

T Z N P 4 Series

Intelligent Control Three Phase Permanent Magnet Synchronous



Permanent magnet synchronous motor and inverter integrated Device

Power: 0.18~22kW

Frequency range: 25~60Hz.

Efficiency: IE4

IP grade: IP55

Insulation: F

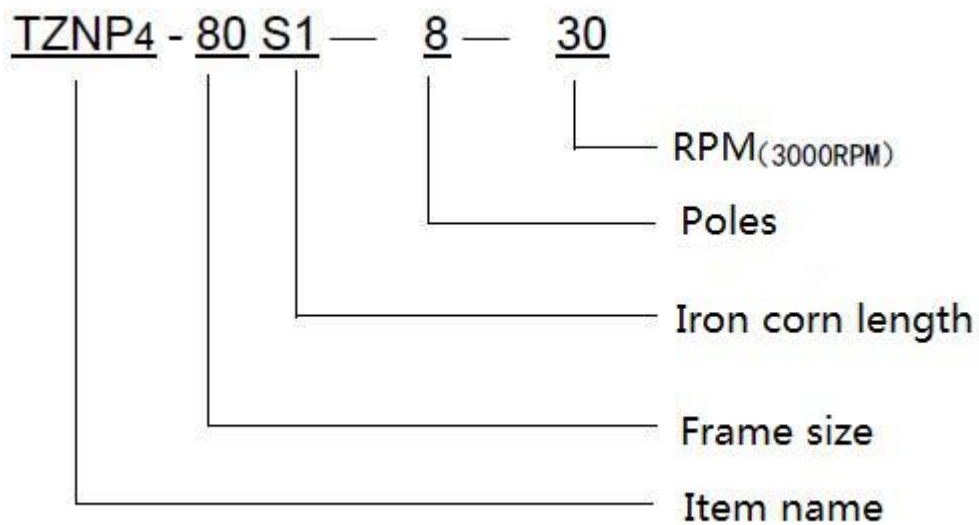
Cooling: IC411

Features: With the advantages of IE4 energy efficiency, small size, light weight, wide range of frequency conversion and stable performance.

Applications: It can be widely used in the fan, pump, chemical, CNC machine tool, food, transport and other industries, and is a new product in line with the current trend of intelligent development.



The implication of the symbol



Performance

380V 50Hz

Type	kW	A	r/min	Eff.%	P.F	N.m	Con. Torque Speed	Con. Power Speed	dB (A)	Inverter
Synchronous rotation speed 3000 r/min										
TZNP4-80S1-8-30	0.37	0.69	3000	85.6	0.95	1.18	1500 ~ 3000rpm	3000 ~ 3600rpm	73	Z2400T-0R75G-WN80L
TZNP4-80S2-8-30	0.55	1.01	3000	87.3	0.95	1.75			73	Z2400T-0R75G-WN80L
TZNP4-80M1-8-30	0.75	1.35	3000	88.6	0.95	2.39			73	Z2400T-0R75G-WN80L
TZNP4-80M2-8-30	1.1	1.96	3000	89.8	0.95	3.50			73	Z2400T-1R5G-WN80L
TZNP4-80M3-8-30	1.5	2.64	3000	90.9	0.95	4.77			80	Z2400T-1R5G-WN80L
TZNP4-80M4-8-30	2.2	3.83	3000	91.8	0.95	7.00			80	Z2400T-2R2G-WN80L

