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Providing You Revolutionary Solutions

PA & PE Series

IE3
Three-Phase
TEFC
Premium Efficiency Motors

Founded in 1981, Att Electric & Machinery is a premier induction motor manufacturer started by a group of veterans determined to provide solutions for every customer's motoring needs. Our expertise in manufacturing tailor-made motors for usage under special conditions is an assurance of customizability coupled with high performance. Under the ever-changing market environment, we are committed to constant innovation, offering you top quality products and first-class customer service.

Att is a worldwide supplier of electrical motors, parts and services in the industrial equipment sector. Our clients include distributors, original equipment manufacturers and end users in more than 70 countries. Driven by your specific requirements, we guarantee applications in various markets, such as industrial automation, construction, agricultural, electrical, engineering and consumer applications.

Headquartered in Singapore, Att currently has full-fledged associates and distributors in Malaysia, Indonesia, China, Vietnam, Thailand, Myanmar, Hong Kong, Sri Lanka, Bangladesh, and the Middle East. We are rapidly expanding and consolidating a strong foothold in the global market. With excellent technical and organizational expertise, we will definitely be available to fulfil your expectations promptly, regardless of your location.

General Description

Att PA/PE series comprises of three-phase, Totally Enclosed Fan Cooled (TEFC) Aluminium and Cast Iron IE3 Premium Efficiency induction motors, are designed to meet the requirements for energy efficiency International Electro-technical Commission – IEC60034. Compliance with IEC60034 means that these motors also comply with many other countries that are based on IEC60034.

Features of PA Series motors include:

European designs, aluminium housing motors are acknowledged to have a good frame of high quality and reliability. PA motors are suitable for applications of driving machines such as pumps, machine tools and blowers.

Features of PE Series motors include:

Better structure with high strength ragged cast iron frames, with more flexibility. Moreover, these motors have good features such as optimum structure, attractive appearance, high efficiency, low noise and are suitable to use in various kinds of general use machineries like fans, pumps, compressors, machine tools, transportation and so on, and are able to be used in hazardous areas with oil, chemical, steel and mining industries.

STANDARD SPECIFICATION AND FEATURES OF AN ATT MOTOR	
Item	**Standard Specifications**
Type of electric motor	Totally enclosed fan cooled squirrel cage induction motor
Design standards	BS 4999, BS 5000, IEC 60034, IEC 60072, SS 530
Voltage and frequency	Standard motors available : 220-240V/380-415V/50Hz for 2.2kW & below 380-415V/660-720V/50Hz for 3kW & above Other voltages such as 200V, 346V, 440V, 460V & 60Hz etc can be supplied on request
Power conditions	± 5% of rated voltage
Protection	IP55
Time duty	Continuous S1 duty
Cooling method	Self-external fan, surface cooling (IC 411)
Method of starting	Full voltage direct on line starting or star-delta starting
Mounting	Horizontal foot mounting, flange mounting: B3; B5; B14; B34; B35; V1
Stator insulation	Class F insulation; Class B temperature rise
Rotor winding	Squirrel cage, aluminium conductor with end-ring and wafer blades integrally cast
Environmental conditions	Place : Shadow, non-hazardous Ambient temperature : -20°C to 40°C Relative humidity : Less than 90% RH (non-condensation) Altitude : Less than 1,000m
Direction of rotation	Standard motors are suitable for operation in either direction of rotation. Direction of rotation of motor can be reversed by interchanging any two phases
Test procedure	IEC and full voltage measuring starting operation
Shaft	Carbon steel, round shaft with key
Bearing	Motors of frame sizes 160 and below are fitted with life-lubricated bearings Motors of frame sizes 180 and above are fitted with open bearings and re-greasing device
Painting	Phenolic rust-proof base plus lacquer surface finish; Painting in green colour
Nameplate	Stainless steel or aluminium
Grounding terminal	Set inside the terminal box
Fan Cover	Pressed Steel
Lubrication	Lithium-base grease (Shell Alvania R3)

Motors can be customized in accordance to customers' requirements:

1. IP56
2. IP65/IP66
3. Class H Insulation
4. Multi-speed
5. Special paint finished
6. Special Voltage/Hz
8. Corrosion-proof
9. PTC thermistor for heater thermal protection
10. Anti-condensation heater
11. Special shaft extension
12. Inverter duty application
13. Double ended shaft
14. Sun Canopy
15. Grease relief for frames down to 160L
16. Brake motor
17. TENV motors
18. Extend lead wire
19. High temperature resistance

7. Upon request, we can provide bearings with a minimum L_{10} rating of at least 100,000 hours in accordance with ISO 281

Table 1: Vibration						
Frame size	≤ 132	≤ 132	> 132 - 225	> 132 - 225	> 225 - 355	> 225 - 355
Synchronous speed	600 - 1800	> 1800 - 3600	600 - 1800	> 1800 - 3600	600 - 1800	> 1800 - 3600
Vibration class	Effective value of vibration speed mm/s					
N	1.8	1.8	2.8	2.8	3.5	3.5
R	0.71	1.12	1.12	1.8	1.8	2.8
S	0.45	0.71	0.71	1.12	1.12	1.8
Standard motors are designed to vibration class N(normal), vibration class R(reduced) and class S(special) are available on request.						

Diagram 2: Mounting Arrangements

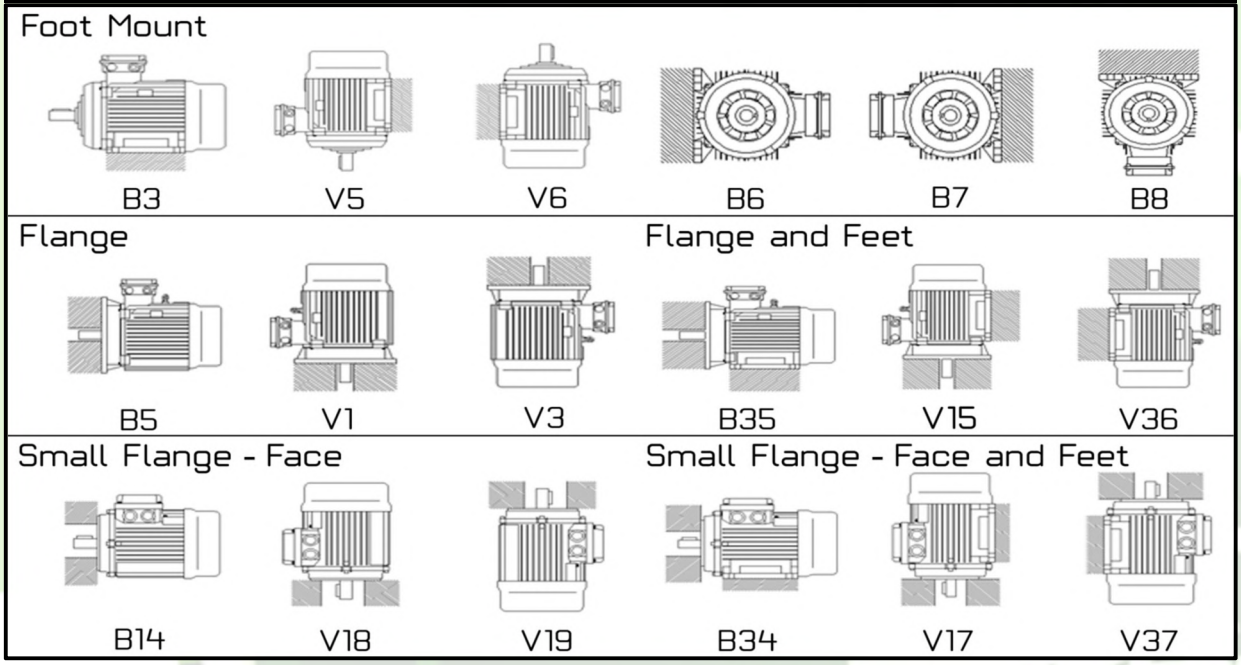
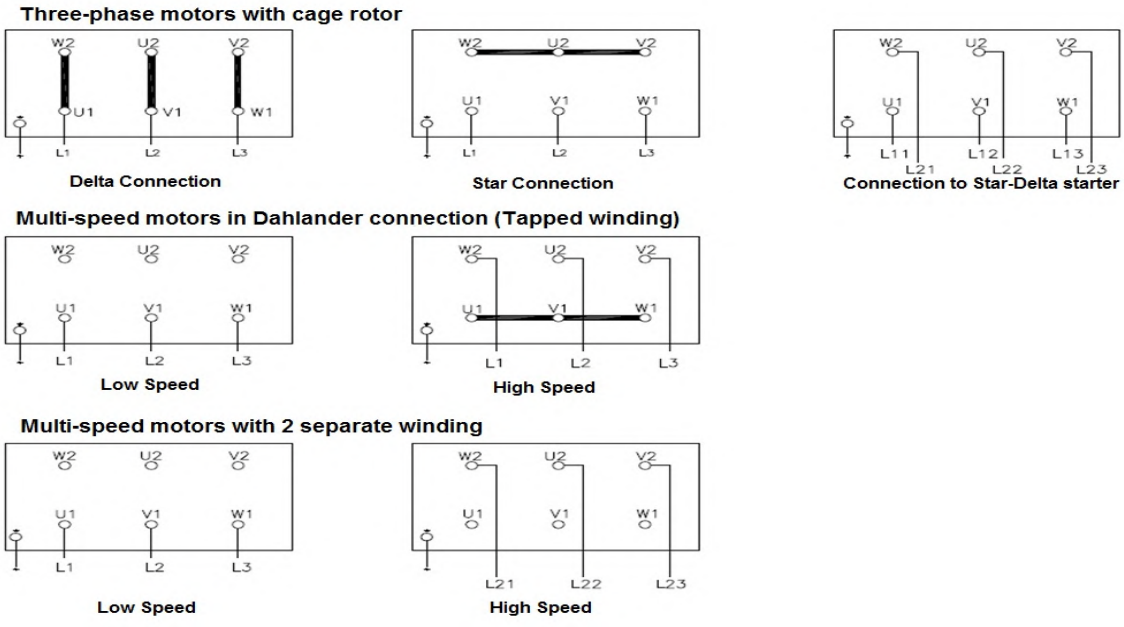


