

# HYET3 (Two-section, Three-section) Series Dual-power Automatic Transfer Switch

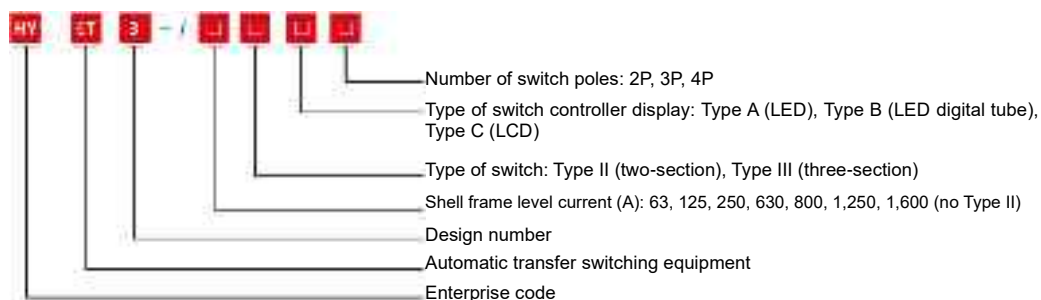
## Functions and Characteristics

### Product Overview



Type of control:	Type A: LED, Type B: LED digital tube, Type C: LCD
Product structure:	Small size, large current, simple structure and ATS integration
Features:	Fast switching speed, low failure rate, convenient maintenance and reliable performance (with automatic switching time adjustable in 0 s–255 s)
Wiring method:	Grid-to-grid, grid-to-generator, automatic charge and automatic recovery, automatic charge without automatic recovery, and mutual standby
Product shell frame:	63, 125, 250, 630, 800, 1,250, 1,600
Product current:	20, 32, 40, 50, 63, 80, 100, 125, 160, 200, 225, 250, 315, 350, 400, 500, 630, 700, 800, 1,000, 1,250, 1,600 A
Product classification:	Two-section without double off position and three-section with middle double off position
Number of poles:	2, 3, 4
Product standard:	GB/T14048.11
ATS level:	PC

### Model Description



### Normal Working Conditions

- The ambient temperature shall be  $-5^{\circ}\text{C}$ – $+40^{\circ}\text{C}$ ; and the average temperature within 24 hours shall not exceed  $+35^{\circ}\text{C}$ . The relative humidity at the highest temperature of  $+40^{\circ}\text{C}$  shall not exceed 50%, and a higher relative humidity is allowed at a lower temperature. For example, 90% humidity at  $+20^{\circ}\text{C}$ , but condensation may occur due to temperature change, which shall be considered.
- The altitude of the installation location shall not exceed 2,000 m, and the category shall be Class IV.
- The inclination shall not be more than  $\pm 23^{\circ}\text{C}$ .
- The contamination grade shall be Grade 3.
- If the above conditions cannot be met, please consult the manufacturer when ordering.

# HYET3 (Two-section, Three-section) Series Dual-power Automatic Transfer Switch

## Functions and Characteristics

### Structural Features and Functions

The HYET3 Dual-power (main and standby) Automatic Transfer Switching Equipment adopts electromagnetically driven and electromechanical interlocking mechanism. The main circuit contacts are of static and dynamic structures, and the moving contacts are of V-type design. To avoid long-term electrification of the electromagnetic coil, electric closing and mechanical holding are adopted. Therefore, the operating mechanism does not need to provide the working current under steady-state working conditions, which has a remarkable energy saving effect. The control power supply is from the AC 220 V main and standby power supplies (without additional control current). Due to its superior structural features, the main and standby power supplies will not be switched on at the same time, which ensures that the common and standby power supplies work reliably and do not interfere with each other. The switch has the electric or mechanical closing instruction, and it can also provide customers with normally open and normally closed passive contacts for other purposes.

The intelligent controller simultaneously provides many functions such as voltage loss, undervoltage, overvoltage, transfer delay control, generator signal control, and feedback signal, and has strong anti-interference ability. It has three transfer modes including automatic charge and automatic recovery, automatic charge without automatic recovery, and mutual standby.

The two-section switch has two stable working positions: common power supply closing, standby power supply opening; and common power supply opening and standby power supply closing.

The three-section switch has three stable working positions: common power supply closing, standby power supply opening; common power supply opening and standby power supply opening; and common power supply opening and standby power supply closing.

Simple and convenient installation. Manual transfer can be carried out with special handle in the manual state.

