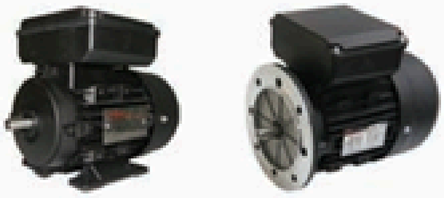
SERIES SINGLE – DUAL – CAPACITOR ASYNCHRONOUS MOTORS

ALUMINUM HOUSING

VMS.P.A series aluminum housing single-phase dual-capacitor asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standara VMS.P.A motors have good performance, safety and reliable Operation, nice appearance and, can be maintained very Conveniently, while with low noises, little vibration and at the Same time of lightweight and simple construction. The Compositive performance is good, the multiple of starting torque is 1.8~2.5

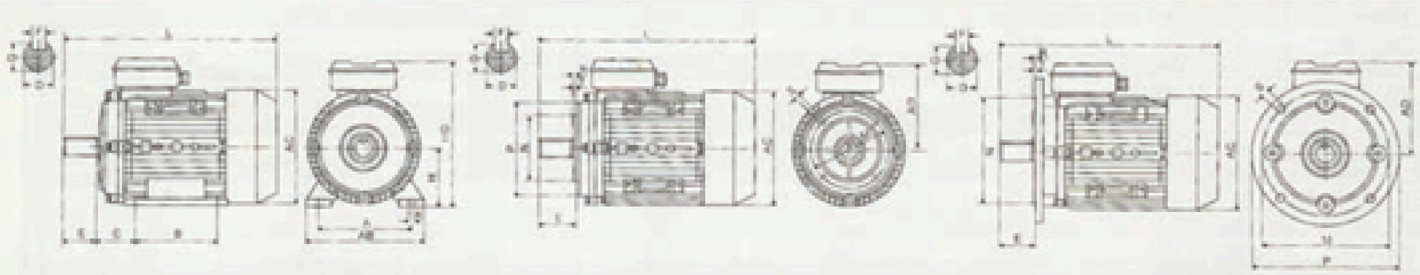
These series motors are suitable for the occasion where the requirements of big starting torque and high over load, such as air-compressors, pumps, fans, medical apparatus and instruments, and many other small machines.



B3 220 V. B5 220 V.

B35 220 V. B14 220 V. B314 220 V.

Model	Power		Voltage (V)	Current (A)	Speed (r.p.m)	Eff (%)	Power factor	Tst/ TN	Tmax/ TN	Staning Current (A)	Net weght (kg)	Capacitor Start	Capacitor Run
	HP	kW											
ML631-2	0.25	0.18	230	1.43	2800	60	0.92	1.8	1.8	7.5	5.3	50uf/250v	8uf/450v
ML632-2	0.34	0.25	230	1.91	2800	63	0.92	1.8	1.8	10.8	5.6	50uf/250v	12uf/450v
ML711-2	0.5	0.37	230	2.73	2800	67	0.92	2.3	1.8	16	7	75uf/250v	12uf/450v
ML712-2	0.75	0.55	230	3.88	2800	70	0.92	2.5	1.8	21	8	100uf/250v	16uf/450v
ML801-2	1	0.75	230	5.15	2800	72	0.92	2.5	1.8	30	8.5	100uf/250v	20uf/450v
ML802-2	1.5	1.1	230	7.02	2800	75	0.95	2.5	1.8	40	9.5	150uf/250v	25uf/450v
ML90S-2	2	1.5	230	9.44	2800	76	0.95	2.5	1.8	55	12.5	200uf/250v	40uf/450v
ML90L-2	3	2.2	230	13.67	2800	77	0.95	2.5	1.8	80	14	250uf/250v	50uf/450v
ML100L-2	4	3	230	18.2	2800	79	0.95	2.5	1.8	110	20.5	400uf/300v	50uf/450v
ML112M-2	5.5	4	230	22.5	2800	78	0.95	2.5	1.8	145	32	400uf/250v	60uf/450v
ML631-4	0.16	0.12	230	1.24	1400	55	0.90	1.8	1.8	5.7	5.3	50uf/250v	8uf/450v
ML632-4	0.25	0.18	230	1.43	1400	56	0.90	1.8	1.8	8.64	5.5	50uf/250v	8uf/450v
ML711-4	0.34	0.25	230	1.99	1400	62	0.92	2.5	1.8	12	6.9	75uf/250v	12uf/450v
ML712-4	0.5	0.37	230	2.81	1400	65	0.92	2.5	1.8	16	8.1	75uf/250v	16uf/450v
ML801-4	0.75	0.55	230	4.0	1400	68	0.92	2.5	1.8	21	8.9	100uf/250v	20uf/450v
ML802-4	1	0.75	230	5.22	1400	71	0.92	2.5	1.8	30	9.6	100uf/250v	25uf/450v
ML90S-4	1.5	1.1	230	7.2	1400	73	0.95	2.5	1.8	40	13	200uf/250v	30uf/450v
ML90L-4	2	1.5	230	9.57	1400	75	0.95	2.5	1.8	55	16	200uf/250v	40uf/450v
ML100L-4	3	2.2	230	13.9	1400	76	0.95	2.5	1.8	80	23	300uf/250v	40uf/450v
ML100L-4	4	3	230	18.6	1400	77	0.95	2.5	1.8	110	27	400uf/300v	50uf/450v
ML112M-4	5.5	4	230	24.5	1400	79	0.95	2.5	1.8	145	35	400uf/250v	60uf/450v



