



HAVELLS

Instaprime Automatic Transfer Switch

Range :
Current Rating from
40 A to 125 A
Four Pole Execution



About **HAVELLS**



Havells India Limited is a \$1.3 Billion leading Fast Moving Electrical Goods (FMEG) Company and a major power distribution equipment manufacturer with a strong global footprint. Havells enjoys enviable market dominance across a wide spectrum of products, including Industrial & Domestic Circuit Protection Devices, Cables & Wires, Motors, Fans, Modular Switches, Home Appliances, Electric Water Heaters, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial and industrial Applications.

Today, Havells owns some of the most prestigious global brands like Havells, Crabtree, Lloyd, Prompetc and Standard. Its network constitutes of 4000 professionals, over 7575 dealers and 40 branches in the country. Our products are available in 40 countries. Its twelve state-of-the-art manufacturing plants in India located at Haridwar, Baddi, Noida, Sahibabad, Faridabad, Alwar, Neemrana, are manufacturing globally acclaimed products, synonymous with excellence and precision in the electrical industry.

A 20000 strong global distribution network continuously strives to set new benchmarks in prompt delivery and service to customers – powering their smiles like none other electrical brand in the country. Further to this the company pioneered the concept of exclusive brand showroom in the electrical industry with ‘Havells Galaxy’. Today Havells Galaxies across the country are helping customers, both domestic and commercial, to choose from a wide variety of products for different applications. Havells became the first FMEG Company to offer door step service via its initiative ‘Havells Connect’. Thanks to the quality of products and prompt service, it has minimum customer complaints and highest customer satisfaction.

Havells modern, fully integrated L.V. Switchgear & Motor Controlgear manufacturing plant is located at Sahibabad & Faridabad, spread over 42491.99 m² and 24281.1 m² respectively.

The plants manufacture high end products namely ACBs, MCCBs, Contactors, Thermal Relays, Motor



Sahibabad



Baddi



Alwar



Faridabad



Haridwar



Neemrana

Starters, Changeover Switches, Automatic Transfer Switch, Switch Disconnecter Fuse, HRC Fuses, SFUs, Panels & Switch Boards.

Social and environmental responsibility has been at the forefront of Havells operating philosophy and as a result the company consistently contributes to socially responsible activities. For instance, the company is providing mid-day meal in government schools in Alwar district, covering 30000 students per day. Besides this company has acquired land for constructing a larger kitchen with all the modern facilities to serve freshly cooked food to 50000 students in the area. In the past, the company has generously contributed to the society during various national calamities like the Bihar Flood, Tsunami and Kargil National Relief Fund etc.

The essence of Havells' success lies in the expertise of its fine team of professionals, strong relationships with associates and the ability to adapt quickly and efficiently, coupled with the vision to always think ahead.

Index

Introduction	3
Automatic Transfer Switch Unit	4
Features, Range & Specifications	4
Technical Specifications	5
Controller Features	5
Performance & Characteristic	6
Basic Type Switch Control Characteristic	6
ATS Working Flow	7
Product Installation	8
Dimensions (in mm)	9
Wiring Instructions	10
Automatic Transfer Switch Control & Operation	10
Ordering Codes	11

Introduction

The need for continuous power supply and its reliability has increased rapidly over the years, especially in all those areas where uninterrupted power supply is a must. Modern systems are power dependent. Their complexity has increased as continuous information and communications are needed to control automated process, be in industries, commercial complexes, hospitals, hotels or even modern residences.

In the event of power failure, the stand by power is usually expected to take over automatically. Electrical starting equipment, battery bank and diesel generator are required for the automatic operation.

The automatic transfer is achieved mostly by automatic mains failure systems. The process of onload transfer has to be monitored & controlled for a smooth Changeover and within safety limits of all elements of the system. This is achieved by Automatic Transfer Switch (ATS).

Havells Introduces Instaprime Automatic Transfer Switch. Instaprime Series Automatic Transfer Switch is mainly used for electric distribution network or motor network with rated voltage 415 V, 50 Hz, DC rated voltage of 220 V, rated current of 40 A to 125 A, change over between main power and backup power system, power grid and genset. Meanwhile, it can be used as isolation of in-frequency making and breaking circuit.

