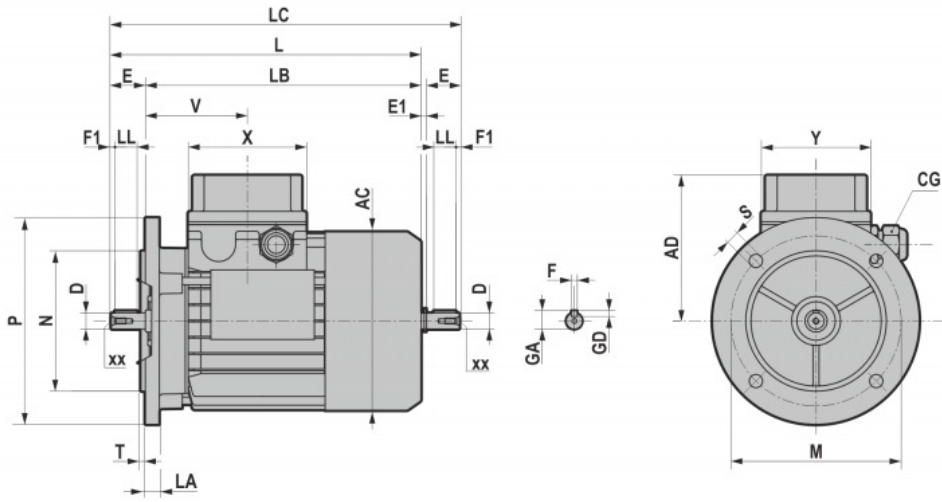
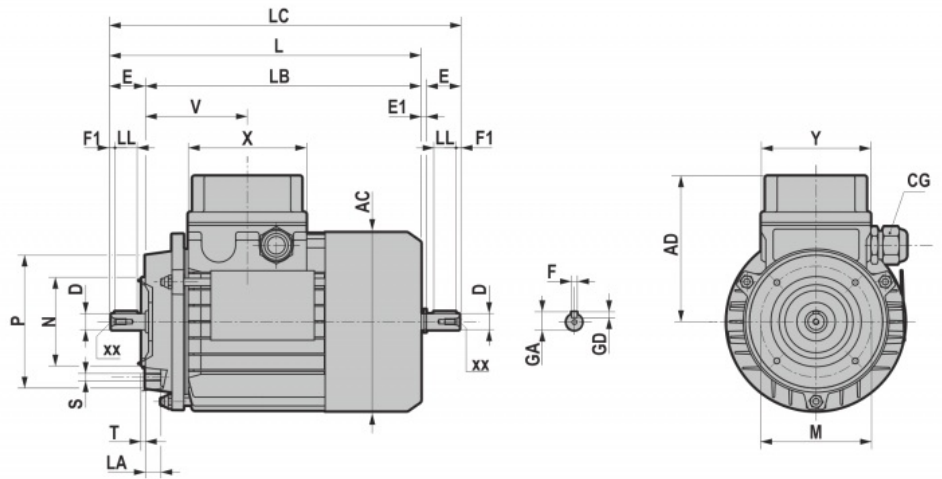


