



YBX4 Series High Efficiency Explosion-proof Three Phase Induction Motor (Factory Ex db **II** BT4 Gb)

# 使用说明书

**Operation Manual** 

安徽皖南电机股份有限公司 Anhui Wannan Electric Machine Co.,Ltd 衷心感谢您选购、使用皖南电机。

在使用电动机之前,请扫码仔细阅读本说明书,以便您正确的使用和维护。

## 1 产品概述

我公司生产的 YBX4 系列高效率隔爆型三相异步电动机符合 Q/WN. 300-2022《YBX4 系列高效率隔 爆型三相异步电动机技术条件(机座号 80 ~ 355)》要求,按照 GB/T3836. 1-2021《爆炸性环境第 1 部分:设备 通用要求》和 GB/T3836. 2-2021《爆炸性环境第 2 部分:由隔爆外壳"d"保护的设备》 以及 GB/T 3836. 3-2021《爆炸性环境第 3 部分:由增安型"e"保护的设备》的要求,制成隔爆型。 其防爆标志为 Ex db II AT4 Gb、Ex db II BT4 Gb。产品适用于工厂(Ex db II AT4、Ex db II BT4) 含有 II 类 A、B 级 T1 ~ T4 组可燃性气体或蒸汽与空气形成的爆炸性混合物的场所。其效率指标达到了 国家最新能效标准 GB 18613-2020《中小型三相异步电动机能效限定值及能效等级》2 级能效。

# 2 产品型号及名称



## 3 使用范围及使用条件

3.1 适用常见可燃性气体、蒸汽级别、温度组别举例见表1。

级	引燃温度组别							
別	Τ1	Τ2	T3	T4				
II A	甲烷、乙烷、丙烷、 苯乙烯、甲苯、二甲 苯、一氧化碳、醋酸		戊烷、己烷、庚烷、 辛烷、癸烷、环己烷 煤油、柴油、汽油					
II B	丙炔、环丙烷、 焦炉煤气	乙烯、丁二烯环氧乙 烷、一环氧丙烷	二甲醚、丙烯醛、甲 氢糠醇四氢呋喃、硫 化氢					

表 1

3.2 运行使用条件

3.2.1 海拔不超过 1000m。

3.2.2环境空气温度随季节而变化,但最高不超过40℃,最低为-15℃。

环境空气最大相对湿度为90%,同时该月月平均最低温度不高于25℃。

3.2.3环境空气最大相对湿度为90%,同时该月月平均最低温度不高于25℃。

3.2.4 电动机额定电压为 220V、380V、660V、1140V、380/660V、660/1140V,额定频率为 50Hz, 绝缘等级为 F 级。(这部分要根据图纸来改)

3.2.5 电动机 3kW 及以下为Y接法(380V); 电压为 380/660 时, 3kW 以上的电动机, 当电压在
380V 时为△接法、660V 时为Y接法。电压为 660/1140V 时, 电压在 660V 时为△接法、1140V 时为Y接法。
(这部分要根据图纸来改)

3.2.6 电动机的定额是以连续工作制(S1)为基准的连续定额,允许满压起动。

3.2.7 电动机外壳最高表面温度(温度计法)在规定允许最不利的工作条件下应不超过130℃。

3.2.8 电动机运行时,电源电压和频率与额定值的偏差按 GB/T 755 的规定。

## 4 电动机的主要技术参数及安装结构型式

#### 4.1 主要技术参数见表 2

	同步转速 r/min							
机 座 号	3000	1500	1000	750	600			
	功 率 kW							
80M1	0.75	0.55	0.37	0.18				
80M2	1.1	0.75	0.55	0.25				
90S	1.5	1.1	0.75	0.37				
90L	2.2	1.5	1.1	0.55	_			
100L1	3	2.2	1.5	0.75				
100L2	0	3	1.0	1.1				
112M	4	4	2.2	1.5				
132S1	5.5		3	2.2				
13282	7.5	5.5	0	Δ. Δ				
132M1	_	7.5	4	3				
132M2		7.0	5.5	J				
160M1	11	11	7.5	4	_			
160M2	15	11	1.0	5.5				
160L	18.5	15	11	7.5				
180M	22	18.5	-	_				
180L	-	22	15	11				

