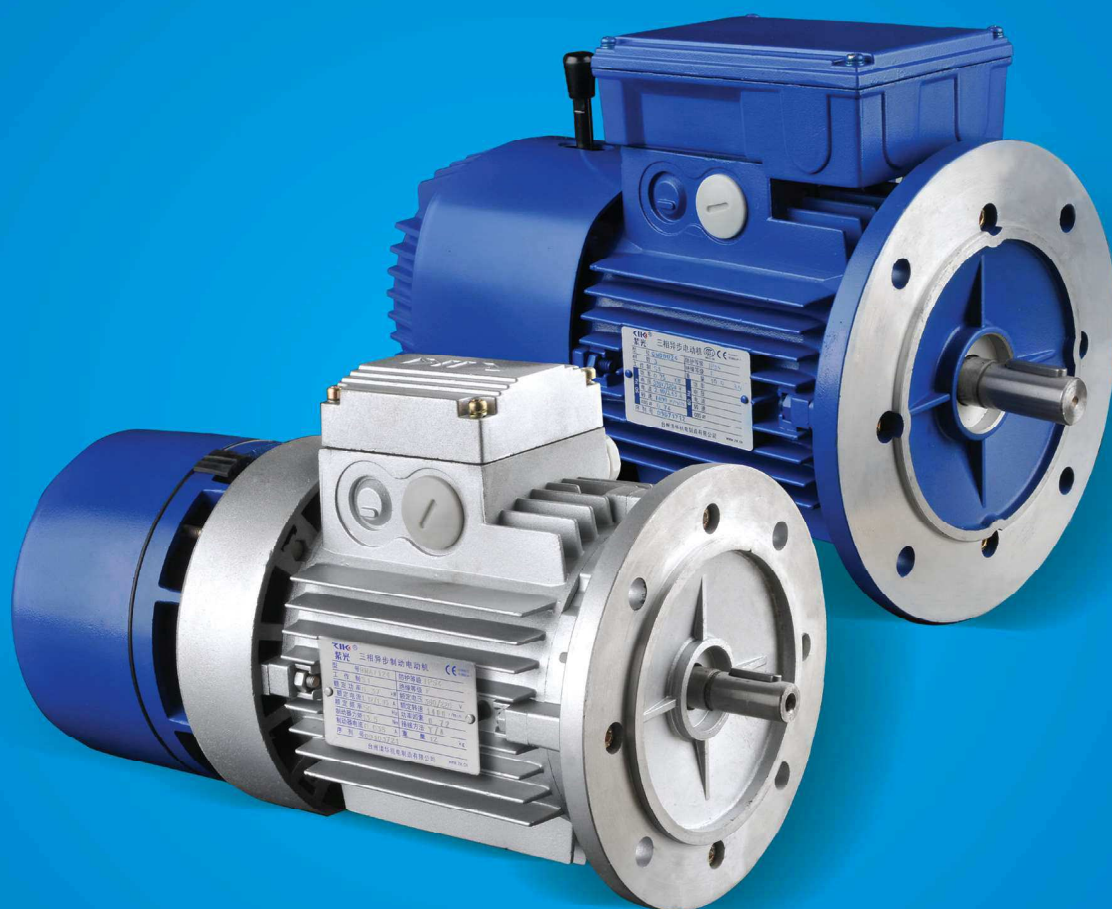
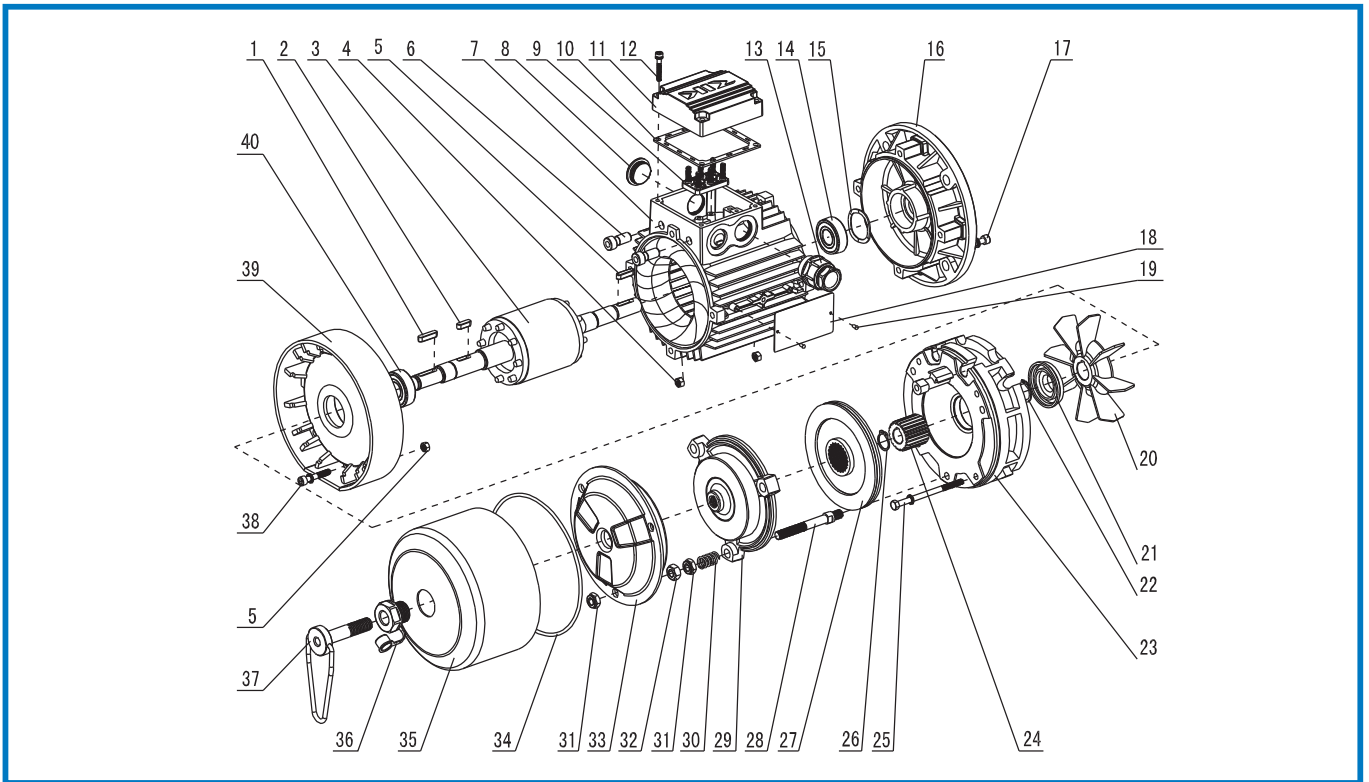


BM BRAKE MOTOR

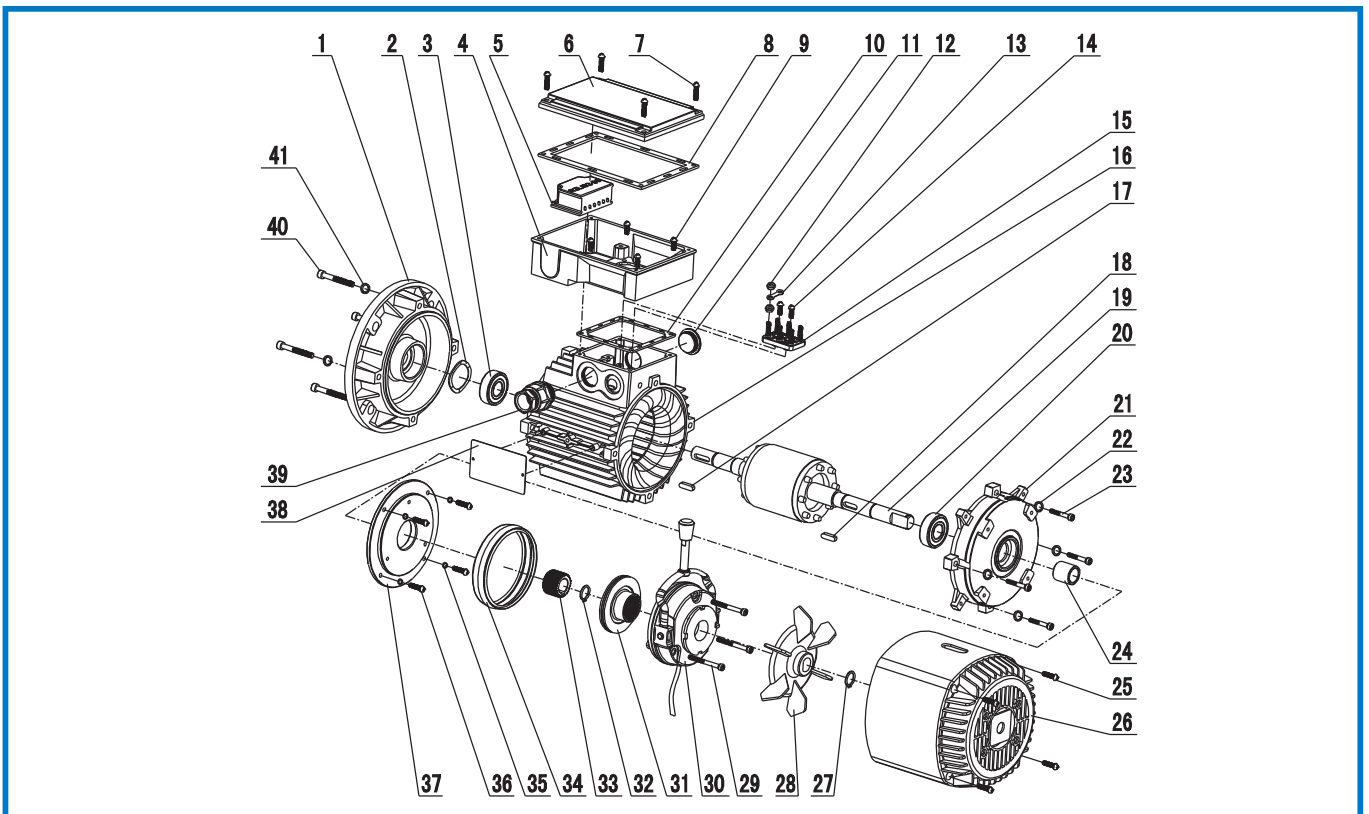


VERSIONS

BMA PARTS DIAGRAM



BMD PARTS DIAGRAM



VERSIONS

PRODUCT CODE

SERIES CODE	BM	BRAKE MOTORS
CODE OF BRAKE TYPE	A	AC BRAKE
	D	DC BRAKE
FRAME SIZE	63	FRAME SIZE 63
	71	FRAME SIZE 71
	80	FRAME SIZE 80
	90	FRAME SIZE 90
	100	FRAME SIZE 100
	112	FRAME SIZE 112
	132	FRAME SIZE 132
SPEC. OF IRON CORE	1	NO.1 LENGTH SPEC
	2	NO.2 LENGTH SPEC
	3	NO.3 LENGTH SPEC
POLES OF ELECTRIC MOTOR	2	2 POLES
	4	4 POLES
	6	6 POLES

PRODUCT NOTES

Mark the brake motors as following principle:

**Series Code+ Code of Brake type + Frame Size+ Spec. of Iron Core + Poles of electric motors
+Mounting position**

For example: BMA7124 B5
BMD90L-2 B3

DESIGN FEATURES

GENERAL INTRODUCTION

STRUCTURE FEATURES

- 7 frame sizes cover the power range from 0.12KW~7.5KW.
- Aluminum alloy whole casting with heat sink design for cooling provides great surface area and high thermal capacity so that the brake motor can work in the terrible operating environment.
- IP54 protection class for the outside shell, and the features of waterproof and dustproof have the motor run very well in the terrible operation environment.
- The standard of B and F insulation classes can have the brake motor run for 24 hours continuously.
- The precise dynamic balance compensation and low noise bearings have the brake motor run more smoothly and quietly.
- The brake is made from the wearable friction material without asbestos and it can produce the dry friction brake torque.
- Assembled with AC brake and no need of changeover device for DC. The connection is safe and reliable and the braking is much strong and fast.
- Fast response of braking and high brake frequency.
- When the preset sealing device of the out shaft is connected with the variator and the reducer, the sealing will be more safe.
- Assembled with manual release handle for all models to have it installed and adjusted easily.
- Steel teeth keys are used to connect the brake plate and the rotating shaft and it can bear the strong impact during the braking process.
- There is the superior interchange ability between the IEC size standard and the IM mounted form.

