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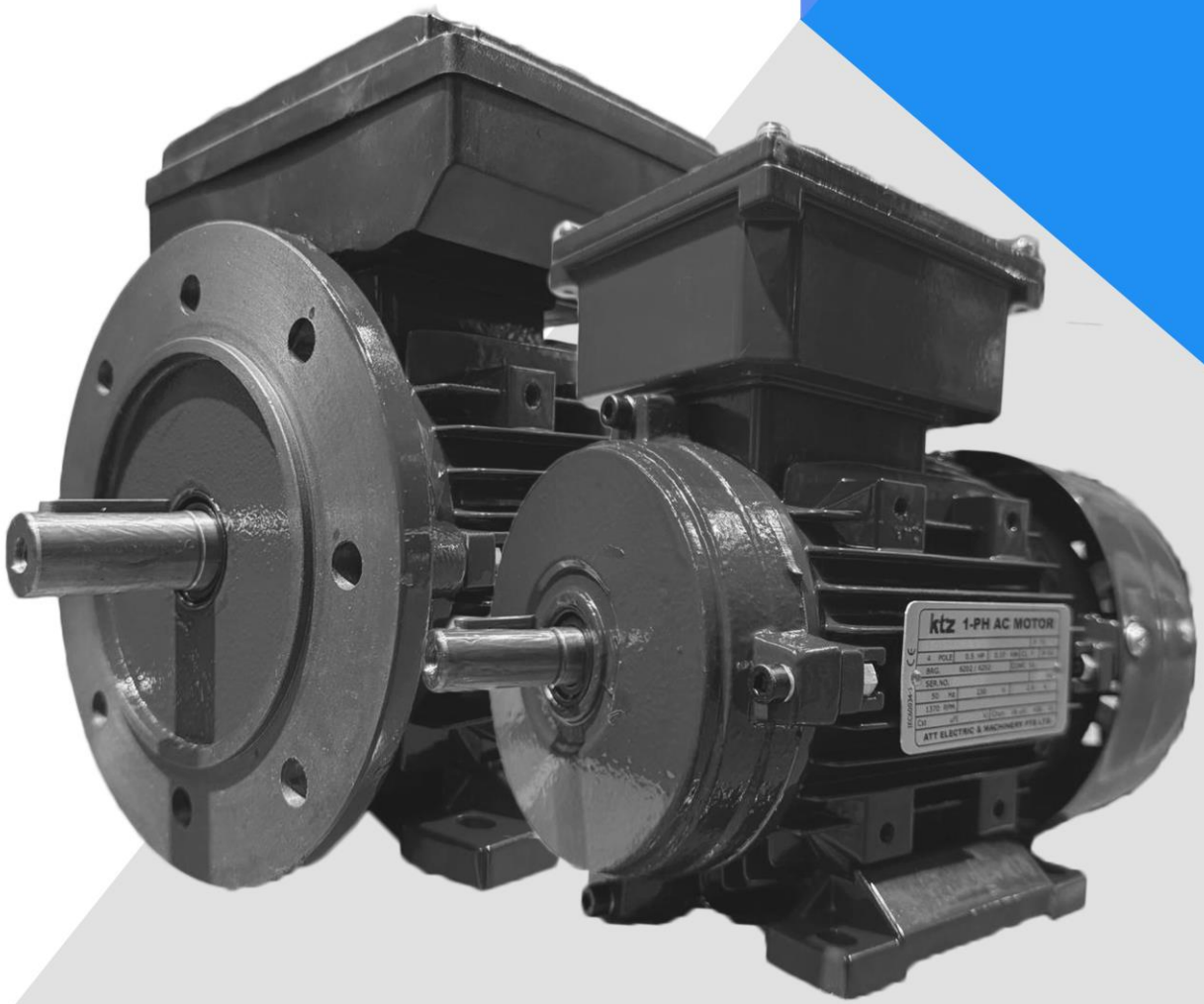
CE





DY & DL SERIES

Single Phase Asynchronous Motors



ATT ELECTRIC & MACHINERY PTE LTD

ENQUIRY FORM

Company name: _____ Contact number: _____

Customer name: _____ Email address: _____

Required motor specification:

Application: _____ Location: ☐ Indoors ☐ Outdoors

Explosion Proof: ☐ Yes ☐ No If Yes, Ex-Classification: _____

Efficiency Class: ☐ IE1 ☐ IE2 ☐ IE3 ☐ IE4 ☐ Others: _____

Poles: ☐ 2 ☐ 4 ☐ 6 ☐ 8 ☐ Others: _____

Rated Output: _____ kW/HP

Voltage/Phase/Frequency: _____ V/Ph/Hz

Connection Method: ☐ Delta(Δ) ☐ Star(Y) ☐ Others: _____

Service Factor: _____ Duty (S1 to S9): _____

Frame Size (IEC): _____ Rated Current: _____

Cooling Method: ☐ TEFC (IC411) ☐ TENV (IC410) ☐ TEAO (IC418) ☐ TEFV (IC416)

Mounting: ☐ B3 ☐ B5 ☐ B35 ☐ V1 ☐ Others: _____

Mounting Method: ☐ Horizontal ☐ Vertical (Shaft Up) ☐ Vertical (Shaft down)

Ingress Protection (IP): ☐ IP55 ☐ IP56 ☐ IP65 ☐ IP66 ☐ Others: _____

Insulation Class: ☐ Class F (155°C) ☐ Class H (180°C)

Temperature Rise: ☐ Class B (80°C) ☐ Class F (105°C) ☐ Others: _____

Fire Rating: ☐ N/A ☐ 250°C/2H ☐ 300°C/2H ☐ 400°C/2H ☐ Ext Wire: _____ mm

Ambient Temperature: _____

Starting Method: ☐ DOL ☐ Star-Delta ☐ Inverter ☐ Others: _____

Starting Time: _____ seconds

Inverter Frequency Range: _____ Hz to _____ Hz

Forced Cooling Fan: ☐ Yes ☐ No Forced Cooling Fan Specifications: _____ V/Ph/Hz

Brake: ☐ Yes ☐ No Brake Voltage: _____ VDC Rectifier: _____ VAC Half or Full Wave

Drive Method: ☐ Direct Coupling ☐ Belt Drive ☐ Others: _____

INTRODUCTION

Founded in 1981, Att Electric & Machinery Pte Ltd is a premier electric motor manufacturer started by a group of veterans determined to provide solutions for every customer's electric motor 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 electric motors, parts, and services in the industrial equipment sector. Our clientele includes distributors, original equipment manufacturers and end users in more than 70 countries. Driven by your specific requirements, we guarantee original electrical and mechanical solutions at competitive prices, for numerous 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, Vietnam, China, Sri Lanka, Hong Kong, Myanmar, 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 be available to fulfil your expectations promptly, regardless of your location.

OVERVIEW OF ATT SINGLE PHASE SERIES MOTORS

The Att single-phase aluminium motor series is well known for its quality and reliability. These motors are ideal for powering small machine tools, water pumps, ventilation fans, and similar equipment. They are especially suited for family workshops and other environments where only a single-phase power supply is available.

All single-phase motors used in typical applications are of the squirrel cage type. Each motor includes an auxiliary winding, which is positioned 90 electrical degrees apart from the main winding. To create a rotating magnetic field necessary for starting the motor, a phase shift is introduced in the auxiliary winding using capacitors.