Diagram 3: Connection



Bearing Size		
Frame	***DE***	***NDE***
56	6201ZZC3	6201ZZC3
63	6201ZZC3	6201ZZC3
71	6202ZZC3	6202ZZC3
80	6204ZZC3	6204ZZC3
90	6205ZZC3	6205ZZC3
100	6206ZZC3	6206ZZC3
112	6306ZZC3	6306ZZC3
132	6308ZZC3	6308ZZC3
160	6309ZZC3	6309ZZC3
180	6311C3	6311C3
200	6312C3	6312C3
225	6313C3	6313C3
250	6314C3	6314C3
280 2P	6314C3	6314C3
280 4P-8P	6316C3	6316C3
315 2P (Horizontal)	6316C3	6316C3
315 2P (Vertical)	6316C3	7316
315 4P-8P (Horizontal)	NU319C3	6319C3
315 4P-8P (Vertical)	NU319C3	7319
355 2P (Horizontal)	6319C3	6319C3
355 2P (Vertical)	6319C3	7319
355 4P-8P (Horizontal)	NU322C3	6322C3
355 4P-8P (Vertical)	NU322C3	7322

TUV Certification

Test Report No. 7191058169-EEC13/01_CR1
dated 02 May 2013

PSB Singapore

Choose certainty. Add value.

FORMAL REPORT ON TESTING IN ACCORDANCE WITH EN 50121-5 : 2006 OF AN ELECTRIC MOTOR [Model : ATT/KTZ 3 Phase and 1 Phase Series]

TEST FACILITY: TÜV SÜD PSB Pte Ltd, Electrical & Electronics Centre (EEC), Product Services, No. 1 Science Park Drive, Singapore 118221

TÜV SÜD PSB Pte Ltd, Electrical & Electronics Centre (EEC), Product Services, 13 International Business Park #01-01, Singapore 609932

PREPARED FOR: ATT Electric & Machinery Pte Ltd, 6 Fifth Lok Yang Road, Singapore 629757

Tel : +65 6261 3579 Fax : +65 6261 1263

QUOTATION NUMBER 219171054

JOB NUMBER 7191058169

TEST PERIOD 19 Apr 2013 – 28 Apr 2013

PREPARED BY: Quek Keng Huat, Higher Associate Engineer

APPROVED BY: Lim Cher Hwee, Assistant Vice President

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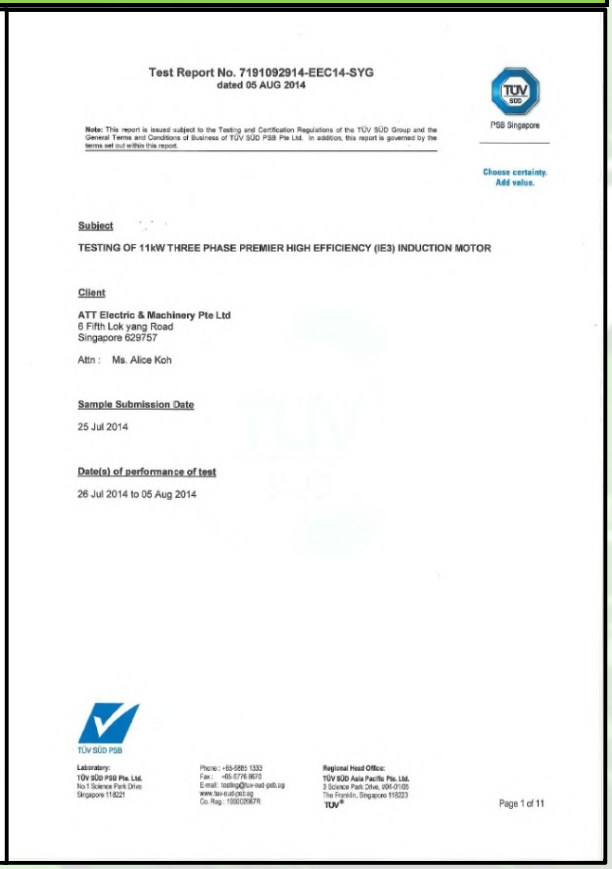

Test Report No. 7191092914-EEC14-SYG
dated 05 AUG 2014

PSB Singapore

Choose certainty. Add value.

Subject

TESTING OF 11kW THREE PHASE PREMIER HIGH EFFICIENCY (IE3) INDUCTION MOTOR

Client

ATT Electric & Machinery Pte Ltd
6 Fifth Lok yang Road
Singapore 629757

Attn : Ms. Alice Koh

Sample Submission Date

25 Jul 2014

Date(s) of performance of test

26 Jul 2014 to 05 Aug 2014

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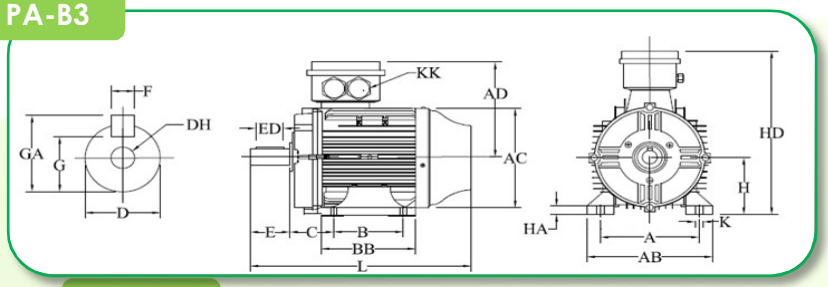
PA PERFORMANCE DATA AT 50HZ

Synchronous speed (2Pole/3000rpm, 4Pole/1500rpm, 6Pole/1000rpm)