MAIN MATERIAL

- Outside shell: Aluminum alloy for the shell of motor and casting iron for brake.
- Shafts: 40Cr steel heat refined.
- Electromagnetic wire: POLY-QZ-2; POLYMIDE-QY-2
- Si Steel plate: DW470-600
- Bearing: C&U;NSK;NTN;SKF

DESIGN FEATURES

PAINTING

- RAL9006 silver
- RAL5010 blue

UNIFICATED STANDARDS

All brake motors perform the following definitude and uniform produce standard:

- Motor dimension and power rate: GB4772.1; IEC60072
- Electric criterion: GB755; IEC60034-1
- Structure and mounting position: GB997; IEC60034-7
- Outside shell protection class: GB4942.1; IEC60034-5
- Cooling mode: GB/T1993; IEC60034-6

PERFORMANCE

BMA PERFORMANCE PARAMETER

TYPE	POWER (KW)	n_N (r/min)	I_N (A)	$\cos\Phi$	M_N (N.m)	M_{st}/M_N	M_{max}/M_N	$J \times 10^{-4}$ (Kg.m ²)	A.C. T_{MAX} (N.m)	Z_0
2P $n_0=3000r/min$										
BMA6312	0.18	2800	0.51	0.80	0.614	2.2	2.2	2.4	8	6100
BMA6322	0.25	2800	0.67	0.81	0.853	2.2	2.2	3.3	8	6100
BMA6332	0.37	2800	1.05	0.78	1.26	2.2	2.2	4.4	8	6100
BMA7112	0.37	2800	0.98	0.81	1.26	2.2	2.2	5.37	13.5	5700
BMA7122	0.55	2800	1.33	0.82	1.88	2.2	2.3	6.05	13.5	5700
BMA7132	0.75	2800	1.82	0.83	2.56	2.2	2.3	6.35	13.5	5700
BMA8012	0.75	2800	1.78	0.83	2.56	2.2	2.3	12.8	17.5	5700
BMA8022	1.1	2840	2.49	0.84	3.75	2.2	2.3	14.2	17.5	5700
BMA90S2	1.5	2840	3.34	0.84	5.04	2.2	2.3	20.9	37	4280
BMA90L2	2.2	2840	4.69	0.85	7.40	2.2	2.3	24.15	37	4280
BMA100L-2	3	2860	6.14	0.87	10.0	2.2	2.3	43.88	50	2650
4P $n_0=1500r/min$										
BMA6314	0.12	1400	0.43	0.72	0.819	2.1	2.2	3.6	8	15000
BMA6324	0.18	1400	0.61	0.73	1.23	2.1	2.2	4.9	8	15000
BMA6334	0.25	1400	0.86	0.67	1.71	2.1	2.2	5.4	8	15000
BMA7114	0.25	1400	0.76	0.74	1.71	2.1	2.2	7.95	13.5	19000
BMA7124	0.37	1400	1.07	0.75	2.53	2.1	2.2	8.95	13.5	18050
BMA7134	0.55	1400	1.66	0.7	3.75	2.4	2.3	8.95	13.5	18050
BMA8014	0.55	1400	1.54	0.75	3.75	2.4	2.3	16.48	17.5	9500
BMA8024	0.75	1400	1.99	0.76	5.12	2.3	2.3	18.91	17.5	9500
BMA8034	1.1	1400	2.78	0.77	7.50	2.3	2.3	19.8	17.5	9500
BMA90S4	1.1	1420	2.80	0.77	7.40	2.3	2.3	28.77	37	14250
BMA90L4	1.5	1420	3.65	0.79	10.1	2.3	2.3	33.59	37	11400
BMA100L1-4	2.2	1420	5.05	0.81	14.8	2.3	2.3	56.33	50	7600
BMA100L2-4	3	1420	6.64	0.82	20.2	2.3	2.3	66.18	50	6650
6P $n_0=1000r/min$										
BMA7116	0.18	910	0.71	0.66	1.88	1.9	2.0	11.09	13.5	26000
BMA7126	0.25	910	0.92	0.68	2.62	1.9	2.0	12.75	13.5	26000
BMA8016	0.37	910	1.27	0.70	3.88	1.9	2.0	25.84	17.5	17000
BMA8026	0.55	910	1.74	0.72	5.77	1.9	2.1	29.95	17.5	17000
BMA90S6	0.75	920	2.23	0.72	7.78	2.0	2.1	39.88	37	17000
BMA90L6	1.1	920	3.10	0.73	11.4	2.0	2.1	50.88	37	14000
BMA100L-6	1.5	940	3.89	0.75	15.2	2.0	2.1	96.33	50	10000

Note: above parameters are provided under the condition of rated voltage and frequency therephase, Y connection: 380V/50Hz .

PERFORMANCE

BMD PERFORMANCE PARAMETER

TYPE	POWER (KW)	n_N (r/min)	I_N (A)	$\cos\Phi$	M_N (N.m)	M_{st}/M_N	M_{max}/M_N	$J \times 10^{-4}$ (Kg.m ²)	D.C.T. _{MAX} (N.m)	Z_0
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2P $n_0=3000r/min$

BMD6312	0.18	2800	0.51	0.80	0.614	2.2	2.2	2.1	4	6100
BMD6322	0.25	2800	0.67	0.81	0.853	2.2	2.2	2.4	4	6100
BMD6332	0.37	2800	1.05	0.78	1.26	2.2	2.2	2.9	4	6100
BMD7112	0.37	2800	0.98	0.81	1.26	2.2	2.2	5.37	4	5700
BMD7122	0.55	2800	1.33	0.82	1.88	2.2	2.3	6.05	4	5700
BMD7132	0.75	2800	1.82	0.83	2.56	2.2	2.3	6.35	4	5700
BMD8012	0.75	2800	1.78	0.83	2.56	2.2	2.3	12.8	8	5700
BMD8022	1.1	2840	2.49	0.84	3.75	2.2	2.3	14.2	8	5700
BMD90S2	1.5	2840	3.34	0.84	5.04	2.2	2.3	20.9	16	4280
BMD90L2	2.2	2840	4.69	0.85	7.40	2.2	2.3	24.15	16	4280
BMD100L-2	3	2860	6.14	0.87	10.0	2.2	2.3	43.88	32	2650
BMD112M-2	4	2880	7.83	0.88	13.3	2.2	2.3	68.8	60	750
BMD132S-2	5.5	2900	10.7	0.88	18.1	2.2	2.3	162	80	600
BMD132M-2	7.5	2900	14.2	0.88	24.7	2.2	2.3	210	80	600

4P $n_0=1500r/min$

BMD6314	0.12	1400	0.43	0.72	0.819	2.1	2.2	3.6	4	19000
BMD6324	0.18	1400	0.61	0.73	1.23	2.1	2.2	4.9	4	19000
BMD6334	0.25	1400	0.86	0.67	1.71	2.1	2.2	5.4	4	18000
BMD7114	0.25	1400	0.76	0.74	1.71	2.1	2.2	7.95	4	19000
BMD7124	0.37	1400	1.07	0.75	2.53	2.1	2.2	8.95	4	18050
BMD7134	0.55	1400	1.66	0.7	3.75	2.4	2.3	9.43	4	16000
BMD8014	0.55	1400	1.54	0.75	3.75	2.4	2.3	16.48	8	10500
BMD8024	0.75	1400	1.99	0.76	5.12	2.3	2.3	18.91	8	9500
BMD8034	1.1	1400	2.78	0.77	7.50	2.3	2.3	19.8	8	8500
BMD90S4	1.1	1420	2.80	0.77	7.40	2.3	2.3	28.77	16	14250
BMD90L4	1.5	1420	3.65	0.79	10.1	2.3	2.3	33.59	16	11400
BMD100L1-4	2.2	1420	5.05	0.81	14.8	2.3	2.3	56.33	32	7600
BMD100L2-4	3	1420	6.64	0.82	20.2	2.3	2.3	66.18	32	6650
BMD112M-4	4	1440	8.62	0.82	26.5	2.3	2.3	126.3	60	4000
BMD132S-4	5.5	1450	11.5	0.83	36.2	2.3	2.3	320	80	1200
BMD132M-4	7.5	1450	15.3	0.84	49.4	2.3	2.3	380	80	950

PERFORMANCE

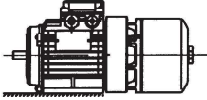
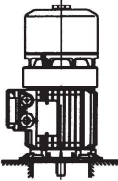
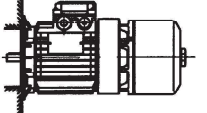
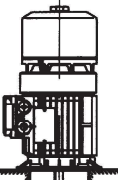
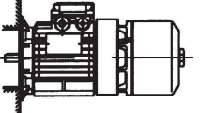
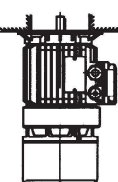

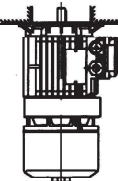

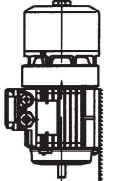

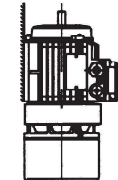
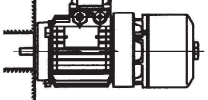
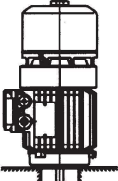
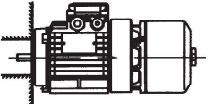
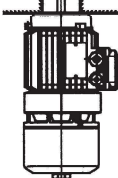
BMD PERFORMANCE PARAMETER

TYPE	POWER (KW)	n_N (r/min)	I_N (A)	$\cos\Phi$	M_N (N.m)	M_{st}/M_N	M_{max}/M_N	$J \times 10^{-4}$ (Kg.m ²)	D.C.T _{MAX} (N.m)	Z_0
6P $n_0=1000r/min$										
BMD7116	0.18	910	0.71	0.66	1.88	1.9	2.0	11.09	4	26000
BMD7126	0.25	910	0.92	0.68	2.62	1.9	2.0	12.75	4	26000
BMD8016	0.37	910	1.27	0.70	3.88	1.9	2.0	25.84	8	17000
BMD8026	0.55	910	1.74	0.72	5.77	1.9	2.1	29.95	8	17000
BMD90S6	0.75	920	2.23	0.72	7.78	2.0	2.1	39.88	16	17000
BMD90L6	1.1	920	3.10	0.73	11.4	2.0	2.1	50.88	16	14000
BMD100L-6	1.5	940	3.89	0.75	15.2	2.0	2.1	96.33	32	10000
BMD112M-6	2.2	940	5.46	0.76	22.3	2.0	2.1	168	60	6500
BMD132S-6	3	960	7.10	0.76	29.8	2.1	2.1	320	80	1800
BMD132M1-6	4	960	9.30	0.76	39.8	2.1	2.1	420	80	1500
BMD132M2-6	5.5	960	12.3	0.77	54.7	2.1	2.1	510	80	1200

Note: above parameters are provided under the condition of rated voltage and frequency therephase, Y connection: 380V/50Hz.

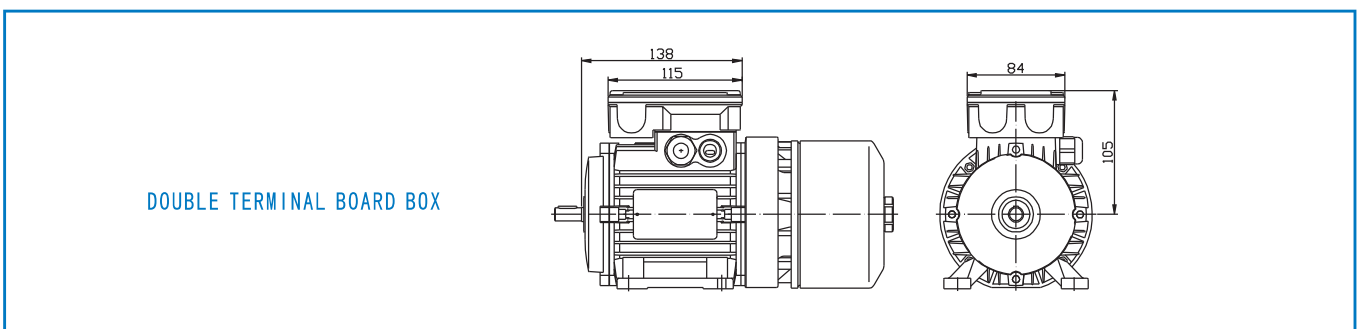
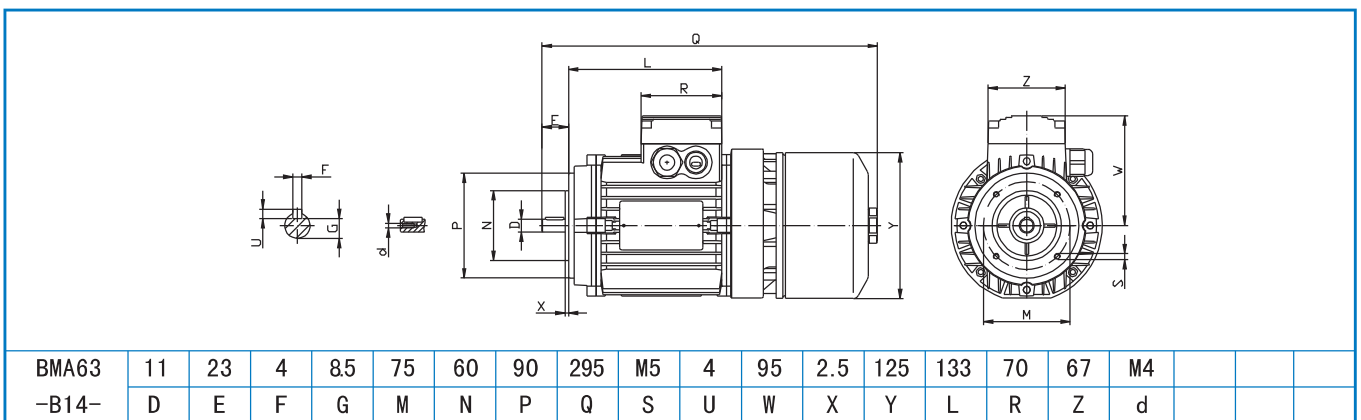
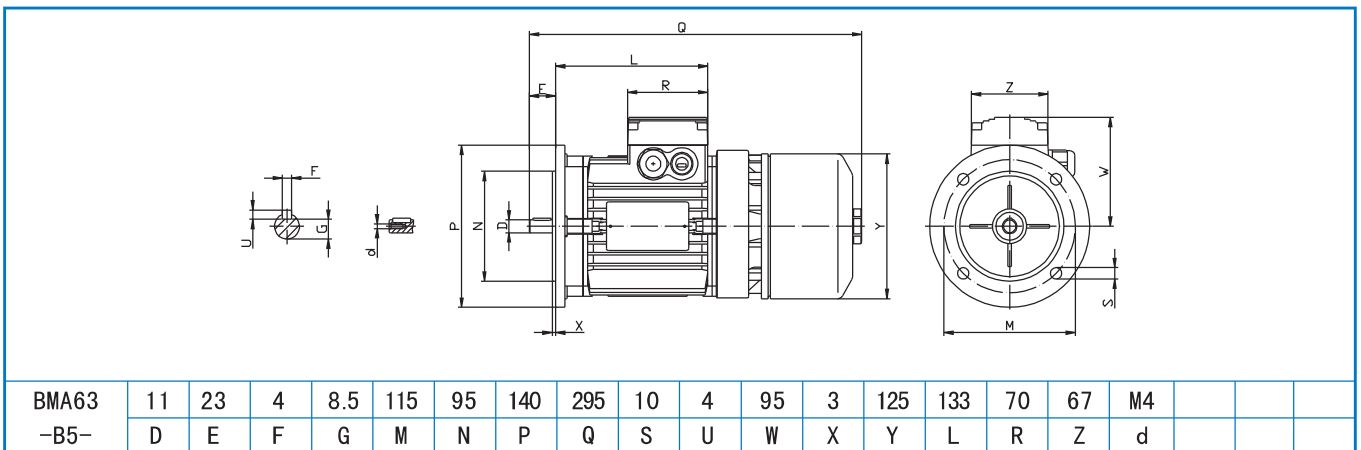
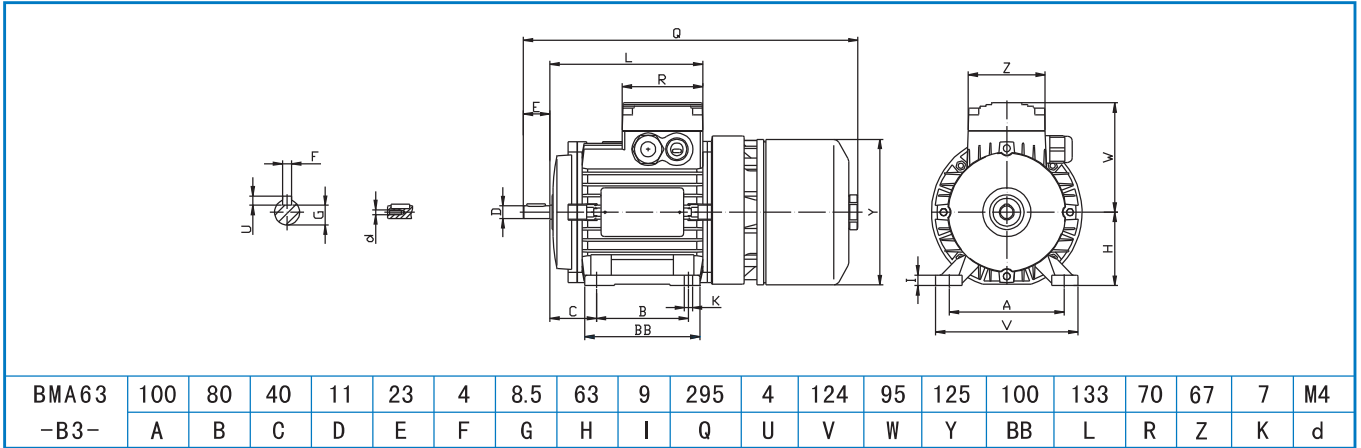
MOUNTING POSITIONS