Role of Capacitors

There are typically two types of capacitors used in single-phase motors:

1. Start Capacitor
   - Used only during motor startup.
   - Provides a higher phase shift to produce greater starting torque.
   - Remains in the circuit just long enough for the motor to reach approximately ¾ of its full speed, then disconnects.
2. Run Capacitor
   - Stays in the circuit continuously while the motor is running.
   - Improves motor efficiency, power factor, and torque characteristics.
   - Carries the alternating current flowing through the auxiliary winding permanently.

DL Dual Capacitor Series

The DL dual capacitor series improves upon traditional designs by incorporating an electronic centrifugal switch. This replaces the older mechanical centrifugal switch, which was prone to wear and reliability issues. The electronic switch ensures smoother operation and longer motor life.

DY/DL series compromises of **Aluminium** frame single phase induction motors. Single phase motors are classified into 2 categories:

DY Single Capacitor Run Series

Single capacitor run series motors are designed for continuous duty, and they are energized the entire time the motor is running. They are used mainly for low starting torque applications such as fans and pumps.

DL Dual Capacitor Start & Run Series

Dual capacitor start & run series motors come in a variety of sizes, depending on the capacitance (μF) and the voltage. Equipped with a centrifugal switch, they are suitable for high starting torque applications such as air compressors.

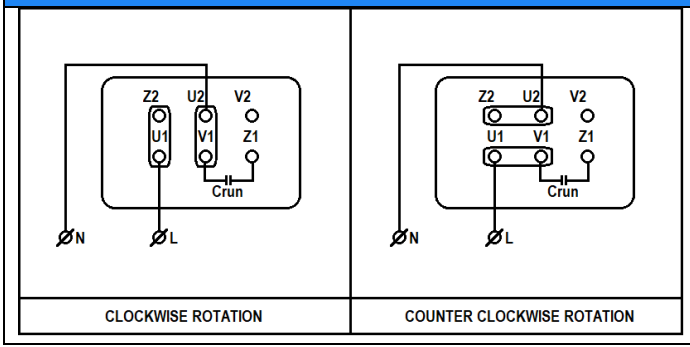
STANDARD SPECIFICATIONS AND FEATURES OF ATT SINGLE PHASE MOTORS	
Item	**Standard Specifications**
Type of electric motor	Totally Enclosed Fan Cooled squirrel cage induction motor
Design standards	IEC 60034, IEC 60072, IEC 60085
Voltage and frequency	Standard voltages available: 220-240V/1Ph/50Hz Other voltages such as 100V, 110V, 120V & 60Hz etc can be supplied on request
Power conditions	±5% of rated voltage; ±2% of rated frequency
Protection	IP55
Time duty	Continuous S1 duty
Cooling method	Self-external fan, surface cooling (IC411)
Method of starting	Full voltage direct on line starting
Mounting	Horizontal foot and/or flange mounting: B3; B5; B14; B34; B35; V1
Stator insulation	Class F insulation; Class B temperature rise
Rotor design	Squirrel cage, aluminium conductor with end-ring and wafer blades integrally cast

Motors can be customized in accordance to customers' requirements:

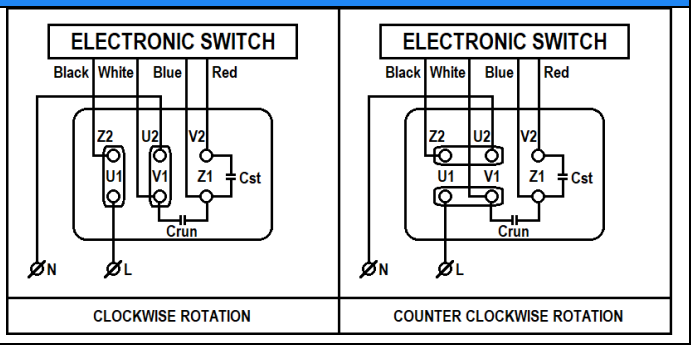
CUSTOMIZATION OPTIONS		
1. IP56	5. Special paint/corrosion proof finishing	9. Extended lead wires
2. IP65/IP66	6. PTC thermistor/RTD	10. Sun canopy
3. Class H insulation	7. Anti-condensation heater	11. Special voltage/frequency
4. High temperature resistance	8. Special shaft/flanges	12. TENV/TEAO cooling

CONNECTION DIAGRAM

DY Capacitor Run Series



DL Capacitor Start & Run Series



BEARING SIZE

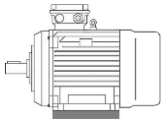
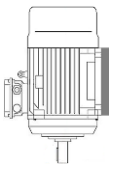
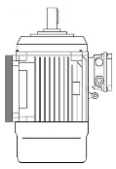
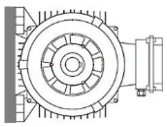
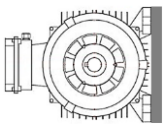
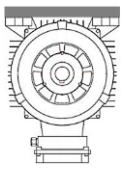
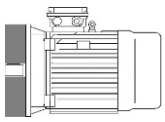
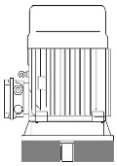
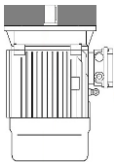
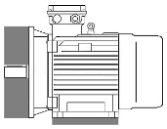
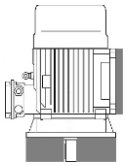
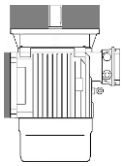
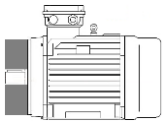
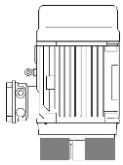
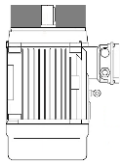
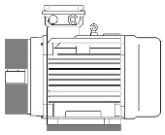
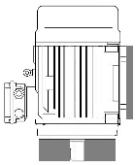
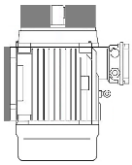
Frame	DE	NDE
63	6201	6201
71	6202	6202
80	6204	6204
90	6205	6205
100	6206	6206
112	6306	6306

DEGREE OF PROTECTION (IEC 60034-5)

All ATT motors comply to the IEC 60034-5, with a minimum protection rating of IP55. This standard defines the degrees of protection of electric equipment by means of the characteristic letters IP, followed by two characteristic numerals.

1st Charact. Numeral	Definition	2nd Charact. Numeral	Definition
5	Dust-protected machine	5	Water protected by nozzle against the enclosure from any direction
6	Dust-tight machine	6	Water from heavy seas or water projected in powerful jets

MOUNTING ARRANGEMENTS (IEC 60034-7)

Foot					
					
B3 (IM1001)	V5 (IM1011)	V6 (IM1031)	B6 (IM1051)	B7 (IM1061)	B8 (IM1071)
Flange			**Flange and Feet**		
					
B5 (IM3001)	V1 (IM3011)	V3 (IM3031)	B35 (IM2001)	V15 (IM2011)	V36 (IM2031)
Small Flange			**Small Flange and Feet**		
					
B14 (IM3601)	V18 (IM3611)	V19 (IM3631)	B34 (IM2101)	V17 (IM2111)	V37 (IM2131)

LIMITS OF MAXIMUM VIBRATION MAGNITUDE (IEC 60034-14)

Vibration Grade	Frame Size	F#80 to F#132		
	Mounting	Displacement µm	Velocity mm/s	Acceleration m/s²
A	Free Suspension	25	1.6	2.5
	Rigid Mounting	21	1.3	2.0
B	Free Suspension	11	0.7	1.1
	Rigid Mounting	N/A		

- When no special vibration requirements are specified by customer, motors will be supplied in conformance with vibration grade A.
- Motors in conformance with vibration grade B will only be supplied on request. Rigid mounting is not considered acceptable for motors with frame sizes less than F#160.

