

YRQ4PC-250 SERIES

Automatic Transfer Switch



Application

- YRQ4PC-250 series automatic transfer switch, TSE-type PC-class; for power supply system of AC 50Hz, AC rated voltage of 380V, rated current of 3150A, three-phase four-wire.
- To achieve automatic and manual switching between common and standby power supply, in the process of switching power supply, to cut off the power supply to the load.
- Used for the occasion with requirements of two-way power supply and high power quality. There are 16A~200amp automatic transfer switch and 250A~3150A switches produced.
- YRQ4PC-250 series automatic transfer switch complies with GB 14048.3 and GB 14048.11, IEC 60947-3 and IEC 60947-6-1 standards.

Normal working conditions

- The ambient air temperature is not higher than +40 °C, not lower than -5 °C.
- The altitude of the installation site shall not exceed 2000m.
- Humidity: the maximum temperature of +40 °C, the relative humidity of air does not exceed 50%, at a lower temperature can allow a higher.
- Relative humidity, for example 90% at 20 & lt; 0 & gt; C. Special precautions should be taken for condensation that may occur occasionally as a result of temperature changes.
- The pollution level of the surrounding environment is Grade 3.
- Transfer Switch should be installed in the absence of significant shaking, shock and no rain and snow invasion of the place, while the installation site should be no explosion hazard medium, and the media is not enough to corrode the metal and damage the insulation of gases and dust.

Product Performance

Conventional heating current (A)		16, 20, 25, 32 40, 63, 80, 100	125 160	200 250	315, 400 630	800	1000, 1250 1600	2000, 2500 3150
Rated insulation voltage (V)		660				800		
Rated impulse withstand voltage (V)		8				12		
Rated voltage (V)		Rated operating voltage: 380V; Control power supply voltage: 220V						
Rated operating current (A)		16, 20, 25, 32 40, 63, 80, 100	125 160	200 250	315, 400 630	800, 1000 1250, 1600		2000, 2500 3150
Rated making and breaking capacity		6Ie						
Rated short-time withstand current (kA)		5	10		12.6	26	32	55
Conversion time I-II or II-I		≤3s				≤4s		
Rated control power(W)	Start	300	325		355	400	400	600
	Normal	55	62		74	90	98	120
Operating force(N)		30~50	40 ~ 60	65 ~ 100	75~120	200~300		250~400

Control characteristics

The switch has three-pole, four-pole (three-pole + neutral pole can be on or off) product.

Four types of control (common type, I, II, III), commonly used is "common type".

Operation mode of the automatic conversion operating mechanism is selected by the key switch, and the position can be maintained by the padlock.

Control characteristic of common-type switch:

Switch is used for the automatic change and automatic recovery of main power supply - standby power supply system.

Control characteristic of I-type switch:

Switch is used for the automatic change and non-automatic recovery, mutual standby of electric supply - electric supply main-standby power supply system. The main power to the standby power (Continuous adjustable delay 1~999s), standby power to the main power supply (Continuous adjustable delay 1~999s). There is phase loss detection and over-under voltage protection function.

Control characteristic of II-type switch:

Switch is used for the automatic change and automatic recovery of electric supply - electric supply main-standby power supply system. The main power to the standby power (Continuous adjustable delay 1~999s), standby power to the main power supply (Continuous adjustable delay 1~999s). There is phase loss detection and over-under voltage protection function.

Control characteristic of III-type switch:

Switch is used for the automatic change and automatic recovery of electric supply - oil machine (have automatic starting and receiving signal function, ordinary oil generators are not available) power supply system.

When the common power supply is applied to the oil machine power supply system, the switch will transmit signal of starting oil machine at first, the oil machine starts after chip warming up (Continuous adjustable delay 0~999s)

Oil machine back to electric supply, the oil machine is closed after cooling machines (Continuous adjustable delay 0 ~ 999s).

There is phase loss detection and over-under voltage protection function.