### Main Technical Parameters

Model		HY ET 3-63	HY ET 3 -125	HY ET 3 -250	HY ET 3 -630	HY ET 3 -800	HY ET 3-1250	HY ET 3 -1600
		Name						
Use category		H: AC-33A; Default: AC-33B		H: AC-33iA; Default: AC-33B		AC-33iB		
Rated working voltage Ue		AC 230 V (2P) AC 400 V (3/4P)		AC 400V				
Rated insulation voltage Ui		AC 800 V						
Rated impulse withstand voltage Uimp		8 kV						
Rated limited short-circuit current Iq		100 kA			120 kA			
Service life (times)	Mechanical	6,000					5,000	
	Electrical	1,500					1,000	
Number of poles		2			/			
		3						
		4						
Operation cycle (sec/time)		30 s				60 s		
Switching time		0-255 s						

# HYET3 (Two-section, Three-section) Series

## Dual-power Automatic Transfer Switch

### Functions and Characteristics

**Controller  
Parameter  
Function**

Details of controller parameter function

Type of control	Type A	Type B	Type C	
Installation mode	Integrated		Integrated/split type	
Automatic operation	■	■	■	
Handle operation	■	■	■	
Controller key operation	■	■	■	
Communication remote control (485)	-		■	
Monitor common overvoltage	A/B/C three-phase		A/B/C three-phase	
Monitor common undervoltage	A/B/C three-phase		A/B/C three-phase	
Monitor common voltage loss	A/B/C three-phase		A/B/C three-phase	
Monitor common phase loss	A/B/C three-phase		A/B/C three-phase	
Monitor standby overvoltage	A phase		A/B/C three-phase	
Monitor standby undervoltage	A phase		A/B/C three-phase	
Monitor standby voltage loss	A phase		A/B/C three-phase	
Monitor standby phase loss	A phase		A/B/C three-phase	
Automatic charge and automatic recovery	■		■	
Automatic charge without automatic recovery	■		■	
Mutual standby	-		■	
Common standby undervoltage setting (V)	Default 170 V	Default 170 V	(Adjustable range: 130–200 V)	
Common standby overvoltage setting (V)	Default 265 V	Default 265 V	(Adjustable range: 250–300 V)	
Transfer delay time setting	0-5 s		0-90s	
Transient dwell time type (II)	-			
Transient dwell time type (III)	0-90 s	0-99 s	0-255 s	
Return delay time setting	0-5 s		0-90 s	
Controller panel display	Common standby power supply	■	■	■
	Common power supply opening/closing	■	■	■
	Standby power supply opening/closing	■	■	■
	Common power voltage	-	■	■
	Standby power voltage	-	■	■
	Fault alarm display	■	■	■
	Fire control linkage type (II)	-		
	Fire control linkage type (III)	■	■	■
Display mode	LED (light-emitting diode)	LED digital tube	LCD (Chinese)	
User external port	Common power supply closing	■	■	■
	Standby power supply closing	■	■	■
	Generator control (passive)	■	■	■
	Fire control linkage type (II)	-		
	Fire control linkage type (III)	■	■	■
	Fire control linkage feedback signal type (I)	-		
	Fire control linkage feedback signal type (III)	■	■	■
Communication port (485)	-		■	

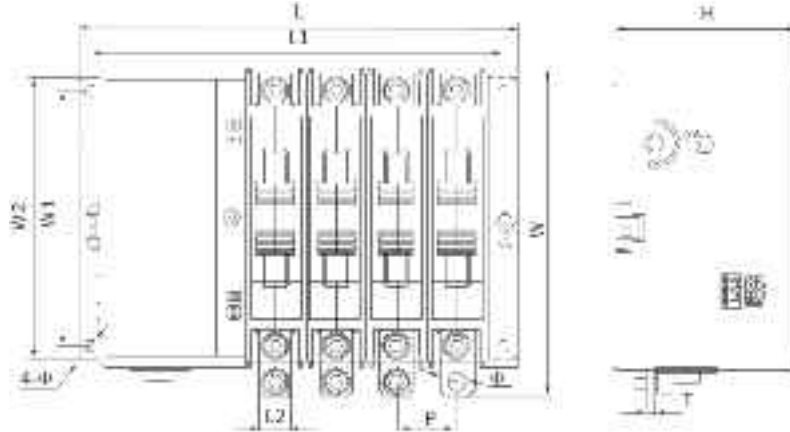
Note: "■" means this function is available, and "-" means this function is not available.

