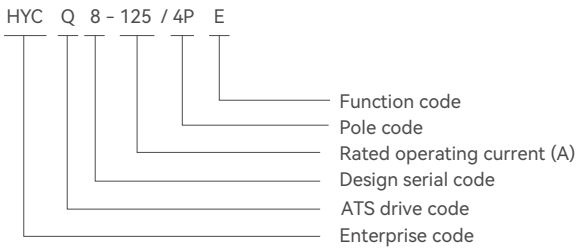
HYCQ8 Intelligent Type Automatic Transfer Switches

Features

- HYCQ8 series intelligent type automatic transfer switch is the most advanced third-generation product with PC class and AC-33B category. It is a frequently operated electrical automatic transfer switch suitable for reliable conversion of two power sources in 50/60Hz 10A-630A low-voltage AC power distribution system. It has four working modes: automatic, motor drive, emergency manual and locking.

Model description



Classification by functions

M: Basic type

T: LED indicator controller (Intelligent type)

E: LCD display controller (Intelligent type)

Normal working conditions

- Between -10℃ and +40℃, 24h average value does not exceed +35℃
- Average humidity at +40℃ does not exceed 50%, no condensation;
- Less than 2000 meters, if it exceeds 2000 meters, please reduce the rated value.
- No strong vibration and impact in the use environment, no harmful gases that corrode metals and damage insulation
- No severe dust, no conductive particles and explosive hazardous substances
- Between -20℃ and 70℃, dry, non-corrosive and non-saline environment, the longest period is 1 year.
- Can be installed vertically or horizontally, upside down installation is prohibited.
- Standard:GB/T14048.11 and IEC60947-6-1

The main technical parameters

Characteristics comply with IEC 60947-6-1 & GB/T14048.11							
Frame size		125	200	400		630	
Conventional heating current I (up to 40℃)		125A	200A	250A	400A	500A	630A
Rated insulation voltage U(V) (main circuit)		800	800	1000	1000	1000	1000
Rated impulse withstand voltage Uimp(kV)(power supply circuit)		6	8	10	10	12	12
Rated insulation voltage U (V) (control circuit)		300	300	300	300	300	300
Rated impulse withstand voltage Uimp (kV) (control circuit)		4	4	4	4	4	4
Rated operating current Ie(A) according to IEC 60947-6-1 & GB/T14048.11 standard							
Rated voltage	Use category						
400 VAC	AC-31B	125	200	250	400	500	630
400 VAC	AC-32B	125	200	250	400	500	630
400 VAC	AC-33B	125	200	250	400	500	500

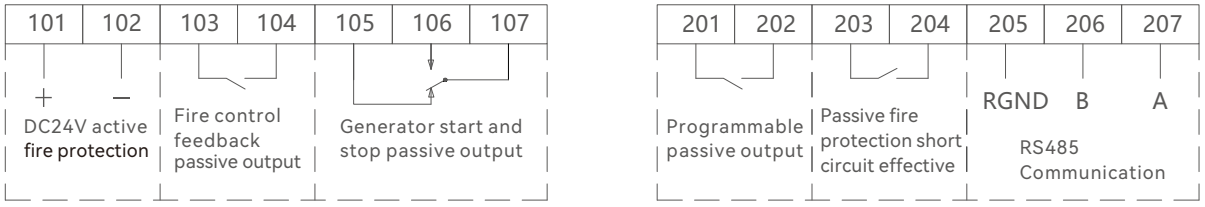
Controller Function Table

Function \ Model	E type	T type	M type
Status display	LCD display+LED indicator	LED indicator+Rotary adjustment	LED indicator
Manual operate	●	●	——
Auto switch and auto recovery (Ⅰ &Ⅱ)	●	●	●
Mutual backup(auto switch, no auto recovery)	●	●	——
DC 24V Fire control linkage	●	●	——
Fire control feedback	●	●	——
Passive fire control linkage	●	●	——
Over & undervoltage monitoring	• (Three phase four wires)	• (Only monitor phase C)	——
Over & undervoltage adjustable	● (Overvoltage 225-265V Undervoltage 160-215V)	Default(Overvoltage 260V Undervoltage 170V)	——
Over & undervoltage hysteresis values adjustable	● (2-20%)	Default(3%)	——
Over & underfrequency monitoring	●	——	——
Over & underfrequency adjustable	• (Over&under Frequency 40-70Hz)	——	——
Over & underfrequency return values adjustable	● (42-68Hz)	——	——
Phase sequence (reverse phase) detection	●	——	——
Voltage&frequency&phase sequence detection on/off adjustable	●	——	——
Switching delay adjustable	● (0-90S)	● (Rotary adjustment 0-60S)	——
Fault & recovery delays adjustable	● (0-60S)	Default(1S)	——
Start & stop generator delay adjustable	● (0-300S)	Default(30S)	——
Transfer failure indicator	●	●	——
Programmable output port	●	——	——
RS485 Communication	●	——	——

