

YBX3

Premium efficiency flameproof
three phase asynchronous motor



Ex d II B T4 GD

YBX3 series premium efficiency flameproof three phase asynchronous motor is totally enclosed, self fan cooling, squirrel cage type. The efficiency class is in accordance with Chinese national standard GB18613-2012 class II, as well as IEC60034-30 high efficiency standard(IE3). It has high operational safety, excellent performance, low noise and vibration and meets the need of environment protection.

YBX3 series motor has the flameproof performance meeting the regulations of GB3836.1-2010 <part 1: general requirement of electric equipment applied under explosive atmospheres> and GB3836.2-2010 <part 2: flameproof d of electric equipment applied under explosive atmospheres>, as well as IEC79-1.

YBX3 series motor could marked as Exd I, Exd II AT4 or Exd II BT4. Exd I is applied in the non-excavation working condition and coal mine with methane or coal dust, Exd II AT4 and Exd II BT4 are applied in the condition of explosion-proof gas compound with Factory II type, Grade A & B, temperature T1, T2, T3 and T4.

Another series of flameproof motor



YBF2 series
Flameproof motor for fan



YBBP series
Variable frequency adjustable-
speed converter-fed flameproof
motor



YBD2 series
Pole Change - multi speed
flameproof motor

► YBX3 Technical data YBX3 series motor – 2 poles – 50Hz

Type	Rated Output	Full Load					Rated Torque (Tn)				Noise	Vibration	Weight
		Speed	Input Current (Amp)	Efficiency	Power Factor								
	KW	RPM	380V	660V	η%	cos ϕ	N.m	Tst / Tn	Tmax / Tn	Ist / In	dB(A)	mm/s	Kg
YBX3-80M1-2	0.75	2845	1.72	/	80.7	0.82	2.52	2.3	2.3	7.0	62	1.6	27
YBX3-80M2-2	1.1	2845	2.43	/	82.7	0.83	3.69	2.2	2.3	7.3	62	1.6	28
YBX3-90S-2	1.5	2855	3.22	/	84.2	0.84	5.02	2.2	2.3	7.6	67	1.6	30
YBX3-90L-2	2.2	2855	4.58	/	85.9	0.85	7.36	2.2	2.3	7.6	67	1.6	36
YBX3-100L-2	3	2885	6.02	/	87.1	0.87	9.93	2.2	2.3	7.8	74	1.6	44
YBX3-112M-2	4	2890	7.84	4.51	88.1	0.88	13.22	2.2	2.3	8.3	77	1.6	58
YBX3-132S1-2	5.5	2910	10.6	6.13	89.2	0.88	18.05	2.0	2.3	8.3	79	1.6	85
YBX3-132S2-2	7.5	2910	14.4	8.27	90.1	0.88	24.61	2.0	2.3	7.9	79	1.6	88
YBX3-160M1-2	11	2935	20.6	11.86	91.2	0.89	35.79	2.0	2.3	8.1	81	2.2	138
YBX3-160M2-2	15	2935	27.9	16.04	91.9	0.89	48.80	2.0	2.3	8.1	81	2.2	149
YBX3-160L-2	18.5	2935	34.2	19.68	92.4	0.89	60.19	2.0	2.3	8.2	81	2.2	170
YBX3-180M-2	22	2945	40.5	23.33	92.7	0.89	71.33	2.0	2.3	8.2	83	2.2	210
YBX3-200L1-2	30	2955	54.9	31.61	93.3	0.89	96.94	2.0	2.3	7.6	84	2.2	263
YBX3-200L2-2	37	2955	67.4	38.81	93.7	0.89	119.6	2.0	2.3	7.6	84	2.2	290
YBX3-225M-2	45	2960	80.8	46.53	94.0	0.90	145.2	2.0	2.3	7.7	86	2.2	347
YBX3-250M-2	55	2965	98.5	56.69	94.3	0.90	177.1	2.0	2.3	7.7	89	2.2	452
YBX3-280S-2	75	2970	133.7	76.98	94.7	0.90	241.1	1.8	2.3	7.1	91	2.2	588
YBX3-280M-2	90	2970	159.9	92.08	95.0	0.90	289.4	1.8	2.3	7.1	91	2.2	630
YBX3-315S-2	110	2975	195.1	112.3	95.2	0.90	353.1	1.8	2.3	7.1	92	2.8	1050
YBX3-315M-2	132	2975	233.6	134.5	95.4	0.90	423.7	1.8	2.3	7.1	92	2.8	1260
YBX3-315L1-2	160	2975	279.4	160.9	95.6	0.91	513.6	1.8	2.3	7.2	92	2.8	1365
YBX3-315L2-2	200	2975	348.6	200.7	95.8	0.91	641.9	1.8	2.2	7.2	92	2.8	1395
YBX3-355M-2	250	2980	435.7	250.9	95.8	0.91	801.1	1.6	2.2	7.2	100	2.8	2100
YBX3-355L-2	315	2980	549.0	316.1	95.8	0.91	1009.4	1.6	2.2	7.2	100	2.8	2200