TZNP4-90S-8-30	1.5	2.64	3000	90.9	0.95	4.77			70	Z2400T-1R5G-WN80L
TZNP4-90L-8-30	2.2	3.83	3000	91.8	0.95	7.00			70	Z2400T-2R2G-WN80L
TZNP4-100L1-8-30	3	5.18	3000	92.6	0.95	9.55			78	Z2400T-3R0G-WN100L
TZNP4-100L2-8-30	4	6.86	3000	93.3	0.95	12.73			78	Z2400T-4R0G-WN100L
TZNP4-112M-8-30	4	6.86	3000	93.3	0.95	12.73			78	Z2400T-4R0G-WN100L
TZNP4-132S1-8-30	5.5	9.36	3000	94.0	0.95	17.51			82	Z2400T-5R5G-WN132L
TZNP4-132S2-8-30	7.5	12.7	3000	94.5	0.95	23.87			82	Z2400T-7R5G-WN132L
TZNP4-160M1-8-30	11	18.5	3000	95.0	0.95	35.01			85	Z2400T-11G-WN160L
TZNP4-160M2-8-30	15	25.2	3000	95.3	0.95	47.75			85	Z2400T-15G-WN160L
TZNP4-160L1-8-30	18.5	31.0	3000	95.6	0.95	58.9			85	Z2400T-18.5G-WN160L
TZNP4-160L2-8-30	22	36.7	3000	95.9	0.95	70.0			87	Z2400T-22G-WN160L
Synchronous rotation speed 1500 r/min										
TZNP4-80S1-8-15	0.25	0.50	1500	80.1	0.95	1.59	750 ~ 1500rpm	1500 ~ 1800rpm	73	Z2400T-0R75G-WN80L
TZNP4-80S2-8-15	0.37	0.70	1500	84.3	0.95	2.36			73	Z2400T-0R75G-WN80L
TZNP4-80M1-8-15	0.55	1.03	1500	85.6	0.95	3.50			73	Z2400T-0R75G-WN80L
TZNP4-80M2-8-15	0.75	1.40	1500	85.6	0.95	4.77			73	Z2400T-0R75G-WN80L
TZNP4-80M3-8-15	1.1	2.01	1500	87.4	0.95	7.00			73	Z2400T-1R5G-WN80L
TZNP4-80M4-8-15	1.5	2.72	1500	88.1	0.95	9.55			80	Z2400T-1R5G-WN80L
TZNP4-90S-8-15	1.1	2.01	1500	87.4	0.95	7.00			73	Z2400T-1R5G-WN80L
TZNP4-90L-8-15	1.5	2.72	1500	88.1	0.95	9.55			80	Z2400T-1R5G-WN80L
TZNP4-100L1-8-15	2.2	3.92	1500	89.7	0.95	14.00			70	Z2400T-2R2G-WN100L
TZNP4-100L2-8-15	3	5.31	1500	90.3	0.95	19.10			78	Z2400T-3R0G-WN100L
TZNP4-100L3-8-15	4	7.04	1500	90.9	0.95	25.5			78	Z2400T-4R0G-WN100L
TZNP4-112M-8-15	4	7.04	1500	90.9	0.95	25.5			78	Z2400T-4R0G-WN100L
TZNP4-132S-8-15	5.5	9.55	1500	92.1	0.95	35.0			82	Z2400T-5R5G-WN132L
TZNP4-132M-8-15	7.5	13.0	1500	92.6	0.95	47.8			82	Z2400T-7R5G-WN132L
TZNP4-160M-8-15	11	18.8	1500	93.6	0.95	70.0			85	Z2400T-11G-WN160L
TZNP4-160L1-8-15	15	25.5	1500	94.0	0.95	95.5			85	Z2400T-15G-WN160L
TZNP4-160L2-8-15	18.5	31.4	1500	94.3	0.95	118			85	Z2400T-18R5G-WN160L
TZNP4-160L3-8-15	22	37.2	1500	94.7	0.95	140			87	Z2400T-22G-WN160L
Synchronous rotation speed 1000 r/min										
TZNP4-80S1-8-10	0.18	0.39	1000	74.6	0.95	1.72	500 ~ 1000rpm	1000 ~ 1200rpm	73	Z2400T-0R75G-WN80L
TZNP4-80S2-8-10	0.25	0.51	1000	78.1	0.95	2.39			73	Z2400T-0R75G-WN80L
TZNP4-80M1-8-10	0.37	0.73	1000	81.6	0.95	3.53			73	Z2400T-0R75G-WN80L