It is widely used in the transmission and distribution system and automation system of the important place which not allow power cut-off such as firefighting, hospital, bank, high building, etc.

Instaprime Automatic Transfer Switch

Features:

- High speed transfer
- Superior making & breaking capacity
- Compact & light weight design
- Liberal terminals



Range :

Current Rating : 40 A to 125 A
Execution : Open & Closed
Poles : 4



Specification :

Conforms to IS / IEC:60947-1 & 60947-6-1



Technical Specifications

Rated Current In (A)	40 A	63 A	80 A	100 A	125 A
Rated Thermal Current I _{th}	40 A	63 A	80 A	100 A	125 A
No. of Poles	4				
Rated Insulation Voltage U _i (V)	690 V				
Rated Operational Voltage U _e (V)	415 V				
Dielectric Strength (kV)	5 kV				
Rated Impulse Withstand Voltage U _{imp} (kV)	8 kV				
Rated Short-time Withstand Current I _{cw} (kA rms) 0.1s / 1s	9/5 kA				
Rated Conditional short-circuit current I _q (kA), protected by Fuse	120 kA				
Rated Short Circuit Making Capacity (kA)	8 kA				
Rated Control Power Voltage (V)	AC 230 V, 50 Hz				
Transfer Time	I-O-II	1 s			
Weight (kg)	4 pole	4.2 kg	4.2 kg	4.2 kg	4.2 kg
Utilization Category	AC- 32 B				
Standard Conformity	IEC 60947-1, IEC 60947-6-1				
Ambient Temperature	-20 °C to + 50 °C				
Atmospheric Conditions	RH% at 50 °C < 50% RH% at 25 °C ≤ 90 %				
Altitude	Up to 2000 m				
Pollution Class	Class 3				

Controller Features:

Function Instruction
1. Suitable for two way Main and Backup power system
2. Works in both auto and manual modes
3. Auto transfer with auto recovery
4. Passive fire-linkage feature
5. Generator start function
6. Multiple LED annunciations
7. Suitable for Three Phase Monitoring On Mains Source & Single Phase Monitoring on Backup Source

LED Annunciations Description



Source I	AC	Source I Available
	ON	Source I Active
Source II	AC	Source II Available
	ON	Source II Active