# HYET3 (Two-section, Three-section) Series Dual-power Automatic Transfer Switch

Functions and Characteristics

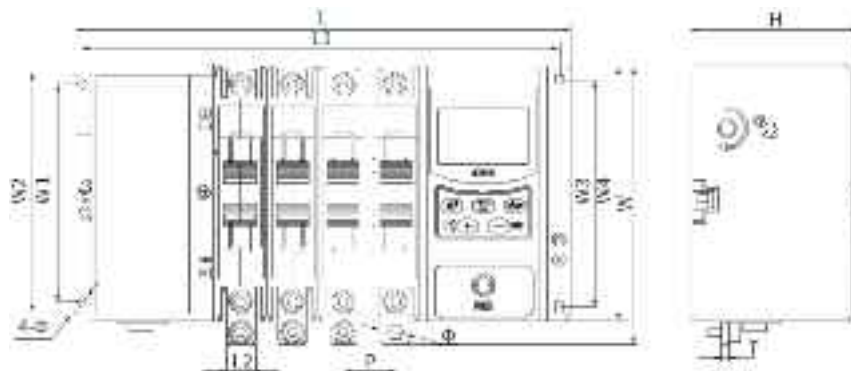
**Outline and Installation Dimensions**

① Two-section type outline and installation dimensions



Type A and B outline and installation dimensions

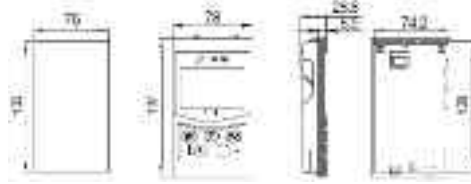
Product model	Outline dimension						Installation dimension					Copper bar dimension			
	L			W	W2	H	L1			W1	4-Φ	L2	T	P	Φ
	2P	3P	4P				2P	3P	4P						
HYET3-63 II A/B	170	194	218	195	168	112	156	180	204	152	7	12	2	24	6.5
HYET3-125 II A/B	180	210	240	195	168	112	166	196	226	152	7	15	2.5	30	8.5
HYET3-250 II A/B	196	232	268	195	168	112	182	218	254	152	7	20	4	36	8.5
HYET3-630 II A/B	297	357	417	284	226	138	276	336	396	206	9	40	5	60	13



Type C outline and installation dimensions

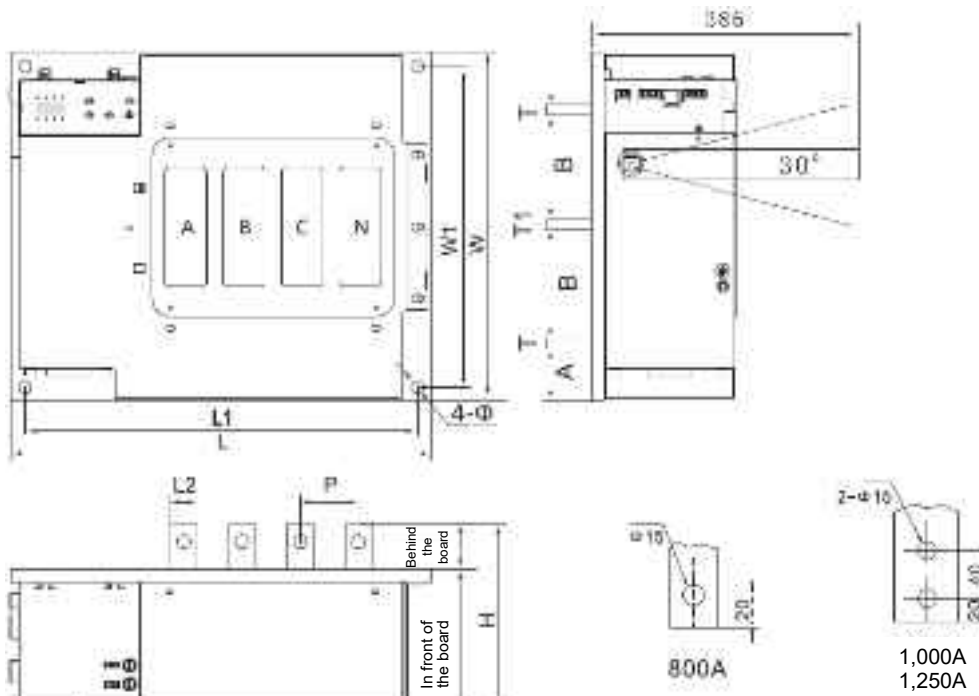
# HYET3 (Two-section, Three-section) Series Dual-power Automatic Transfer Switch