1. General dimensions

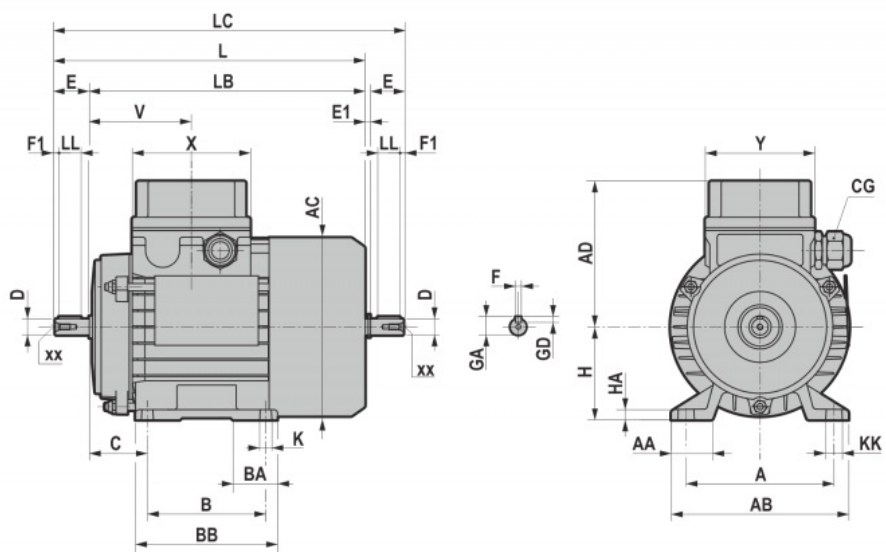
B5



B14



B3



	AC	AD	L	LB	X	Y	V	LC
56	106	95	197	177	93	93	55	-
63	121	104	211	188	80	74	70	235,5
71	139	112	238,5	208,5	80	74	74,5	271
80	158	121,5	272,5 *295,5	232,5 *255,5	80	74	78	314 *337
90S	173	146	298 *331	248 *281	98	98	87	349,5 *380,5
90L	173	146	323 *356	273 *306	98	98	87	374,5 *407,5
100	191	154,5	368	308	98	98	97,5	431,5
112	210,5	169,5	383,5 *407,5	322,5 *347,5	98	98	100	447 *472
132S	248,5	195	453	372	118	118	115,5	536,5
132M	248,5	195	490	410	118	118	115,5	574,5

*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

	Shaft end						Key			Cable gland		
	D	E	E1	xx	F1	GA	F	GD	LL	CG	Ø hollow min	Ø hollow max
56	9	20	-	M4x12	3,5	10	3	3	14	M16x1,5	5	10
63	11 j6	23	1,5	M4x10	2,5	12,5	4	4	15	M16x1,5	5	10
71	14 j6	30	2,5	M5x12,5	3	16	5	5	20	M20x1,5	6	12
80	19 j6	40	1,5	M6x16	5	21,5	6	6	30	M20x1,5	6	12
90S	24 j6	50	1,5	M8x19	5	27	8	7	35	M25x1,5	13	18
90L	24 j6	50	1,5	M8x19	5	27	8	7	35	M25x1,5	13	18
100	28 j6	60	3,5	M10x22	7,5	31	8	7	45	M25x1,5	13	18
112	28 j6	60	3,5	M10x22	7,5	31	8	7	45	M25x1,5	13	18
132S	38 k6	80	4	M12x28	10	41	10	8	60	M32x1,5	18	25
132M	38 k6	80	4	M12x28	10	41	10	8	60	M32x1,5	18	25

B5	M	N	P	LA	S	T
56	100	80	120	9	7	3
63	115	95	140	10	9	3
71	130	110	160	10	9,5	3,5
80	165	130	200	12	11	3,5
90	165	130	200	12	11	3,5
100	215	180	250	15	14	4
112	215	180	250	14,5	14	4
132	265	230	300	20	14	3,5

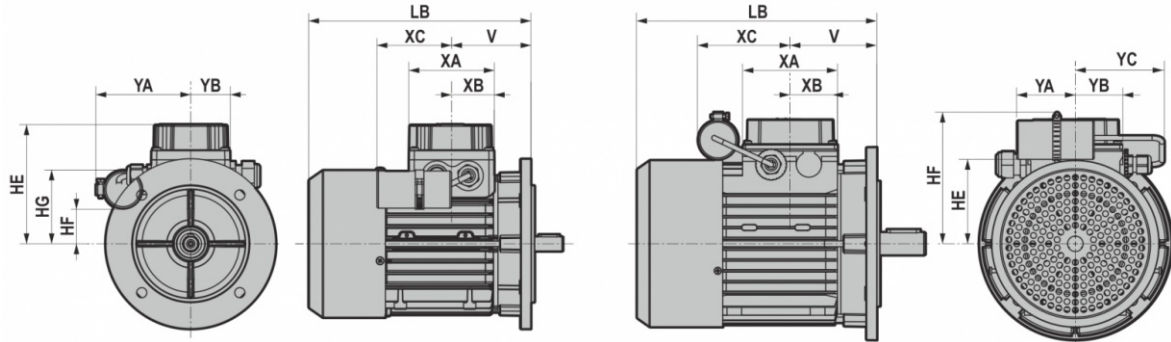
B14	M	N	P	LA	S	T
56	65	50	80	9	M5	3
63	75	60	90	10	M5	2,5
71	85	70	105	10,5	M6	2,5
80	100	80	120	10,5	M6	3
90	115	95	140	11,5	M8	3
100	130	110	160	15	M8	3,5
112	130	110	160	11,5	M8	3,5
132	165	130	200	20,5	M10	3,5

