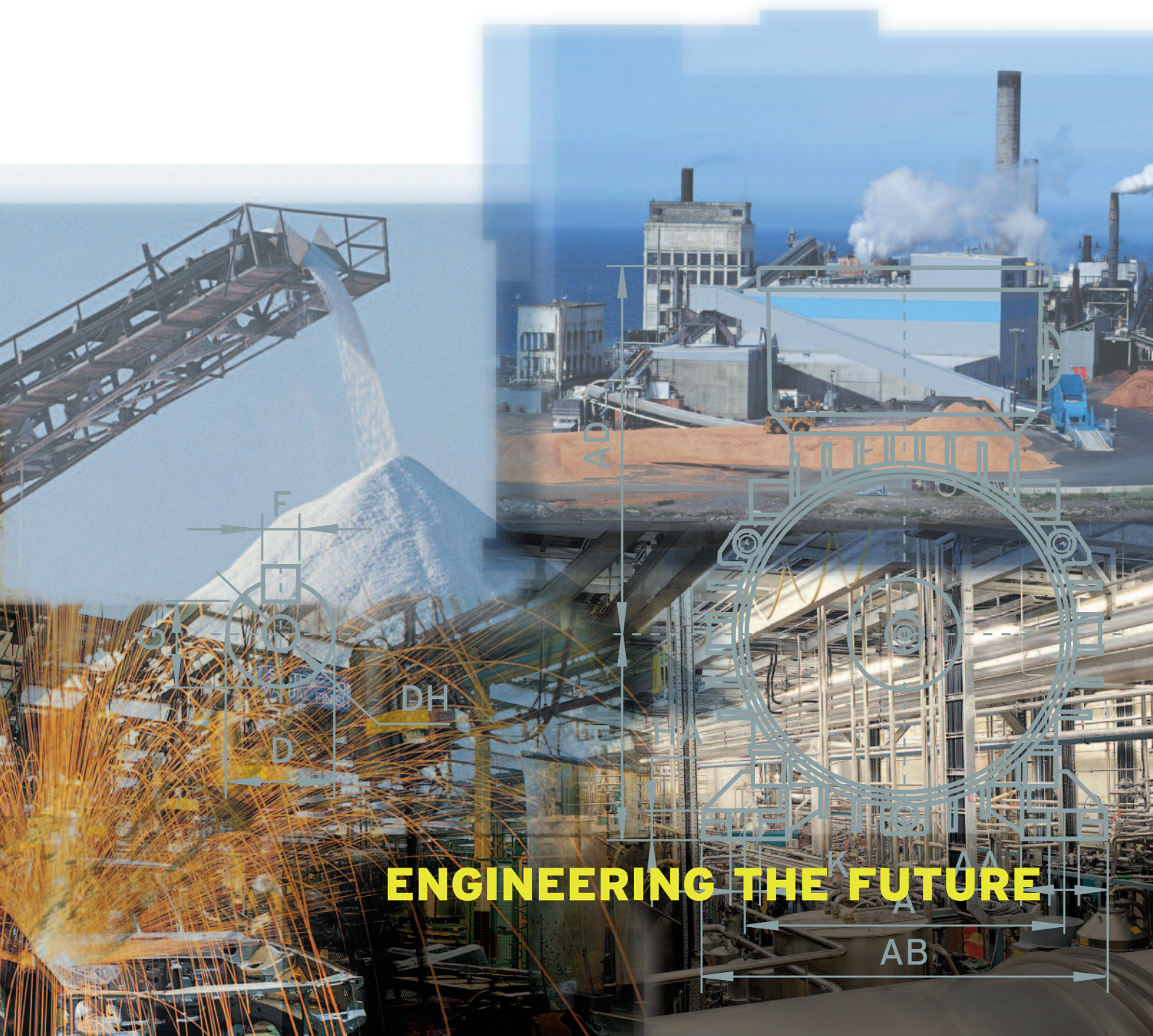


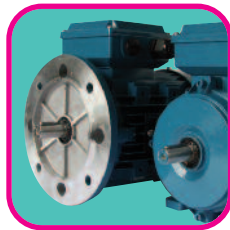
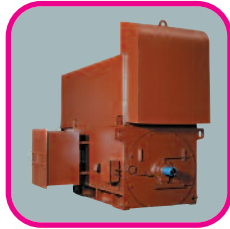
Advantage Lite EFF2