Above three kinds switches of I, II, III have:

Automatic, remote control, manual control



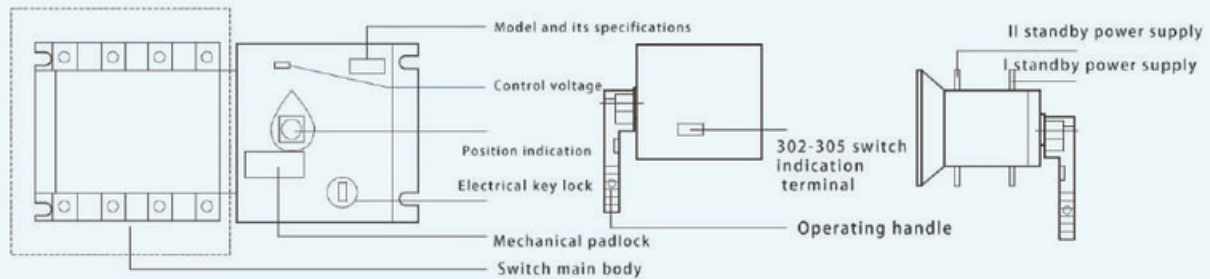
Delay 0.5s to detect signal, to prevent malfunction.

The automatic status has the remote control "0" position.

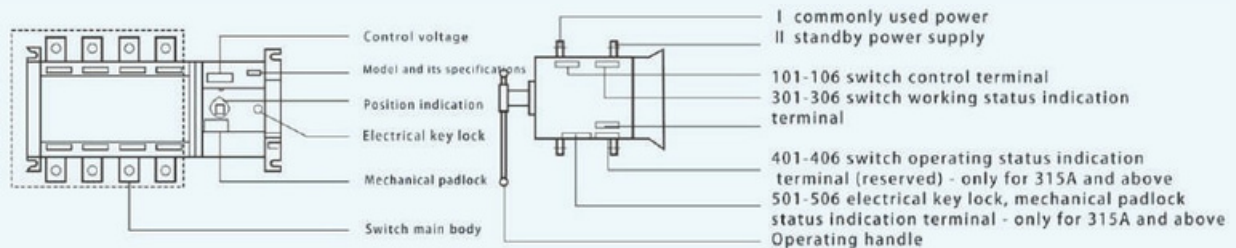
Key switch selects the operating mode.

Product structure

16A-100A /4 common type



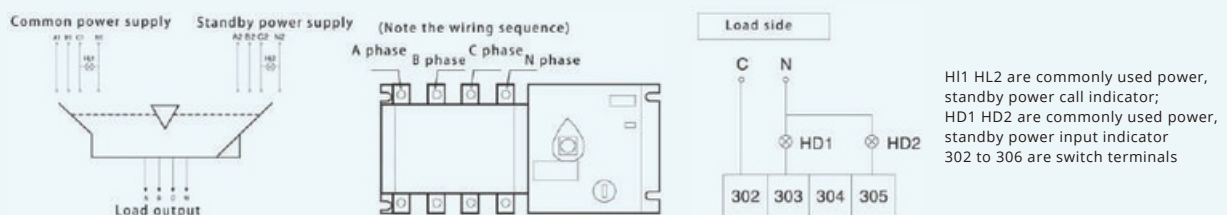
100A/3 ordinary type; 100A /3 and 100A /4 of the I, II, III type; 125A~ 3150A of the common type and I, II, III type



- Electric key lock: internal control line power of control switch, the electrical lock is in the "automatic position", the switch achieves automatic, remote control operation, electrical lock is in the "manual" position, the switch can only be manually operated;
- Operating handle: when using the operating handle to operate the switch, you must close the electrical lock;
- Mechanical padlock: when maintenance, firstly, use the operating handle to make switch in the 0 position, pull up the padlock structure and padlock, then can be checked: (pulling the mechanical padlock will cut off the internal control power of switch, the switch can not be electric, and can not be manual);
- Position indication: Indicates the position of the switch operating status (I ; 0 ; II);
- Control voltage: switch control voltage level 220VAC;
- Switch body: the front part is I -way, connect to "common power"; the latter part is II -way, connect to "standby power."