/The mounting positions of brake motors are in accordance with GB997 and IEC60037-7 standard

 B3 IM 1001	 V1 IM 3011
 B5 IM 3001	 V1/V5 IM 2011
 B3/B5 IM 2001	 V3 IM 3031
 B6 IM 1051	 V3/V6 IM 2031
 B7 IM 1061	 V5 IM 1011
 B8 IM 1071	 V6 IM 1031
 B14 IM 3601	 V18 IM 3611
 B3/B14 IM 2101	 V19 IM 3631

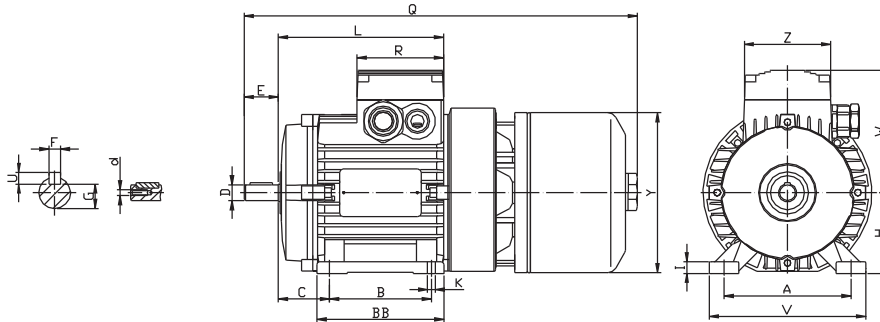
DIMENSIONS

BMA63 DIMENSIONS

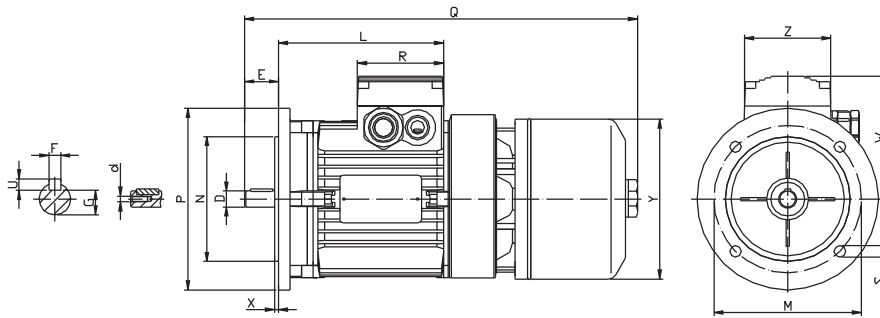


DIMENSIONS

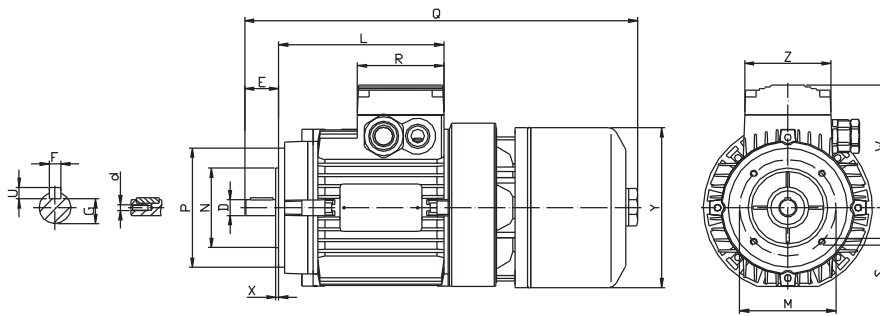
BMA71 DIMENSIONS



BMA71	112	90	45	14	30	5	11	71	10	348	5	138	108	141	112	146	76	76	7	M5
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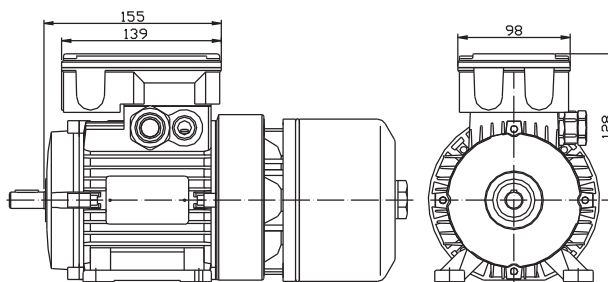


BMA71	14	30	5	11	130	110	160	348	10	5	108	3.5	141	146	76	76	M5			
-B5-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z	d			



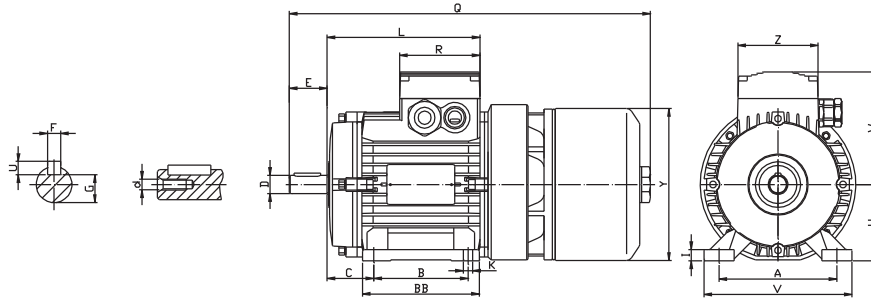
BMA71	14	30	5	11	85	70	105	348	M6	5	108	2.5	141	146	76	76	M5			
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DOUBLE TERMINAL BOARD BOX

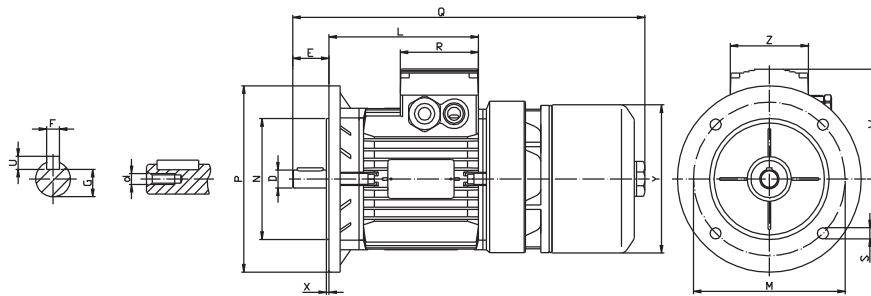


DIMENSIONS

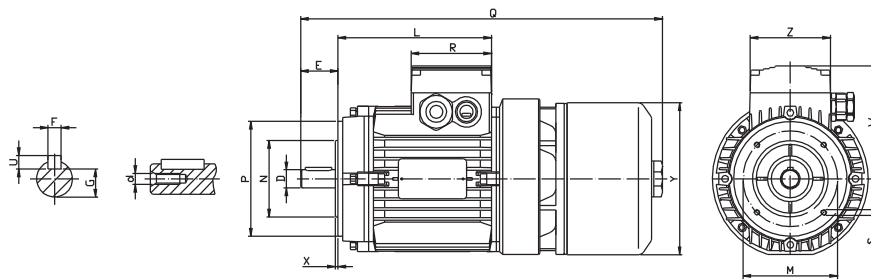
BMA80 DIMENSIONS



BMA80	125	100	50	19	40	6	15.5	80	12	385	6	157	118	155	124	163	85	85	10	M6
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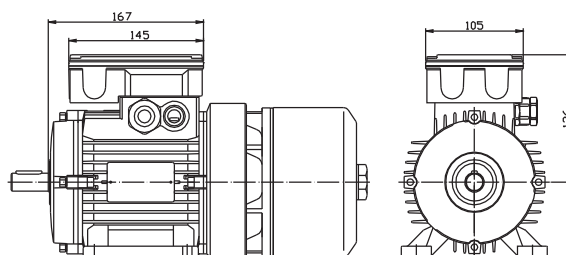


BMA80	19	40	6	15.5	165	130	200	385	12	6	118	3.5	155	163	85	85	M6			
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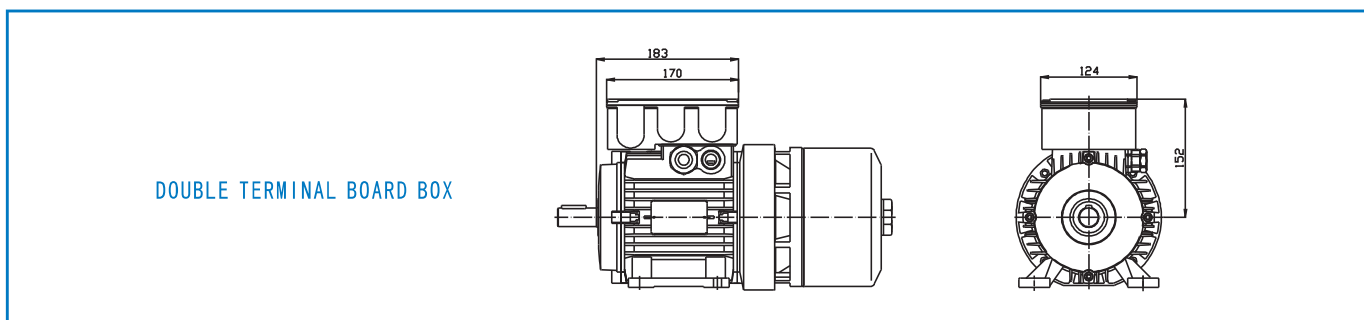
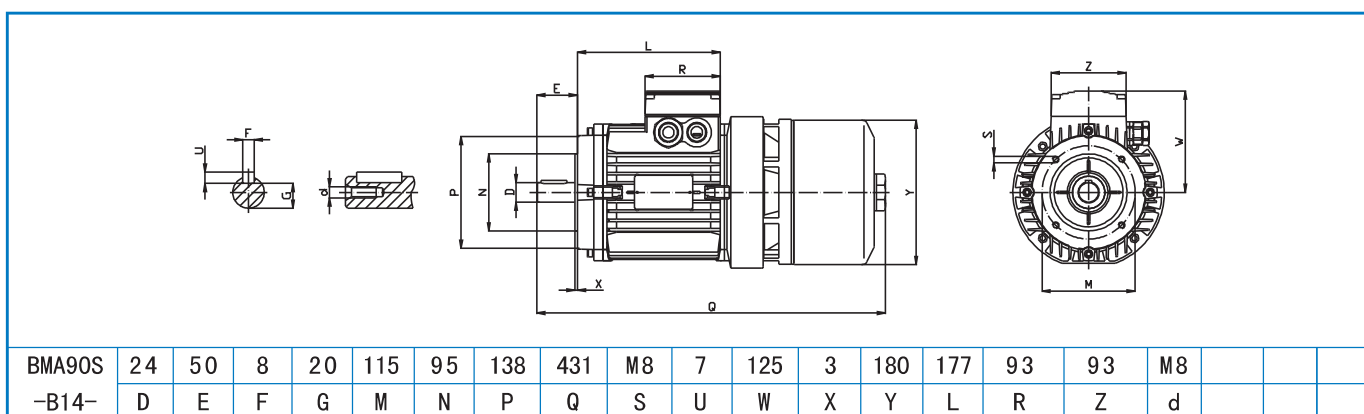
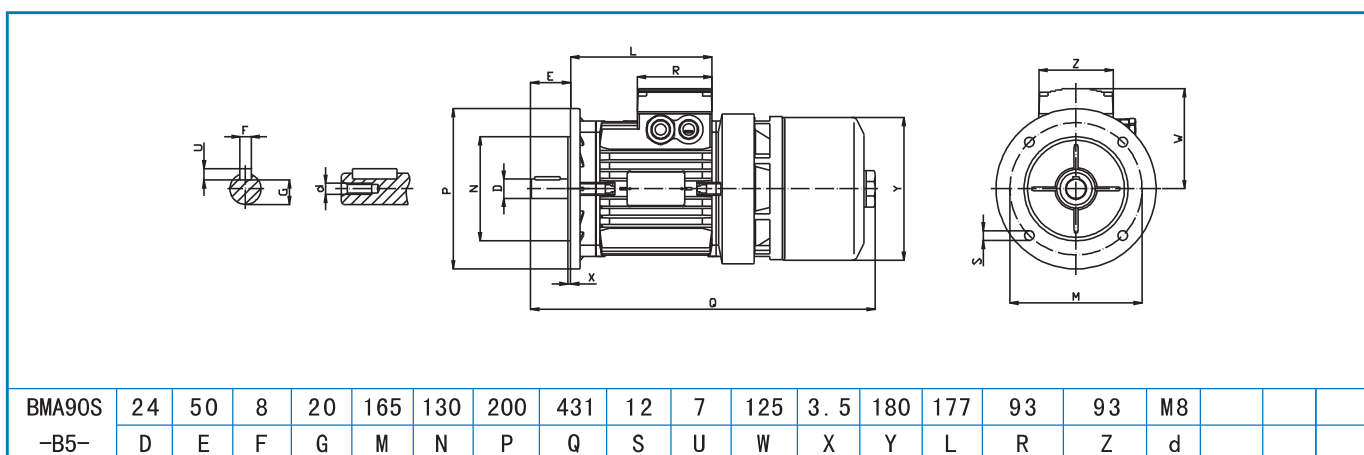
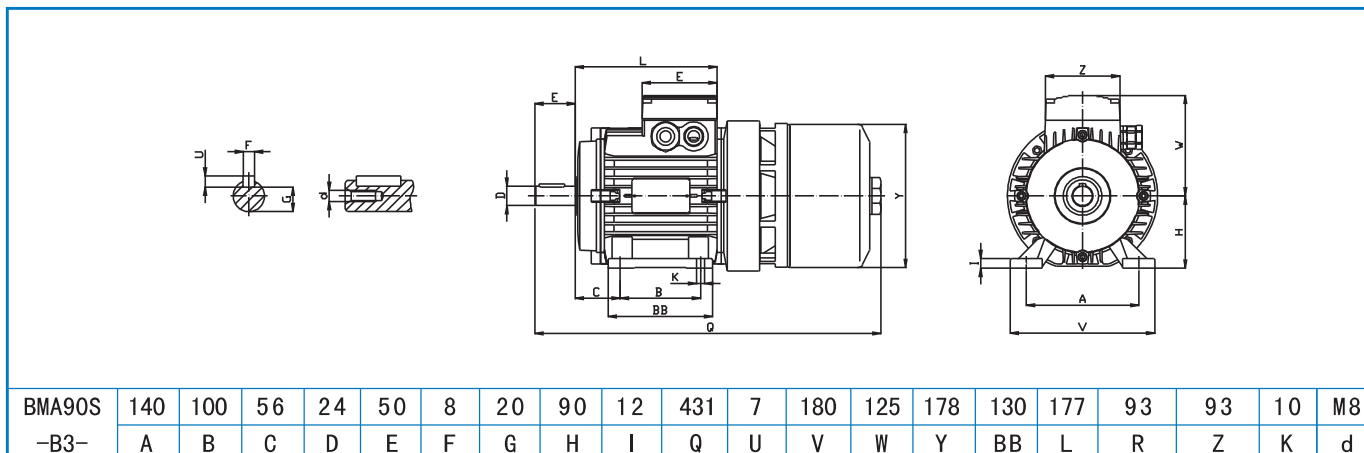
BMA80	19	40	6	15.5	100	80	120	385	M6	6	118	3	155	163	85	85	M6			
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DOUBLE TERMINAL BOARD BOX