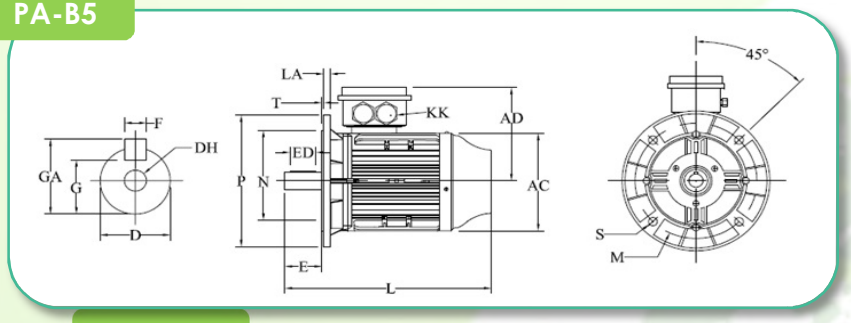
Rated Power		Pole	Model	Frame Size	Rated Speed (RPM)	Current			Eff (%)	Power Factor COSθ	Rated Torque (T_{FL}) Nm	I_{ST} / I_{FL}	T_{ST} / T_{FL}	T_M / T_{FL}	Moment of Inertia (kgm^2)	Weight (kg)
KW	HP					380V (A)	400V (A)	415V (A)	IE3							
0.75	1.0	2	GP020F75	80	2871	1.7	1.7	1.6	80.7	0.83	2.5	6.0	2.3	2.3	0.0011	9.5
		4	GP040F75	80	1437	1.9	1.8	1.7	82.5	0.73	5.0	7.0	2.4	2.4	0.0028	12.0
		6	GP060F75	90S	945	2.1	2.0	1.9	78.9	0.71	7.6	4.0	2.0	2.3	0.0053	15.0
1.1	1.5	2	GP021F10	80	2874	2.6	2.5	2.4	82.7	0.77	3.7	7.5	2.3	2.3	0.0015	11.0
		4	GP041F10	90S	1436	2.7	2.6	2.5	84.1	0.75	7.3	7.5	2.4	2.4	0.0041	16.0
		6	GP061F10	90L	953	3.1	2.9	2.8	81.0	0.68	11.0	4.0	2.0	2.3	0.0077	20.0
1.5	2.0	2	GP021F50	90S	2878	3.3	3.1	3.0	84.2	0.84	5.0	7.5	2.4	2.4	0.0024	15.0
		4	GP041F50	90L	1436	3.5	3.4	3.3	85.3	0.76	10.0	8.0	2.4	2.4	0.0054	20.0
		6	GP061F50	100L	953	3.9	3.6	3.5	82.5	0.72	15.0	5.0	2.0	2.3	0.0131	25.0
2.2	3.0	2	GP022F20	90L	2872	4.7	4.5	4.3	85.9	0.83	7.3	7.5	2.4	2.4	0.0030	18.0
		4	GP042F20	100L	1448	4.8	4.6	4.4	86.7	0.80	14.5	8.0	2.4	2.4	0.0103	26.0
		6	GP062F20	112M	966	5.5	5.2	5.0	84.3	0.73	21.7	5.0	2.0	2.3	0.0199	30.0
3.0	4.0	2	GP020003	100L	2880	6.1	5.8	5.6	87.1	0.86	9.9	8.0	2.4	2.4	0.0046	25.0
		4	GP040003	100L	1448	6.4	6.1	5.8	87.7	0.82	19.8	8.0	2.4	2.4	0.0130	30.0
		6	GP060003	132S	975	7.3	6.9	6.7	85.6	0.73	29.4	6.5	2.2	2.3	0.0371	38.5
4.0	5.5	2	GP020004	112M	2918	7.9	7.5	7.3	88.1	0.87	13.1	8.5	2.4	2.4	0.0075	28.5
		4	GP040004	112M	1459	8.5	8.1	7.8	88.6	0.81	26.2	7.5	2.4	2.4	0.0195	38.0
		6	GP060004	132M	976	9.5	9.1	8.7	86.8	0.73	39.1	7.0	2.2	2.3	0.0495	47.5
5.5	7.5	2	GP025F50	132S	2937	10.5	10.1	9.6	89.2	0.90	17.9	7.5	2.2	2.4	0.0140	41.0
		4	GP045F50	132S	1465	11.2	10.7	10.3	89.6	0.83	35.9	7.5	2.3	2.4	0.0353	46.0
		6	GP065F50	132M	976	12.7	12.0	11.6	88.0	0.75	53.8	7.0	2.2	2.3	0.0654	58.0
7.5	10	2	GP027F50	132S	2939	14.1	13.7	12.9	90.1	0.90	24.4	7.5	2.2	2.4	0.0174	46.5
		4	GP047F50	132M	1474	15.4	14.6	14.1	90.4	0.82	48.6	7.5	2.3	2.4	0.0467	54.0
		6	GP067F50	160M	980	16.6	15.7	15.2	89.1	0.77	73.1	7.0	2.2	2.4	0.1199	83.0
11	15	2	GP020011	160M	2950	20.6	19.6	18.9	91.2	0.89	35.6	8.5	2.2	2.4	0.0504	81.0
		4	GP040011	160M	1472	21.5	20.4	19.7	91.4	0.85	71.4	7.0	2.2	2.4	0.0984	88.0
		6	GP060011	160L	983	22.6	22.0	20.7	90.3	0.81	106.9	7.0	2.2	2.4	0.1685	99.0
15	20	2	GP020015	160M	2952	28.0	26.6	25.6	91.9	0.88	48.5	8.5	2.2	2.4	0.0634	93.0
		4	GP040015	160L	1472	28.9	27.4	26.5	92.1	0.85	97.3	7.0	2.2	2.4	0.1261	103.0

Note: 1. IFL = Full Load Current; IST = Locked Rotor Current; TST = Locked Rotor Torque; TM = Maximum or Breakdown Torque.
2. The data above is based on 400V design, 380V and 415V data is the reference value.
3. Tolerance according to IEC60034-1.
4. All technical details are subject to change without prior notice.

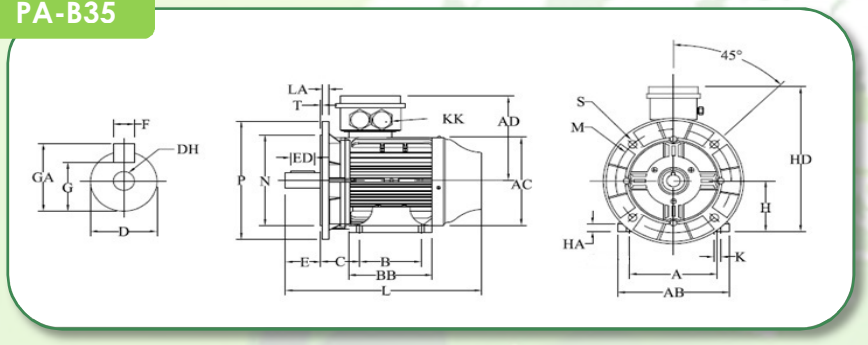
PA-B3



PA-B5



PA-B35



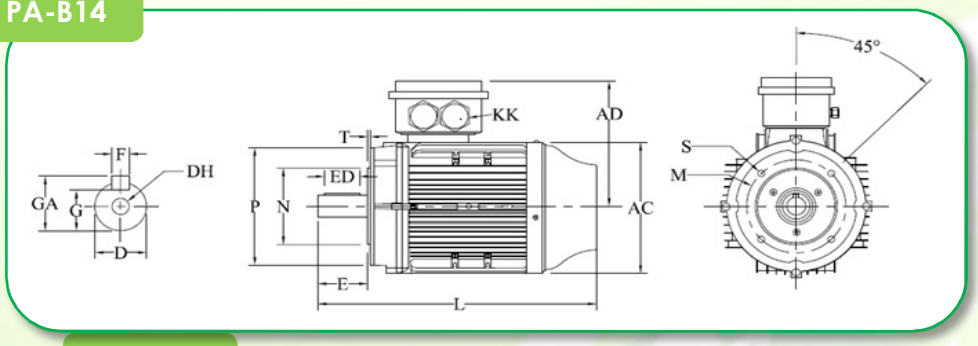
PA – B3/B5/B35 Mounting and Overall Dimensions

Frame Size	Poles	Mounting Dimensions					Overall Dimensions								
		A	B	C	H	K	AB	AC	AD	BB	KK	HA	HD	L	LA
80	2,4,6	125	100	50	80	10	155	160	125	125	1-M20X 1.5	11	205	295	10
90S	2,4,6	140	100	56	90	10	180	180	138	130	1-M20X 1.5	13	228	355	12
90L	2,4,6	140	125	56	90	10	180	180	138	155	1-M20x 1.5	13	228	385	12
100L	2,4,6	160	140	63	100	12	200	210	150	180	1-M20X 1.5	13	250	392	15
112M	2,4,6	190	140	70	112	12	220	225	172	180	2-M25X 1.5	14	284	405	15
132S	2,4,6	216	140	89	132	12	252	260	192	175	2-M25X 1.5	16	324	455	16
132M	2,4,6	216	178	89	132	12	252	260	192	213	2-M25X 1.5	16	324	490	16
160M	2,4,6	254	210	108	160	15	290	315	230	293	2-M25X 1.5	16	390	650	18
160L	2,4,6	254	254	108	160	15	290	315	230	338	2-M25X 1.5	16	390	690	18