Product structure

Wiring diagram of 16A~100A 4-pole common type main switch

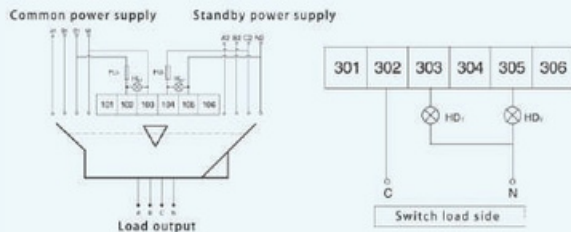


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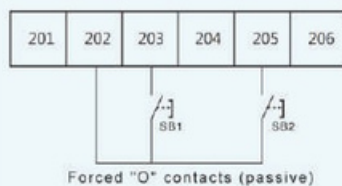
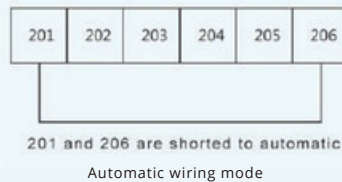


Wiring diagram of 125A~3150A common type main switch

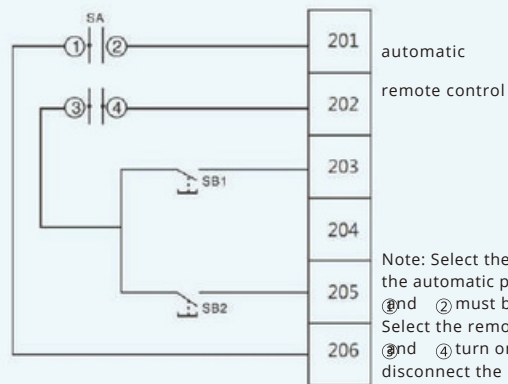


HL1 HL2 are commonly used power, standby power call indicator;
HD1 HD2 are commonly used power, standby power input indicator
FU1 FU2 is a 5A fuse

Wiring method of No.2 terminal according to different ways is as follows



Wiring mode of remote control and position "0"
(double power supply are cut off)

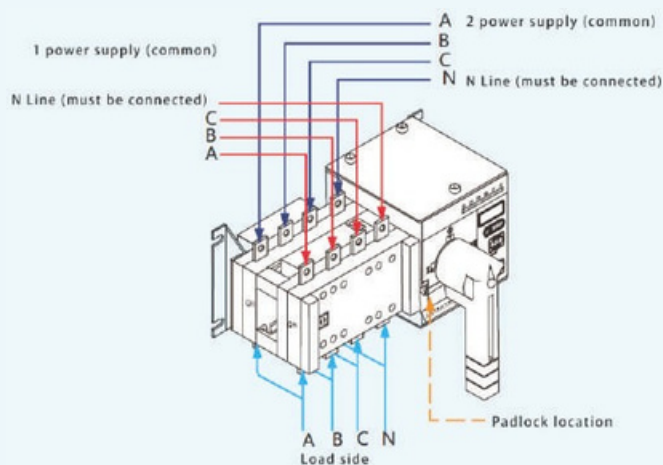


Wiring mode of automatic + remote control
(Note: SB1, SB2 are the external button switch)

Note: Select the SA switch in the automatic position and ② must be connected. Select the remote control position and ④ turn on, but must first disconnect the SA switch.