表 2

表2(续)

		-	司步转速 r/n	nin	
机座号	3000	1500	1000	750	600
		-	功 率 k₩	1	
200L1	30	- 30	18.5	- 15	
200L2	37		22	- 15	
225S	-	37	-	18.5	
225M	45	45	30	22	_
250M	55	55	37	30	
280S	75	75	45	37	
280M	90	90	55	45	
315S	110	110	75	55	45
315M	132	132	90	75	55
315L1	160	160	110	90	75
315L2	200	200	132	110	
355S1	(185)	(185)	1.00	100	90
355S2	(200)	(200)	- 160	132	
355M1	(220)	(220)	(185)	100	110
355M2	250	250	200	- 160	132
355L1	(280)	(280)	(220)	(185)	160
355L2	315	315	250	200	(185)
355L3	355	355	280	220	200
355L4	375	375	315	250	220

## 4.2 电动机的结构及安装型式见表 3

表 3

机座号	结构及安装代号(IM)
80~112	B3、B5、B6、B7、B8、B14、B34、B35、V1、V3、V5、V6、V15、V18、V35、V37
132~160	B3、B5、B6、B7、B8、B35、V1、V3、V5、V6、V15、V35、V37
180~280	B3、B5、B35、V1
315~355	B3、B35、V1

## 5 主要结构

5.1 电动机的接线盒位于电动机顶部,制成三个或六个接线端子。适用于橡套电缆(或塑料电缆) 和钢管布线的两种结构,内设一个接地端子,并按其需要分别制成一个或二个(M8及以上)出线口。 在接线盒座与接线盒盖的止口处加设"0"型密封圈。

5.2 电动机转轴旋转部位采用"V"型轴封环保护。

5.3 电动机机座号 80 ~ 225 的轴承采用密封轴承,机座号 250 及以上电动机设置了不停机注、排油装置。

5.4 电动机主体结构见图 1、接线盒结构见图 2。

### 6 防爆要点

6.1 本系列电动机为隔爆型。若电动机内部的可燃易爆性混合物爆炸时,隔爆型电动机外壳不应 损坏或产生影响隔爆性能的变形;内部爆炸火焰不允许通过电机的隔爆接合面引起外部爆炸性混合物 的爆炸。

