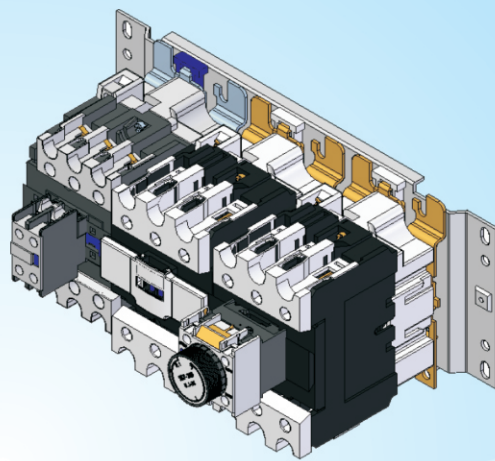


QJX4-d系列“星三角”起动器

QJX4-d Series “Star-delta” Starter

——控制电器产品名录 2014

安全 智能 灵动



CE UL CCC TÜV CB RoHS

ISO9001 ISO14001 OHSAS18001

用途 APPLICATION

本系列产品适用于交流50Hz（或60 Hz），额定绝缘电压690V，在AC-3使用类别下额定工作电压为380V时控制功率至80KW的三相鼠笼型感应电机，用于控制电机定子绕组由“星形”至“三角形”的换接起动、运行及停止。配套相应规格的热继电器后，可实现对电动机的过载及断相保护。

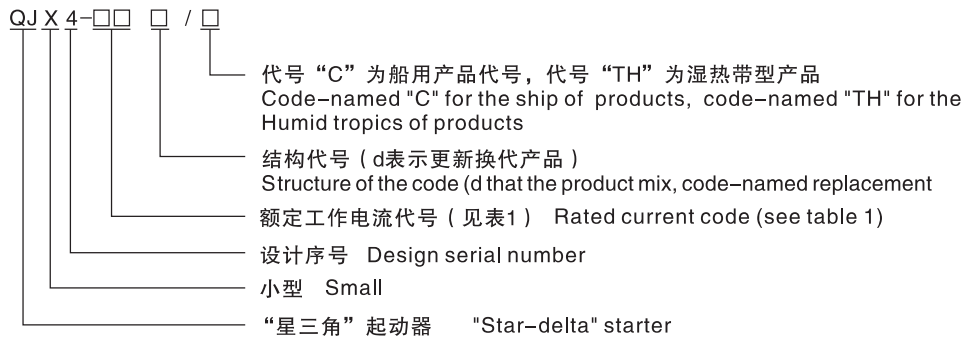
本产品不适用于可逆转换，不适用于AC-4使用类别。

The series products is used in AC 50Hz (or 60Hz), rated insulation voltage is up to 690V, and rated voltage is 380V under control power 80KW for 3-phase case induction motor and category AC-3, used to control motor stator windings by the "star" to the "triangle" for the next start, stop and run. Using appropriate thermal relay, the realization of the motor overload and phase protection.

The products not suitable for reverse conversion, not suitable AC-4 sort.

型号及含义 TYPE AND MEANING

■ 型号及含义 type and means



结构型式及规格 STRUCTURE AND SPECIFICATIONS

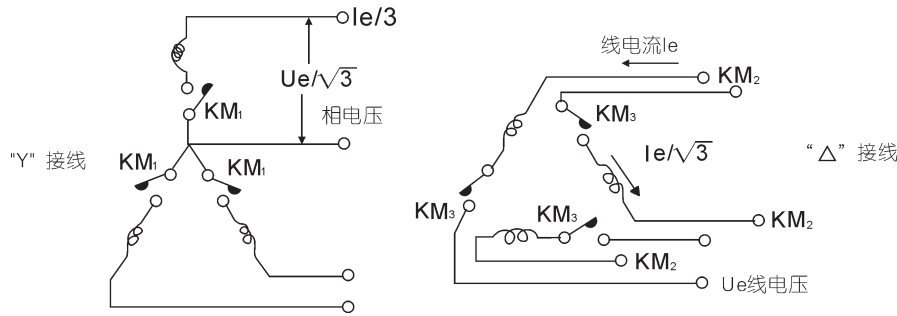
起动器由三台交流接触器、一只空气延时头、一只辅助触头组（仅QJX4-40d及以下规格）组成，安装在一块底板上，配以适当导线（参见表1）。

Starter by the three AC contactor, an air time-delay terminal, and auxiliary contact team (only QJX4-40d and the following specifications), installed on a floor, with the appropriate wires (see table 1).

