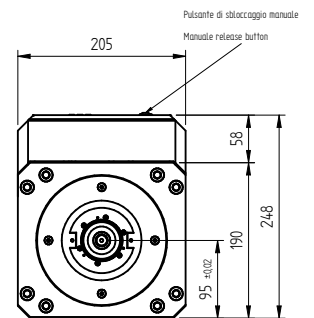
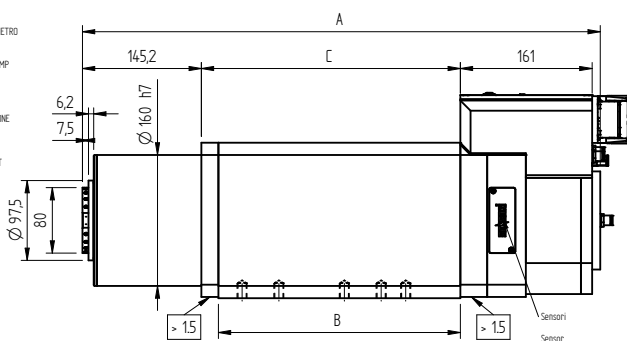
Uscita cavi alimentazione motore
Output motor power cables

Uscita cavi sensori
Output sensor cables



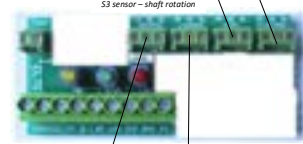
USCITA CAVI SENSORI
OUTPUT SENSOR CABLES

- 1 - Contagiri / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clamp in work position - LAV
- 5 - Alimentazione / Card feed - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP
- 8 - Contatto nc protezione termica / nc contact of the thermal protection
- 9 - Contatto nc protezione termica / nc contact of the thermal protection



LE NOSTRE PROTEZIONI
OUR PROTECTIONS

- Sensore S4 - Pistone indietro
S4 Sensor - Backward
- Sensore S3 - Rotazione albero
S3 sensor - shaft rotation



Sensore S1 - pinza aperta
S1 sensor - Callet open

Sensore S2 - Mandrino in posizione lavoro
S2 sensor - Spindle in work position

TIPO	A	B	C
AF 165 CU 12/4	582,7	245,5	266,5
AF 165 CU 15/4	612,7	275,5	296,5
AF 165 CU 17/4	632,7	295,5	316,5

NB. Attacchi e movimentazione pistone da 1/4 gas, pressurizzazione da 1/8 gas



AF 165 CU HSK B100



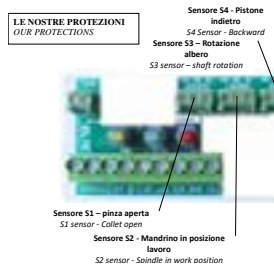
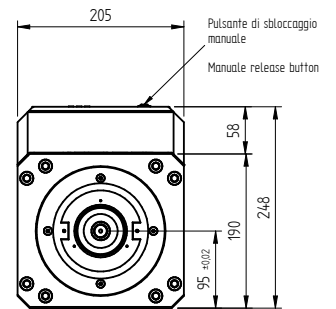
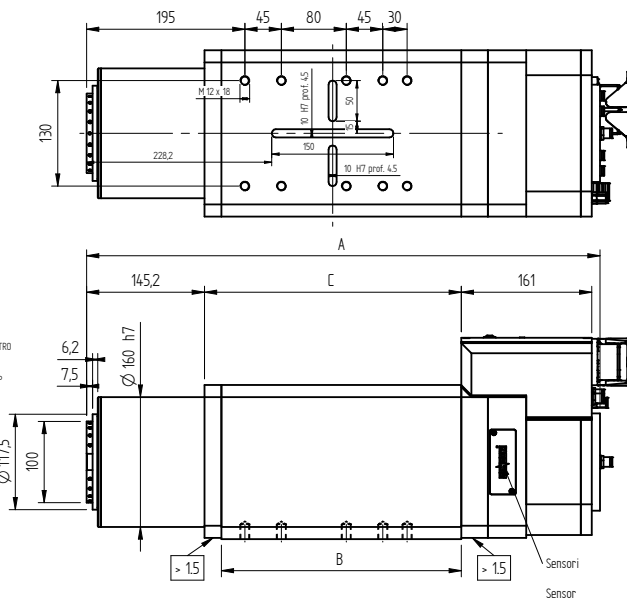
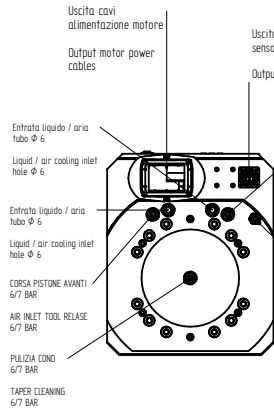
TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 165 CU 12/4 HSK B100	Liquid	350	400	12000	16,0	49	0,91	65
AF 165 CU 15/4 HSK B100		350	400	12000	20,0	49	0,91	80
AF 165 CU 17/4 HSK B100		350	400	12000	25,0	49	0,91	89

USCITA ALIMENTAZIONE MOTORE
OUTPUT MOTOR POWER CABLES

- A - Fase motore / Motor's phase - U
- B - Fase motore / Motor's phase - V
- C - Fase motore / Motor's phase - W
- D - Filo di massa / Earth wire PE
- E - libero / free
- F - libero / free
- G - libero / free

USCITA CAVI SENSORI
OUTPUT SENSOR CABLES

- 1 - Contagiri / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clamp in work position - LAV
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP
- 8 - Contatto nc protezione termica / nc contact of the thermal protection
- 9 - Contatto nc protezione termica / nc contact of the thermal protection



TIPO	A	B	C
AF 165 CU 12/4	582.7	245.5	266.5
AF 165 CU 15/4	612.7	275.5	296.5
AF 165 CU 17/4	632.7	295.5	316.5

N.B. Attacchi e movimentazione pistone da 1/4 gas, pressurizzazione da 1/8 gas



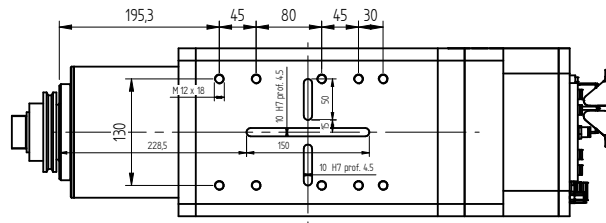
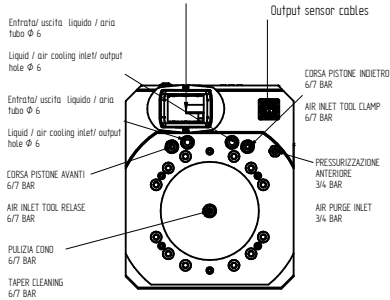


TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 165 CU 12/4 ISO 50	Liquid	350	400	12000	16,0	49	0,91	60
AF 165 CU 12/4 ISO 50		350	400	12000	20,0	49	0,91	75
AF 165 CU 12/4 ISO 50		350	400	12000	25,0	49	0,91	84

USCITA ALIMENTAZIONE MOTORE
OUTPUT MOTOR POWER CABLES

- A - Fase motore / Motor's phase - U
- B - Fase motore / Motor's phase - V
- C - Fase motore / Motor's phase - W
- D - Filo di massa / Earth wire PE
- E - Libero / free
- F - Libero / free
- G - Libero / free

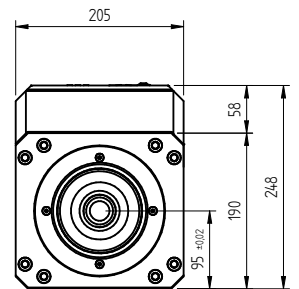
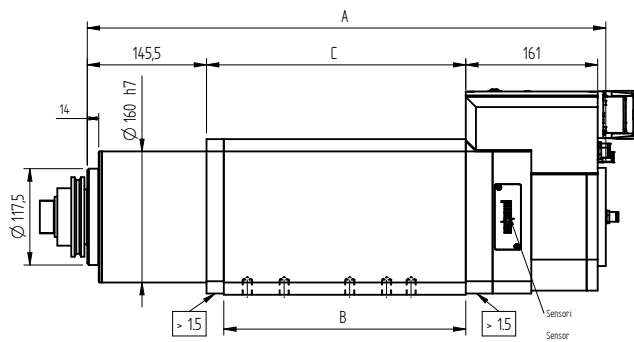
Uscita cavi alimentazione motore
Output motor power cables



USCITA CAVI SENSORI
OUTPUT SENSOR CABLES

- 1 - Contagini / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clam in work position - LW
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP
- 8 - Contatto nc protezione termica / nc contact of the thermal protection
- 9 - Contatto nc protezione termica / nc contact of the thermal protection

Uscita cavi sensori
Output sensor cables



LE NOSTRE PROTEZIONI
OUR PROTECTIONS

- Sensore S4 - Pistone indietro
S4 Sensor - Backward
- Sensore S3 - Rotazione albero
S3 sensor - shaft rotation



- Sensore S1 - pinza aperta
S1 sensor - Clam open
- Sensore S2 - Mandrino in posizione lavoro
S2 sensor - Spindle in work position

TIPO	A	B	C
AF 165 CU 12/4	583	245.5	266.5
AF 165 CU 15/4	613	275.5	296.5
AF 165 CU 17/4	633	295.5	316.5

N.B. Attacchi e movimentazione pistone da 1/4 gas, pressurizzazione da 1/8 gas



AF CU CYLINDRICAL Series

AF 80 CU HSK E25

AF 80 CU ISO 20

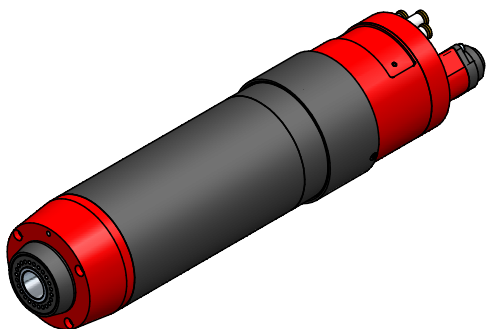
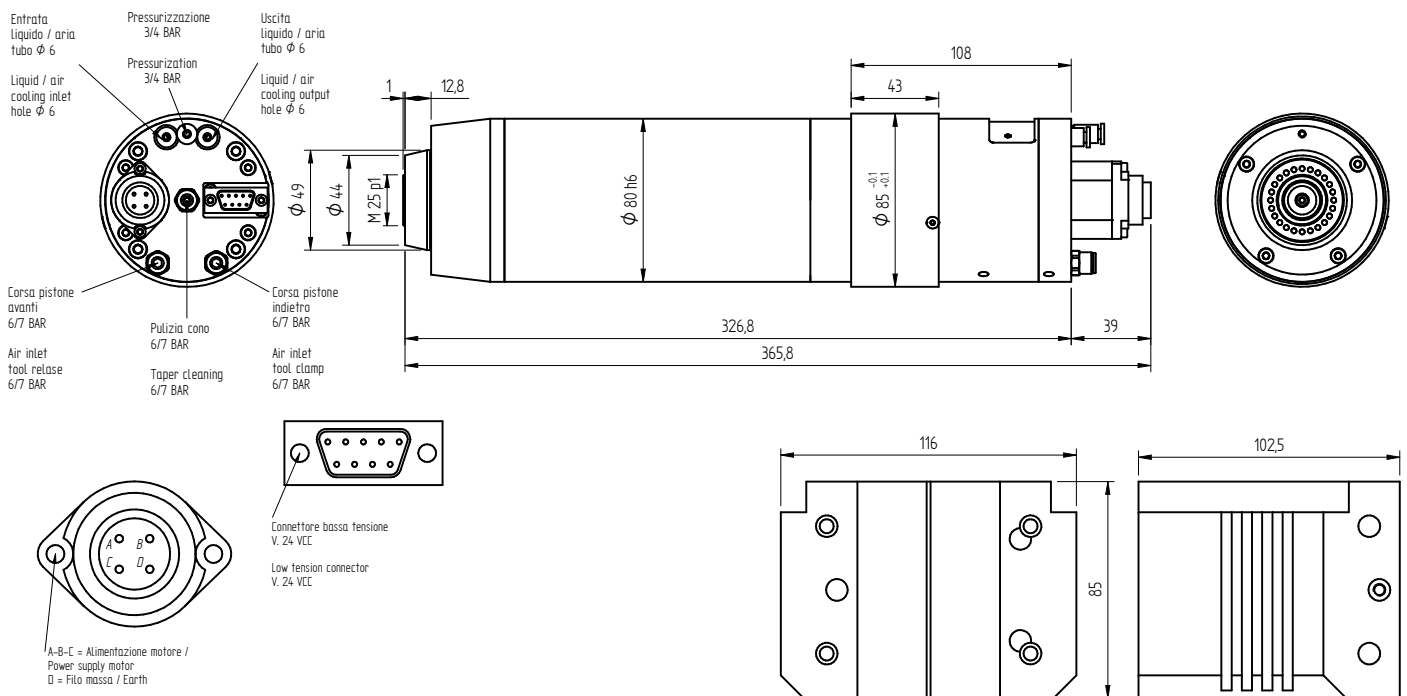
AF 100 CU ISO 20

AF 144 CU HSK E40

AF 80 CU HSK E25



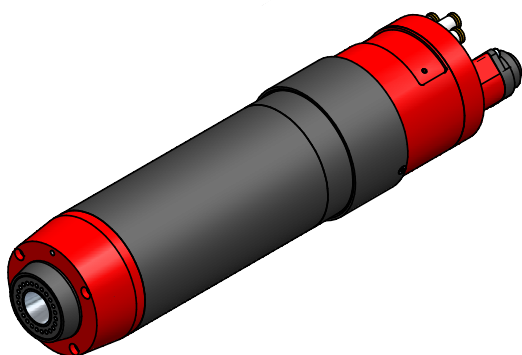
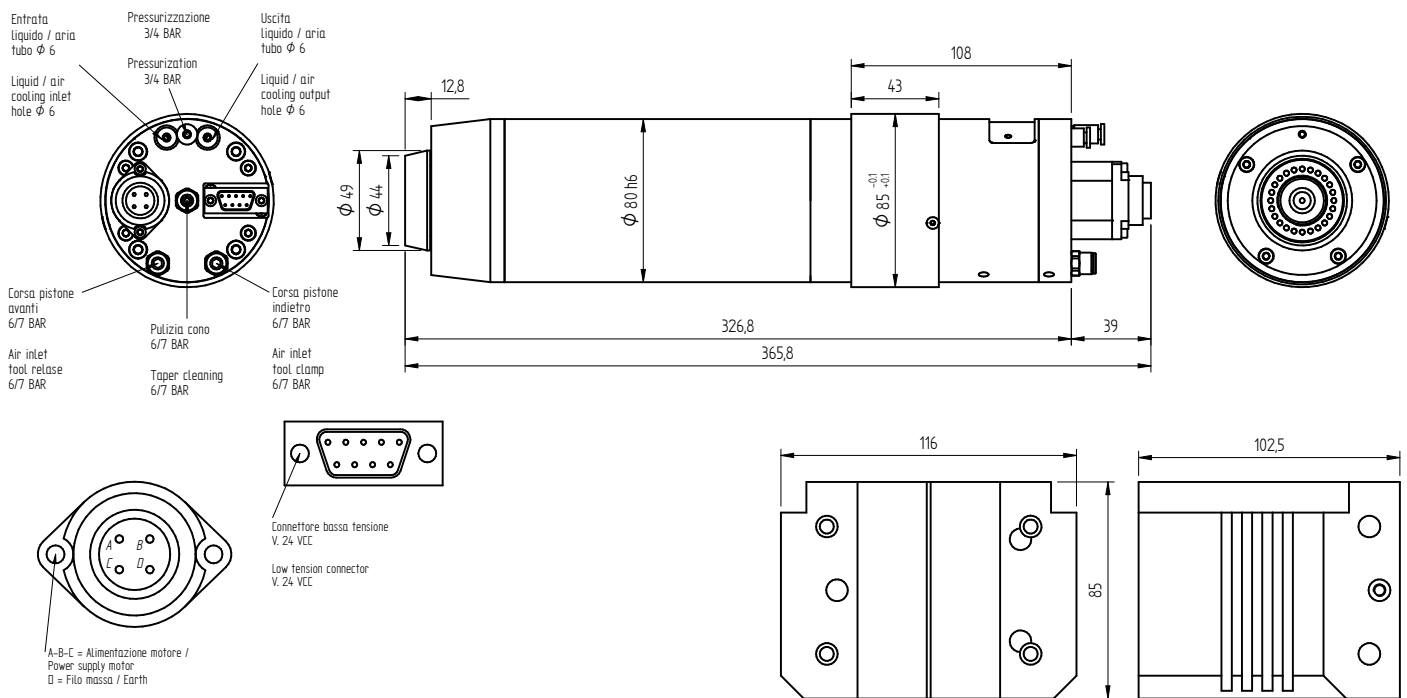
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF80 9/2 CU HSK E25 compressed air	220	400	24000	0,75	4,1	0,75	8,5
HSK E25 liquid	220	400	24000	1,1	5,2	0,75	8,5
AF80 9/2 CU HSK E25 compressed air	380	400	24000	0,75	2,4	0,75	8,5
HSK E25 liquid	380	400	24000	1,1	3,0	0,75	8,5
AF80 9/2 CU HSK E25 compressed air	220	400/670	24000/40000	1,0	4,8	0,75	8,5
HSK E25 liquid	220	400/670	24000/40000	1,4	5,8	0,75	8,5
AF80 9/2 CU HSK E25 compressed air	380	400/670	24000/40000	1,0	2,7	0,75	8,5
HSK E25 liquid	380	400/670	24000/40000	1,4	3,3	0,75	8,5



AF 80 CU ISO 20



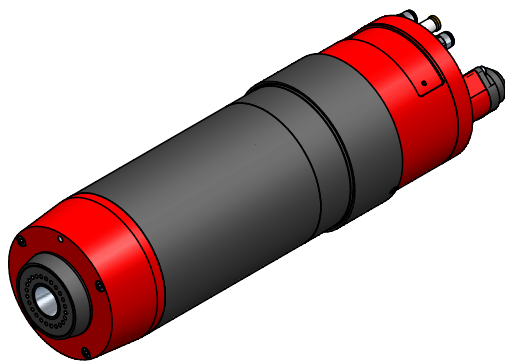
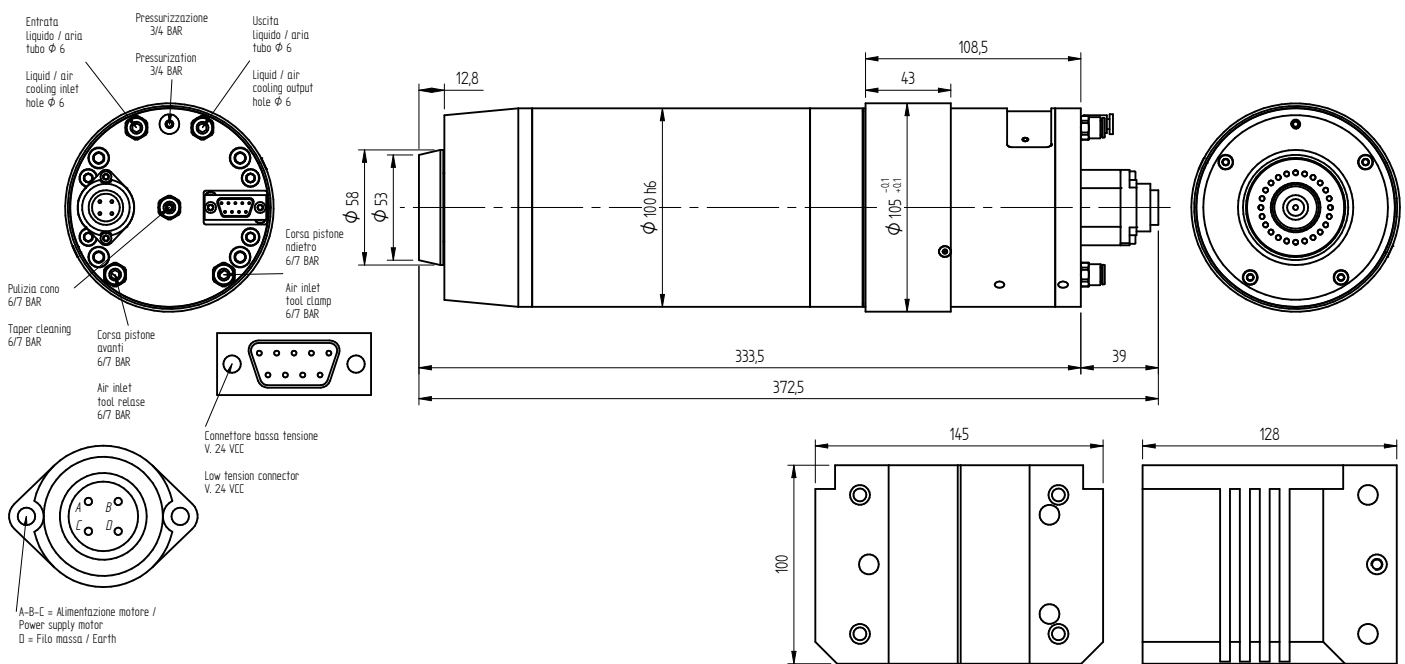
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF80 9/2 CU ISO 20 compressed air	220	400	24000	0,75	4,1	0,75	8,5
ISO 20 liquid	220	400	24000	1,1	5,2	0,75	8,5
AF80 9/2 CU ISO 20 compressed air	380	400	24000	0,75	2,4	0,75	8,5
ISO 20 liquid	380	400	24000	1,1	3,0	0,75	8,5
AF80 9/2 CU ISO 20 compressed air	220	400/670	24000/40000	1,0	4,8	0,75	8,5
ISO 20 liquid	220	400/670	24000/40000	1,4	5,8	0,75	8,5
AF80 9/2 CU ISO 20 compressed air	380	400/670	24000/40000	1,0	2,7	0,75	8,5
ISO 20 liquid	380	400/670	24000/40000	1,4	3,3	0,75	8,5



AF 100 CU ISO 20



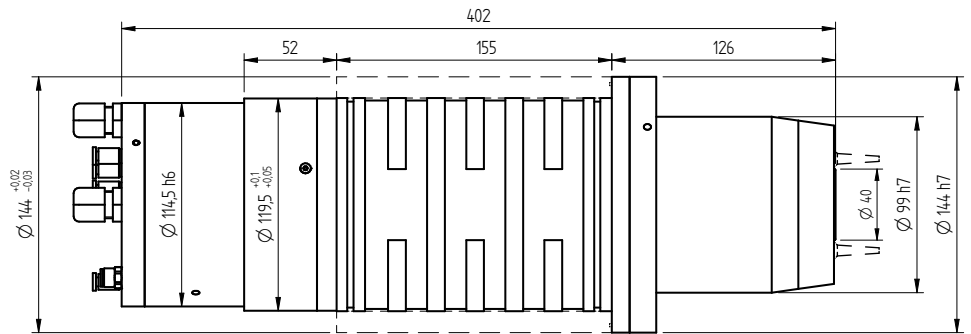
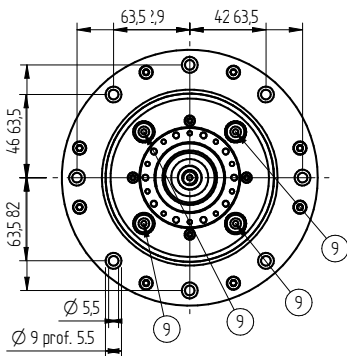
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF100 7/2 CU ISO 20 compressed air	220	400	24000	1,0	5,5	0,80	12
ISO 20 liquid	220	400	24000	1,8	7,8	0,80	12
AF100 7/2 CU ISO 20 compressed air	380	400	24000	1,0	3,2	0,80	12
ISO 20 liquid	380	400	24000	1,8	4,5	0,80	12
AF100 7/2 CU ISO 20 compressed air	220	400/670	24000/40000	1,8	7,8	0,80	12
ISO 20 liquid	220	400/670	24000/40000	2,2	8,5	0,80	12
AF100 7/2 CU ISO 20 compressed air	380	400/670	24000/40000	1,8	4,5	0,80	12
ISO 20 liquid	380	400/670	24000/40000	2,2	4,9	0,80	12



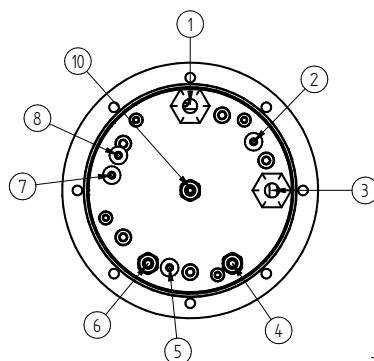
AF 144 CU HSK E40



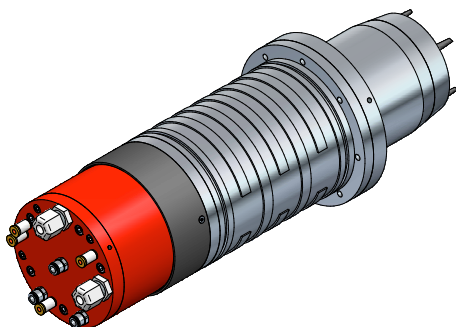
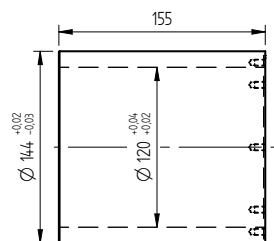
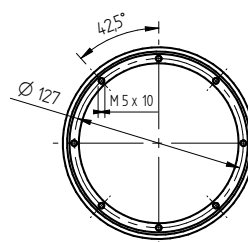
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF144 CU 9/4 HSK E40	380	500	15.000	6,5	13,8	0,82	23



1	Uscita segnali motore	15 m
2	Entrata liquido refrigerante per utensile	Ø8 - Ø4
3	Uscita cavi alimentazione 15m	15 m
4	Corsa pistone indietro	6/7 BAR - Ø6
5	Pressurizzazione	3/4 BAR - Ø4
6	Corsa pistone avanti	6/7 BAR - Ø6
7	Entrata/uscita liquido refrigerante	Ø4
8	Entrata/uscita liquido refrigerante	Ø4
9	Uscita liquido refrigerante per utensile	Ø4
10	Pulizia cono	6/7 BAR - Ø6



CARCASSA ESTERNA COMPRESA NEL MOTORE, SU RICHIESTA IL MOTORE E' FORNIBILE SENZA



AF CU ELECTRIC FAN Series

AF 110 CU EV ISO 30

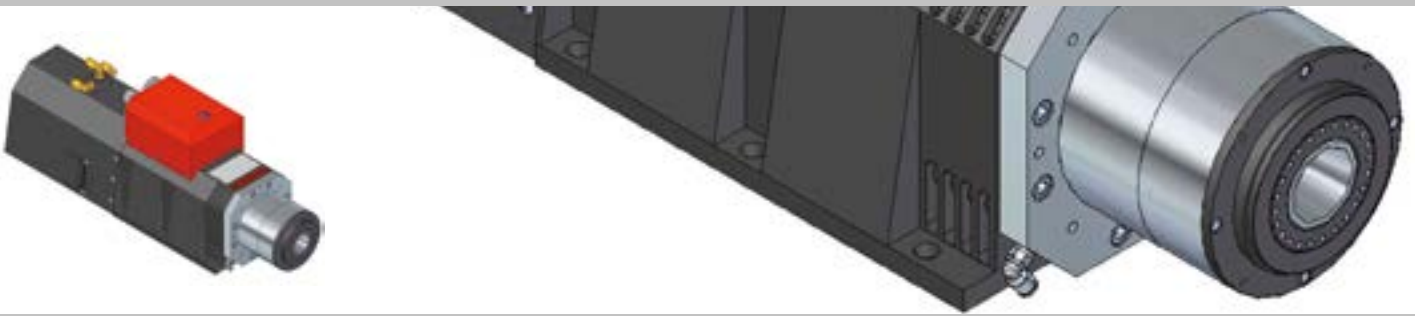
AF 110 CU EV HSK F63

AF 110 CU EV HSK F80

AF 240 CU EV B100

AF 270 CU EV B100

AF 110 CU EV ISO 30



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 12/2 CU ISO 30 EV	350	200/300	12000/18000	4,5	12,2	0,85	29
AF110 12/2 CU ISO 30 EV	350	300/400	18000/24000	7,5	17,8	0,84	29
AF110 16/2 CU ISO 30 EV	350	200/300	12000/18000	7,5	17,5	0,86	34
AF110 16/2 CU ISO 30 EV	350	300 /400	18000/24000	8,5	19,3	0,87	34

LE NOSTRE PROTEZIONI
OUR PROTECTIONS

- Sensore S4 - Pistone indietro / S4 Sensor - Backward
- Sensore S3 - Rotazione albero / S3 sensor - shaft rotation
- Sensore S1 - pinza aperta / S1 sensor - Collet open
- Sensore S2 - Mandrino in posizione lavoro / S2 sensor - Spindle in work position

MANUALE RELEASE BUTTON

TIPO	A	B	C	D
AF 110 CU ELETTR. 12/2	S23	1995	55	71
AF 110 CU ELETTR. 16/2	S63	2395	95	91

VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 - 30 VDC
Potenza	Power input	65 W

LEGENDA:

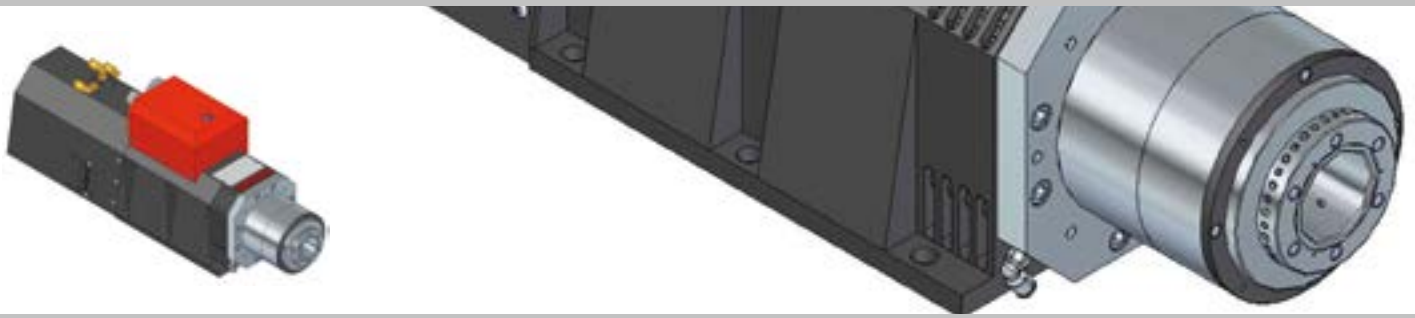
- A - Fase motore / Motor's phase - U
- B - Fase motore / Motor's phase - V
- C - Fase motore / Motor's phase - W
- D - Fase elettroventilatore / Electric fan phase - L1
- E - Neutro elettroventilatore / Electric fan neutral - N
- F - Filo di massa / Earth wire PE
- G - Filo di massa / Earth wire PE

NOTE:

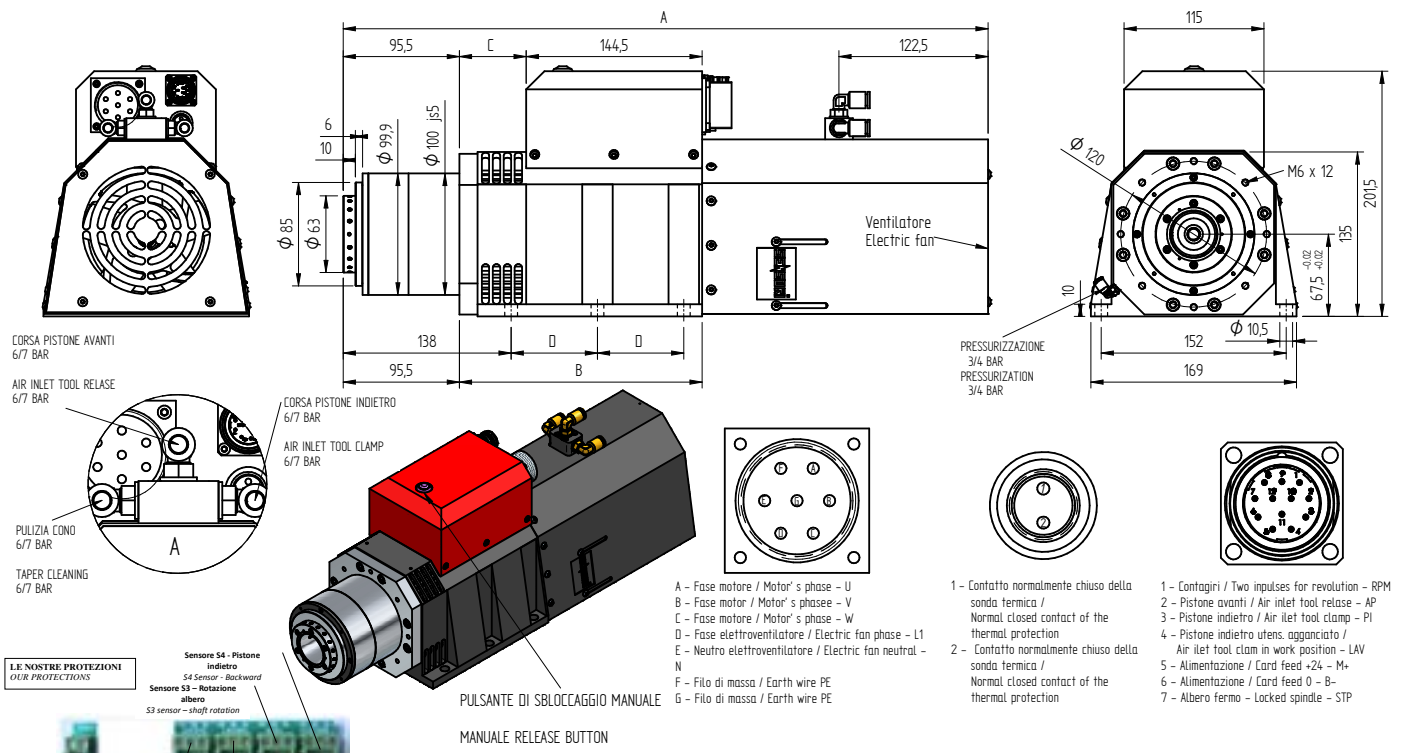
- 1 - Contatto normalmente chiuso della sonda termica / Normal closed contact of the thermal protection
- 2 - Contatto normalmente chiuso della sonda termica / Normal closed contact of the thermal protection
- 3 - Pistone avanti / Air inlet tool release - AP
- 4 - Pistone indietro / Air inlet tool clamp - PI
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP



AF 110 CU EV HSK F63



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 12/2 CU HSK F63 EV	350	200 - 300	12000 - 18000	4,5	12,2	0,85	28,5
AF110 16/2 CU HSK F63 EV	350	200 - 300	12000 - 18000	7,5	17,8	0,84	33

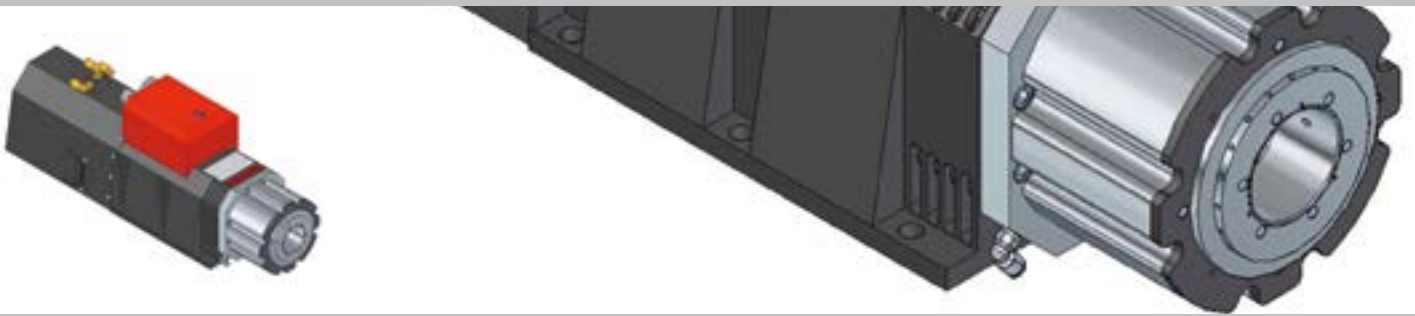


TIPO	A	B	C	D
AF 110 CU ELETTR. 12/2	530	199,5	55	71
AF 110 CU ELETTR. 16/2	570	239,5	95	91

VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 - 30 VDC
Potenza	Power input	65 W