ALUMINIUM

Totally enclosed fan cooled squirrel cage induction motors



ENGINEERING THE FUTURE



2

TECO PRODUCTS

MOTORS

- Low voltage induction motors - IEC and NEMA
- High voltage induction motors
- Drip proof motors
- Slipring motors
- Vertical hollow shaft motors
- Hazardous area motors
- Smoke extraction motors
- High efficiency motors
- Brake motors

INVERTER DRIVES

- Minicon and Minicon Plus (IP65)
- 7300CV (Sensorless Vector, PLC function)
- F33 Series (Fan and Pump Applications)
- V33 Series (Constant Torque Applications)

Advantage

ALUMINIUM

TEFC Aluminium squirrel cage induction motors designed, manufactured and tested to meet the latest European and International Standards. With their proven high quality and adaptable aluminium construction, they are ideally suitable for all industrial markets.

Features:

- Multi-Mount
- Lightweight

ELECTRICAL SUPPLY AND RATINGS

All motors work with either Delta or Star configurations.

kW	Volts	Connection	Hz
≤2.2	220/240	Δ	50
	250/280	Δ	60
	380/415	Y	50
	440/480	Y	60
3 ≥	380/415	Δ	50
	440/480	Δ	60
	660/690	Y	50

ENCLOSURE

The standard protection is to IP55 for B3 (IM1001) or B3/B5 (IM2001) mounting.

DUTY RATING

All motors are continuously maximum rated type S1. However, all motors can operate continuously with a 10% overload if the Class F temperature rise is acceptable.

AMBIENT

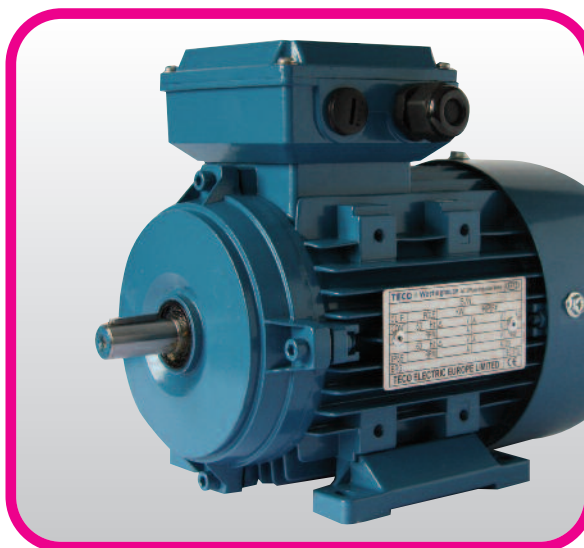
Standard motors are designed to operate in an ambient temperature of -15 °C to 40 °C.

ALTITUDE

Standard motors are designed for operation and performance at an altitude not exceeding 3,300 feet (1,000 metres) above sea level. For higher altitudes derating of output kW may be necessary.

Lite EFF2

Advantage Lite EFF2 Introduction



PERFORMANCE

All standard motors are designed to meet IEC 60034-12 design N performance requirements.

DIRECTION OF ROTATION

All standard motors are suitable for operation in either direction of rotation.

MOUNTING

Motors are available in the following mounting types:

Foot mount horizontal shaft (B3)

Flange mount (B5 or V1)

Foot and flange mount (B3/5)

Face mount (B14)

FRAMES AND ENDSHIELDS

Stator frames are made from a high-grade aluminium alloy. End shields are of die cast aluminium alloy with steel liner for bearing housing.

FAN AND FAN COWL

Polypropylene fans are fitted with key as standard. Fan cowls are of heavy gauge pressed steel construction, securely bolted to the motor endshield.