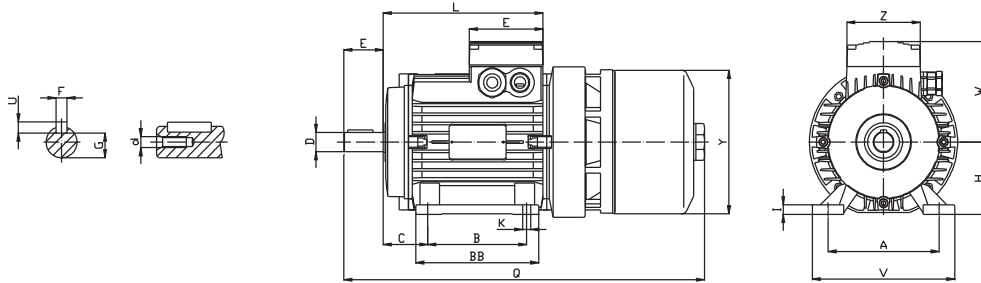
DIMENSIONS

BMA90S DIMENSIONS

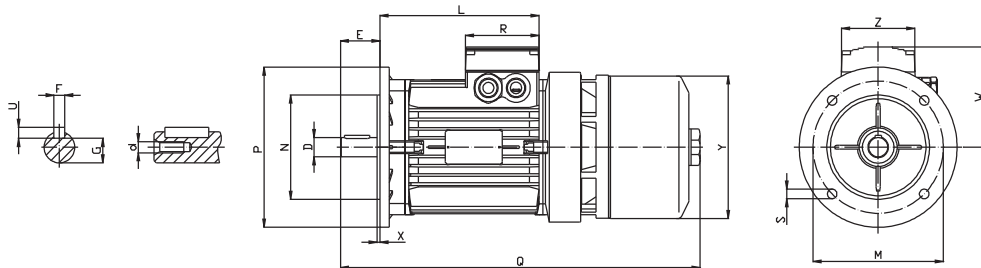


DIMENSIONS

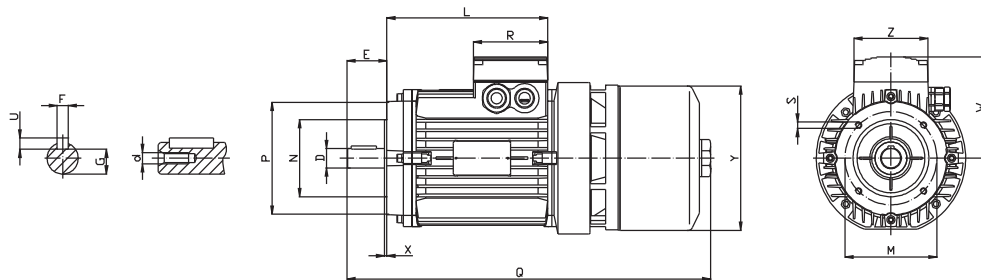
BMA90L DIMENSIONS



BMA90L	140	125	56	24	50	8	20	90	12	456	7	180	125	178	155	202	93	93	10	M8
-B3-	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K	d

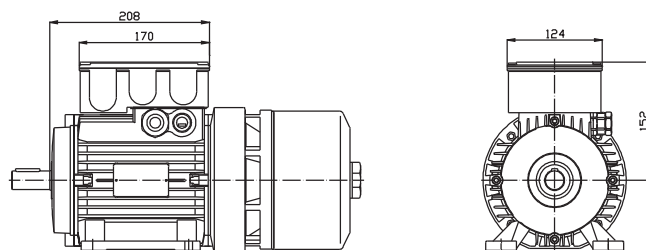


BMA90L	24	50	8	20	165	130	200	456	12	7	125	3.5	180	202	93	93	M8			
-B5-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z	d			



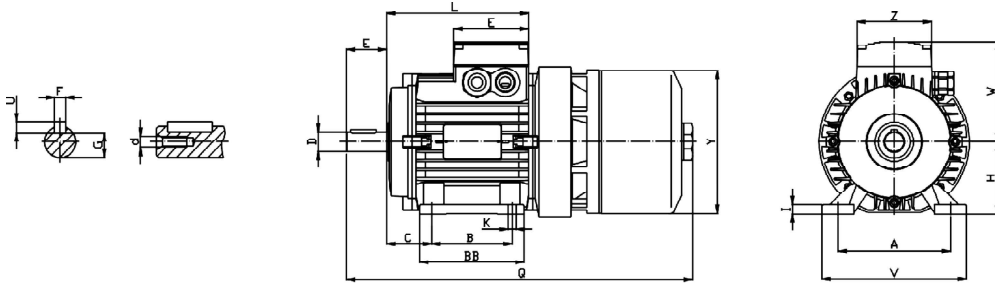
BMA90L	24	50	8	20	115	95	138	456	M8	7	125	3	180	202	93	93	M8			
-B14-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z	d			

DOUBLE TERMINAL BOARD BOX

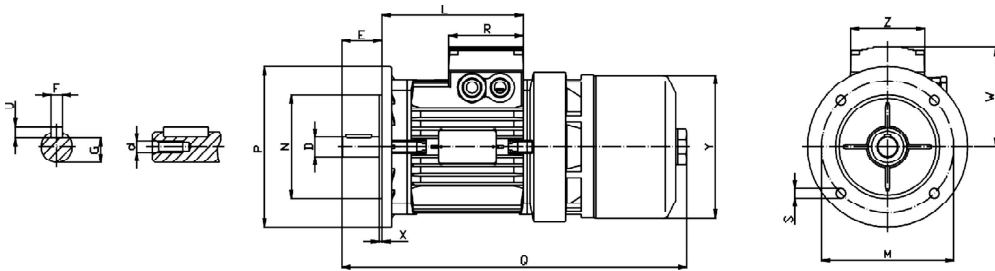


DIMENSIONS

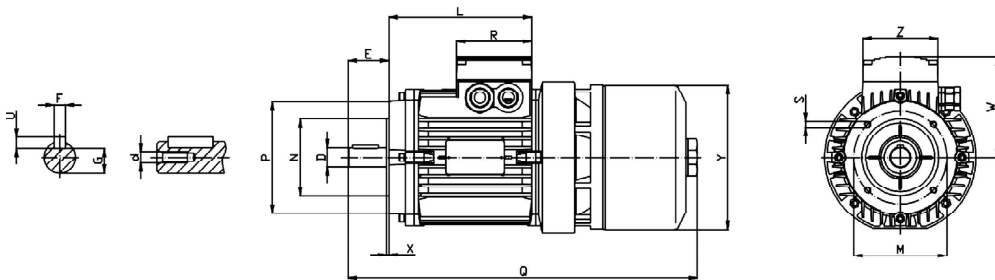
BMA100 DIMENSIONS



BMA100 -B3-	160	140	63	28	60	8	24	100	14	517	7	205	145	200	176	237	98.5	98.5	12	M10
	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K	d

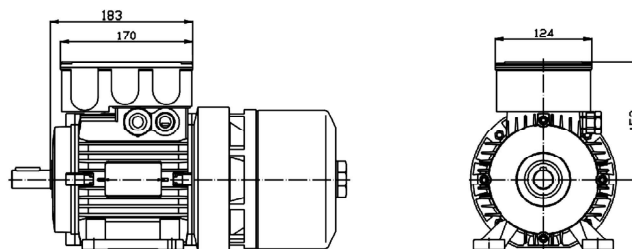


BMA100 -B5-	28	60	8	24	215	180	250	517	15	7	145	4	200	238	98.5	98.5	13	M10		
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z	K	d		



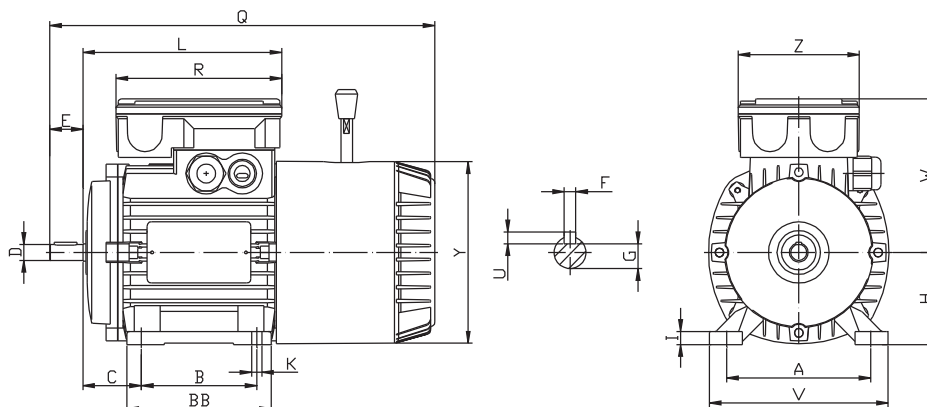
BMA100 -B14-	28	60	8	24	130	110	160	517	M8	7	145	3.5	200	238	98.5	98.5	M10			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z	d			

DOUBLE TERMINAL BOARD BOX

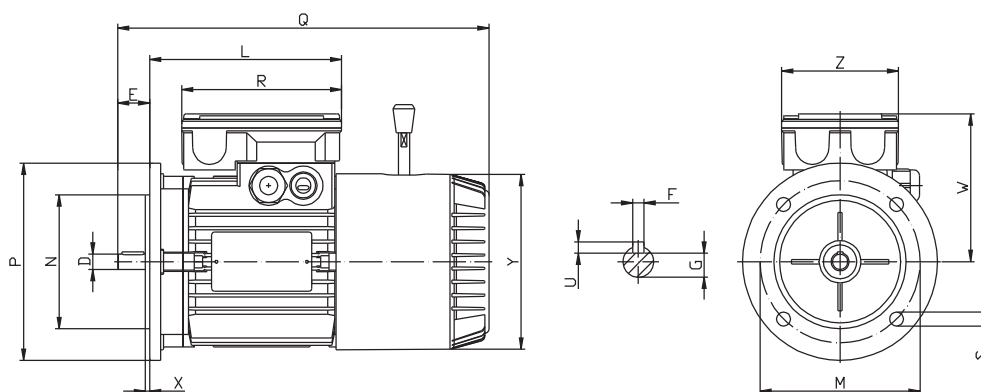


DIMENSIONS

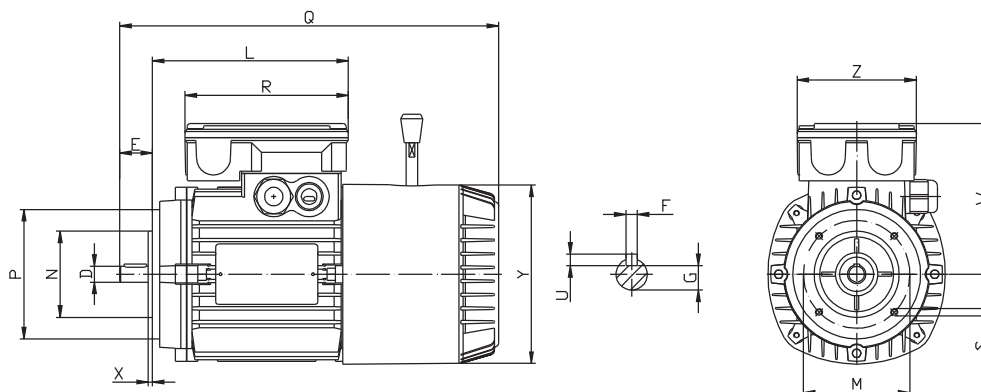
BMD63 DIMENSIONS



BMD63	100	80	40	11	23	4	8.5	63	9	267	4	124	105	125	100	138	115	84	7
-B3-	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