AF 110 CU EV HSK F80



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 16/2 CU HSK F80 EV	350	50 - 100	3000 - 6000	4,5	10,5	0,82	36

CORSA PISTONE AVANTI 6/7 BAR
AIR INLET TOOL RELEASE 6/7 BAR

CORSA PISTONE INDIETRO 6/7 BAR
AIR INLET TOOL CLAMP 6/7 BAR

PULIZIA CONO 6/7 BAR
TAPER CLEANING 6/7 BAR

LE NOSTRE PROTEZIONI
OUR PROTECTIONS

Sensore S4 - Pistone indietro
S4 Sensor - Backward

Sensore S3 - Rotazione albero
S3 sensor - shaft rotation

Sensore S1 - pinza aperta
S1 sensor - Collet open

Sensore S2 - Mandrino in posizione lavoro
S2 sensor - Spindle in work position

VENTILATORE

Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 - 30 VDC
Potenza	Power input	65 W

A - Fase motore / Motor's phase - U
B - Fase motore / Motor's phase - V
C - Fase motore / Motor's phase - W
D - Fase elettroventilatore / Electric fan phase - L1
E - Neutro elettroventilatore / Electric fan neutral - N
F - Filo di massa / Earth wire PE
G - Filo di massa / Earth wire PE

1 - Contatto normalmente chiuso della sonda termica / Normal closed contact of the thermal protection
2 - Contatto normalmente chiuso della sonda termica / Normal closed contact of the thermal protection

1 - Contagiri / Two impulses for revolution - RPM
2 - Pistone avanti / Air inlet tool release - AP
3 - Pistone indietro / Air inlet tool clamp - PI
4 - Pistone indietro utens. agganciato / Air inlet tool clamp in work position - LAV
5 - Alimentazione / Card feed +24 - M+
6 - Alimentazione / Card feed 0 - B-
7 - Albero fermo - Locked spindle - STP



AF CU LIQUID THROUGH THE SHAFT Series

AF 110 CU PL ISO 30

AF 110 CU PL ISO 40

AF 152 CU PL ISO 40

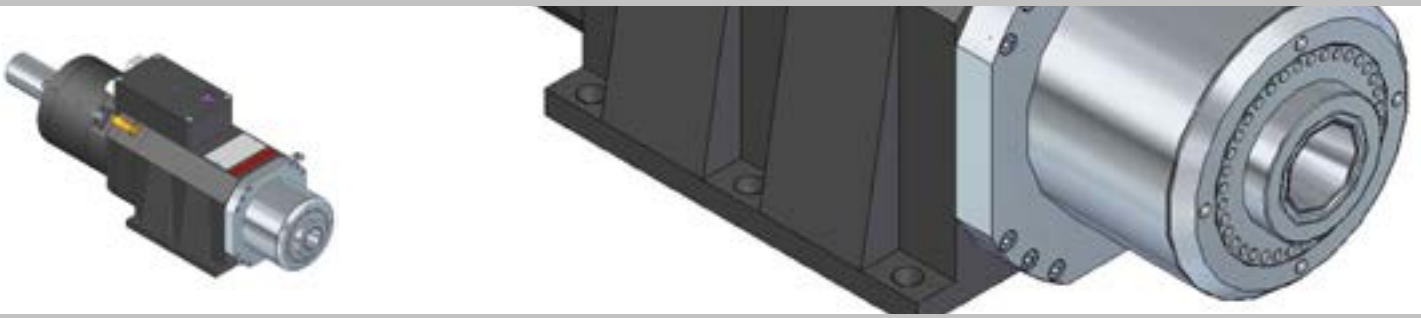
AF 165 CU PL HSK B80

AF 165 CU PL ISO 50

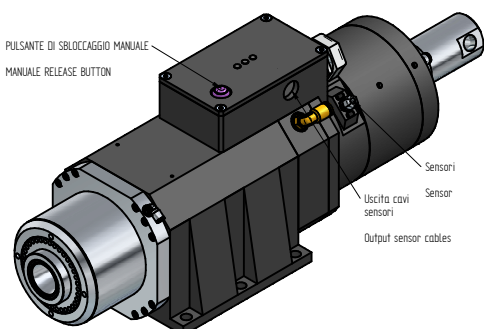
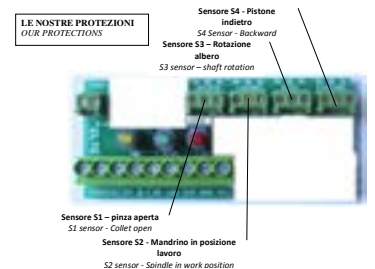
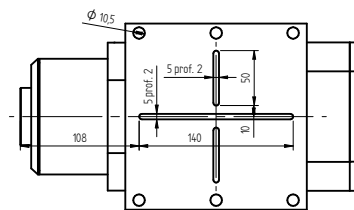
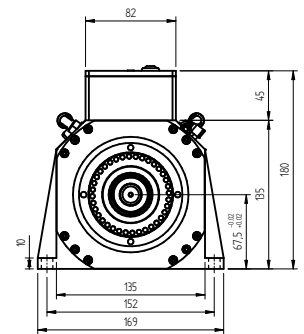
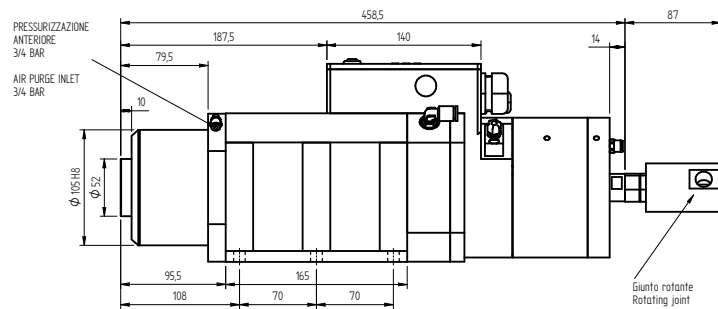
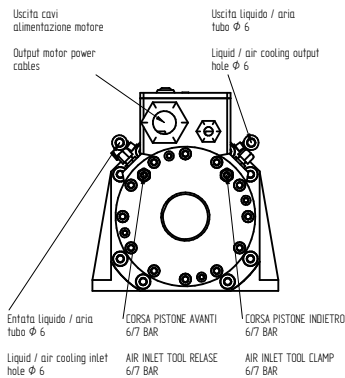
AF 240 CU PL B100

AF 270 CU PL B100

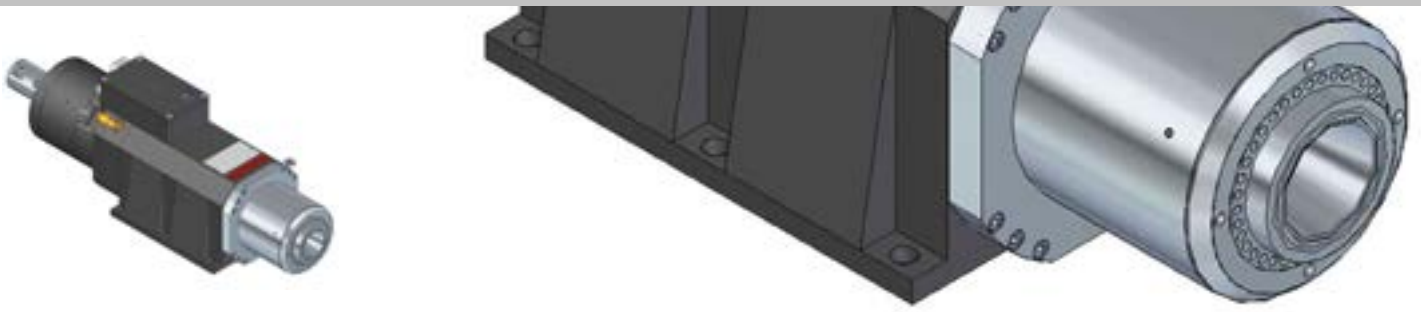
AF 110 CU PL ISO 30



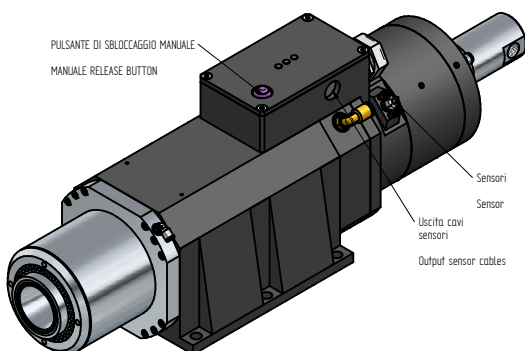
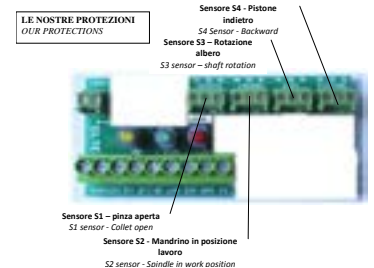
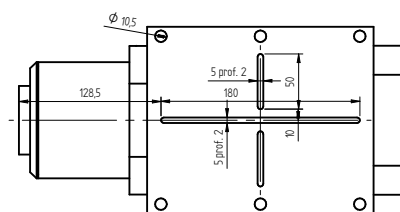
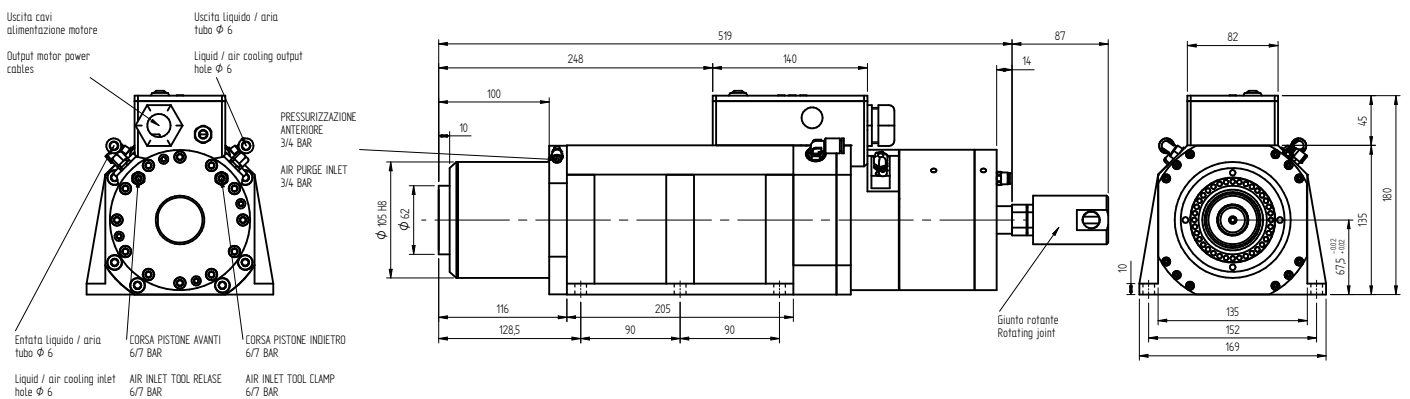
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 110 10/2 CU ISO 30 compressed air	350	100/200	6000/12000	3,5	7,7	0,85	27
ISO 30 liquid	350	100/200	6000/12000	4,0	8,8	0,85	27
AF 110 10/2 CU ISO 30 compressed air	350	100/300	6000/18000	3,5	7,7	0,85	27
ISO 30 liquid	350	100/300	6000/18000	4,0	8,8	0,85	27
AF 110 10/2 CU ISO 30 compressed air	350	300	18000	4,5	10,0	0,85	27
ISO 30 liquid	350	300	18000	5,5	12,0	0,85	27
AF 110 10/4 CU ISO 30 compressed air	350	200/400	6000/12000	3,5	8,9	0,84	27
ISO 30 liquid	350	200/400	6000/12000	4,0	10,1	0,84	27
AF 110 14/4 CU ISO 30 compressed air	350	200/400	6000/12000	4,2	9,5	0,86	34
ISO 30 liquid	350	200/400	6000/12000	5,0	11,4	0,86	34



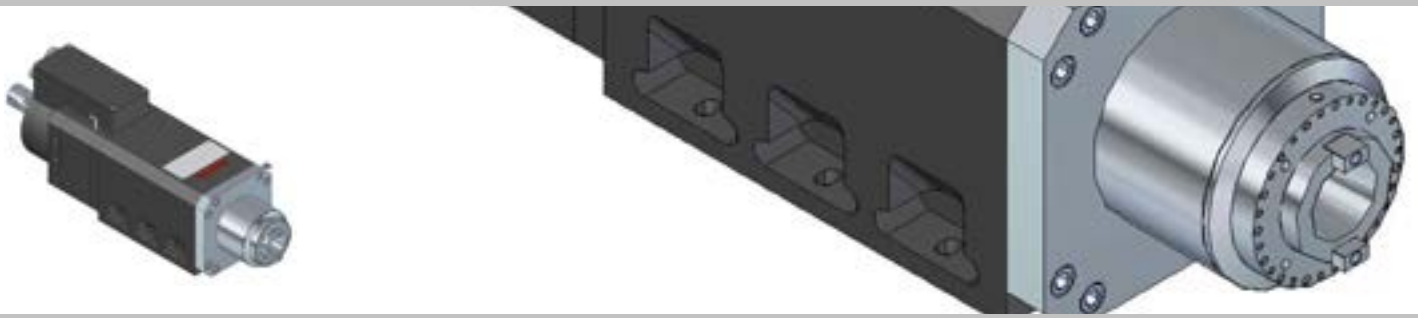
AF 110 CU PL ISO 40



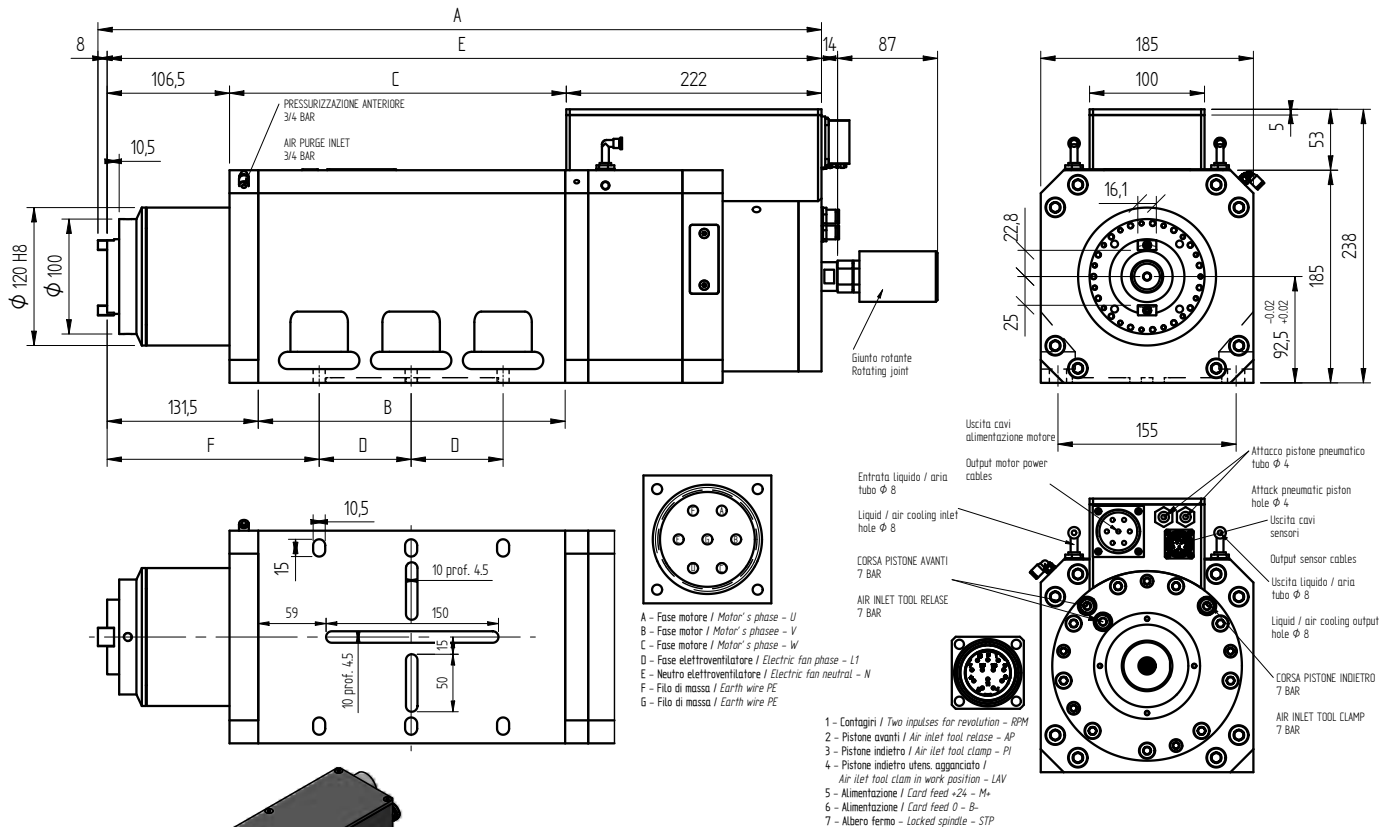
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF110 14/4 CU ISO 40 compressed air	380	200/400	6000/12000	4,2	9,5	0,86	34
ISO 40 liquid	380	200/400	6000/12000	5,0	11,4	0,86	34



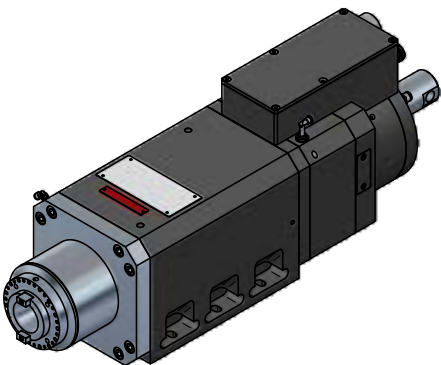
AF 152 CU PL ISO 40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 152 CU PL 12/4 ISO 40 Liquid	350	100/333	3000/10000	7,5	17,8	0,85	59
AF 152 CU PL 12/4 ISO 40 Liquid	350	150/333	4500/10000	9,0	22,1	0,82	59
AF 152 CU PL 12/4 ISO 40 Liquid	350	200/400	6000/12000	12,0	28,1	0,82	59
AF 152 CU PL 16/4 ISO 40 Liquid	350	100/333	3000/10000	10,0	23,9	0,84	75
AF 152 CU PL 16/4 ISO 40 Liquid	350	150/333	4500/10000	12,0	29,4	0,82	75
AF 152 CU PL 16/4 ISO 40 Liquid	350	200/400	6000/12000	16,0	38,3	0,80	75



TIPO	A	B	C	D	E	F
AF 152 CU PL 12/4	589,5	227	253	70	5815	174,5
AF 152 CU PL 16/4	629,5	267	293	80	6215	184,5



AF 165 CU PL HSK B80

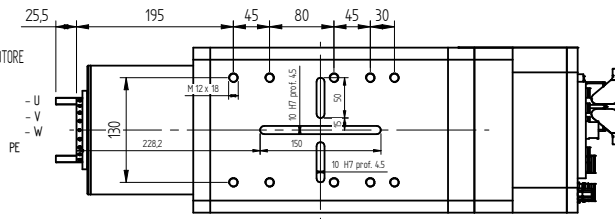


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 165 CU PL 12/4 B80 Liquid	350	400	12000	16,0	49	0,91	70
AF 165 CU PL 15/4 B80 Liquid	350	400	12000	20,0	49	0,91	80
AF 165 CU PL 17/4 B80 Liquid	350	400	12000	25,0	49	0,91	85

TIPO	A	B	C
AF 165 CU 12/4	598.5	245.5	266.5
AF 165 CU 15/4	628.5	275.5	296.5
AF 165 CU 17/4	648.5	295.5	316.5

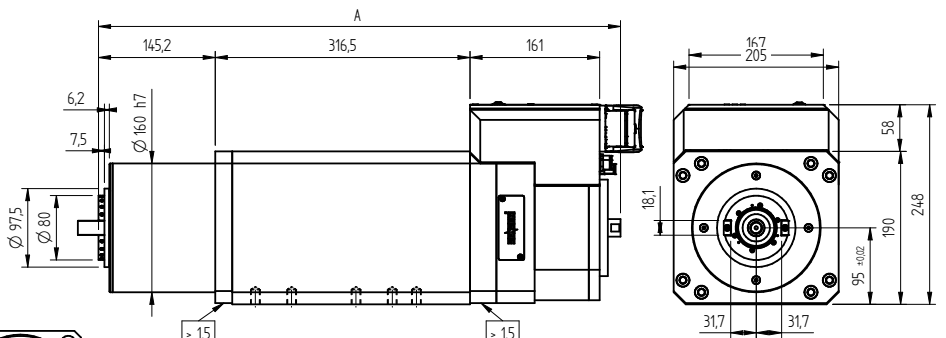
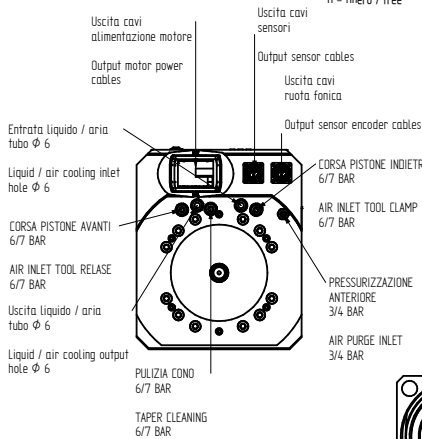
USCITA ALIMENTAZIONE MOTORE

- A - Fase motore /
- B - Fase motor /
- C - Fase motore /
- D - Filo di massa /
- E - Libero / free
- F - Libero / free
- G - Libero / free

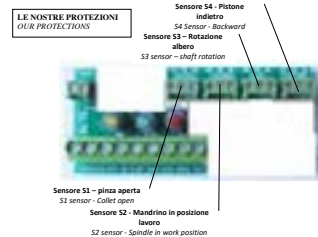
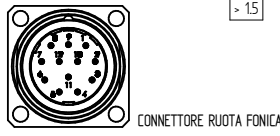


USCITA CAVI SENSORI

- 1 - Contagiri / T - RPM
- 2 - Pistone avanti / - AP
- 3 - Pistone indietro / - PI
- 4 - Pistone indietro utens. agganciato / - LAV
- 5 - Alimentazione / +24 - M+
- 6 - Alimentazione / 0 - B-
- 7 - Albero fermo - - STP
- 8 - Contatto nc protezione termica /
- 9 - Contatto nc protezione termica / nc contact of the thermal protection



N.B. Attacchi e movimentazione pistone da 1/4 gas, pressurizzazione da 1/8 gas



N° pin	Colori / colour	Funzioni / Function	
1-2-3	Libero / empty		
4	Bianco / white	Ua+	Segnale 1 / track 1
5	Marrone / brown	Ua-	Segnale 1 / track 1
6	Libero / empty		
7	Blu / blue	0V GND	0V GND
8	Rosso / red	Ub = 5V	Ub = 5V
9	Rosa / pink	Ub+	Segnale 2 / track 2
10	Nero / black	Ub-	Segnale 2 / track 2
11	Libero / empty		
12	Verde / green	5V Sense	5V Sense



AF 165 CU PL ISO 50



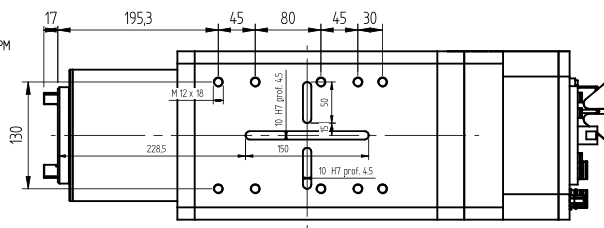
TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 165 CU PL 12/4 ISO 50	Liquid	350	400	12000	16,0	49,0	0,91	70
AF 165 CU PL 15/4 ISO 50	Liquid	350	400	12000	20,0	49,0	0,91	80
AF 165 CU PL 17/4 ISO 50	Liquid	350	400	12000	25,0	49,0	0,91	85

USCITA ALIMENTAZIONE MOTORE
OUTPUT MOTOR POWER CABLES

- A - Fase motore / Motor's phase - U
- B - Fase motore / Motor's phase - V
- C - Fase motore / Motor's phase - W
- D - Filo di massa / Earth wire PE
- E - libero / free
- F - libero / free
- G - libero / free

USCITA CAVI SENSORI
OUTPUT SENSOR CABLES

- 1 - Contagiri / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clamp in work position - LAV
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP
- 8 - Contatto nc protezione termica / nc contact of the thermal protection
- 9 - Contatto nc protezione termica / nc contact of the thermal protection



CONNETTORE RUOTA FONICA

N° pin	Colori / colour	Funzioni / Function	
1-2-3	Libero / empty		
4	Bianco / white	Ua+	Segnale 1 / track 1
5	Marrone / brown	Ua-	Segnale 1 / track 1
6	Libero / empty		
7	Blu / blue	0V GND	0V GND
8	Rosso / red	Ub = 5V	Ub = 5V
9	Rosa / pink	Ub+	Segnale 2 / track 2
10	Nero / black	Ub-	Segnale 2 / track 2
11	Libero / empty		
12	Verde / green	SV Sense	SV Sense
13-14			
15-16-17	Libero / empty		

Uscita cavi alimentazione motore

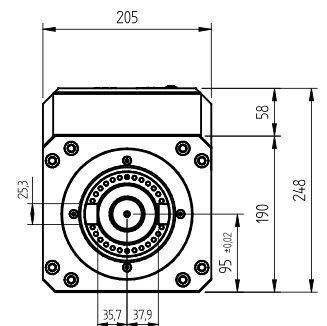
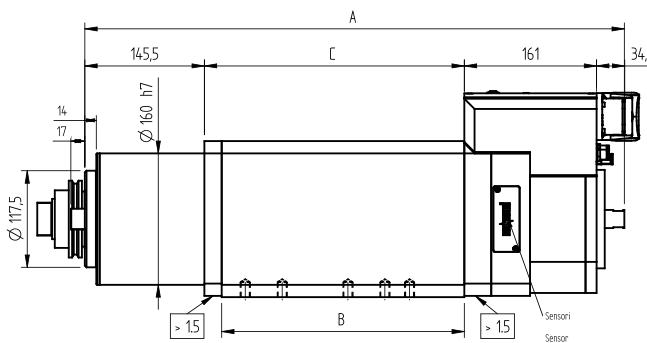
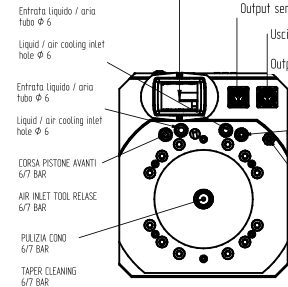
Output motor power cables

Uscita cavi sensori

Output sensor cables

Uscita ruota fonica

Output target wheel



LE NOSTRE PROTEZIONI
OUR PROTECTIONS

- Sensore S4 - Pistone indietro
- S4 Sensor - Backward
- Sensore S3 - Rotazione albero
- S3 sensor - shaft rotation



Sensore S1 - pinza aperta

S1 sensor - Collet open

Sensore S2 - Mandrino in posizione lavoro

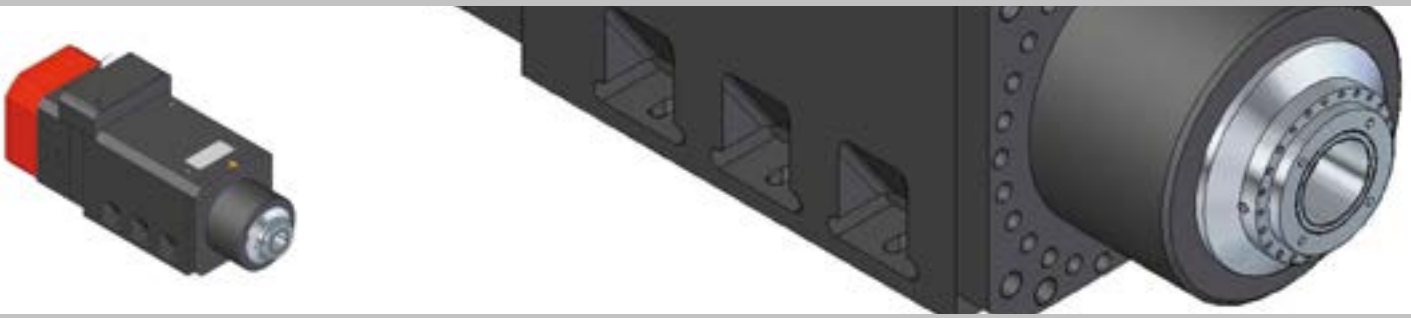
S2 sensor - Spindle in work position

TIPO	A	B	C
AF 165 CU 12/4	599	245.5	266.5
AF 165 CU 15/4	629	275.5	296.5
AF 165 CU 17/4	649	295.5	316.5

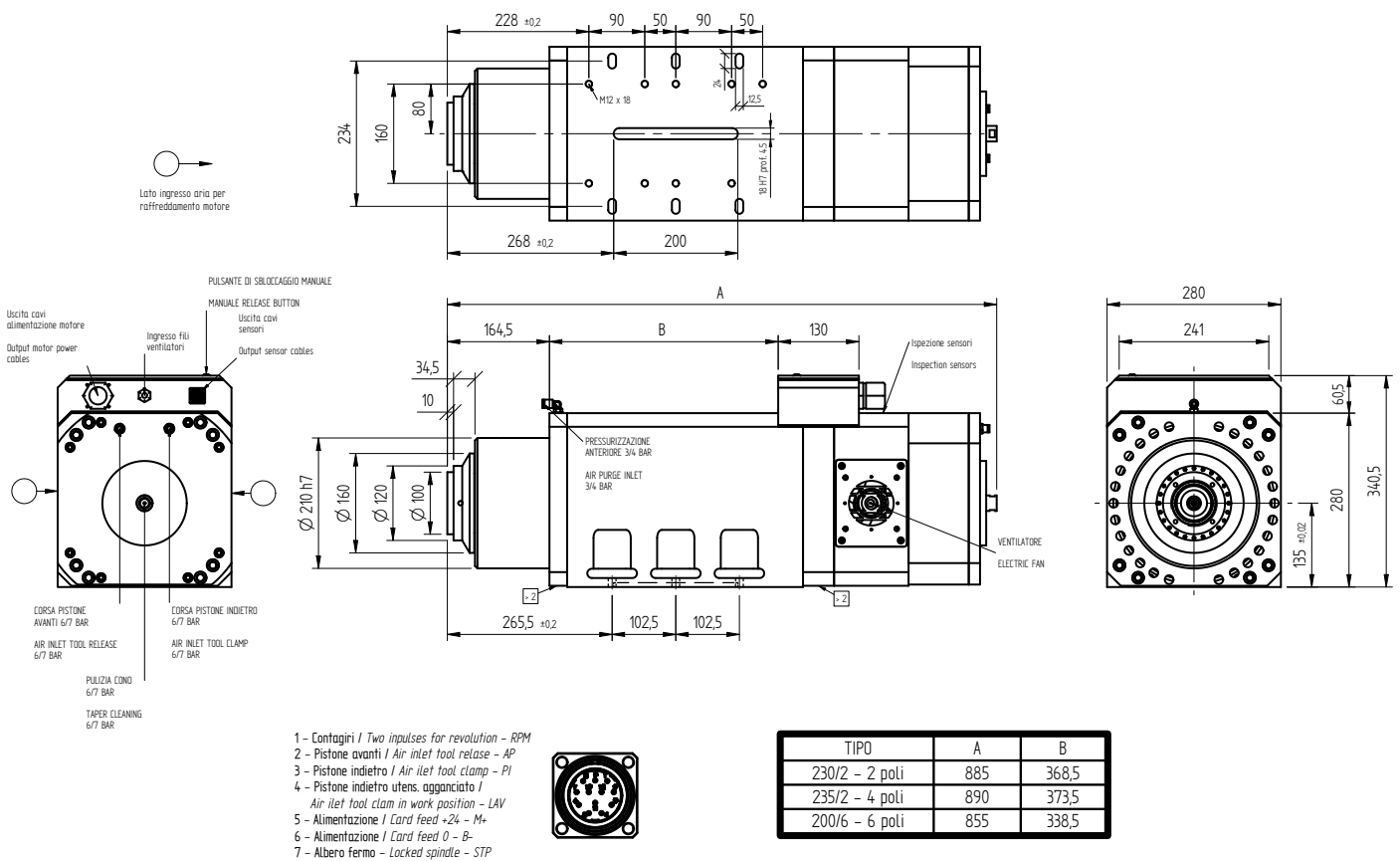
NB. Attacchi e movimentazione pistone da 1/4 gas, pressurizzazione da 1/8 gas



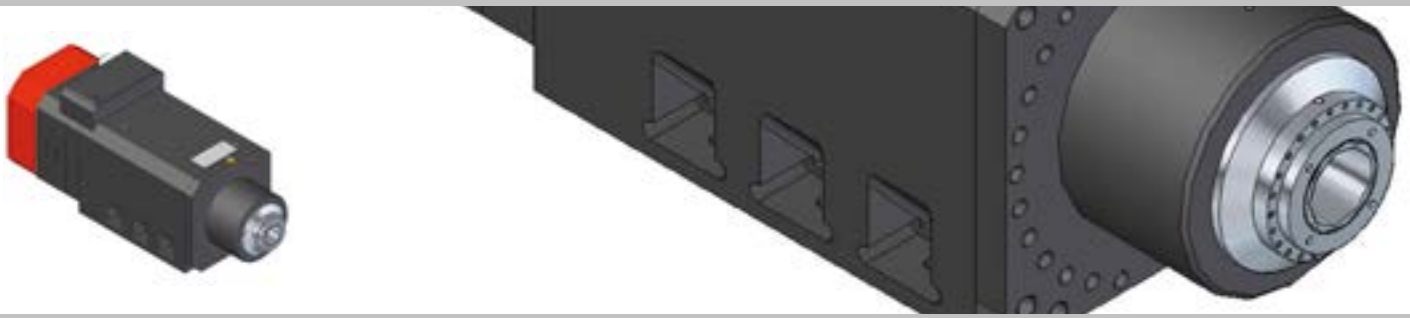
AF 240 CU PL HSK B100



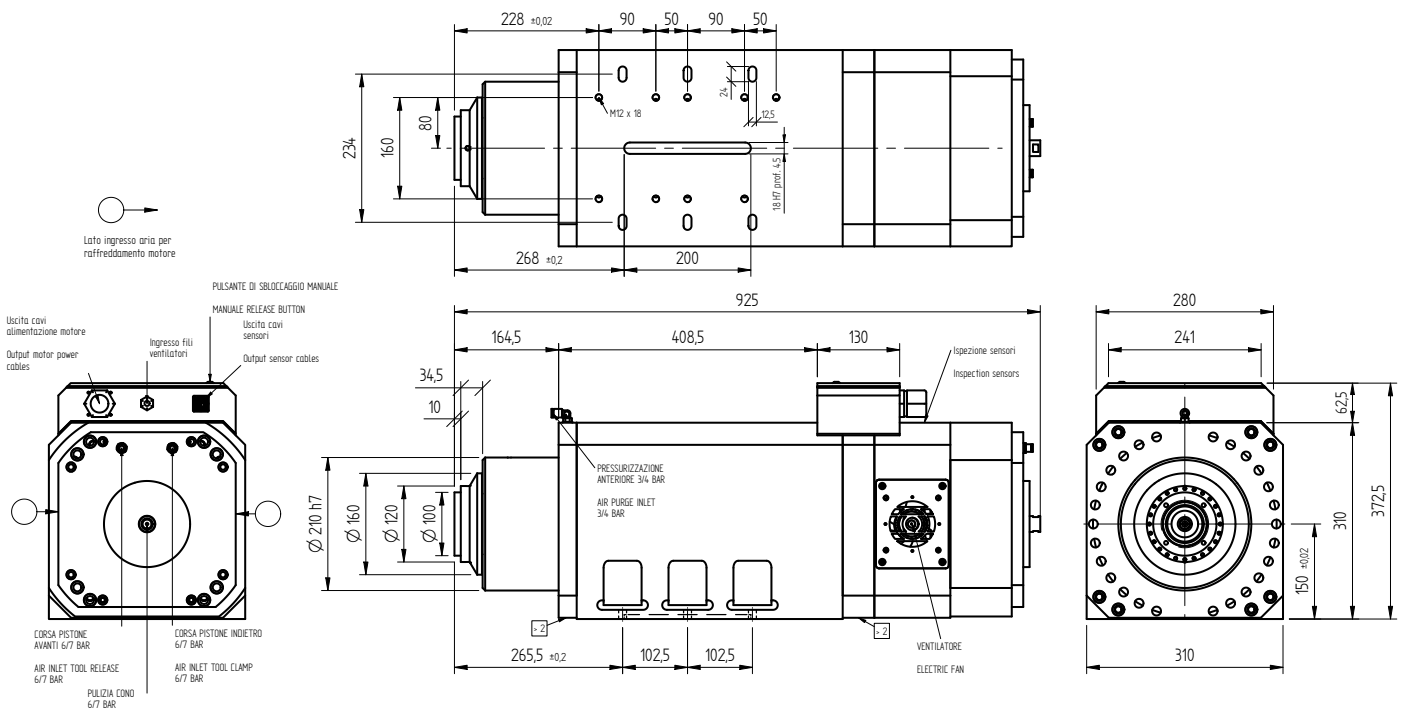
TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 240 23/2 PL Hsk B100	Electric Fan	400/690	50	3000 (2 poli)	26,0	46,4/26,8	0,88	220
AF 240 23/4 PL Hsk B100	Electric Fan	400/690	50	1500 (4 poli)	18,5	34,1/20,3	0,85	240
AF 240 22/6 PL Hsk B100	Electric Fan	400/690	50	1000 (6 poli)	10,0	22,0/12,7	0,80	205



