



ISO 9001:2015 Certified

SAHYADRI ELECTRO CONTROLS (I) PVT. LTD.


SECO



ACCL- 3 PHASE

10, VINAY COMPLEX, 1ST CROSS, RAJGOPAL NAGAR MAIN ROAD, GANAPATHI NAGAR,
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SAHYADRI (SECO) make **Automatic Source Changeover with current Limiter – ACCL – 3 Phase** is an indispensable tool for automatic power distribution to protect expensive Generators. The power instability in developing countries along with insufficient rationalised power distribution creates the need for alternate source of power to back up the utility supply. Hence, most of the commercial and residential complexes set up alternate power sources such as Gen sets to provide efficient back up for the power needs.

FEATURES:-

- Microcontroller based design
- Suitable for three Phase operation
- Suitable for 8KW
- With Over Load Trip facility
- Load with EB or DG indication by LED
- Wall mounting – Fabricated Box

WORKING PRINCIPLE:-

Automatic Source Change over with current limiter unit is more useful in domestic sector where this unit will allow maximum load of 8K Watts in EB supply & with Generator supply also it allows 8k Watts load. If load is more than specified, then the load will be trip to safeguard the generator. This unit will have 3 measuring CT's - RYB load current and 3 Voltage measuring circuit RYB-to measure the 3 Phase input voltage. These current & voltage signal are fed to the internal IC chip to calculate the total power by considering the power factor as 0.9(standard). This measurement is fed to the microcontroller for the further process. When the load is more than 8K watts, the unit will Trip and ON/OFF cycle starts. With this unit 8K watts load may be taken in 1 phase full load or combined 2 phase or combined 3 phase.



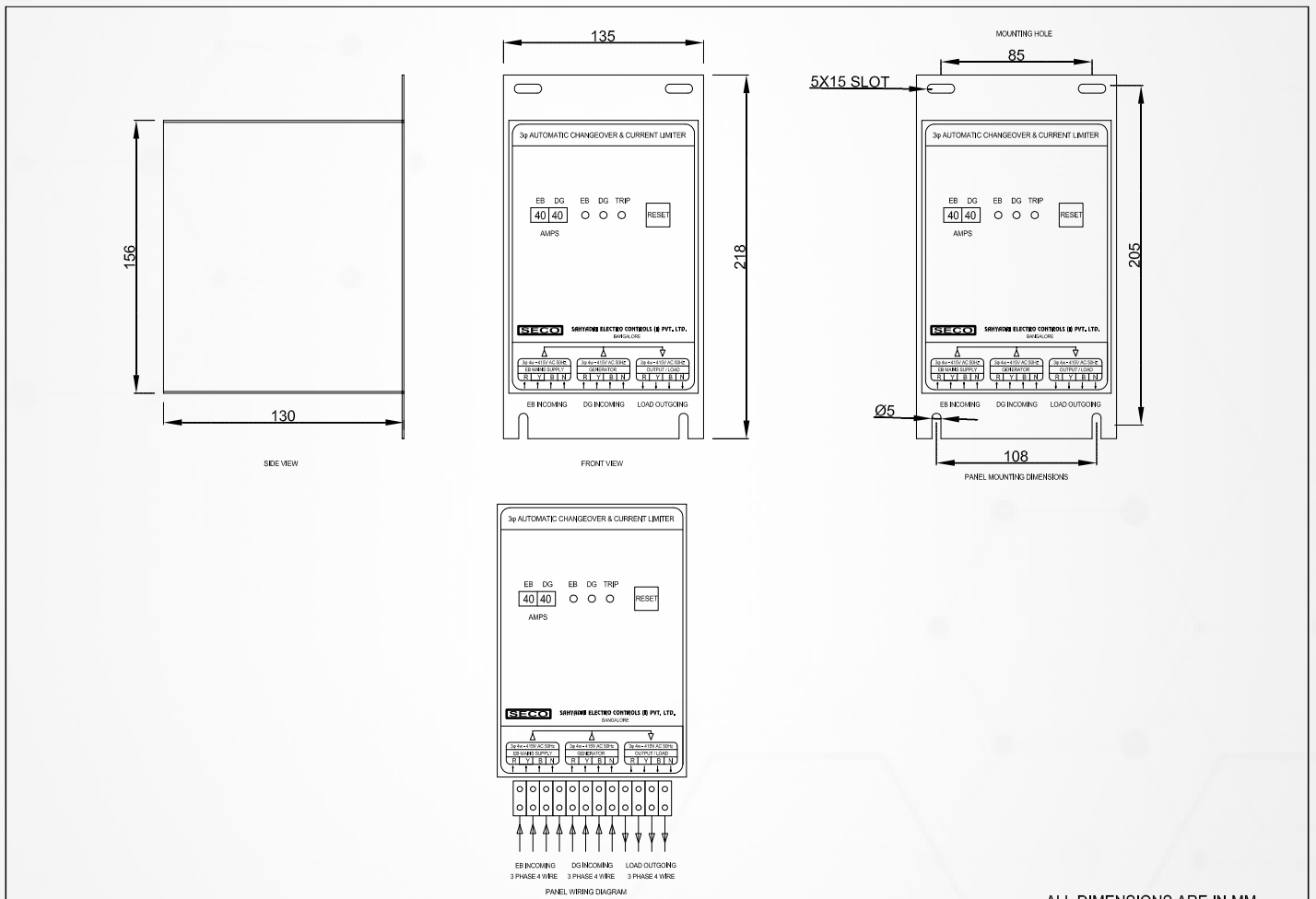
OPERATION IN EB MODE: - The unit will allow the power to the load (maximum of 8K watts) (Both Resistive & Inductive). If the load is more than that, then the unit will switch OFF the load after 5 Seconds or will wait for load to be stable in case of motors- for 5 seconds. If the over load is more than 5 sec, output load again turns ON after 6 seconds. It will Check whether the load current is within the specified limit or not. If not, the unit will Trip the load and once again the load will switch ON after 3 seconds. This cyclic operation continues for maximum of 5 cycles. If the Over load persist even after 5 cycles, then the load is permanently switched OFF (output lock out mode) & gives the 'EB over load trip' indication. For further operation, it is required to reset the unit by pressing the Reset button.