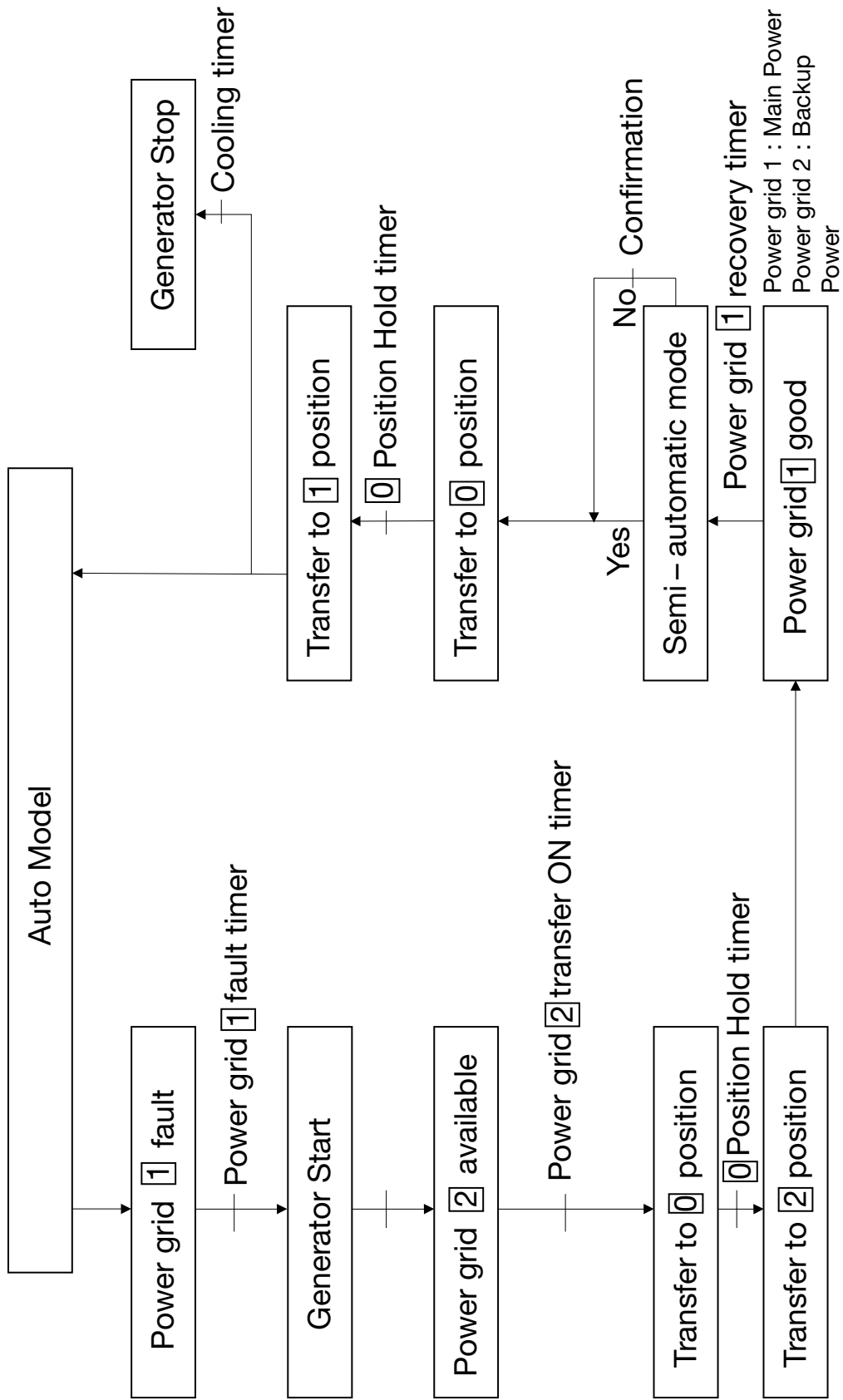
Performance And Characteristic

- Three working mode (I-o-II)
 - ❑ main power ON, backup power OFF
 - ❑ main power OFF, backup power ON
 - ❑ main and backup power OFF
- Fire Linkage or Zero Position technology, it forces the switch to Zero Position under emergency situation i.e cut off with two way power supply
- Executive load disconnect switch have mechanical interlock for non-interference and reliable working of Main power and Backup Power
- Distinct ON and OFF position indicator, padlock function , etc for reliable and safe isolation between power supply and loading
- Automatic Transfer Switch has single motor drive for smooth and reliable transfer of sources with zero noise
- Plug Type Terminal Connection for easy installation of control circuit
- Electromechanical integration design, high accuracy changeover, flexible, smooth, advanced logical control technology, high anti-interference ability and no interference outward
- It has double complex contact horizontal pulling mechanism , motor for pre storage of energy pre and computer control technology, basically no arcing chamber
- High security, high automatization, high reliability with working life more than 5000 operations