AF 270 CU PL HSK B100



TYPE		VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
AF 270 25/2 CU PL HSK B100	Electric Fan	400/690	50	3000 (2 poli)	42,0	72,7/42,0	0,92	250



- 1 - Contagiri / Two impulses for revolution - RPM
- 2 - Pistone avanti / Air inlet tool release - AP
- 3 - Pistone indietro / Air inlet tool clamp - PI
- 4 - Pistone indietro utens. agganciato / Air inlet tool clamp in work position - LAV
- 5 - Alimentazione / Card feed +24 - M+
- 6 - Alimentazione / Card feed 0 - B-
- 7 - Albero fermo - Locked spindle - STP



TIPO	A	B
230/2 - 2 poli	885	368,5
235/2 - 4 poli	890	373,5
200/6 - 6 poli	855	338,5

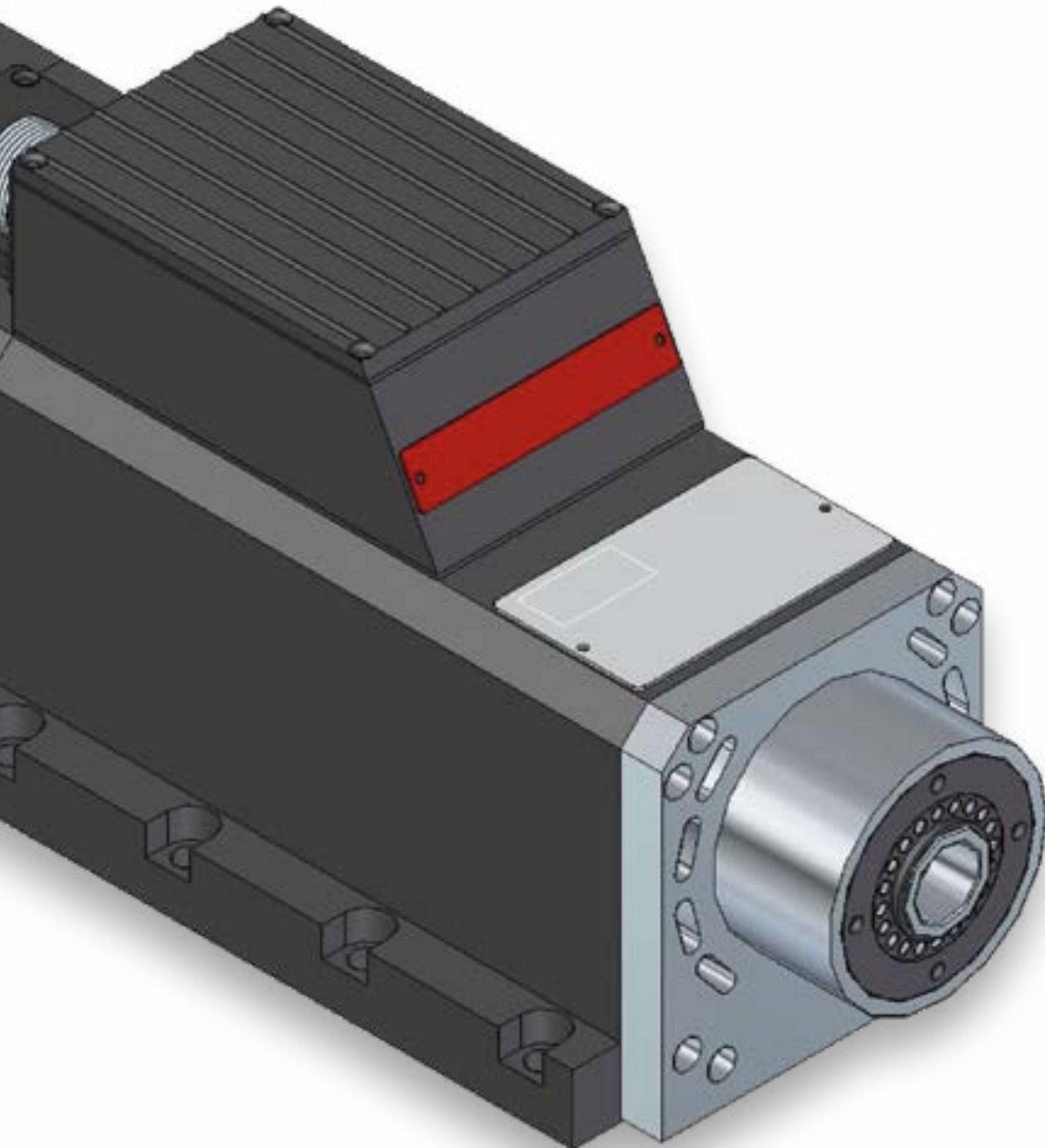




High speed precision spindles

DATASHEET

TMA AUT. TOOL CHANGER Series





High speed precision spindles

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TMA LA Series

TMA 3 LA ISO 20

TMA 3 LA HSK E25

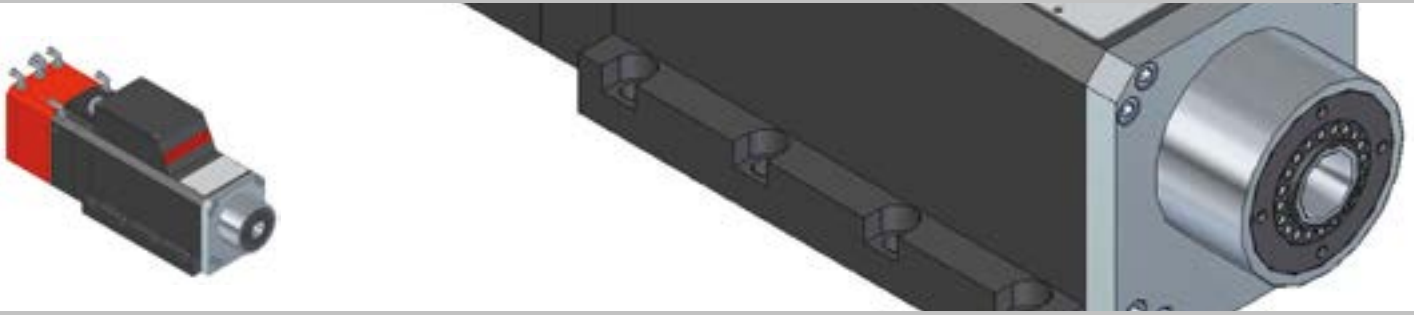
TMA 4 LA ISO 30

TMA 5 LA HSK F63

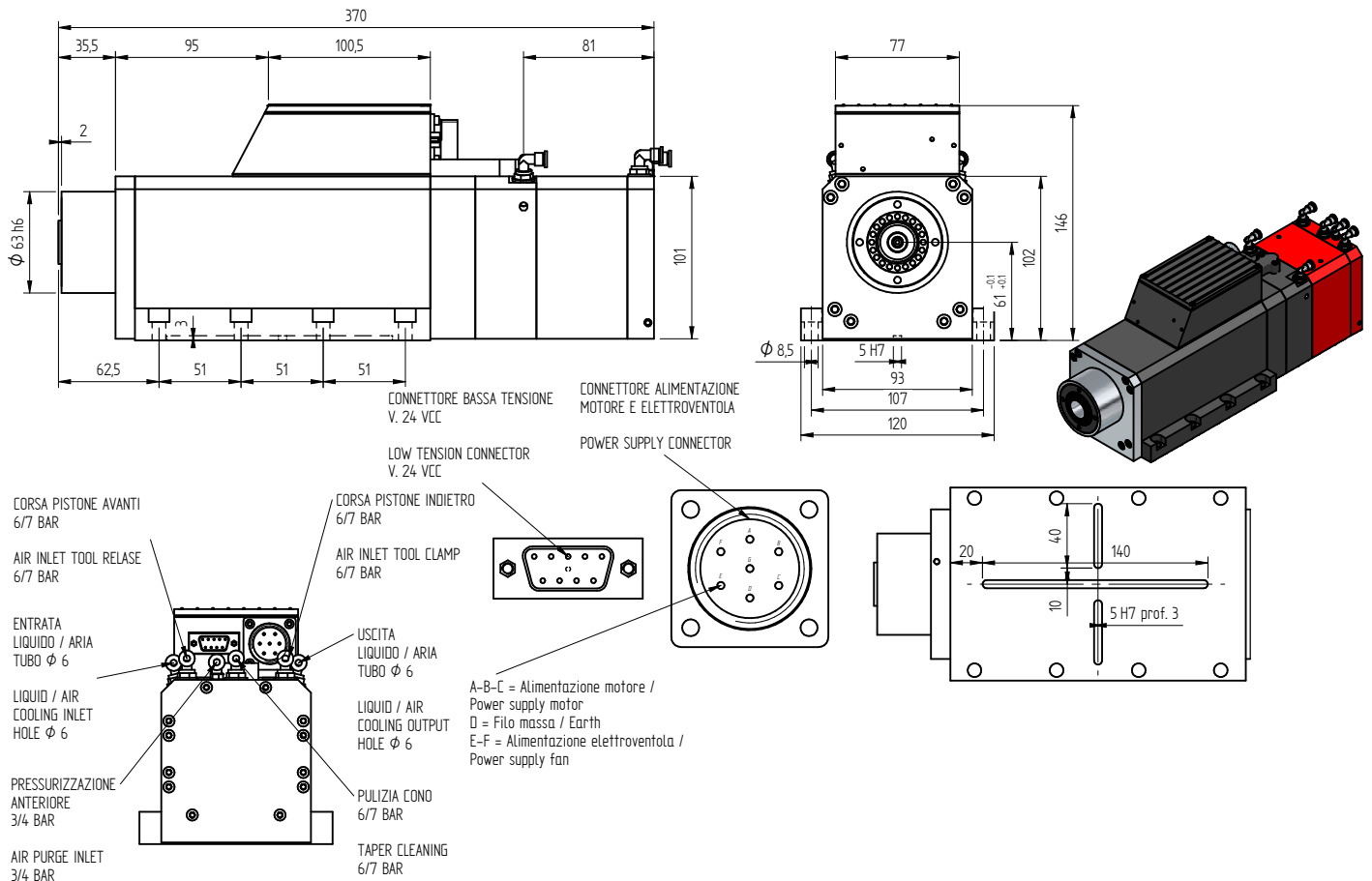
TMA 5 LA ISO 30

TMA 6 LA HSK F63

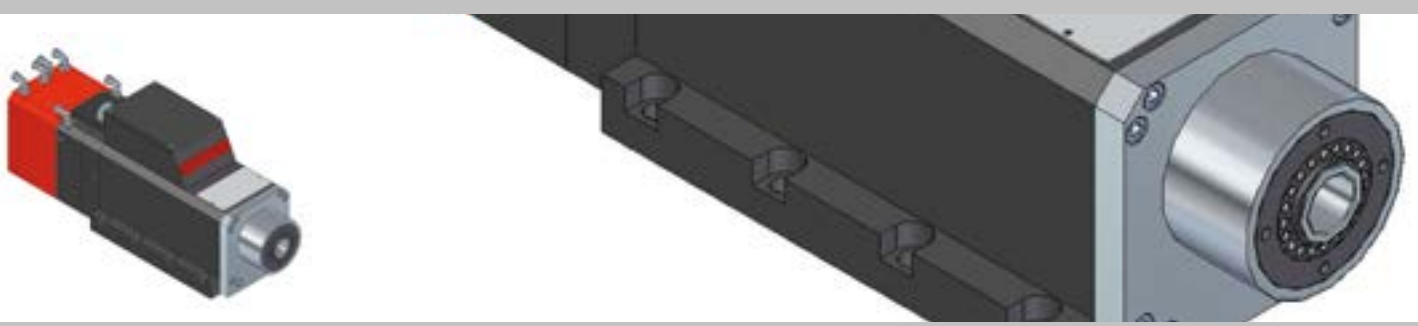
TMA 6 LA ISO 40



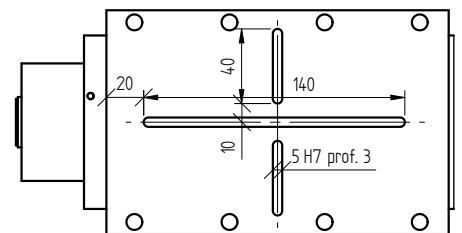
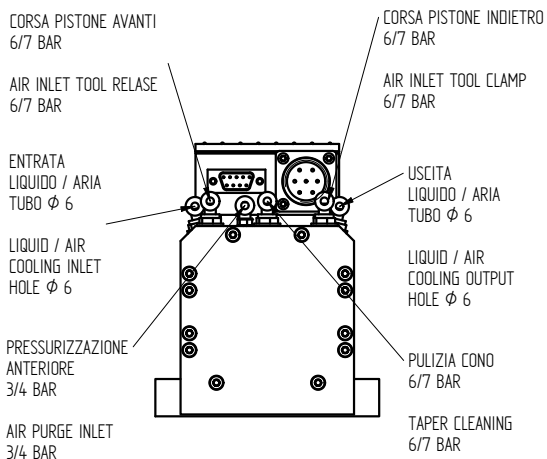
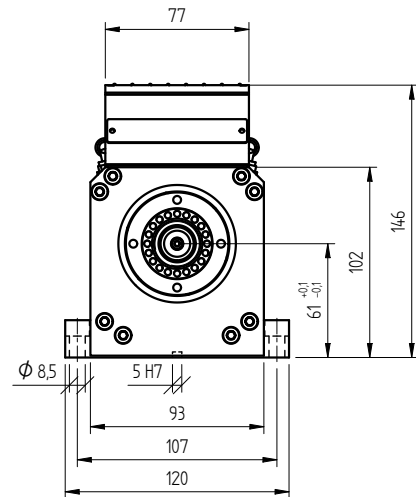
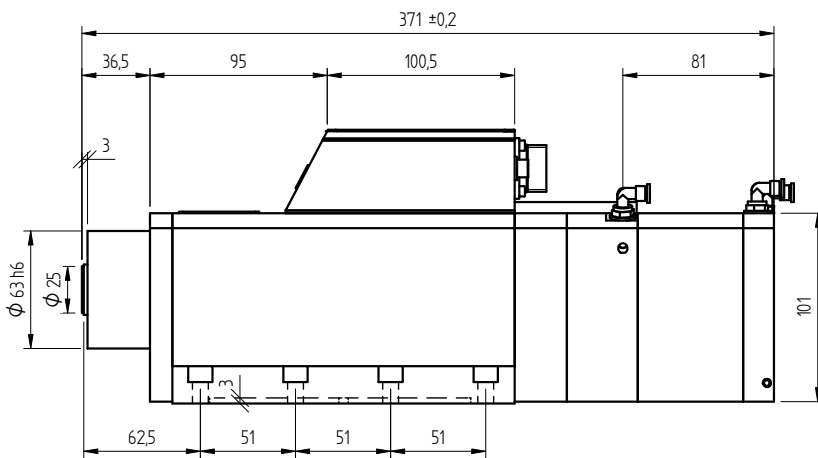
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA3 12/2 ISO20 compressed air	350	200/300	12000/18000	1,8	4,9	0,83	12
12/2 ISO20 liquid	350	200/300	12000/18000	2,4	6,1	0,83	12
TMA3 12/2 ISO20 compressed air	350	300/400	18000/24000	1,8	4,7	0,83	12
12/2 ISO20 liquid	350	300/400	18000/24000	2,4	6,1	0,83	12
TMA3 12/2 ISO20 compressed air	350	400	24000	2,2	5,8	0,83	12
12/2 ISO20 liquid	350	400	24000	2,6	7,5	0,83	12



TMA 3 LA HSK E25

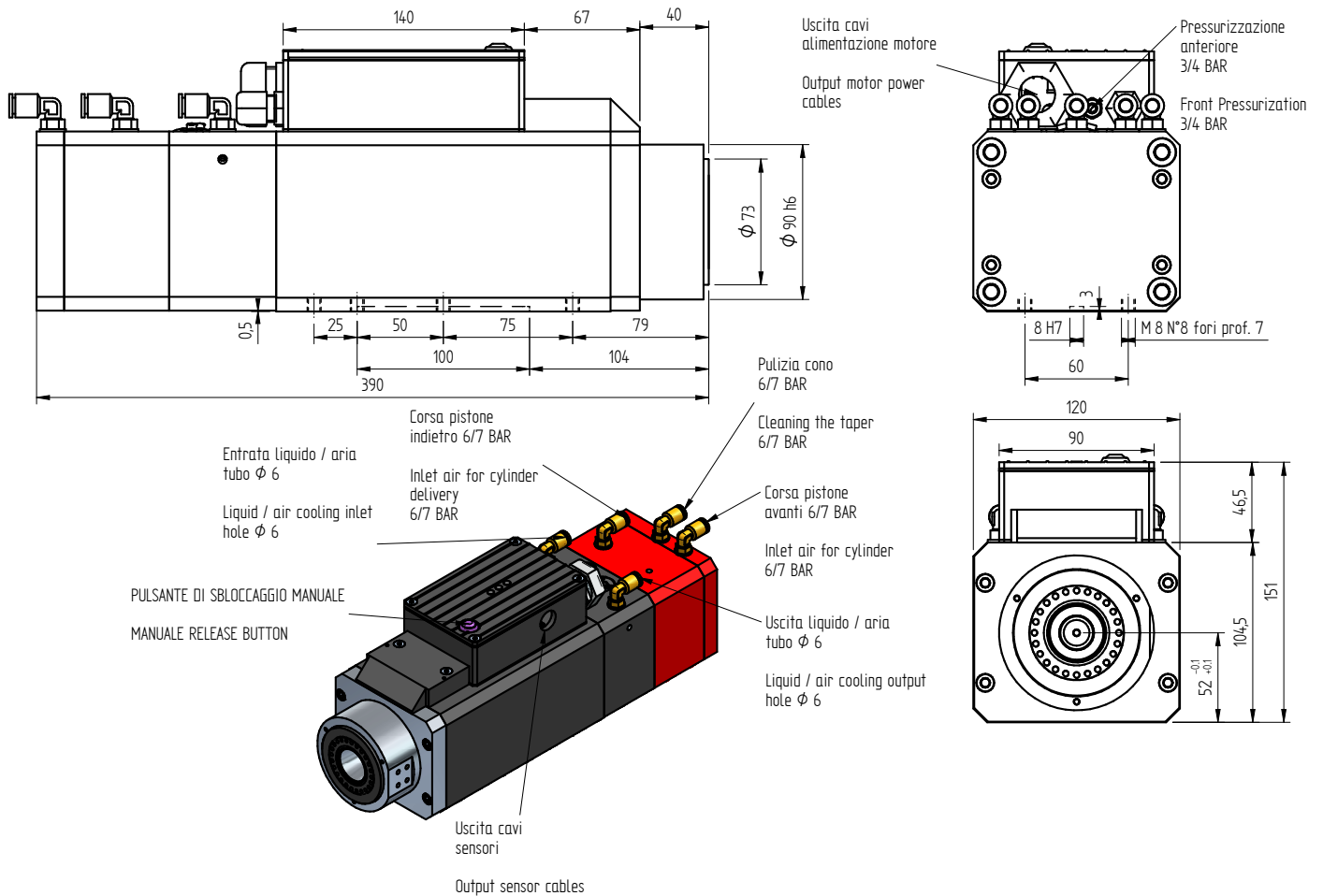


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA3 12/2 HSK E25 compressed air	350	200/300	12000/18000	1,8	4,9	0,83	12
HSK E25 liquid	350	200/300	12000/18000	2,4	6,1	0,83	12
TMA3 12/2 HSK E25 compressed air	350	300/400	18000/24000	1,8	4,7	0,83	12
HSK E25 liquid	350	300/400	18000/24000	2,4	6,1	0,83	12
TMA3 12/2 HSK E25 compressed air	350	400	24000	2,2	5,8	0,83	12
HSK E25 liquid	350	400	24000	2,6	6,5	0,83	12





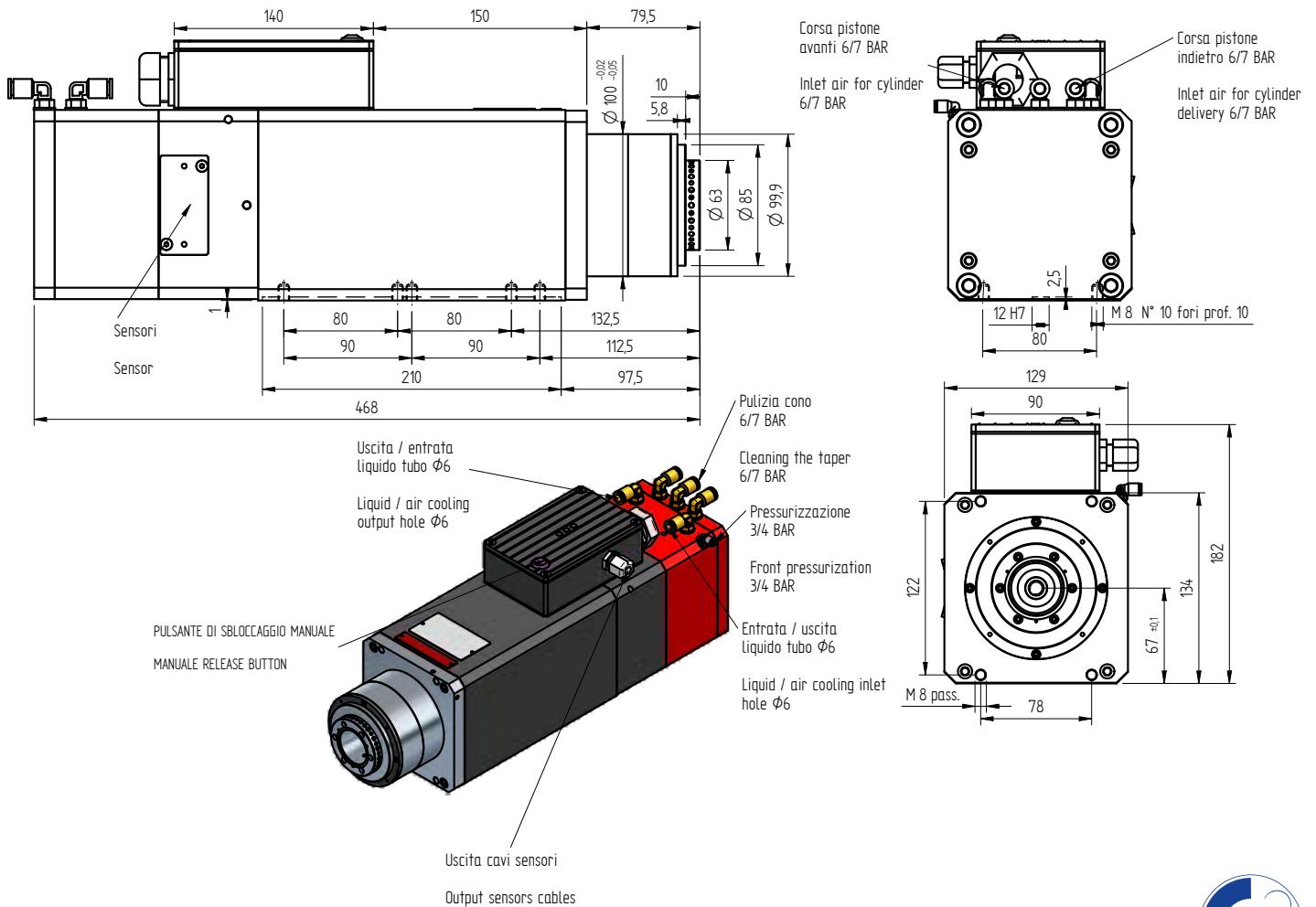
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA4 10/2 ISO30 compressed air	350	200/300	12000/18000	3,6	8,6	0,82	17
ISO30 liquid	350	200/300	12000/18000	4,5	10,4	0,84	17
TMA4 10/2 ISO30 compressed air	350	300/400	18000/24000	3,6	8,6	0,82	17
ISO30 liquid	350	300/400	18000/24000	4,5	10,4	0,84	17



TMA 5 LA HSK F63

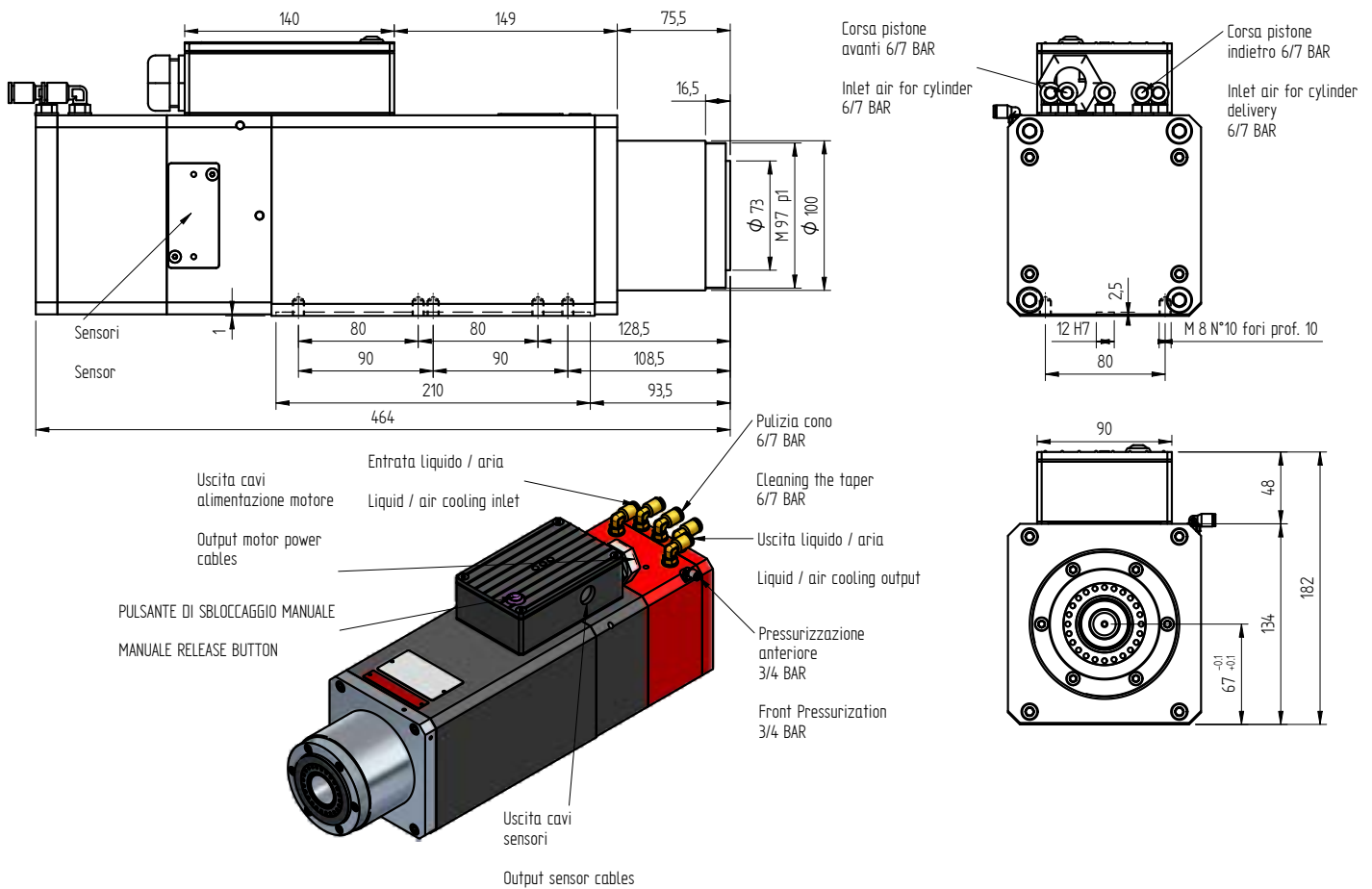


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA5 13/4 HSK F63 compressed air	350	400/600	12000/18000	6,0	16,6	0,72	25
HSK F63 liquid	350	400/600	12000/18000	7,5	19,7	0,72	25
TMA5 14/2 HSK F63 compressed air	350	200/300	12000/18000	7,0	16,0	0,85	25
HSK F63 liquid	350	200/300	12000/18000	7,5	18,0	0,85	25





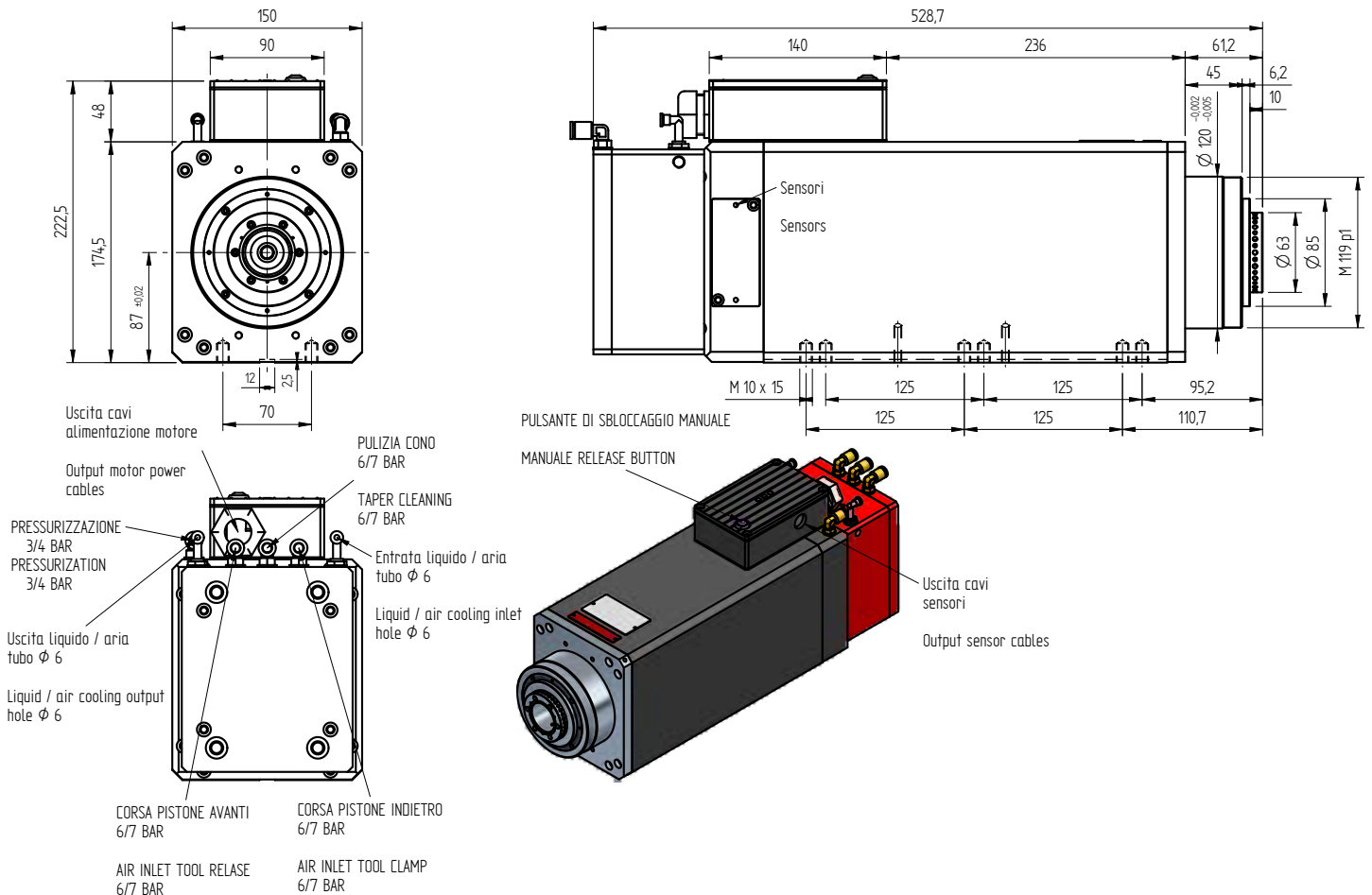
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA5 13/4 ISO30 compressed air	350	400/600	12000/18000	6,0	16,6	0,72	25
ISO30 liquid	350	400/600	12000/18000	7,5	19,7	0,72	25
TMA5 13/4 ISO30 compressed air	350	600/800	18000/24000	7,5	16,8	0,81	25
ISO30 liquid	350	600/800	18000/24000	9,0	20,0	0,81	25
TMA5 14/2 ISO30 compressed air	350	200/300	12000/18000	7,0	16,8	0,85	25
ISO30 liquid	350	200/300	12000/18000	7,5	18,0	0,85	25
TMA5 14/2 ISO30 compressed air	350	300/400	18000/24000	7,0	16,0	0,82	25
ISO30 liquid	350	300/400	18000/24000	8,5	19,4	0,82	25



TMA 6 LA HSK F63



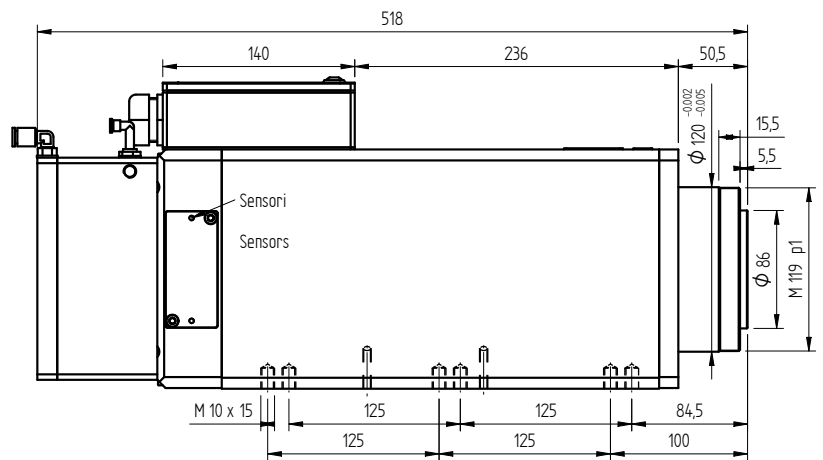
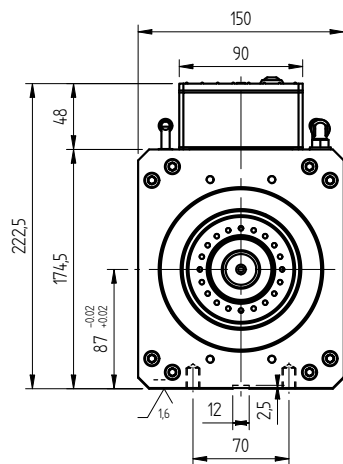
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA6 17/2 HSK F63 compressed air	350	200/300	12000/18000	11,0	26,0	0,85	44
HSK F63 liquid	350	200/300	12000/18000	12,5	28,5	0,85	44