6.2 隔爆型电动机的元件(如机座、端盖、轴承内盖、接线盒盖、接线盒座等),精加工后须经 压力为1.5Mpa,加压时间为10S+2的静压试验,以不滴水为合格。

6.3 隔爆接合面的长度、间隙、表面粗糙度、接线盒内部裸露导体之间、裸露导体与金属外壳之间的电气间隙及爬电距离应符合 GB/T3836.3-2021 的规定。

6.4 联接隔爆外壳的螺栓均装有弹簧垫圈,防止自行松脱。

6.5 机座、端盖、轴承内盖、接线盒盖、接线盒座、接线螺栓、端子套(或接线板)、轴、橡胶 密封圈是隔爆元件。

6.6 电机隔爆外壳紧固螺栓应保证抗拉强度≥ 800MPa, 屈服强度≥ 640MPa。

## 7 安装与使用

警告!
 严禁带电开盖!
 搬运电动机时,应小心谨慎!
 强烈的摔、碰、震会严重损坏轴承及隔爆元件。
 吊装带有吊攀的电机时,一定要将吊攀旋紧。

#### 7.1 安装前的准备

7.1.1 仔细检查电动机外观是否完好、核对电动机铭牌内容是否与实际需求相符。

7.1.2 电动机是否有防爆标志、防爆合格证编号和生产许可证。

7.1.3 隔爆外壳各零部件联接正确,紧固可靠无松动。

7.1.4 所有隔爆元件应无裂纹或影响隔爆性能的缺陷。

7.1.5取下接线盒盖检查电动机定子绕组冷态绝缘电阻应不低于5 MΩ。

#### 7.2 安装

7.2.1 电动机的安装应由专业技术人员完成。

7.2.2 电动机宜采用弹性联轴器传动。

7.2.3 电动机轴中心与被传动的主机轴中心要保持一致。

7.2.4 对带底脚的电动机,安装平面应平整、坚固。

7.2.5 联接电动机的电源线(电缆)不宜过细、过长。

7.2.6 电缆的外径要与密封圈(图3)的孔径相符。使用电缆最小直径为D1,最大直径为D5,密 封圈材质为橡胶XH-21,规格及尺寸见表4(可根据引入电缆外径大小剥去密封圈同心圆)。配合直 径差不大于1mm,当压紧接线头后,应保证密封圈与电缆之间及密封圈与接线盒座之间无间隙,否则 将失去隔爆性能。



图 3

耒	4
1×	-

机座号	进线 方式	密封圈 形 式	D1	D2	D3	D4	D5	D	b1	b
80~132			φ14	φ20			ф 25	ф 42 0-0.62	24	26
160~180	橡		φ14	φ20	ф 26	ф 31	ф 35	φ 58 0 - 0.74	24	26
200~225	套电	图 3	φ20	φ26	ф 32	ф 38	φ 42	φ72 0-0.74	30	32
250~280	缆		ф 25	ф31	ф 36	φ45	φ 50	φ90 0-0.87	36	38
315~355			φ40	φ46	φ 50	ф 56	φ64	φ 105 0 - 0.87	44	46

7.2.7 引入的电缆芯线要接在两弓型垫圈之间,注意芯线的飞刺不要突出,引入接线孔时应防止 线芯损伤,引入电缆还须用接线压板和弓形垫圈压紧固定,防止窜动。

7.2.8 六端子接线盒通过连接片改变接法,可适应两种不同电压需要(见接线盒盖内侧)。对有两个进线口的接线盒,当引入一根多芯电缆只使用一个进线口时,另一个进线口的堵棒不得拿掉,否则将失去防爆性能。

7.2.9 电动机的相序 U、V、W 须与接入外电源相序 A、B、C 相对应,电动机转向从轴伸端视之为

顺时针方向,否则电动机将反转。

7.2.10 电动机内、外接地螺栓必须可靠接地。

7.2.11 电动机接好线,经检查确认无误后,方可接通电源进行空载试运转,并观察电机有无异常 现象,待空转正常后方可投入负载运行。



#### 8 保养与维修

8.1 电动机应定期检查和清洁,外壳不得堆积灰尘,不得用水龙头喷射清扫电机。

8.2 电动机运行时轴承允许温度不得超过 95℃(温度计法),轴承每运行 2500 小时(约半年)至 少检查一次,如发现轴承润滑脂变质必须及时更换,更换前,须将轴承外盖、贮油盒内的废油以及排 油装置的油管、油杯清理干净,并用汽油将轴承清洗干净,润滑脂推荐采用2号中小型电机轴承润滑脂。 轴承润滑油使用量和加油时间见附表 5,机座号和适用轴承型号见附表 6。

8.3 对于存储半年的电动机,建议每2个月将电机轴旋转180度;存储超过半年的,通电运转一段时间,使轴承润滑脂分布均匀。

8.4 拆装电动机时应注意保护隔爆面。H80~132 机座号的电机没有轴承内外盖。拆卸电动机时, 应先拆掉风罩、再拆掉轴伸端的"V"型轴封环,拆去前端盖、后端盖的固定螺栓,将后端盖连同转子、 风扇连体抽出。装配时,所有隔爆面需涂 204-1 防锈脂。