Frame Size	Mounting Dimensions (mm)																					Frame Dimensions (mm)				
										IMB14						IMB5										
	A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	M	N	P	R	S	T	AB	AC	AD	HD	L
63	100	80	40	11	23	4	8.5	63	7	75	60	90	0	M5	2.5	115	95	140	0	10	3.0	130	130	115	190	230
71	112	90	45	14	30	5	11	71	7	85	70	105	0	M6	2.5	130	110	160	0	10	3.5	145	145	125	210	255
80	125	100	50	19	40	6	15.5	80	10	100	80	120	0	M6	3.0	165	130	200	0	12	3.5	160	165	135	240	295
90S	140	100	56	24	50	8	20	90	10	115	95	140	0	M8	3.0	165	130	200	0	12	3.5	180	185	145	270	335
90L	140	125	56	24	50	8	20	90	10	115	95	140	0	M8	3.0	165	130	200	0	12	3.5	180	185	145	270	360
100L	160	140	63	28	60	8	24	100	12	-	-	-	-	-	-	215	180	250	0	15	4.0	205	215	170	280	380
112M	190	140	70	28	60	8	24	112	12	-	-	-	-	-	-	215	180	250	0	15	4.0	245	240	180	310	400

LT INDUSTRIAL MOTORS

Output	Upto 400 kW
Frames	IEC (63 to 355) and NEMA (143 to 405) AD - Al. Pressure Diecast D/ND - Cast Iron
Enclosures	Totally Enclosed Fan Cooled (TEFC), Totally Enclosed (TE), Drip Proof (DP), Flameproof (Type 'd'), Increased safety (Type 'e'), Non Sparking (Type 'N'), Pressurised Type (Type 'p')
Rotor	Squirrel cage (SCR) Slipring (SR)
Mounting	Foot Mounting (B3, B6, B7, B8, V5, V6) Flange Mounting (B5, V1, V3) Face Mounting (B14, V18, V19)

Voltage (Mean)	100V to 660V
Frequency (Mean)	5 Hz to 75 Hz
Protection	Up to IP56
Duty	S1 to S9
Vibration Level	Min. 5 microns
Ambient	-39°C to +65°C
Insulation Class	Class F

Enclosure	Frames	Mounting
TEFC/TE	63 to 355LX	B3, B5, B6, B7, B8, B34, B35, V1, V3, V5, V6, V36, V18
DP	160 to 315MX	B3, B5, B35, V1, V3, V15, V36
Type 'd'	80 to 315L	B3, B5, B35, V1, V3, V15, V36 B14, B34 (Only for frame 80 and 160 to 180) V18, V19 (Only for frame 80)
Type 'e'	90S to 315L	B3, B5, B6, B7, B8, B14, B35, B34, V1, V3, V15, V36, V18, V19
Type 'N'	90S to 315L	B3, B5, B14, B35, V1, V3, V5, V6, V15, V36
Type 'p'	90L to 315L	B3, B5, B35, V1, V3, V5, V6, V15, V36