TMA 6 LA ISO 40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA6 17/2 ISO 40 compressed air	350	200/300	12000/18000	11,0	26,0	0,85	42
ISO 40 liquid	350	200/300	12000/18000	12,5	28,5	0,85	42



Uscita cavi alimentazione motore

Output motor power cables

PRESSURIZZAZIONE ANTERIORE 3/4 BAR

AIR PURGE INLET 3/4 BAR

Uscita liquido / aria tubo ϕ 6

Liquid / air cooling output hole ϕ 6

CORSA PISTONE AVANTI 6/7 BAR

AIR INLET TOOL RELEASE 6/7 BAR

CORSA PISTONE INDIETRO 6/7 BAR

AIR INLET TOOL CLAMP 6/7 BAR

PULIZIA CONO 6/7 BAR

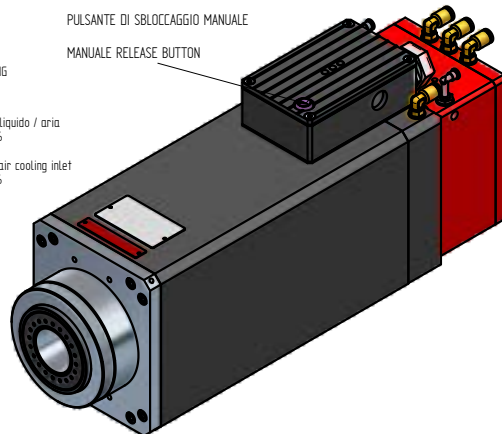
TAPER CLEANING 6/7 BAR

Entrata liquido / aria tubo ϕ 6

Liquid / air cooling inlet hole ϕ 6

PULSANTE DI SBLOCCAGGIO MANUALE

MANUALE RELEASE BUTTON



TMA ELECTRIC FAN Series

TMA 3 EV HSK E25

TMA 3 EV ISO 20

TMA 4 EV ISO 25

TMA 4 EV ISO 30

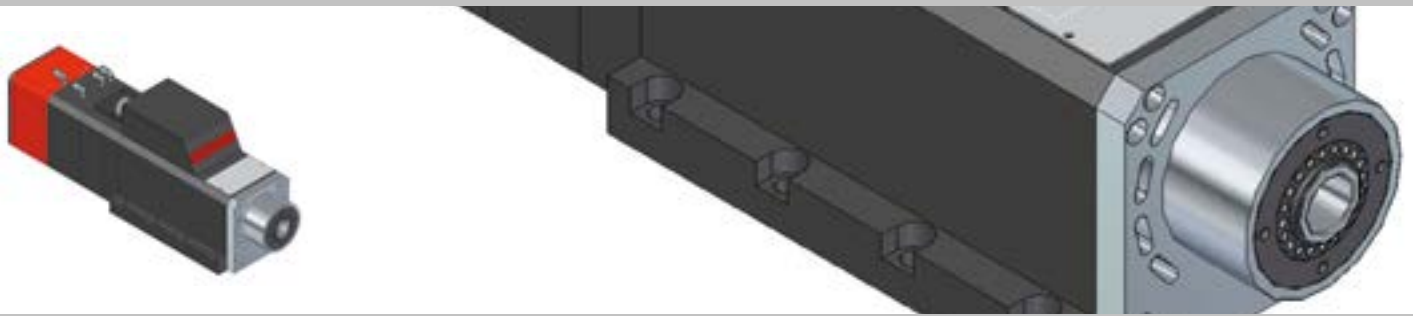
TMA 5 EV HSK F63

TMA 5 EV ISO 30

TMA 6 EV HSK F63

TMA 6 EV ISO 40

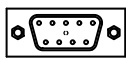
TMA 3 EV HSK E25



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA3 12/2 HSK E25 EV	350	200/300	12000/18000	1,8	4,9	0,83	14
TMA3 12/2 HSK E25 EV	350	300/400	18000/24000	1,8	4,7	0,83	14
TMA3 12/2 HSK E25 EV	350	400	24000	2,2	5,8	0,83	14
TMA3 12/2 HSK E25 EV	350	400/500	24000/30000	2,2	5,8	0,83	14

CONNETTORE BASSA TENSIONE
V. 24 VCC

LOW TENSION CONNECTOR
V. 24 VCC

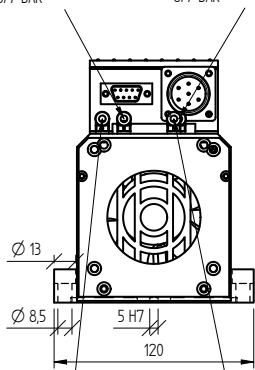


CORSA PISTONE AVANTI
6/7 BAR

CORSA PISTONE INDIETRO
6/7 BAR

AIR INLET TOOL RELEASE
6/7 BAR

AIR INLET TOOL CLAMP
6/7 BAR

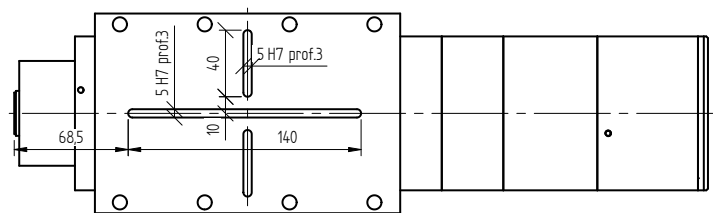


PULIZIA CONO
6/7 BAR

PRESSURIZZAZIONE
3/4 BAR

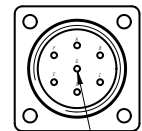
TAPER CLEANING
6/7 BAR

PRESSURIZATION
3/4 BAR

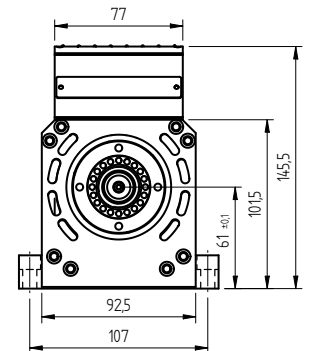
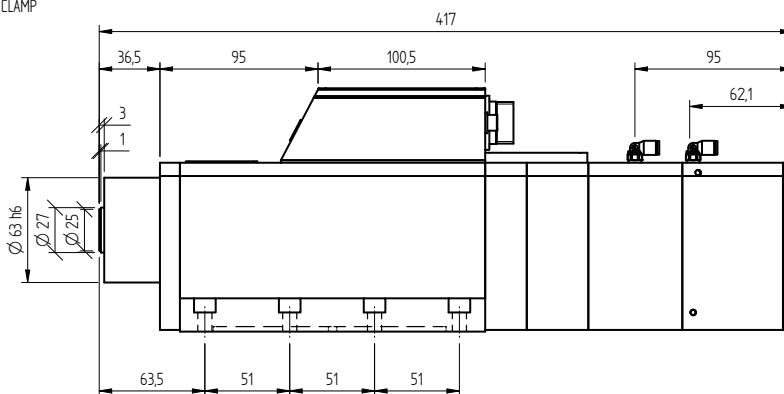


CONNETTORE ALIMENTAZIONE
MOTORE E ELETTROVENTOLA

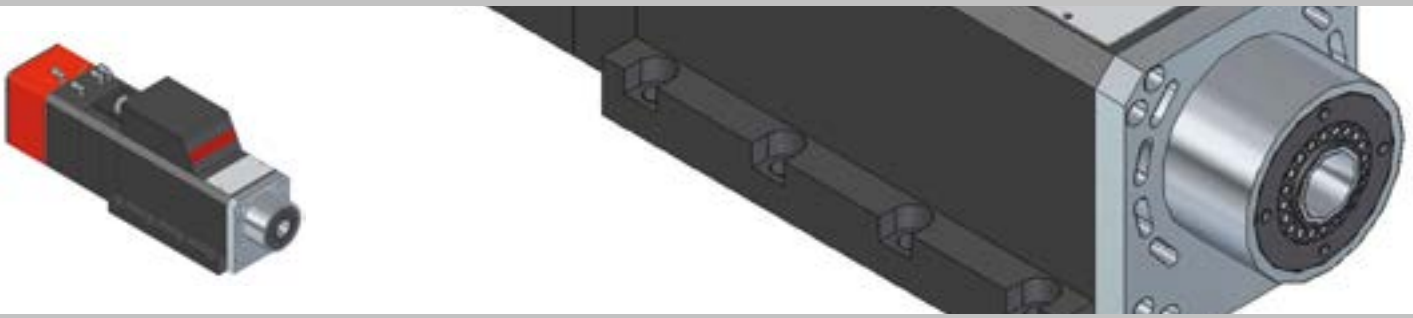
POWER SUPPLY CONNECTOR



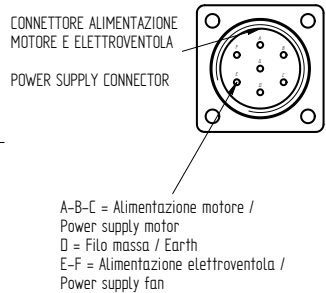
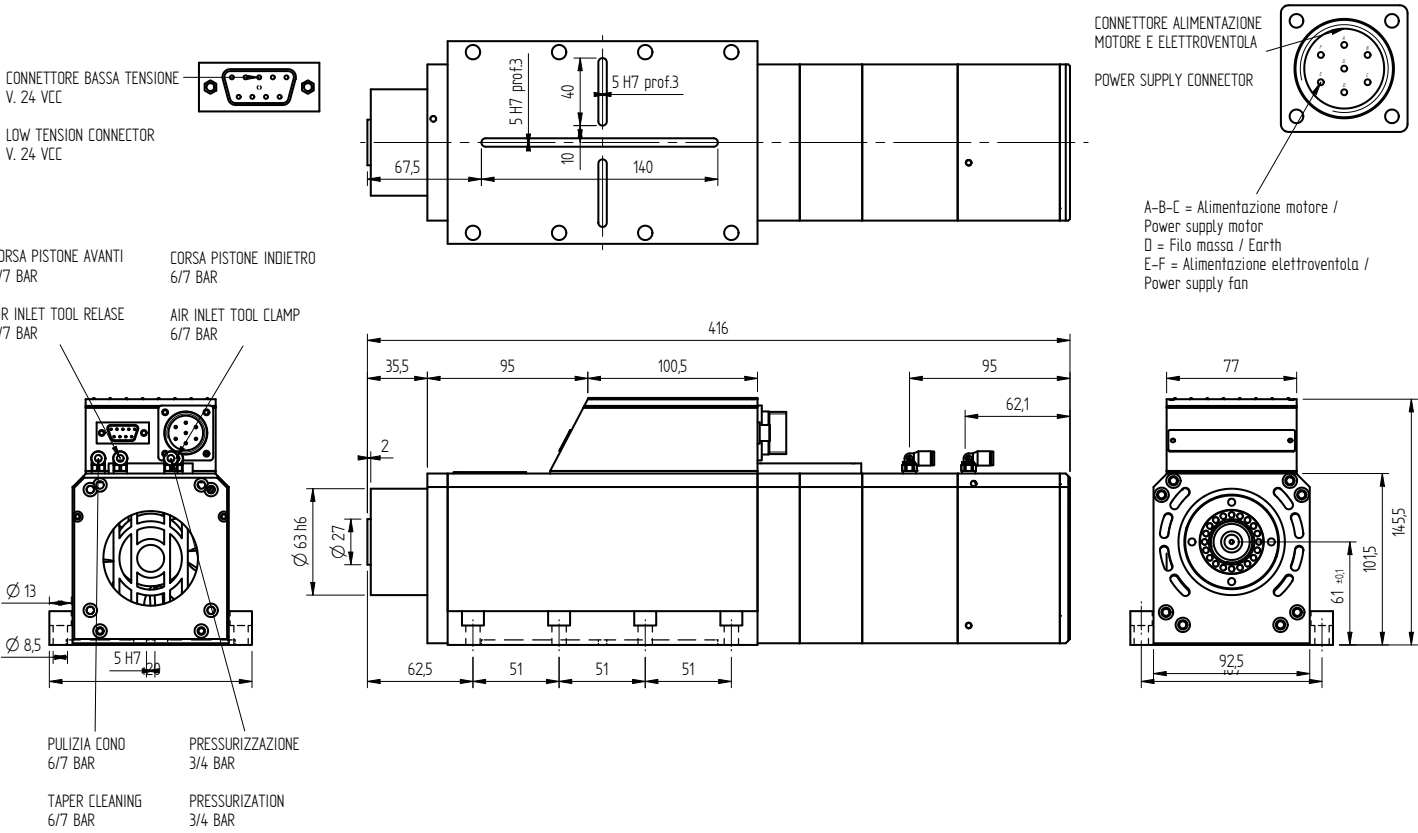
A-B-C = Alimentazione motore /
Power supply motor
D = Filo massa / Earth
E-F = Alimentazione elettroventola /
Power supply fan



VENTILATORE / ELECTRIC FAN		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	12 - 27,6 VDC
Potenza	Power input	50 W



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA3 12/2 ISO 20 EV	350	200/300	12000/18000	1,8	4,9	0,83	14
TMA3 12/2 ISO 20 EV	350	300/400	18000/24000	1,8	4,7	0,83	14
TMA3 12/2 ISO 20 EV	350	400	24000	2,2	5,8	0,83	14
TMA3 12/2 ISO 20 EV	350	400/500	24000/30000	2,2	5,8	0,83	14



VENTILATORE / ELECTRIC FAN		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	12 - 27,6 VDC
Potenza	Power input	50 W



TMA 4 EV ISO 25



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA4 10/2 ISO 25 EV	350	200/300	12000/18000	3,6	8,6	0,82	18
TMA4 10/2 ISO 25 EV	350	300/400	18000/24000	3,6	8,6	0,82	18

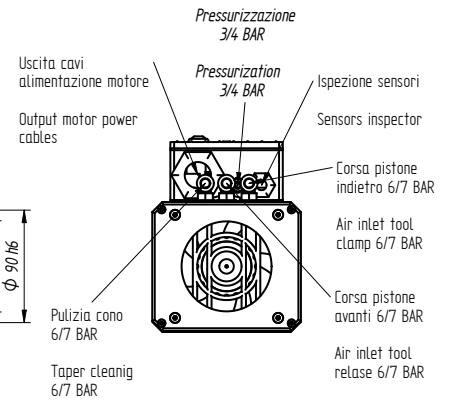
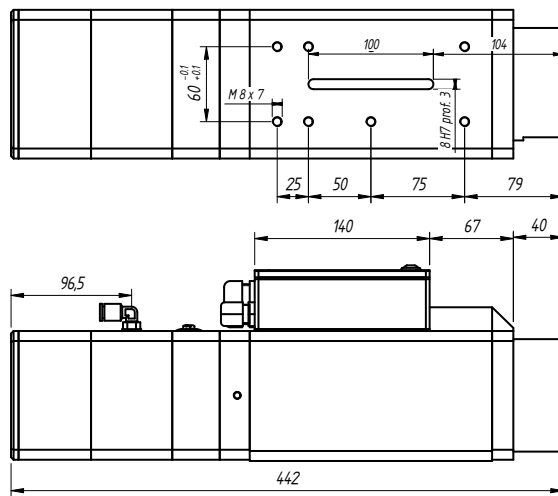
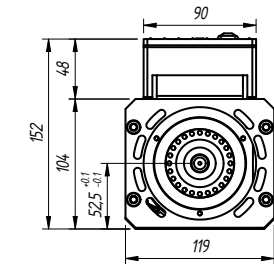
LE NOSTRE PROTEZIONI
OUR PROTECTIONS

Sensore S4 - Pistone indietro
S4 Sensor - Backward

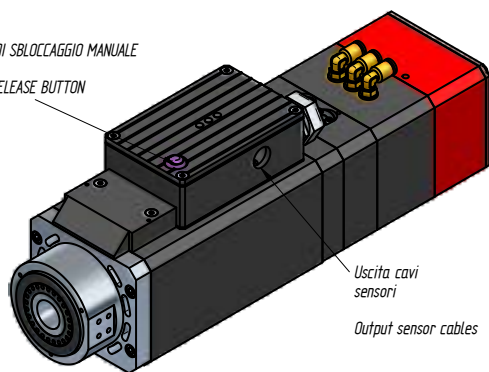
Sensore S3 - Rotazione albero
S3 sensor - shaft rotation

Sensore S1 - pinza aperta
S1 sensor - Collet open

Sensore S2 - Mandrino in posizione lavoro
S2 sensor - Spindle in work position



PULSANTE DI SBLOCCAGGIO MANUALE
MANUALE RELEASE BUTTON



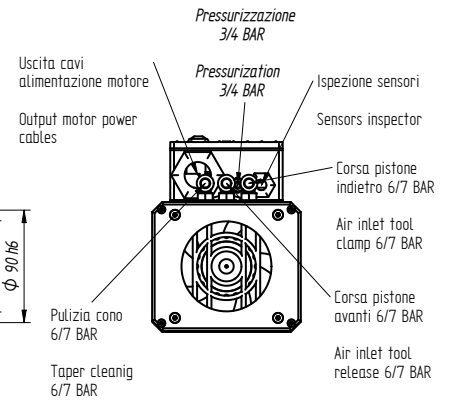
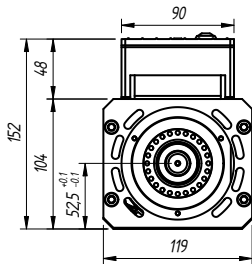
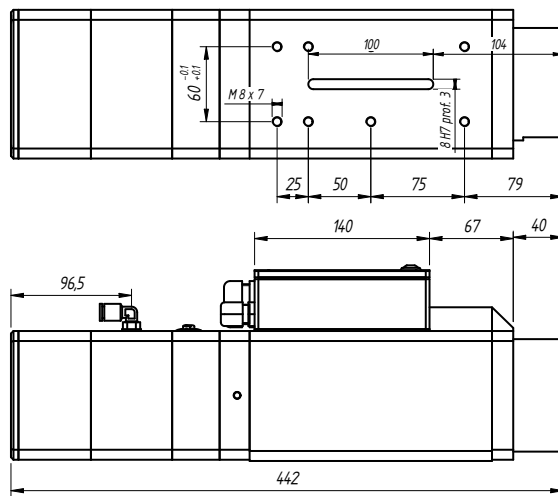
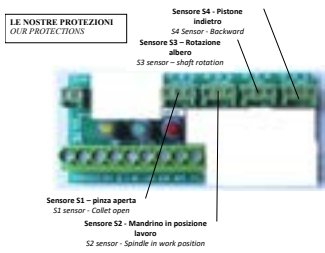
VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	12 .. 27.6 VDC
Potenza	Power input	50 W



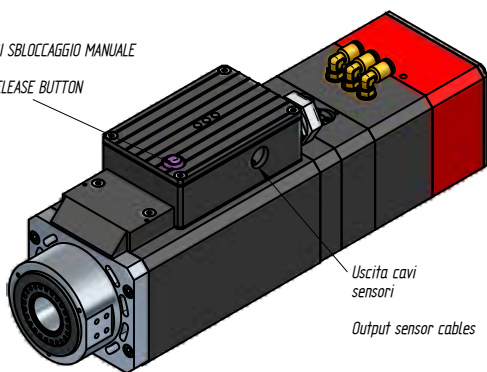
TMA 4 EV ISO 30



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA4 10/2 ISO 30 EV	350	200/300	12000/18000	3,6	8,6	0,82	16
TMA4 10/2 ISO 30 EV	350	300/400	18000/24000	3,6	8,6	0,82	16



PULSANTE DI SBLOCCAGGIO MANUALE
MANUALE RELEASE BUTTON



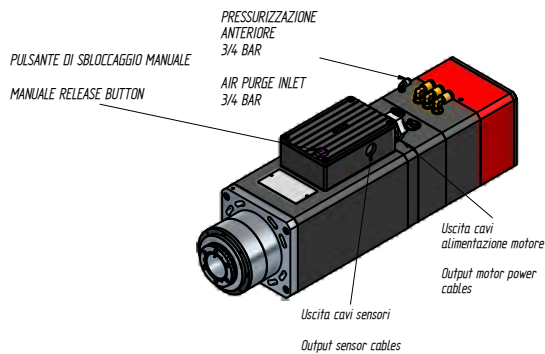
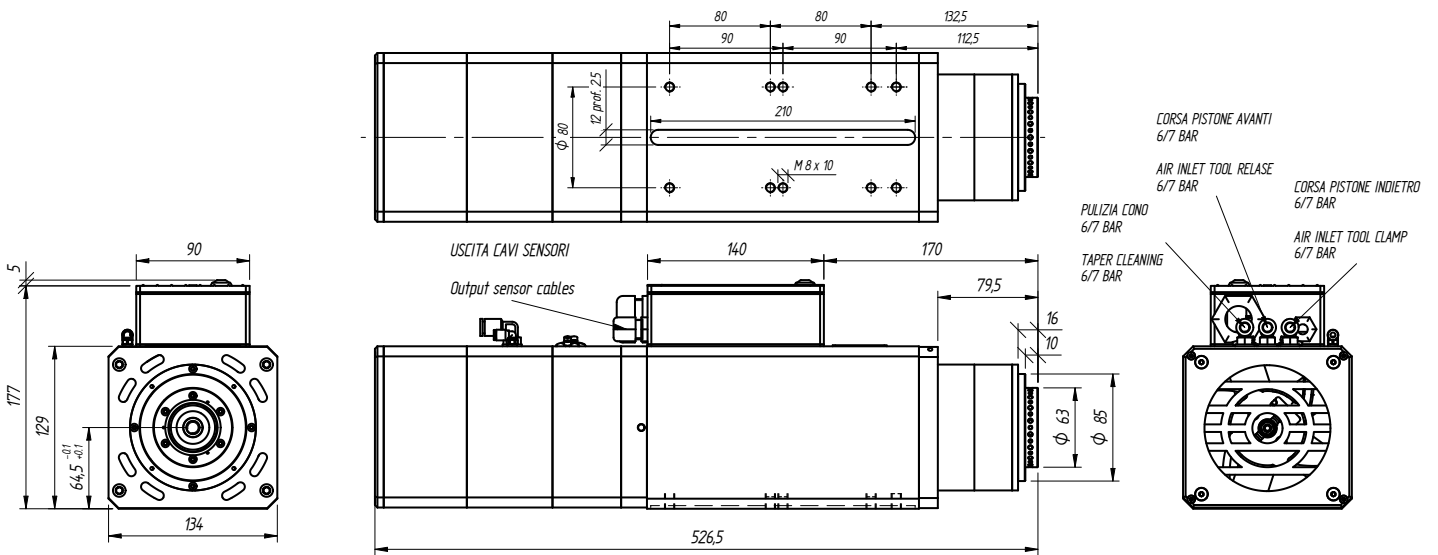
VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	12 .. 27.6 VDC
Potenza	Power input	50 W



TMA 5 EV HSK F63



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA5 13/4 HSK F63 EV	350	400/600	12000/18000	6,0	16,6	0,72	30
TMA5 13/4 HSK F63 EV	350	600/800	18000/24000	7,5	19,7	0,72	30
TMA5 14/2 HSK F63 EV	350	200/300	12000/18000	7,0	16,0	0,85	30



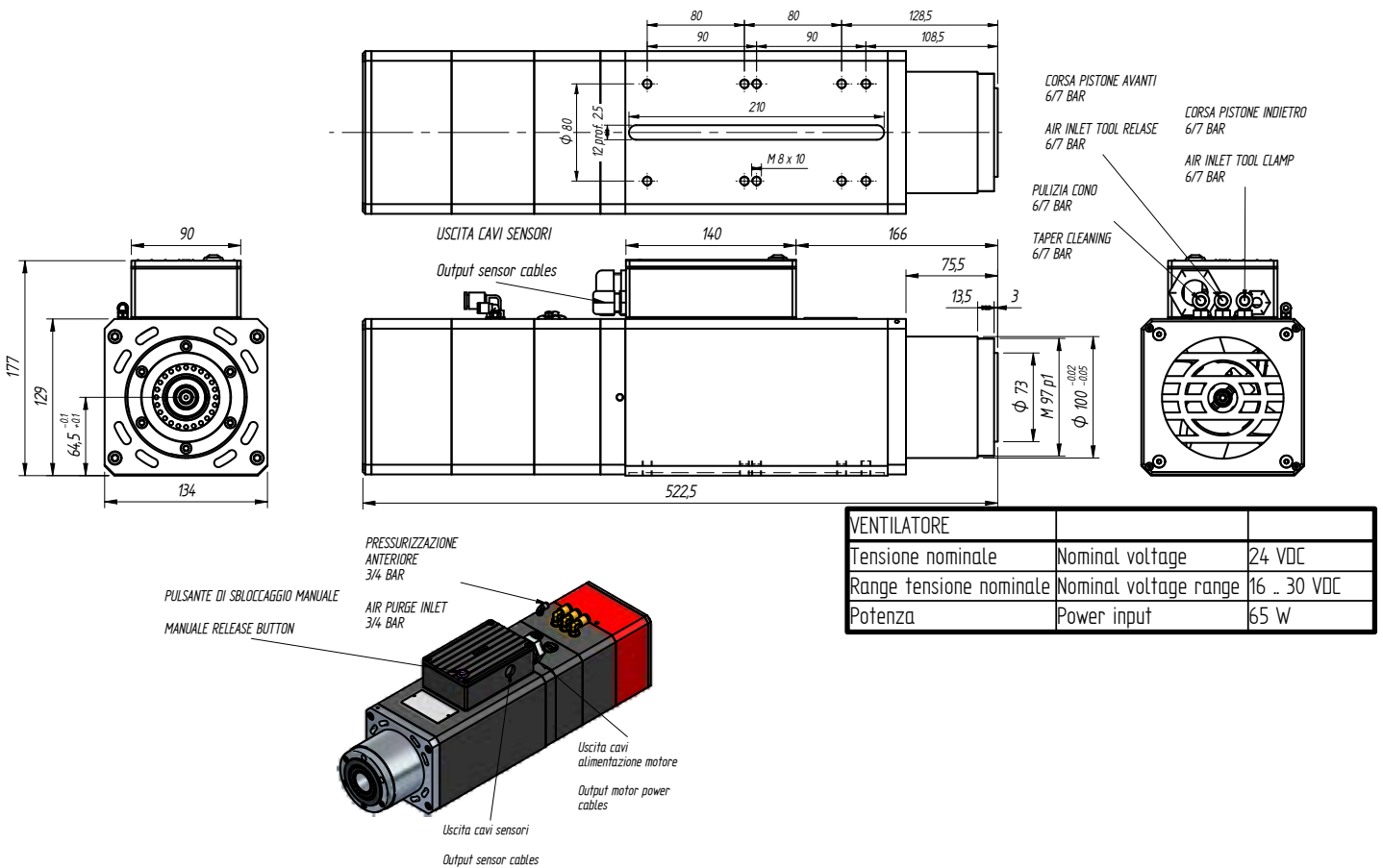
VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 .. 30 VDC
Potenza	Power input	65 W



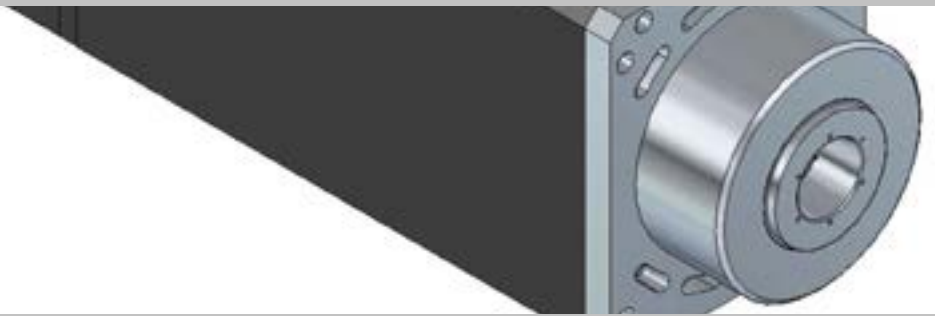
TMA 5 EV ISO 30



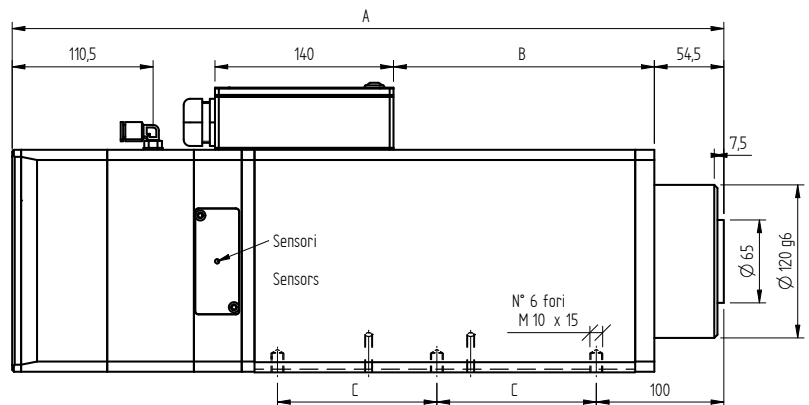
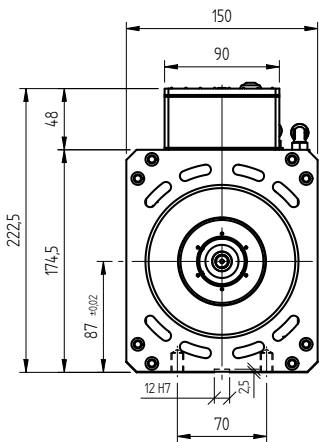
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA5 13/4 ISO30 EV	350	400/600	12000/18000	6,0	16,6	0,72	30
TMA5 13/4 ISO30 EV	350	600/800	18000/24000	7,5	19,7	0,72	30
TMA5 14/2 ISO30 EV	350	200/300	12000/18000	7,0	16,0	0,85	30
TMA5 14/2 ISO30 EV	350	300/400	18000/24000	7,0	16,0	0,82	30



TMA 6 EV HSK F63



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA6 12/4 HSK F63 EV	350	400/600	12000/18000	8,0	8,6	0,80	38
TMA6 17/4 HSK F63 EV	350	400/600	12000/18000	12,0	28,5	0,82	43



Uscita cavi alimentazione motore

Output motor power cables

PRESSURIZZAZIONE 3/4 BAR

PRESSURIZATION 3/4 BAR

PULIZIA CONO 6/7 BAR

TAPER CLEANING 6/7 BAR

CORSA PISTONE AVANTI 6/7 BAR

AIR INLET TOOL RELEASE 6/7 BAR

CORSA PISTONE INDIETRO 6/7 BAR

AIR INLET TOOL CLAMP 6/7 BAR

PULSANTE DI SBLOCCAGGIO MANUALE

MANUALE RELEASE BUTTON

Uscita cavi sensori

Output sensor cables

TIPO	A	B	C
TMA 6 12/4	508	154,5	100
TMA 6 17/4	558	204,5	125

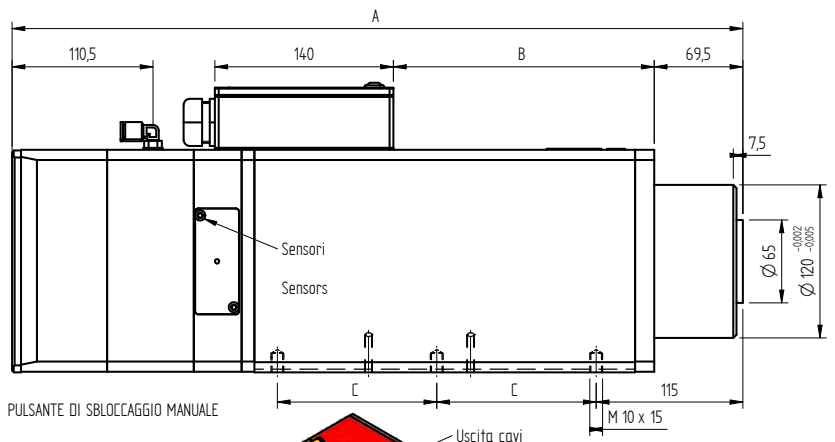
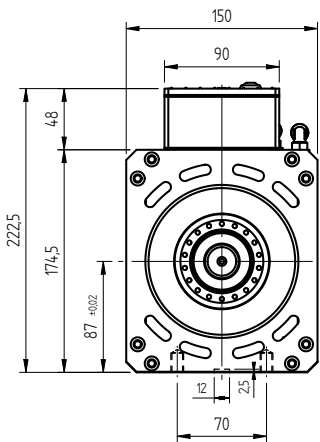
VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 .. 30 VDC
Potenza	Power input	65 W



TMA 6 EV ISO 40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMA6 12/4 ISO 40 EV	350	400/600	12000/18000	8,0	21,6	0,80	44
TMA6 17/4 ISO 40 EV	350	400/600	12000/18000	12,0	28,5	0,82	48



Uscita cavi alimentazione motore

Output motor power cables

PRESSURIZZAZIONE 3/4 BAR

PRESSURIZATION 3/4 BAR

PULIZIA CONO 6/7 BAR

TAPER CLEANING 6/7 BAR

CORSA PISTONE AVANTI 6/7 BAR

AIR INLET TOOL RELEASE 6/7 BAR

CORSA PISTONE INDIETRO 6/7 BAR

AIR INLET TOOL CLAMP 6/7 BAR

PULSANTE DI SBLOCCAGGIO MANUALE

MANUALE RELEASE BUTTON

Uscita cavi sensori

Output sensor cables

TIPO	A	B	C
TMA 6 12/4	523	154.5	100
TMA 6 17/4	573	204.5	125

VENTILATORE		
Tensione nominale	Nominal voltage	24 VDC
Range tensione nominale	Nominal voltage range	16 .. 30 VDC
Potenza	Power input	65 W