8.5电机受潮后,必须经干燥处理后方可使用。干燥处理可采用烘干或短路电流法。在烘焙过程中, 温度应逐渐升高,但不可超过145℃。用短路电流法干燥时,(严重受潮的电机不宜用此方法,以免 发生电解现象。)电机处于短路状态,其输入电流为0.6~0.8倍额定电流值为宜。

8.6 更换绕组时,须记下原绕组的型式、尺寸、线规、匝数。当失落这些数据时,应向我公司索取。 随意改变设计绕组会使电动机某项或几项性能恶化,以致不能使用。

8.7 防爆零部件维修、更换,须由专业技术人员按有关技术标准进行维修、验收。

表	5

机座号	极 数	轴伸端	非轴伸端
80	2, 4, 6, 8	6204-2RZ	6204-2RZ
90	2, 4, 6, 8	6205-2RZ	6205-2RZ
100	2, 4, 6, 8	6206-2RZ	6206-2RZ
112	2, 4, 6, 8	6206-2RZ	6206-2RZ
132	2, 4, 6, 8	6308-2RZ	6308-2RZ
160	2, 4, 6, 8	6309-2RZ	6309-2RZ
100	2	6311-2RZ	6211-2RZ
180	4, 6, 8	6311-2RZ	6311-2RZ
200	2, 4, 6, 8	6312-2RZ	6312-2RZ
005	2	6312-2RZ	6312-2RZ
225	4, 6, 8	6313-2RZ	6312-2RZ
950	2	6313	6313
250	4, 6, 8	6314	6313
000	2	6314	6314
280	4, 6, 8	6317	6314
015	2	6317	6317
315	4, 6, 8, 10	NU319	6319
055	2	6319	6319
355	4, 6, 8, 10	NU322	6322



图1 电初机正体结构(B3) Fig 1 Motor Structure(B3)



图2 接线盒结构 Figure 2 Terminal box We are truly grateful for your purchasing of Wannan Motors. Before using the motor, please scan the QR code to read the manual so as to use and maintain the motor in a right way.

## 1. Summary

YBX4 series explosion-proof three-phase induction motors of our company are found to be in conforming to the requirements of standard Q/WN.300-2018 《The requirement of YBX4 series explosion-proof three-phase induction motors (Frame 80~355)》. The explosion-proof motor is made according to the standard of GB 3836.1-2010 《Part 1 of Electrical equipment used in explosive environment: General Requirement》 and GB3836.3-2010 《Part 2 of Electrical equipment used in explosive environment: The Apparatus with the flameproof enclosure "d"》 and GB 3836.2-2010 《Part 3 of Electrical equipment used in explosive environment: Increased-Safety "e"》. The products marked with Ex d II AT4 Gb、 Ex d II BT4 Gb can be used in workshop where there is Category II Class A and B flammable gas or the flammable mixture of air and steam in Temperature Group T1~T4. YBX4 Series explosion-proof motor is an idea replacement for YBX3 series motor for its efficiency, YBX4 Series have been up to the Level 2 of efficiency standard GB 18613-2020 《Energy efficiency threshold and energy efficiency grade of medium-small sized motor》.

# 2. Designation and types



# 3. Application circumstance

3.1 The applicable common inflammable gas, steam and temperature groups are listed in the table 1 below:

#### Table 1

Level	Temperature Groups							
	T1	Τ2	Т3	T4				
II A	Methane, ethane, propane, styrene, toluene, xylene, carbon, monoxide, acetic acid	Butane, propane, ethyl benzene, methanol, ethanol, propyl alcohol, Benzene alcohol	Pentane, hexane, heptane, octane, decane, cyclohexane kerosene, diesel oil, gasoline					
II B	Propin, cyclopropane, coke oven gas	Ethylene, 1.3 butadiene epoxy ethane, 1.2 epoxy propane	Dimethylether, propylene aldehyde, hydrogen furfuryl alcohol furan, hydrogen sulfide	Ethyl methyl ether, diethyl ether, tetrafluoroethylene				

#### 3.2 Operating condition

3.2.1 Not exceed 1000m above the sea level.

3.2.2 Ambient temperature varies according to the seasonal variation, but the highest temperature should be not higher than 40  $^{\circ}$ C , and the lowest be -15  $^{\circ}$ C .

