



**Autometers Alliance Ltd**



Autometers Alliance Ltd offers an IGBT based front end 30kW Pre-cooling unit cum charger. The DSP based system works in four different modes to meet the requirement of SGAC coaches for Indian Railways. This is developed according to IEC 60571, IEC 61000, IEC 61373.

#### **Complete Protection for:**

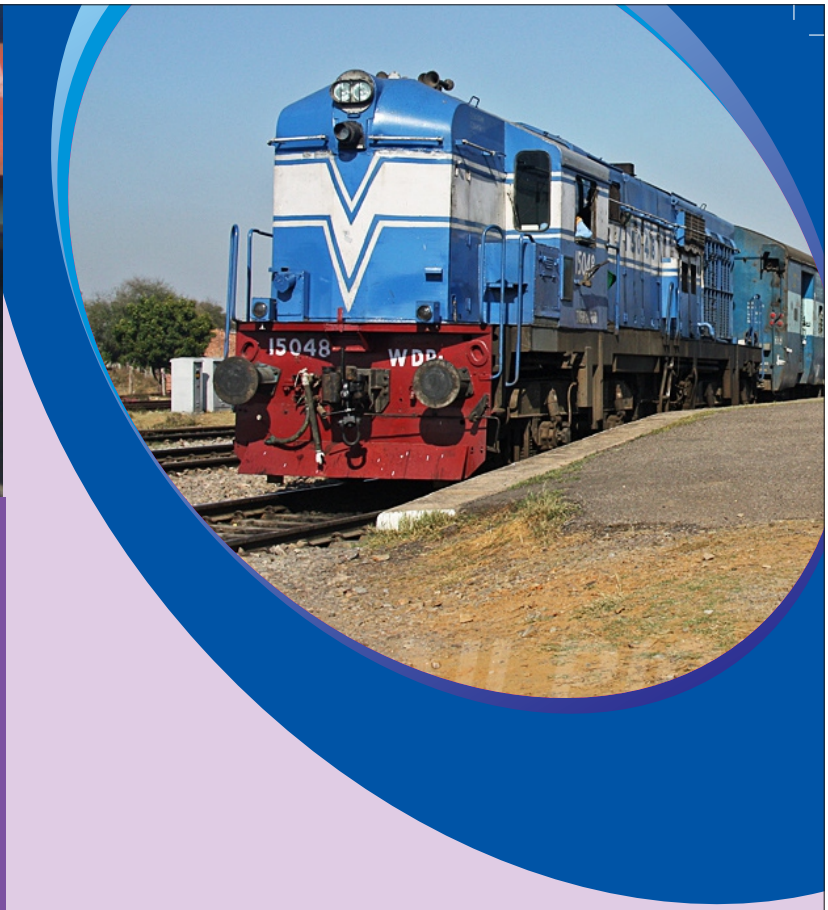
- Output over voltage and under voltage
- Output short circuit
- Heat sink over temperature
- Input under voltage and over voltage
- Single phase protection
- Protection against ingress of dust and water as per IP-65
- Input MCCB for over current protection.
- Earth Leakage Protection

## **30KW PRE-COOLING UNIT & CV CC BATTERY CHARGER**

### FOR SGAC COACHES

#### **Salient Features**

- State of the art DSP based system.
- IGBT based rectifier to obtain input power factor close to Unity (0.99).
- Low noise level smaller than 65 dB.
- Very low voltage and current ripples smaller than 2%.
- Facility to receive data via RS 232 communication on laptops for on-line data monitoring
- With on-board display unit to change the working mode and check the status of unit.
- Capability to charge battery in constant voltage as well as constant current mode for different type of batteries (VRLA and LMLA with different current hour ratings).



## Technical Specifications

### A. Input

Factors	Values
Nominal Voltage	415V $\pm$ 15%, 3-Phase AC
Frequency	50Hz $\pm$ 4%
Power Factor	0.99 (At Rated Current)

### B. Output

Factors	Values
Output Power	30kW maximum
DC Output Voltage	100 - 155 VDC
DC Output Current	220A
Operating Modes	System works either in constant voltage or constant current mode while charging the Battery exclusively. In pre-cooling mode unit works as constant voltage. Modes selections are with external keyboard.

## Applications

The product is for under-slung fitment in self generating air conditioned coaches primarily for pre-cooling the air conditioned coaches at the yard / station and charging the batteries (VRLA or LMLA fitted in Coaches).

### C. General

Factors	Values
Operating ambient temperature	0 to +70°C
Cooling	Natural Cooled
Control Voltage	Self Generated from input Power
Mounting: Cubicle – 1	Under slung
Cubicle – 2	On-board Mounting in Coaches
Weight	$\approx$ 350kg



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