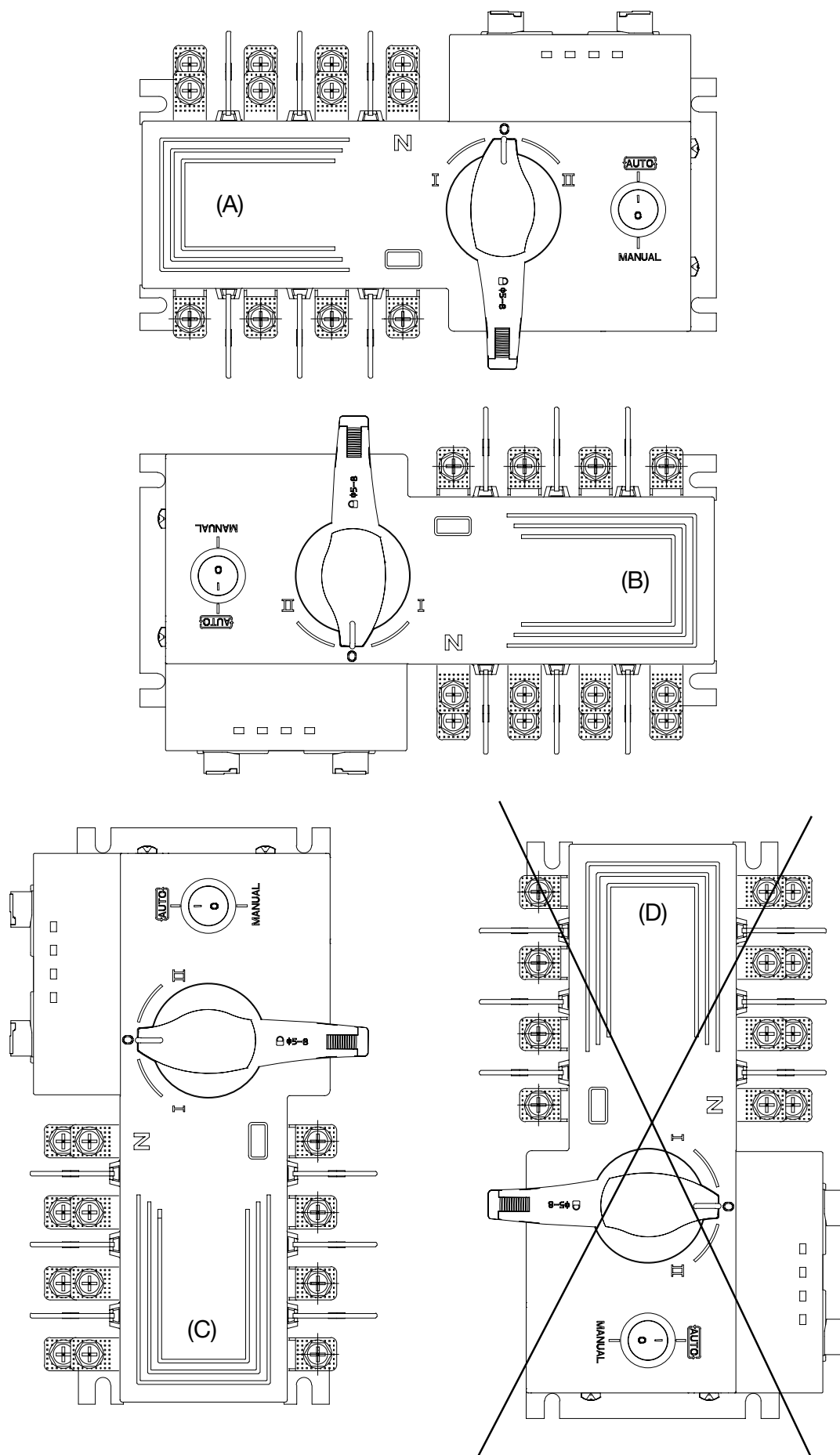
Basic Type Switch Control Characteristic

- Suitable for two way main and backup power system, auto change and auto recovery
- Can expand functions by outer connection
- Auto, remote, and manual control functions
- Delay of 0.5 s signal detect
- Avoid miss actuation
- Under auto control status have "O" position remote control
- Key switch select the operating mode