Performance

380V

50Hz

Type	kW	A	r/min	Eff.%	P.F	N.m	Con. Torque Speed	Con. Power Speed	dB (A)	Inverter
Synchronous rotation speed 1000 r/min										
TZNP4-80M2-8-10	0.55	1.02	1000	85.9	0.95	5.25	500 ~ 1000rpm	1000 ~ 1200rpm	73	Z2400T-0R75G-WN80L
TZNP4-90S-8-10	0.75	1.37	1000	87.4	0.95	7.16			73	Z2400T-0R75G-WN80L
TZNP4-90L-8-10	1.1	1.98	1000	88.7	0.95	10.5			73	Z2400T-1R5G-WN80L
TZNP4-100L-8-10	1.5	2.67	1000	89.9	0.95	14.32			70	Z2400T-2R2G-WN100L

TZNP4-112M-8-10	2.2	3.80	1000	92.7	0.95	21.0			70	Z2400T-2R2G-WN100L
TZNP4-132S-8-10	3	5.23	1000	91.8	0.95	28.7			78	Z2400T-5R5G-WN132L
TZNP4-132M1-8-10	4	6.90	1000	92.7	0.95	38.2			78	Z2400T-5R5G-WN132L
TZNP4-132M2-8-10	5.5	9.42	1000	93.4	0.95	52.5			82	Z2400T-5R5G-WN132L
TZNP4-160M-8-10	7.5	12.8	1000	94	0.95	71.6			82	Z2400T-11G-WN160L
TZNP4-160L-8-10	11	18.6	1000	94.5	0.95	105			85	Z2400T-11G-WN160L

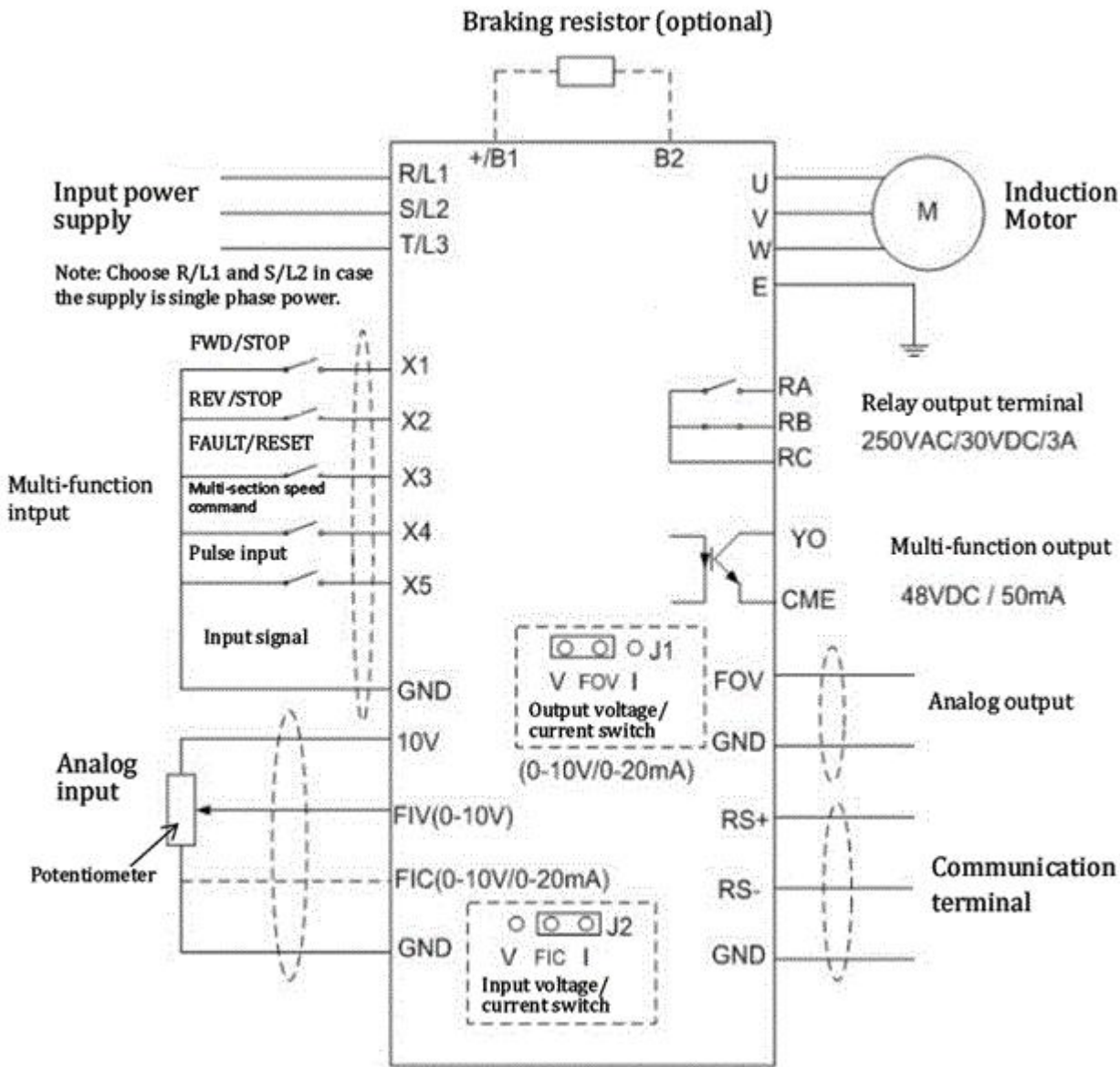
Controller performance:

Project		Specification
Basic function	Control type	C
	Output frequency	0~600Hz
	Carrier frequency	0.5kHz~16kHz(Will change the carrier frequency according the loading)
	Input frequency resolution	Data set: 0.01Hz simulation settings: Max frequency×0.025%
	Locked-rotor torque	0.5Hz/150% (SVC) 、0Hz/180% (FVC)
	Speed range	1:200 (SVC) /1:1000 (FVC)
	Rotating speed	±0.5% (SVC) 、±0.02% (FVC)
	Overload capacity	150% rated current for 60s;180% rated current for 3s.

Controller performance:

Inverter	Input voltage (V)	Output Power (kW)	Input Current (A)	Output Current (A)
Z2400T-0R75G-WN80L	3PH AV 380V ±5%	0.75	3.8	2.5
Z2400T-1R5G-WN80L		1.5	5	3.7
Z2400T-2R2G-WN100L		2.2	5.8	5
Z2400T-3R0G-WN100L		3	7	6.8
Z2400T-4R0G-WN100L		4	10	9
Z2400T-5R5G-WN132L		5.5	15	13
Z2400T-7R5G-WN132L		7.5	20	17
Z2400T-11G-WN160L		11	26	25
Z2400T-15G-WN160L		15	35	32
Z2400T-18R5G-WN160L		18.5	38	37
Z2400T-22G-WN160L		22	46	45

