



3 PHASE FLAMEPROOF INDUCTION MOTORS

Techtop Australia's TCD YBX3 series of Ex d flameproof motors are certified for use in Zone 1 hazardous areas.



Certification

The full motor range of TCD YBX3 series complies to IEC60079-0:2011 Explosive atmospheres - Part 0 General requirements & IEC60079-1:2014-06 Explosive atmospheres – Part 1: Equipment protected by flameproof enclosure “d”.

The TCD YBX3 range is specially designed and certified for use in a Zone 1, Groups IIB or IIC, T4 class temperature, Ex d area.

This range is certified to IEC/Ex and Atex.

Efficiency

The TCD YBX3 range in 2, 4 & 6 pole complies with MEPS2 requirements of AS/NZS 1359.5.2004 Table A3 (IE3 High Efficiency). Refer GEMS determination 2018.

Motors are tested in accordance with Test Method A of AS/NZS 1359.102.3 as per IEC60034-2-1.

Specification and Operating Parameters

The main dimensions and rated outputs generally conform to IEC60034 and IEC60072.

Motor performance data is designed and based upon:

- S1 continuous running duty
- Ambient temperature standard between -20°C ~ $+40^{\circ}\text{C}$ (Ambient up to 60°C available by output deration).
- Altitudes up to 1000 meters above sea level.
- Standard voltage: 240V/415V, 415V/720V
- Optional voltages: 220V/380V, 230V/400V, 380V/600V, 400V/690V, 660V/1140V 50Hz/60Hz.
- IP66 protection enclosure
- Class F insulation with class B temperature rise

Motor Construction

- Stator and terminal box are manufactured from close-grained pearlitic grey cast iron having 250MPa tensile strength.
- Stator windings are wound with polyester enamel wire of high strength and treated with VPI (vacuum-pressure impregnation) varnish.
- Rotors are of cast aluminum and dynamically balanced.
- Stator and rotor cores are laminated with high-class electrical steel sheet of high permeability.
- Frame size 132 and below, shielded ball bearings are used and fitted with a wave washer at the drive-end.
- Frame size 160 and above are fitted with re-greaseable bearings, inner and outer caps are used to prevent any axial movement.
- Frame size 250 and above have a provision for mounting bearing temperature monitoring devices.
- Motors are fitted with anti-static plastic fan.
- Motors for vertical shaft down application are generally fitted with a rain canopy.

Terminal Box

TCD YBX3 series are designed with a square box arrangement and have excellent flameproof protection. Motors as standard have 2 conduit entries, 1 x main entry & 1 x thermistor entry, both entries are fitted as standard with IEC/Ex approved cable glands.

TCD YBX3 SERIES

Bearings & Grease

All motors up to and including 280 frame are fitted with deep groove ball bearings with 80 to 132 frame being shielded type, 160 and above being open re-greaseable type.

All 4/6/8 pole motors in frames 315 and above are fitted with a roller bearing at the drive end, 2 pole motors are fitted with deep groove ball bearings.

We recommend lithium-based grease, please remove the grease plug located at the bottom of the bearing cap at the drive end and at the bottom of the fan cowl at non-drive end prior to greasing, both grease plugs **must** be replaced after greasing.

Frame Size	Pole	DE Bearing	NDE Bearing
80	2~8P	6204 2RS C3	6204 2RS C3
90	2~8P	6205 2RS C3	6205 2RS C3
100	2~8P	6206 2RS C3	6206 2RS C3
112	2~8P	6206 2RS C3	6206 2RS C3
132	2~8P	6208 2RS C3	6208 2RS C3
160	2~8P	6209 C3	6209 C3
180	2P	6211 C3	6211 C3
	4~8P	6311 C3	6211 C3
200	2P	6212 C3	6212 C3
	4~8P	6312 C3	6212 C3
225	2P	6312 C3	6312 C3
	4~8P	6313 C3	6312 C3
250	2P	6313 C3	6312 C3
	4~8P	6314 C3	6313 C3
280	2P	6314 C3	6314 C3
	4~8P	6317 C3	6314 C3
315	2P	6316 C3	6316 C3
	4~8P	NU319C3	6319 C3
355	2P	6319 C3	6319 C3
	4~8P	NU322C3	6319 C3

Electrical Connections and Thermistors

Motor frame	Connection	Thermistor
80 ~ 132	6 terminals for Star / Delta starting	Optional
160 ~ 355	6 terminals for Star / Delta starting	Fitted

Note: If star / delta starting is required for frame 132 and below, no thermistor is fitted.