3.2.3The maximum relative humidity of the environment should be no more than 90%, besides the month mean minimum temperature should be not higher than  $25^{\circ}$ C.

3.2.4 The rated voltage of the motor is 380V, 660V, 1140V, 380V/660V, 660V/1140V, rated frequency is 50Hz, insulation is in F class.

3.2.5 The motor of 3kw and below should adopt Y connection(380V), but the motor over 3kw have 2 connection: for for two different voltage 380V/660V or 660V/1140V. Motor of 380V/660V:  $\triangle$  connection should be adopted when empowered by 380V, Y connection should be adopted when empowered by 660V; motor of 660v/1140v,  $\triangle$  connection should be chosen when the power is 660V and Y connection should be chosen when the power 1140V.

3.2.6 The rating here refers to the continuous rating power on the basis of S1 duty system, the motor allows full voltage starting.

3.2.7 The surface temperature (by thermometer method) of motor casing should be not higher than  $135^{\circ}$  even it is working under the most severe condition within the limit permitted by provision.

3.2.8 Deviation of voltage and frequency from the rating value should be in accordance with the rule of GB755 at the motor running time.

# 4. Main technical parameter and installation type

# 4.1 Main technical parameter see table 2

	Synchronous speed r/min						
Frame	3000	1500	1000	750	600		
			Power kW				
80M1	0.75	0.55	0.37	0.18			
80M2	1.1	0.75	0.55	0.25			
90S	1.5	1.1	0.75	0.37			
90L	2.2	1.5	1.1	0.55			
100L1	- 3	2.2	- 1.5	0.75			
100L2		3	1.5	1.1			
112M	4	4	2.2	1.5			
132S1	5.5		2	2.2			
132S2	7.5	5.5	3	2.2			
132M1		7.6	4	2			
132M2		7.5	5.5	3			
160M1	11	11	7.5	4			
160M2	15		1.5	5.5	-		
160L	18.5	15	11	7.5			
180M	22	18.5	-	-			
180L	-	22	15	11			
200L1	30	30	18.5	15			
200L2	37		22	15			
225S	-	37	-	18.5			
225M	45	45	30	22			
250M	55	55	37	30	-		
280S	75	75	45	37			
280M	90	90	55	45			
315S	110	110	75	55	45		
315M	132	132	90	75	55		
315L1	160	160	110	90	75		
315L2	200	200	132	110			
355S1	(185)	(185)	- 160	132	90		
35582	(200)	(200)	100	132			
355M1	(220)	(220)	(185)	160	110		
355M2	250	250	200	100	132		
355L1	(280)	(280)	(220)	(185)	160		

Note:1. The parts with bracket are not preferred recommended type. 2. The figures 1 2 behind S M L refer to the different output power of the motors with the same frame and speed.

Frame	Structure and Installation Code (IM)
80~112	B3、B5、B6、B7、B8、B14、B34、B35、V1、V3、V5、V6、V15、V18、V35、V37
132~160	B3、B5、B6、B7、B8、B35、V1、V3、V5、V6、V15、V35、V37
180~280	B3、B5、B35、V1
315~355	B3、B35、V1

4.2 Motor Structure and installation type see table 3

Table 3

## 5. Main Structure

5.1 Terminal box is on the top of the motor, with 3 or 6 connecting terminals. This series motor has 2 kinds structure: rubber-sheathed cable (or plastic cable) wiring and steel pipe wiring, each is with one grounding terminal in it, one or two outlet of M8 or above (depending on its requirement) will be produced. At the front edge between connection box body and its cover an o-sealing ring will be fitted.

5.2 V-sealing ring is adopted at the rotation part of motor shaft.

5.3 The frame 80~225 Motors use sealed bearing, the motors of frame 225 or above are equipped with on-the-go oil filling/discharging device.