DY SINGLE CAPACITOR RUN SERIES
PERFORMANCE DATA AT 50HZ
Synchronous speed (2Pole/3000RPM, 4Pole/1500RPM, 6Pole/1000RPM)

Rated Output		Pole	Frame Size	Rated Speed (RPM)	Rated Current (I_{FL})			Full Load Eff (%)	PF COSθ	Rated Torque (T_{FL}) (Nm)	I_{ST} (A)	T_{ST} / T_{FL}	T_M / T_{FL}	Running Capacitor (450V)	Weight (kg)
					220V	230V	240V								
KW	HP				(A)	(A)	(A)								
0.12	0.16	4	63	1350	1.10	1.05	1.01	55.0	0.90	0.85	3.5	0.40	1.7	8uF	5.7
0.18	0.25	2	63	2710	1.48	1.42	1.36	60.0	0.92	0.63	5.0	0.40	1.7	8uF	5.7
		4	63	1350	1.62	1.55	1.49	56.0	0.90	1.27	5.0	0.40	1.7	10uF	6.2
		6	71	890	1.65	1.58	1.51	54.0	0.92	1.93	6.0	0.35	1.7	10uF	10.7
0.25	0.33	2	63	2710	1.96	1.88	1.80	63.0	0.92	0.88	7.0	0.40	1.7	10uF	6.2
		4	71	1370	2.02	1.94	1.86	61.0	0.92	1.74	7.0	0.35	1.7	12uF	8.4
		6	71	890	2.17	2.07	1.99	57.0	0.92	2.68	8.0	0.35	1.7	12uF	11.7
0.37	0.5	2	71	2750	2.73	2.61	2.50	67.0	0.92	1.28	10	0.35	1.7	12uF	7.8
		4	71	1370	2.95	2.82	2.70	62.0	0.92	2.58	10	0.35	1.7	16uF	9.1
		6	80	890	2.95	2.82	2.70	62.0	0.92	3.97	10	0.35	1.7	16uF	13.2
0.55	0.75	2	71	2750	3.88	3.71	3.56	70.0	0.92	1.91	15	0.35	1.7	16uF	8.4
		4	80	1390	4.25	4.06	3.89	64.0	0.92	3.78	15	0.35	1.7	20uF	12.2
		6	80	890	4.25	4.06	3.89	64.0	0.92	5.90	16	0.35	1.7	20uF	16.2
0.75	1	2	80	2780	5.15	4.92	4.72	72.0	0.92	2.58	20	0.33	1.7	25uF	11.7
		4	80	1390	5.45	5.21	5.00	68.0	0.92	5.15	20	0.32	1.7	25uF	13.2
		6	90S	910	5.45	5.21	5.00	68.0	0.92	7.87	20	0.35	1.7	35uF	18.2
1.1	1.5	2	80	2780	7.02	6.71	6.43	75.0	0.95	3.78	30	0.33	1.7	30uF	12.7
		4	90S	1400	7.41	7.09	6.80	71.0	0.95	7.50	30	0.32	1.7	30uF	17.2
		6	90L	910	7.06	6.75	6.47	70.0	0.92	11.5	30	0.35	1.7	40uF	19.2
1.5	2	2	90S	2800	9.44	9.03	8.66	76.0	0.95	5.12	45	0.30	1.7	45uF	16.7
		4	90L	1400	9.83	9.40	9.01	73.0	0.95	10.2	45	0.30	1.7	40uF	18.2
2.2	3	2	90L	2800	13.7	13.1	12.5	77.0	0.95	7.50	65	0.30	1.7	50uF	18.2
		4	100L	1400	13.9	13.3	12.7	76.0	0.95	15.0	45	0.30	1.7	60uF	19.9

DY SINGLE CAPACITOR RUN SERIES
PERFORMANCE DATA AT 60HZ
Synchronous speed (2Pole/3600RPM, 4Pole/1800RPM, 6Pole/1200RPM)

Rated Output		Pole	Frame Size	Rated Speed (RPM)	Rated Current (I_{FL})			Full Load Eff (%)	PF COSθ	Rated Torque (T_{FL}) (Nm)	I_{ST} (A)	T_{ST} / T_{FL}	T_M / T_{FL}	Running Capacitor (450V)	Weight (kg)
					220V	230V	240V								
KW	HP				(A)	(A)	(A)								
0.12	0.16	4	63	1620	1.10	1.05	1.01	55.0	0.90	0.71	3.5	0.4	1.7	8uF	5.7
0.18	0.25	2	63	3252	1.48	1.42	1.36	60.0	0.92	0.53	5	0.4	1.7	8uF	5.7
		4	63	1620	1.62	1.55	1.49	56.0	0.90	1.06	5	0.4	1.7	10uF	6.2
		6	71	1068	1.65	1.58	1.51	54.0	0.92	1.61	6	0.35	1.7	10uF	10.7
0.25	0.33	2	63	3252	1.96	1.88	1.80	63.0	0.92	0.73	7	0.4	1.7	10uF	6.2
		4	71	1644	2.02	1.94	1.86	61.0	0.92	1.45	7	0.35	1.7	12uF	8.4
		6	71	1068	2.17	2.07	1.99	57.0	0.92	2.24	8	0.35	1.7	12uF	11.7
0.37	0.5	2	71	3300	2.73	2.61	2.50	67.0	0.92	1.07	10	0.35	1.7	12uF	7.8
		4	71	1644	2.95	2.82	2.70	62.0	0.92	2.15	10	0.35	1.7	16uF	9.1
		6	80	1068	2.95	2.82	2.70	62.0	0.92	3.31	10	0.35	1.7	16uF	13.2
0.55	0.75	2	71	3300	3.88	3.71	3.56	70.0	0.92	1.59	15	0.35	1.7	16uF	8.4
		4	80	1668	4.25	4.06	3.89	64.0	0.92	3.15	15	0.35	1.7	20uF	12.2
		6	80	1068	4.25	4.06	3.89	64.0	0.92	4.92	16	0.35	1.7	20uF	16.2
0.75	1	2	80	3336	5.15	4.92	4.72	72.0	0.92	2.15	20	0.33	1.7	25uF	11.7
		4	80	1668	5.45	5.21	5.00	68.0	0.92	4.29	20	0.32	1.7	25uF	13.2
		6	90S	1092	5.45	5.21	5.00	68.0	0.92	6.56	20	0.35	1.7	35uF	18.2
1.1	1.5	2	80	3336	7.02	6.71	6.43	75.0	0.95	3.15	30	0.33	1.7	30uF	12.7
		4	90S	1680	7.41	7.09	6.80	71.0	0.95	6.25	30	0.32	1.7	30uF	17.2
		6	90L	1092	7.06	6.75	6.47	70.0	0.92	9.6	30	0.35	1.7	40uF	19.2
1.5	2	2	90S	3360	9.44	9.03	8.66	76.0	0.95	4.26	45	0.3	1.7	45uF	16.7
		4	90L	1680	9.83	9.40	9.01	73.0	0.95	8.5	45	0.3	1.7	40uF	18.2
2.2	3	2	90L	3360	13.7	13.1	12.5	77.0	0.95	6.25	65	0.3	1.7	50uF	18.2
		4	100L	1680	13.9	13.3	12.7	76.0	0.95	12.5	45	0.3	1.7	60uF	19.9

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 230V/50Hz design, 220V, 240V and 60Hz data is the reference value.
3. Tolerance according to IEC60034-1; Current tolerance: ±3%
4. All technical details are subject to change without prior notice.