Conduit Sizes

Motor frame	Main conduit (X)	Auxiliary conduit (X)
80 ~ 112	1 x M25	1 x M20
132 ~ 180	1 x M40	1 x M20
200 ~ 225	1 x M50	1 x M20
250 ~ 355	1 x M63	1 x M20

Paint

Motors are painted with a high-quality alkyd enamel finish in Carmine Red (RAL 3002), the thickness range is between 80 ~ 100 micron.

Options

- ☛ Suitable for higher ambient temperatures based on deration of kW output.
- ☛ Fitting of anti-condensation heaters.
- ☛ Fitting of extended leads from main terminal box.
- ☛ Suitable for use with VVVF drive based on fitting of 120°C thermistors.
- ☛ Force ventilation by fitment of IEC/Ex approved kit.



TCD YBX3 SERIES PERFORMANCE DATA

IE3 Performance Data 415V/3Ph/50Hz
Class F, IP66, T4 class surface temperature

KW	Motor Frame	Shaft (mm)	Speed RPM	Current (415V)		Efficiency %	Power factor (cosφ)	Full Load (Nm)	Locked Rotor Tst/TN	Break Down Tmax/TN	400V	380V	Moment of inertia J=½GD² (kg m²)	Weight of foot mount motor (Kgs)	Noise Level	Vibration
				Full Load Current (A)	Locked Rotor Current Ist/IN						Full Load Current (A)	Full Load Current (A)			No Load @ 1 Metre dB(A)	No Load mm/s

3000 RPM = 2 Pole

0.75	80A	19	2885	1.66	7.5	80.7	0.78	2.48	2.5	2.8	1.72	1.81	0.0010	29	64	1.3
1.1	80B	19	2885	2.28	8.2	82.7	0.81	3.64	2.7	3.0	2.37	2.50	0.0013	31	64	1.3
1.5	90S	24	2885	3.06	8.8	84.2	0.81	4.97	3.7	3.4	3.17	3.34	0.0020	36	68	1.3
2.2	90L	24	2890	4.24	9.2	85.9	0.84	7.27	3.2	3.1	4.40	4.63	0.0026	40	68	1.3
3	100L	28	2895	5.51	8.7	87.1	0.87	9.90	2.8	3.0	5.71	6.02	0.0044	50	71	1.3
4	112M	28	2895	7.18	8.3	88.1	0.88	13.2	2.6	2.9	7.4	7.84	0.0060	67	71	1.3
5.5	132SA	38	2920	10.0	8.0	89.2	0.86	18.0	2.5	2.9	10.3	10.9	0.0140	85	75	1.3
7.5	132SB	38	2915	13.0	8.1	90.1	0.89	24.6	2.3	3	13.5	14.2	0.0162	89	75	1.3
11	160MA	42	2945	18.9	7.9	91.2	0.89	35.7	2.6	3	19.6	20.6	0.0525	152	79	1.8
15	160MB	42	2945	25.5	8.5	91.9	0.89	48.6	2.9	3	26.5	27.9	0.0608	164	79	1.8
18.5	160L	42	2940	31.3	8.1	92.4	0.89	60.1	3.0	2	32.5	34.2	0.0696	177	79	1.8
22	180M	48	2960	37.1	9.6	92.7	0.89	71.0	3.4	3.1	38.5	40.5	0.0864	240	84	1.8
30	200LA	55	2965	52.0	8.3	93.3	0.86	96.6	2.8	2.9	54.0	56.8	0.1630	289	86	1.8
37	200LB	55	2965	62.4	7.7	93.7	0.88	119.2	2.6	2.9	64.8	68.2	0.1720	307	86	1.8
45	225M	55	2965	74.8	8.9	94.0	0.89	144.9	2.8	2.9	77.6	81.7	0.3562	378	88	1.8
55	250M	60	2965	91.2	9.6	94.3	0.89	177.2	2.6	3.0	94.6	99.6	0.4590	529	88	1.8
75	280S	65	2980	125.2	8.2	94.7	0.88	240.4	2.5	2.8	129.9	136.7	1.007	645	90	1.8
90	280M	65	2970	149.8	8.6	95.0	0.88	289.4	2.8	2.9	155.4	163.6	1.059	701	90	1.8
110	315S	65	2980	180.6	6.8	95.2	0.89	352.5	2.3	2.6	187.4	197.3	1.386	1075	91	2.3
132	315M	65	2980	216.3	6.5	95.4	0.89	423.0	2.0	2.6	224.4	236.2	1.709	1182	91	2.3
160	315LA	65	2980	261.6	8.1	95.6	0.89	512.8	2.8	3.2	271.4	285.7	1.740	1303	93	2.3
200	315LB	65	2980	326.3	7.5	95.8	0.89	640.9	2.4	2.7	338.6	356.4	2.141	1525	93	2.3
250	355MB	75	2980	407.9	7.1	95.8	0.89	801.2	1.8	2.2	423.2	445.5	4.02	1840	100	2.3
315	355LB	75	2980	514.0	7.1	95.8	0.89	1009.5	1.8	2.2	533.3	561.3	4.86	2060	100	2.3

