

YBX3 系列

高效率隔爆型三相异步电动机

YBX3 series of high efficiency flameproof three-phase asynchronous motor

一、产品特点

YBX3 系列高效率隔爆型三相异步电动机是在原 YB3 基础上按照 GB18613-2012 中的 2 级能效标准进行规范设计完成的新型电动机。防爆性能符合 GB3836.1-2010《爆炸性环境第 1 部分：设备通用要求》GB3836.2-2010《爆炸性环境第 2 部分：由隔爆外壳 "d" 保护的设备的》的规定制成隔爆型，防爆标志为 Ex dI Mb、Ex d IIA T4 Gb、Ex d IIB T4 Gb。适用于含有甲烷等气体或煤矿井下（非采掘工作面）(Ex dI Mb) 及工厂 (Ex d IIA T4 Gb、Ex d IIB T4 Gb) 含有 II 类 A、B 级 T1 ~ T4 组的可燃性气体或蒸汽与空气形成的爆炸性混合物的场所。接线盒可分别制成三个或六个出线端子，适用于橡套电缆和钢管布线两种结构。



二、概述

环境空气温度：-15°C ~ +35°C (煤矿井下) 或 -15°C ~ +40°C (工厂)；

安装方式：IMB3、IMB5、IMB35、IMV1；

额定电压：380V、660V、380/660V；机座号：80 ~ 280；

额定功率：0.18 ~ 90kW；能效等级：2 级 (GB18613)；

外壳防护等级：IP55；冷却方式：IC411；

绝缘等级：F 级。

一、Product Features:

YBX3 series of high-efficiency flameproof three-phase asynchronous motor is a new type of motor designed on the basis of the original YB3, according to the Class 2 energy efficiency standard of GB18613-2012. The performance of flameproof motors conforms to requirements of GB3836.1-2010《Explosive atmospheres parts 1: Equipment general requirements》、GB3836.2-2010《Explosive atmospheres parts 2: Equipment protection by flameproof enclosure "d"》. Explosion-proof mark is ExdI Mb、Ex dIIA T4 Gb、Ex dIIB T4 Gb. Applicable to places containing methane and other gases or in underground coal mines (non-mining face) (Ex dI Mb) and factories containing Class II, Grade A、B, T1 ~ T4 combustible gases or explosive mixtures of steam and air. The junction box can be made into three or six outlet terminals, which are suitable for two kinds of structures: rubber cable and steel pipe wiring.

二、Summary :

2.1 Ambient air temperature: -15°C ~ +35°C (underground coal mine) or -15°C ~ +40°C (in factory);

2.2 Installation methods: IMB3, IMB5, IMB35 and IMV1;

2.3 Rated voltage: 380V, 660V, 380/660V; Frame number: 80 ~ 280;

2.4 Rated power: 0.18 ~ 90kW;

2.5 Energy efficiency rating: Level 2 (GB18613-2012);

2.6 Enclosure protection level: IP55;

2.7 Cooling mode: IC411;

2.8 Insulation grade: F.

产品技术数据 (380V、50Hz)

Product Technical Data (380V、50Hz)