DL DUAL CAPACITOR START & RUN SERIES
PERFORMANCE DATA AT 50HZ

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

Rated Output		Pole	Frame Size	Rated Speed (RPM)	Rated Current (I_{FL})			Full Load Eff (%)	PF COSθ	Rated Torque (T_{FL}) (Nm)	T_{ST} (A)	T_{ST} / T_{FL}	T_M / T_{FL}	Starting Cap (300V)	Running Cap (450V)	Weight (kg)
KW	HP				220V (A)	230V (A)	240V (A)									
0.12	0.18	4	63	1350	1.10	1.05	1.01	54.0	0.92	0.85	8.0	2.5	1.8	60uF	8uF	5.5
0.18	0.25	2	63	2750	1.56	1.49	1.43	57.0	0.92	0.63	8.0	2.3	1.8	75uF	8uF	5.6
		4	63	1350	1.56	1.49	1.43	57.0	0.92	1.27	10.0	2.5	1.8	60uF	10uF	6.0
		6	71	890	1.65	1.58	1.51	54.0	0.92	1.93	6.0	2.5	1.8	50uF	12uF	8.4
0.25	0.33	2	63	2750	2.02	1.94	1.86	61.0	0.92	0.87	10.0	2.3	1.8	75uF	10uF	6.1
		4	71	1380	1.99	1.91	1.83	62.0	0.92	1.73	12.0	2.5	1.8	60uF	12uF	7.9
		6	71	890	2.17	2.07	1.99	57.0	0.92	2.68	8.0	2.5	1.8	60uF	16uF	11.7
0.37	0.5	2	71	2750	2.73	2.61	2.50	67.0	0.92	1.28	16.0	2.3	1.8	100uF	12uF	7.9
		4	71	1380	2.81	2.69	2.58	65.0	0.92	2.56	16.0	2.5	1.8	75uF	16uF	8.5
		6	80	900	2.95	2.82	2.70	62.0	0.92	3.93	10.0	2.5	1.8	100uF	16uF	13.2
0.55	0.75	2	71	2750	3.88	3.71	3.56	70.0	0.92	1.91	21.0	2.5	1.8	100uF	16uF	8.5
		4	80	1400	4.00	3.82	3.66	68.0	0.92	3.75	21.0	2.5	1.8	100uF	20uF	12.2
		6	80	900	4.25	4.06	3.89	64.0	0.92	5.84	16.0	2.5	1.8	100uF	25uF	16.2
0.75	1	2	80	2780	5.15	4.92	4.72	72.0	0.92	2.58	30.0	2.5	1.8	100uF	20uF	11.7
		4	80	1400	5.22	4.99	4.78	71.0	0.92	5.12	30.0	2.5	1.8	100uF	25uF	13.2
		6	90S	910	5.45	5.21	5.00	68.0	0.92	7.87	20.0	2.5	1.8	200uF	30uF	17.7
1.1	1.5	2	80	2780	7.02	6.71	6.43	75.0	0.95	3.78	40.0	2.5	1.8	150uF	30uF	12.7
		4	90S	1420	7.21	6.90	6.61	73.0	0.95	7.40	40.0	2.5	1.8	200uF	30uF	17.2
		6	90L	910	7.76	7.43	7.12	70.0	0.92	11.5	30.0	2.5	1.8	200uF	45uF	22.2
1.5	2	2	90S	2800	9.44	9.03	8.66	76.0	0.95	5.12	55.0	2.5	1.8	250uF	40uF	16.7
		4	90L	1420	9.57	9.15	8.77	75.0	0.95	10.1	55.0	2.5	1.8	250uF	40uF	18.2
2.2	3	2	90L	2800	13.7	13.1	12.5	77.0	0.95	7.50	80.0	2.5	1.8	250uF	50uF	18.2
		4	100L	1440	13.9	13.2	12.7	76.0	0.95	14.6	80.0	2.5	1.8	400uF	50uF	28.4
3	4	2	100L	2820	18.2	17.4	16.7	79.0	0.95	10.2	110.0	2.5	1.8	400uF	50uF	29.4
		4	100L	1440	18.6	17.8	17.1	77.0	0.95	19.9	110.0	2.5	1.8	500uF	60uF	32.9

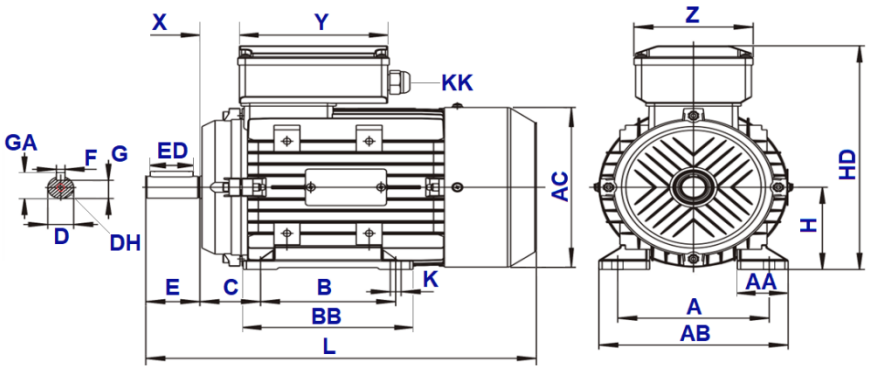
DL DUAL CAPACITOR START & RUN SERIES
PERFORMANCE DATA AT 60HZ

Synchronous speed (2Pole/3600RPM, 4Pole/1800RPM, 6Pole/1200RPM)

Rated Output		Pole	Frame Size	Rated Speed (RPM)	Rated Current (I_{FL})			Full Load Eff (%)	PF COSθ	Rated Torque (T_{FL}) (Nm)	T_{ST} (A)	T_{ST} / T_{FL}	T_M / T_{FL}	Starting Cap (300V)	Running Cap (450V)	Weight (kg)
KW	HP				220V (A)	230V (A)	240V (A)									
0.12	0.18	4	63	1620	1.10	1.05	1.01	54.0	0.92	0.71	8	2.5	1.8	60uF	8uF	5.5
0.18	0.25	2	63	3300	1.56	1.49	1.43	57.0	0.92	0.52	8	2.3	1.8	75uF	8uF	5.6
		4	63	1620	1.56	1.49	1.43	57.0	0.92	1.06	10	2.5	1.8	60uF	10uF	6.0
		6	71	1068	1.65	1.58	1.51	54.0	0.92	1.61	6	2.5	1.8	50uF	12uF	8.4
0.25	0.33	2	63	3300	2.02	1.94	1.86	61.0	0.92	0.72	10	2.3	1.8	75uF	10uF	6.1
		4	71	1656	1.99	1.91	1.83	62.0	0.92	1.44	12	2.5	1.8	60uF	12uF	7.9
		6	71	1068	2.17	2.07	1.99	57.0	0.92	2.24	8	2.5	1.8	60uF	16uF	11.7
0.37	0.5	2	71	3300	2.73	2.61	2.50	67.0	0.92	1.07	16	2.3	1.8	100uF	12uF	7.9
		4	71	1656	2.81	2.69	2.58	65.0	0.92	2.13	16	2.5	1.8	75uF	16uF	8.5
		6	80	1080	2.95	2.82	2.70	62.0	0.92	3.27	10	2.5	1.8	100uF	16uF	13.2
0.55	0.75	2	71	3300	3.88	3.71	3.56	70.0	0.92	1.59	21	2.5	1.8	100uF	16uF	8.5
		4	80	1680	4.00	3.82	3.66	68.0	0.92	3.13	21	2.5	1.8	100uF	20uF	12.2
		6	80	1080	4.25	4.06	3.89	64.0	0.92	4.86	16	2.5	1.8	100uF	25uF	16.2
0.75	1	2	80	3336	5.15	4.92	4.72	72.0	0.92	2.15	30	2.5	1.8	100uF	20uF	11.7
		4	80	1680	5.22	4.99	4.78	71.0	0.92	4.26	30	2.5	1.8	100uF	25uF	13.2
		6	90S	1092	5.45	5.21	5.00	68.0	0.92	6.56	20	2.5	1.8	200uF	30uF	17.7
1.1	1.5	2	80	3336	7.02	6.71	6.43	75.0	0.95	3.15	40	2.5	1.8	150uF	30uF	12.7
		4	90S	1704	7.21	6.90	6.61	73.0	0.95	6.16	40	2.5	1.8	200uF	30uF	17.2
		6	90L	1092	7.76	7.43	7.12	70.0	0.92	9.6	30	2.5	1.8	200uF	45uF	22.2
1.5	2	2	90S	3360	9.44	9.03	8.66	76.0	0.95	4.26	55	2.5	1.8	250uF	40uF	16.7
		4	90L	1704	9.57	9.15	8.77	75.0	0.95	8.4	55	2.5	1.8	250uF	40uF	18.2
2.2	3	2	90L	3360	13.7	13.1	12.5	77.0	0.95	6.25	80	2.5	1.8	250uF	50uF	18.2
		4	100L	1728	13.9	13.2	12.7	76.0	0.95	12.2	80	2.5	1.8	400uF	50uF	28.4
3	4	2	100L	3384	18.2	17.4	16.7	79.0	0.95	8.5	110	2.5	1.8	400uF	50uF	29.4
		4	100L	1728	18.6	17.8	17.1	77.0	0.95	16.6	110	2.5	1.8	500uF	60uF	32.9