OPERATION IN DG MODE:- The unit will allow the power to the load (maximum of 8K watts) (Both Resistive & Inductive). If the load is more than that, then the unit will switch OFF the Load after 5 Sec or unit will wait for load to be stable in case of Motors. If the over load is more than 5 seconds, output load again turns ON after 6 seconds. It will Check whether the load current is within the specified limit or not. If not, the unit will trip the load and once again the load will switch ON after 3 seconds. This cyclic operation continues for maximum of 5 cycles. If the over load persist even after 5 cycles, then the load is permanently switched off (output lock out mode) & gives the 'DG over load trip' indication. For further operation, it is required to reset the unit by pressing the Reset button.

TECHNICAL SPECIFICATION: -

- **Suitable for:** Three phase with neutral system
- **Surge protection:** for both EB & DG
- **Rated Load:** 8K Watts – Total load with sum of all three phases
- **Time interval between EB to DG:** input stable in DG -3 Sec
- **Time interval between DG to EB:** Load will be - 3 Seconds ON
- **Trip Time:** First trip after 5 seconds (over load), subsequent 3 Seconds On & 6 Seconds OFF
- **Total trip cycles:** 5
- **Protection to Change over:** Contactor with 40A rating
- **Enclosure:** Fabricate box
- **Mounting:** surface

TYPICAL WIRING DIAGRAM FOR 3 PHASE ACCL



ALL DIMENSIONS ARE IN MM.

DRAWN BY	HSV	REV. NO.	0	ISSUED ON	02.07.20		DRAWING TITLE:	MOUNTING DETAILS AND WIRING DIAGRAM OF 3 PHASE UP TO 40 Amps.	DRG NO.	SECO/MD/ACCL-40	SH.NO	01	SECO
APPD. BY	BSM			DRAWN ON	02.07.20		CONTD.	-					

3-PHASE ACCL

R	Y	B	N
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EB INPUT

R	Y	B	N
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DG INPUT

R	Y	B	N
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TO LOAD

SAHYADRI®

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