5.4 Subject structure of the motor see figure 1, and the structure of terminal box see figure 2.

# 6 Explosion-proof highlight

6.1 The series motor highlights its explosion-proof feature. If the explosive mixture inside the motor explodes, the motor shall not be damaged or deformed to the extent that may affect its explosion-proof performance. The flame inside should not pass through conjunction plane to cause explosion of the flammable mixture outside the motor.

6.2 Components of the explosion-proof motor (such as frame, end cover, bearing inner cover, connection box cover, connection box body etc) should be tested with 1.5Mpa static pressure for 10S+2. The motor should be checked as qualified one if they won't drip in or after the test.

6.3 The length of the explosion-proof conjunction plane, clearance, roughness of the surface, the electric clearance between the bare conductors, the electric clearance between bare conductor and metal casing all should be in accordance with GB3836.1 and GB3836.2.

6.4 Ring washer on fastening bolt can prevent the bolts releasing down from explosion-proof casing.

6.5 Frame, end closure, bearing inner cover, terminal box cover, terminal box body, connection bolt, terminal lug(or connection board), bearing, rubber seal ring all are explosion components.

6.6 The Min tensile strength of fastening bolts on motor flameproof casing shall be 800Mpa, and min yield strength shall be 640Mpa.

# 7.Installation and operation

#### Warning!



Motor cover is forbidden to open with power on. Handle the motor with care. Strong fall, impact, vibration will heavily damage bearing or explosion proof components. Fasten onto the lifting hook tightly if the motor is moved by the crane.

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#### 7.1 Inspection

7.1.1 Examine the appearance of the motor to see whether it is in good condition, and check the nameplate to see whether the data is conform to actual requirement.

7.1.2 Check whether motor has explosion-proof mark, explosion-proof certificate Number and production license.

7.1.3 The explosion proof components are connected correctly and tightly.

7.1.4 There should be neither crack on explosion proof component nor defect that affects the explosion proof performance.

7.1.5 Check the cold insulation resistance of the stator winding, and ensure that the resistance value should be no less than  $5M\Omega$ .

#### 7.2 Installation

7.2.1 Motor should be installed by technician.

7.2.2 Spring coupling ought to be used to drive the motor

7.2.3 Keep the shaft center of the motor at the same level with the that of driven machine

7.2.4 For the motor with feet, all the feet should be fixed to sound and flat plane.

7.2.5 Power wires should be neither too thin nor too long.

7.2.6 Cable outer diameter of should fit bore diameter of the seal ring (Figure 3). Min diameter of cable is D1, max D5, seal ring is of rubber XH-21, specification and dimension see table 4 (concentricring of seal gasket can be striped off to fit inner diameter of incoming cable). The diameter gap should not exceed 1mm. Clamp the connection plug and ensure that there is no clearance between seal ring and power cable as well as between seal ring and connection box body, otherwise the motor will lose its explosion-proof function.



14

Frame	Cable	Sealing ring	D1	D2	D3	D4	D5	D	b1	b
80~132			φ14	φ20			φ25	φ42 0 -0.62	24	26
160~180	Rubber		φ14	φ20	φ26	φ31	φ35	φ58 0-0.74	24	26
200~225	sleeve	Fig3	φ20	φ26	φ32	φ38	φ42	φ72 0-0.74	30	32
250~280	cable		φ25	φ31	φ36	φ45	φ50	φ90 0 -0.87	36	38
315~355			φ40	φ46	φ50	φ56	φ64	φ105 0-0.87	44	46

Table 4

7.2.7 The lead-in cable core should be attached between arched washers, and thorn on the cable corn can't be protruding. Prevent the cable corn from damaging when pulling it out through the bonding hole. The lead-in cable shall be fixed by connection board on arched washer to avoid movement.