BEARING AND LUBRICATION SYSTEM

Standard motors are fitted with high quality pre-lubricated double shielded ball bearings.

ROTOR ASSEMBLY

The rotor core consists of high grade insulated cold rolled electromagnetic steel laminations with a pressure die-cast high conductivity aluminium cage. Integrally cast with the cage are waffer blades and balance weight supports. The whole assembly is then dynamically balanced.

STATOR, WINDING AND CLASS F INSULATION SYSTEM

Stator laminations are built of high grade, insulated cold rolled electromagnetic steel for high efficiency. Coil wires are insulated with a heavy build heat-resistant polyester coating. Connections are insulated with cross-linked silicone rubber braid. The complete winding is dipped in Class F varnish and baked to cure. External winding flexible leads are cross-linked silicone rubber insulated.

NAMEPLATE

Nameplates are made from stainless steel.

TERMINAL BOX

Terminal boxes are generously proportioned and rotatable 4 x 90-degree increments and contain a 6 terminal connection block and earth terminal directly connected to the frame in compliance with relevant European Directives. Boxes are gasketed between frame, box, cover and gland plate for IP55 protection. The terminal box located on the top of the frame as standard. The multi-mount design allows the terminal box to be fixed in three separate positions giving complete user adaptability.

PAINT FINISH

Phenolic basic + lacquer surface finished in blue - providing a high corrosion resistant protection.

TESTING

In addition to a full programme of tests during manufacture, each motor undergoes an automatic routine test to EN60034-1 and BS4999 prior to despatch.

OPTIONS

The following additional options are available:

- IP56, IP65 enclosure
- Class 'H' insulation
- Anti-condensation heaters
- Thermistor protection
- Tropicproofing
- Brake kits available
- Special shaft extensions
- Stainless steel hardware
- Encoder/Tacho
- Force Ventilation kits
- Oversize terminal box

NOTES

1. All data is subject to change without prior notification.
2. Not to be used for installation purposes without referring to Teco Electric Europe Limited.

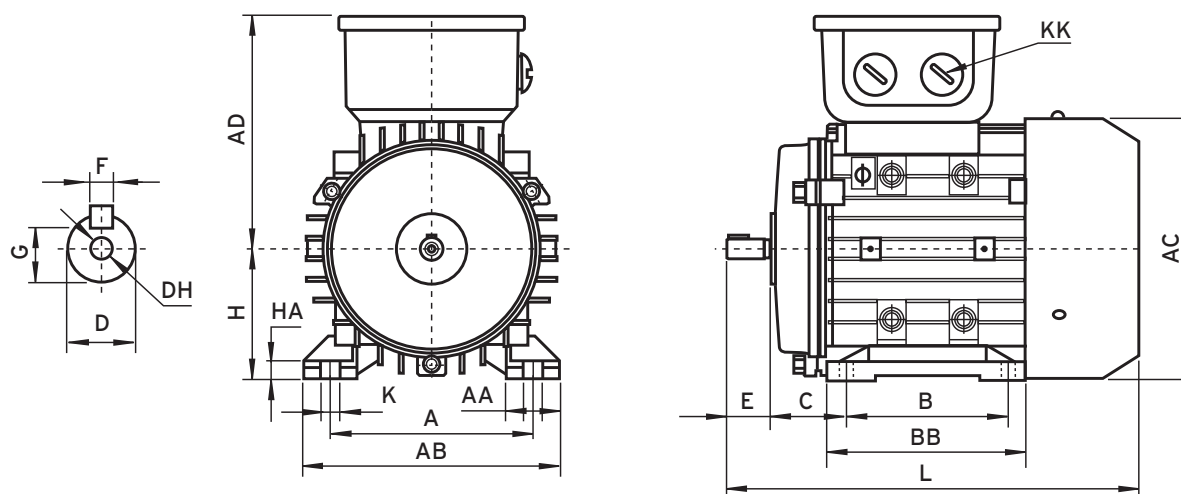
0.12kW-15kW TEFC, CLASS F INSULATION, S1 (MCR) DUTY