型号 (Type)	功率 kw Power	额定 转速 r/min Rated speed	效率 Efficiency	功率 因数 COS Φ Power factor	电流 (380V) A current		转矩 Torque			噪声 dB (A) Noise		转动 惯量 kg. m2 Moment of inertia	重量 kg Weight
					额定电流 IN (A) Rated current	堵转电流 Plugging current 额定电流 Rated current	额定转矩 TN (Nm) Rated torque	堵转转矩 Plugging torque 额定转矩 Rated torque	最大转矩 Maximum torque 额定转矩 Rated torque	空载 No-load	负载 Load		
YBX3-80M1-2	0.75	2850	80.7	0.83	1.7	6.8	2.54	2.3	2.3	67	69	0.005	29
YBX3-80M2-2	1.1	2840	82.7	0.83	2.43	7.3	3.72	2.3	2.3	67	69	0.007	30
YBX3-90S-2	1.5	2850	84.2	0.84	3.22	7.6	5.04	2.3	2.3	72	74	0.009	30
YBX3-90L-2	2.2	2850	85.9	0.85	4.58	7.8	7.4	2.3	2.3	72	74	0.017	36
YBX3-100L-2	3	2870	87.1	0.87	6	8.1	9.95	2.3	2.3	76	78	0.03	44
YBX3-112M-2	4	2890	88.1	0.88	7.8	8.3	13.22	2.3	2.3	77	79	0.063	58
YBX3-132S1-2	5.5	2900	89.2	0.88	10.6	8	18.11	2.2	2.3	80	82	0.073	85
YBX3-132S2-2	7.5	2900	90.1	0.89	14.2	7.8	24.7	2.2	2.3	80	82	0.21	88
YBX3-160M1-2	11	2940	91.2	0.89	20.6	7.9	35.85	2.2	2.3	86	88	0.25	138
YBX3-160M2-2	15	2940	91.9	0.89	27.9	8	48.89	2.2	2.3	86	88	0.31	149
YBX3-160L-2	18.5	2940	92.4	0.89	34.2	8.1	60.3	2.2	2.3	86	88	0.37	170
YBX3-180M-2	22	2950	92.7	0.89	40.5	8.2	71.46	2.2	2.3	88	90	0.63	210
YBX3-200L1-2	30	2950	93.3	0.89	54.9	7.5	97.12	2.2	2.3	90	92	0.73	263
YBX3-200L2-2	37	2950	93.7	0.89	67.4	7.5	119.78	2.2	2.3	90	92	1.28	290
YBX3-225M-2	45	2960	94	0.89	81.7	7.6	144.7	2.2	2.3	92	94	1.55	347
YBX3-250M-2	55	2970	94.3	0.89	99.6	7.6	176.85	2.2	2.3	92	94	1.89	452
YBX3-280S-2	75	2970	94.7	0.89	135.2	6.9	241.16	2	2.3	94	96	2.02	588
YBX3-280M-2	90	2970	95	0.89	161.7	7	289.39	2	2.3	94	96	2.26	630
YBX3-80M1-4	0.55	1390	77.8	0.75	1.43	6.3	3.78	2.3	2.3	58	63	0.007	27
YBX3-80M2-4	0.75	1390	82.5	0.75	1.84	6.5	5.15	2.3	2.3	58	63	0.012	29
YBX3-90S-4	1.1	1390	84.1	0.75	2.65	6.6	7.5	2.3	2.3	61	66	0.015	30
YBX3-90L-4	1.5	1390	85.3	0.75	3.56	6.9	10.23	2.3	2.3	61	66	0.031	37
YBX3-100L1-4	2.2	1420	86.7	0.81	4.8	7.5	14.8	2.3	2.3	64	69	0.039	43
YBX3-100L2-4	3	1420	87.7	0.82	6.3	7.6	20.18	2.3	2.3	64	69	0.059	46
YBX3-112M-4	4	1430	88.6	0.82	8.4	7.7	26.53	2.3	2.3	65	70	0.113	68
YBX3-132S-4	5.5	1450	89.6	0.82	11.4	7.5	36.48	2	2.3	71	76	0.167	85
YBX3-132M-4	7.5	1450	90.4	0.83	15.2	7.4	49.74	2	2.3	71	76	0.36	103
YBX3-160M-4	11	1460	91.4	0.85	21.5	7.5	71.95	2	2.3	75	80	0.42	139
YBX3-160L-4	15	1460	92.1	0.85	29.1	7.5	98.12	2	2.3	75	80	0.68	155
YBX3-180M-4	18.5	1470	92.6	0.86	35.3	7.7	120.19	2	2.3	76	80	0.72	206
YBX3-180L-4	22	1470	93	0.86	41.8	7.8	142.93	2	2.3	76	80	0.81	226
YBX3-200L-4	30	1470	93.6	0.87	56	7.2	194.9	2	2.3	79	83	1.21	307
YBX3-225S-4	37	1480	93.9	0.87	68.8	7.3	238.75	2	2.3	81	84	1.85	347
YBX3-225M-4	45	1480	94.2	0.87	83.4	7.4	290.37	2	2.3	81	84	2.32	382
YBX3-250M-4	55	1480	94.6	0.88	100.4	7.4	354.9	2	2.3	83	86	2.86	467
YBX3-280S-4	75	1480	95	0.88	136.3	6.7	483.95	2	2.3	86	89	3.34	630
YBX3-280M-4	90	1485	95.2	0.89	161.4	7	578.79	2	2.3	86	89	4.68	699

注：当电压 U 不为 380V 时，电流 $I=I_N \cdot 380/U$ ，其余参数不变。 Note: when voltage U is not 380V, the current is $I=I_N \cdot 380/U$, and the rest parameters remain unchanged.