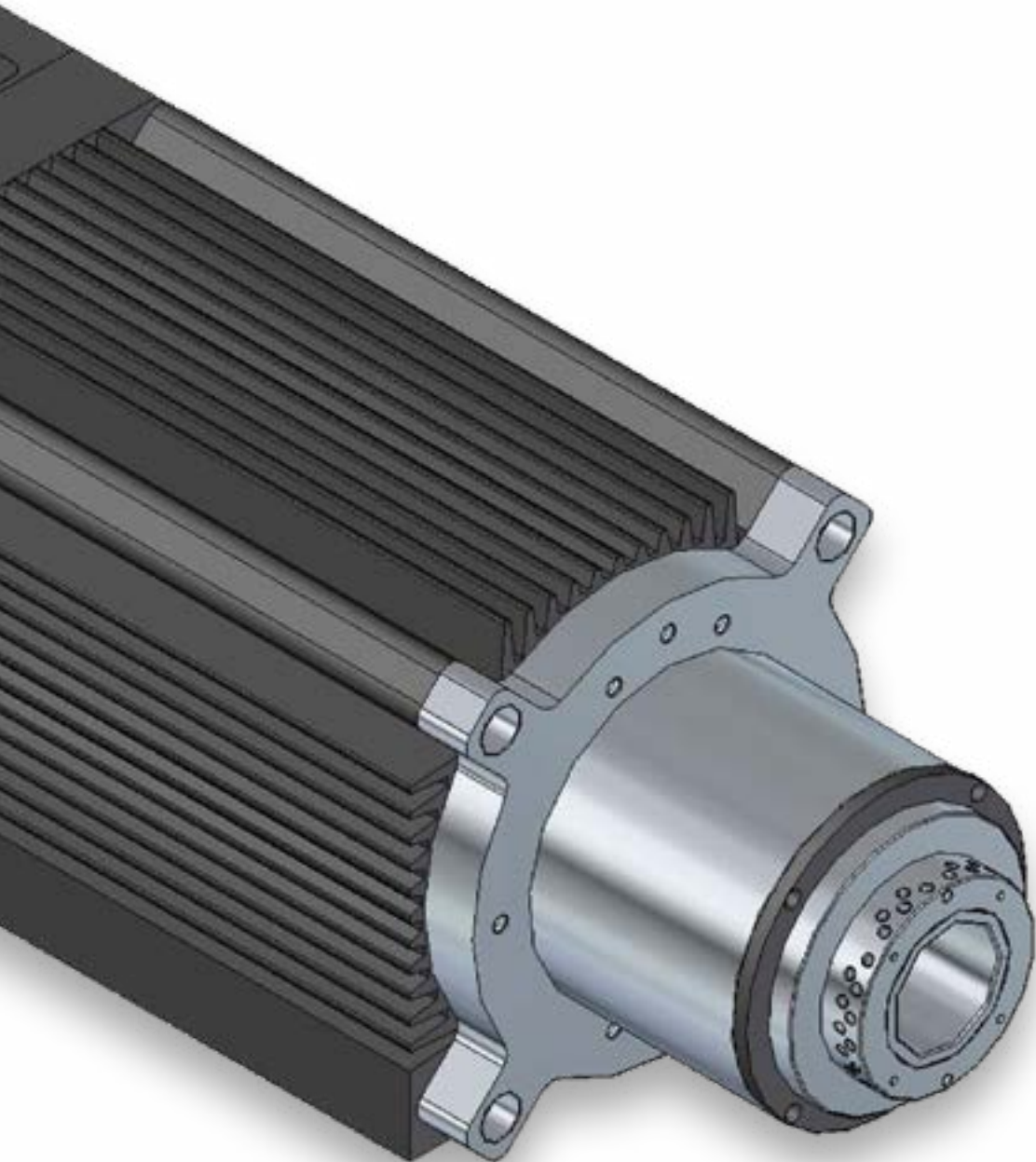




High speed precision spindles

DATASHEET

SR/TR Series





High speed precision spindles

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SR/TR Series

SR 150

TR HSK E40

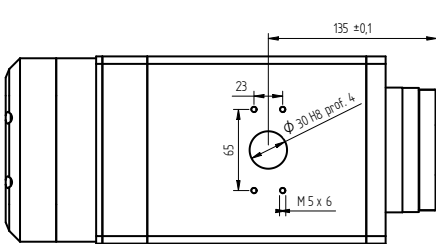
TR HSK F63

TR HSK ER32

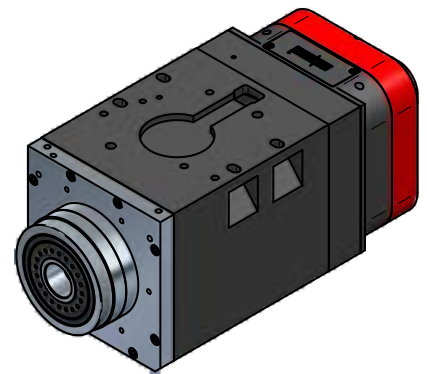
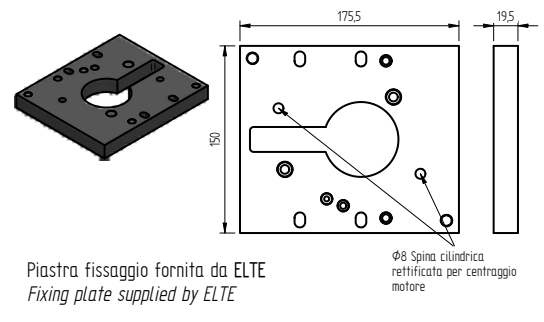
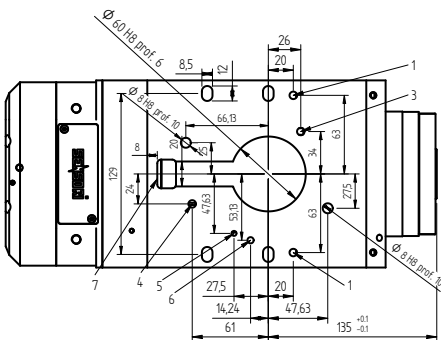
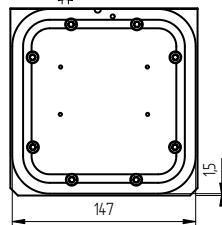
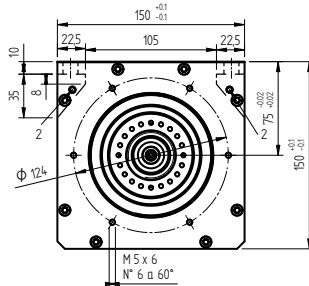
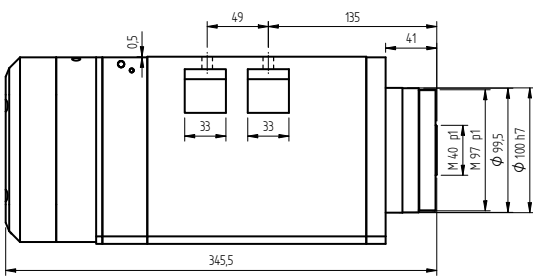
TR HSK ER40



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TR 150 9/4 CU HSK E40 Liquid	380	500	15000	13	28,3	0,84	28

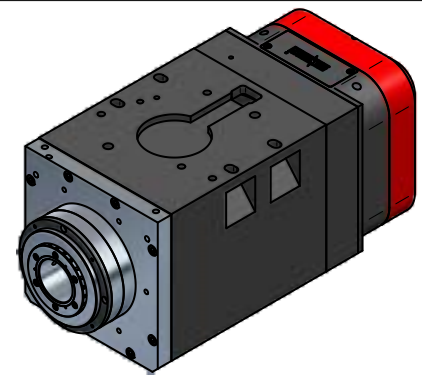
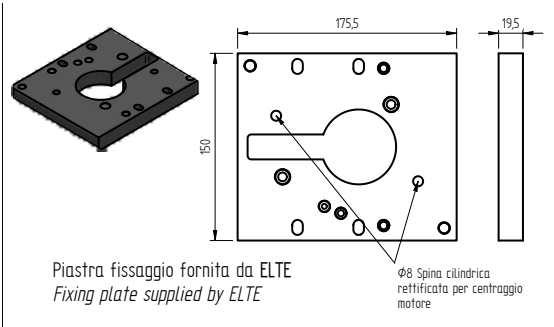
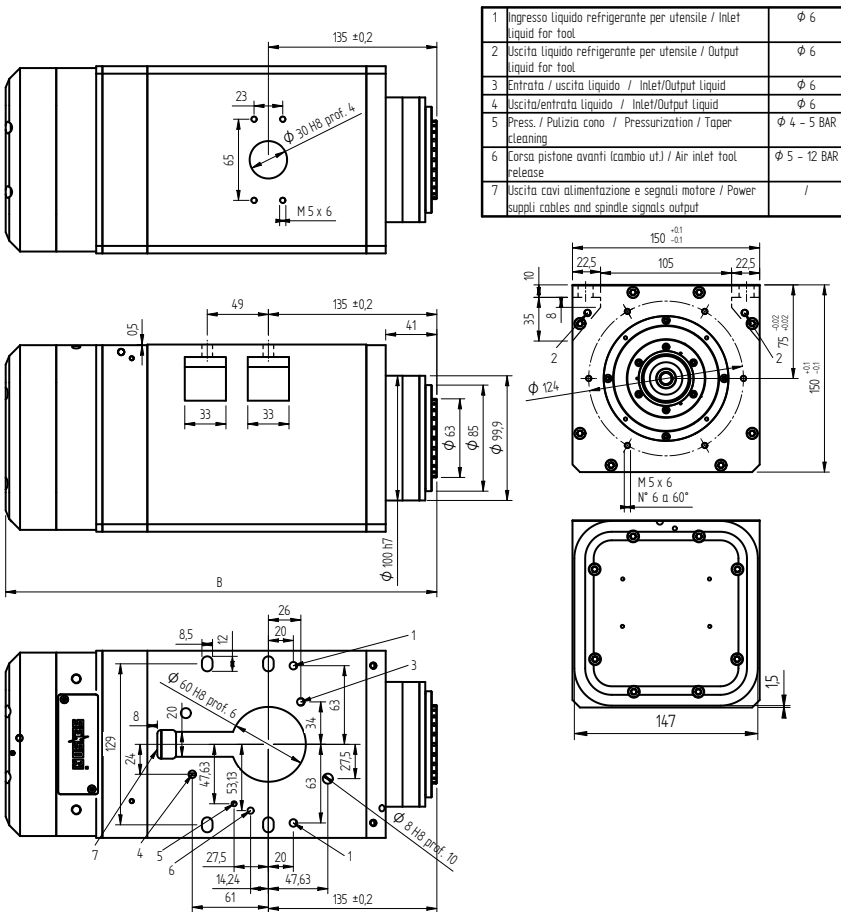


1 Ingresso liquido refrigerante per utensile / Inlet liquid for tool	$\phi 6$
2 Uscita liquido refrigerante per utensile / Output liquid for tool	$\phi 6$
3 Entrata / uscita liquido / Inlet/Output Liquid	$\phi 6$
4 Uscita/entrata liquido / Inlet/Output Liquid	$\phi 6$
5 Press. / Pulizia cono / Pressurization / Taper cleaning	$\phi 4 - 5 \text{ BAR}$
6 Corsa pistone avanti (cambio ut.) / Air inlet tool release	$\phi 5 - 12 \text{ BAR}$
7 Uscita cavi alimentazione e segnali motore / Power supply cables and spindle signals output	/





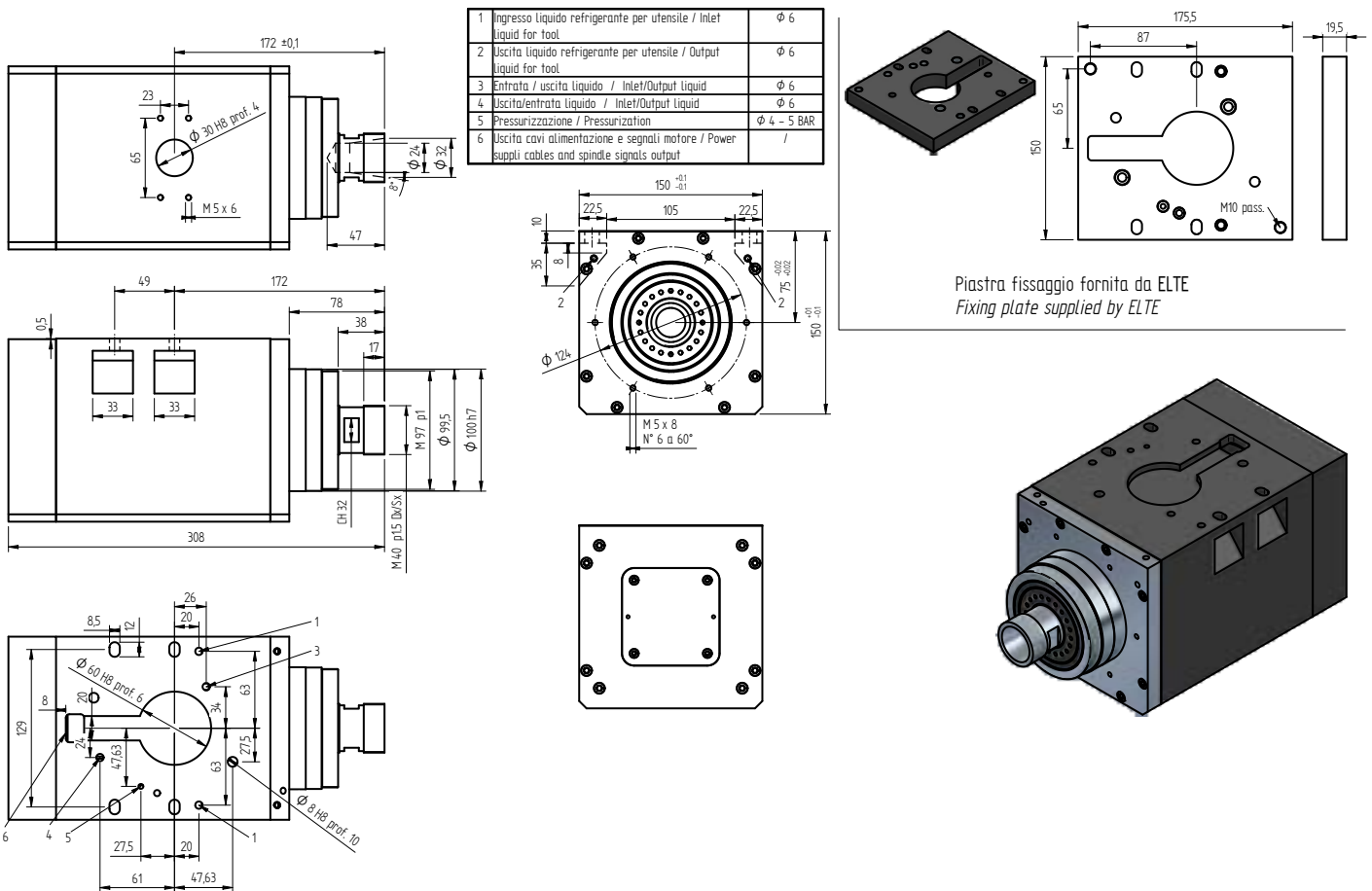
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TR 150 9/4 CU HSK F63 Liquid	380	500	15000	13	28,3	0,84	34



TR 150 HSK ER32

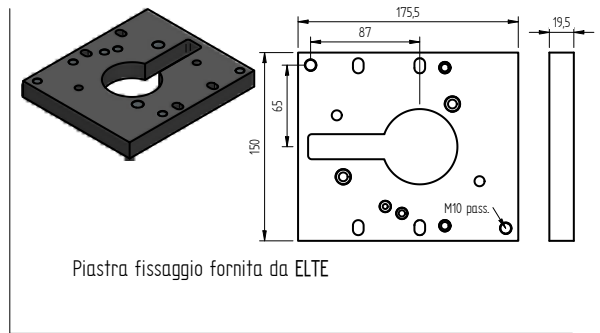
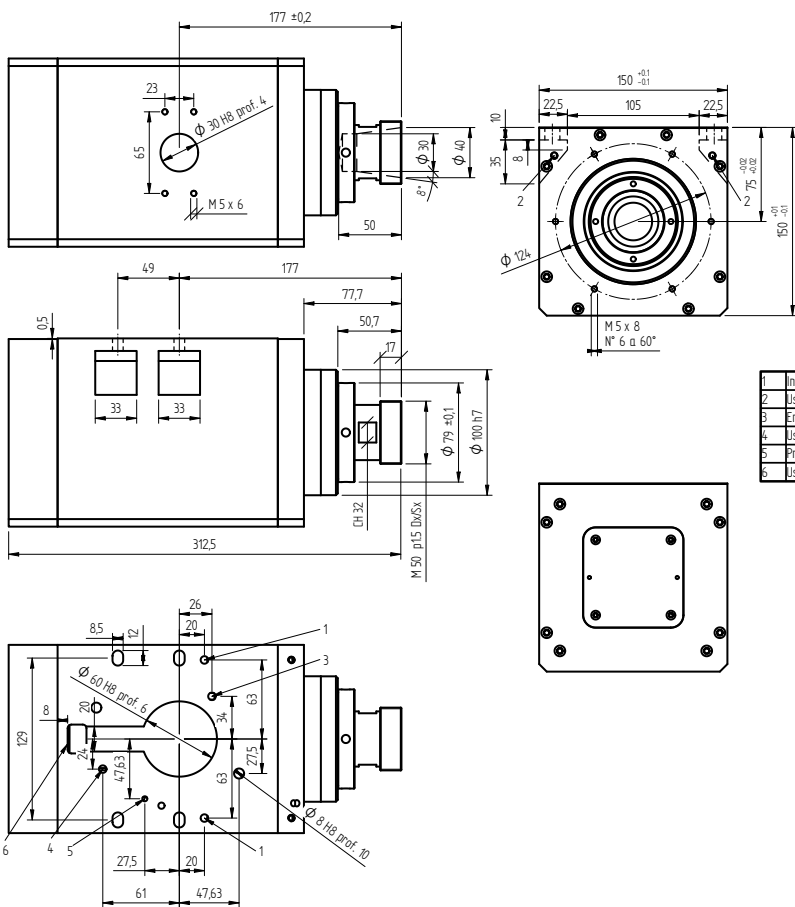


TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TR 150 9/4 E32 Liquid	380	500	15000	13	28,3	0,84	25

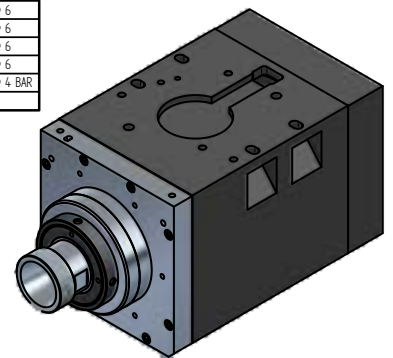




TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TR 150 9/4 E402 Liquid	380	500	15000	13	28,3	0,84	28



1	Ingresso liquido refrigerante per utensile	Ø 6
2	Uscita liquido refrigerante per utensile	Ø 6
3	Entrata / uscita liquido	Ø 6
4	Uscita / entrata liquido	Ø 6
5	Pressurizzazione	Ø 4 BAR
6	Uscita cavi alimentazione	

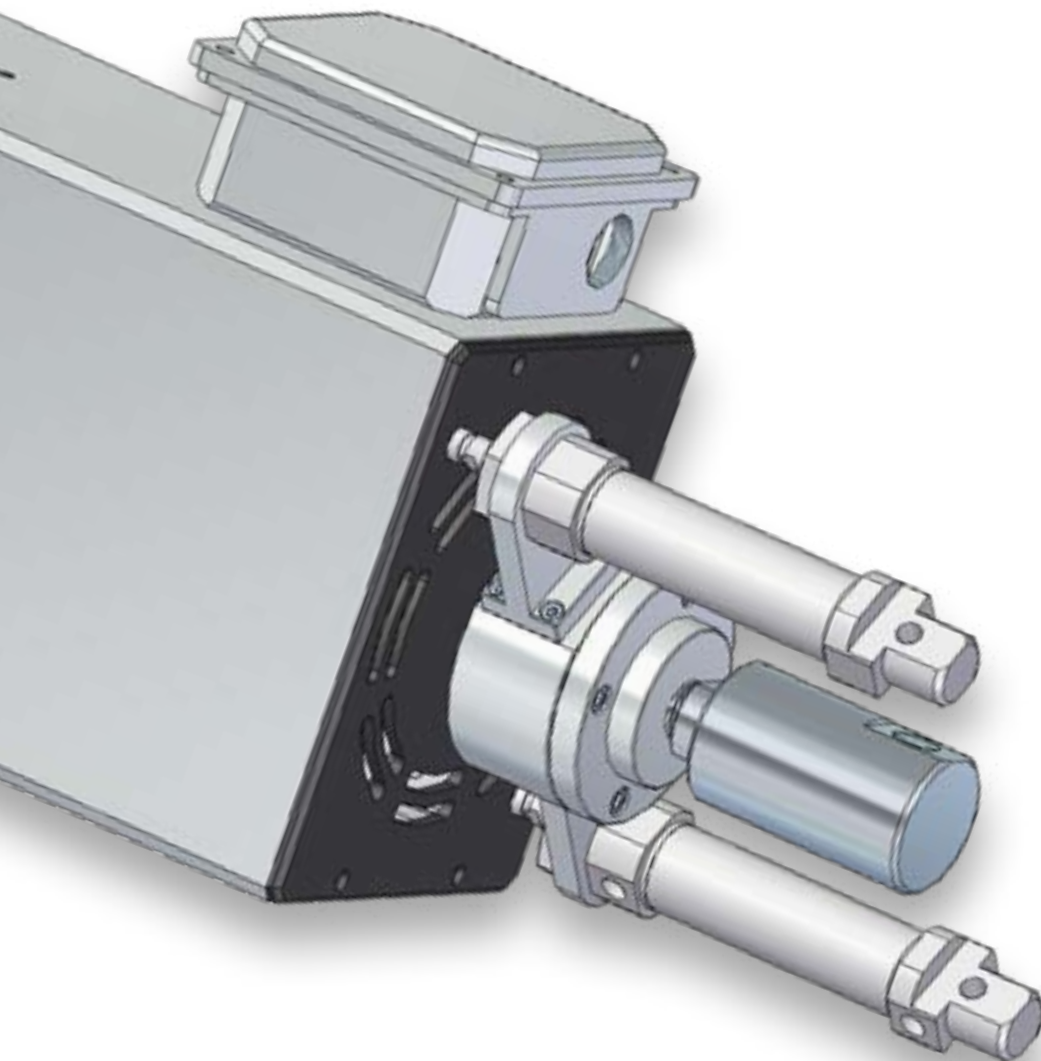




High speed precision spindles

DATASHEET

PE Series





High speed precision spindles

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PE Series

PE6 11-2 MANUAL

PE6 12-4 PNEUMATIC

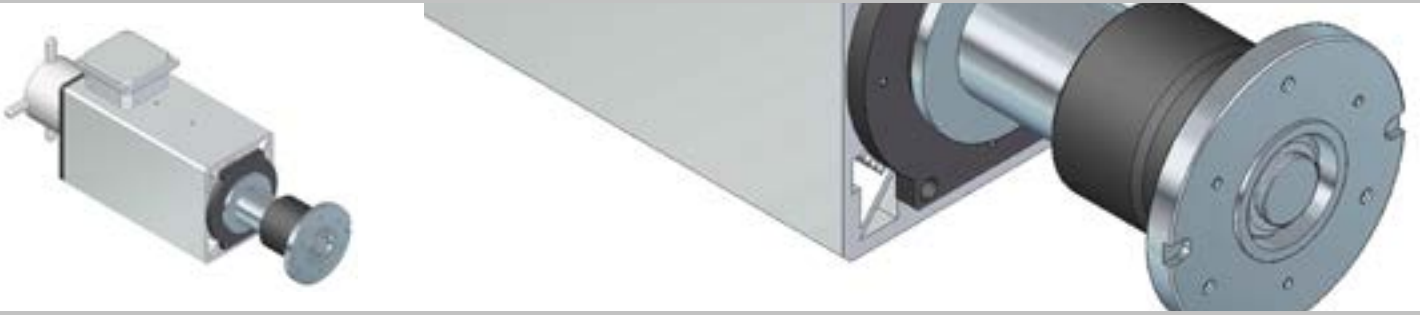


High speed precision spindles

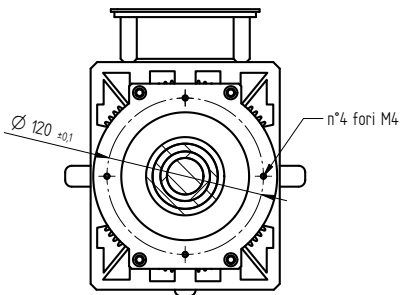
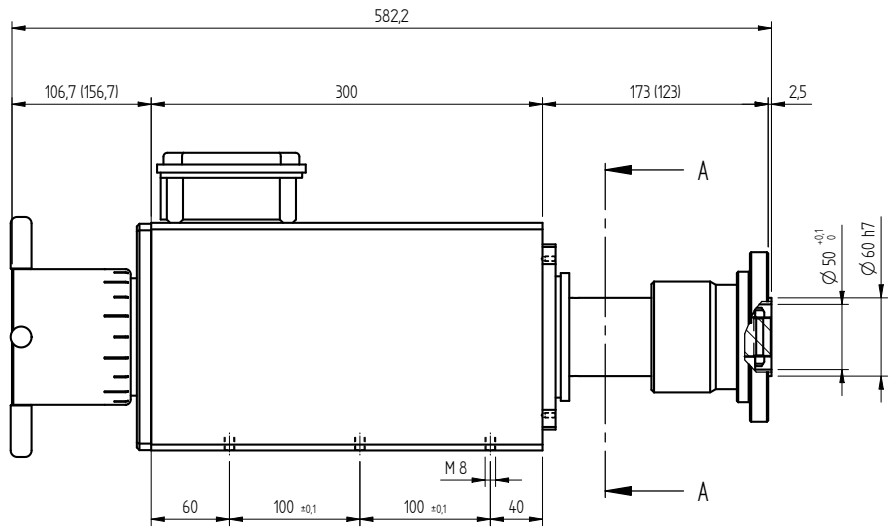
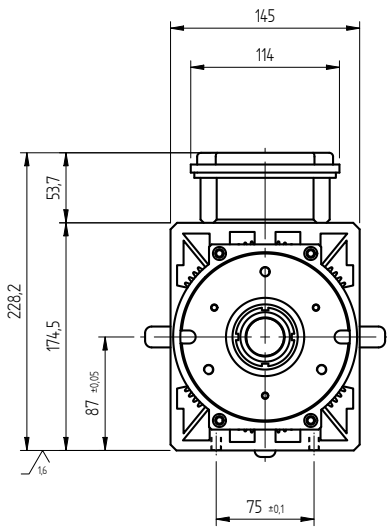
DATASHEET

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PE6 11-2 MANUAL



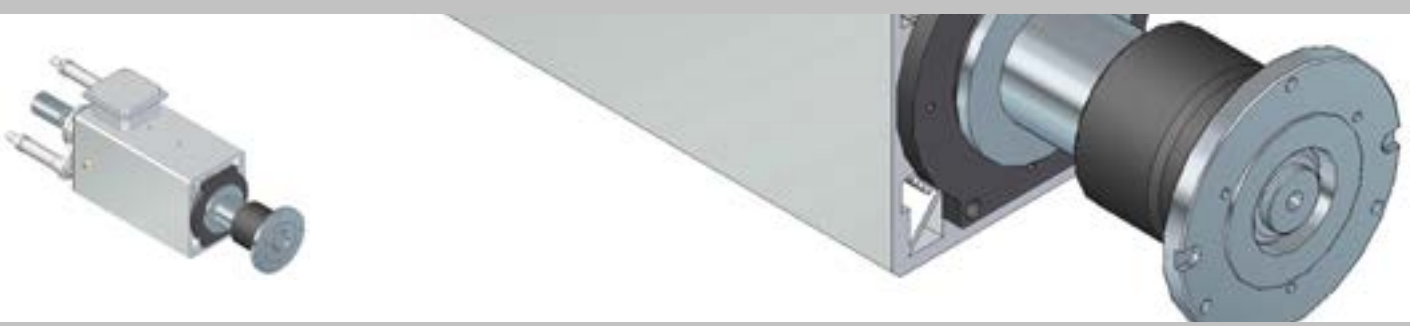
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE6 11/2	230/400	50	3000	2,30	9,5/5,5	0,70	-



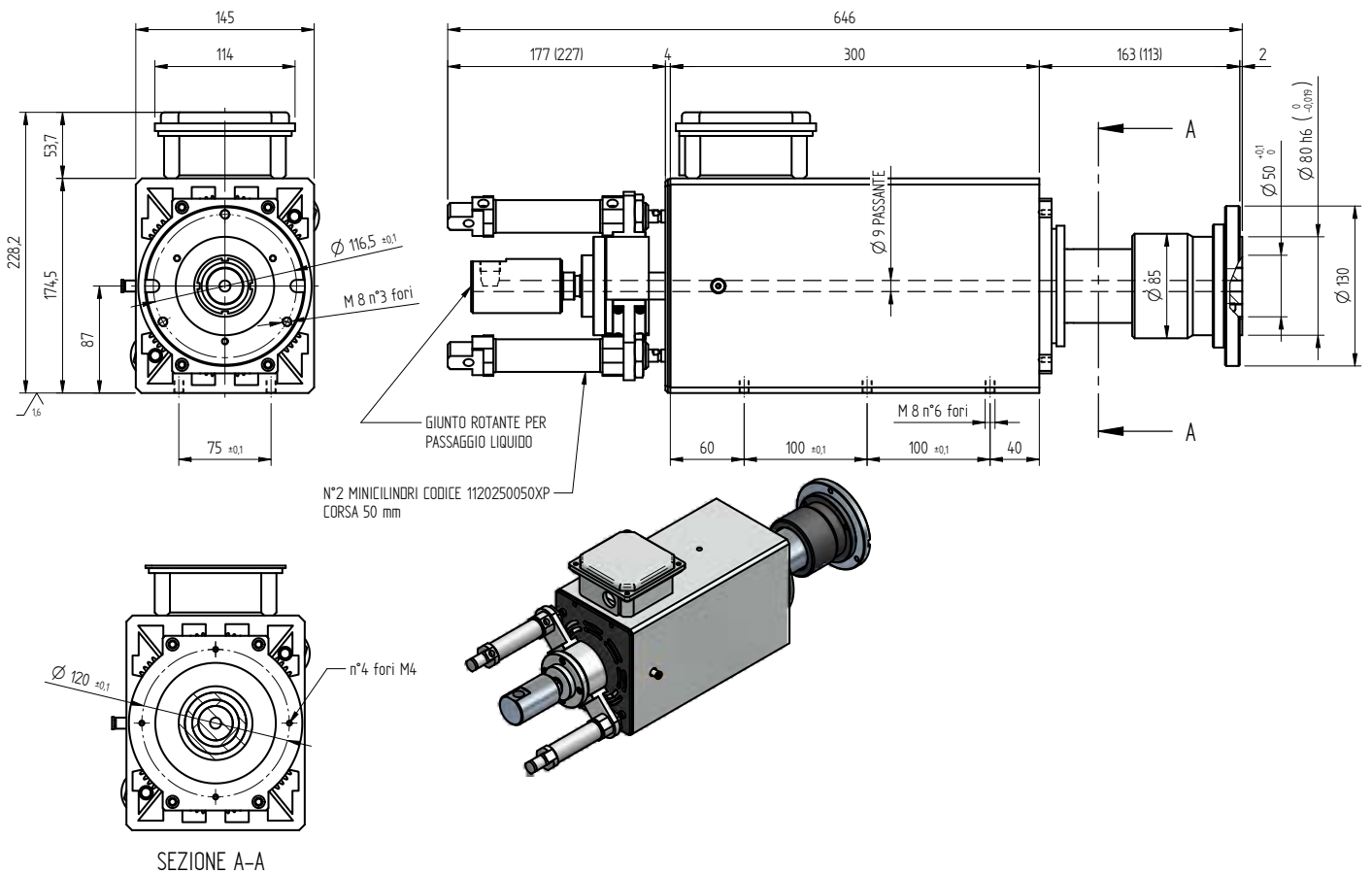
SEZIONE A-A



PE6 12-4 PNEUMATIC



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
PE6 12/4	230/400	50	1500	1,50	8,5/4,9	0,70	-

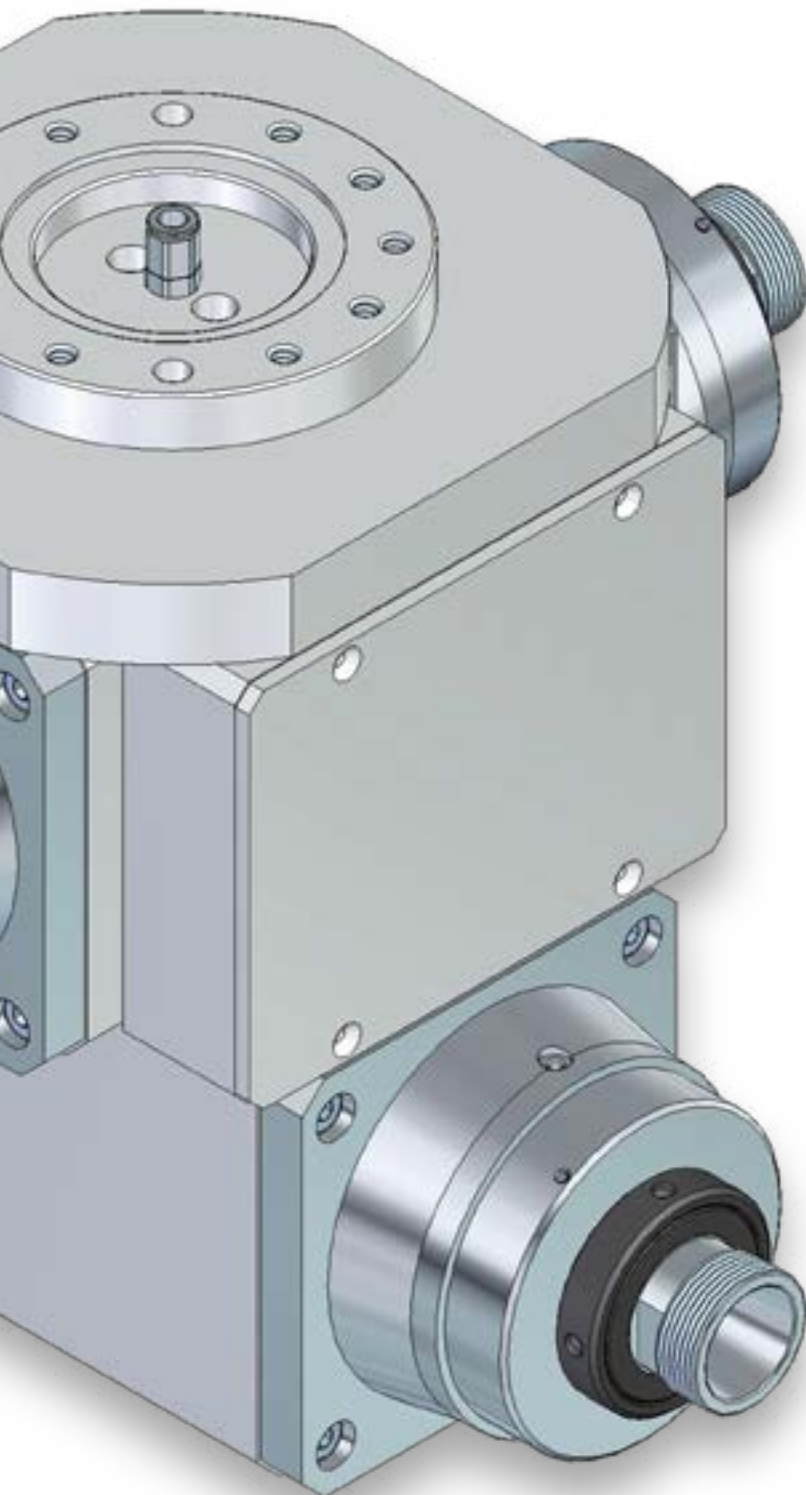




High speed precision spindles

DATASHEET

MULTISPINDLE Series





High speed precision spindles

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MULTISPINDLE

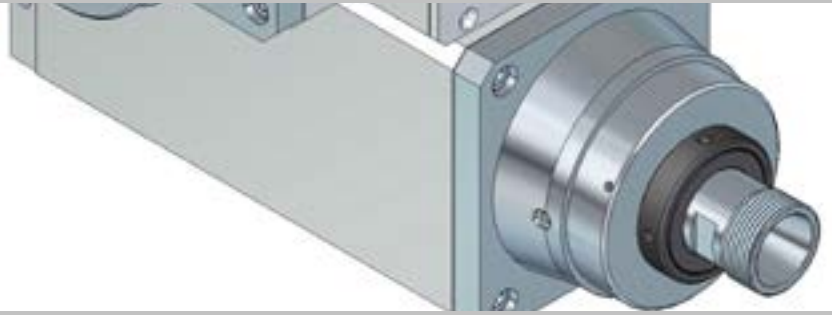
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MULTISPINDLE Series