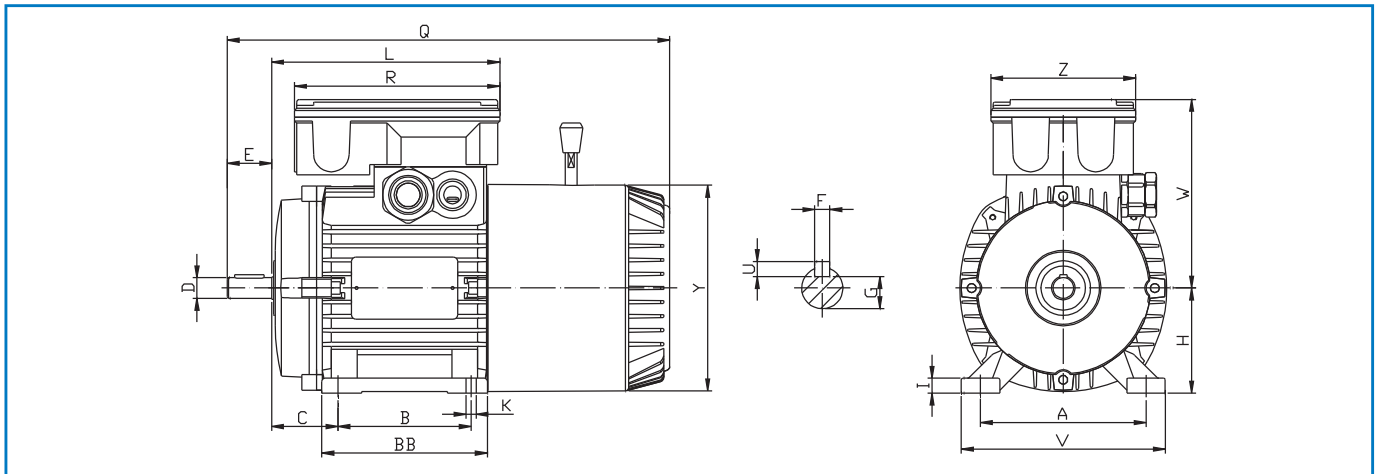
BMD63	11	23	4	8.5	115	95	140	267	10	4	105	3	125	138	115	84			
-B5-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			



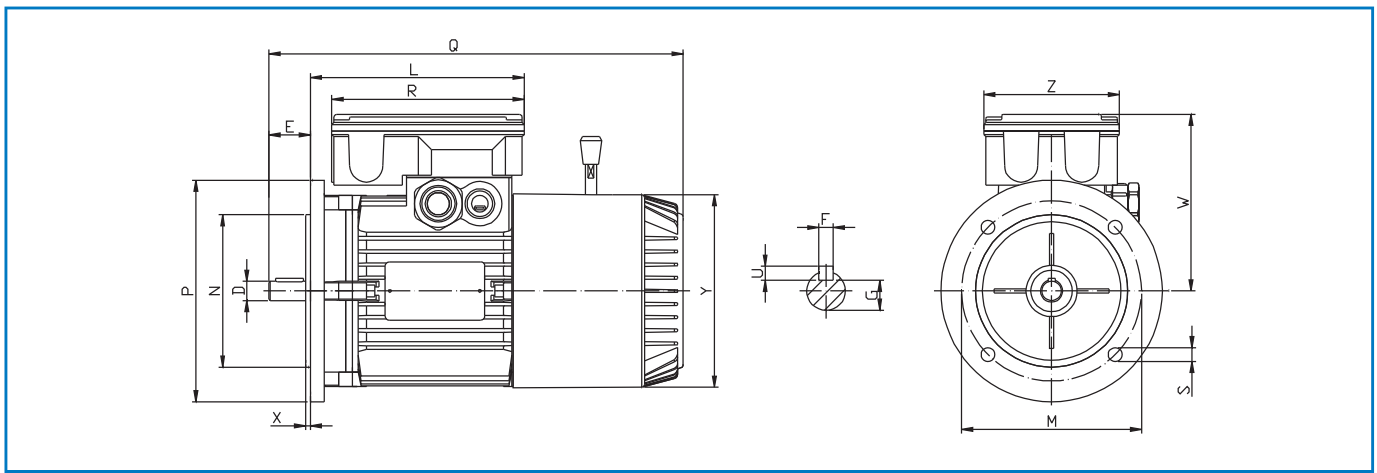
BMD63	11	23	4	8.5	75	60	90	267	M5	4	105	2.5	125	138	115	84			
-B14-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			

DIMENSIONS

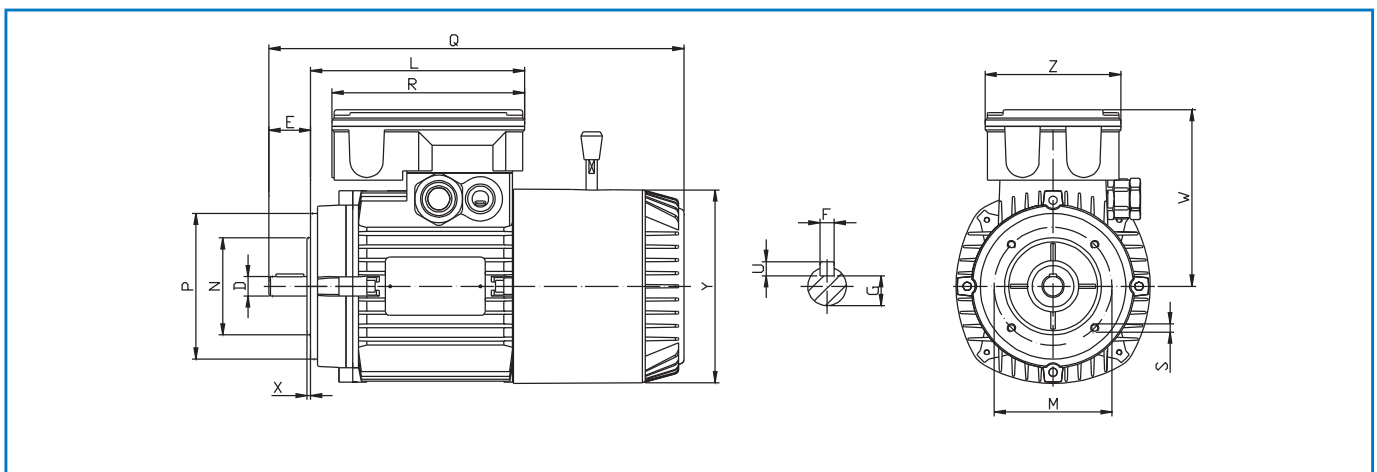
BMD71 DIMENSIONS



BMD71 -B3-	112	90	45	14	30	5	11	71	10	300	5	138	128	140	112	155	139	98	7
	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



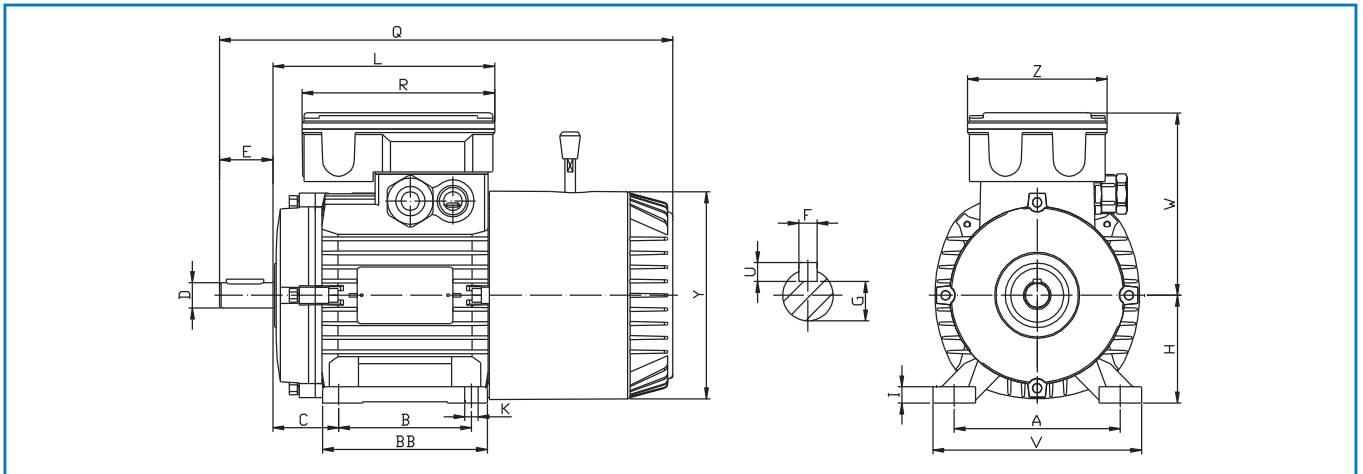
BMD71 -B5-	14	30	5	11	130	110	160	300	10	5	128	3.5	140	155	139	98			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			



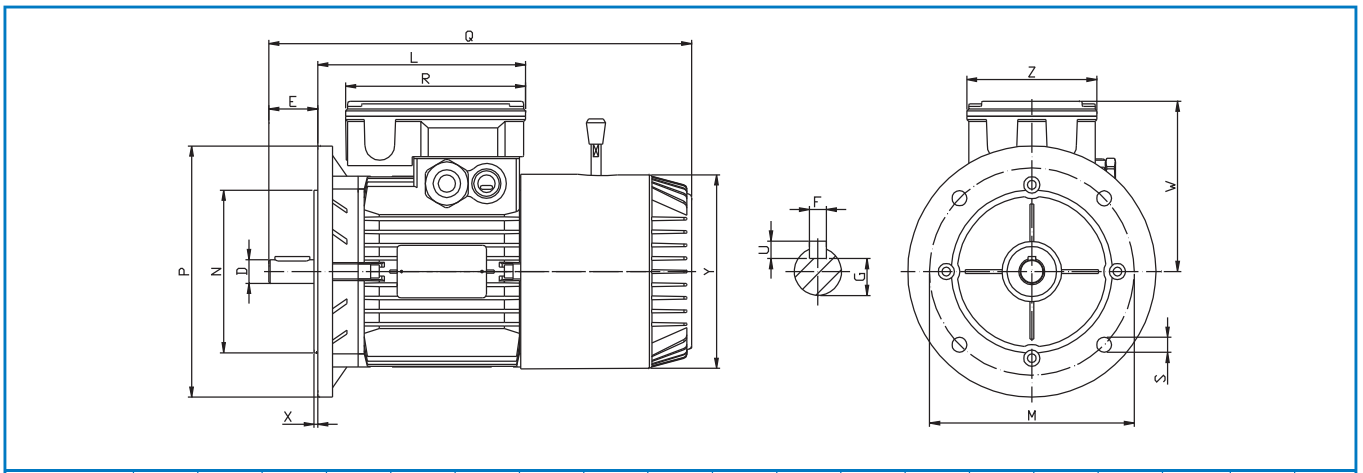
BMD71 -B14-	14	30	5	11	85	70	105	300	M6	5	128	2.5	140	155	139	98			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			

DIMENSIONS

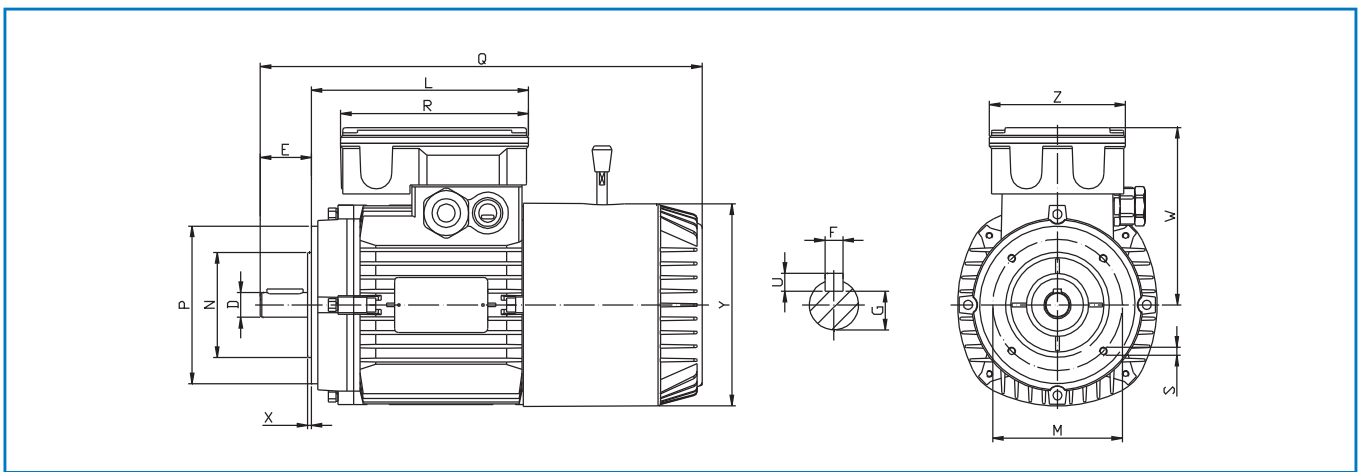
BMD80 DIMENSIONS



BMD80	125	100	50	19	40	6	15.5	80	12	341	6	157	136	155	124	167	145	105	10
-B3-	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