Controller Diagram



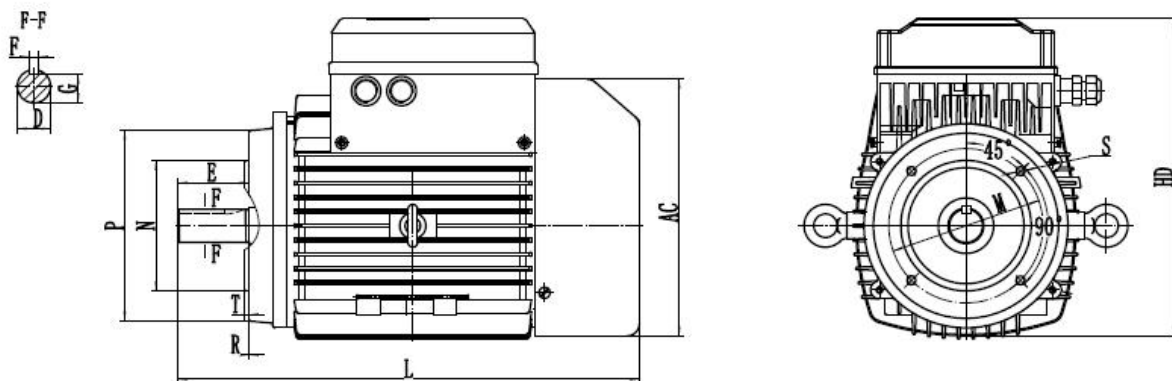
Terminal diagram:



Dimensions (Unit: mm)

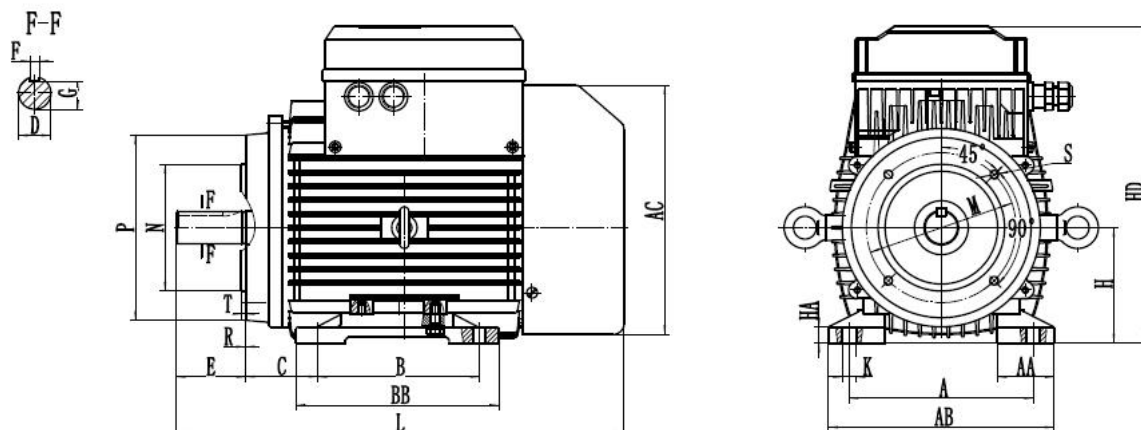
(Unit: mm)

B14 (Small flange mounted)



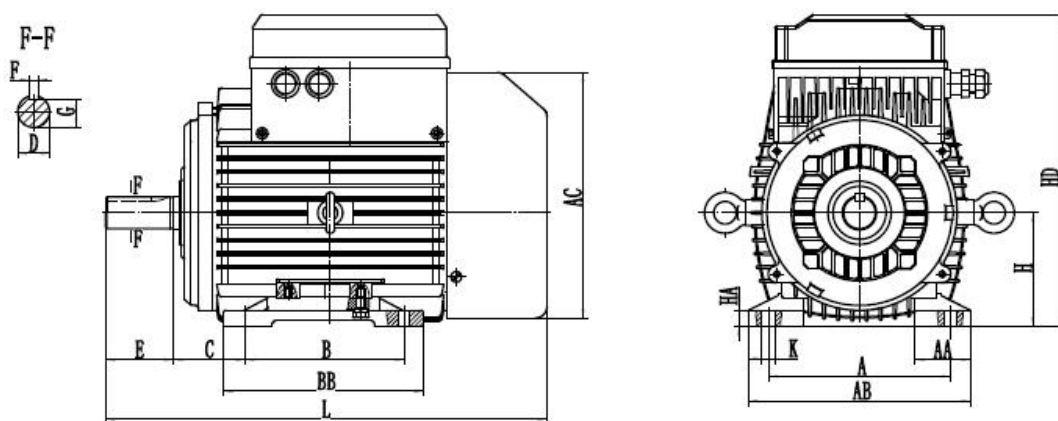
Frame	speed	Mounting Dimension										Overall Dimension		
		D	E	F	G	M	N	P	R	S	T	AC	HD	L
80M	3000 1500 1000	19	40	6	15.5	100	80	120	0	4-M6	3	170	225	295
90S		24	50	8	20	115	95	140	0	4-M8	3	180	245	355
100L		28	60	8	24	130	110	160	0	4-M8	3.5	220	275	395
112M		28	60	8	24	130	110	160	0	4-M8	3.5	240	300	425
132S		38	80	10	33	165	130	200	0	4-M10	3.5	295	355	510
132M		38	80	10	33	165	130	200	0	4-M10	3.5	295	355	510