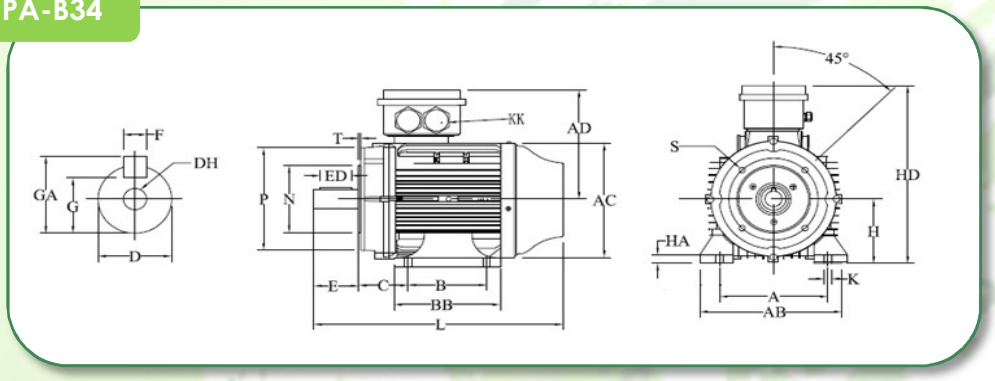
Frame Size	Poles	Flange Mounting Dimensions					Shaft Dimensions						
		M	N	P	S	T	D	DH	E	ED	F	G	GA
80	2,4,6	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5
90S	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X20	50	40	8	20	27
90L	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X20	50	40	8	20	27
100L	2,4,6	215	180	250	4-ø14.5	4	28j6	M10X25	60	45	8	24	31
112M	2,4,6	215	180	250	4-ø14.5	4	28j6	M10X25	60	45	8	24	31
132S	2,4,6	265	230	300	4-ø14.5	4	38k6	M12X30	80	63	10	33	41
132M	2,4,6	265	230	300	4-ø14.5	4	38k6	M12X30	80	63	10	33	41
160M	2,4,6	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	46
160L	2,4,6	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	46

All technical details are subject to change without prior notice.
All dimensions in millimetres (mm).

PA-B14



PA-B34



PA – B14/B34 Mounting and Overall Dimensions

Frame Size	Poles	Mounting Dimensions						Overall Dimensions							
		A	B	C	H	K	LA	AB	AC	AD	BB	KK	HA	HD	L
80	2,4,6	125	100	50	80	10	10	155	160	125	125	1-M20X 1.5	11	205	295
90S	2,4,6	140	100	56	90	10	12	180	180	138	130	1-M20X 1.5	13	228	355
90L	2,4,6	140	125	56	90	10	12	180	180	138	155	1-M20x 1.5	13	228	385
100L	2,4,6	160	140	63	100	12	15	200	210	150	180	1-M20X 1.5	13	250	392
112M	2,4,6	190	140	70	112	12	15	220	225	172	180	2-M25X 1.5	14	284	405
132S	2,4,6	216	140	89	132	12	16	252	260	192	175	2-M25X 1.5	16	324	455
132M	2,4,6	216	178	89	132	12	16	252	260	192	213	2-M25X 1.5	16	324	490
160M	2,4,6	254	210	108	160	15	18	290	315	230	293	2-M25X 1.5	16	390	650
160L	2,4,6	254	254	108	160	15	18	290	315	230	338	2-M25X 1.5	16	390	690

Frame Size	Poles	B14A Mounting Dimensions					B14B Mounting Dimensions					Shaft Dimensions						
		M	N	P	S	T	M	N	P	S	T	D	DH	E	ED	F	G	GA
80	2,4,6	100	80	120	4-M6	3	-	-	-	-	-	19j6	M6X16	40	25	6	15.5	21.5
90S	2,4,6	115	95	140	4-M8	3	-	-	-	-	-	24j6	M8X19	50	40	8	20	27
90L	2,4,6	115	95	140	4-M8	3	-	-	-	-	-	24j6	M8X19	50	40	8	20	27
100L	2,4,6	130	110	160	4-M8	3.5	-	-	-	-	-	28j6	M10X22	60	45	8	24	31
112M	2,4,6	130	110	160	4-M8	3.5	165	130	200	4-M10	3.5	28j6	M10X22	60	45	8	24	31
132S	2,4,6	165	130	200	4-M10	3.5	215	180	250	4-M12	4	38k6	M12X28	80	63	10	33	41
132M	2,4,6	165	130	200	4-M10	3.5	215	180	250	4-M12	4	38k6	M12X28	80	63	10	33	41
160M	2,4,6	215	180	250	4-M12	4	-	-	-	-	-	42k6	M16X36	110	90	12	37	46
160L	2,4,6	215	180	250	4-M12	4	-	-	-	-	-	42k6	M16X36	110	90	12	37	46

All technical details are subject to change without prior notice.
All dimensions in millimetres (mm).

PE PERFORMANCE DATA AT 50Hz

Synchronous speed (2P/3000rpm, 4P/1500rpm, 6P/1000rpm, 8P/750rpm)