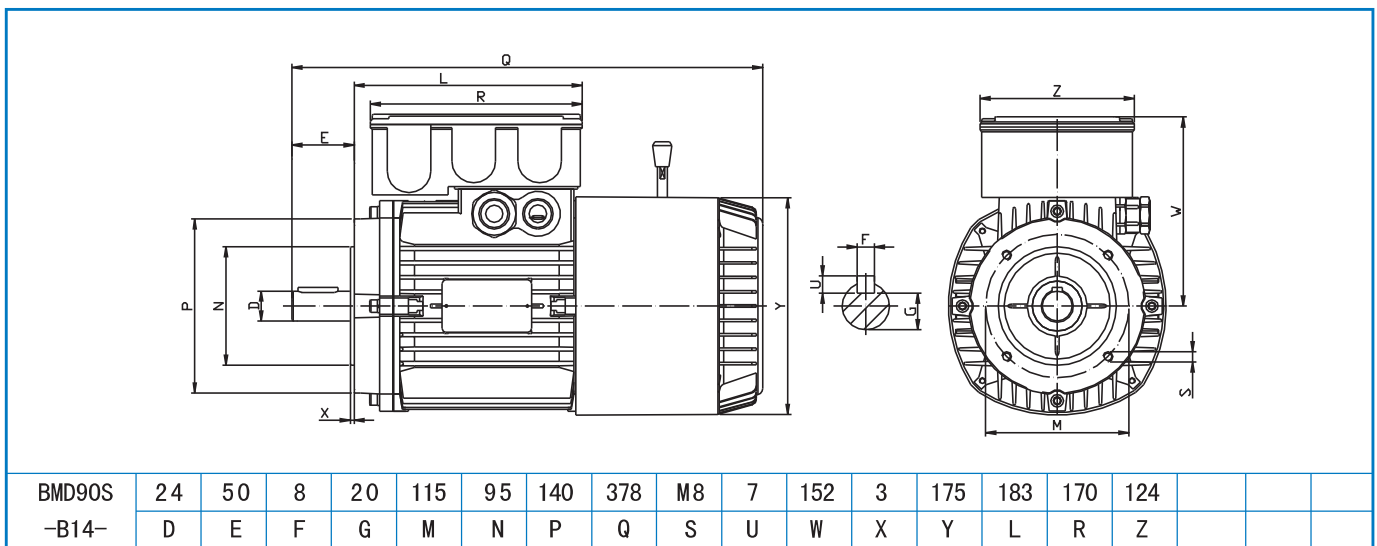
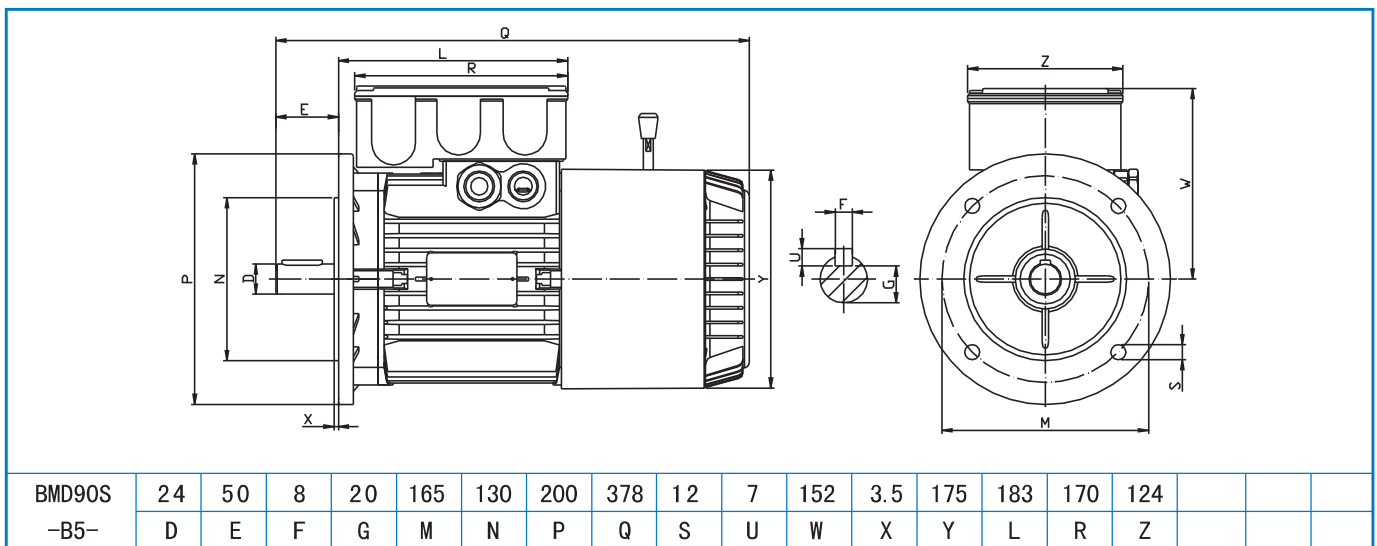
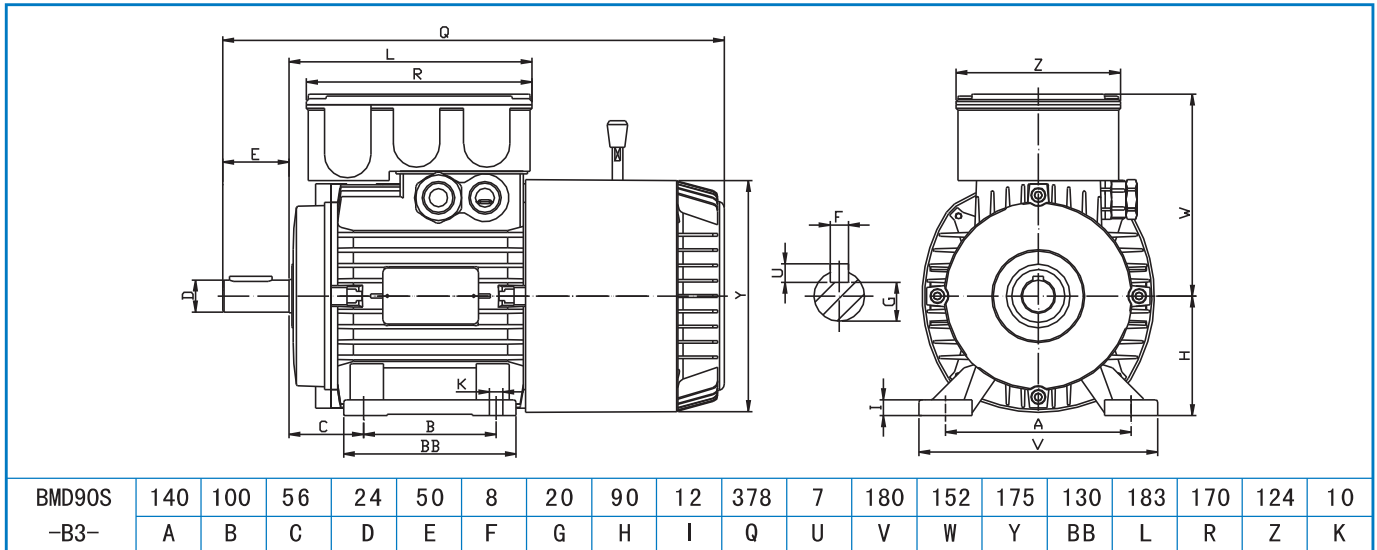
BMD80	19	40	6	15.5	165	130	200	341	12	6	136	3.5	155	167	145	105			
-B5-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			



BMD80	19	40	6	15.5	100	80	120	341	M6	6	136	3	155	167	145	105			
-B14-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			

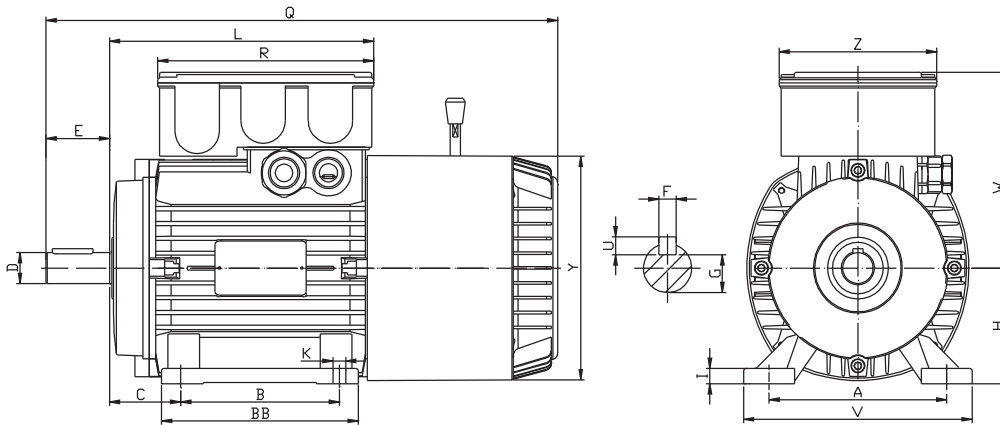
DIMENSIONS

BMD90S DIMENSIONS

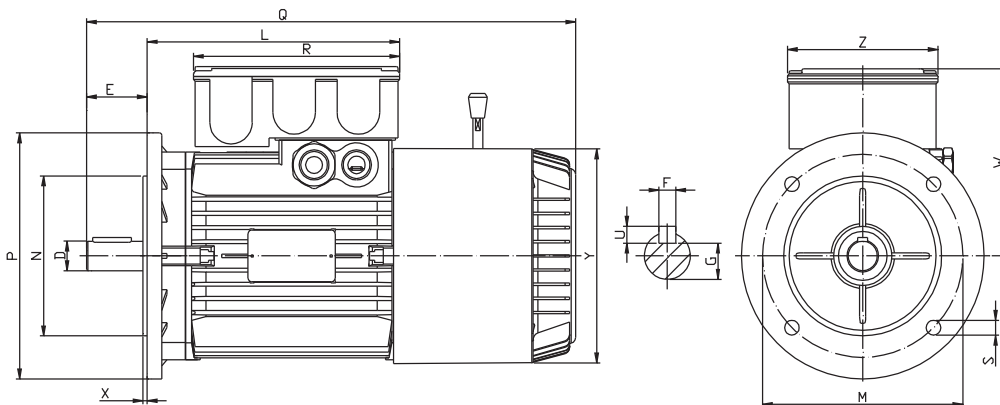


DIMENSIONS

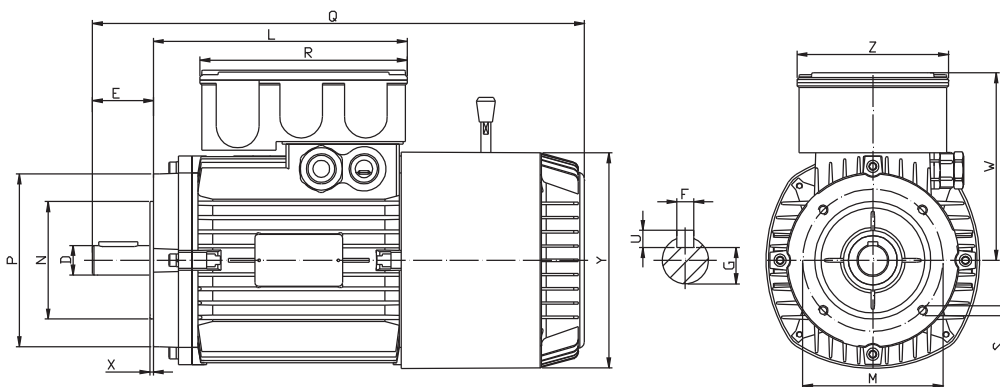
BMD90L DIMENSIONS



BMD90L -B3-	140	125	56	24	50	8	20	90	12	403	7	180	152	175	155	208	170	124	10
	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



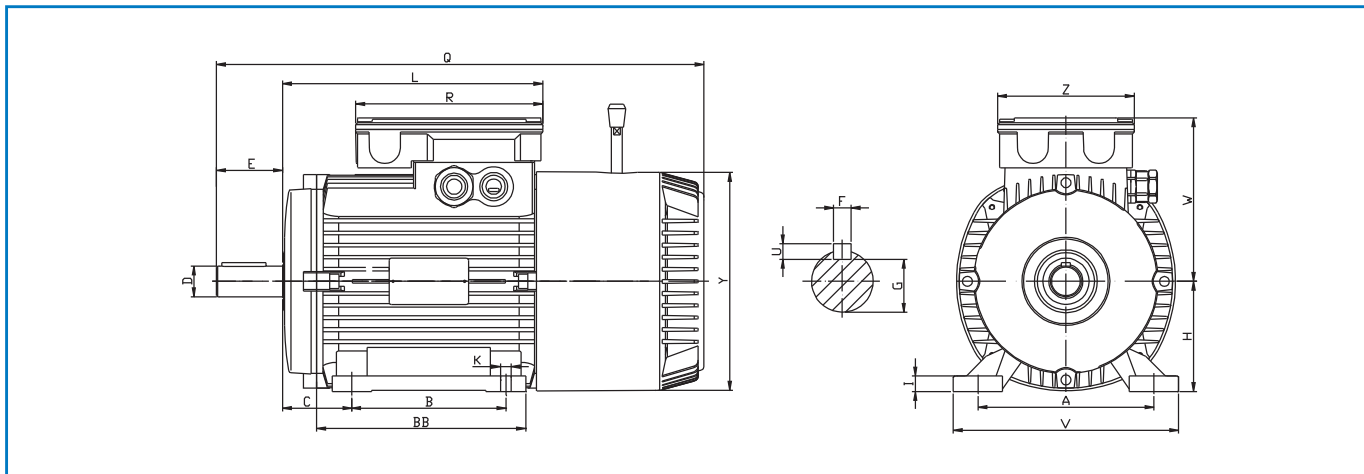
BMD90L -B5-	24	50	8	20	165	130	200	403	12	7	152	3.5	175	208	170	124			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			