7.2.8 To fit different supply voltage, different connection method should be chosen. For the connection box which has 6 terminals, connection way can be changed by connection strap. As one multi-core cable is introduced into one of the inlet holes, the head plug of the other unused hole can't be removed; otherwise the motor will lose its explosion-proof function.

7.2.9 U, V, W phase sequence of the motor should match A, B, C phase sequence. Shaft rotates clockwise from the view of DE.

7.2.10 Internal and external grounding screw bolts need to be connected to ground.

7.2.11 Check the motor first and do not power on until the motor has been confirmed to be no problems, and then conduct no-load running test. When all runs smoothly the motor can be put into load operation.

#### Warn!

1. Supply voltage fluctuation should not go beyond the range $\pm 5\%$  the rated voltage.

- 2. Ground wire must be connected
- 3. Turn off the motor when abnormal problem occurs.
- 4. Keep the person and clothe away from the rotation part.

## 8. Maintenance

8.1 Examine and clean the motor periodically, ensure that no dust accumulate on the casing. Spraying with tap for cleaning is not allowed.

8.2 Bearing permitted temperature should not exceed 95°C during its operation (by thermometer method), the motor should be examined at least once for every 2500-hour operation(approximate half a year). Bearing lubrication grease should be replaced when it is found to be spoiled. Before that the waste grease at bearing external cover, storage box, grease discharging device including oil tube and

oil cup should be cleaned up, and clean the bearing with machine oil. No.2 lubricating grease for small medium size motor is recommended. re-grease duration and grease mass see table 5, Bearing type see table 6.

8.3 Turn the shaft by 180° with hand every 2 month for the motor which has been stored half year; the motor need to work for a period of time to make the lubrication grease equidistribution when the motor has been stored longer than half year.

8.4 Take care of the explosion-proof plane if the motor need to be dismantled. Frame H80~132 Motors have no internal and external shaft cover, so windshield should be removed at first, then remove the V-shape shaft sealing ring, knock down the fastener on front and rear end closure, and take out rear end closure together with the rotor and fan. Explosion proof plane of the motor has been painted with 204-1 rust protection grease when assembled.

8.5 Motor must be dried before use if the motor has been affected with damp, either by means of drying in the oven or short-circuit current. If dried in the oven the temperature should be increased gradually but not exceed 145°C. And when the motor adopt short-circuit method, it should be connected as short circuit whose input current is 0.6-0.8 times rated current. However the short-circuit method is not suitable if the motor is heavily damped, since it may cause the electrolysis.

8.6 When the winding need to be changed, please keep such data as the type size, wire gage, number of turns of the original winding firmly in mind. Contact us and ask for the date in case they are lost. Winding should not be optionally changed, otherwise some of the motor's properties may be deteriorated and even affect its running.

	elevant technical standards.					
Table 5						
	Frame	Poles	DE	NDE		
	80	2,4,6,8	6204-2RZ	6204-2RZ		

8.7 Explosion-proof components should be repaired, replaced, tested by technician following relevant technical standards.

90	2,4,6,8	6205-2RZ	6205-2RZ
100	2,4,6,8	6206-2RZ	6206-2RZ
112	2,4,6,8	6206-2RZ	6206-2RZ
132	2,4,6,8	6308-2RZ	6308-2RZ
160	2,4,6,8	6309-2RZ	6309-2RZ
180	2	6311-2RZ	6211-2RZ
	4,6,8	6311-2RZ	6311-2RZ
200	2,4,6,8	6312-2RZ	6312-2RZ
225	2	6312-2RZ	6312-2RZ
	4,6,8	6313-2RZ	6312-2RZ
250	2	6313	6313
	4,6,8	6314	6313
280	2	6314	6314
	4,6,8	6317	6314
315	2	6317	6317
	4,6,8,10	NU319	6319
355 -	2	6319	6319
	4,6,8,10	NU322	6322



图1 电初机正体结构(B3) Fig 1 Motor Structure(B3)



图2 接线盒结构 Figure 2 Terminal box

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#### Dear user,

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