Rated Power		Pole	Model	Frame Size	Rated Speed (RPM)	Current			Eff (%)	Power Factor COSθ	Rated Torque (T_{FL}) Nm	T_{ST} / T_{FL}	T_M / T_{FL}	I_{ST} / I_{FL}	Moment of Inertia (kgm^2)	Weight (kg)
KW	HP					380V (A)	400V (A)	415V (A)	IE3							
0.75	1.0	2	GP020F75	80	2871	1.7	1.7	1.6	80.7	0.83	2.5	2.3	2.3	7.0	0.001	17
		4	GP040F75	80	1437	1.9	1.8	1.7	82.5	0.73	5.0	2.3	2.3	6.6	0.003	20
		6	GP060F75	90S	945	2.1	2.0	1.9	78.9	0.71	7.6	2.0	2.1	6.0	0.004	26
		8	GP080F75	100L	690	2.3	2.2	2.1	75.0	0.67	10.4	2.0	2.2	3.5	0.008	34
1.1	1.5	2	GP021F10	80	2874	2.6	2.5	2.4	82.7	0.77	3.7	2.2	2.3	7.3	0.002	19
		4	GP041F10	90S	1436	2.7	2.6	2.5	84.1	0.75	7.3	2.3	2.3	6.8	0.004	26
		6	GP061F10	90L	953	3.1	2.9	2.8	81.0	0.68	11.0	2.0	2.1	6.0	0.006	30
		8	GP081F10	100L	690	3.1	3.0	2.9	77.7	0.69	15.2	2.2	2.4	3.6	0.010	39
1.5	2.0	2	GP021F50	90S	2878	3.3	3.1	3.0	84.2	0.84	5.0	2.2	2.3	7.6	0.002	25
		4	GP041F50	90L	1436	3.5	3.4	3.3	85.3	0.76	10.0	2.3	2.3	7.0	0.005	30
		6	GP061F50	100L	953	3.9	3.6	3.5	82.5	0.72	15.0	2.0	2.1	6.5	0.016	34
		8	GP081F50	112M	690	4.1	3.9	3.7	79.7	0.70	20.8	2.4	2.6	3.9	0.017	52
2.2	3.0	2	GP022F20	90L	2872	4.7	4.5	4.3	85.9	0.83	7.3	2.2	2.3	7.6	0.003	29
		4	GP042F20	100L	1448	4.8	4.6	4.4	86.7	0.80	14.5	2.3	2.3	7.6	0.012	34
		6	GP062F20	112M	966	5.5	5.2	5.0	84.3	0.73	21.7	2.0	2.1	6.6	0.039	40
		8	GP082F20	132S	710	5.7	5.5	5.3	81.9	0.71	29.6	2.3	2.5	4.3	0.031	65
3.0	4.0	2	GP020003	100L	2880	6.1	5.8	5.6	87.1	0.86	9.9	2.2	2.3	7.8	0.006	34
		4	GP040003	100L	1448	6.4	6.1	5.8	87.7	0.82	19.8	2.3	2.3	7.6	0.016	40
		6	GP060003	132S	975	7.3	6.9	6.7	85.6	0.73	29.4	2.0	2.1	6.8	0.035	57
		8	GP080003	132M	710	7.5	7.1	6.8	83.5	0.73	40.4	2.2	2.4	4.4	0.040	81
4.0	5.5	2	GP020004	112M	2918	7.9	7.5	7.3	88.1	0.87	13.1	2.2	2.3	8.3	0.009	43
		4	GP040004	112M	1459	8.5	8.1	7.8	88.6	0.81	26.2	2.2	2.3	7.9	0.022	48
		6	GP060004	132M	976	9.5	9.1	8.7	86.8	0.73	39.1	2.0	2.1	6.8	0.043	73
		8	GP060004	160M	720	9.8	9.3	9.0	84.8	0.73	53.1	2.2	2.5	4.4	0.075	93
5.5	7.5	2	GP025F50	132S	2937	10.5	10.1	9.6	89.2	0.90	17.9	2.0	2.3	8.3	0.024	60
		4	GP045F50	132S	1465	11.2	10.7	10.3	89.6	0.83	35.9	2.0	2.3	7.5	0.060	68
		6	GP065F50	132M	976	12.7	12.0	11.6	88.0	0.75	53.8	2.0	2.1	7.0	0.056	77
		8	GP085F50	160L	720	13.1	12.4	12.0	86.2	0.74	73.0	2.2	2.4	5.0	0.093	110
7.5	10	2	GP027F50	132S	2939	14.1	13.7	12.9	90.1	0.90	24.4	2.0	2.3	7.9	0.029	70
		4	GP047F50	132M	1474	15.4	14.6	14.1	90.4	0.82	48.6	2.0	2.3	7.7	0.071	82
		6	GP067F50	160M	980	16.6	15.7	15.2	89.1	0.77	73.1	2.0	2.1	7.0	0.140	110
		8	GP087F50	160L	720	17.4	16.5	15.9	87.3	0.75	99.5	2.1	2.3	5.7	0.126	130
11	15	2	GP020011	160M	2950	20.6	19.6	18.9	91.2	0.89	35.6	2.0	2.3	8.1	0.067	109
		4	GP040011	160M	1472	21.5	20.4	19.7	91.4	0.85	71.4	2.2	2.3	7.8	0.137	115
		6	GP060011	160L	983	22.6	22.0	20.7	90.3	0.81	106.9	2.0	2.1	7.2	0.192	133
		8	GP080011	180L	730	25.2	23.9	23.0	88.6	0.75	143.9	2.3	2.5	5.6	0.203	170
15	20	2	GP020015	160M	2952	28.0	26.6	25.6	91.9	0.88	48.5	2.0	2.3	8.1	0.080	119
		4	GP040015	160L	1472	28.9	27.4	26.5	92.1	0.85	97.3	2.2	2.3	7.8	0.171	135
		6	GP060015	180L	980	31.0	29.5	28.4	91.2	0.80	146.2	2.0	2.1	7.3	0.319	174
		8	GO080015	200L	730	33.5	31.8	30.6	89.6	0.76	196.2	2.1	2.4	5.5	0.339	215
18.5	25	2	GP0218F5	160L	2953	32.7	32.5	30.0	92.4	0.93	59.8	2.0	2.3	8.2	0.097	136
		4	GP0418F5	180M	1474	34.6	33.5	31.7	92.6	0.87	119.9	2.0	2.3	7.8	0.238	170
		6	GP0618F5	200L	986	38.0	36.0	34.8	91.7	0.80	179.2	2.0	2.1	7.3	0.446	223
		8	GP0818F5	225S	730	41.0	39.0	37.6	90.1	0.76	242.0	2.1	2.4	5.5	0.491	260
22	30	2	GP020022	180M	2950	40.5	38.5	37.1	92.7	0.89	71.2	2.0	2.3	8.2	0.137	172
		4	GP040022	180L	1475	42.0	39.9	38.4	93.0	0.85	142.4	2.0	2.3	7.3	0.259	184
		6	GP060022	200L	986	44.7	42.5	41.0	92.2	0.81	213.1	2.0	2.1	7.4	0.446	232
		8	GP060022	225M	740	47.3	44.9	43.3	90.6	0.78	283.9	2.1	2.4	5.4	0.547	290
30	40	2	GP020030	200L	2968	55.1	52.3	50.4	93.3	0.88	96.5	2.0	2.3	7.6	0.227	260
		4	GP040030	200L	1474	57.8	54.9	52.9	93.6	0.84	194.4	2.0	2.3	7.4	0.459	280
		6	GP060030	225M	986	59.3	56.3	54.3	92.9	0.82	290.6	2.0	2.1	6.9	0.832	280
		8	GP060030	250M	740	63.2	60.0	57.9	91.3	0.79	387.2	2.2	2.5	5.3	0.830	389
37	50	2	GP020037	200L	2965	67.4	64.0	61.7	93.7	0.89	119.2	2.0	2.3	7.6	0.269	280
		4	GP040037	225S	1480	69.6	66.1	63.7	93.9	0.86	238.8	2.0	2.3	7.4	0.656	320
		6	GP060037	250M	986	71.8	68.1	65.7	93.3	0.84	358.4	2.0	2.1	7.1	1.447	365
		8	GP080037	280S	740	77.5	73.6	71.0	91.8	0.79	477.5	2.3	2.7	5.6	1.390	550
45	60	2	GP020045	225M	2965	80.8	76.8	74.0	94.0	0.90	144.9	2.0	2.3	7.7	0.360	330
		4	GP040045	225M	1485	84.5	80.2	77.4	94.2	0.85	289.4	2.0	2.0	7.4	0.758	350
		6	GP060045	280S	990	86.0	81.7	78.7	93.7	0.84	434.1	2.0	2.0	7.3	2.252	478
		8	GP080045	280M	740	93.9	89.2	86.0	92.2	0.79	580.7	2.1	2.8	5.2	1.650	650

Note:
1. IFL = Full Load Current; IST = Locked Rotor Current; TST = Locked Rotor Torque; TM = Maximum or Breakdown Torque.
2. The data above is based on 400V design, 380V and 415V data is the reference value.
3. Tolerance according to IEC60034-1.
4. All technical details are subject to change without prior notice.

PE PERFORMANCE DATA AT 50HZ

Synchronous speed (2Pole/3000rpm, 4Pole/1500rpm, 6Pole/1000rpm, 8Pole/750rpm)