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 230V/50Hz design, 220V, 240V and 60Hz data is the reference value.
3. Tolerance according to IEC60034-1; Current tolerance: ±3%
4. All technical details are subject to change without prior notice.

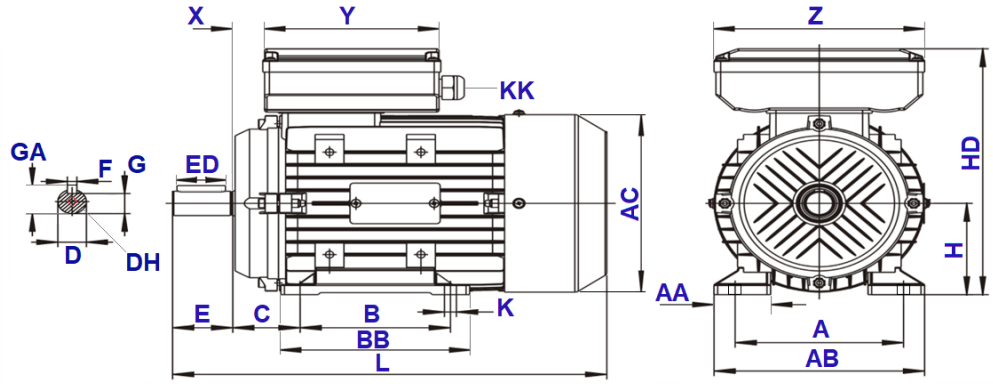
DY SINGLE CAPACITOR RUN SERIES
B3 FOOT MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions									
		A	B	C	H	K	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	X	Y	Z
63	2,4,6	100	80	40	63	7	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	182	M20X1.5	225	10	116	100
71	2,4,6	112	90	45	71	7	14	M5X12	30	20	5	11	16	28	135	145	105	197	M20X1.5	255	17	116	100
80	2,4,6	125	100	50	80	10	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	226	M20X1.5	296	22	150	113
90S	2,4,6	140	100	56	90	10	24j6	M8X19	50	40	8	20	27	45	175	180	130	244	M20X1.5	331	28	150	113
90L	2,4,6	140	125	56	90	10	24j6	M8X19	50	40	8	20	27	45	175	180	155	244	M20X1.5	361	28	150	113
100L	2,4,6	160	140	63	100	12	28j6	M10X22	60	45	8	24	31	50	200	200	176	278	M20X1.5	392	24	150	113

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

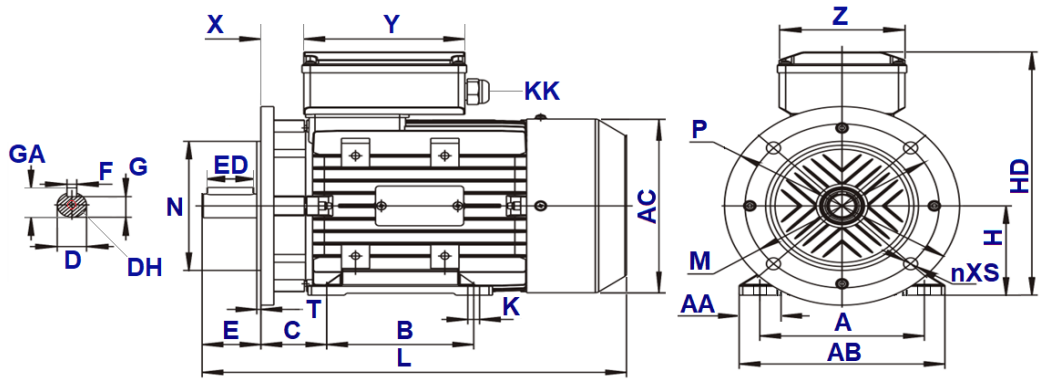
DL DUAL CAPACITOR START & RUN SERIES
B3 FOOT MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions									
		A	B	C	H	K	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	X	Y	Z
63	2,4,6	100	80	40	63	7	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	185	M20X1.5	240	13	120	156
71	2,4,6	112	90	45	71	7	14	M5X12	30	20	5	11	16	28	135	145	105	200	M20X1.5	250	15	120	156
80	2,4,6	125	100	50	80	10	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	235	M20X1.5	320	23	162	198
90S	2,4,6	140	100	56	90	10	24j6	M8X19	50	40	8	20	27	45	175	180	130	251	M20X1.5	345	26	162	198
90L	2,4,6	140	125	56	90	10	24j6	M8X19	50	40	8	20	27	45	175	180	155	251	M20X1.5	375	26	162	198
100L	2,4,6	160	140	63	100	12	28j6	M10X22	60	45	8	24	31	50	200	200	176	270	M20X1.5	405	33	162	198

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

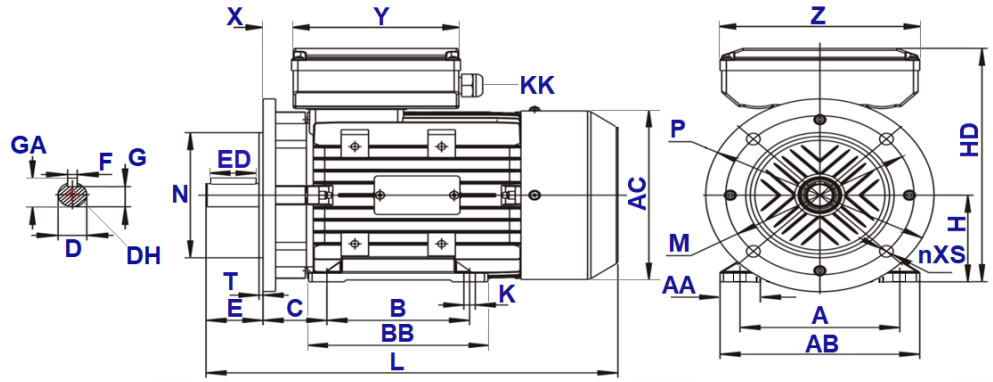
DY SINGLE CAPACITOR RUN SERIES
B35 FOOT & FLANGE MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions										Shaft Dimensions							Overall Dimensions										
		A	B	C	H	K	M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	LA	X	Y	Z
63	2,4,6	100	80	40	63	7	115	95	140	4-ø10	3	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	182	M20X1.5	225	8	10	116	100
71	2,4,6	112	90	45	71	7	130	110	160	4-ø10	3.5	14	M5X12	30	20	5	11	16	28	135	145	105	197	M20X1.5	255	8	17	116	100
80	2,4,6	125	100	50	80	10	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	226	M20X1.5	296	10	22	150	113
90S	2,4,6	140	100	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	45	175	180	130	244	M20X1.5	331	12	28	150	113
90L	2,4,6	140	125	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	45	175	180	155	244	M20X1.5	361	12	28	150	113
100L	2,4,6	160	140	63	100	12	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	50	200	200	176	278	M20X1.5	392	14	24	150	113