ATS Work Flow



Product Installation

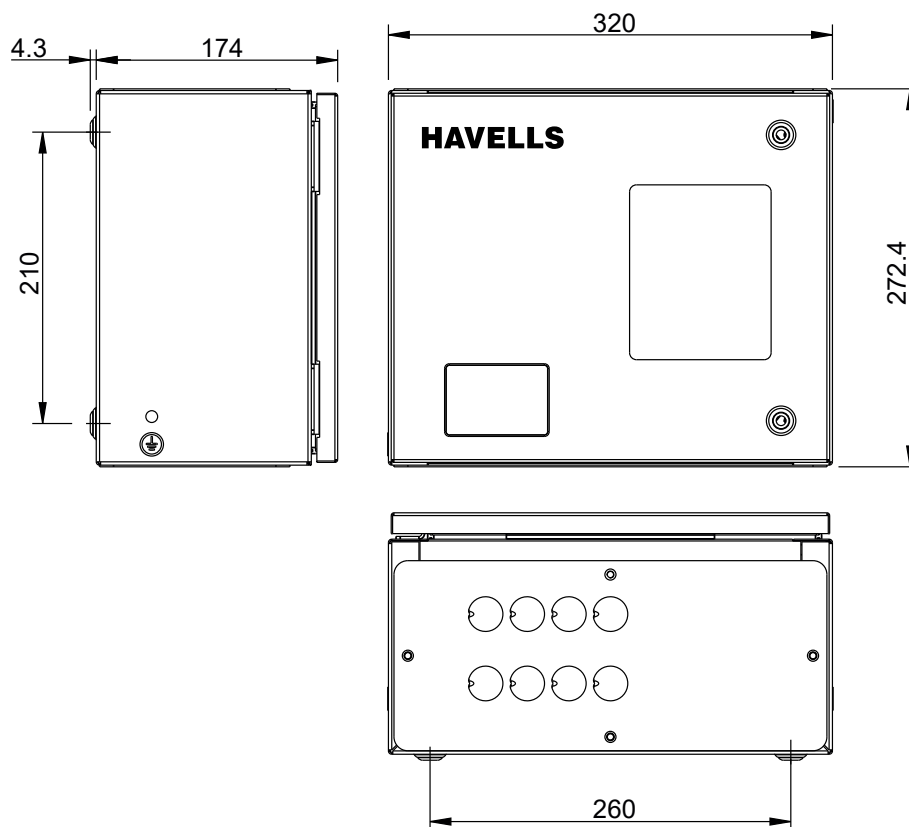


A, B, C: Correct installation

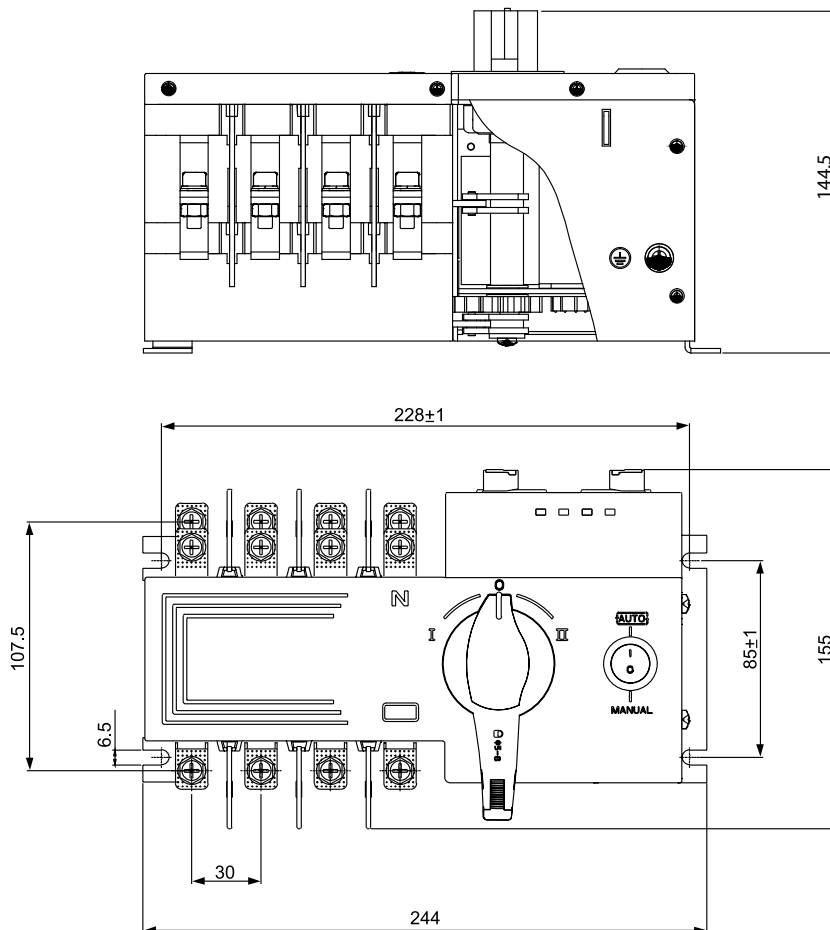
D: Wrong Installation

Dimensions (in mm)