B34 (Foot and small flange mounted)



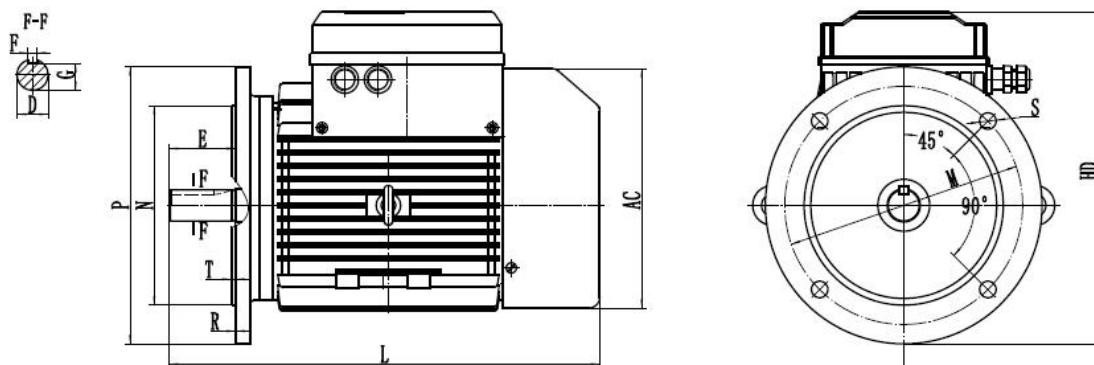
Frame	Speed	Mounting Dimension															Overall Dimension						
		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	AA	BB	HA	AB	AC	HD	L
80M	3000 1500 1000	125	100	50	19	40	6	15.5	80	10×13	100	80	120	0	4-M6	3	35	130	10	160	170	225	295
90S		140	100	56	24	50	8	20	90	10×13	115	95	140	0	4-M8	3	35	130	12	175	180	245	355
90L			125															155					
100L		160	140	63	28	60	8	24	100	12×16	130	110	160	0	4-M8	3.5	37	176	14	200	220	275	395
112M		190	140	70	28	60	8	24	112	12×16	130	110	160	0	4-M8	3.5	44	180	14	216	240	300	425
132S		216	140	89	38	80	10	33	132	12×16	165	130	200	0	4-M10	3.5	61	186	16	260	295	355	505
132M		216	178	89	38	80	10	33	132	12×16	165	130	200	0	4-M10	3.5	61	224	16	260	295	355	505

B3 (Foot mounted)



Frame	Speed	Mounting Dimension									Overall Dimension						
		A	B	C	D	E	F	G	H	K	AA	BB	HA	AB	AC	HD	L
80M	3000 1500 1000	125	100	50	19	40	6	15.5	80	10×13	35	130	10	160	170	225	295
90S		140	100	56	24	50	8	20	90	10×13	35	150	12	175	180	245	355
90L			125									155					
100L		160	140	63	28	60	8	24	100	12×16	37	176	14	200	220	275	395
112M		190	140	70	28	60	8	24	112	12×16	44	180	14	216	240	300	425
132S		216	140	89	38	80	10	33	132	12×16	61	186	16	260	295	355	510
132M			178									224					
160M		304	210	108	42	110	12	37	160	Φ15 (hole)	66	304	20	254	384	507	670
160L			254														