B3	A	AA	AB	KK	B	BB	BA	K	C	H	HA
56	91	25,5	111	10	71	90	18	7	37	56	10
63	100	44	120	12	80	108	25	7,5	40	63	9
71	112	44	132	12	90	108	25	7,5	44	71	9
80	125	56,5	156	19,5	100	122	26	9,5	49	80	11
90S	140	56	172	12	100	136	33	8,5	54	90	11
90L	140	57	172	12	125	155	33	8,5	54	90	13
100	160	64	192	20	140	170	37	8,5	62	100	14
112	190	76	221	21	140	175	40	8,5	69	112	14
132S	216	84	260	22	140	175	40	10,5	87	132	16
132M	216	85	260	22	180	210	40	10,5	87	132	16

2. S series

63 - 71 - 80

90 - 100

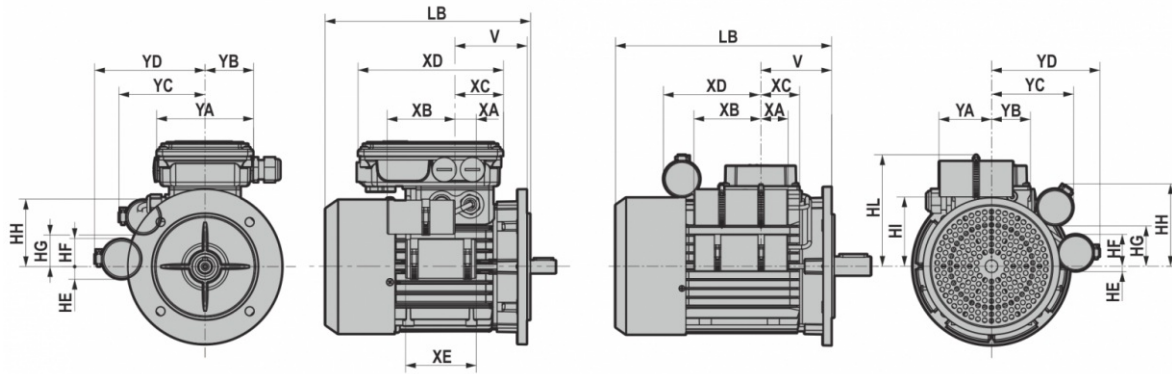


	V	YA	YB	YC	HE	HF	HG	XA	XB	XC
63A4	69	86	37	-	104	30,5	62,5	80	40	57
63B4	69	89	37	-	104	28	65	80	40	57
71A4	74,5	96	37	-	112	32,5	69,5	80	40	57
71B4	74,5	96	37	-	112	32,5	69,5	80	40	71,5
80A4	78	105	37	-	122	39	81	80	40	71,5
80B4	78	113,5	37	-	122	36,5	83,5	80	40	75
90S4	89,5	56	49	90	85,5	140,5	-	98	49	98
90L4	89,5	68	49	90	85,5	140,5	-	98	49	123
100LA4	97,5	81	49	90	94,5	150	-	98	49	138