TCD YBX3 SERIES

TCD YBX3 SERIES PERFORMANCE DATA

IE3 Performance Data 415V/3Ph/50Hz
Class F, IP66, T4 class surface temperature

KW	Motor Frame	Shaft (mm)	Speed RPM	Current (415V)		Efficiency %	Power factor (cosφ)	Full Load (Nm)	Locked Rotor Tst/TN	Break Down Tmax/TN	400V	380V	Moment of inertia $J=\frac{1}{2}GD^2$ (kg m ²)	Weight of foot mount motor (Kgs)	Noise Level	Vibration
				Full Load Current (A)	Full Load Current (A)						No Load @ 1 Metre dB(A)	No Load mm/s				
1500 RPM = 4 Pole																
0.55	80A	19	1435	1.31	6.3	79.0	0.74	3.66	2.3	2.3	1.36	1.43	0.0016	29	58	1.3
0.75	80B	19	1435	1.81	6.2	82.5	0.70	4.99	2.4	2.7	1.87	1.97	0.0020	30	58	1.3
1.1	90S	24	1435	2.49	6.6	84.1	0.73	7.32	2.3	2.7	2.59	2.72	0.0030	37	61	1.3
1.5	90L	24	1440	3.35	6.4	85.3	0.73	9.95	2.6	3.0	3.48	3.66	0.0038	40	61	1.3
2.2	100LA	28	1455	4.65	8.0	86.7	0.76	14.4	2.5	3.0	4.82	5.07	0.0077	51	64	1.3
3	100LB	28	1455	5.95	7.6	87.7	0.80	19.7	2.6	3.0	6.17	6.50	0.0093	56	64	1.3
4	112M	28	1455	8.26	8.6	88.6	0.76	26.3	2.6	2.8	8.57	9.03	0.1280	72	65	1.3
5.5	132S	38	1460	10.8	8.6	89.7	0.79	36.0	2.3	2.7	11.2	11.8	0.0295	90	67	1.3
7.5	132M	38	1460	14.6	8.3	90.4	0.79	49.1	2.4	2.9	15.2	16.0	0.0366	102	67	1.3
11	160M	42	1470	20.4	8.1	91.4	0.82	71.5	2.1	2.6	21.2	22.3	0.0795	148	71	1.8
15	160L	42	1470	27.6	8.9	92.1	0.82	97.4	2.4	2.8	28.7	30.2	0.1034	168	71	1.8
18.5	180M	48	1475	32.3	8.1	92.6	0.86	119.8	2.6	3.0	33.5	35.3	0.1596	221	73	1.8
22	180L	48	1475	38.3	8.8	93.0	0.86	142.4	2.6	2.9	39.7	41.8	0.2025	296	73	1.8
30	200L	55	1480	51.9	7.9	93.6	0.86	193.6	2.6	3.1	53.8	56.6	0.3283	379	75	1.8
37	225S	60	1485	63.7	8.1	93.9	0.86	237.9	2.4	3.0	66.1	69.6	0.4840	409	75	1.8
45	225M	60	1485	77.3	7.6	94.2	0.86	289.4	2.4	2.8	80.2	84.4	0.5653	507	75	1.8
55	250M	65	1480	94.1	8.9	94.6	0.86	354.9	2.7	3.1	97.6	102.7	0.8761	699	77	1.8
75	280S	75	1490	127.7	7.4	95.0	0.86	480.7	2.4	2.8	132.5	139.5	1.954	724	80	1.8
90	280M	75	1490	151.2	7.7	95.2	0.87	576.8	2.6	3.0	156.8	165.1	2.351	756	80	1.8
110	315S	80	1490	182.3	6.7	95.4	0.88	705.0	2.2	3.0	189.1	199.1	2.378	1098	83	2.3
132	315M	80	1490	215.8	6.6	95.6	0.89	846.0	2.0	2.2	223.9	235.7	2.656	1150	85	2.3
160	315LA	80	1490	261.1	6.7	95.8	0.89	1025.5	2.1	2.7	270.9	285.1	2.997	1274	86	2.3
200	315LB	80	1490	326.0	6.7	95.9	0.89	1281.9	1.9	2.6	338.2	356.0	4.123	1566	88	2.3
250	355MB	95	1488	407.1	6.9	96.0	0.89	1604.5	2.3	2.7	422.3	444.6	7.920	2006	91	2.3
315	355LB	95	1488	507.2	6.1	96.0	0.90	2021.7	1.9	2.4	526.2	553.9	7.815	2203	91	2.3