Functions and Characteristics



Type C split controller outline and installation dimensions: Mounting hole: 75×130

Product model	Outline dimension							Installation dimension					Copper bar dimension				
	L			W	W2	W4	H	L1			W1	W3	4-Φ	L2	T	P	Φ
	2P	3P	4P					2P	3P	4P							
HYET3-63 II C	256	280	304	195	168	170	112	242	266	290	152	160	7	12	2	24	6.5
HYET3-125 II C	266	296	326	195	168	170	112	252	282	312	152	160	7	15	2.5	30	8.5
HYET3-250 II C	282	318	354	195	168	170	112	268	304	340	152	160	7	20	4	36	8.5
HYET3-630 II C	388	449	510	284	226	226	143	368	429	490	206	206	9	40	5	60	13



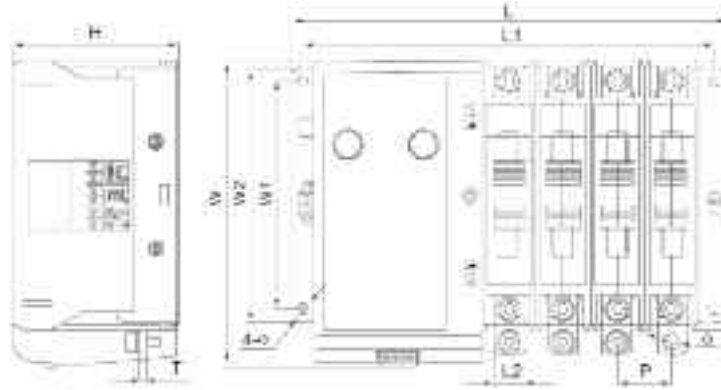
Copper bar connection hole dimensions

Product model	Outline dimension				Installation dimension						Copper bar dimension						
	L		W	H	L1		W1	4-Φ	In front of the board	Behind the board	A	B	L2	T	T1	P	
	3P	4P			3P	4P										A-B phase C-N phase	B-C phase
HYET3-800	405	470	390	210	373	438	358	Φ14	160	50	60	117	30	12	15	65	65
HYET3-1250	450	530	390	250	418	498	358	Φ14	160	90	58	117	50	12	15	80	80

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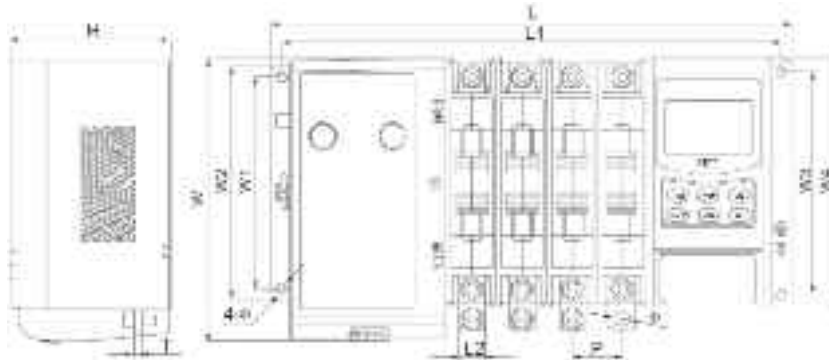
Functions and Characteristics

## ② Three-section type outline and installation dimensions

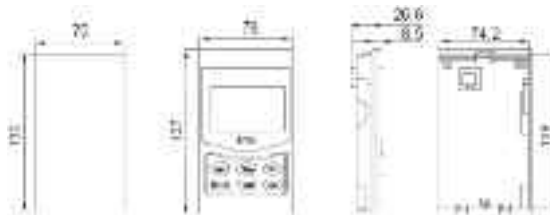


Type A and B outline and installation dimensions

Product model	Outline dimension						Installation dimension					Copper bar dimension			
	L			W	W2	H	L1			W1	4-Φ	L2	T	P	Φ
	2P	3P	4P				2P	3P	4P						
HYET3- 63 III A/B	196	220	244	203	168	112	182	206	230	152	7	12	2	24	6.5
HYET3- 125 III A/B	206	236	266	203	168	112	192	222	252	152	7	15	2.5	30	8.5
HYET3- 250 III A/B	222	268	294	203	168	112	208	244	280	152	7	20	4	36	8.5
HYET3- 630 III A/B	297	357	417	284	226	138	276	396	396	206	9	40	5	60	13