3. HSE series

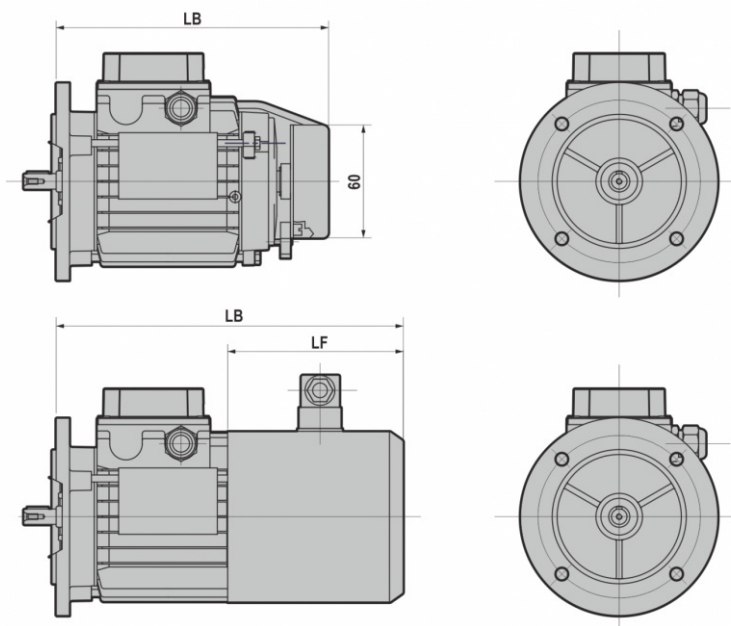
63 - 71 - 80

90 - 100



	V	YA	YB	YC	YD	HE	HF	HG	HH	HI	HL	XA	XB	XC	XD	XE
63A4	69	110	54	86	98	16	21	30,5	62,5	-	-	25	57	54	153	71,5
63B4	69	110	54	89	98	16	21	28	65	-	-	25	57	54	153	71,5
71A4	74,5	110	54	89	114	13	29	32,5	69,5	-	-	20,5	57	54	153	71,5
71B4	74,5	110	54	89	114	15,5	31,5	32,5	69,5	-	-	20,5	71,5	54	153	75
80A4	78	110	54	94	128	17	30	39	81	-	-	26,5	71,5	54	153	95
80B4	78	110	54	94	128	17	30	36,5	83,5	-	-	46	75	54	153	120
90S4	76,5	56	49	-	148	12	45	-	-	86,5	140,5	38	81	36	111	-
90L4	89	68	49	104	138	7	40	51	105	86,5	140,5	34	86	48,5	123,5	-
100LA4	100,5	81	49	103	156,5	9,5	47,5	57,5	112	95,5	150	34	86	52	135	-

4. Incremental standard encoder



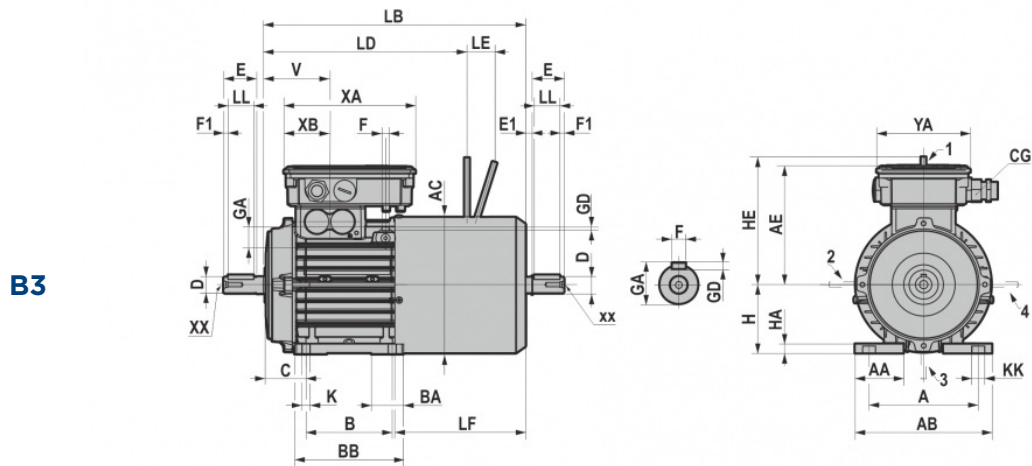
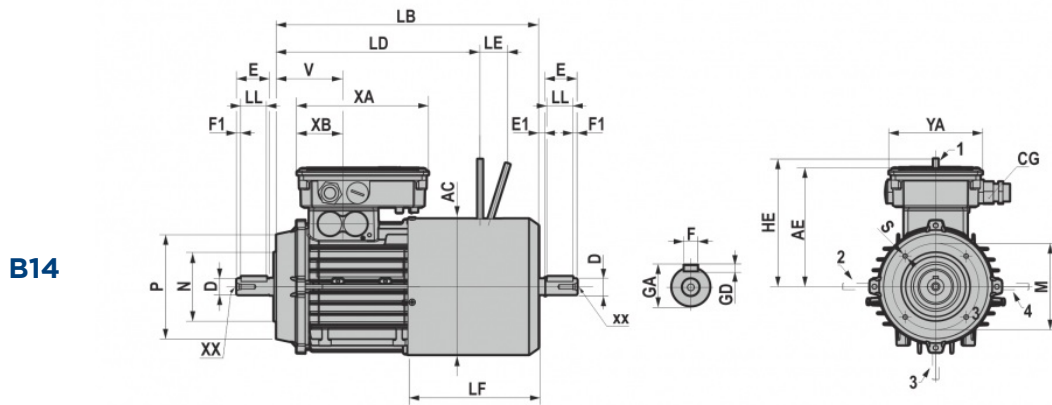
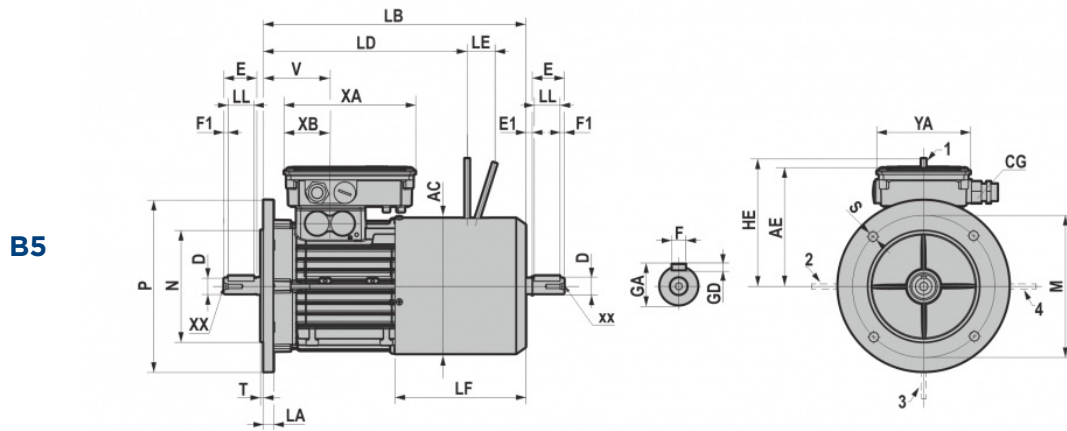
		LB	LF
63	IC410	210	/
	IC411	247	124,5
	IC416	280	158
71	IC410	226	/
	IC411	254	118
	IC416	296	160
80	IC410	245 *268	/
	IC411	305 *328	152 *173,5
	IC416	338 *361	185 *208
90S	IC410	255 *288	/
	IC411	325 *358	166 *213
	IC416	341 *374	182 *215
90L	IC410	280 *313	/
	IC411	350 *383	166 *213
	IC416	366 *399	182 *215