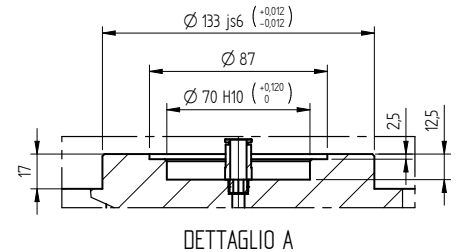
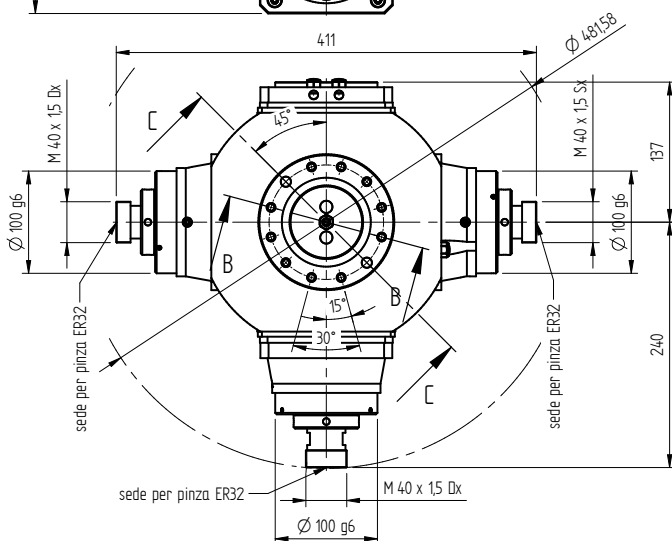
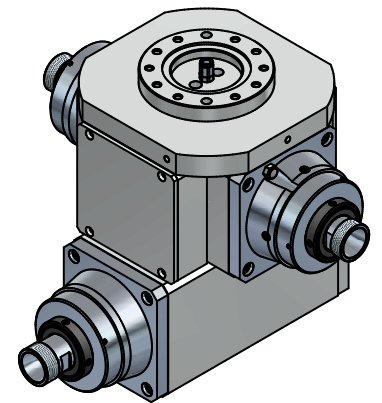
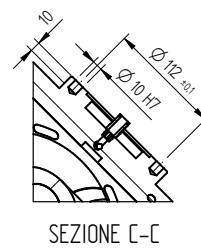
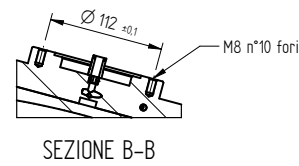
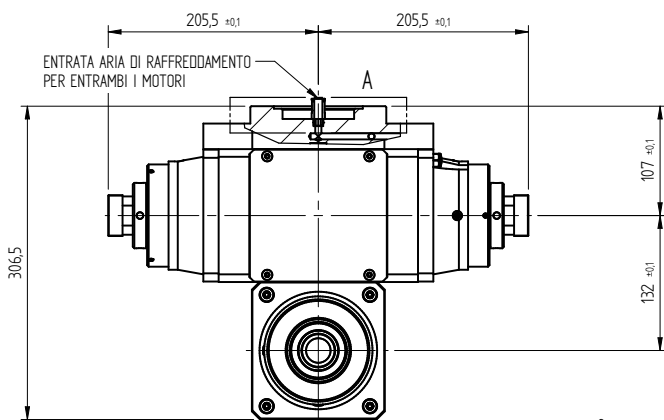
MULTISPINDLE TM PE 5 3 HEADS

MULTISPINDLE TM PE 5 4 HEADS

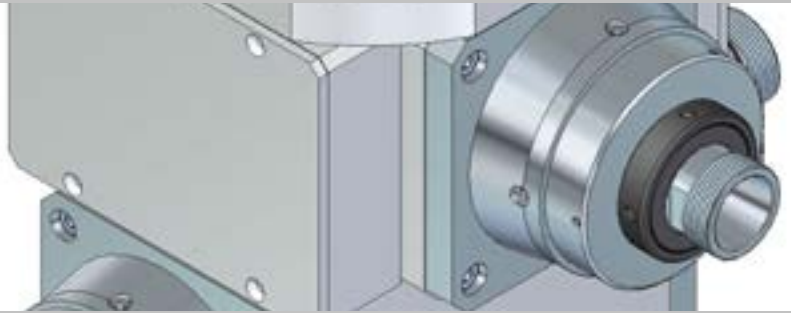
MULTISPINDLE TM PE 5 3 HEADS



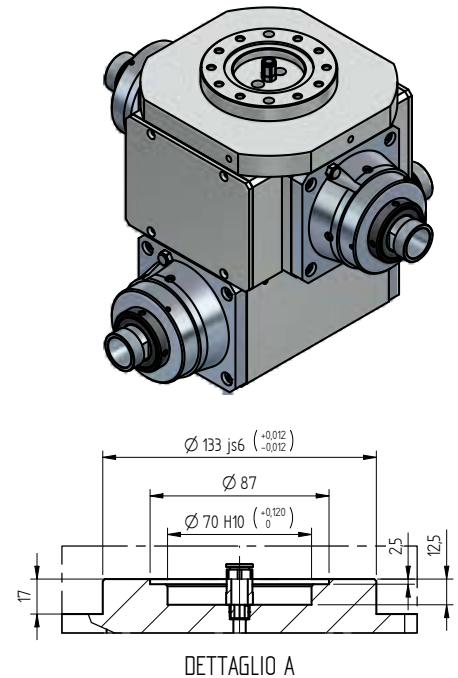
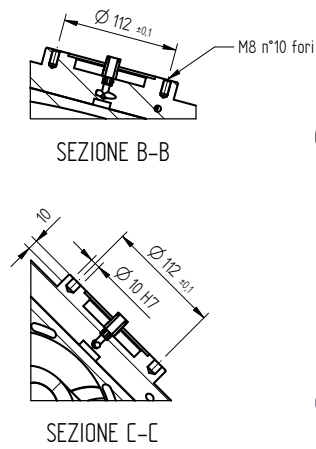
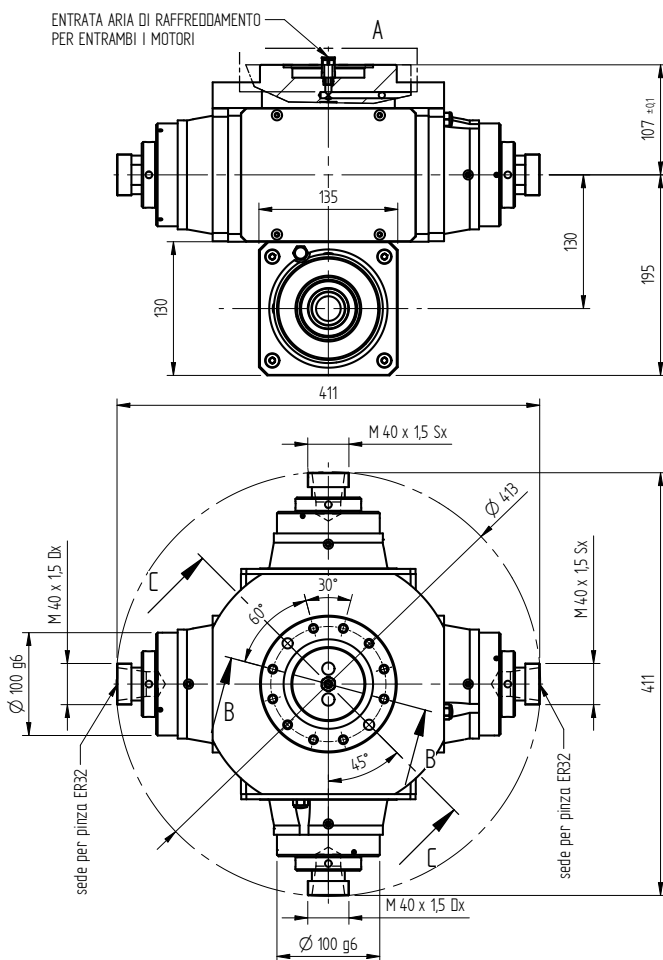
TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 14/2 compressed air	220/380	50	3000	3,00	11,5/6,60	0,82	50
TMPE5 14/2 compressed air	220/380	100	6000	4,00	115,20/8,80	0,84	50
TMPE5 14/2 compressed air	220/380	200	12000	4,50	18,20/10,60	0,85	50
TMPE5 14/2 compressed air	220/380	300	18000	7,00	25,00/14,50	0,86	50



MULTISPINDLE TM PE 5 4 HEADS



TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVER POWER [Kw]	ABSOR. [Amp]	Cos j	WEIGHT [Kg]
TMPE5 14/2 compressed air	220/380	50	3000	3,00	11,5/6,60	0,82	53
TMPE5 14/2 compressed air	220/380	100	6000	4,00	115,20/8,80	0,84	53
TMPE5 14/2 compressed air	220/380	200	12000	4,50	18,20/10,60	0,85	53
TMPE5 14/2 compressed air	220/380	300	18000	7,00	25,00/14,50	0,86	53

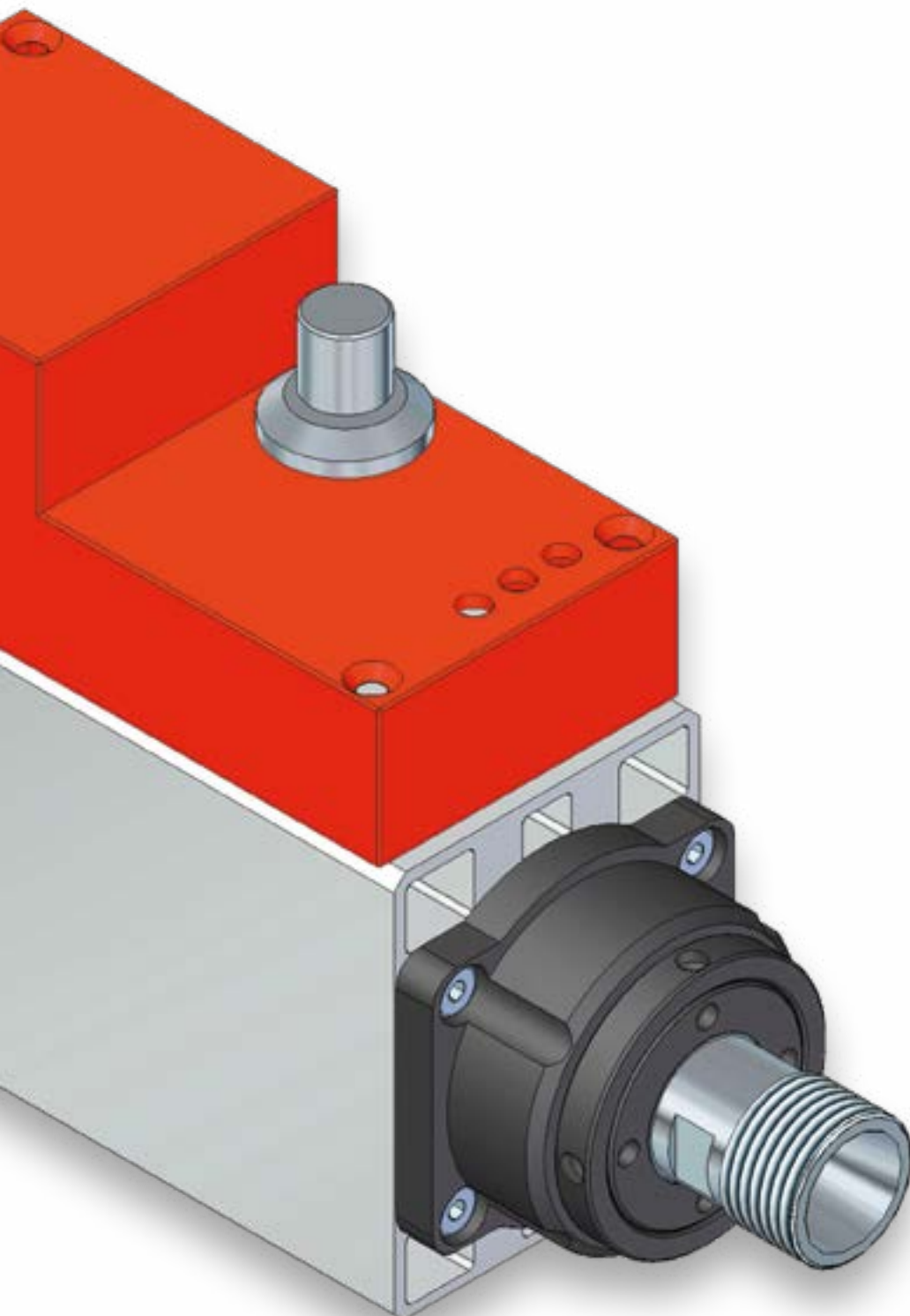




High speed precision spindles

DATASHEET

INTEGRATED INVERTER series





High speed precision spindles

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SINGLE-PHASE

INTEGRATED SINGLE-PHASE INVERTER PE 241

INTEGRATED SINGLE-PHASE INVERTER STK 242

INTEGRATED SINGLE-PHASE INVERTER TMPE 243

THREE-PHASE

THREE-PHASE INTEGRATED INVERTER PE 245

THREE-PHASE INTEGRATED INVERTER TMPE 246

Single-phase ELECTRIC SPINDLES WITH INTEGRATED INVERTER

SERIES PE

SERIES STK

SERIES TMPE

SINGLE-PHASE ELECTRIC SPINDLES WITH INTEGRATED INVERTER

- Single phase input 230 V (+-20%) frequency 45-65 Hz
- Speed regulation by means of a potentiometer
- Voltage and output frequency are already set
- Checkout of the presence of the inverter feeding
- Checkout of the output phases (missing phase, high absorption)
- Over temperature protection
- Reversal of the direction of rotation by means of a jumper
- Output frequency from 40 to 400 Hz
- Max power available 1.5 Kw

TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVERED POWER [Kw]	ABSORPTION [Amp]	Cos j	WEIGHT [Kg]
PE0 6/2	220	100	6000	0,05	0,77	0,68	1,5
PE0 6/2	220	200	12000	0,15	2,30	0,68	1,5
PE0 6/2	220	300	18000	0,30	4,60	0,68	1,5
PE0 8/2	220	100	6000	0,07	1,10	0,68	1,8
PE0 8/2	220	200	12000	0,18	2,80	0,68	1,8
PE0 8/2	220	300	18000	0,35	5,40	0,68	1,8
PE1 6/2	220	100	6000	0,07	1,20	0,54	2,5
PE1 6/2	220	200	12000	0,16	2,80	0,54	2,5
PE1 6/2	220	300	18000	0,22	3,80	0,54	2,5
PE1 7/2	220	100	6000	0,10	1,70	0,54	2,8
PE1 7/2	220	200	12000	0,22	3,80	0,54	2,8
PE1 7/2	220	300	18000	0,33	5,70	0,54	2,8
PE1 8.5/2	220	100	6000	0,22	3,80	0,56	3,1
PE1 8.5/2	220	200	12000	0,37	6,40	0,56	3,1
PE1 8.5/2	220	300	18000	0,55	9,50	0,56	3,1
PE2 9/2	220	50	3000	0,10	1,50	0,68	3,5
PE2 9/2	220	100	6000	0,22	3,30	0,68	3,5
PE2 9/2	220	200	12000	0,55	8,20	0,68	3,5
PE2 9/2	220	300	18000	0,75	10,80	0,68	3,5
PE3 7/2	220	50	3000	0,15	2,70	0,58	3,7
PE3 7/2	220	100	6000	0,30	5,40	0,58	3,7
PE3 7/2	220	200	12000	0,60	10,80	0,58	3,7
PE3 7/2	220	300	18000	0,85	15,40	0,58	3,7
PE3 9/2	220	50	3000	0,20	3,40	0,57	4,8
PE3 9/2	220	100	6000	0,45	7,90	0,57	4,8
PE3 9/2	220	200	12000	0,75	14,10	0,57	4,8
PE3 9/2	220	300	18000	1,00	17,70	0,57	4,8
PE3 12/2	220	50	3000	0,30	5,40	0,56	6,5
PE3 12/2	220	100	6000	0,75	13,30	0,56	6,5
PE3 12/2	220	200	12000	1,50	26,80	0,56	6,5
PE3 12/2	220	300	18000	1,50	26,90	0,56	6,5
PE3 14/2	220	50	3000	0,45	8,10	0,54	7,5
PE3 14/2	220	100	6000	0,95	16,80	0,54	7,5
PE3 14/2	220	200	12000	1,50	24,90	0,54	7,5
PE3 14/2	220	300	18000	1,50	25,10	0,54	7,5
PE4 10/2	220	50	3000	0,65	10,10	0,58	9,0
PE4 10/2	220	100	6000	1,10	17,10	0,58	9,0
PE4 10/2	220	200	12000	1,50	19,90	0,58	9,0
PE4 11/2	220	50	3000	0,75	11,30	0,60	9,8
PE4 11/2	220	100	6000	1,50	22,60	0,60	9,8
PE4 13/2	220	50	3000	1,00	14,80	0,61	11,2
PE4 13/2	220	100	6000	1,50	22,20	0,61	11,2
PE4 14/2	220	50	3000	1,10	16,00	0,62	12,0
PE4 14/2	220	100	6000	1,50	21,80	0,62	12,0

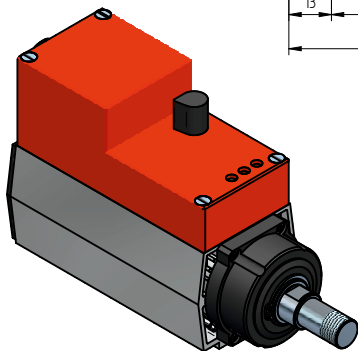
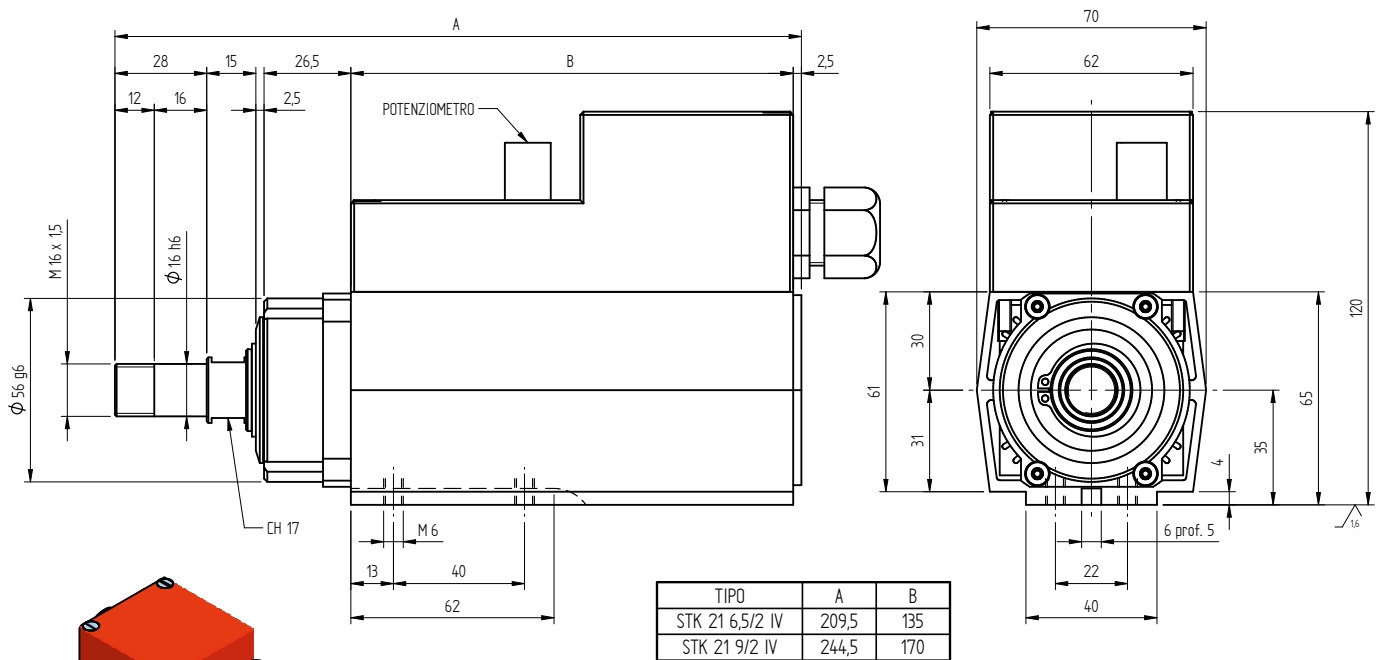
We are at your disposal to value further requests and possible modifications based on customer's specifications.

N.B. It is possible to cry out this new brand of electric spindles with incorporated inverter on all our series with max powe 1.5 Kw and frequency variable from 50 to 400 Hz.

INTEGRATED SINGLE-PHASE INVERTER STK

- Single phase input 230 V (+-20%) frequency 45-65 Hz
- Speed regulation by means of a potentiometer
- Voltage and output frequency are already set
- Checkout of the presence of the inverter feeding
- Checkout of the output phases (missing phase, high absorption)
- Over temperature protection
- Reversal of the direction of rotation by means of a jumper
- Output frequency from 40 to 400 Hz
- Max power available 1.5 Kw

TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVERED POWER [Kw]	ABSORPTION [Amp]	Cos j	WEIGHT [Kg]
STK21 6.5/2	220	100	6000	0,10	2,40	0,45	1,8
STK21 6.5/2	220	200	12000	0,22	5,20	0,45	1,8
STK21 6.5/2	220	300	18000	0,33	8,00	0,45	1,8
STK21 9/2	220	50	3000	0,10	1,50	0,68	2,0
STK21 9/2	220	100	6000	0,22	3,30	0,68	2,0
STK21 9/2	220	200	12000	0,55	8,20	0,68	2,0
STK21 9/2	220	300	18000	0,75	10,80	0,68	2,0



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High speed precision spindles



DATASHEET

INTEGRATED SINGLE-PHASE INVERTER TMPE

- Single phase input 230 V (+-20%) frequency 45-65 Hz
- Speed regulation by means of a potentiometer
- Voltage and output frequency are already set
- Checkout of the presence of the inverter feeding
- Checkout of the output phases (missing phase, high absorption)
- Over temperature protection
- Reversal of the direction of rotation by means of a jumper
- Output frequency from 40 to 400 Hz
- Max power available 1.5 Kw

TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVERED POWER [Kw]	ABSORPTION [Amp]	Cos j	WEIGHT [Kg]
TMPE0 6/2	220	100	6000	0,05	0,77	0,68	1,5
TMPE0 6/2	220	200	12000	0,15	2,30	0,68	1,5
TMPE0 6/2	220	300	18000	0,30	4,60	0,68	1,5
TMPE0 6/2	220	400	24000	0,35	5,40	0,68	1,5
TMPE0 8/2	220	100	6000	0,07	1,10	0,68	1,8
TMPE0 8/2	220	200	12000	0,18	2,80	0,68	1,8
TMPE0 8/2	220	300	18000	0,35	5,40	0,68	1,8
TMPE0 8/2	220	400	24000	0,40	6,30	0,68	1,8
TMPE1 6.5/2	220	100	6000	0,10	2,40	0,45	3,1
TMPE1 6.5/2	220	200	12000	0,22	5,20	0,45	3,1
TMPE1 6.5/2	220	300	18000	0,33	8,00	0,45	3,1
TMPE1 6.5/2	220	400	24000	0,40	9,70	0,45	3,1
TMPE2 9/2	220	50	3000	0,10	1,50	0,68	3,5
TMPE2 9/2	220	100	6000	0,22	3,30	0,68	3,5
TMPE2 9/2	220	200	12000	0,55	8,20	0,68	3,5
TMPE2 9/2	220	300	18000	0,75	10,80	0,68	3,5
TMPE2 9/2	220	400	24000	0,75	10,80	0,68	3,5
TMPE3 9/2	220	50	3000	0,20	3,40	0,57	4,8
TMPE3 9/2	220	100	6000	0,45	7,90	0,57	4,8
TMPE3 9/2	220	200	12000	0,75	14,10	0,57	4,8
TMPE3 9/2	220	300	18000	1,00	17,70	0,57	4,8
TMPE3 12/2	220	50	3000	0,30	5,40	0,56	6,5
TMPE3 12/2	220	100	6000	0,75	13,30	0,56	6,5
TMPE3 12/2	220	200	12000	1,50	26,80	0,56	6,5
TMPE3 12/2	220	300	18000	1,50	26,90	0,56	6,5
TMPE4 10/2	220	50	3000	0,65	10,10	0,58	9,0
TMPE4 10/2	220	100	6000	1,10	17,10	0,58	9,0
TMPE4 14/2	220	50	3000	1,10	16,00	0,62	12,0
TMPE4 14/2	220	100	6000	1,50	21,90	0,62	12,0

We are at your disposal to value further requests and possible modifications based on customer's specifications.

N.B. It is possible to cry out this new brand of electric spindles with incorporated inverter on all our series with max powe 1.5 Kw and frequency variable from 50 to 400 Hz.

Three-Phase **ELECTRIC SPINDLES**

SERIES PE
SERIES TMPE

THREE-PHASE E.S. INTEGRATED INVERTER PE

Inverter PC board must be fed at 230 V ± 15% - 50/60 Hz o 400 V ± 15% - 50/60Hz directly on fastons labelled with letters "L1" "L2" "L3" and connected to the earth. Just to avoid current over absorption speed drive variation comes from voltage/frequency of the motor itself. Speed control is made by an acceleration/deceleration check-up to avoid sudden variations may cause problems. Possible and sudden breaks of voltage/frequency are registred by the monitoring circuit to guarantee motor stability. Stop function ramping is guided during feeding interruption but speed is reset when feeding is on .Is possible to insert a resistance for brake the motor, for used this option insert resistance between BRAKE pin.

INPUT SIGNAL

the inverter's controles are in the J7 connecting terminal .Following you have all description:

- +10V reference output
- Analogue input, voltage range 0-10Vdc
- 0 Vdc ground I/O
- Digital input (voltage max 5V current 1mA ≤ I ≤ 3,5 mA)
- Motor's direction 89forward/reverse)
- Start to run motor
- Fault reset
- Digital input (voltage max 5V current 1mA ≤ I ≤ 3,5 mA)

OUTPUT SIGNAL

The inverter's controles are in the J2 connecting terminal .Following you have all description:

- Relay output fault allarm
- Relay output overtemperature
- Relay output at speed
- Relay output motor i stop position

TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVERED POWER [Kw]	ABSORPTION [Amp]	Cos j	WEIGHT [Kg]
PE3 9/2 IV	220 o 380	50	3000	0,20	1,60 / 1,00	0,70	5,70
PE3 9/2 IV	220 o 380	100	6000	0,45	2,60 / 1,50	0,74	5,70
PE3 9/2 IV	220 o 380	200	12000	0,75	4,30 / 2,50	0,74	5,70
PE3 9/2 IV	220 o 380	300	18000	1,00	5,90 / 3,50	0,74	5,70
PE3 12/2 IV	220 o 380	50	3000	0,30	1,80 / 1,10	0,69	7,40
PE3 12/2 IV	220 o 380	100	6000	0,75	3,60 / 2,10	0,74	7,40
PE3 12/2 IV	220 o 380	200	12000	1,50	6,80 / 3,90	0,78	7,40
PE3 12/2 IV	220 o 380	300	18000	2,00	9,70 / 5,60	0,79	7,40
PE3 14/2 IV	220 o 380	50	3000	0,45	3,00 / 1,70	0,68	8,40
PE3 14/2 IV	220 o 380	100	6000	0,95	4,70 / 2,70	0,72	8,40
PE3 14/2 IV	220 o 380	200	12000	1,80	8,90 / 5,10	0,69	8,40
PE3 14/2 IV	220 o 380	300	18000	2,20	10,80 / 6,30	0,72	8,40
PE4 10/2 IV	220 o 380	50	3000	0,65	3,60 / 2,10	0,70	9,90
PE4 10/2 IV	220 o 380	100	6000	1,10	5,30 / 3,00	0,75	9,90
PE4 10/2 IV	220 o 380	200	12000	2,20	10,50 / 6,00	0,75	9,90
PE4 10/2 IV	220 o 380	300	18000	3,30	14,70 / 8,50	0,79	9,90
PE4 11/2 IV	220 o 380	50	3000	0,75	4,80 / 2,80	0,73	10,70
PE4 11/2 IV	220 o 380	100	6000	1,50	7,10 / 4,10	0,73	10,70
PE4 11/2 IV	220 o 380	200	12000	2,60	11,20 / 6,40	0,81	10,70
PE4 11/2 IV	220 o 380	300	18000	3,30	14,40 / 8,40	0,81	10,70
PE4 13/2 IV	220 o 380	50	3000	1,00	5,20 / 3,00	0,76	12,10
PE4 13/2 IV	220 o 380	100	6000	2,00	8,30 / 4,80	0,80	12,10
PE4 13/2 IV	220 o 380	200	12000	3,00	13,50 / 7,70	0,79	12,10
PE4 13/2 IV	220 o 380	300	18000	3,30	17,70 / 10,20	0,79	12,10
PE4 14/2 IV	220 o 380	50	3000	1,10	5,90 / 3,40	0,71	12,90
PE4 14/2 IV	220 o 380	100	6000	2,20	10,20 / 5,90	0,75	12,90
PE4 14/2 IV	220 o 380	200	12000	3,30	14,30 / 8,30	0,77	12,90
PE4 14/2 IV	220 o 380	300	18000	3,30	14,30 / 8,30	0,77	12,90
PE5 10/2 IV	220 o 380	50	3000	1,25	6,00 / 3,50	0,75	13,40
PE5 10/2 IV	220 o 380	1000	6000	1,90	8,10 / 4,60	0,81	13,40
PE5 10/2 IV	220 o 380	200	12000	3,00	13,10 / 7,50	0,79	13,40
PE5 14/2 IV	220 o 380	50	3000	3,00	12,40 / 7,10	0,80	20,90

THREE-PHASE E.S. INTEGRATED INVERTER TMPE

Inverter PC board must be fed at 230 V ± 15% - 50/60 Hz o 400 V ± 15% - 50/60Hz directly on fastons labelled with letters "L1" "L2" "L3" and connected to the earth. Just to avoid current over absorption speed drive variation comes from voltage/frequency of the motor itself. Speed control is made by an acceleration/deceleration check-up to avoid sudden variations may cause problems. Possible and sudden breaks of voltage/frequency are registred by the monitoring circuit to guarantee motor stability. Stop function ramping is guided during feeding interruption but speed is reset when feeding is on. Is possible to insert a resistance for brake the motor, for used this option insert resistance between BRAKE pin.

INPUT SIGNAL

the inverter's controles are in the J7 connecting terminal .Following you have all description :

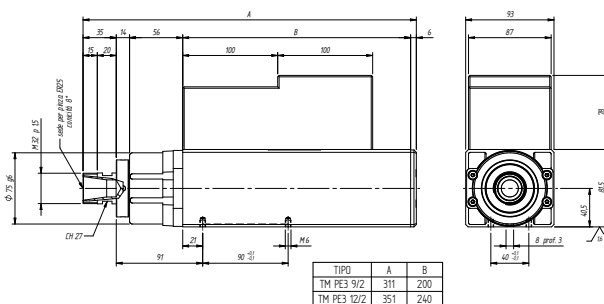
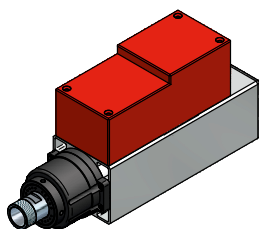
- +10V reference output
- Analogue input, voltage range 0-10Vdc
- 0 Vdc ground I/O
- Digital input (voltage max 5V current 1mA ≤ I ≤ 3,5 mA)
- Motor's direction 89forward/reverse)
- Start to run motor
- Fault reset
- Digital input (voltage max 5V current 1mA ≤ I ≤ 3,5 mA)

OUTPUT SIGNAL

The inverter's controles are in the J2 connecting terminal .Following you have all description :

- Relay output fault allarm
- Relay output at speed
- Relay output overtemperature
- Relay output motor i stop position

TYPE	VOLTAGE [Volt]	FREQUENCY [Hz]	RPM	DELIVERED POWER [Kw]	ABSORPTION [Amp]	Cos j	WEIGHT [Kg]
TMPE3 9/2 IV	220 o 380	50	3000	0,20	1,60 / 1,00	0,70	6,40
TMPE3 9/2 IV	220 o 380	100	6000	0,45	2,60 / 1,50	0,74	6,40
TMPE3 9/2 IV	220 o 380	200	12000	0,75	4,30 / 2,50	0,74	6,40
TMPE3 9/2 IV	220 o 380	300	18000	1,00	5,90 / 3,50	0,74	6,40
TMPE3 9/2 IV	220 o 380	400	24000	1,00	5,90 / 3,50	0,74	6,40
TMPE3 12/2 IV	220 o 380	50	3000	0,30	1,80 / 1,10	0,69	8,90
TMPE3 12/2 IV	220 o 380	100	6000	0,69	3,60 / 2,10	0,74	8,90
TMPE3 12/2 IV	220 o 380	200	12000	1,50	6,80 / 3,90	0,78	8,90
TMPE3 12/2 IV	220 o 380	300	18000	2,00	9,70 / 5,60	0,79	8,90
TMPE3 12/2 IV	220 o 380	400	24000	2,20	10,20 / 5,90	0,79	8,90
TMPE4 10/2 IV	220 o 380	50	3000	0,65	3,60 / 2,10	0,70	12,70
TMPE4 10/2 IV	220 o 380	100	6000	1,10	5,30 / 3,00	0,75	12,70
TMPE4 10/2 IV	220 o 380	200	12000	2,20	10,5 / 6,00	0,75	12,70
TMPE4 10/2 IV	220 o 380	300	18000	3,30	14,7 / 8,50	0,79	12,70
TMPE4 10/2 IV	220 o 380	400	24000	3,30	14,7 / 8,50	0,79	12,70
TMPE4 14/2 IV	220 o 380	50	3000	1,10	5,90 / 3,40	0,71	14,70
TMPE4 14/2 IV	220 o 380	100	6000	2,20	10,20 / 5,90	0,75	14,70
TMPE4 14/2 IV	220 o 380	200	12000	3,30	14,30 / 8,30	0,77	14,70
TMPE5 10/2 IV	220 o 380	50	3000	1,25	6,00 / 3,50	0,75	12,90
TMPE5 10/2 IV	220 o 380	100	6000	1,90	8,10 / 4,60	0,81	12,90
TMPE5 10/2 IV	220 o 380	200	12000	3,00	13,10 / 7,50	0,79	12,90
TMPE5 14/2 IV	220 o 380	50	3000	3,00	12,40 / 7,10	0,80	20,40

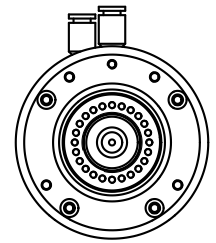
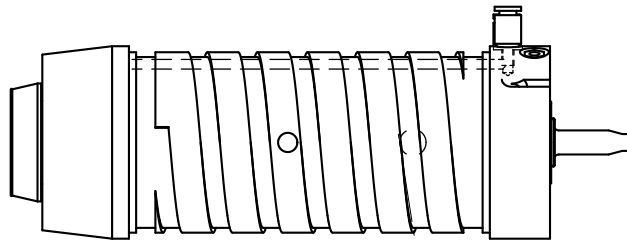
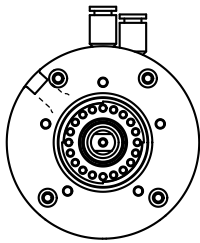




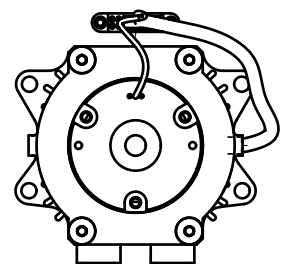
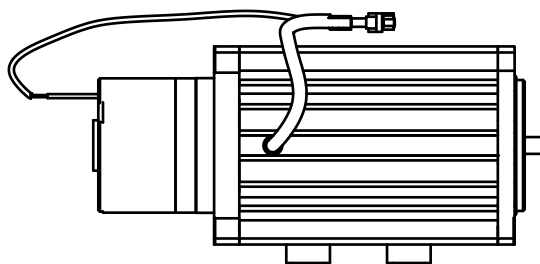
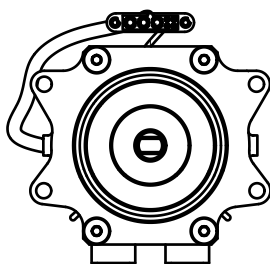
High speed precision spindles

SPECIAL ENGINES series

Engine designed and manufactured
for special applications
on specific requests
of the customer