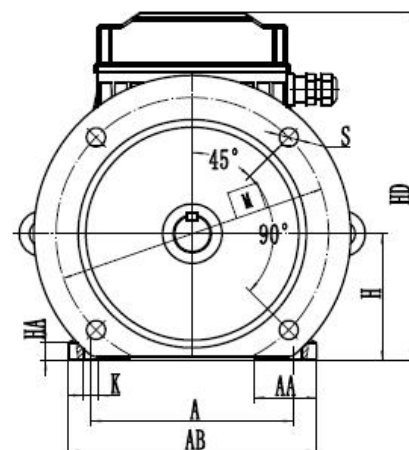
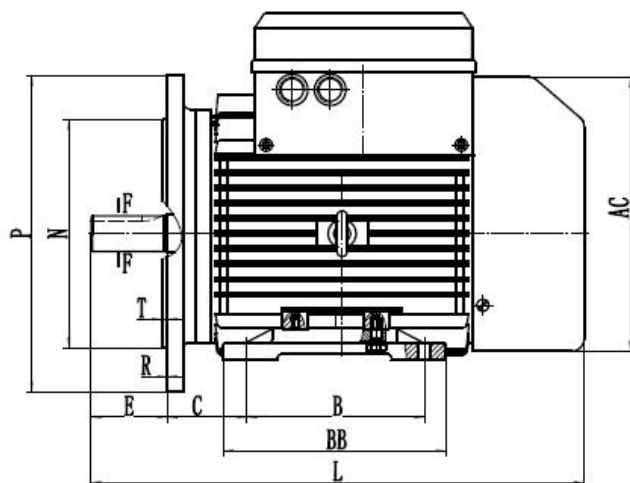
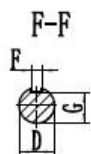
B5 (Flange mounted)



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Frame	Speed	Mounting Dimension										Overall Dimension		
		D	E	F	G	M	N	P	R	S	T	AC	HD	L
80M	3000 1500 1000	19	40	6	15.5	165	130	200	0	4-Φ12	3.5	170	245	310
90S		24	50	8	20	165	130	200	0	4-Φ12	3.5	180	255	355
90L														
100L		28	60	8	24	215	180	250	0	4-Φ15	4	220	300	395
112M		28	60	8	24	215	180	250	0	4-Φ15	4	240	315	425
132		38	80	10	33	265	230	300	0	4-Φ15	4	295	355	510
160		42	110	12	37	300	250	350	0	4-Φ15	5	384	507	670

B35 (Foot and flange mounted)



Frame	Speed	Mounting Dimension															Overall Dimension						
		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	AA	BB	HA	AB	AC	HD	L
80M	3000 1500 1000	125	100	67	19	40	6	15.5	80	10×13	165	130	200	0	4-Φ12	3.5	35	130	10	160	170	225	310
90S		140	100	56	24	50	8	20	90	10×13	165	130	200	0	4-Φ12	3.5	35	130	12	175	180	245	355
90L			125															155					
100L		160	140	63	28	60	8	24	100	12×16	215	180	250	0	4-Φ15	4	37	176	14	200	220	275	395
112M		190	140	70	28	60	8	24	112	12×16	215	180	250	0	4-Φ15	4	44	180		216	240	300	425
132S		216	140	89	38	80	10	33	132	12×16	265	230	300	0	4-Φ15	4	61	186	16	260	295	355	510
132M			178															224					
160M		304	210	108	42	110	12	37	160	Φ15 (hole)	300	250	350	0	4-Φ15	5	66	304	20	254	384	507	670
160L			254																				