Wiring Instructions

16~100A 4 main switch wiring diagram

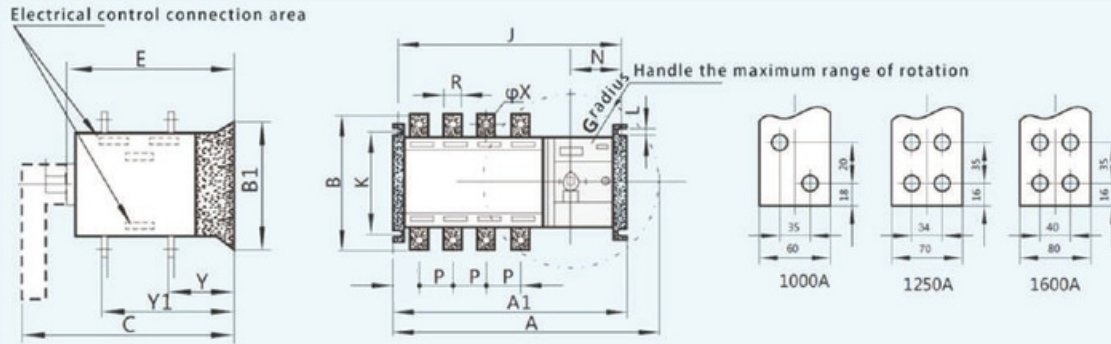


Main structure and the correct installation method of switch:

- (1) The front part is I-way, connect to "common power"; the latter part is II-way, connect to "standby power".
- (2) Operation mode of the automatic conversion operating mechanism is selected by the key switch, and the position can be maintained by the padlock.
- (3) The line bank of switch body from left to right is A, B, C, N phase.
- (4) The upper end of the main switch is inlet line of I-way, II-way, the lower end is outlet line of I-way, II-way with connection of copper busbar or wire connection for the outlet.

Outline and installation dimensions

1600A and the installation of the size of the map



Main Parameters	Installation dimensions (mm)													
Current	A	A1	B	C	E	J	K	L	N	P	R	ΦX	Y	Y1
16A/3,4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
32A/3, 4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
40A/3,4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
63A/3, 4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
80A/3,4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
100A/3,4	305	245	106	170	133	234	84	7	75	30	14	6	36	86
125A/3	380	282	135	240	208	275	78/108	7	87	36	20	9	58	135
160A/3	380	282	135	240	208	275	78/108	7	87	36	20	9	58	135
125A/4	410	320	135	240	208	312	78/108	7	87	36	20	9	58	135
160A/4	410	320	135	240	208	312	78/108	7	87	36	20	9	58	135
200A/3	420	330	170	240	208	312	78/108	7	87	50	25	11	60	140
250A/3	420	330	170	240	208	312	78/108	7	87	50	25	11	60	140
200A/4	470	380	170	240	208	358	78/108	7	87	50	25	11	60	140
250A/4	470	380	170	240	208	358	78/108	7	87	50	25	11	60	140
315A/3	455	382	240	315	270	365	180	11	95	65	32	11	84	195
400A/3	455	382	240	315	270	365	180	11	95	65	40	13	84	195
630A/3	455	382	260	315	270	165	180	11	95	65	40	13	84	195
315A/4	515	450	240	315	270	430	180	11	95	65	32	11	84	195
400A/4	515	450	240	315	270	430	180	11	95	65	32	11	84	195
630A/4	515	450	260	315	270	430	180	11	95	65	40	13	84	195
800A/3	900	520	310	368	320	500	220	11	85	120	60	13	108	252
1000A/3	900	520	310	368	320	500	220	11	85	120	60	13	108	252
1250A/3	900	520	360	368	320	500	220	11	85	120	70	13	108	252
1600A/3	900	520	360	368	320	500	220	11	85	120	80	13	108	252
800A/4	1010	635	310	368	320	610	220	11	85	120	60	13	108	252
1000A/4	1010	635	310	368	320	610	220	11	85	120	60	13	108	252
1250A/4	1010	635	360	368	320	610	220	11	85	120	70	13	108	252
1600A/4	1010	635	360	368	320	610	220	11	85	120	80	13	108	252
2000A/3	900	520	455	565	495	500	220	11	85	137	80	13	226	457
2000A/4	1010	635	455	565	495	610	220	11	85	137	80	13	226	457
2500A/3	900	520	455	565	495	500	200	11	85	137	80	13	226	457
2500A/4	1010	635	455	565	495	610	220	11	85	137	80	13	226	457
3150A/3	900	520	505	565	495	610	220	11	85	142	120	13	230	462
3150A/4	1010	635	505	565	495	610	220	11	85	142	120	13	230	462