ENGINES FOR
AVIONIC

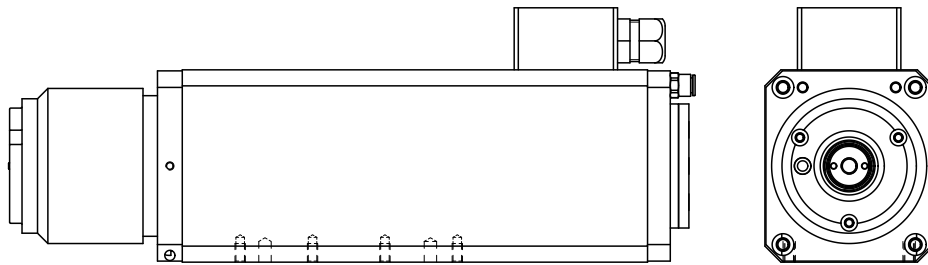




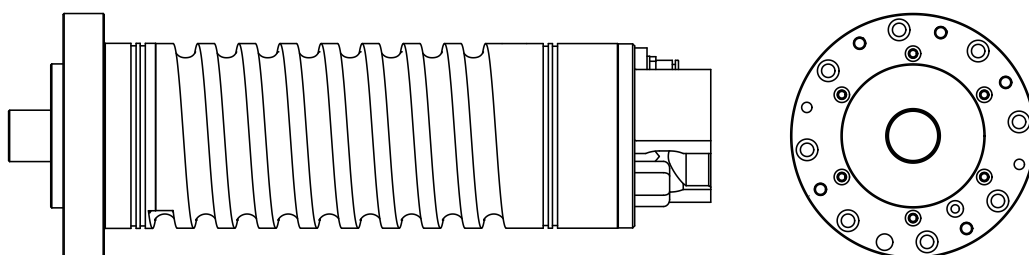
High speed precision spindles

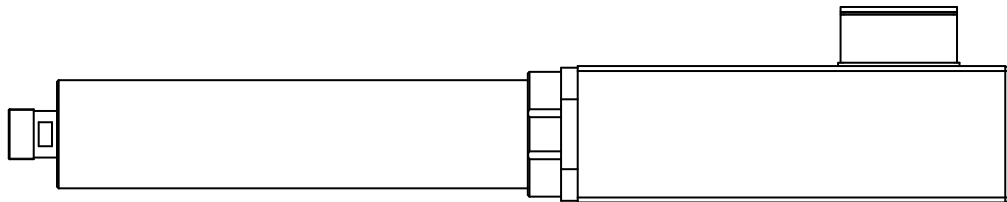
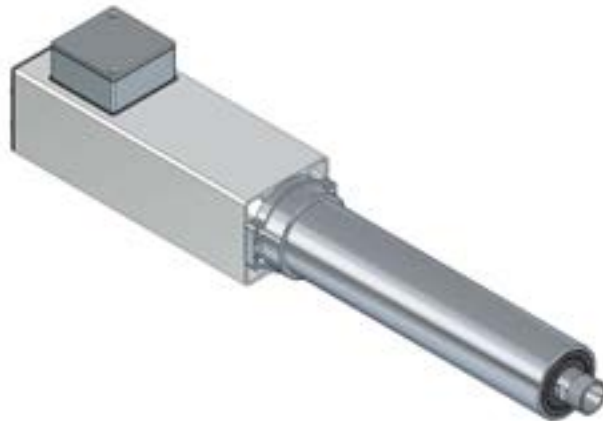


ENGINES FOR
GLASS PROCESSING

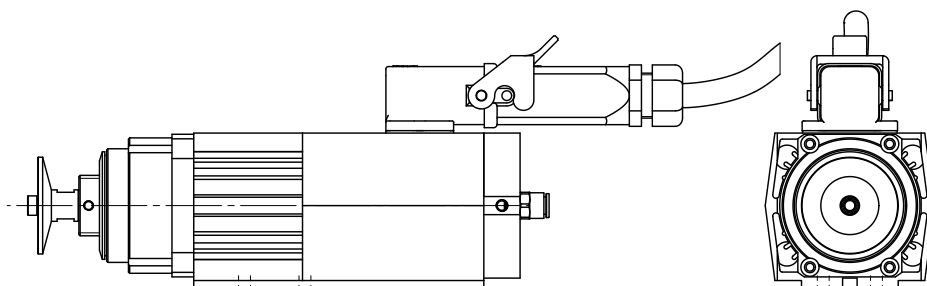
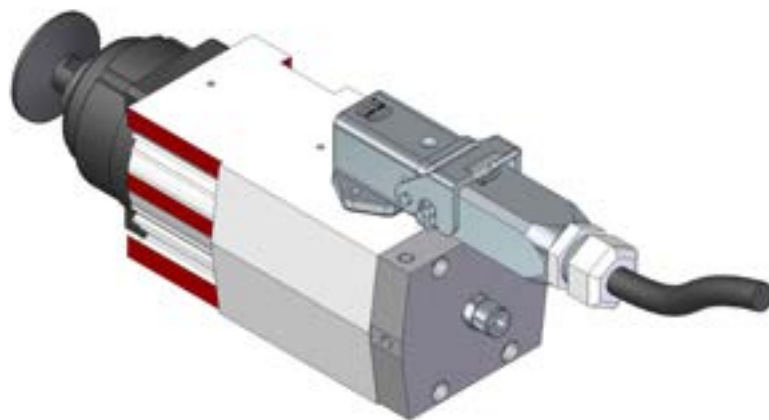


ENGINES FOR
MACHINE TOOL MACHINES





ENGINES FOR
TEXTILE MACHINES

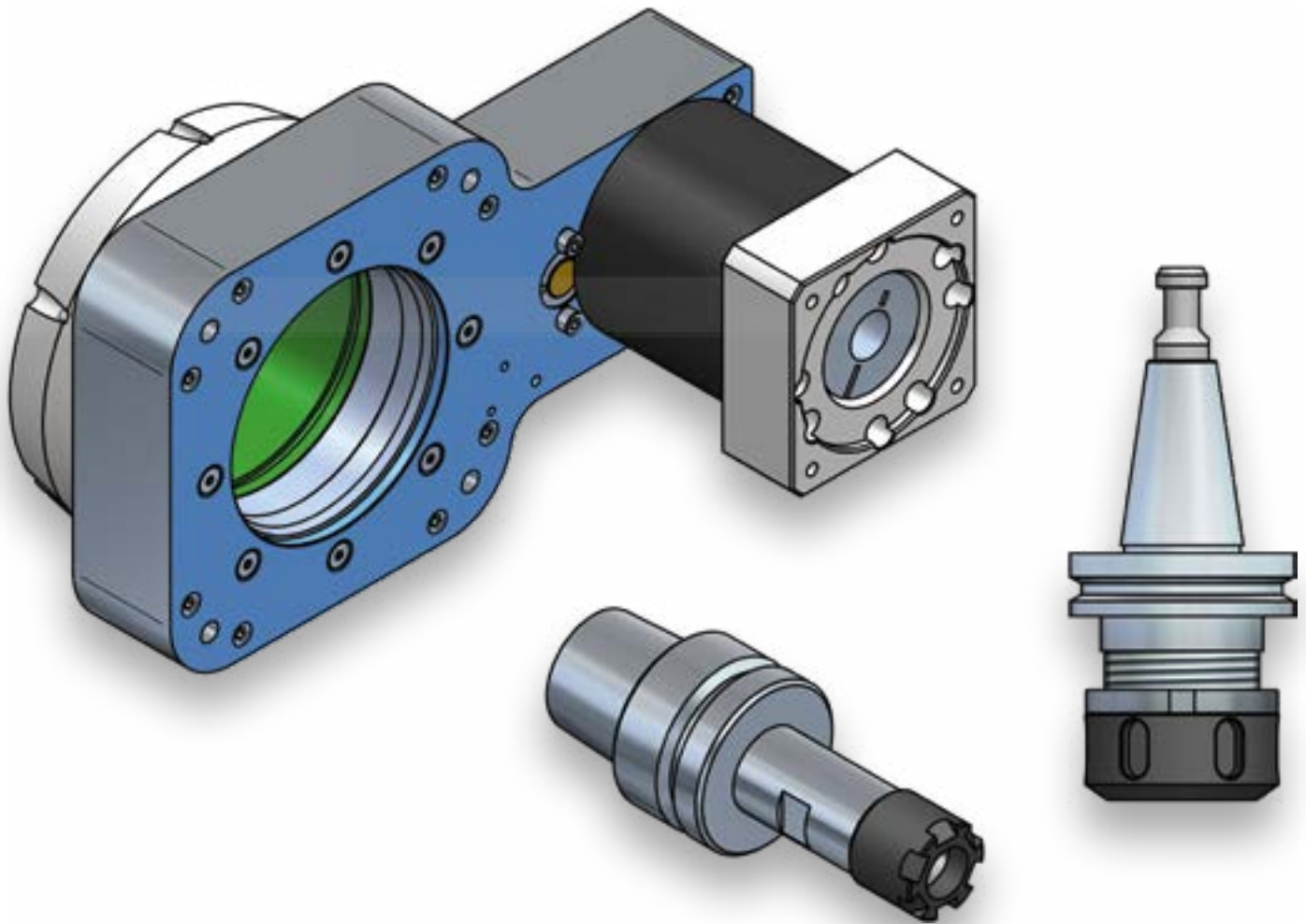




High speed precision spindles

DATASHEET

ACCESSORIES AND SPARE PARTS Series



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Accessories


ELTE S.r.l. offers a wide range of high quality accessories for its electric spindles such as: ring nuts balanced for high speeds, elastic clamps, keys and tool holders.


ELTE S.r.l. recommends the use of balanced tools to ensure longer bearing life.


For the choice of other accessories, please request the drawings with the relative measurements.
Executions other than the standard for fixing systems are possible.

BALANCED RING NUTS	MODEL	DIAMETER mm	EXPANSION mm
	ER11	DA 1,0 A 7	0,5
	ER16	DA 0,5 A 2,0 - DA 2,0 A 10	0,5 - 1
	ER20	DA 1,0 A 3	0,5
	ER20	DA 4,0 A 13	1
	ER25	DA 1,0 A 3	0,5
	ER25	DA 3,0 A 16	1
	ER32	DA 1,0 A 20	1
	ER40	DA 3,0 A 30	1

COLLETS	MODEL
	ER11
	ER16
	ER20
	ER25
	ER32
	ER40

PIN WRENCH	MODEL
	ER11
	ER16
	ER20
	ER25
	ER32
	ER40

TOOL HOLDER	MODEL
	ISO10
	ISO15
	ISO20
	ISO25
	ISO30
	ISO40
	ISO50

TOOL HOLDER	MODEL
	HSK E25
	HSK E32
	HSK E40
	HSK E50
	HSK E63
	HSK F63
	HSK F80

Tapers

HSK E25 TAPER

HSK E32 TAPER

HSK E40 TAPER

HSK E50 TAPER

HSK E63 TAPER

HSK F63 TAPER

HSK B80 TAPER

ISO 10 TAPER

ISO 15 TAPER

ISO 20 TAPER

ISO 25APER

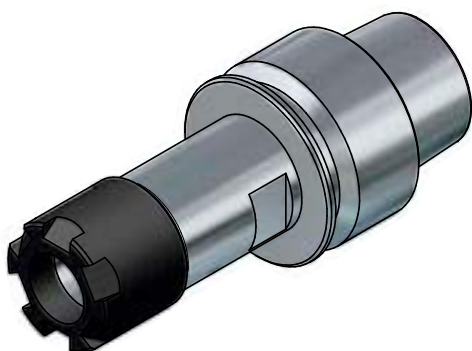
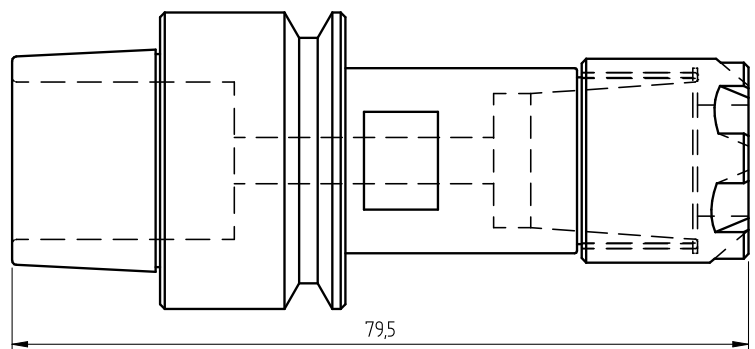
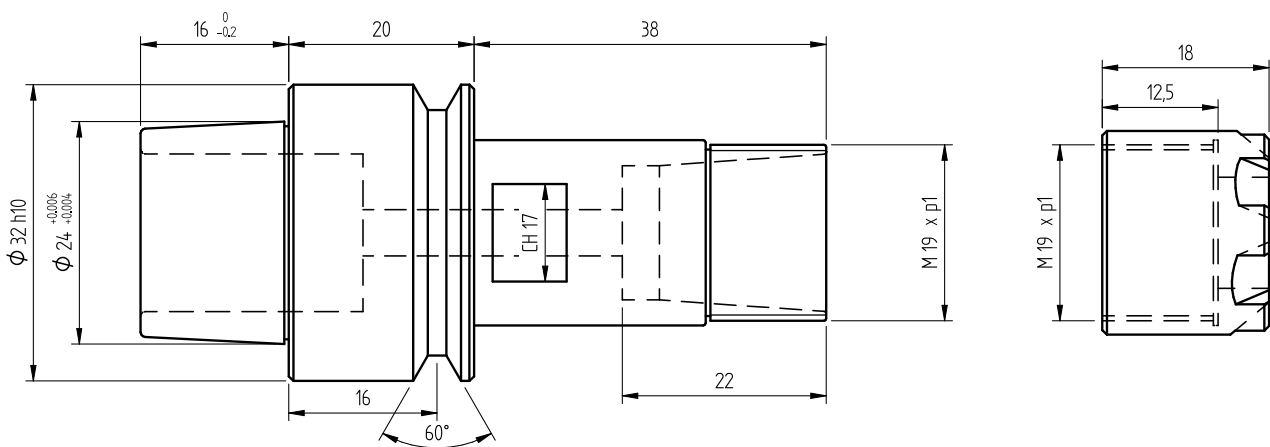
ISO 30 TAPER

ISO 40 SLITS TAPER

ISO 40 TAPER

ISO 50 SLITS TAPER

ISO 50 TAPER

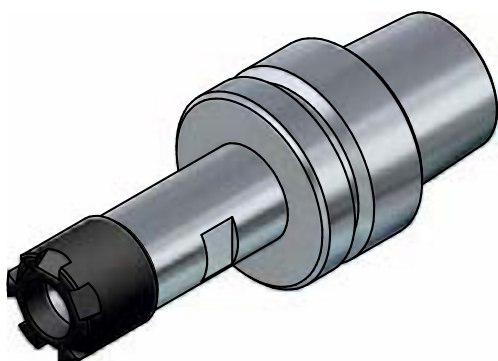
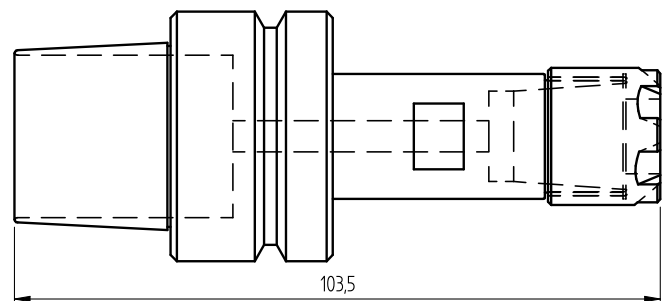
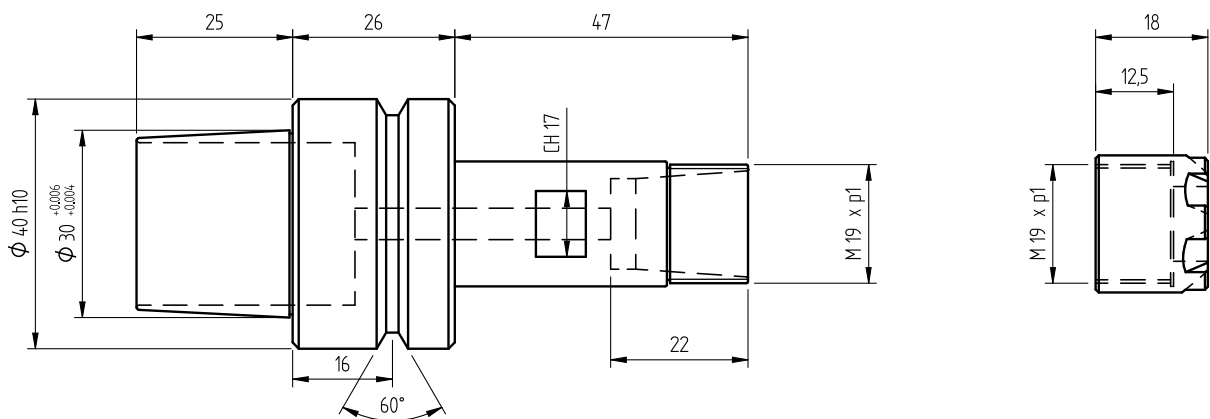




High speed precision spindles

DATASHEET

HSK E40 TAPER



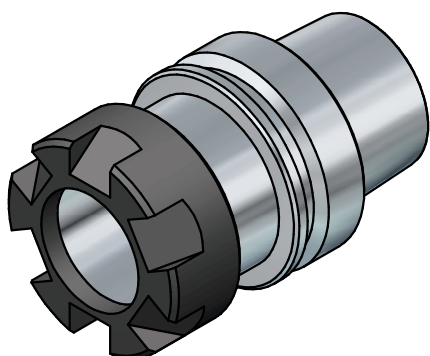
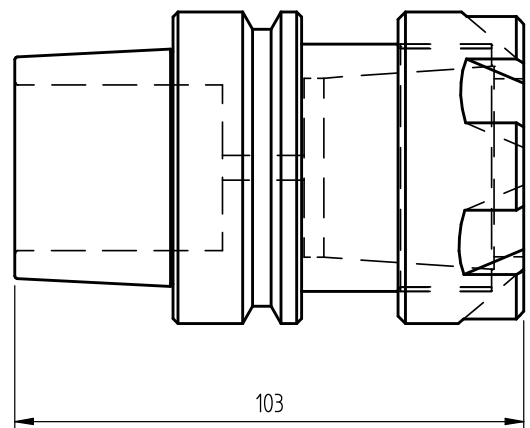
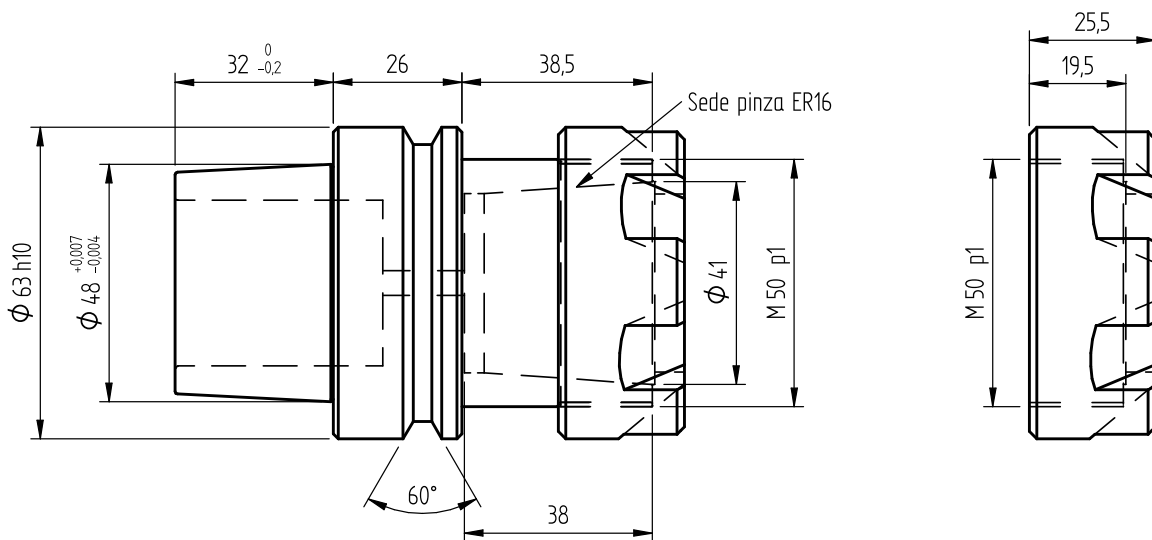
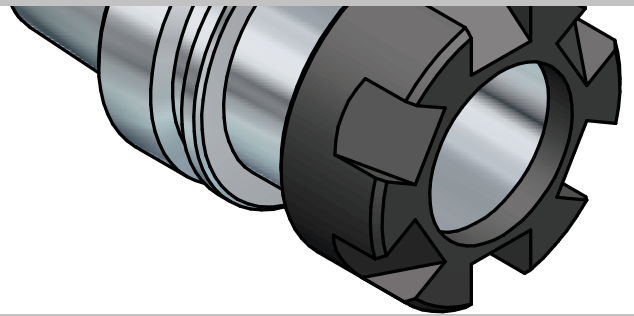
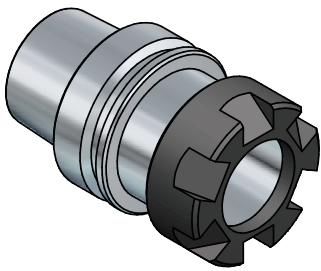


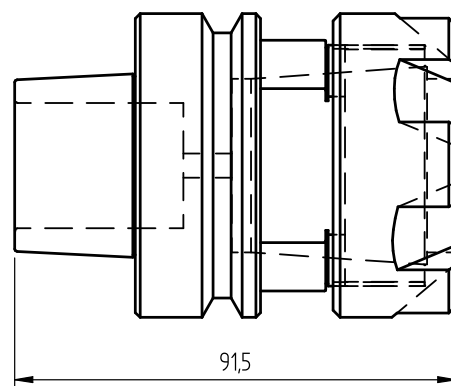
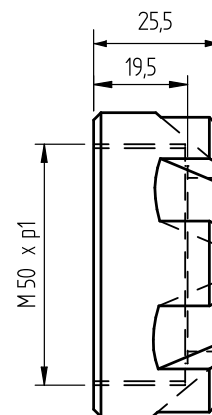
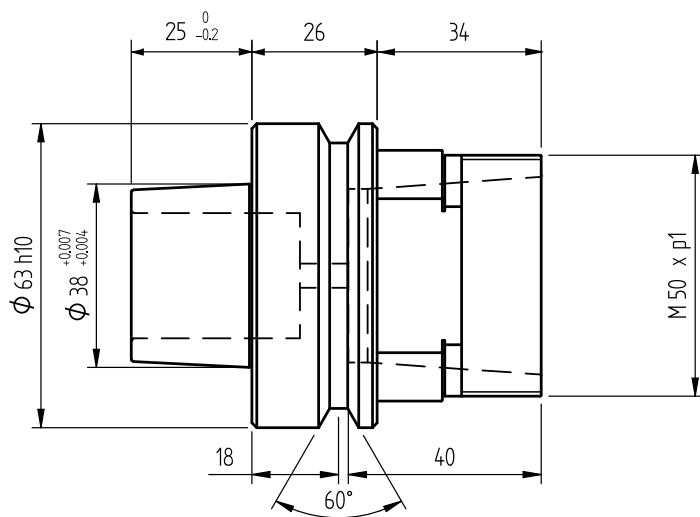
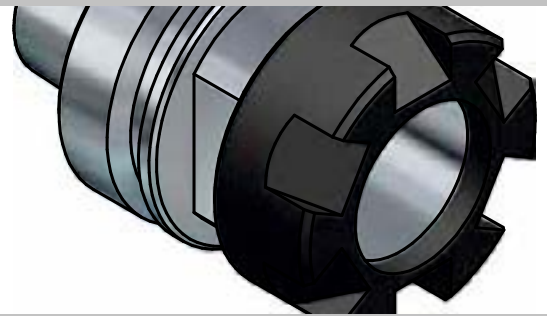
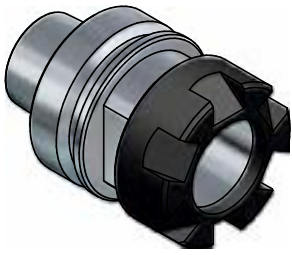
High speed precision spindles

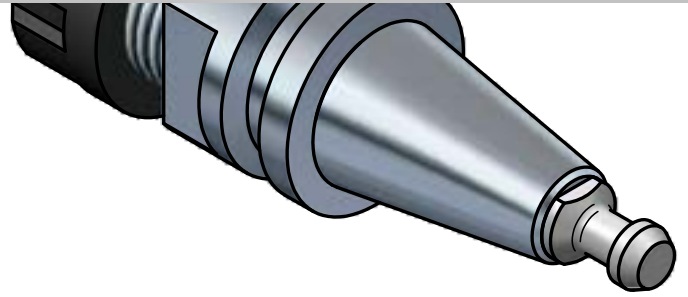
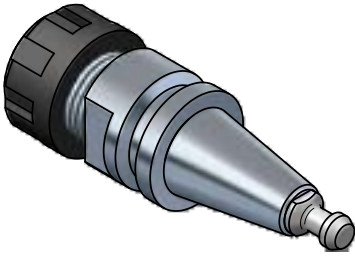
DATASHEET

HSK E63 TAPER

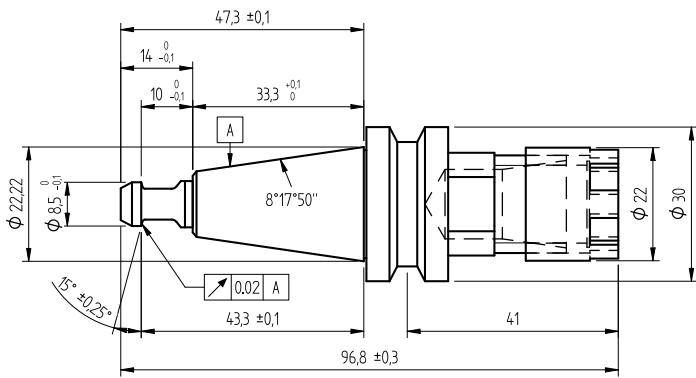
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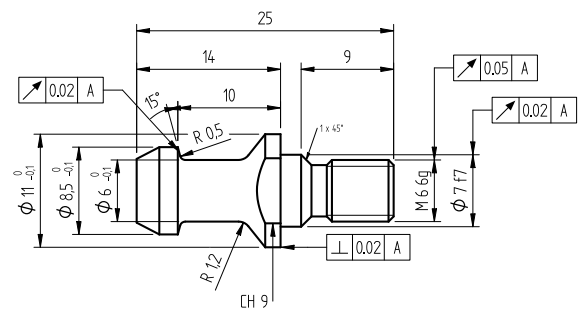
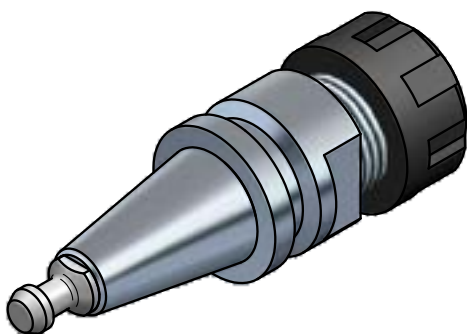
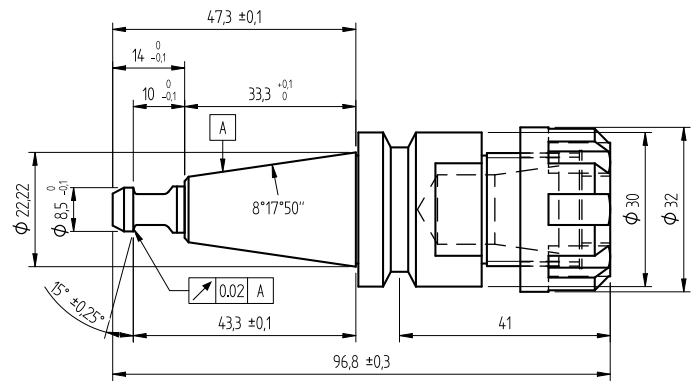


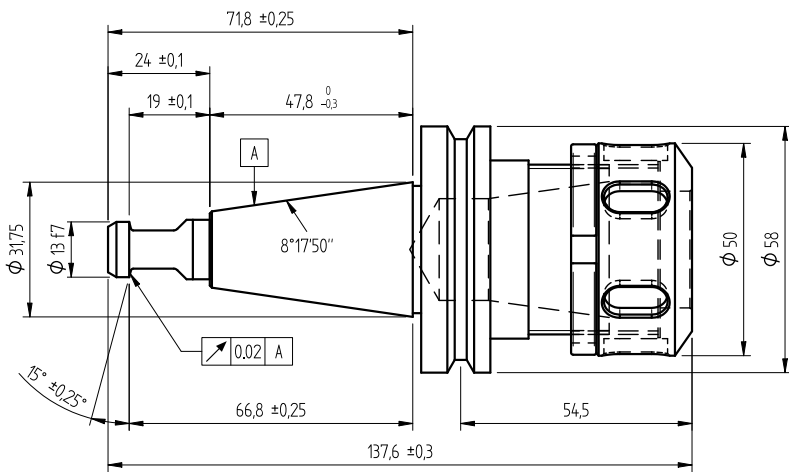
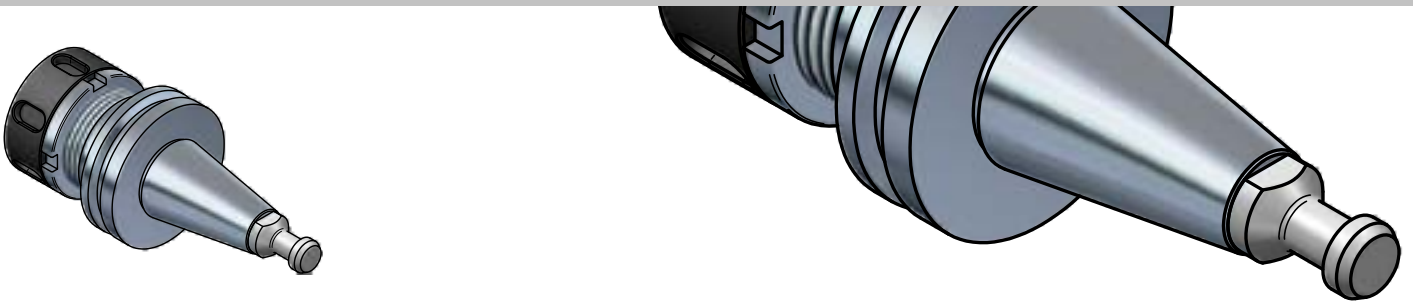


CONO ISO 20 ER16 MINI

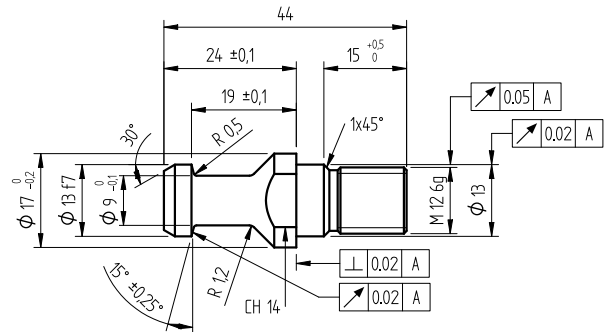


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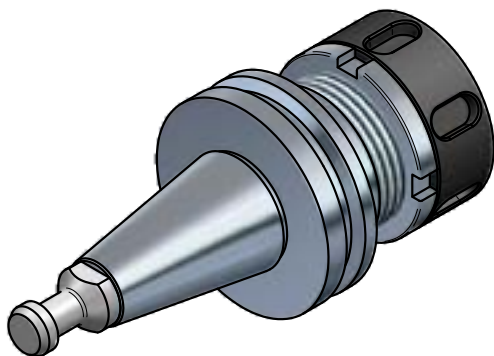


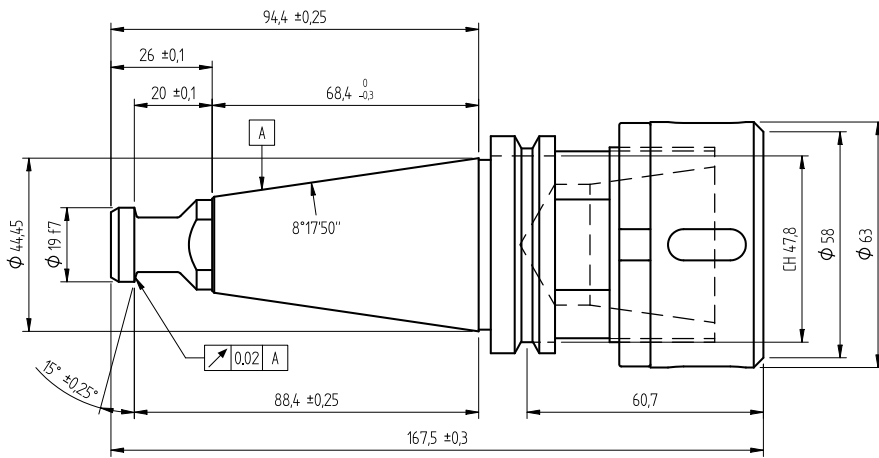


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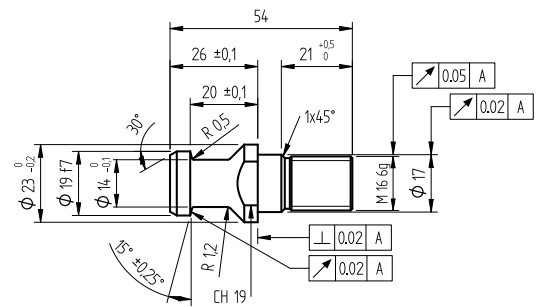


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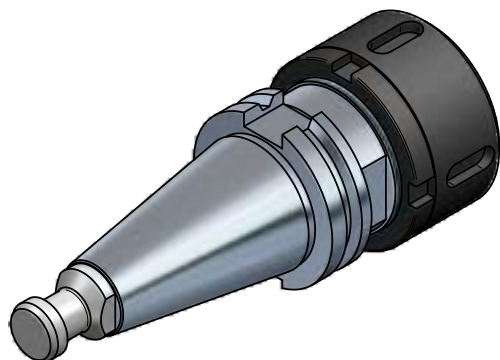
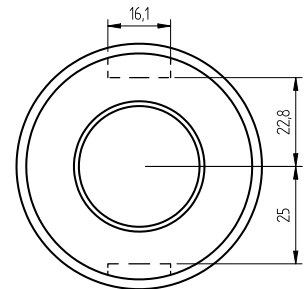


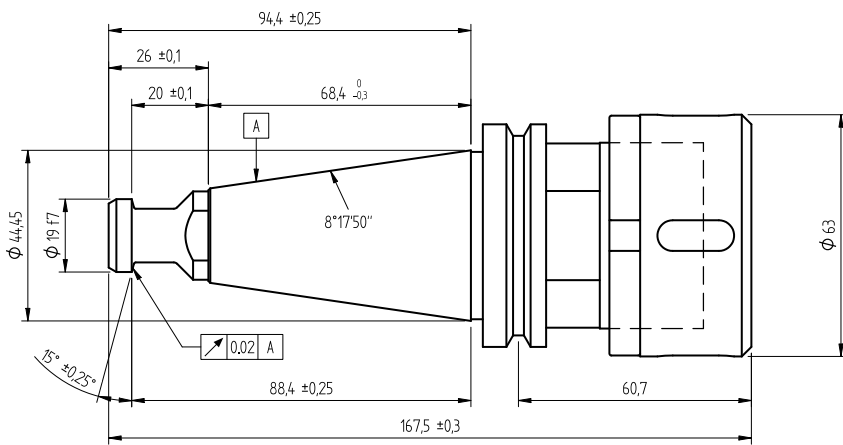
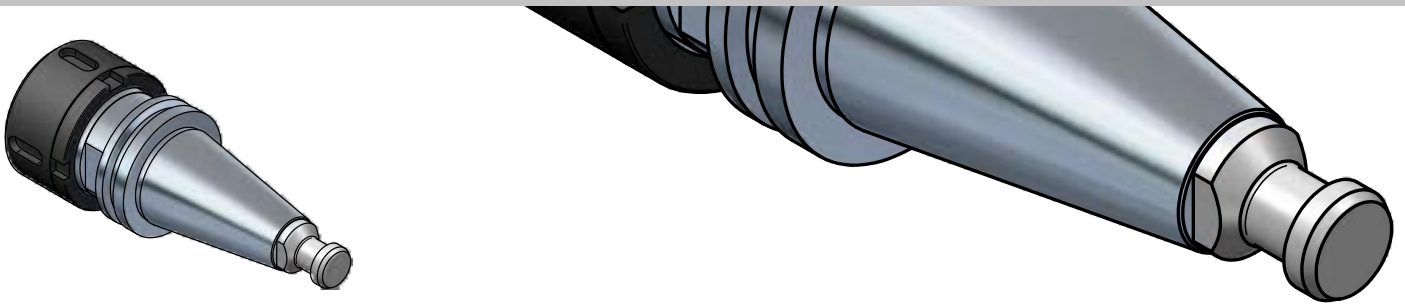


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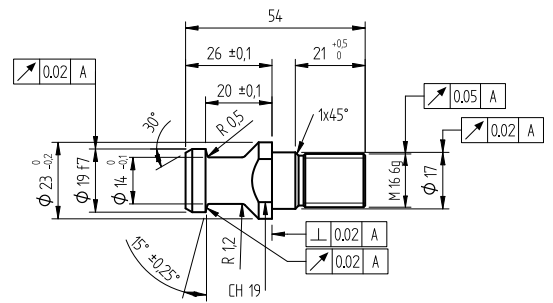