Rated Power		Pole	Model	Frame Size	Rated Speed (RPM)	Current			Eff (%)	Power Factor COSθ	Rated Torque (T_{FL}) Nm	T_{ST} / T_{FL}	T_M / T_{FL}	I_{ST} / I_{FL}	Moment of Inertia (kgm^2)	Weight (kg)
KW	HP					380V	400V	415V								
						(A)	(A)	(A)	IE3							
55	75	2	GP020055	250M	2976	97.7	93.5	89.5	94.3	0.90	176.5	2.0	2.3	7.7	0.791	390
		4	GP040055	250M	1485	103.0	98.0	94.1	94.6	0.86	353.7	2.2	2.3	7.4	1.078	450
		6	GP060055	280M	990	103.5	98.3	94.8	94.1	0.85	530.6	2.0	2.0	7.3	2.726	596
		8	GP080055	315S	740	111.5	106.0	102.1	92.5	0.81	709.8	1.9	2.5	5.7	4.790	940
75	100	2	GP020075	280S	2975	133.9	127.2	122.6	94.7	0.89	240.8	1.8	2.3	7.1	0.960	610
		4	GP040075	280S	1491	138.4	131.4	126.7	95.0	0.86	480.4	2.0	2.3	6.9	1.800	600
		6	GP060075	315S	990	143.6	136.3	131.5	94.6	0.83	723.5	2.0	2.0	6.6	3.984	970
		8	GP080075	315M	740	151.1	143.6	138.4	93.1	0.81	709.8	2.1	2.8	5.9	5.580	1050
90	125	2	GP020090	280M	2975	163.2	155.1	149.5	95.0	0.88	288.9	1.8	2.3	7.1	1.157	680
		4	GP040090	280M	1492	162.2	155.0	148.5	95.2	0.88	576.1	2.0	2.3	6.9	2.130	670
		6	GP060090	315M	990	170.2	161.7	155.8	94.9	0.84	868.2	2.0	2.0	6.7	4.500	1100
		8	GP080090	315L	740	178.5	169.6	163.5	93.4	0.82	1161.5	2.3	2.9	6.2	6.370	1070
110	150	2	GP020110	315S	2985	198.2	188.3	181.5	95.2	0.88	351.9	1.8	2.3	7.1	1.662	960
		4	GP040110	315S	1491	197.8	187.6	181.1	95.4	0.88	704.6	2.0	2.2	7.0	3.415	960
		6	GP060110	315L	990	207.5	197.1	190.0	95.1	0.84	1061.1	2.0	2.0	6.7	5.607	1265
		8	GP080110	315L	740	217.5	206.6	199.2	93.7	0.82	1419.6	2.2	2.8	6.0	7.230	1090
132	180	2	GP020132	315M	2986	234.1	222.4	214.4	95.4	0.89	422.2	1.8	2.3	7.1	1.874	1050
		4	GP040132	315M	1490	240.1	227.9	219.8	95.6	0.87	846.0	2.0	2.2	7.0	3.807	1050
		6	GP060132	315L	990	246.5	234.2	225.7	95.4	0.85	1273.3	2.0	2.0	6.8	6.935	1300
		8	GP080132	355M	740	263.4	250.2	241.2	94.0	0.81	1704.0	1.6	2.0	5.4	11.730	1550
160	215	2	GP020160	315L	2986	280.4	266.4	256.8	95.6	0.90	511.7	1.8	2.3	7.2	2.146	1080
		4	GP040160	315L	1490	286.8	272.5	262.6	95.8	0.88	1025.5	2.0	2.2	7.1	3.423	1170
		6	GP060160	355M	990	296.4	281.6	271.4	95.6	0.85	1543.4	1.8	2.0	6.8	10.222	1740
		8	GP080160	355M	740	318.3	302.4	291.4	94.3	0.81	2066.0	1.6	2.0	5.4	12.480	1590
185	250	2	GP020185	315L	2985	323.0	307.0	295.6	95.7	0.91	591.8	1.8	2.2	7.2	2.481	1200
		4	GP040185	315L	1490	329.0	313.0	301.6	95.9	0.89	1185.7	2.0	2.2	7.1	3.958	1180
		6	GP060185	355M	995	342.0	324.0	312.8	95.7	0.86	1775.7	1.8	2.0	6.8	10.630	1870
		8	GP080185	355L	740	368.0	349.6	337.0	94.3	0.81	2388.0	1.6	2.0	5.4	12.860	1800
200	270	2	GP020200	315L	2985	350.5	333.0	321	95.8	0.90	639.9	1.8	2.2	7.2	2.448	1220
		4	GP040200	315L	1490	353.3	335.8	323.5	96.0	0.89	1281.9	2.0	2.2	7.1	5.262	1220
		6	GP060200	355M	995	365.1	346.6	334.3	95.8	0.86	1919.6	1.8	2.0	6.8	11.031	1945
		8	GP080200	355L	740	396.6	376.7	363.1	94.6	0.81	2582.0	1.6	2.0	5.4	13.850	1850
220	300	2	GP020220	355M	2985	383.0	364.0	351.1	95.8	0.91	703.9	1.6	2.2	7.2	2.693	1700
		4	GP040220	355M	1490	387.0	368.0	354.3	96.0	0.90	1410.0	2.0	2.2	7.1	5.449	1780
		6	GP060220	355L	995	401.0	381.0	367.3	95.8	0.87	2111.6	1.8	2.0	6.8	11.072	2000
		8	GP080220	355	740	436.2	414.4	399.5	94.6	0.81	2839.0	1.6	2.0	5.4	14.230	2230
250	335	2	GP020250	355M	2986	435.7	414.0	399.0	95.8	0.91	799.6	1.6	2.2	7.2	4.030	1720
		4	GP040250	355M	1495	442.6	418.9	405.3	96.0	0.89	1597.0	2.0	2.2	7.1	6.192	1850
		6	GP060250	355L	995	457.4	433.4	418.8	95.8	0.86	2399.5	1.8	2.0	6.8	11.897	2070
		8	GP080250	355	740	495.7	471.0	454.0	94.6	0.81	3226.0	1.6	2.0	5.4	14.850	2410
280	380	2	GP020280	355L	2985	488.0	464.0	446.9	95.8	0.91	895.8	1.6	2.2	7.2	4.518	1840
		4	GP040280	355L	1495	492.0	468.0	450.9	96.0	0.90	1788.6	2.0	2.2	7.1	6.935	1900
		6	GP060280	355	995	516.0	491.0	472.9	95.8	0.86	2687.5	1.8	2.0	6.8	13.692	2200
315	425	2	GP020315	355L	2985	551.5	523.9	504.9	95.8	0.90	1007.8	1.6	2.2	7.2	4.645	1860
		4	GP040315	355L	1495	553.4	526.0	507.3	96.0	0.90	2012.2	2.0	2.2	7.1	7.273	2000
		6	GP060315	355	995	582.3	552.8	533.2	95.8	0.85	3023.4	1.8	2.0	6.8	14.990	2400
355	480	2	GP020355	355	2986	622.8	591.9	570.3	95.8	0.90	1135.4	1.6	2.2	7.2	5.242	2160
		4	GP040355	355	1495	640.7	608.0	586.7	96.0	0.87	2267.7	1.7	2.2	7.0	8.196	2290
375	505	2	GP020375	355	2985	654.0	621.0	598.5	95.8	0.91	1199.7	1.6	2.2	7.2	5.536	2400
		4	GP040375	355	1495	674.0	641.0	617.6	96.0	0.88	2395.5	1.7	2.2	7.0	8.658	2350

Note:
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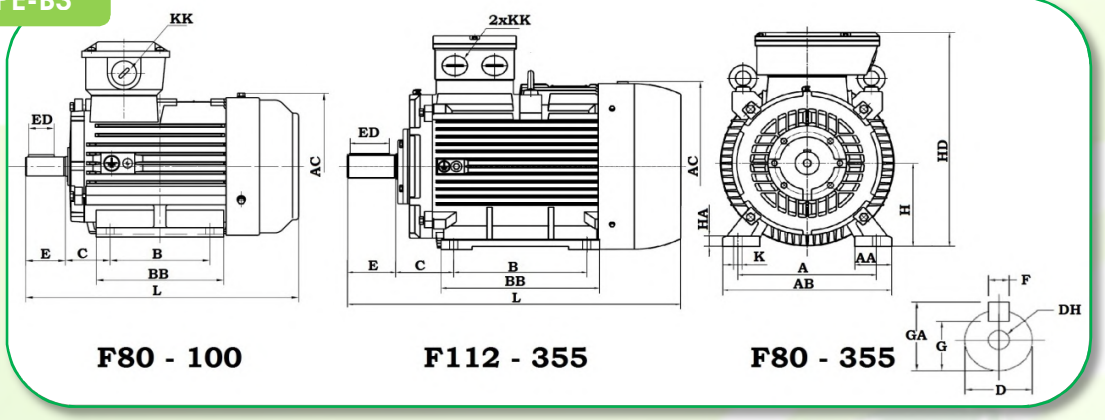
2. The data above is based on 400V design, 380V and 415V data is the reference value.
3. Tolerance according to IEC60034-1.
4. All technical details are subject to change without prior notice.