表(Table)1

型号 type	主回路接触器 Main circuit contactor			热过载继电器 Thermal Overload Relay		控制电机功率 (KW) control electricity machine frequency				额定工作 电流 Ie A Rated working current	配熔 断器 NTOO
	隔离用 KM2 use isolate	△运转 KM3 operate	Y运转 KM1 operate	电流整定范围 (A) current rectify range	型号 type	220V	380V	415V	660V		
QJX4-12d	GSC1-1210	GSC1-1201	GSC1-0901	10-13	JRS4-12316d	5.5	11	11	11	20	20
QJX4-18d	GSC1-1810	GSC1-1801	GSC1-1201	13-18	JRS4-16321d	7.5	15	15	22	31	32
QJX4-25d	GSC1-2510	GSC1-2501	GSC1-1201	18-25	JRS4-25322d	11	18.5	22	25	43	50
QJX4-32d	GSC1-3210	GSC1-3201	GSC1-2501	23-32	Rs4-32353d	15	25	25	30	55	63
QJX4-40d	GSC1-4011	GSC1-4011	GSC1-2501	30-40	JRS4-40355d	18.5	33	37	37	69	80
QJX4-50d	GSC1-5011	GSC1-5011	GSC1-4011	37-50	JRS4-50357d	25	45	45	55	86	100
QJX4-65d	GSC1-6511	GSC1-6511	GSC1-4011	48-65	JRS4-65359d	30	59	59	59	112	125
QJX4-80d	GSC1-8011	GSC1-8011	GSC1-5011	63-80	JRS4-80363d	40	75	75	75	138	160
QJX4-95d	GSC1-9511	GSC1-9511	GSC1-6511	80-95		40	80	80	80	164	200

“Y-Δ” 起动方法 “Y-Δ” START METHOD



“Y-Δ” 起动时，起动电流为全压起动电流的1/3，以便缓和对电源及负载的冲击。加速后切换成三角形接法，在额定电压下运行。“Y”（星形）运转时间为15秒以内。

“Y-Δ” start-up time, starting current is pressure for the whole of the current 1 / 3, in order to ease the load on the power and impact. After the switch to speed up the triangle connection, rated voltage in the running. “Y” (star) running time of 15 seconds or less.

工作条件和安装条件 WORKING AND INSTALLATION CONDITION

- △ 周围空气温度 $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$;
Ambient temperature: $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$;
- △ 安装地点海拔不超过3000m; Elevation $\leq 3000\text{m}$;
- △ 最高温度为 $+40^{\circ}\text{C}$ 时，空气的相对湿度为不超过85%，对由于温度变化偶尔产生的凝露应采取特殊的措施；
Relative humidity is not exceeding 85% at the maximum ambient temperature $+40^{\circ}\text{C}$. Should give consideration to the dews, which would appear due to temperature change;
- △ 振动条件：起动器应安装在无显著摇摆、冲击和振动的地方；
Shock conditions: starter should be used in no significant impact and vibration place.
- △ 安装类别为“安装类别III” Installing categories: Class III
- △ 安装方式：螺钉安装。 Installation way: by screw;
- 船用“星三角”起动器 Marine “star-delta” starter
- △ 周围空气温度 $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$; Ambient temperature: $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$;
- △ 大气条件：可有凝露、盐雾、油雾、霉菌、海上空气潮湿等存在；
Air condition: be able to bear the influence of moisture in the air、salt fog、oil fog、mould、humid air on the sea;
- △ 倾斜：各方向倾斜不超过 22.5° ； Tilt: all direction should low than 22.5° ；
- △ 摇摆：各方向摇摆不超过 22.5° ； vibration: all direction should low than 22.5° ；
- △ 振动：频率 $2 \sim 13.2\text{Hz}$ ，振幅为 $\pm 1\text{mm}$ 以内，或频率 $13.2 \sim 100\text{Hz}$ ，加速度为 $\pm 7\text{m/s}^2$ 以内；
Shock: can bear frequency $2 \sim 13.2\text{Hz}$ and amplitude in $\pm 1\text{mm}$ or frequency $13.2 \sim 100\text{Hz}$ and acceleration $\pm 7\text{m/s}^2$;
- △ 电源电压和频率变化：稳态电压变化为额定值的 $+6\% \sim -10\%$ ，稳态频率变化为额定值的 $\pm 5\%$ 。
Power voltage and frequency changes: steady-state voltage is $+6\% \sim -10\%$ of rated voltage, steady-state frequency change is $\pm 5\%$ or rated frequency.

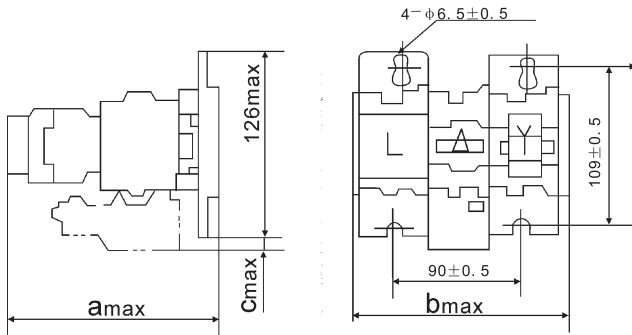
技术参数 TECHNICAL PARAMETERS

参数 parameters	型号 type	QJX4 -12d	QJX4 -18d	QJX4 -25d	QJX4 -32d	QJX4 -40d	QJX4 -50d	QJX4 -65d	QJX4 -80d	QJX4 -95d
额定工作电流 I_e A(AC-3) Rated working current		20	31	43	55	69	86	112	138	164
额定绝缘电压 U_i V Rated insulation voltage		690								
额定工作电压 U_e V Rated work voltage		380、660								
符合标准 standard		IEC60947-4-1 GB14048.4								
AC-3 380V电 寿命 (次)		40×10^3	35×10^3	25×10^3	20×10^3			15×10^3		
机械寿命 machine life span		30×10^4								