		LB	LF
100	IC410	308	/
	IC411	389,5	183
	IC416	437	230
112	IC410	321 *346	/
	IC411	420 *445	201 *227
	IC416	450 *475	230 *255
132S	IC410	360	/
	IC411	463	212
	IC416	490	240
132M	IC410	398	/
	IC411	501	212
	IC416	528	240

* TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

IC410 = NON-VENTILATED
 IC411 = SELF-VENTILATED
 IC416 = FORCED VENTILATED

5. Brake motors

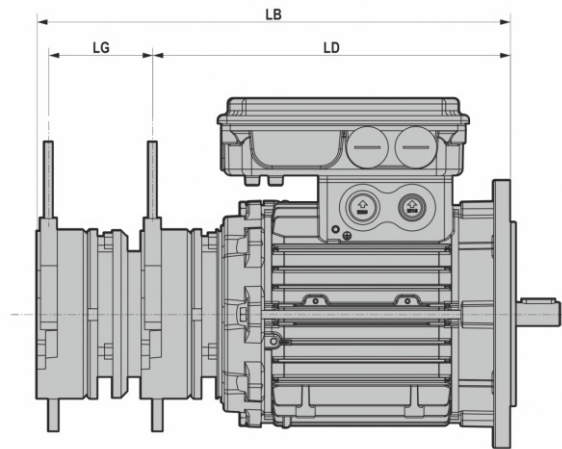


	Brake Power supply	Cable gland			XA	XB	YA
		Pg	Ø hollow min	Ø hollow max			
63	AC / DC	M16x1.5	5	10	153	54	109
71							
80							
90	AC / DC	M20x1.5	6	12	206	66,5	132
100							
112							
132	AC / DC	M20x1.5	6	12	206	66,5	132
160							