Note: ① Symbol "●" indicates a standard function, "—" indicates no such function.
②The overvoltage, undervoltage and delay time of the T type ATS are set to the above parameters by factory default.
If other parameters are required, such as overvoltage 255V, undervoltage 180V, etc., please contact sales when ordering.

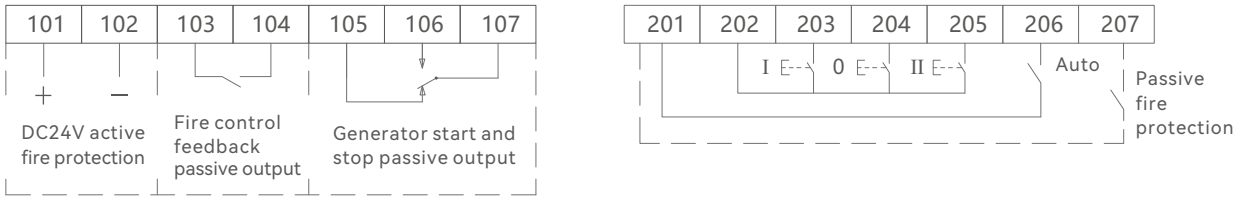
Terminal Function Introduction

E type



Terminal number	Terminal point number	Function	Illustrate
Terminal 1	101、102	101, 102 Fire control	DC24V constant voltage signal input
	103、104	103, 104 Fire control feedback	Passive contact 1A AC 220V
	105、106、107	105, 106, 107 Generator start and stop signal output	Passive contact 5A AC 220V
Terminal 2	201、202	201, 202 Programmable passive contact output	Passive contact 1A AC 220V
	203、204	When 203, 204 short-circuited, execute forced 0 position.	/
	205、206、207	205, 206, 207 RS485 communication input terminal	
Terminal 3	301、302、303	301, 302, 303 I way passive output (SPDT)	Passive contact 1A AC 220V
	304、305、306	304, 305, 306 II way passive output (SPDT)	

T type



Terminal number	Terminal point number	Function	Illustrate
Terminal 1	101、102	101, 102 Fire control	DC24V constant voltage signal input
	103、104	103, 104 Fire control feedback	Passive contact 1A AC 220V
	105、106、107	105, 106, 107 Generator start and stop signal output	Passive contact 5A AC 220V
Terminal 2	201、206	201, 206 Open for passive control Closed for automatic control	When the external button is switched to remote control, 201-206 must be in the disconnected state
	202、203	When 202,203 short-circuited, execute I way closing	Active input is prohibited, otherwise it will damage the controller.
	202、204	When 202,204 short-circuited, execute 0 position	
	202、205	When 202,205 short-circuited, execute II way closing	
	201、207	When 201,207 short-circuited, execute forced 0 position.	
Terminal 3	301、302、303	301, 302, 303 I way passive output (SPDT)	Passive contact 1A AC 220V
	304、305、306	304, 305, 306 II way passive output (SPDT)	