Output kW	Full load speed (rpm)	Frame size	Full Load Current at 400 volts (A)	Efficiency (%) at load			Power Factor at load			Locked Rotor Current (A)	Torque			Rotor inertia (wr ²) kgm ²	Noise LWdB (A)	Weight B3 (kg)
				100%	75%	50%	100%	75%	50%		Full Load kg-m	Locked Rotor % FLT	Break down % FLT			
400V 50Hz – Synchronous Speed 3000 r/min (2 poles)																
0.18	2700	D63	0.50	69.0	68.0	66.0	75.0	66.0	58.0	2.8	0.065	220	220	0.00074	66	5.3
0.25	2700	D63	0.65	69.0	67.0	67.0	81.0	72.0	60.0	3.6	0.090	220	220	0.00089	66	5.3
0.37	2720	D71	0.95	66.0	65.2	60.5	86.0	79.0	68.0	4.0	0.132	263	304	0.00139	69	7.0
0.55	2720	D71	1.33	73.0	71.5	70.0	82.0	75.0	62.0	8.6	0.197	220	230	0.00172	73	7.0
0.75	2800	D80	1.68	75.0	73.0	69.7	83.0	82.0	72.0	9.7	0.268	280	328	0.00366	73	10.5
1.1	2800	D80	2.49	76.7	77.0	75.0	84.0	77.0	65.0	14.3	0.389	263	282	0.00457	73	13.0
1.5	2750	D90S	3.28	78.5	76.0	74.0	84.0	80.0	71.0	23.0	0.531	220	230	0.00642	75	14.0
2.2	2800	D90L	4.60	81.2	80.7	80.6	85.0	84.0	75.0	27.1	0.773	262	312	0.00843	77	16.5
3	2800	D100L	6.00	83.4	82.5	80.7	87.0	83.0	73.0	42.3	1.043	266	299	0.01338	80	24.5
4	2800	D112M	7.80	84.7	83.5	82.0	88.0	83.0	78.0	58.4	1.391	220	230	0.02507	83	30.0
5.5	2900	D132S	10.30	85.8	84.0	81.6	88.0	89.0	84.0	79.5	1.879	220	333	0.04892	83	42.0
7.5	2900	D132S	14.10	87.2	86.0	84.0	88.0	85.0	76.0	99.25	2.562	265	314	0.05707	84	44.0
11	2950	D160M	20.20	88.0	86.5	84.8	88.0	84.0	78.0	162.0	3.633	200	220	0.08610	87	106.0
15	2970	D160M	27.30	89.0	88.0	84.3	89.0	86.0	80.0	219.0	4.921	200	220	0.08610	87	117.0
400V 50Hz – Synchronous Speed 1500 r/min (4 poles)																
0.12	1400	D63	0.47	56.0	53.0	46.6	67.0	58.0	47.0	2.3	0.087	214	225	0.00142	59	5.3
0.18	1350	D63	0.67	60.0	59.0	53.3	65.0	55.0	43.0	3.1	0.130	239	262	0.00168	59	6.0
0.25	1345	D71	0.75	65.0	64.0	60.0	74.0	60.0	50.0	3.9	0.181	210	220	0.00255	59	7.0
0.37	1400	D71	1.08	68.5	68.7	64.5	72.0	62.0	48.0	4.2	0.268	223	252	0.00317	61	7.5