		LD	LE	HE	LB	LF	AE	V
63	MS	192	21	116	249	124,5	118	69
	FM	192	17,5	96	249	124,5	118	69
	ML	-	-	-	203	72	118	69
71	MS	211,5	23	124	276	137	127	74,5
	FM	214	19	101,5	276	137	127	74,5
	ML	182	18	103	225	80	127	74,5
80	MS	238 *259	23	134	304 *326	152 *174	136	78
	FM	237 *258	22,5	129	304 *326	152 *174	136	78
	ML	203	22	128	248	84	136	78
90S	MS	252,5 *297	27,5	160	324,5 *372	166 *213	165	89,5
	FM	255 *300	28	159,5	324,5 *372	166 *213	165	89,5
	ML	212,5	22	128	261	90	165	89,5
90L	MS	279 *324	28	160	349,5 *396	166 *212	165	89,5
	FM	279 *324	27,5	159,5	349,5 *396	166 *212	165	89,5
	ML	237,5	22	128	285	90	165	89,5
100	MS	307	28	160	389,5	183	174	97,5
	FM	307	27,5	159,5	389,5	183	174	97,5
	ML	267	26	148	325	105	174	97,5
112	MS	330 *358	34,5	198	419 *446	201 *227	189	100
	FM	326 *353	35	199	419 *446	201 *227	189	100
	ML	281	26	148	325	95	189	100
132S	MS	364	34,5	200	461,5	212	225	113
	FM	359	35,5	204	461,5	212	225	113
	ML	317,5	30	172	395	133	225	113
132M	MS	404,5	37,5	217	513,5	212	225	113
	FM	403,5	39	226	513,5	212	225	113
	ML	355,5	30	172	434	133	225	113

* TBP80B4, TBP90S4, TBP90L4, TBP90S6, TBP112M4, TBP112M6 (for versions TBP ML brake is not expected).

6. Double brake

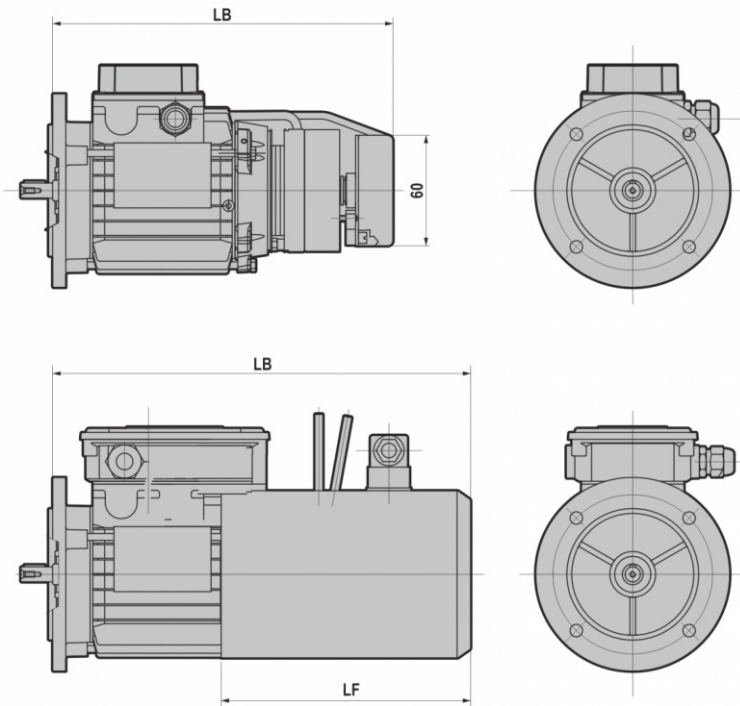


	LB	LD	LG
63	255,5	193,5	58
71	283	214	63
80	317,5 *341	235 *258,5	73
090S	343 *390	252 *299	81
090L	368 *415	277 *324	81
100	396	307	81
112	428 *456	325 *353	89
132S	463	359	89
132M	516	403,5	96

*TBP80B4, TBP90S4, TBP90L4, TBP90S6, TBP112M4, TBP112M6

For other dimensions, refer to the dimensional charts for the brake motors.