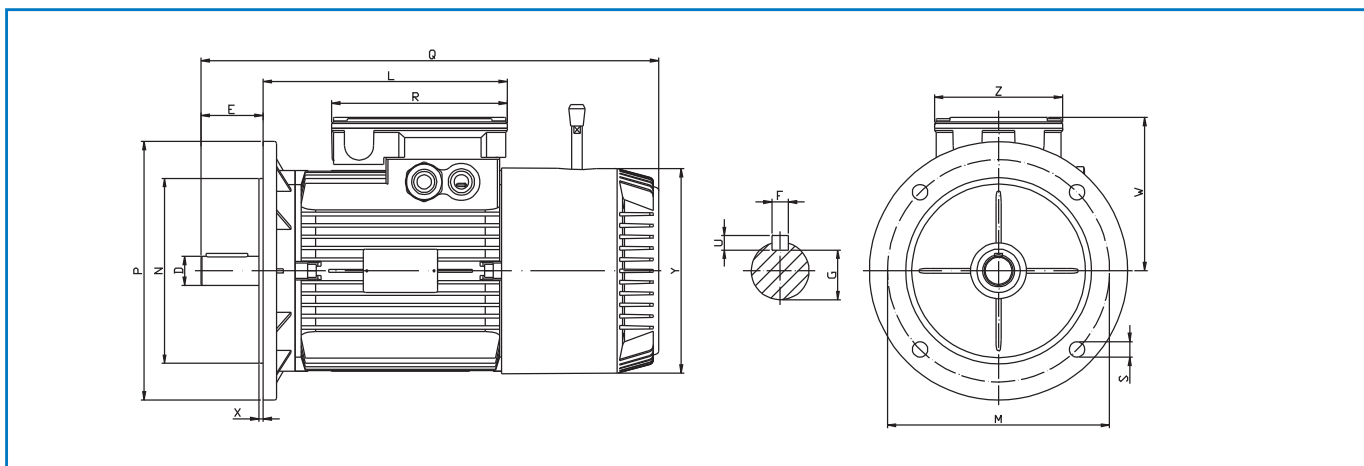
BMD90L -B14-	24	50	8	20	115	95	140	403	M8	7	152	3	175	208	170	124			
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DIMENSIONS

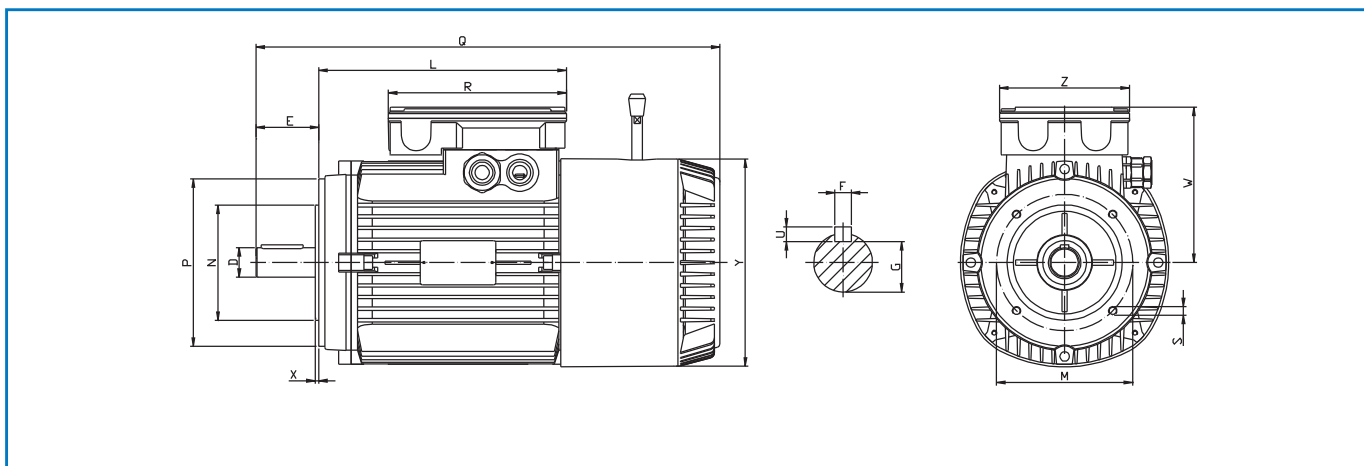
BMD100 DIMENSIONS



BMD100 -B3-	160	140	63	28	60	8	24	100	14	443	7	205	150	199	190	237	170	124	12
	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



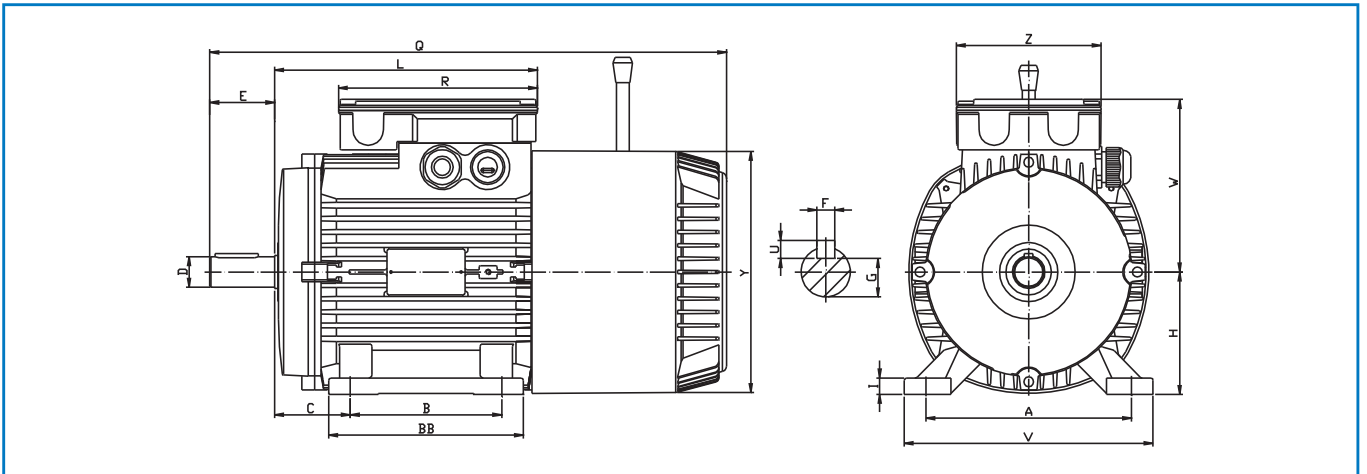
BMD100 -B5-	28	60	8	24	215	180	250	443	14	7	150	4	199	237	170	124			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			



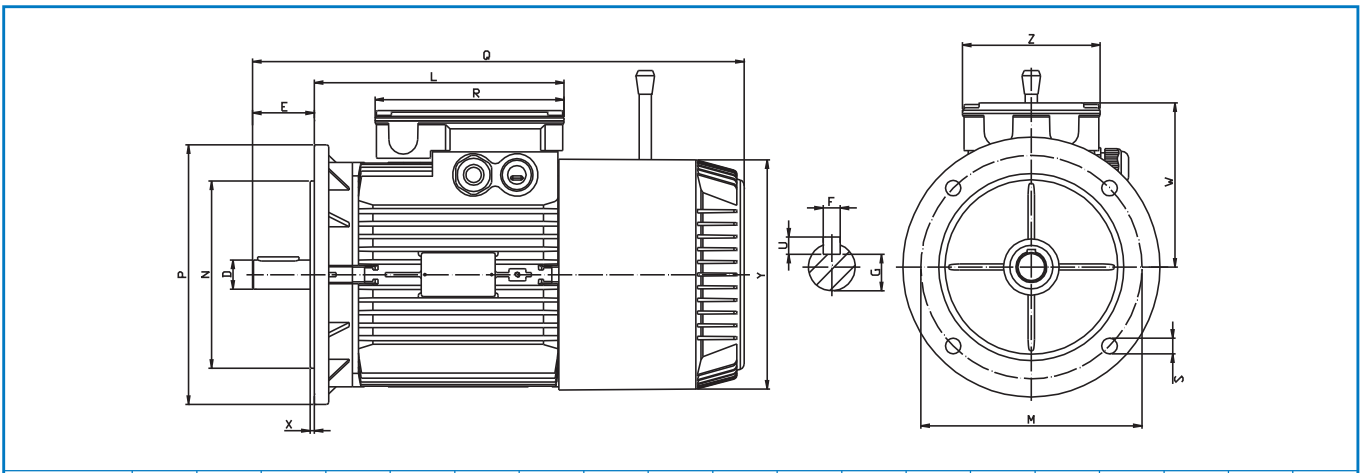
BMD100 -B14-	28	60	8	24	130	110	160	443	M8	7	150	3.5	199	237	170	124			
	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			

DIMENSIONS

BMD112 DIMENSIONS



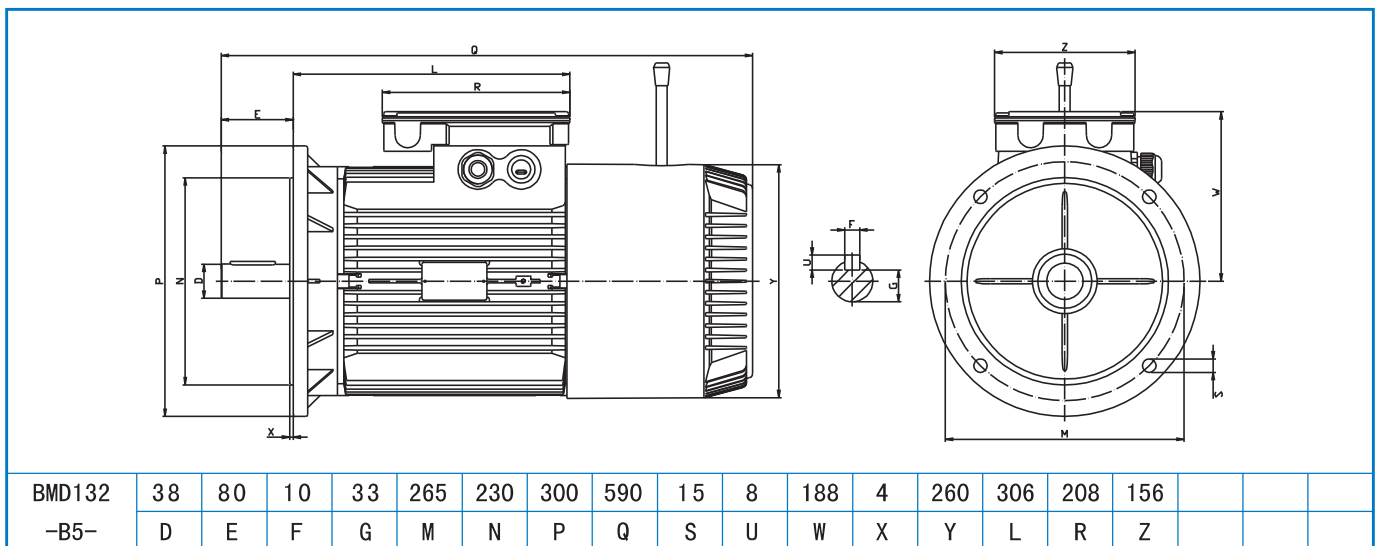
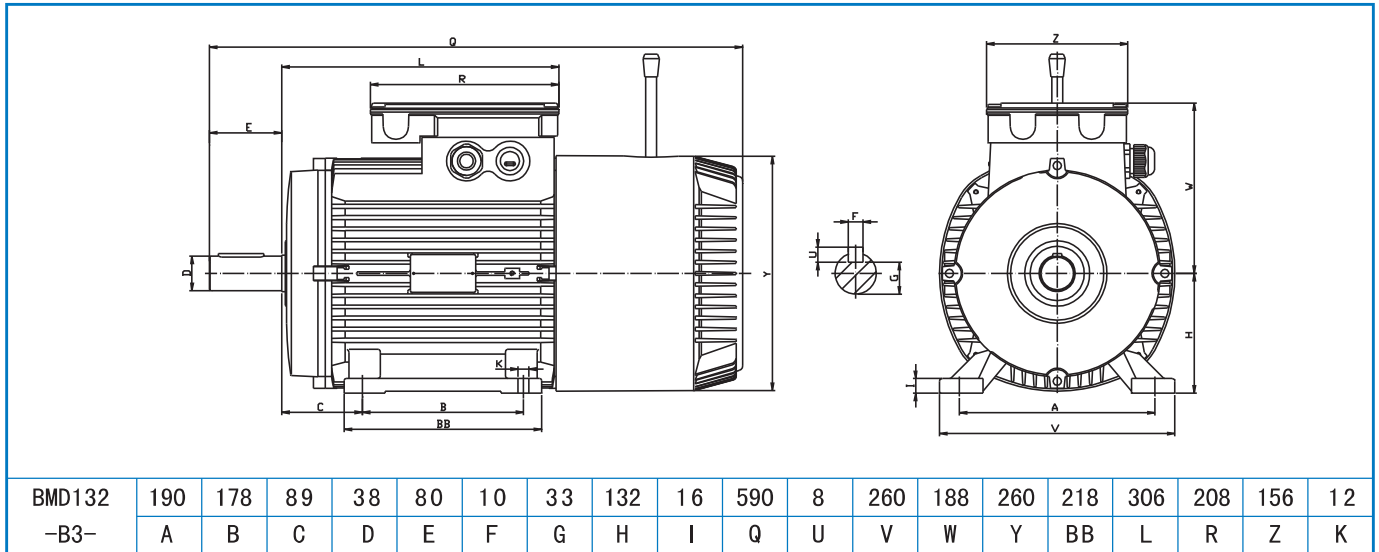
BMD112	190	140	70	28	60	8	24	112	15	478	7	230	158	222	180	243	184	134	12
-B3-	A	B	C	D	E	F	G	H	I	Q	U	V	W	Y	BB	L	R	Z	K