0.55	1400	D80	1.51	72.3	71.8	67.3	73.0	63.0	49.0	6.7	0.388	229	249	0.00577	61	10.5
0.75	1400	D80	2.07	74.0	71.6	67.9	76.0	63.0	49.0	7.96	0.529	228	246	0.00673	63	10.5
1.1	1400	D90S	2.74	76.5	75.9	72.3	77.0	68.0	55.0	12.8	0.776	287	289	0.00988	66	14.0
1.5	1400	D90L	3.65	78.8	77.1	74.3	78.0	68.0	54.0	21.8	1.058	245	297	0.01358	66	16.5
2.2	1430	D100L	5.12	81.5	79.1	77.2	81.0	71.0	57.0	28.6	1.519	247	279	0.02507	68	24.5
3	1430	D100L	6.40	82.6	83.4	82.5	82.0	76.0	64.0	39.0	2.072	254	283	0.03343	72	26.5
4	1430	D112M	8.50	84.5	83.1	81.4	82.0	75.0	62.0	54.7	2.705	221	291	0.05332	74	30.0
5.5	1440	D132S	11.20	86.0	86.2	85.0	83.0	77.0	65.0	77.5	3.719	231	305	0.10882	74	42.0
7.5	1440	D132M	14.80	87.3	83.0	82.0	84.0	80.0	70.0	103.7	5.071	230	230	0.15027	77	54.5
11	1460	D160M	21.20	88.0	87.1	85.0	85.0	81.0	76.0	148.0	7.342	200	220	1.44600	78	106.0
15	1460	D160L	28.50	89.0	87.8	85.3	85.0	82.0	78.0	200.0	10.011	200	220	1.55500	82	126.0
400V 50Hz – Synchronous Speed 1000 r/min (6 poles)																
0.18	880	D71	0.70	59.00	57.00	50.0	63.0	55.0	45.0	2.80	0.199	190	200	0.00391	57	7.5
0.25	950	D71	0.97	55.8	54.8	49.0	67.0	57.0	46.0	2.8	0.270	166	204	0.00456	57	8.0
0.37	920	D80	1.21	64.2	63.8	58.5	69.0	58.0	46.0	3.9	0.394	191	218	0.00732	59	11.5
0.55	950	D80	1.58	68.5	69.2	65.5	73.0	64.0	50.0	5.7	0.582	190	220	0.00957	59	13.0
0.75	950	D90S	2.08	70.6	72.9	70.9	74.0	64.0	50.0	7.5	0.785	183	216	0.01406	64	15.0
1.1	950	D90L	2.87	72.6	76.6	76.3	76.0	67.0	53.0	10.7	1.152	196	223	0.01903	64	17.0
1.5	945	D100L	3.80	76.0	75.0	70.0	75.0	66.0	60.0	20.9	1.546	200	230	0.03444	66	25.0
2.2	945	D112M	5.30	79.0	78.0	73.0	76.0	67.0	60.0	34.4	2.267	200	230	0.05993	70	34.0
3	960	D132S	7.00	81.0	80.0	76.0	76.0	67.0	61.0	45.7	3.043	210	230	0.12390	72	45.0
4	960	D132M	9.30	82.0	81.5	77.0	76.0	68.0	60.0	60.2	4.057	210	230	0.16763	75	55.0
5.5	960	D132M	12.30	84.0	82.0	80.0	77.0	70.0	64.0	79.8	5.579	210	230	0.22594	77	60.0