PE-B3



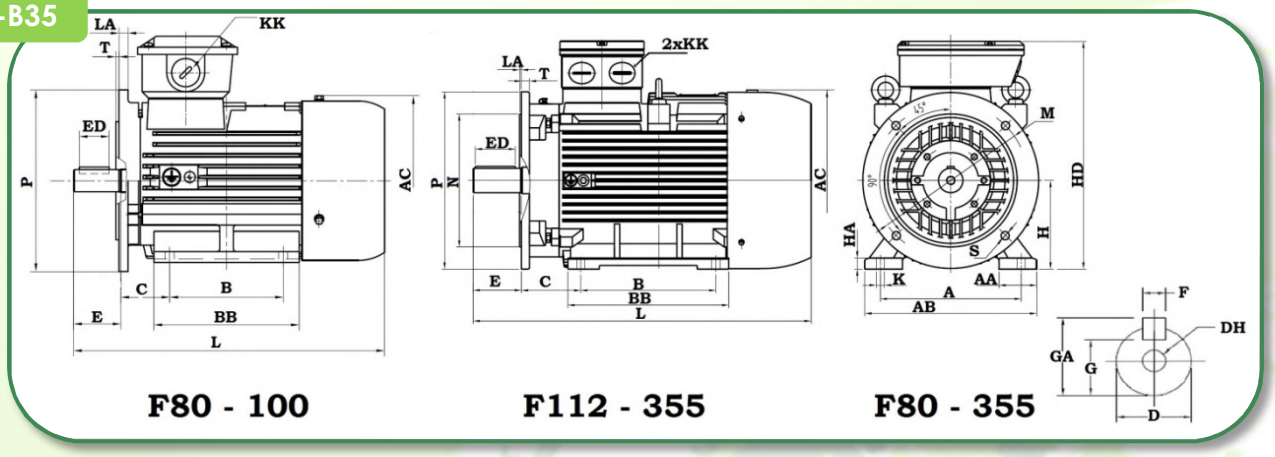
PE B3 Foot Mounting Dimensions

F#80~90 without lifting bolt

Frame Size	Poles	Mounting Dimensions					Shaft Dimensions							Overall Dimensions							
		A	B	C	H	K	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HA	HD	KK	L
80	2,4,6,8	125	100	50	80	10	19j6	M6X16	40	22	6	15.5	21.5	34	160	175	142	10	220	M25X 1.5	305
90S	2,4,6,8	140	100	56	90	10	24j6	M8X19	50	40	8	20	27	36	180	195	180	12.5	260	M25X 1.5	360
90L	2,4,6,8	140	125	56	90	10	24j6	M8X19	50	40	8	20	27	36	180	195	210	12.5	265	M25X 1.5	390
100	2,4,6,8	160	140	63	100	12	28j6	M10X22	60	45	8	24	31	40	200	215	235	14	275	M25X 1.5	435
112	2,4,6,8	190	140	70	112	12	28j6	M10X22	60	40	8	24	31	45	230	236	255	14	300	M32X 1.5	470
132S	2,4,6,8	216	140	89	132	12	38k6	M12X28	80	56	10	33	41	52	265	275	220	16	345	M32X 1.5	510
132M	2,4,6,8	216	178	89	132	12	38k6	M12X28	80	56	10	33	41	52	265	275	258	16	345	M32X 1.5	560
160M	2,4,6,8	254	210	108	160	14.5	42k6	M16X36	110	80	12	37	45	65	320	330	305	19	425	M40X1.5	655
160L	2,4,6,8	254	254	108	160	14.5	42k6	M16X36	110	80	12	37	45	65	320	330	325	19	425	M40X1.5	675
180M	2,4,6,8	279	241	121	180	14.5	48k6	M16X36	110	80	14	42.5	51.5	74	350	380	330	22	460	M40X1.5	720
180L	2,4,6,8	279	279	121	180	14.5	48k6	M16X36	110	80	14	42.5	51.5	74	350	380	370	22	460	M40X1.5	768
200L	2,4,6,8	318	305	133	200	18.5	55m6	M20X42	110	90	16	49	59	85	395	420	370	25	524	M50x1.5	789
225S	4,6,8	356	286	149	225	18.5	60m6	M20X42	140	110	18	53	64	80	436	465	355	28	560	M50x1.5	841
225M	2	356	311	149	225	18.5	55m6	M20X42	110	80	16	49	59	80	436	465	380	28	560	M50x1.5	861
225M	4,6,8	356	311	149	225	18.5	60m6	M20X42	140	110	18	53	64	80	436	465	380	28	560	M50x1.5	866
250M	2	406	349	168	250	24	60m6	M20X42	140	110	18	53	64	88	495	520	440	33	625	M63X1.5	946
250M	4,6,8	406	349	168	250	24	65m6	M20X42	140	110	18	58	69	88	495	550	440	33	625	M63X1.5	952
280S	2	457	368	190	280	24	65m6	M20X42	140	110	18	58	69	109	550	570	535	35	705	M63X1.5	1020
280S	4,6,8	457	368	190	280	24	75m6	M20X42	140	100	20	67.5	79.5	109	550	570	535	35	705	M63X1.5	1010
280M	2	457	419	190	280	24	65m6	M20X42	140	110	18	58	69	109	550	570	535	35	705	M63X1.5	1020
280M	4,6,8	457	419	190	280	24	75m6	M20X42	140	100	20	67.5	79.5	109	550	570	535	35	705	M63X1.5	1010
315S	2	508	406	216	315	28	65m6	M20X42	140	110	18	58	69	120	635	650	565	45	870	M63X1.5	1180
315S	4,6,8	508	406	216	315	28	80m6	M20X42	170	140	22	71	85	120	635	650	565	45	870	M63X1.5	1222
315M	2	508	457	216	315	28	65m6	M20X42	140	110	18	58	69	120	635	650	675	45	870	M63X1.5	1290
315M	4,6,8	508	457	216	315	28	80m6	M20X42	170	140	22	71	85	120	635	650	675	45	870	M63X1.5	1332
315L	2	508	508	216	315	28	65m6	M20X42	140	110	18	58	69	120	635	650	675	45	870	M63X1.5	1290
315L	4,6,8	508	508	216	315	28	80m6	M20X42	170	140	22	71	85	120	635	650	675	45	870	M63X1.5	1332
355M	2	610	560	254	355	28	75m6	M24X50	140	110	20	67.5	79.5	125	735	735	775	49	995	M63X1.5	1490
355M	4,6,8	610	560	254	355	28	100m6	M24X50	210	170	28	90	106	125	735	735	775	49	995	M63X1.5	1570
355L	2	610	630	254	355	28	75m6	M24X50	140	110	20	67.5	79.5	125	735	735	775	49	995	M63X1.5	1490
355L	4,6,8	610	630	254	355	28	100m6	M24X50	210	170	28	90	106	125	735	735	775	49	995	M63X1.5	1570

All technical details are subject to change without prior notice.
All dimensions in millimetres (mm).

PE-B35



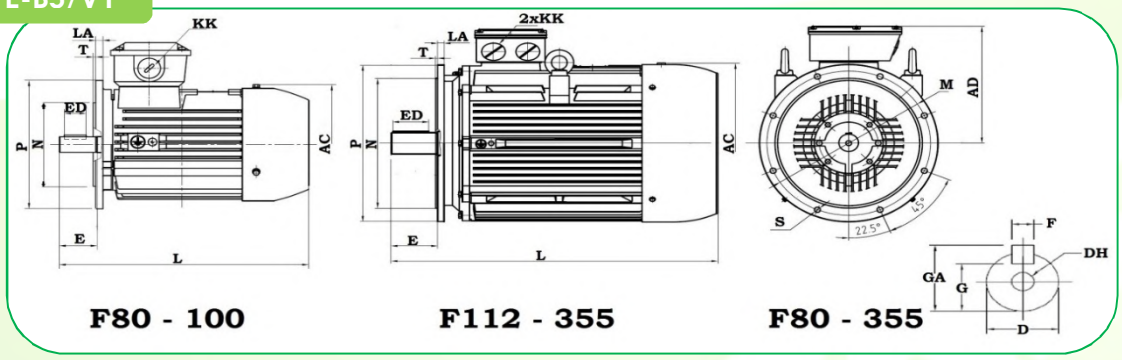
PE B35 Foot & Flange Mounting Dimensions

F#80~90 without lifting bolt

Frame Size	Poles	Mounting Dimensions										Shaft Dimensions							Overall Dimensions								
		A	B	C	H	K	M	N	P	S	T	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HA	HD	KK	L	LA
80	2,4,6,8	125	100	50	80	10	165	130	200	4-ø12	3.5	19j6	M6X16	40	22	6	15.5	21.5	34	165	175	142	10	220	M25X1.5	305	14
90S	2,4,6,8	140	100	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	32	8	20	27	36	180	195	180	12.5	260	M25X1.5	360	12
90L	2,4,6,8	140	180	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	32	8	20	27	36	180	195	210	12.5	260	M25X1.5	390	12
100	2,4,6,8	160	140	63	100	12	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	40	200	215	235	14	275	M25X1.5	435	14
112	2,4,6,8	190	140	70	112	12	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	45	230	236	255	14	300	M32X1.5	470	14
132S	2,4,6,8	216	140	89	132	12	265	230	300	4-ø14.5	4	38k6	M12X28	80	56	10	33	41	52	270	275	220	16	345	M32X1.5	510	13
132M	2,4,6,8	216	178	89	132	12	265	230	300	4-ø14.5	4	38k6	M12X28	80	56	10	33	41	52	270	275	258	16	345	M32X1.5	560	13
160M	2,4,6,8	254	210	108	160	14.5	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	45	65	320	330	305	19	425	M40X1.5	655	15
160L	2,4,6,8	254	254	108	160	14.5	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	45	65	320	330	325	19	425	M40X1.5	675	15
180M	2,4,6,8	279	241	121	180	14.5	300	250	350	4-ø18.5	5	48k6	M16X36	110	90	14	42.5	51.5	74	350	380	330	22	460	M40X1.5	720	15
180L	2,4,6,8	279	279	121	180	14.5	300	250	350	4-ø18.5	5	48k6	M16X36	110	90	14	42.5	51.5	74	350	380	370	22	460	M40X1.5	768	15
200	2,4,6,8	318	305	133	200	18.5	350	300	400	4-ø18.5	5	55m6	M20X42	110	90	16	49	59	85	395	420	370	25	524	M50X1.5	789	17
225S	4,6,8	356	286	149	225	18.5	400	350	450	8-ø18.5	5	60m6	M20X42	140	110	18	53	64	80	436	465	355	28	560	M50X1.5	841	19
225M	2	356	311	149	225	18.5	400	350	450	8-ø18.5	5	55m6	M20X42	110	90	16	49	59	80	436	465	380	28	560	M50X1.5	861	19
225M	4,6,8	356	311	149	225	18.5	400	350	450	8-ø18.5	5	60m6	M20X42	140	110	18	53	64	80	436	465	380	28	560	M50X1.5	866	19
250M	2	406	349	168	250	24	500	450	550	8-ø18.5	5	60m6	M20X42	140	110	18	53	64	88	495	520	440	33	625	M63X1.5	946	20
250M	4,6,8	406	349	168	250	24	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	88	495	520	440	33	625	M63X1.5	952	20
280S	2	457	368	190	280	24	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	109	550	570	495	35	705	M63X1.5	1020	22
280S	4,6,8	457	368	190	280	24	500	450	550	8-ø18.5	5	75m6	M20X42	140	110	20	67.5	79.5	109	550	570	495	35	705	M63X1.5	1010	22
280M	2	457	419	190	280	24	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	109	550	570	535	35	705	M63X1.5	1020	22
280M	4,6,8	457	419	190	280	24	500	450	550	8-ø18.5	5	75m6	M20X42	140	110	20	67.5	79.5	109	550	570	535	35	705	M63X1.5	1010	22
315S	2	508	406	216	315	28	600	550	660	8-ø24	6	65m6	M20X42	140	110	18	58	69	120	635	650	565	45	870	M63X1.5	1180	24
315S	4,6,8	508	406	216	315	28	600	550	660	8-ø24	6	80m6	M20X42	170	140	22	71	85	120	635	645	565	45	870	M63X1.5	1222	24
315M	2	508	457	216	315	28	600	550	660	8-ø24	6	65m6	M20X42	140	110	18	58	69	120	635	650	675	45	870	M63X1.5	1290	24
315M	4,6,8	508	457	216	315	28	600	550	660	8-ø24	6	80m6	M20X42	170	140	22	71	85	120	635	650	675	45	870	M63X1.5	1332	24
315L	2	508	508	216	315	28	600	550	660	8-ø24	6	65m6	M20X42	140	100	18	58	69	120	635	650	675	45	845	M63X1.5	1290	24
315L	4,6,8	508	508	216	315	28	600	550	660	8-ø24	6	80m6	M20X42	170	140	22	71	85	120	635	650	675	45	845	M63X1.5	1332	24
355M	2	610	560	254	355	28	740	680	800	8-ø24	6	75m6	M20X50	140	110	20	67.5	79.5	125	735	735	775	49	995	M63X1.5	1490	25
355M	4,6,8	610	560	254	355	28	740	680	800	8-ø24	6	100m6	M20X50	210	170	28	90	106	125	735	735	775	49	995	M63X1.5	1570	25
355L	2	610	630	254	355	28	740	680	800	8-ø24	6	75m6	M20X50	140	110	20	67.5	79.5	125	735	735	775	49	995	M63X1.5	1490	25
355L	4,6,8	610	630	254	355	28	740	680	800	8-ø24	6	100m6	M20X50	210	170	28	90	106	125	735	735	775	49	995	M63X1.5	1570	25