TCD YBX3 SERIES PERFORMANCE DATA

IE3 Performance Data 415V/3Ph/50Hz
Class F, IP66, T4 class surface temperature

KW	Motor Frame	Shaft (mm)	Speed RPM	Current (415V)		Efficiency %	Power factor (cosφ)	Full Load (Nm)	Locked Rotor Tst/TN	Break Down Tmax/TN	400V	380V	Moment of inertia J=½GD² (kg m²)	Weight of foot mount motor (Kgs)	Noise Level	Vibration
				Full Load Current (A)	Locked Rotor Current Ist/IN						Full Load Current (A)	Full Load Current (A)			No Load @ 1 Metre dB(A)	No Load mm/s
1000 RPM = 6 Pole																
0.75	90S	24	950	2.07	5.6	78.9	0.64	7.54	2.1	2.4	2.14	2.26	0.0038	35	57	1.3
1.1	90L	24	950	2.82	5.9	81.0	0.67	11.1	2.1	2.3	2.93	3.08	0.0053	40	57	1.3
1.5	100L	28	955	3.51	6.4	82.5	0.72	15.0	2.5	2.7	3.64	3.84	0.0107	48	61	1.3
2.2	112M	28	955	4.91	6.4	84.3	0.74	22.0	2.6	2.9	5.09	5.36	0.0151	62	65	1.3
3	132S	38	975	6.87	6.8	85.6	0.71	29.4	1.9	2.3	7.12	7.50	0.0318	87	69	1.3
4	132MA	38	975	9.16	7.6	86.8	0.70	39.2	2.2	2.5	9.50	10.0	0.0394	95	69	1.3
5.5	132MB	38	975	12.6	7.8	88.0	0.69	53.9	2.2	2.6	13.1	13.8	0.0404	103	69	1.3
7.5	160M	42	980	15.0	7.3	89.1	0.78	73.1	2.3	2.8	15.6	16.4	0.0964	147	73	1.8
11	160L	42	980	22.0	6.8	90.3	0.78	107.2	2.3	2.6	22.8	23.7	0.1270	175	73	1.8
15	180L	48	980	28.5	7.8	91.2	0.81	146.2	2.2	2.7	29.6	30.9	0.2010	230	73	1.8
18.5	200LA	55	980	34.8	6.5	91.7	0.81	180.3	2.1	2.7	36.1	37.8	0.3250	281	76	1.8
22	200LB	55	980	38.4	6.7	92.2	0.87	212.4	2.3	2.7	41.8	41.7	0.371	284	76	1.8
30	225M	60	980	55.9	6.7	92.9	0.81	292.3	2.3	2.7	58.0	60.6	0.547	360	76	1.8
37	250M	65	990	66.8	7.4	93.3	0.83	356.9	2.4	3.3	69.3	72.6	0.961	482	78	1.8
45	280S	75	990	79.9	7.6	93.7	0.84	434.1	2.3	3.0	82.9	86.9	1.850	589	80	1.8
55	280M	75	990	97.2	8.3	94.1	0.84	530.6	2.7	3.3	100.9	105.7	2.120	655	80	1.8
75	315S	80	995	130.5	7.3	94.6	0.85	719.8	2.2	3.1	135.3	141.7	2.610	1074	85	2.3
90	315M	80	995	161.4	7.5	94.9	0.82	863.8	2.4	3.3	167.5	175.7	3.040	1170	85	2.3
110	315LA	80	995	189.7	7.3	95.1	0.85	1055.8	2.5	3.0	196.8	206.8	3.710	1295	85	2.3
132	315LB	80	995	229.9	8.1	95.4	0.84	1266.9	2.6	3.4	238.5	250.3	4.240	1450	85	2.3
160	355MA	95	995	277.8	7.1	95.6	0.84	1535.7	1.7	2.5	288.2	302.7	8.359	1861	92	2.3
200	355MB	95	995	333.8	6.7	95.8	0.87	1919.6	1.9	2.5	#REF!	364.6	9.464	1889	92	2.3
250	355LB	95	995	417.3	6.7	95.8	0.87	2399.5	1.8	3.1	433.0	455.7	11.22	2171	92	2.3