Frames	Rotor	Enclosure	Output kW (S1 duty, 50/60 Hz)			
			2P	4P	6P	8P
AD63/ND355LX	SCR	TEFC	0.18-400	0.18-400	0.37-275	0.37-225
C160/C315MX	SCR	SPDP	9.3-250	9.3-250	7.5-185	3.7-132
NC100/NC132	SCR	DV	2.2-30	2.2-30	1.5-18.5	3.7-15
E80/E315L	SCR	FLP	0.37-200	0.37-200	0.37-160	0.37-132
DW112/NDW355LX	SR	TEFC	-	2.2-250	2.2-160	1.5-132
CW160/CW315MX	SR	SPDP	-	7.5-225	5.5-160	3.7-132
EW250/EW315L	SR	FLP	-	26-160	18.5-132	15-100

LT, TEFC, SCR MOTORS FRAME 63 TO 355

The TEFC, squirrel cage motors are prime movers to the industry, commercial establishments and agriculture. They are sturdy, reliable and energy efficient drives for all types of equipment. A wide range, manufactured at state-of-the-art Plant, ISO 9001 certified by BVQI, UK, covers all applications.

CONSTRUCTION

Frames AD are powder coated, high grade diecast aluminium and frames D/ND are high grade cast iron, painted. These are machined to close tolerances for perfect alignment, fit and rigid construction.

Terminal boxes of frames upto 132M are of diecast aluminium. The terminal box can be turned through 360° in steps of 90°, except for frame AD80, which is integral with body and having cable entry on either side. An O-ring is provided between the terminal box and cover for frames upto 132M. Terminal boxes for frames 160 and above are of cast iron having flanged joints with suitable gaskets. Terminal boxes are provided with conduit entries having BS threading, and where required with metric or special Pg threading suitable for German Pg glands.

Standard cast iron motors are supplied with terminal box on right side looking from driving end, optionally on top side on request. All aluminium frames have terminal box on top as standard practice.

Polypropylene fans are provided for frames upto 180 and CI/aluminium fans for all higher frames. The fans are suitable for both directions of rotation, unless otherwise specified.

The fan covers are sheet steel.

All motors in frame 160 and above have drain holes at their lowest position.

STANDARDS

The motors conform to IEC 34, IEC 72, BS 4999, BS 5000, BS 3979 and BS4999 standards.

The motors meet EN 60034, EN 55014, EN 50082-1/2, EN 61000-3-2, VDE 0839 Teil 82-2, VDE 0875 Teil 14 standards and carry CE mark, for Europe.

Motors are also offered to CSA C22.2 No. 100-95 and UL 1004 for safety and carry c-CSA-us mark, for Canada and U.S.A.

The standard TEFC, SCR, 50Hz motors are with EFF2 (Improved) level efficiencies as per CEMEP Agreement with EU for Energy Efficient Motors. Motors with EFF1 (High) level efficiencies are offered on request.

ROTOR

The shaft is of high grade rolled steel, with drilled and tapped hole provided at driving end as standard practice.

Rotors are dynamically balanced to comply with the "Normal" requirements of IEC 34. "Precision Class" can be offered, if required.

BEARINGS

For frames up to ND225, bearings with metallic seal (type ZZ) or rubber seal (type RS) are provided.

CONNECTIONS

All motors are with stud type terminals in the terminal box.

50 Hz motors upto 2.2 kW are with three terminals for DOL starting and motors above 2.2 kW, are with six terminals for star-delta starting. Please refer to notes for 60 Hz motors.

An additional earthing terminal is inside the terminal box.

ACCESSORIES

Thermistors and/or Space Heaters (Frame 132 and above) can be offered on request.

Type C (up to frame 180) and D Flanges are available for changing mounting at site to B5, B14, B35 etc.

SPECIAL FEATURES

Special features such as non-standard shaft, dual voltage design, anticorrosive protection, high ambient running, class H insulation, different duty rating etc. can be provided to meet specific requirements. Details are available on request.

The motors are offered for up to 660 Volts and for 220/380/440 Volts with 12 leads, 50/60 Hz AC supply.

The following dual voltage motors are also offered to customer specific requirements.

- Voltage Ratio 1:1.732 with 6 leads.
- Voltage Ratio 1:2 with 9 leads.
- Voltage Ratio 1:1.732:2 with 12 leads.

Additionally, special frame sizes to suit South African and Australian requirements are also available.

For any other features, please refer with details.