NOTES

1. The above are typical values based on test on 400V.
2. Performance to EN60034 Parts 1 and 2.
3. Tolerance according to EN60034-1
4. Efficiency, power factor, speed and torque are the same for other rated voltages. Full load current values vary inversely with voltage.
5. Efficiencies are Eff2.
6. Data subject to change without notice.

B3 Foot Mounted Dimensions



Output kW			Mounting Dimensions													
2P	4P	6P	Frame	A	AA	AB	AC	AD	B	BB	C	H	HA	K	KK	L
0.18 / 0.25	0.12 / 0.18		D63	100	27.5	120	130	109	80	103	40	63	8	7	MG16	213
0.37 / 0.55	0.25 / 0.37	0.18 / 0.25	D71	112	31	130	145	117	90	105	45	71	10	7	MG16	255
0.75 / 1.1	0.55 / 0.75	0.37 / 0.55	D80	125	40	158	158	136	100	124	50	80	10	10	MG20	285
1.5	1.1	0.75	D90S	140	43	175	177	145	100	125	56	90	14	10	MG20	305
2.2	1.5	1.1	D90L	140	43	175	177	145	125	150	56	90	14	10	MG20	330
3	2.2 / 3	1.5	D100L	160	38	196	203	155	140	170	63	100	15	12	MG20	372
4	4	2.2	D112M	190	53	218	226	173	140	180	70	112	15	12	MG25	394
5.5 / 7.5	5.5	3	D132S	216	43	252	265	193	140	180	89	132	17	12	MG25	462
	7.5	4 / 5.5	D132M	216	43	252	265	193	178	218	89	132	17	12	MG25	500
11 / 15	11	7.5	D160M	254	55	302	314	244	210	260	108	160	18	15	MG32	620
	15	11	D160L	254	55	302	314	244	254	304	108	160	18	15	MG32	644

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SHAFT EXTENSION

Frame	D	DH	E	F	G
D63	11	M4	23	4	8.5
D71	14	M5	30	5	11
D80	19	M6	40	6	15.5
D90S	24	M8	50	8	20
D90L	24	M8	50	8	20
D100L	28	M10	60	8	24
D112M	28	M10	60	8	24
D132S	38	M12	80	10	33
D132M	38	M12	80	10	33
D160M	42	M16	110	12	37
D160L	42	M16	110	12	37

BEARINGS

Frame	Drive End	Non Drive End
D63	6201ZZC3	6201ZZC3
D71	6202ZZC3	6202ZZC3
D80	6204ZZC3	6204ZZC3
D90S	6205ZZC3	6205ZZC3
D90L	6205ZZC3	6205ZZC3
D100L	6206ZZC3	6206ZZC3
D112M	6306ZZC3	6306ZZC3
D132S	6308ZZC3	6308ZZC3
D132M	6308ZZC3	6308ZZC3
D160M (2 pole)	6209ZZC3	6209ZZC3
D160M (4/6 pole)	6309ZZC3	6309ZZC3
D160L (2 pole)	6209ZZC3	6209ZZC3
D160L (4/6 pole)	6309ZZC3	6309ZZC3

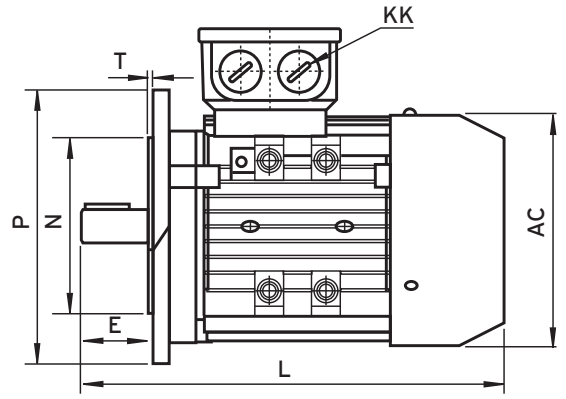
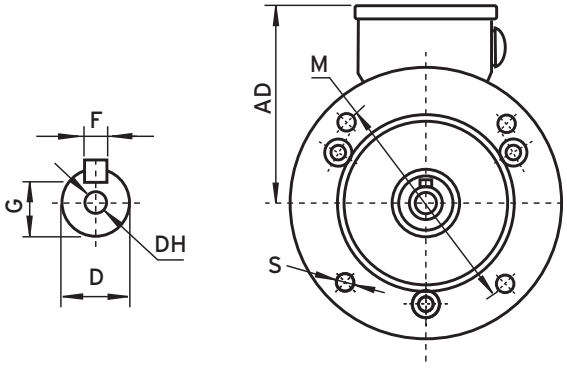
NOTES

1. Tolerance of shaft end diameter D: under $\varnothing 28$: j6 $\varnothing 38$: k6
2. Tolerance of shaft centre height H +0, -0.5