TCD YBX3 SERIES

TCD YBX3 SERIES PERFORMANCE DATA

IE2 Performance Data 415V/3Ph/50Hz
Class F, IP66, T4 class surface temperature

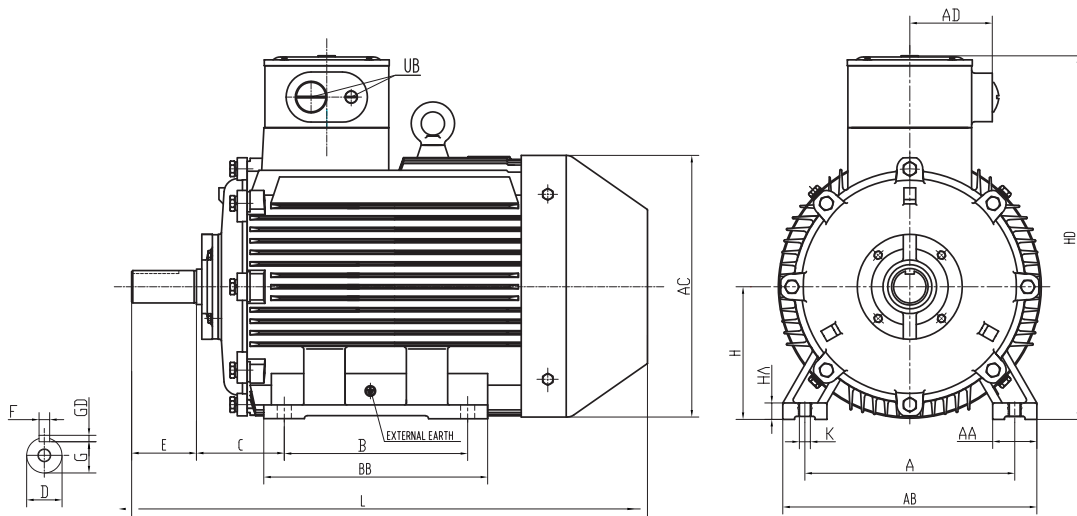
KW	Motor Frame	Shaft (mm)	Speed RPM	Current (415V)		Efficiency %	Power factor (cosφ)	Full Load (Nm)	Locked Rotor Tst/TN	Break Down Tmax/TN	400V		380V		Moment of inertia $J=\frac{1}{2}GD^2$ (kg m ²)	Weight of foot mount motor (Kgs)	Noise Level	Vibration
				Full Load Current (A)	Locked Rotor Current Ist/IN						Full Load Current (A)	Full Load Current (A)	No Load @ 1 Metre dB(A)	No Load mm/s				

750 RPM = 8 Pole

2.2	132S	38	710	5.46	6.0	79.0	0.71	29.6	1.8	2.0	5.66	5.96	0.0307	83	65	1.3
3	132M	38	710	7.15	6.0	80.0	0.73	40.4	1.8	2.3	7.41	7.81	0.0426	94	69	1.3
4	160MA	42	720	9.31	6.0	81.9	0.73	53.1	1.9	2.5	9.66	10.2	0.0635	132	70	1.3
5.5	160MB	42	720	12.3	6.0	83.8	0.74	73.0	1.9	2.3	12.8	13.5	0.0897	144	70	1.3
7.5	160L	42	720	16.3	6.0	85.3	0.75	99.5	1.9	2.3	16.9	17.8	0.1270	166	71	1.8
11	180L	48	720	23.9	6.5	86.9	0.75	145.9	2.0	2.2	24.8	25.6	0.2138	223	72	1.8
15	200L	55	730	31.6	6.6	88.0	0.76	196.2	2.1	2.3	32.8	34.1	0.3588	279	73	1.8
18.5	225S	60	740	38.5	6.6	88.6	0.76	238.8	1.9	2.1	39.9	41.7	0.5488	332	74	1.8
22	225M	60	740	44.3	6.6	89.1	0.78	212.4	1.9	2.2	41.8	48.1	0.6454	363	74	1.8
30	250M	65	740	59.3	6.5	89.8	0.79	387.2	2.0	2.1	61.5	64.3	0.9876	478	76	1.8
37	280S	75	740	72.6	6.6	90.3	0.79	477.5	1.9	2.2	75.3	78.8	1.7092	585	78	1.8
45	280M	75	740	87.8	6.6	90.7	0.79	580.7	2.0	2.3	91.1	95.4	1.9875	648	78	1.8
55	315S	80	745	104.2	6.6	91.0	0.81	705.0	1.8	2.0	108.1	113.4	3.9597	972	80	1.8
75	315M	80	745	141.6	6.2	91.6	0.81	961.4	1.8	2.1	146.9	153.6	5.2790	1080	80	2.3
90	315LA	80	750	166.7	6.4	91.9	0.82	1146.0	1.9	2.2	173.0	181.5	6.2695	1226	83	2.3
110	315LB	80	750	203.1	6.4	92.3	0.82	1400.7	1.9	2.0	210.7	220.8	7.4245	1310	83	2.3
132	355S	95	760	242.6	6.4	92.6	0.82	1658.7	1.8	2.1	251.7	264.1	11.427	1405	85	2.3
160	355M	95	760	289.6	6.4	93.0	0.83	2010.5	1.7	2.2	300.5	314.9	13.936	1880	85	2.3
200	355L	95	760	354.8	6.3	94.5	0.83	2513.2	1.9	2.1	374.0	387.4	18.116	2130	86	2.3