BMD112	28	60	8	24	215	180	250	478	15	7	158	4	222	243	184	134			
-B5-	D	E	F	G	M	N	P	Q	S	U	W	X	Y	L	R	Z			

DIMENSIONS

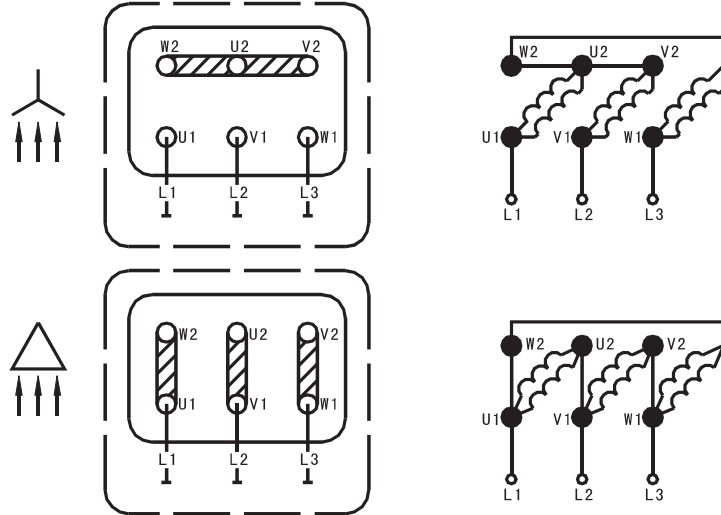
BMD132 DIMENSIONS



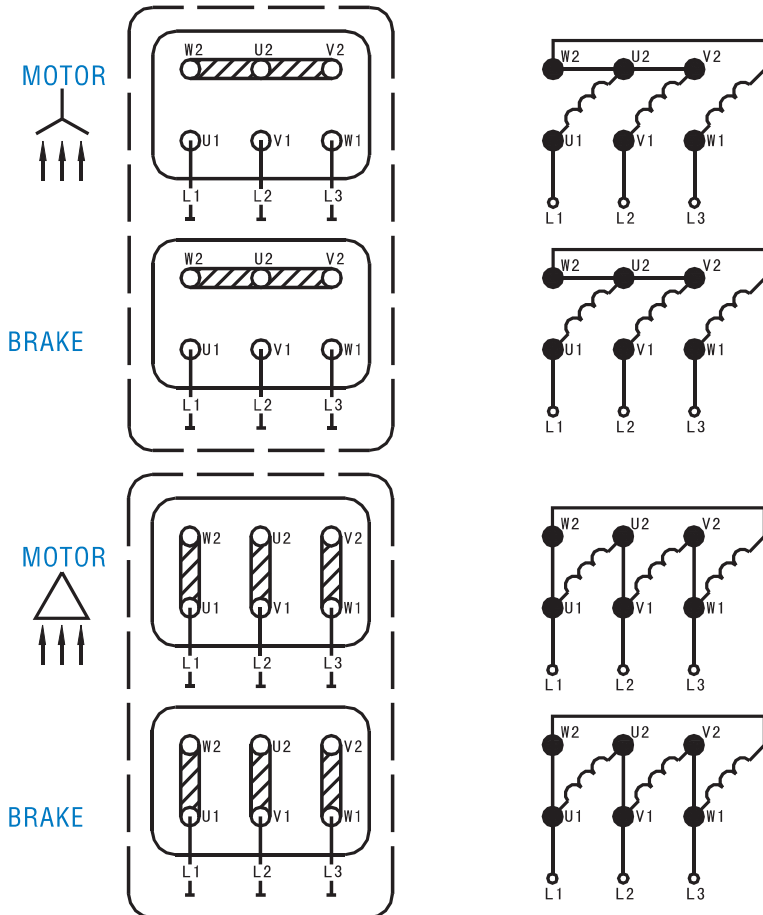
ELECTRIC CONNECTION

BMA

SYNCHRONOUS CONNECTION WITH MOTOR



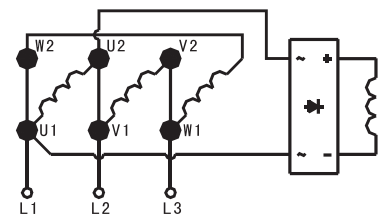
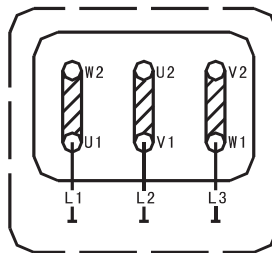
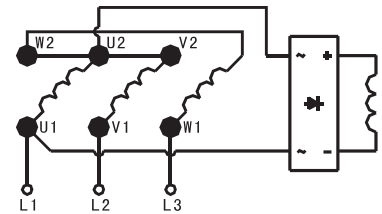
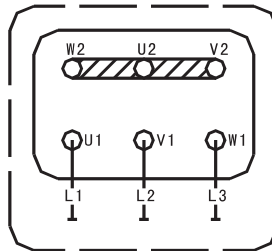
BRAKE CONNECTION ALONE



ELECTRIC CONNECTION

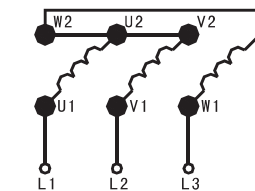
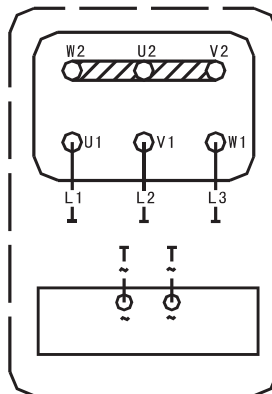
BMD

SYNCHRONOUS CONNECTION WITH MOTOR



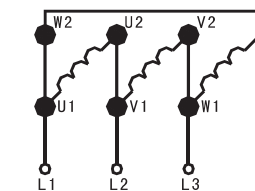
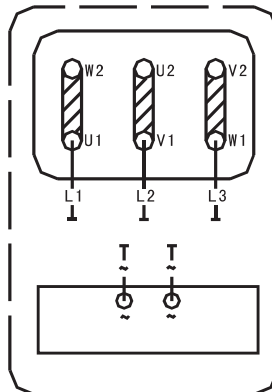
BRAKE CONNECTION ALONE

MOTOR



BRAKE

MOTOR



BRAKE

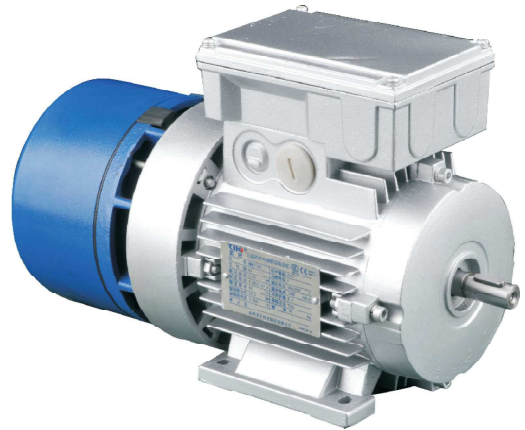
PART PHOTOS

BMA

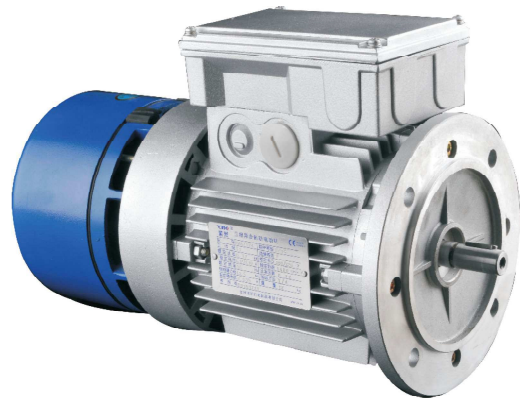
SINGLE CONNECTION

DUAL CONNECTION

B3



B5



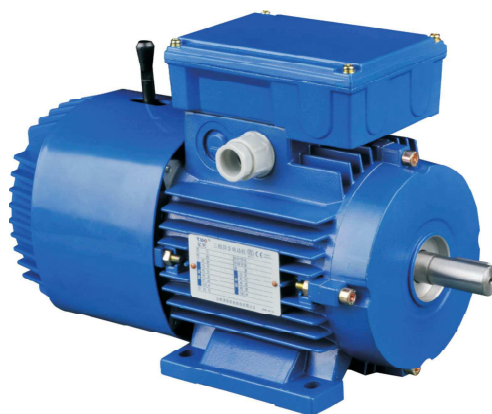
B14



PART PHOTOS

BMD DUAL TERMINAL BOARD

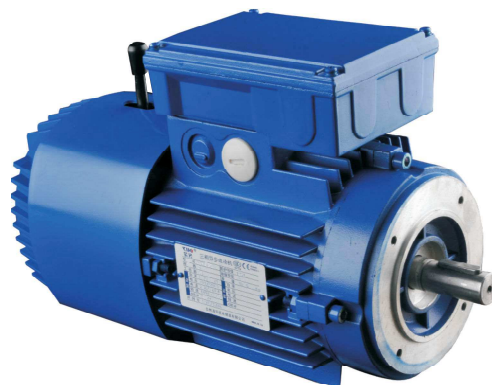
B3



B5

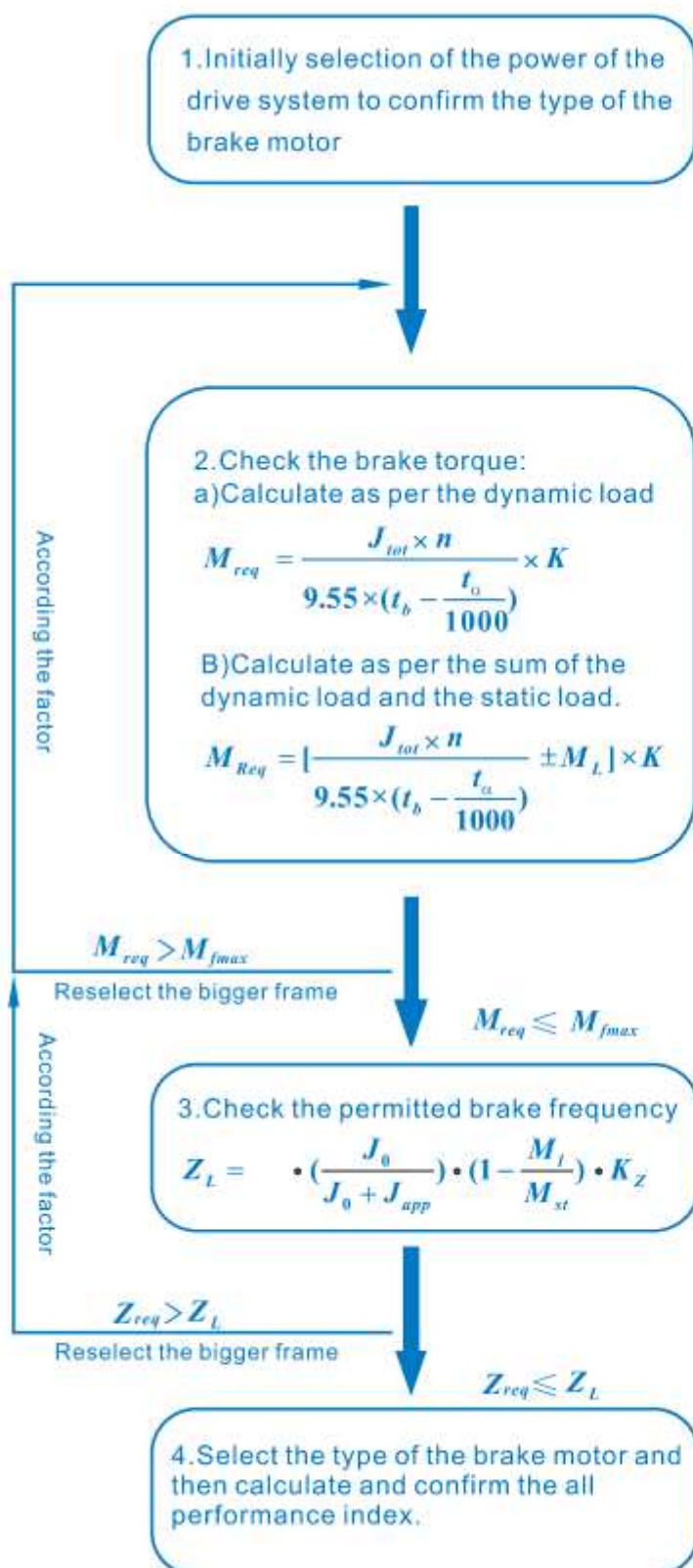


B14



GUIDE OF TYPE SELECTION AND ORDERING

BRAKE MOTOR TYPE SELECTION



--Confirm the power of the brake motor as per the guide of type selection for general motor and select the right type of SM serial brake motor according to the power.

--Calculate the needed brake torque (M_{req}) according to preset brake time and the load of the system; When the speed of the fly wheel, the rotator or the similar mechanism is reduced or when the static torque is ignored, the load could be regarded as the pure dynamic load. In fact, on the work state, most of the load includes the static load and dynamic load. $K \geq 2$: safety factor.

--Confirm the parameter (Z_0) of the brake frequency to the unload allowance of the selected type. And calculate max. permitted brake frequency (Z_L). $K_z = 0.6-0.7$; safe factor.

--According to the performance parameter of the selected brake motor, calculate the exact brake performance index it could achieve: Brake time (t_b), Angle of slip (θ_s), Consumework for single brake friction (w_s) and the startup time (t_u) of the system.

GUIDE OF TYPE SELECTION AND ORDERING

NOTICE FOR ORDER

When the purchasers buy our BM serial brake motors, they should supply the following information to us:

1. Model of the brake motor.
2. Mounting position.
3. Rated voltage and frequency. (If no special requirement, we will supply the brake motor at 380V/50Hz, 3 phase or
4. The paint color of the outside shell. If no special requirement, the color of motor part is silver white and blue for brake.
5. Protection classes of the outside shell: IP55 or IP54.
6. Insulation classes of the coil: B or F.



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