Dimensions in mm

B5/V1 Flange Mounted Dimensions

6



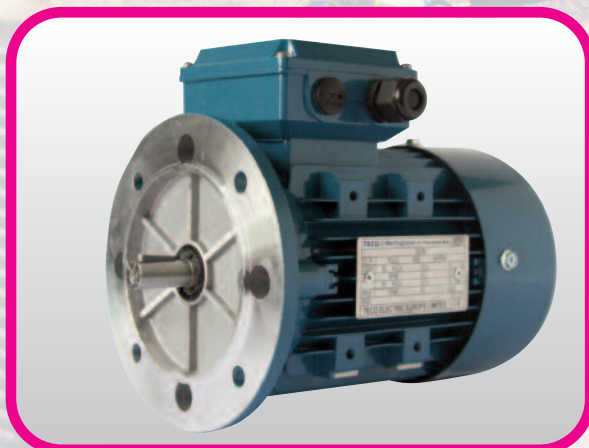
Output kW			Mounting Dimensions									
2P	4P	6P	Frame	AC	AD	KK	L	M	N	P	S	T
0.18 / 0.25	0.12 / 0.18		D63	130	109	MG16	213	115	95	140	10	3
0.37 / 0.55	0.25 / 0.37	0.18 / 0.25	D71	145	117	MG16	255	130	110	160	10	3.5
0.75 / 1.1	0.55 / 0.75	0.37 / 0.55	D80	158	136	MG20	285	165	130	200	12	3.5
1.5	1.1	0.75	D90S	177	145	MG20	305	165	130	200	12	3.5
2.2	1.5	1.1	D90L	177	145	MG20	330	165	130	200	12	3.5
3	2.2 / 3	1.5	D100L	203	155	MG20	372	215	180	250	15	4
4	4	2.2	D112M	226	178	MG25	394	215	180	250	15	4
5.5 / 7.5	5.5	3	D132S	265	193	MG25	462	265	230	300	15	4
	7.5	4 / 5.5	D132M	265	193	MG25	500	265	230	300	15	4
11 / 15	11	7.5	D160M	314	244	MG32	620	300	250	350	19	5
	15	11	D160L	314	244	MG32	664	300	250	350	19	5

SHAFT EXTENSION

Frame	D	DH	E	F	G
D63	11	M4	23	4	8.5
D71	14	M5	30	5	11
D80	19	M6	40	6	15.5
D90S	24	M8	50	8	20
D90L	24	M8	50	8	20
D100L	28	M10	60	8	24
D112M	28	M10	60	8	24
D132S	38	M12	80	10	33
D132M	38	M12	80	10	33
D160M	42	M16	110	12	37
D160L	42	M16	110	12	37

BEARINGS

Frame	Drive End	Non Drive End
D63	6201ZZC3	6201ZZC3
D71	6202ZZC3	6202ZZC3
D80	6204ZZC3	6204ZZC3
D90S	6205ZZC3	6205ZZC3
D90L	6205ZZC3	6205ZZC3
D100L	6206ZZC3	6206ZZC3
D112M	6306ZZC3	6306ZZC3
D132S	6308ZZC3	6308ZZC3
D132M	6308ZZC3	6308ZZC3
D160M (2 pole)	6209ZZC3	6209ZZC3
D160M (4/6 pole)	6309ZZC3	6309ZZC3
D160L (2 pole)	6209ZZC3	6209ZZC3
D160L (4/6 pole)	6309ZZC3	6309ZZC3