TCD YBX3 SERIES DIMENSION DRAWINGS



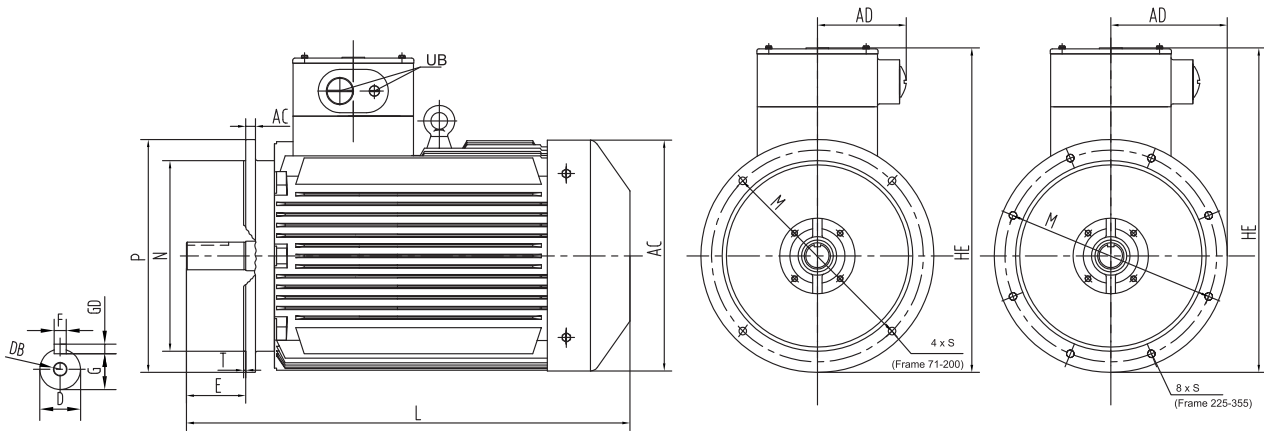
Foot Mount B3

FRAME	A	B	C	D	DB	E	F	G	GD	H	K	AA	AB	AC	AD	BB	HA	HD	L	UB	
80	125	100	50	19	M6	40	6	15.5	6	80	10	34	165	170	100	130	10	320	330	1 x M25	1 x M20
90S	140	100	56	24	M8	50	8	20	7	90	10	36	180	185	100	135	14	330	370	1 x M25	1 x M20
90L	140	125	56	24	M8	50	8	20	7	90	10	36	180	185	100	160	14	330	395	1 x M25	1 x M20
100L	160	140	63	28	M10	60	8	24	7	100	12	43	205	210	100	180	14	360	448	1 x M25	1 x M20
112M	190	140	70	28	M10	60	8	24	7	112	12	50	240	225	125	180	16	380	500	1 x M25	1 x M20
132S	216	140	89	38	M12	80	10	33	8	132	12	60	280	265	125	190	18	430	550	1 x M40	1 x M20
132M	216	178	89	38	M12	80	10	33	8	132	12	60	280	265	125	230	18	430	600	1 x M40	1 x M20
160M	254	210	108	42	M16	110	12	37	8	160	14.5	70	320	320	125	260	20	500	720	1 x M40	1 x M20
160L	254	254	108	42	M16	110	12	37	8	160	14.5	70	320	320	125	310	20	500	750	1 x M40	1 x M20
180M	279	241	121	48	M16	110	14	42.5	9	180	14.5	70	355	360	125	315	25	540	770	1 x M40	1 x M20
180L	279	279	121	48	M16	110	14	42.5	9	180	14.5	70	355	360	125	355	25	540	790	1 x M40	1 x M20
200L	318	305	133	55	M20	110	16	49	10	200	18.5	70	400	400	140	370	25	650	850	1 x M50	1 x M20
225S	356	286	149	60	M20	140	18	53	11	225	18.5	75	435	450	140	360	28	695	890	1 x M50	1 x M20
225M*	356	311	149	55	M20	110	16	49	10	225	18.5	75	435	450	140	385	28	695	920	1 x M50	1 x M20
225M	356	311	149	60	M20	140	18	53	11	225	18.5	75	435	450	140	385	28	695	920	1 x M50	1 x M20
250M*	406	349	168	60	M20	140	18	53	11	250	24	80	500	500	180	430	30	730	965	1 x M63	1 x M20
250M	406	349	168	65	M20	140	18	58	11	250	24	80	500	500	180	430	30	730	965	1 x M63	1 x M20
280S*	457	368	190	65	M20	140	18	58	11	280	24	85	545	550	180	455	35	800	1010	1 x M63	1 x M20
280S	457	368	190	75	M20	140	20	67.5	12	280	24	85	545	550	180	455	35	800	1010	1 x M63	1 x M20
280M*	457	419	190	65	M20	140	18	58	11	280	24	85	545	550	180	505	35	800	1060	1 x M63	1 x M20
280M	457	419	190	75	M20	140	20	67.5	12	280	24	85	545	550	180	505	35	800	1060	1 x M63	1 x M20
315S*	508	406	216	65	M20	140	18	58	11	315	28	120	640	630	240	630	45	960	1240	2 x M63	1 x M20
315S	508	406	216	80	M20	170	22	71	14	315	28	120	640	630	240	630	45	960	1270	2 x M63	1 x M20
315M*	508	457	216	65	M20	140	18	58	11	315	28	120	640	630	240	630	45	960	1240	2 x M63	1 x M20
315M	508	457	216	80	M20	170	22	71	14	315	28	120	640	630	240	630	45	960	1270	2 x M63	1 x M20
315L*	508	508	216	65	M20	140	18	58	11	315	28	120	640	630	240	780	45	960	1390	2 x M63	1 x M20
315L	508	508	216	80	M20	170	22	71	14	315	28	120	640	630	240	780	45	960	1420	2 x M63	1 x M20
355S*	610	500	254	75	M20	140	20	67.5	12	355	28	150	740	710	240	710	52	1030	1450	2 x M63	1 x M20
355S	610	500	254	95	M20	170	25	86	14	355	28	150	740	710	240	710	52	1030	1480	2 x M63	1 x M20
355M*	610	560	254	75	M20	140	20	67.5	12	355	28	150	740	710	240	710	52	1030	1450	2 x M63	1 x M20
355M	610	560	254	95	M20	170	25	86	14	355	28	150	740	710	240	710	52	1030	1480	2 x M63	1 x M20
355L*	610	630	254	75	M20	140	20	67.5	12	355	28	150	740	710	240	810	52	1030	1550	2 x M63	1 x M20
355L	610	630	254	95	M20	170	25	86	14	355	28	150	740	710	240	810	52	1030	1580	2 x M63	1 x M20