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

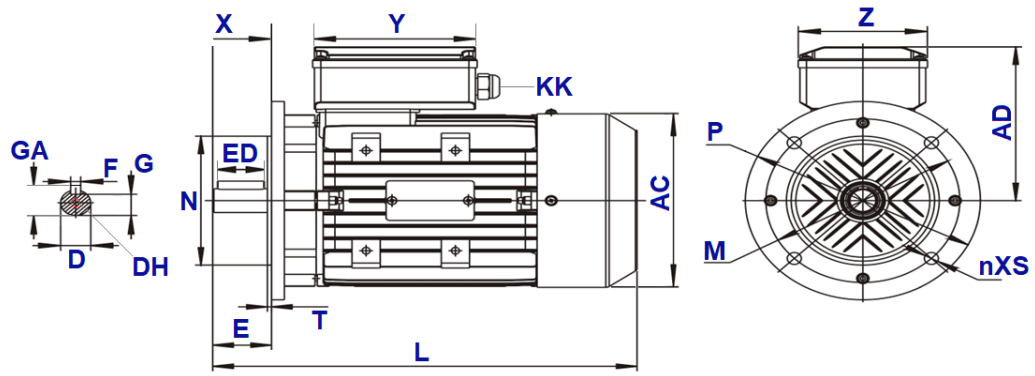
DL DUAL CAPACITOR START & RUN SERIES
B35 FOOT & FLANGE MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions										Shaft Dimensions							Overall Dimensions										
		A	B	C	H	K	M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	LA	X	Y	Z
63	2,4,6	100	80	40	63	7	115	95	140	4-ø10	3	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	185	M20X1.5	240	8	13	120	156
71	2,4,6	112	90	45	71	7	130	110	160	4-ø10	3.5	14	M5X12	30	20	5	11	16	28	135	145	105	200	M20X1.5	250	8	15	120	156
80	2,4,6	125	100	50	80	10	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	235	M20X1.5	320	10	23	162	198
90S	2,4,6	140	100	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	45	175	180	130	251	M20X1.5	345	12	26	162	198
90L	2,4,6	140	125	56	90	10	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	45	175	180	155	251	M20X1.5	375	12	26	162	198
100L	2,4,6	160	140	63	100	12	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	50	200	200	176	270	M20X1.5	405	14	33	162	198

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

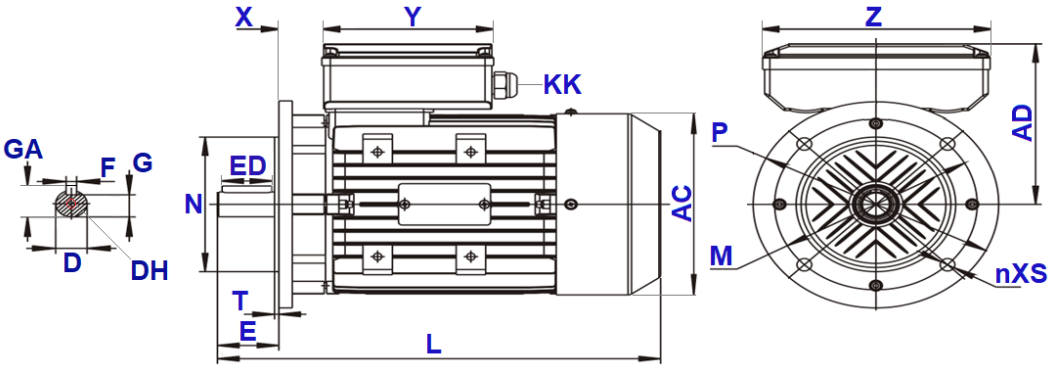
DY SINGLE CAPACITOR RUN SERIES
B5/V1 FLANGE MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions						
		M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AC	KK	L	LA	X	Y	Z
63	2,4,6	115	95	140	4-ø10	3	11	M4X10	23	13	4	8.5	12.5	130	M20X1.5	225	8	10	116	100
71	2,4,6	130	110	160	4-ø10	3.5	14	M5X12	30	20	5	11	16	145	M20X1.5	255	8	17	116	100
80	2,4,6	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5	165	M20X1.5	296	10	22	150	113
90S	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	180	M20X1.5	331	12	28	150	113
90L	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	180	M20X1.5	361	12	28	150	113
100L	2,4,6	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	200	M20X1.5	392	14	24	150	113

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

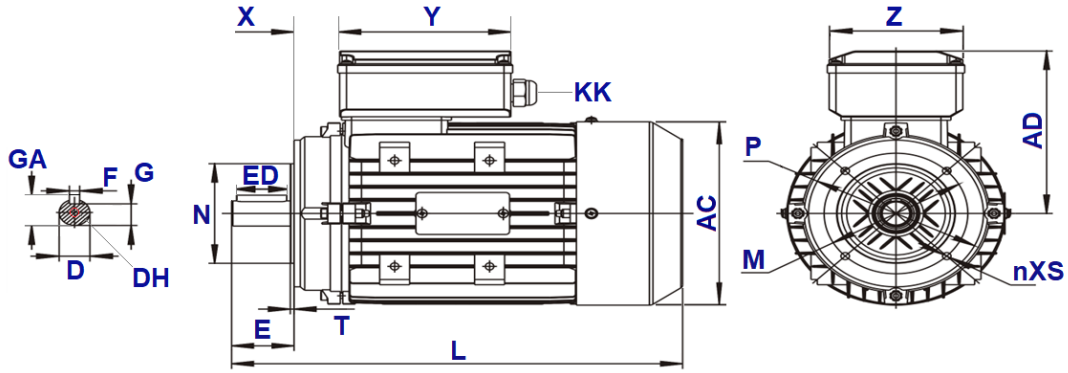
DL DUAL CAPACITOR START & RUN SERIES
B5/V1 FLANGE MOUNTING & OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions						
		M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AC	KK	L	LA	X	Y	Z
63	2,4,6	115	95	140	4-ø10	3	11	M4X10	23	13	4	8.5	12.5	130	M20X1.5	240	8	13	120	156
71	2,4,6	130	110	160	4-ø10	3.5	14	M5X12	30	20	5	11	16	145	M20X1.5	250	8	15	120	156
80	2,4,6	165	130	200	4-ø12	3.5	19j6	M6X16	40	25	6	15.5	21.5	165	M20X1.5	320	10	23	162	198
90S	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	180	M20X1.5	345	12	26	162	198
90L	2,4,6	165	130	200	4-ø12	3.5	24j6	M8X19	50	40	8	20	27	180	M20X1.5	375	12	26	162	198
100L	2,4,6	215	180	250	4-ø14.5	4	28j6	M10X22	60	45	8	24	31	200	M20X1.5	405	14	33	162	198