7. Brake motors with incremental encoder

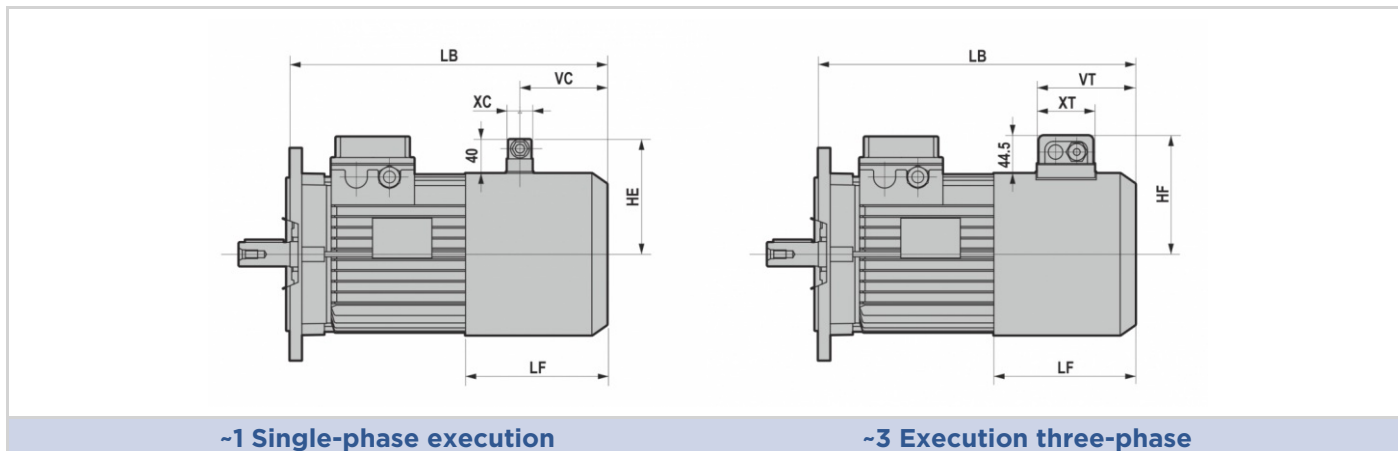


	LF	LB (IC411 - IC416)	LB (IC410 - IC418)
63	198	320	254
71	199	336	283
80	235 *257	388 *410	311 *334
90S	242 *293	401 *448,5	334 *381
90L	242 *293	426 *472,5	359 *406
100	293	505,5	380
112	288 *340	507 *559	410 *438,5
132S	294	545	448
132L	294	583	486

*TBP80B4, TBP90S4, TBP90L4, TBP90S6, TBP112M4, TBP112M6

Note: Version with incremental encoder available only with MS and FM brakes.

8. Forced ventilation



-1 Single-phase execution

-3 Execution three-phase

1 = standard (T-D-S series) 2 = brake motor (TB-DB-SB series)

		LB	LF
63	1	239	117
	2	311,5	190
71	1	254,5	118
	2	331	195
80	1	295,5 *318,5	143 *166
	2	382 *409	230 *257
90S	1	308 *341	149 *182
	2	398,5 *448	240 *293
90L	1	333 *366	149 *182
	2	423,5 *472	240 *293
100	1	407	200
	2	500	293
112	1	419 *448	201 *230
	2	532 *559	313 *340
132S	1	461	212
	2	568,5	319
132M	1	499	212
	2	620,5	319

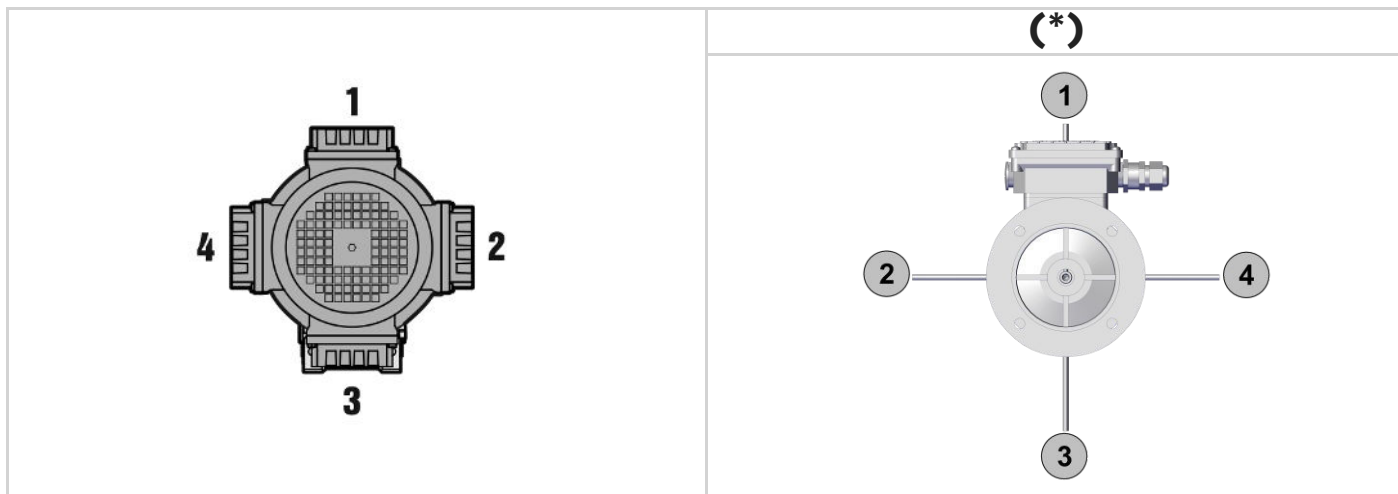
		HE	VC	XC	HF	VT	XT
-1	63	100,5	59	30	-	-	-
	71	109,5	64	30	-	-	-
	80	119	78	30	-	-	-
	90	126,5	87	30	-	-	-
	100	135,5	103	30	-	-	-
	112	145	95	30	-	-	-
	132	169	109	68	-	-	-
-3	100	-	-	-	140	158	75
	112	-	-	-	150	158	75
	132	-	-	-	159	158	75