* 2 Pole Motors Only

TCD YBX3 SERIES

TCD YBX3 SERIES DIMENSION DRAWINGS



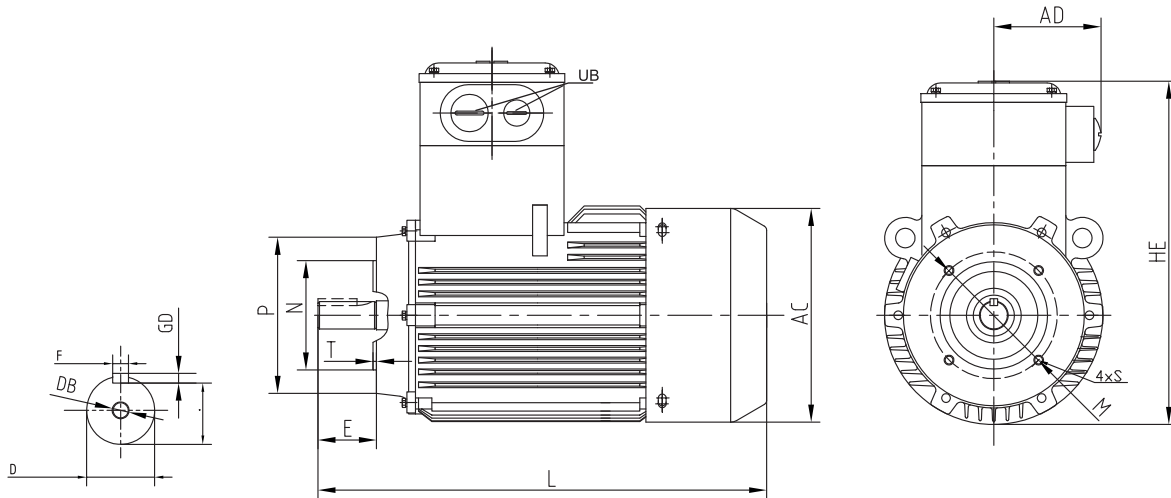
Flange Mount B5

FRAME	D	DB	E	F	G	GD	M	N	P	S	T	AC	AD	HE	LA	L	UB
80	19	M6	40	6	15.5	6	165	130	200	4 x Ø12	3.5	170	100	340	12	330	1 x M25 1 x M20
90S	24	M8	50	8	20	7	165	130	200	4 x Ø12	3.5	185	100	355	14	370	1 x M25 1 x M20
90L	24	M8	50	8	20	7	165	130	200	4 x Ø12	3.5	185	100	355	14	395	1 x M25 1 x M20
100L	28	M10	60	8	24	7	215	180	250	4 x Ø14.5	4	210	100	400	14	448	1 x M25 1 x M20
112M	28	M10	60	8	24	7	215	180	250	4 x Ø14.5	4	225	125	420	14	500	1 x M25 1 x M20
132S	38	M12	80	10	33	8	265	230	300	4 x Ø14.5	4	265	125	490	14	550	1 x M40 1 x M20
132M	38	M12	80	10	33	8	265	230	300	4 x Ø14.5	4	265	125	490	14	600	1 x M40 1 x M20
160M	42	M16	110	12	37	8	300	250	350	4 x Ø18.5	5	320	125	520	15	720	1 x M40 1 x M20
160L	42	M16	110	12	37	8	300	250	350	4 x Ø18.5	5	320	125	520	15	750	1 x M40 1 x M20
180M	48	M16	110	14	42.5	9	300	250	350	4 x Ø18.5	5	360	125	540	18	770	1 x M40 1 x M20
180L	48	M16	110	14	42.5	9	300	250	350	4 x Ø18.5	5	360	125	540	18	790	1 x M40 1 x M20
200L	55	M20	110	16	49	10	350	300	400	4 x Ø18.5	5	400	140	650	18	850	1 x M50 1 x M20
225S	60	M20	140	18	53	11	400	350	450	8 x Ø18.5	5	450	140	695	18	890	1 x M50 1 x M20
225M*	55	M20	110	16	49	10	400	350	450	8 x Ø18.5	5	450	140	695	18	920	1 x M50 1 x M20
225M	60	M20	140	18	53	11	400	350	450	8 x Ø18.5	5	450	140	695	18	920	1 x M50 1 x M20
250M*	60	M20	140	18	53	11	500	450	550	8 x Ø18.5	5	500	180	755	20	965	1 x M63 1 x M20
250M	65	M20	140	18	58	11	500	450	550	8 x Ø18.5	5	500	180	755	20	965	1 x M63 1 x M20
280S*	65	M20	140	18	58	11	500	450	550	8 x Ø18.5	5	550	180	795	22	1010	1 x M63 1 x M20
280S	75	M20	140	20	67.5	12	500	450	550	8 x Ø18.5	5	550	180	795	22	1010	1 x M63 1 x M20