► YBX3 Technical data YBX3 series motor – 4 poles – 50Hz

Type	Rated Output	Full Load					Rated Torque (Tn)				No Load		Weight
		Speed	Input Current (Amp)	Efficiency	Power Factor	Noise					Vibration		
	KW	RPM	380V	660V	η%	Cos ϕ	N.m	Tst / Tn	Tmax / Tn	Ist / In	dB(A)	mm/s	Kg
YBX3-80M2-4	0.75	1400	1.84	/	82.5	0.75	5.12	2.3	2.3	6.6	56	1.6	28
YBX3-90S-4	1.1	1410	2.61	/	84.1	0.76	7.45	2.3	2.3	6.8	59	1.6	30
YBX3-90L-4	1.5	1410	3.47	/	85.3	0.77	10.16	2.3	2.3	7.0	59	1.6	37
YBX3-100L1-4	2.2	1430	4.76	/	86.7	0.81	14.69	2.3	2.3	7.6	64	1.6	43
YBX3-100L2-4	3	1430	6.34	/	87.7	0.82	20.03	2.3	2.3	7.6	64	1.6	46
YBX3-112M-4	4	1445	8.37	4.82	88.6	0.82	26.43	2.2	2.3	7.8	65	1.6	68
YBX3-132S-4	5.5	1445	11.2	6.47	89.6	0.83	36.35	2.0	2.3	7.9	71	1.6	85
YBX3-132M-4	7.5	1445	15.0	8.64	90.4	0.84	49.56	2.0	2.3	7.5	71	1.6	103
YBX3-160M-4	11	1465	21.5	12.39	91.4	0.85	71.70	2.2	2.3	7.7	73	2.2	139
YBX3-160L-4	15	1465	28.8	16.57	92.1	0.86	97.77	2.2	2.3	7.8	73	2.2	155
YBX3-180M-4	18.5	1470	35.3	20.32	92.6	0.86	120.2	2.0	2.3	7.8	76	2.2	206
YBX3-180L-4	22	1470	41.8	24.06	93.0	0.86	142.9	2.0	2.3	7.8	76	2.2	226
YBX3-200L-4	30	1475	56.6	32.60	93.6	0.86	194.2	2.0	2.3	7.3	76	2.2	307
YBX3-225S-4	37	1480	69.6	40.08	93.9	0.86	238.7	2.0	2.3	7.4	78	2.2	347
YBX3-225M-4	45	1480	84.4	48.59	94.2	0.86	290.3	2.0	2.3	7.4	78	2.2	382
YBX3-250M-4	55	1480	102.7	59.14	94.6	0.86	354.9	2.2	2.3	7.4	79	2.2	467
YB3-280S-4	75	1485	136.3	78.48	95.0	0.88	482.3	2.0	2.3	6.9	80	2.2	630
YBX3-280M-4	90	1485	163.2	93.98	95.2	0.88	578.7	2.0	2.3	6.9	80	2.2	699
YBX3-315S-4	110	1485	196.8	113.3	95.4	0.89	707.3	2.0	2.2	7.0	88	2.8	1040
YBX3-315M-4	132	1485	235.7	135.7	95.6	0.89	848.8	2.0	2.2	7.0	88	2.8	1155
YBX3-315L1-4	160	1485	285.1	164.2	95.8	0.89	1028.8	2.0	2.2	7.1	88	2.8	1236
YBX3-315L2-4	200	1485	351.7	202.5	96.0	0.90	1286.1	2.0	2.2	7.1	88	2.8	1313
YBX3-355M-4	250	1490	439.6	253.1	96.0	0.90	1602.2	2.0	2.2	7.1	95	2.8	1995
YBX3-355L-4	315	1490	553.9	318.9	96.0	0.90	2018.7	2.0	2.2	7.1	95	2.8	2205

Specifications of Ignition Group for Flameproof Motors

GB3836.1, IEC60079-0, EN50014	
Ignition group	Ignition temperature °C
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Chinese & International Specifications of Explosion

Location	Code of Standard		
	GB1336-77	GB3836.1-IEC60079-1	CENELEC En50018
flameproof class			
For Mines	KB	d I	d I
For other Industries	B1	d II A	d II A
	B5	d II A	d II A
	B3	d II B	d II B
	B4	d II C	d II C

To show the group of enclosures suitable for a particular flammable gas or vapour and its classification

Group of enclosure	Temp.class (°C)				
	T1	T2	T3	T4	T5
Flammable gas or vapour					
I	Methane Ammonia Acetic acid	Butyl alcohol Acetic anhydride	Cyclohexane		
II A	Ethane Propane Acetone Styrene Benzene Chlorobenzene Methanol Toluene Carbonmonoxide	Butane Ethanol Propene n-Butyl acetate Amyl acetate Chloroethylene Ethyl acetate	Pentane Hexane Heptane Octane Decane Hydrosulxide Gasoline	Ether Acetaldehy yde	
II B	Hydrogen cyanide Coal gas	Ethylene oxide Butadiene 1,4-dioxan Ethyene	Isopentylens Dimethylether Butenal Ethanethiol	Ethylene methyl ether Ethyl oxide Butyl oxide Tetrafluoroethylene	
II C	Water gas Hydrogen	Acetylene			Carbon disulfide