Type C outline and installation dimensions



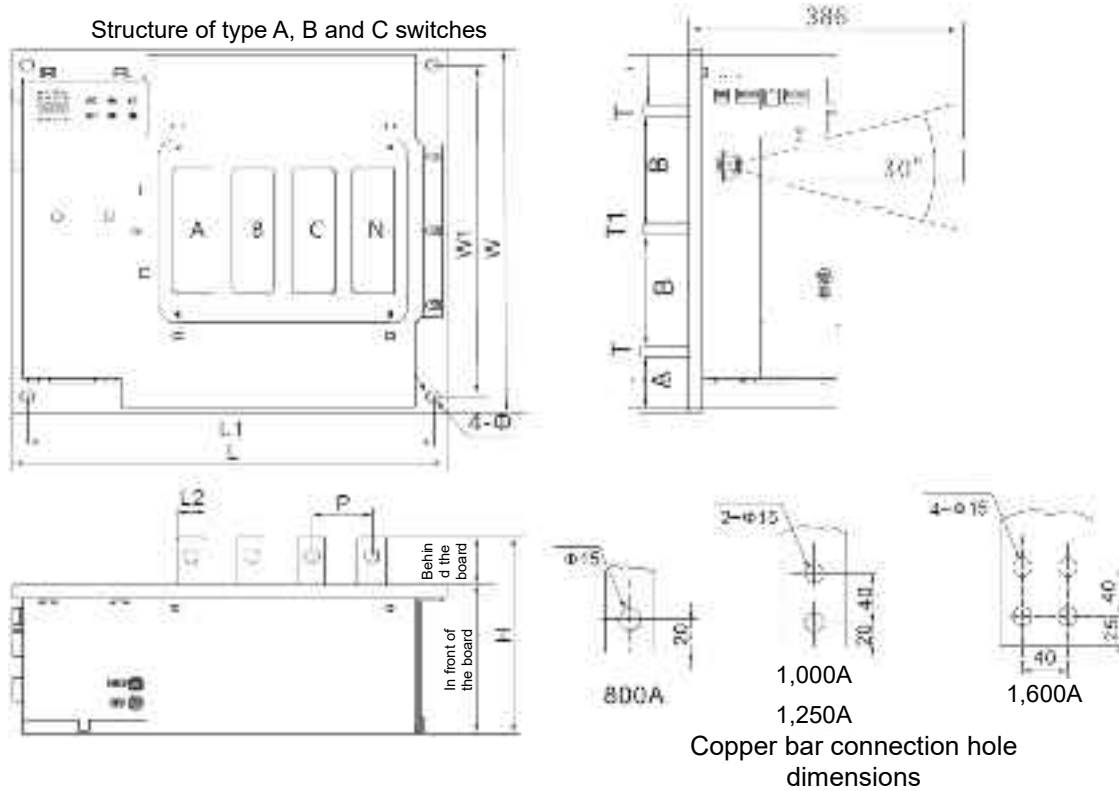
Type C split controller outline and installation dimensions: Mounting hole: 75×130

Product model	Outline dimension							Installation dimension					Copper bar dimension				
	L			W	W2	W4	H	L1			W1	W3	4-Φ	L2	T	P	Φ
	2P	3P	4P					2P	3P	4P							
HYET3-63 III C	282	306	330	203	168	178	118	268	292	316	152	160	7	12	2	24	6.5
HYET3-125 III C	292	322	352	203	168	178	118	278	308	338	152	160	7	15	2.5	30	8.5
HYET3-250 III C	308	344	380	203	168	178	118	294	330	366	152	160	7	20	4	36	8.5
HYET3-630 III C	388	449	510	284	226	226	143	368	429	490	206	206	9	40	5	60	13

# HYET3 (Two-section, Three-section) Series Dual-power Automatic Transfer Switch

Functions and Characteristics

## 8.2 HYET3-800–1,250 A, (installed behind the board, with the same installation dimensions for Type A, B and C)



Copper bar connection hole dimensions

Product model	Outline dimension				Installation dimension						Copper bar dimension						
	L		W	H	L1		W1	4-Φ	In front of the board	Behind the board	A	B	L2	T	T1	P	
	3P	4P			3P	4P										A-B phase C-N phase	B-C phase
HYET3-800	405	470	390	210	373	438	358	Φ14	160	50	60	117	30	12	15	65	65
HYET3-1250	450	530	390	250	418	498	358	Φ14	160	90	58	117	50	12	15	80	80
HYET3-1600	509	610	390	255	477	578	358	Φ14	160	95	55	117	75	15	15	101	101