280M*	65	M20	140	18	58	11	500	450	550	8 x Ø18.5	5	550	180	795	22	1060	1 x M63 1 x M20
280M	75	M20	140	20	67.5	12	500	450	550	8 x Ø18.5	5	550	180	795	22	1060	1 x M63 1 x M20

* 2 Pole Motors Only



TCD YBX3 SERIES DIMENSION DRAWINGS



Face Mount B14A

FRAME	D	DB	E	F	G	GD	M	N	P	S	T	AC	AD	HE	LA	L	UB
80	19	M6	40	6	15.5	6	100	80	120	4 X M6	3	170	100	340	12	330	1 x M25 1 x M20
90S	24	M8	50	8	20	7	115	95	140	4 X M8	3	185	100	355	14	370	1 x M25 1 x M20
90L	24	M8	50	8	20	7	115	95	140	4 X M8	3	185	100	355	14	395	1 x M25 1 x M20
100L	28	M10	60	8	24	7	130	110	160	4 X M8	3.5	210	100	400	14	448	1 x M25 1 x M20
112M	28	M10	60	8	24	7	130	110	160	4 X M8	3.5	225	125	420	14	500	1 x M25 1 x M20

IP RATING CHART

First Number	Definition	Second Number	Definition
<i>Protection against solid objects</i>		<i>Protection against liquids</i>	
0	No protection	0	No protection
1	Protected against solid objects over 50mm	1	Protected against vertically falling drops of water
2	Protected against solid objects over 12mm	2	Protected against direct sprays up to 15° from the vertical
3	Protected against solid objects over 2.5mm	3	Protected against direct sprays up to 60° from the vertical
4	Protected against solid objects over 1mm	4	Protected against sprays from all directions - limited ingress permitted
5	Protected against dust - limited ingress (no harmful deposit)	5	Protected against low pressure jets of water from all directions - limited ingress permitted
6	Totally protected against dust	6	Protected against strong jets of water from all directions
		7	Protected against the effects of temporary immersion up to 1 metre
		8	Protected against long periods of immersion under pressure