All technical details are subject to change without any prior notice.
All dimensions in millimetres (mm).

PE-B5/V1



PE B5/V1 Flange Mounting Dimensions

F#80~90 without lifting bolt

Frame Size	Poles	Mounting Dimensions					Shaft Dimensions							Overall Dimensions				
		M	N	P	S	T	D	DH	E	ED	F	G	GA	AC	AD	KK	LA	L
80	2,4,6,8	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5	175	145	M25X 1.5	14	305
90S	2,4,6,8	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	195	165	M25X 1.5	12	360
90L	2,4,6,8	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	195	165	M25X 1.5	12	390
100	2,4,6,8	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	215	180	M25X 1.5	14	435
112	2,4,6,8	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	236	190	M32X1.5	14	470
132S	2,4,6,8	265	230	300	4-ø14.5	4	38k6	M12X28	80	56	10	33	41	275	210	M32X1.5	14	510
132M	2,4,6,8	265	230	300	4-ø14.5	4	38k6	M12X28	80	56	10	33	41	275	210	M32X1.5	14	560
160M	2,4,6,8	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	45	330	265	M40X1.5	15	655
160L	2,4,6,8	300	250	350	4-ø18.5	5	42k6	M16X36	110	90	12	37	45	330	265	M40X1.5	15	675
180M	2,4,6,8	300	250	350	4-ø18.5	5	48k6	M16X36	110	90	14	42.5	51.5	380	270	M40X1.5	15	720
180L	2,4,6,8	300	250	350	4-ø18.5	5	48k6	M16X36	110	90	14	42.5	51.5	380	270	M40X1.5	15	768
200L	2,4,6,8	350	300	400	4-ø18.5	5	55m6	M20X42	110	90	16	49	59	420	324	M50X1.5	17	789
225S	4,6,8	400	350	450	8-ø18.5	5	60m6	M20X42	140	110	18	53	64	465	335	M50X1.5	19	841
225M	2	400	350	450	8-ø18.5	5	55m6	M20X42	110	90	16	49	59	465	350	M50X1.5	19	861
225M	4,6,8	400	350	450	8-ø18.5	5	60m6	M20X42	140	100	18	53	64	465	335	M50X1.5	19	866
250M	2	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	53	64	520	375	M63X1.5	20	946
250M	4,6,8	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	520	375	M63X1.5	20	952
280S	2	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	570	405	M63X1.5	22	1020
280S	4,6,8	500	450	550	8-ø18.5	5	75m6	M20X42	140	110	20	67.5	79.5	570	405	M63X1.5	22	1010
280M	2	500	450	550	8-ø18.5	5	65m6	M20X42	140	110	18	58	69	570	405	M63X1.5	22	1020
280M	4,6,8	500	450	550	8-ø18.5	5	75m6	M20X42	140	110	20	67.5	79.5	570	405	M63X1.5	22	1080
315S	2	600	550	660	8-ø24	6	65m6	M20X42	140	110	18	58	69	650	555	M63X1.5	24	1180
315S	4,6,8	600	550	660	8-ø24	6	80m6	M20X42	170	140	22	71	85	650	555	M63X1.5	24	1222
315M	2	600	550	660	8-ø24	6	65m6	M20X42	140	110	18	58	69	650	555	M63X1.5	24	1290
315M	4,6,8	600	550	660	8-ø24	6	80m6	M20X42	170	140	22	71	85	650	555	M63X1.5	24	1332
315L	2	600	550	660	8-ø24	6	65m6	M20X50	140	110	18	58	69	645	555	M63X1.5	24	1290
315L	4,6,8	600	550	660	8-ø24	6	80m6	M20X50	170	140	22	71	85	650	555	M63X1.5	24	1335
355M	2	740	680	800	8-ø24	6	75m6	M20X50	140	110	20	67.5	79.5	735	640	M63X1.5	25	1490
355M	4,6,8	740	680	800	8-ø24	6	100m6	M20X50	210	170	28	90	106	735	640	M63X1.5	25	1570
355L	2	740	780	800	8-ø24	6	80m6	M20X50	140	110	20	67.5	79.5	735	640	M63X1.5	25	1490
355L	4,6,8	740	680	800	8-ø24	6	100m6	M20X50	210	170	28	90	106	735	640	M63X1.5	25	1570

All technical details are subject to change without prior notice.
All dimensions in millimetres (mm).

SINGLE PHASE SERIES

Single Phase Aluminium Induction Motor
Specially used when only single-phase current supply is available

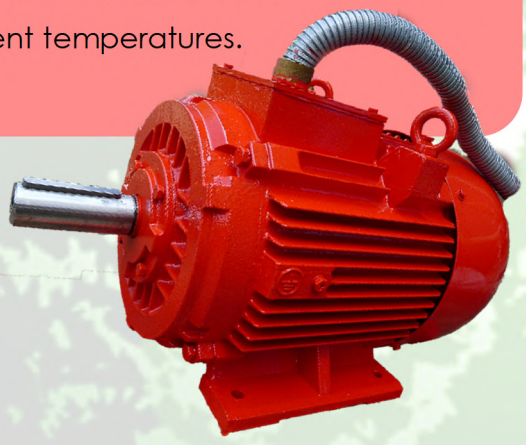
DY: Capacitor Run Series
Suitable for applications with low starting torque
DL: Dual Capacitor Series
Suitable for applications with high starting torque
DC: Capacitor Run Series
Suitable for applications with heavy load

HIGH TEMPERATURE RESISTANT/ SMOKE EXTRACTION SERIES

High Temperature Resistant/Smoke Extraction Induction Motor

Certified to withstand 250°C, 300°C, 400°C (2 hours)

Designed for demanding and critical applications, such as fire emergencies in built-up areas. These motors play a life-saving role in the swift extraction and clearance of smoke and toxic fumes at high ambient temperatures.



2-Speed / 3-Speed Series

2-Speed or 3-Speed Induction Motors

Designed for use in applications in which multiple speeds are required.

2-speed or 3-speed motors: The simple way of controlling machine and equipment speed economically. Multiple polarity in a single motor to obtain different speeds allowing for better energy conservation. Suitable for applications such as Fans, Winches, Cranes, etc.

Explosion-proof series

EP Series Three Phase Explosion-Proof Motors

Uniquely designed to contain the sparks within the motor to prevent ignition of external combustible vapour, enabling the motor to be safely used in hazardous locations.

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