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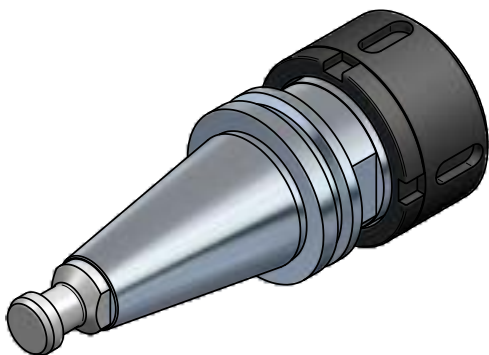




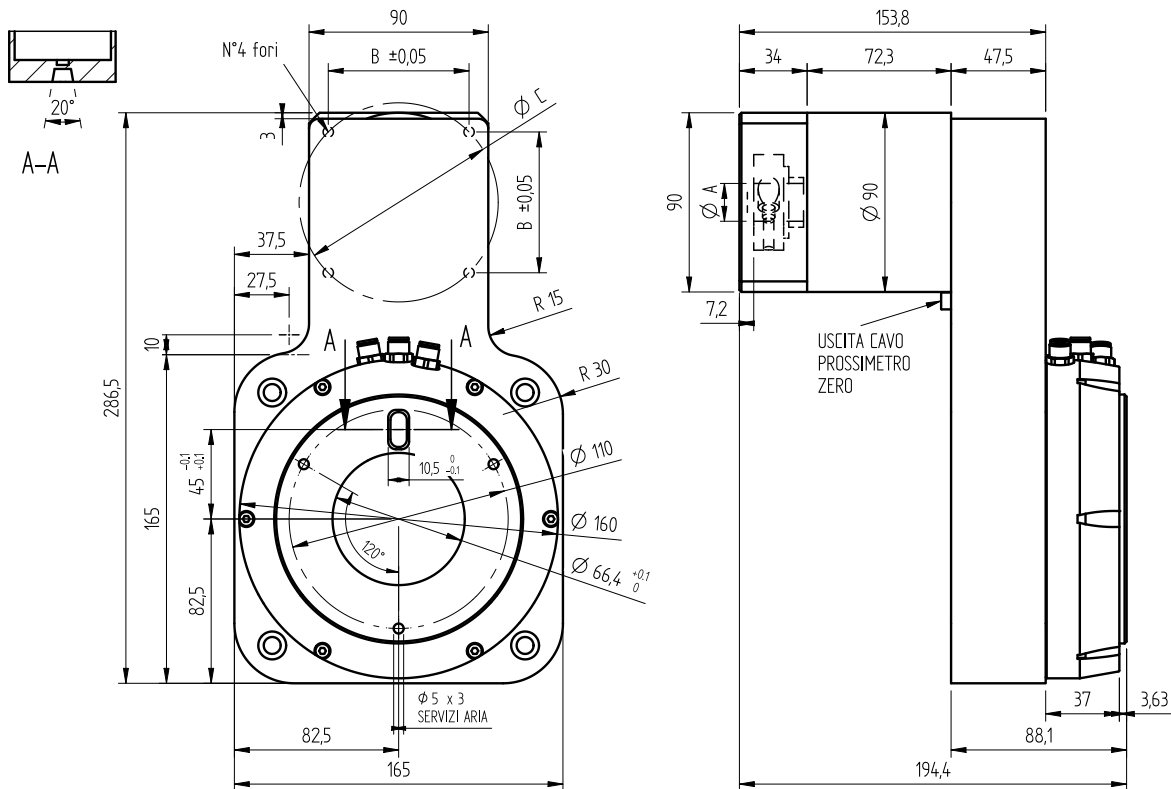
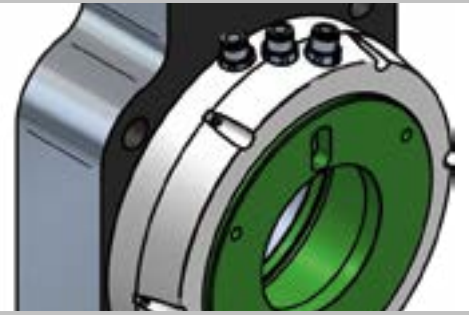
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DIN 69872 A

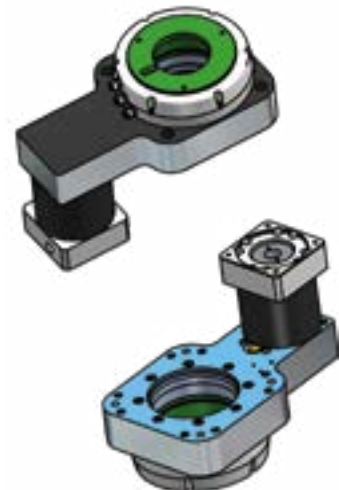


C Axis



ITA		ING		
Peso		Weight		13 Kg
Lubrificazioni ingranaggi		Lubrication gear		ISOFLEX TOPAS NB52
Rapporto di riduzione totale		Total reduction ratio		150
Coppia nominale in ingresso al riduttore		Ingoing nominal torque		2,5 Nm
Coppia di spunto in ingresso al riduttore		Ingoing starting torque		7,2 Nm
Velocità massima in ingresso		Ingoing maxl speed		6000 min
Velocità nominale in ingresso		Ingoing nominal speed		4000 min

TIPO	A	B	C	D	E	RAPPORTO TRASMISSIONE
SERVOMOTORE Ø14	14	49,5	70	M5 x 12	50	18
SERVOMOTORE Ø19	19	70,71	100	M6 x 15	80	110



Cooling Units

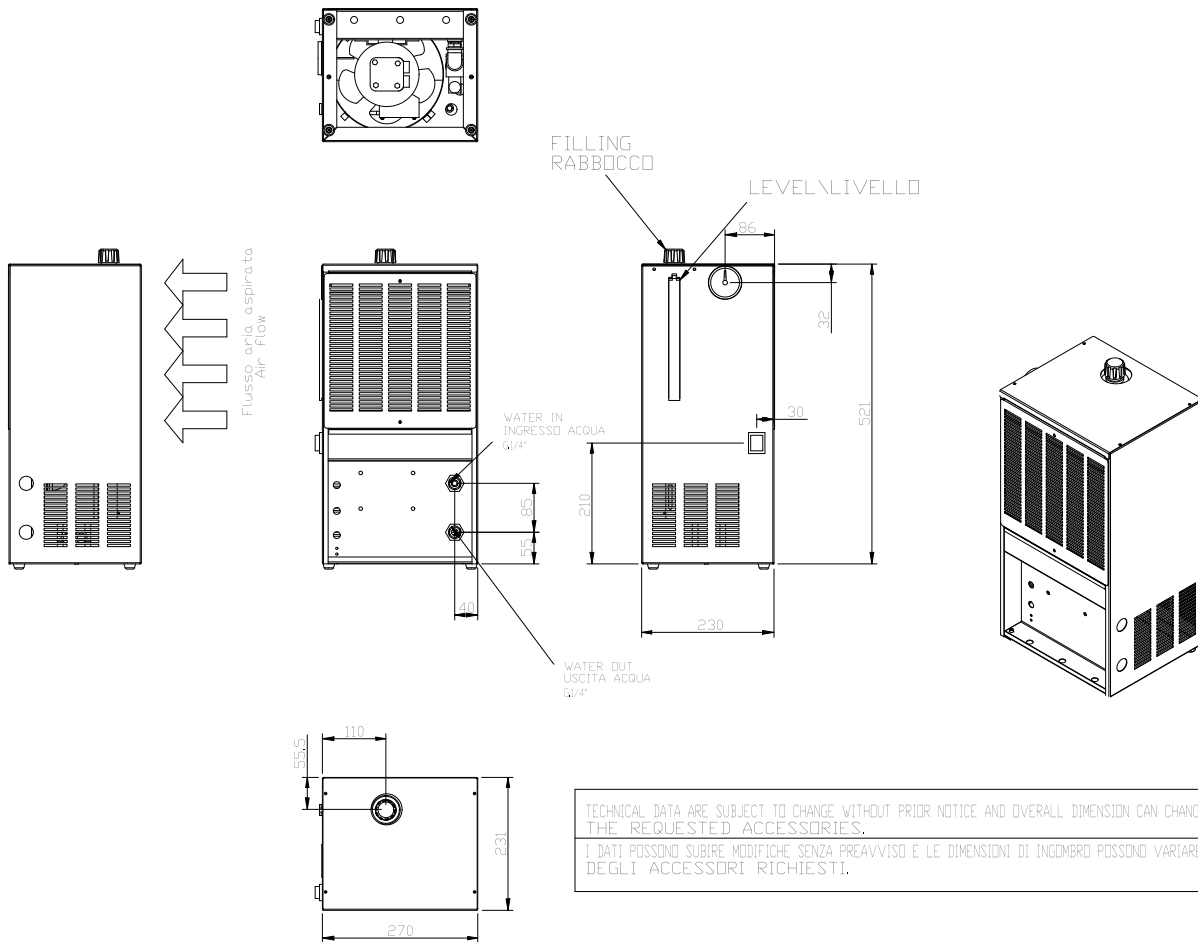
AIR-WATER HEAT EXCHANGER AWEX 6

AIR-WATER HEAT EXCHANGER AWEX 7.5

WATER CHILLER WITH TANK AND PUMP ELT 12

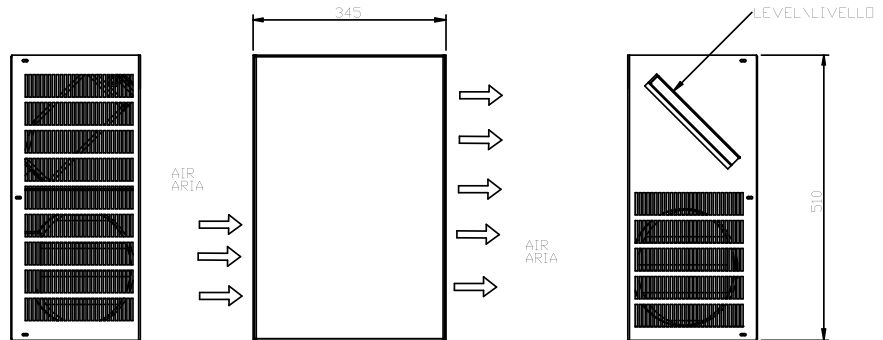
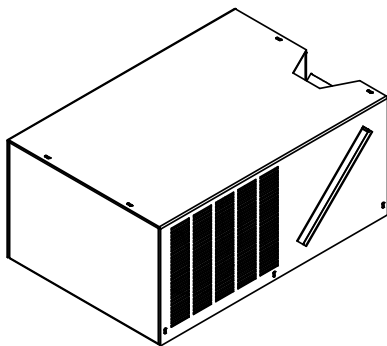
Air-Water HEAT EXCHANGER - AWEX 6.5

AF60 - AF80 - AF80 CU (9/2)

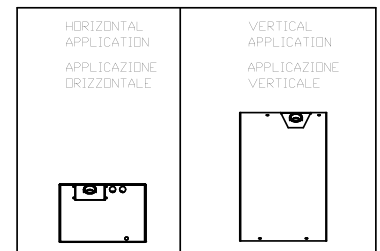
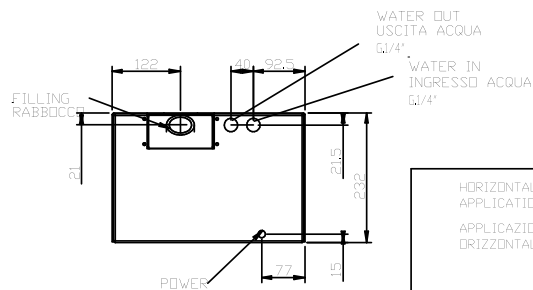


Air-Water HEAT EXCHANGER - AWEX 7.5

AF100 - AF80 CU (7/2) - AF 100 CU

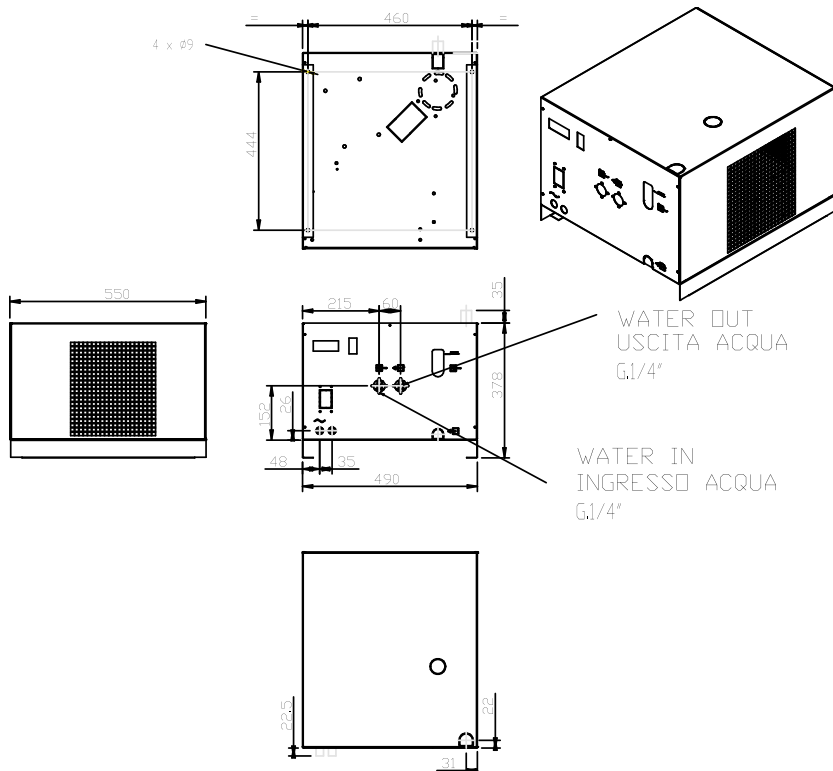


- * **Potenzialita' nominale con aria a +32 °C - temp. acqua a +40 °C : 1.080 W**
Nominal cooling capacity with air +32 °C - temperature liquid a +40 °C : 1.080 W
- * **Potenzialita' nominale con aria a +32 °C - temp. acqua a +50 °C : 2.450 W**
Nominal cooling capacity with air +32 °C - temperature liquid a +50 °C : 1.080 W
- * **Potenza installata : 300 W**
Installed power : 300 W
- * **Alimentazione : 230 V/1/50-60 Hz**
Power : 230 V/1/50-60 Hz
- * **Alimentazione elettrica : 230V - 1ph - 50/60 Hz**
Power supply : 230V - 1ph - 50/60 Hz
- * **Scambiatore di calore : Scambiatore in rame / alluminio , raffr. ad aria**
Heat exchanger : Air/cool heat exchanger (copper/aluminium)
- * **Attacchi idraulici : 1/4" gas**
Hydraulic fittings : 1/4" gas
- * **Serbatoio : 5 l**
Tank : 5l
- * **Struttura in lamiera di acciaio : Verniciatura RAL 9005**
Steel frame : Epoxy paint powder RAL 9005
- * **Massima temperatura di utilizzo : +60 °C**
Max working temperature : +60 °C
- * **Pompa : Portata : 0.25 - 8 l/min**
: Prevalenza : 3.5 - 0.5 bar
- * **Pump : Flow rate : 0.25 - 8 l/min**
: Head : 3.5 - 0.5 bar
- * **Peso : 12.8 Kg**
Weight : 12.8 Kg



TECHNICAL DATA ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE AND OVERALL DIMENSION CAN CHANGE DUE TO THE REQUESTED ACCESSORIES.
I DATI POSSONO SUBIRE MODIFICHE SENZA PREAVVISO E LE DIMENSIONI DI INGOMBRO POSSONO VARIARE A SECONDO DEGLI ACCESSORI RICHIESTI.

WATER CHILLER with TANK and PUMP - ELT 12



- * Potenzialita' nominale / Nominal cooling capacity : 1651 Kcal/h (50 Hz) aria/air 32 °C
- : 1920 W (50 Hz) liquido/liquid 40 °C
- * Alimentazione elettrica / Power supply : 230 V - 1 - 50/60 Hz
- * Compressore / Compressor : 1038 W (60 Hz)
- * Ventilatore / Electric fan : 84 W (60 Hz)
- * Diametro ventola / fan diameter : \varnothing 250 mm
- * Scambiatore di calore / Heat exchanger : Raffr. ad aria, batteria rame/alluminio / Air - cooled heat exchanger (copper-aluminium)
- * Evaporatore / Evaporator : Allagato, in rame
- * Termoregolatore elettr. a doppio set / : Controllo temperatura acqua regolabile tra +15 e +27 °C, allarme alta temperatura acqua
Electric temperature controller. dual set / : Temperature control adjustable water between +15 and +27 °C, high temperature alarm water
- * Pompa di circolazione / Circulation pump
Portata / Flow rate : 8 - 30 l/min
Prevalenza / Head : 3 - 0.4 bar
Potenza assorbita / Power Consumption : 690 w (60 Hz)
- * Serbatoio / Tank : 5.5 l
- * Struttura : Carenatura autoportante in acciaio elettrozincato verniciatura a polvere epossidica
Structure : Self-supporting galvanized steel casing
A powder-coated
- * Rumorosità / noisiness : 55 db (A)
- * Peso / weight : 42 Kg

TECHNICAL DATA ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE AND OVERALL DIMENSION CAN CHANGE DUE TO THE REQUESTED ACCESSORIES.
I DATI POSSONO SUBIRE MODIFICHE SENZA PREAVVISO E LE DIMENSIONI DI INCOMBRO POSSONO VARIARE A SECONDO DEGLI ACCESSORI RICHIESTI.

Inverter

INVERTER V1000 YASKAWA

ONE FOR ALL - MANY APPLICATIONS

Easy and cost- saving

This extremely compact and powerful drive sets standards in terms of user friendliness and process orientation. It was developed for efficient production and better maintainability with major focus on performance and reliability.

Functional safety integrated

The V1000 has a built in two-channel Safe Torque Off (STO) function (SIL2, PL-d, IEC 61800-5-2). Safe Torque Off minimizes downtime for applications requiring occasional intervention and it helps to reduce the number of installed components in your system.

Cold Plate type

YASKAWA has as one of the first manufacturers promoted the development of Cold Plate type inverters for the European and international markets. Consequently the V1000 is available as Cold Plate version for applications with an external cooling system. Cold Plate means also no fans inside the drive, which makes the V1000 the preferred solution for hazardous environments.

Features

- Functional Safety built in, STO according to ISO 13849-1 Cat 3, PL-d and IEC 61800-5-2, SIL2
- Worldwide specification: CE, UL, cUL, RoHS
- 150% inverter overload performance for excellent starting torque
- Induction Motor (IM) and Permanent Magnet (PM) motor control for highly efficient applications
- Dynamic braking: The unique High Flux Braking method reduces the stopping time by up to 50% compared to conventional methods without braking resistor
- Protection class: IP20/Open-Chassis, NEMA Type 1, or IP66. The IP66 units are available with or without LED keypad
- Optional high output frequency version for spindles and other high speed applications
- V/f and open-loop current vector control
- Predictive maintenance function
- Compact space saving design ready for side-by-side mounting
- Cooling fan replacement without tools
- Icon-based programming
- Designed for 10 years of maintenance-free operation





High speed precision spindles



DATASHEET

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INVERTER V1000 YASKAWA

ONE FOR ALL - MANY APPLICATIONS

Easy installation

The YASKAWA V1000 reduces installation time and costs.

- One of the smallest AC drives in the world. Saves mounting space and cost by side-by-side mounting
- Application parameter presets to shorten commissioning time
- Same handling and parameter structure for all YASKAWA AC drives
- DriveWorksEZ icon-based programming tool. Simply drag and drop icons to customize your drive. Create customized sequences without an external PLC

Reliable operation

The V1000 continues the tradition of YASKAWA by being the reliable link in your production chain.

- Designed for long performance life (10 years 24 h per day at 80% nominal load, +40 °C ambient temperature)
- Quick response on load and speed changes improves your machine performance
- Online Auto-Tuning for improved motor performance at low speed
- Optional external 24 VDC supply assures communication and data flow in any power-loss situation
- High speed performance: The V1000 controls the application with a super-fast 2 ms scan rate

Quick maintenance

The YASKAWA V1000 is an AC drive which adapts to user demands and provides maintenance functions that ensure quick replacement and minimize down time.

- Removable terminal board with parameter memory for quick and easy maintenance
- Screw-less control terminal saves setup time
- Predictive maintenance function showing the lifetime of IGBT, Capacitor, Cooling Fan and Soft Charge Bypass Relay on the display

INVERTER V1000 YASKAWA

TECHNICAL SPECIFICATION

Power ratings		Single-phase 200 V						
Inverter model CIMR-VCBA ¹		0001	0002	0003	0006	0010	0012	00018 ⁶
Output Inverter	Motor output (normal duty) [kW] ²	0,18	0,37	0,75	1,1	2,2	3,0	–
	Motor output (heavy duty) [kW] ⁵	0,1	0,18	0,55	0,75	1,5	2,2	4,0
	Rated output current (normal duty) [A] ³	1,2	1,9	3,3	6	9,6	12	–
	Rated output current (heavy duty) [A] ⁵	0,8 ⁴	1,6 ⁴	3,0 ⁴	5,0 ⁴	8,0 ⁵	11,0 ⁵	17,5 ⁵
	Overload	125 % for 60 sec normal duty, 150 % for 60 sec heavy duty from inverter rated output current						
	Rated output power (normal duty) [kVA]	0,5	0,7	1,3	2,3	3,7	4,6	–
	Rated output power (heavy duty) [kVA]	0,3	0,6	1,1	1,9	3,0	4,2	6,7
	Max. output voltage	Three-phase 200 to 240 V (proportional to input voltage)						
	Max. output frequency	400 Hz						
Inverter input	Rated input voltage	Single-phase 200 to 240 V +10%/-15%						
	Rated input frequency	50/60 Hz, ±5 %						

* based on 220 V input voltage

Power ratings		Three-phase 200 V										
Inverter model CIMR-VC2A		0001	0002	0004	0006	0010	0012	0020	0030	0040	0056	0069
Output Inverter	Motor output (normal duty) [kW] ²	0,18	0,37	0,75	1,1	2,2	3,0	5,5	7,5	11,0	15,0	18,5
	Motor output (heavy duty) [kW] ⁵	0,1	0,2	0,4	0,75	1,5	2,2	4,0	5,5	7,5	11,0	15,0
	Rated output current (normal duty) [A] ³	1,2	1,9	3,5	6,0	9,6	12,0	19,6	30,0	40,0	56,0	69,0
	Rated output current (heavy duty) [A] ⁵	0,8 ⁴	1,6 ⁴	3,0 ⁴	5,0 ⁴	8,0 ⁵	11,0 ⁵	17,5 ⁵	25,0 ⁵	33,0 ⁵	47,0 ⁵	60,0 ⁵
	Overload	120 % for 60 sec normal duty, 150 % for 60 sec heavy duty from inverter rated output current										
	Rated output power (normal duty) [kVA]	0,5	0,7	1,3	2,3	3,7	4,6	7,5	11,4	15,2	21,3	26,3
	Rated output power (heavy duty) [kVA]	0,3	0,6	1,1	1,9	3,0	4,2	6,7	9,5	12,6	17,9	22,9
	Max. output voltage	Three-phase 200 to 240 V (proportional to input voltage)										
	Max. output frequency	400 Hz										
Inverter input	Rated input voltage	Single-phase 200 to 240 V +10%/-15%										
	Rated input frequency	50/60 Hz, ±5 %										

* based on 220 V input voltage

Power ratings		Three-phase 400 V										
Inverter model CIMR-VC4A		0001	0002	0004	0005	0007	0009	0011	0018	0023	0031	0038
Output Inverter	Motor output (normal duty) [kW] ²	0,37	0,75	1,5	2,2	3,0	4,0	5,5	7,5	11	15,0	18,5
	Motor output (heavy duty) [kW] ⁵	0,18	0,37	0,75	1,5	2,2	3,0	4,0	5,5	7,5	11,0	15,0
	Rated output current (normal duty) [A] ³	1,2	2,1	4,1	5,4	6,9	8,8	11,1	17,5	23,0	31,0	38,0
	Rated output current (heavy duty) [A] ⁵	1,2	1,8	3,4	4,8	5,5	7,2	9,2	14,8	18,0	24,0	31,0
	Overload	120 % for 60 sec normal duty, 150 % for 60 sec heavy duty from inverter rated output current										
	Rated output power (normal duty) [kVA]	0,9	1,6	3,1	4,1	5,3	6,7	8,5	13,3	17,5	23,6	29,0
	Rated output power (heavy duty) [kVA]	0,9	1,4	2,6	3,7	4,2	5,5	7,0	11,3	13,7	18,3	23,6
	Max. output voltage	Three-phase 380 to 480 V (proportional to input voltage)										
	Max. output frequency	400 Hz										
Inverter input	Rated input voltage	Three-phase 380 to 480 V +10%/-15%										
	Rated input frequency	50/60 Hz, ±5 %										

¹ Drives with a single-phase power supply input have three-phase output. Single-phase motors cannot be used.

² The motor capacity (kW) refers to a YASKAWA 4-pole, 60 Hz, 200 V motor. The rated output current of the drive output amps should be equal to or greater than the motor rated current.

³ At 2 kHz carrier frequency without derating

⁴ At 10 kHz carrier frequency without derating

⁵ At 8 kHz carrier frequency without derating

⁶ Only heavy duty rating available

Rotational Auto-Tuning must be performed to obtain the performance described with the open loop vector control.

INVERTER V1000 YASKAWA

SPECIFICATIONS

Specifications		
Control functions	Control methods	Open loop vector control (Current vector), V/f control, PM open loop vector control (for SPM and IPM motors)
	Frequency control range	0.01 to 400 Hz
	Frequency accuracy (Temperature fluctuation)	Digital input: within ± 0.01 % of the max. output frequency (-10 °C to +50 °C)
		Analog input: within ± 0.1 % of the max. output frequency (25 °C ± 10 °C)
	Frequency setting resolution	Digital input: 0.01 Hz
		Analog input: 1/1000 of max. frequency
	Starting torque	200 % / 0.5 Hz (assumes heavy duty rating AC motor of 3.7 kW or less using open loop vector control), 50 % / 6 Hz (assumes PM open loop vector control)
	Speed control range	1:100 (Open loop vector control), 1:40 (V/f control), 1:10 (PM open loop vector control)
	Speed control accuracy	± 0.2 % in open loop vector control (25 °C ± 10 °C)*1
	Speed response	5 Hz in open loop vector (25 °C ± 10 °C) (requires rotational auto-tuning)
	Torque limit	Open loop vector control allows separate settings in four quadrants
	Accel/Decel time	0.0 to 6,000.0 s (4 selectable combinations of independent acceleration and deceleration settings)
Braking torque	<ul style="list-style-type: none"> Short-time decel torque*2: over 150 % for 0.1/0.2 kW motors, over 100 for 0.4/0.75 kW motors, over 50 % for 1.5 kW motors, over 20 % for 2.2 kW and above motors (overexcitation braking/high-slip braking: approx. 40 %) Continuous regen. torque: approx. 20 % (approx. 125 % with dynamic braking resistor option*3: 10 % ED, 10 s, internal braking transistor) 	
V/f characteristics	User-selected programs, V/f preset patterns possible	
Main control functions	Main control functions Momentary power loss ride-thru, Speed search, Overtorque detection, Torque limit, 17-step speed (max), Accel/decel time switch, S-curve accel/decel, 3-wire sequence, Auto-tuning (rotational, stationary tuning for resistance between lines), Dwell, Cooling fan on/off switch, Slip compensation, Torque compensation, Frequency jump, Upper/lower limits for frequency reference, DC injection braking at start and stop, Overexcitation braking, High slip braking, PID control (with sleep function), Energy saving control, MEMOBUS comm. (RS-485/422 max, 115.2 kbps), Fault restart, Application presets, DriveWorksEZ (customized function), Removable terminal block with parameter backup function...	
Protection functions	Motor protection	Motor overheat protection based on output current
	Momentary overcurrent protection	Drive stops when output current exceeds 200 % of heavy duty rating
	Overload protection	Drive stops after 60 s at 150 % of rated output current (heavy duty rating)*4
	Overvoltage protection	200 V class: Stops when DC bus exceeds approx. 410 V 400 V class: Stops when DC bus exceeds approx. 820 V
	Undervoltage protection	Stops when DC bus voltage falls below the following levels: 190 V (3-phase 200 V), 160 V (single-phase 200 V), 380 V (3-phase 400 V), 350 V (3-phase 380 V)
	Momentary power loss ride-thru	Stops after approx. 15 ms (default). Parameter settings allow the drive to continue running if power loss lasts for up to approx. 2 s*5
	Heatsink overheat protection	Protection by thermistor
	Braking resistance over heat protection	Overheat sensor for braking resistor (optional ERF-type, 3 % ED)
	Stall prevention	Separate settings allowed during acceleration, and during run. Enable/disable only during deceleration.
	Ground fault protection	Protection by electronic circuit*6
Charge LED	Charge LED remains lit until DC bus has fallen below approx. 50 V	
Operating environment	Area of use	Indoors
	Ambient temperature	-10 °C to +50 °C (open chassis), -10 °C to +40 °C (NEMA Type 1)
	Humidity	95 RH% or less (non-condensing)
	Storage temperature	-20 °C to +60 °C
	Altitude	1,000 m without derating (output derating of 1 % per 100 m above 1,000 m, max. 3,000 m)
Vibration	10 to 20 Hz (9.8 m/s ²), 20 to 55 Hz (5.9 m/s ²)	
Standards	CE, UL, cUL, RoHS	
Protective Design	IP20 open-chassis, NEMA Type 1 enclosure, IP66	

*1 Speed control accuracy may vary slightly depending on installation conditions or motor used.

*2 Momentary average deceleration torque refers to the deceleration torque from 60 Hz down to 0 Hz. This may vary depending on the motor.

*3 If L3-04 is enabled when using a braking resistor or braking resistor unit, the motor may not stop within the specified deceleration time.

*4 Overload protection may be triggered at lower levels if output frequency is below 6 Hz.

*5 Varies by drive capacity. Drives smaller than 7.5 kW require a separate Momentary Power Loss Recovery Unit to continue operating during a momentary power loss of 2 s.

*6 Protection may not be provided under the following conditions as the motor windings are grounded internally during run:

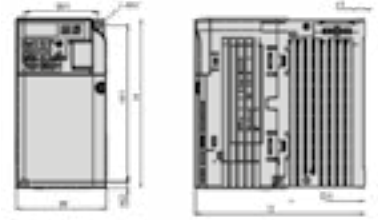
- Low resistance to ground from the motor cable or terminal block.
- Drive already has a short-circuit when the power is turned on.

INVERTER V1000 YASKAWA

DIMENSIONS INVERTER V1000

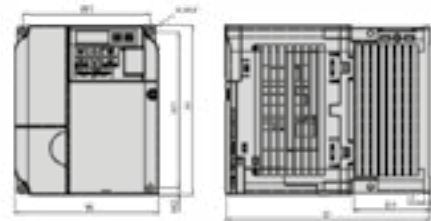
Open frame / IP20 (without EMC filter)

Voltage class	Drive model CIMR-VC	Dimensions in mm								
		Width 1	A1	Width	A	Length	t1	A2	Length 1	Weight (kg)
Single phase 200 V class	BA0001B	56	118	68	128	76	3	5	6,5	0,6
	BA0002B					118	5		38,5	1,0
	BA0003B					76	3		6,5	0,6
Three Phase 200 V class	2A0001B	56	118	68	128	108	5	5	38,5	0,9
	2A0002B					128	5		58,5	1,1
	2A0004B					76	3		6,5	0,6
	2A0006B					108	5		38,5	0,9



*Internal diameter for M4 screws

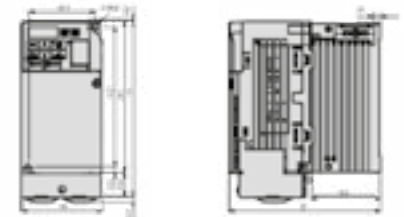
Voltage class	Drive model CIMR-VC	Dimensions in mm										
		Width 1	A1	Width	A	Length	t1	A2	Length 1	Weight (kg)		
Single phase 200 V class	BA0006B	96	118	108	128	137,5	5	5	58	1,7		
	BA0010B					154				1,8		
	BA0012B					163				2,4		
	BA0018B					170				3,0		
Three Phase 200 V class	2A0010B	96	118	108	128	129	5	5	58	1,7		
	2A0012B					137,5			2,4			
	2A0020B					143			1,2			
Trifase Classe 400 V	4A0001B	96	118	108	128	81	5	5	10	1,0		
	4A0002B					99			28	1,2		
	4A0004B					137,5			58	1,7		
	4A0005B					154						
	4A0007B					143						
	4A0009B					128			140	143	65	2,4
	4A0011B											



*Internal diameter for M4 screws

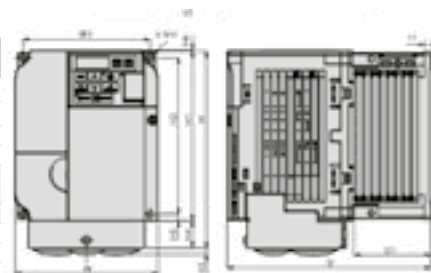
IP20 / NEMA 1 type (without EMC filter)

Voltage class	Drive model CIMR-VC	Dimensions in mm													
		Width 1	A2	Width 1	A1	Length	t1	A5	Length 1	A	A4	A3	A6	Weight (kg)	
Single phase 200 V class	BA0001F	56	118	68	128	76	3	5	6,5	149,5	20	4	1,5	0,8	
	BA0002F					118	5	39	1,2						
	BA0003F					76	3	6,5	0,8						
Three Phase 200 V class	2A0001F	56	118	68	128	108	5	5	39	149,5	20	4	1,5	1,1	
	2A0002F					128			59					1,3	
	2A0004F					76			3					6,5	0,8
	2A0006F					108			5					39	1,1



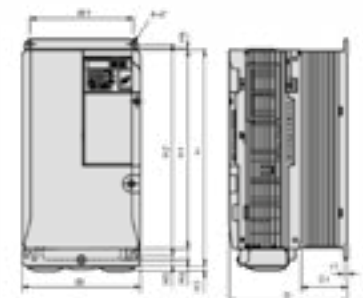
*Internal diameter for M4 screws

Voltage class	Drive model CIMR-VC	Dimensions in mm																	
		Width 1	A2	Width 1	A1	Length	t1	A5	Length 1	A	A4	A3	A6	Weight (kg)					
Single phase 200 V class	BA0006F	96	118	108	128	137,5	5	5	58	149,5	20	4	1,5	1,9					
	BA0010F					154			2,0										
	BA0012F					163			2,6										
	BA0018F					170			3,3										
Three Phase 200 V class	2A0010F	96	118	108	128	129	5	5	58	149,5	20	4	1,5	1,9					
	2A0012F					137,5			2,6										
	2A0020F					143			1,2										
Three Phase 400 V class	4A0001F	96	118	108	128	81	5	5	10	149,5	20	4	1,5	1,2					
	4A0002F					99			28					1,4					
	4A0004F					137,5			58					1,9					
	4A0005F					154													
	4A0007F					143													
	4A0009F					128			140					143	65	153	4,8	5	2,6
	4A0011F																		



*Internal diameter for M4 screws

Voltage class	Drive model CIMR-VC	Dimensions in mm														
		Width 1	A2	Width 1	A1	Length	t1	A5	Length 1	A	A4	A3	A6	d	Weight (kg)	
Three Phase 200 V class	2A0030F	122	248	140	234	140	5	13	55	254	13	6	1,5	M5	3,8	
	2A0040F					163			75					290	15	5,5
	2A0056F					187			78					350	15	9,2
	2A0069F					192			78					350	15	7
Three Phase 400 V class	4A0018F	122	248	140	234	140	5	13	55	254	13	6	1,5	M5	3,8	
	4A0023F					143			15					5,2		
	4A0031F					163			75					290	15	5,5
	4A0038F					160			284					180	270	163



*Internal diameter for M5/M6 screws



High speed precision spindles



High speed precision spindles

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