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

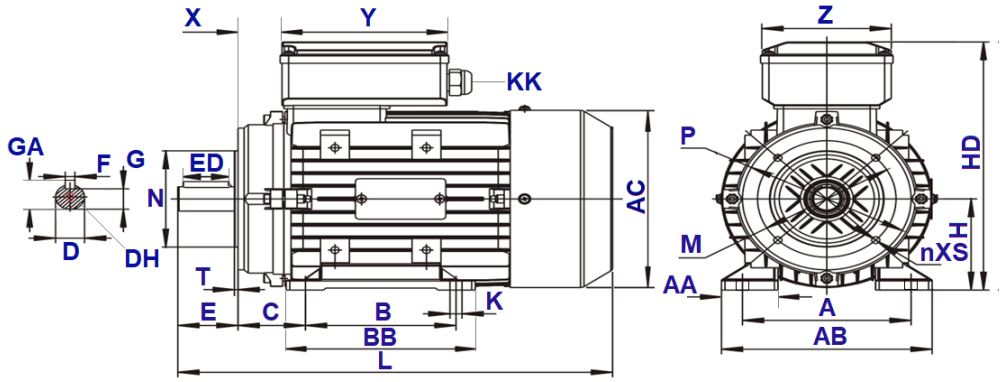
DY SINGLE CAPACITOR RUN SERIES
B14A SMALL FLANGE MOUNTING AND OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions					
		M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AC	KK	L	X	Y	Z
63	2,4,6	75	60	90	4-øM5	2.5	11	M4X10	23	13	4	8.5	12.5	130	M20X1.5	225	10	116	100
71	2,4,6	85	70	105	4-øM6	2.5	14	M5X12	30	20	5	11	16	145	M20X1.5	255	17	116	100
80	2,4,6	100	80	120	4-øM6	3	19j6	M6X16	40	25	6	15.5	21.5	165	M20X1.5	296	22	150	113
90S	2,4,6	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	180	M20X1.5	331	28	150	113
90L	2,4,6	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	180	M20X1.5	361	28	150	113
100L	2,4,6	130	110	160	4-øM8	3.5	28j6	M10X22	60	45	8	24	31	200	M20X1.5	392	24	150	113

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

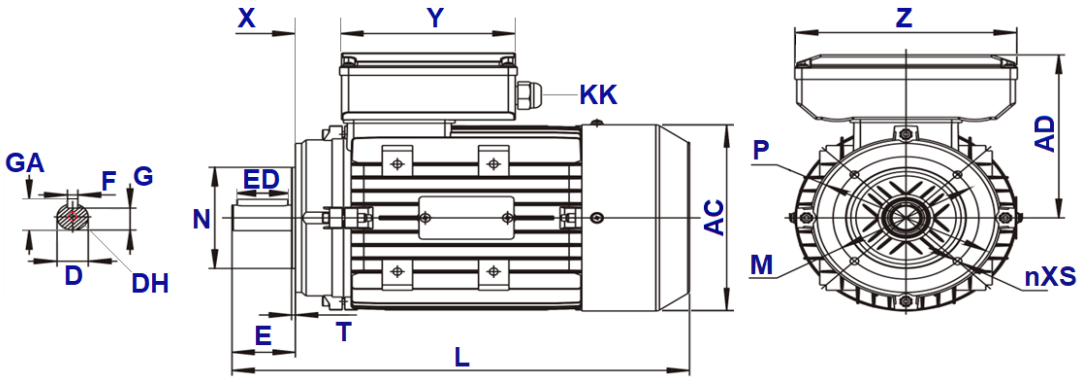
DY SINGLE CAPACITOR RUN SERIES
B34A SMALL FLANGE & FOOT MOUNTING AND OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions										Shaft Dimensions							Overall Dimensions									
		A	B	C	H	K	M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	X	Y	Z
63	2,4,6	100	90	40	63	7	75	60	90	4-øM5	2.5	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	182	M20X1.5	225	10	116	100
71	2,4,6	112	90	45	71	7	85	70	105	4-øM6	2.5	14	M5X12	30	20	5	11	16	28	135	145	105	197	M20X1.5	255	17	116	100
80	2,4,6	125	100	50	80	10	100	80	120	4-øM6	3	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	226	M20X1.5	296	22	150	113
90S	2,4,6	140	100	56	90	10	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	45	175	180	130	244	M20X1.5	331	28	150	113
90L	2,4,6	140	125	56	90	10	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	45	175	180	155	244	M20X1.5	361	28	150	113
100L	2,4,6	160	140	63	100	12	130	110	160	4-øM8	3.5	28j6	M10X22	60	45	8	24	31	50	200	200	176	278	M20X1.5	392	24	150	113

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

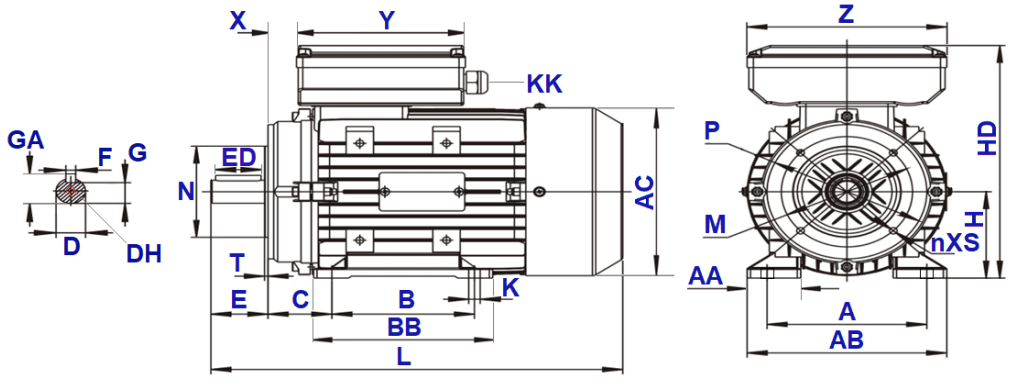
DL DUAL CAPACITOR START & RUN SERIES
B14A SMALL FLANGE MOUNTING AND OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions					Shaft Dimensions							Overall Dimensions					
		M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AC	KK	L	X	Y	Z
63	2,4,6	75	60	90	4-øM5	2.5	11	M4X10	23	13	4	8.5	12.5	130	M20X1.5	240	10	116	100
71	2,4,6	85	70	105	4-øM6	2.5	14	M5X12	30	20	5	11	16	145	M20X1.5	250	17	116	100
80	2,4,6	100	80	120	4-øM6	3	19j6	M6X16	40	25	6	15.5	21.5	165	M20X1.5	320	22	150	113
90S	2,4,6	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	180	M20X1.5	345	28	150	113
90L	2,4,6	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	180	M20X1.5	375	28	150	113
100L	2,4,6	130	110	160	4-øM8	3.5	28j6	M10X22	60	45	8	24	31	200	M20X1.5	405	24	150	113