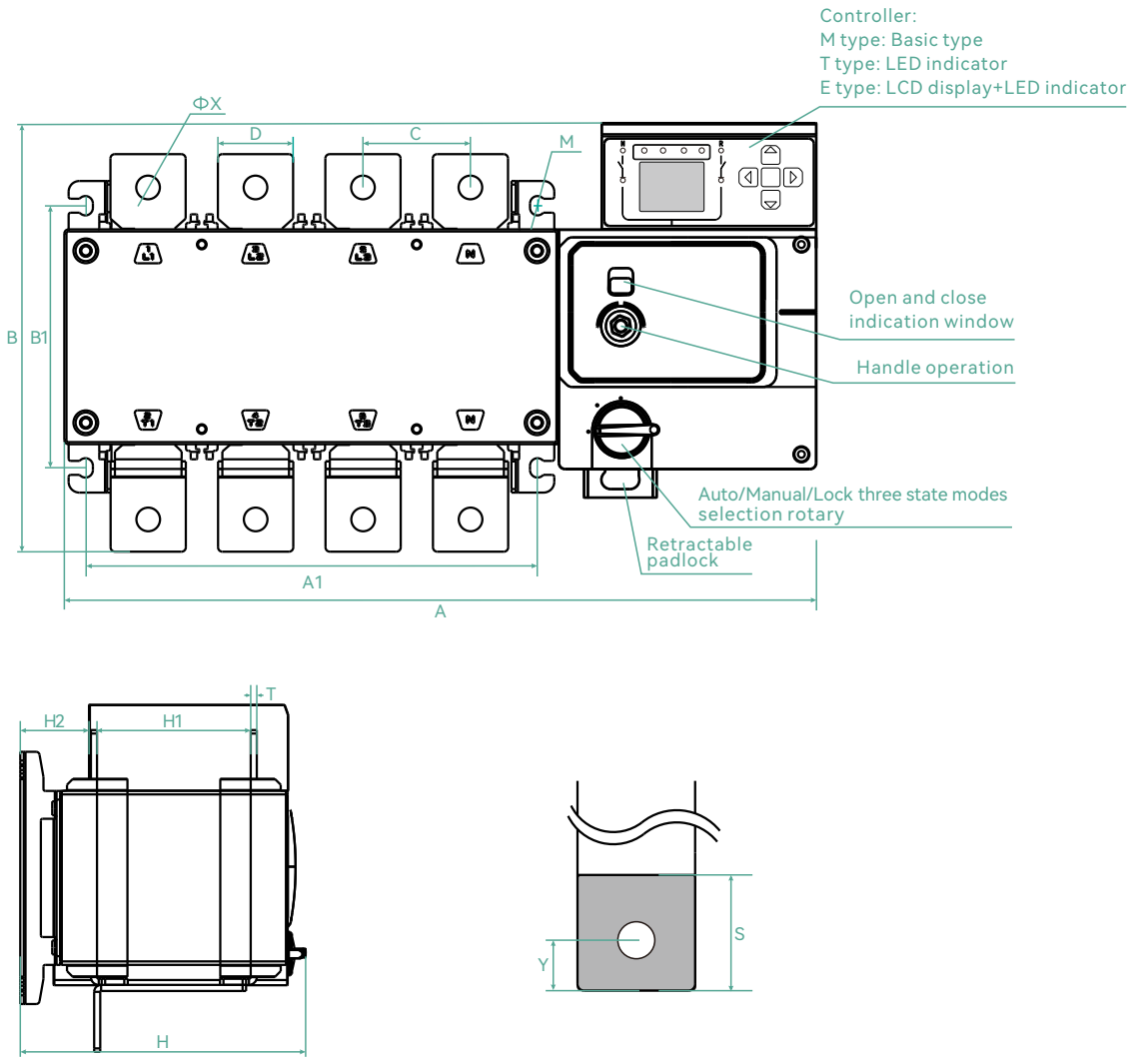
M type

Terminal number	Terminal point number	Function	Illustrate
Terminal 3	301、302、303	301, 302, 303 I way passive output (SPDT)	Passive contact 1A AC 220V
	304、305、306	304, 305, 306 II way passive output (SPDT)	

* Achieve basic transfer function.

Appearance Figure

125A~630A Dimensions



Installation Dimensions Table

Specifications	A	A1	B	B1	C	D	H	H1	H2	T	X	M	Y	S
125A	215	150	153	96	30	14	121	64.5	29.5	2.5	7	6	8	16
200A	272	200	167.5	107	36	20	141	76.5	33.5	3.5	9	6	10	25
250A	348	210	210	122	50	25	164	88	40.5	3.5	11	6	15	30
400A	348	210	210	122	50	35	164	88	40.5	3.5	11	6	15	35
630A	424.5	273	269	184	65	40	257.5	150	55.5	5	13	8	15	40