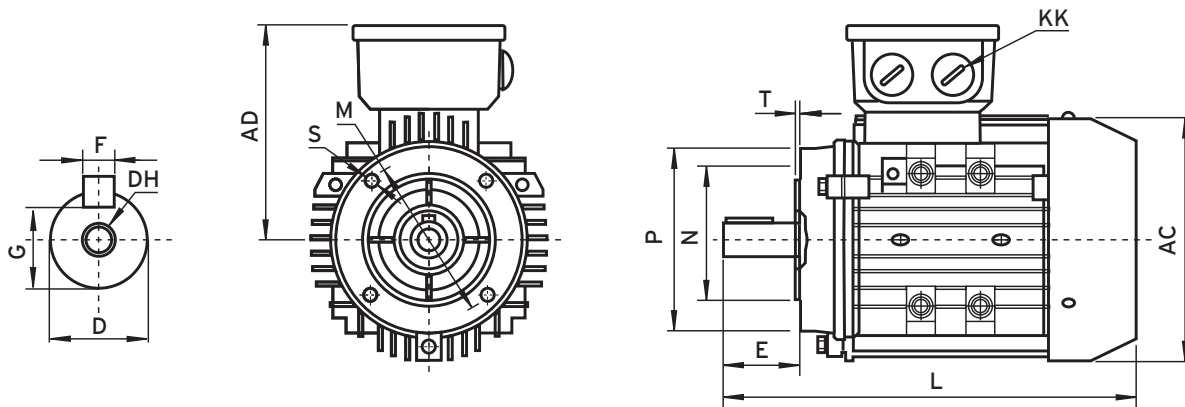


NOTES

1. Tolerance of shaft end diameter D:
under $\varnothing 28$: j6 $\varnothing 38$: k6

Dimensions in mm

B14 C-Face Mounted Dimensions



Output kW			Mounting Dimensions										
2P	4P	6P	Frame	AC	AD	E	KK	L	M	N	P	S	T
0.18 / 0.25	0.12 / 0.18		D63	130	109	23	MG16	213	75	60	90	M5	2.5
0.37 / 0.55	0.25 / 0.37	0.18 / 0.25	D71	145	117	30	MG16	255	85	70	105	M6	2.5
0.75 / 1.1	0.55 / 0.75	0.37 / 0.55	D80	158	136	40	MG20	258	100	80	120	M6	3
1.5	1.1	0.75	D90S	177	145	50	MG20	305	115	95	140	M8	3
2.2	1.5	1.1	D90L	177	145	50	MG20	330	115	95	140	M8	3
3	2.2 / 3	1.5	D100L	203	155	60	MG20	372	130	110	160	M8	3.5
4	4	2.2	D112M	226	173	60	MG25	394	130	110	160	M8	3.5
5.5 / 7.5	5.5	3	D132S	265	193	80	MG25	462	165	130	200	M10	4
	7.5	4 / 5.5	D132M	265	193	80	MG25	500	165	130	200	M10	4
11 / 15	11	7.5	D160M	314	244	110	MG32	620	210	180	250	M12	4
	15	11	D160L	314	244	110	MG32	664	210	180	250	M12	4

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SHAFT EXTENSION

Frame	D	DH	E	F	G
D63	11	M4	23	4	8.5
D71	14	M5	30	5	11
D80	19	M6	40	6	15.5
D90S	24	M8	50	8	20
D90L	24	M8	50	8	20
D100L	28	M10	60	8	24
D112M	28	M10	60	8	24
D132S	38	M12	80	10	33
D132M	38	M12	80	10	33
D160M	42	M16	110	12	37
D160L	42	M16	110	12	37

BEARINGS

Frame	Drive End	Non Drive End
D63	6201ZZC3	6201ZZC3
D71	6202ZZC3	6202ZZC3
D80	6204ZZC3	6204ZZC3
D90S	6205ZZC3	6205ZZC3
D90L	6205ZZC3	6205ZZC3
D100L	6206ZZC3	6206ZZC3
D112M	6306ZZC3	6306ZZC3
D132S	6308ZZC3	6308ZZC3
D132M	6308ZZC3	6308ZZC3
D160M (2 pole)	6209ZZC3	6209ZZC3
D160M (4/6 pole)	6309ZZC3	6309ZZC3
D160L (2 pole)	6209ZZC3	6209ZZC3
D160L (4/6 pole)	6309ZZC3	6309ZZC3

NOTES

1. Tolerance of shaft end diameter D: under $\varnothing 28$: j6 $\varnothing 38$: k6
2. Tolerance of shaft centre height H +0, -0.5
3. Tolerance of N: h7

Dimensions in mm

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