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

DL DUAL CAPACITOR START & RUN SERIES
B34A SMALL FLANGE & FOOT MOUNTING AND OVERALL DIMENSIONS



Frame Size	Pole	Mounting Dimensions										Shaft Dimensions							Overall Dimensions									
		A	B	C	H	K	M	N	P	nXS	T	D	DH	E	ED	F	G	GA	AA	AB	AC	BB	HD	KK	L	X	Y	Z
63	2,4,6	100	90	40	63	7	75	60	90	4-øM5	2.5	11	M4X10	23	13	4	8.5	12.5	27	120	130	103	185	M20X1.5	240	13	120	156
71	2,4,6	112	90	45	71	7	85	70	105	4-øM6	2.5	14	M5X12	30	20	5	11	16	28	135	145	105	200	M20X1.5	250	15	120	156
80	2,4,6	125	100	50	80	10	100	80	120	4-øM6	3	19j6	M6X16	40	25	6	15.5	21.5	40	155	165	130	235	M20X1.5	320	23	162	198
90S	2,4,6	140	100	56	90	10	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	45	175	180	130	251	M20X1.5	345	26	162	198
90L	2,4,6	140	125	56	90	10	115	95	140	4-øM8	3	24j6	M8X19	50	40	8	20	27	45	175	180	155	251	M20X1.5	375	26	162	198
100L	2,4,6	160	140	63	100	12	130	110	160	4-øM8	3.5	28j6	M10X22	60	45	8	24	31	50	200	200	176	270	M20X1.5	405	33	162	198

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

CERTIFICATIONS



ISO 9001:2015
Quality Management System



CE Certificate



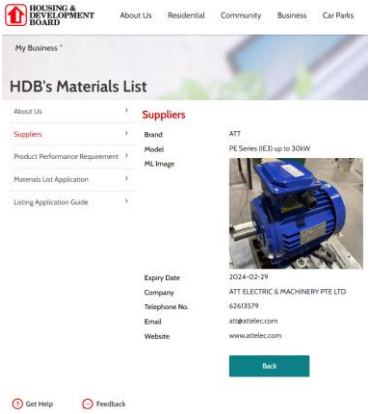
EMC Certificate



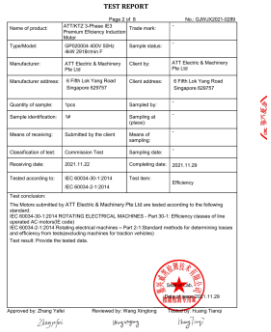
ABS Product Type Approval



UL Certified SF1.15
Fire Pump Motors



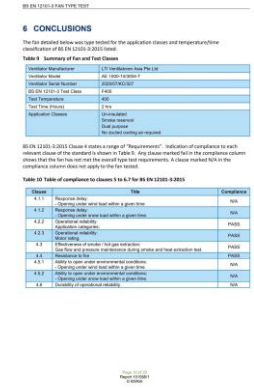
HDB Approved Supplier
Motor for Transfer Pump



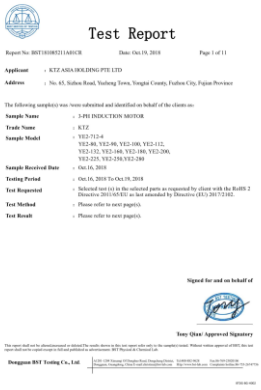
IE3 Motor Efficiency
External Party Test Report



TUV BS EN 12101-3: 2015
Smoke Extraction Motors



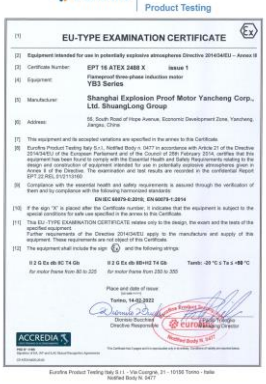
BSRIA BS EN 12101-3: 2015
Smoke Extraction Motors



ROHS Certificate



Explosion Proof
ATEX II 2G Ex db IIB T4 Gb



Explosion Proof
ATEX II 2G Ex db IIC T4 Gb

POPULAR PRODUCTS

Explosion Proof Motors

Explosion proof motors are a safe choice for potentially explosive atmospheres. They are designed to withstand the pressure caused by an internal explosion without incurring any damage as well as prevent flame propagation outside of the enclosure.

Our explosion proof series are ATEX certified, designed in protection enclosure "db", and have the highest explosion group IIC with T4 temperature class.

They can be used in Zone 1 and Zone 2 hazardous areas and industries such as chemical and pharmaceutical production, refineries, offshore platforms, and tankers.





ABS Marine Motors

Electric motors carry out essential marine tasks in offshore, coastal, and inland marine environments. A key consideration for these electric motors is their ability to handle the challenges of a marine environment. The unique design element of a marine motor ensure motor and equipment reliability under harsh environments.

Compliance with ABS marine classification and standards ensures that our marine motors will perform according to our manufacturer and regulatory specifications.

Our ABS type approved marine motors are pre-approved for marine shipping applications, which helps to expedite shipbuilding and maintenance operations.

Smoke Extraction Motors

Smoke extraction systems are applied in a broad range of applications including tunnels, shopping malls, office buildings, factories, warehouses, and enclosed parking lots. In the event of a fire, lives depend on the ability of extraction fans – and the electric motors driving them – to disperse toxic fumes and smoke quickly and efficiently.

Smoke extraction motors must be capable of withstanding the high temperatures generated in fire zones and continue to work reliably under these extreme circumstances. Additional advantages include reduction of damage and financial loss by preventing smoke logging, reduction of roof temperatures and delay in fire spreading.

Our smoke extraction motors are tested in accordance to BS EN 12101-3 and can withstand up to 400°C for 2 hours.



POPULAR PRODUCTS

Cooling Tower Motors

Cooling tower motors are specially designed with a carefully selected set of features for reliable operation in high humidity applications and high corrosive environments.

Available in the TEFC or TEAO configuration, our motors are suitable for both directly coupled or belt driven applications. Suitable for frequency inverter operation, customers can realise energy savings as compared to a DOL starter.





Brake Motors

Brake motors provide a means of stopping the driven equipment effectively and safely in a short time. Electromagnetic disc brakes mounted on motor NDE can be supplied with either AC brake or DC brake with rectifier. Brake is engaged when power to motor is shut down. Applications include cranes and conveyors, etc.

In order to allow motor shaft to be released in emergency cases or power outages, brake motors can be supplied with hand, wheel, or bolt release on request. Fast braking can be configured depending on the rectifier supplied.

Multi Speed Motors

Specially designed for use in applications in which multiple speeds are required. Multi speed motors allow adjustment of power consumed according to the needs of the application. This facilitates significant energy savings by lowering motor speeds to minimise power consumption.

Dual speed motors can be produced in Dahlander (single) winding or separate windings. Three speed motors can also be supplied on request. Applications include fans, pumps, cranes, conveyors, and winches, etc.

Inverter Duty Motors

Inverter duty motors are explicitly designed to be able to function at variable speeds, which is necessary for a wide variety of applications today. Such motors are wound with inverter-grade copper wire to minimize the adverse effects of waveforms produced by inverters. Improved insulation systems reduce the degradation of motors that are subjected to transient voltage spikes from inverters.

Motors operating continuously at low speeds are offered with a separate power forced cooling fan for adequate cooling at low speeds. Inverter duty motors with large output ratings are equipped with insulated bearings at NDE to minimize the adverse effects of shaft current.

Other Products & Service

- We specialise in customizing the electrical and mechanical design of motors to offer customized motor solutions.
- IE1 to IE5 Motors
- Single Phase Motors
- Carpark Barrier & Barrier Gate Motors
- Hollow Shaft Motors
- Frequency Inverters
- Open Drip Proof Motors
- Permanent Magnet and Electronically Commutated Motors
- Medium and High Voltage Motors
- Repair, Rewinding and General Servicing of Electric Motors

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Website: www.attelectricmotor.co.id

Authorized Dealer:

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