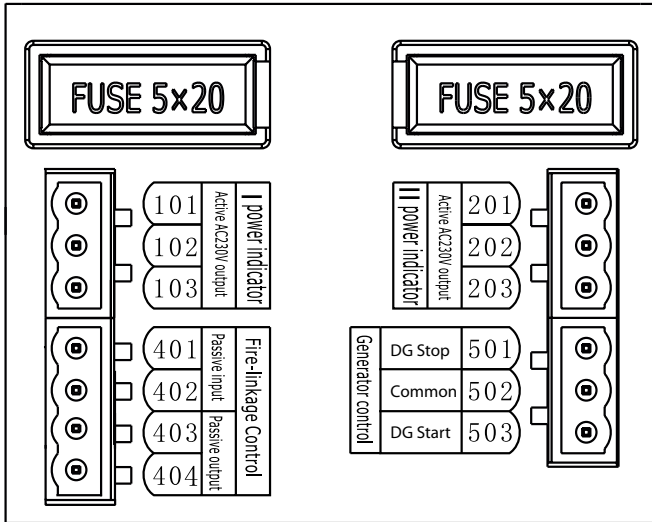
Closed Execution (With Enclosure)



Open Execution



All dimensions are in mm. refer mechanical figures above



Terminal Number	Description
101 – 103 : Main Power External Indicator Signal	
101	Indicator Common Null Line and TP Null line input
102	Main power indicator signal output
103	Main Power ON signal output
201 – 203 : Backup Power External Indicator Signal	
201	Indicator Common Null line and TP Null line input
202	Backup power indicator signal output
203	Backup power ON signal Output
401 – 404 : Fire Linkage Control Signal Input & Feedback Signal Output (Extra function for B type controller)	
401	Fire Linkage Control Signal Passive input, if the signal from fire-fighting equipment is an active signal, must first connect to a small relay NO point to 401,402, after NO contact closed ATS transfer to OFF position.
402	
403	Feedback signal for ATS transfer to OFF position cutoff the load power frequency. *
404	
501 – 503 : Generator Start Control Signal Output (Set of Passive Relay Contact Point) ** (Extra function for B type controller)	
501	Relay / Contgrol signal NO Point
502	Relay / Contgrol signal Common Terminal
503	Relay / Contgrol signal NC Point

*When the fire-linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then switching the Auto/ Manual control switch one time, the ATS will recovery normal working.

**When the backup power is Auto start generator, users can connecting the 501 – 503 terminals to the generator controller to achieve the generator auto start function. When main power is normal then 501 & 502 are closed, 503 & 501 are open. If main power failure occurs then 501 & 502 are open, meanwhile 503 & 502 are closed, to send generator start signal.

Ordering Codes

Current Rating (A)	Cat. no. 4 pole (Open Execution)
40 A	IHRFBAO040
63 A	IHRFBAO063
80 A	IHRFBAO080
100 A	IHRFBAO100
125 A	IHRFBAO125

Current Rating (A)	Cat. no. 4 pole (Close Execution)
40 A	IHRFBAE040
63 A	IHRFBAE063
80 A	IHRFBAE080
100 A	IHRFBAE100
125 A	IHRFBAE125

Other Products

ACB



MCCBs



HIM MCCB Series



ATS



APFC Panel



Power Capacitor



Submersible & Motor Starter



Switch Disconnecter Fuse



HGS Controlgear



Load Bank



Euroload Changeover Switch



Load Changeover Switch



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