*TP/TBP80B4, TP/TBP90S4, TP/TBP90L4, TP/TBP90S6, TP/TBP112M4, TP/TBP112M6

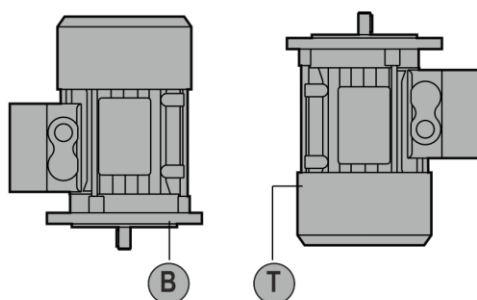
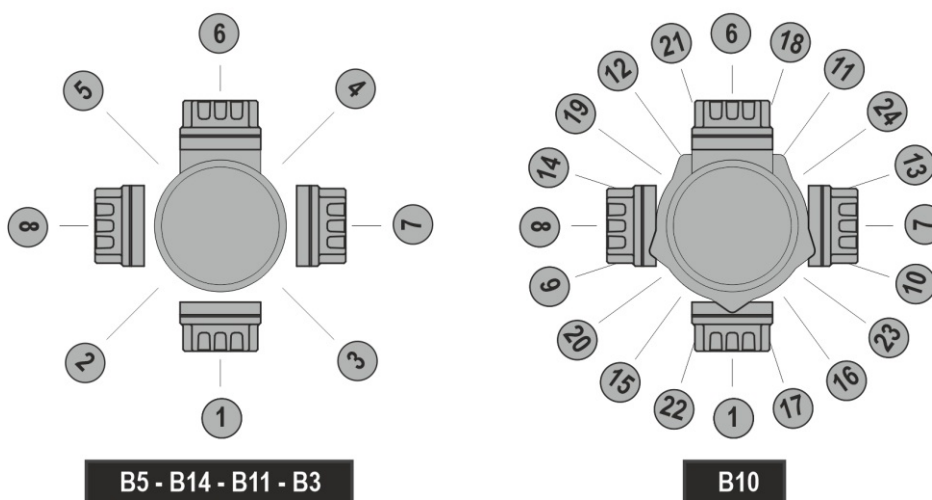
9. Position of terminal box-Release lever-Forced ventilation connector

Unless otherwise specified when ordering, the motor is supplied with terminal box/release lever/forced ventilation connector in position 1.

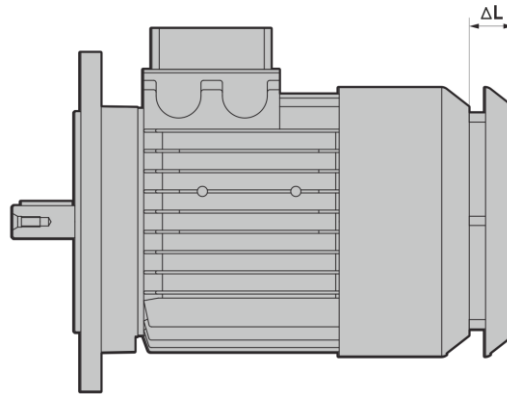
(*) Position of the release lever with respect to position of terminal box.



10. Condensation drain holes position



11. Version with rain cover



	ΔL (T)	ΔL (P)
63	11	20
71	15	20
80	11	22
90	14	23
100	19	25
112	19	30
132	19	35

(T) = Textile roof

(P) = Rain guard roof