操作频率 h^{-1} operation frequency	30									
辅助电路额定工作电压 U_e Auxiliary Circuit Rated work voltage	AC380V、DC220V									
辅助电路约定发热电流A Auxiliary Circuit agreed fever current A	10									
辅助电路可接通最小负载 Auxiliary circuit can be connected Minimum load	24V 10mA									
线圈 coil	额定控制电压 U_s Rated control Voltage U_s	24、48、110、220、380								
	吸合电压 pull voltage	0.85 ~ 1.1 U_s								
	释放电压 release voltage	0.2 ~ 0.70 U_s								
重量weight (Kg)	1.5	1.7	1.8	2	4.36	4.36	4.36	5.20	5.20	

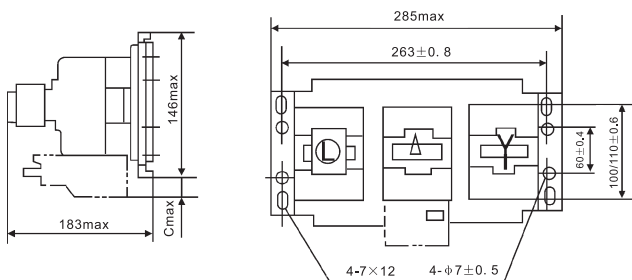
外形尺寸、安装尺寸及接线图 OUTLINE DIMENSION, INSTALLATION DIMENSIONS AND WIRING PICTURE

△ QJX4-12d/18d/25d/32d



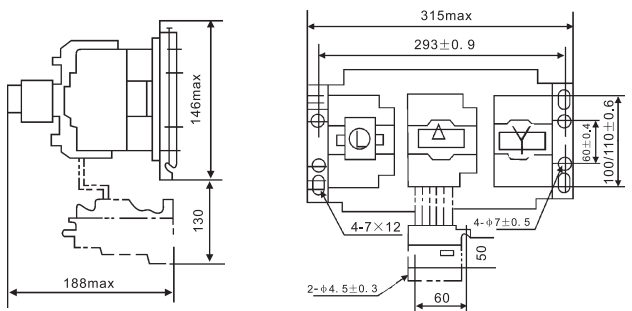
型号 type 尺寸Dimensions	a_max	b_max	c_max
QJX4-12d	147	140	10
QJX4-18d	152		
QJX4-25d	163	170	
QJX4-32d	168		

△ QJX4-40d/50d/65d



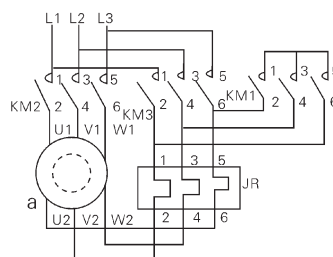
型号 type	c_max
QJX4-40d、50d、65d	40

△ QJX4-80d/95d

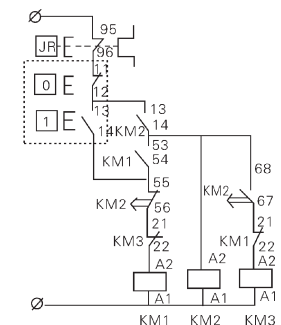


△ 接线图 wiring picture

主线路 main line



控制电路 Control circuit



接线端子连接导线能力 WIRING TERMINAL CONNECT LEAD CAPACITY

型号 type	QJX4-12d		QJX4-18d		QJX4-25d		QJX4-32d		QJX4-40d		QJX4-50d		QJX4-65d		QJX4-80d		QJX4-95d		JRS4-09~25d	JRS4-32~40d	JRS4-50~80d	辅助触头 auxiliary contact			
导线根数 Wire root	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2	2	1	1	2		
接线能力 mm ² Wiring capacity	软线 soft		2.5	2.5	4	4	4	4	6	6	10	10	16	16	16	16	50	25	50	25	4	6	25	2.5	2.5
	硬线 hard		4	4	6	-	6	-	10	10	10	10	25	-	25	-	50	-	50	-	6	10	25	2.5	2.5

订货须知 ORDER REMARK

- △ 订货时应指明下列事项 In order need attention following:
- △ 起动器的全型号及名称; Entitle type and name of starter;
- △ 控制线圈的频率及电压; Frequency and Voltage of control coil;
- △ 订货数量 Order volume:
 例如: QJX4-12d “星三角” 起动器380V 50Hz 10台
 Example: QJX4-12d “star-delta” starter 380V 50Hz 10 sets
- △ 用户如需特殊电压规格可特殊订货;
 If need special voltage character product, can specially customize.
- △ 配装热继电器需单独订货。Combine thermal relay independent order.