



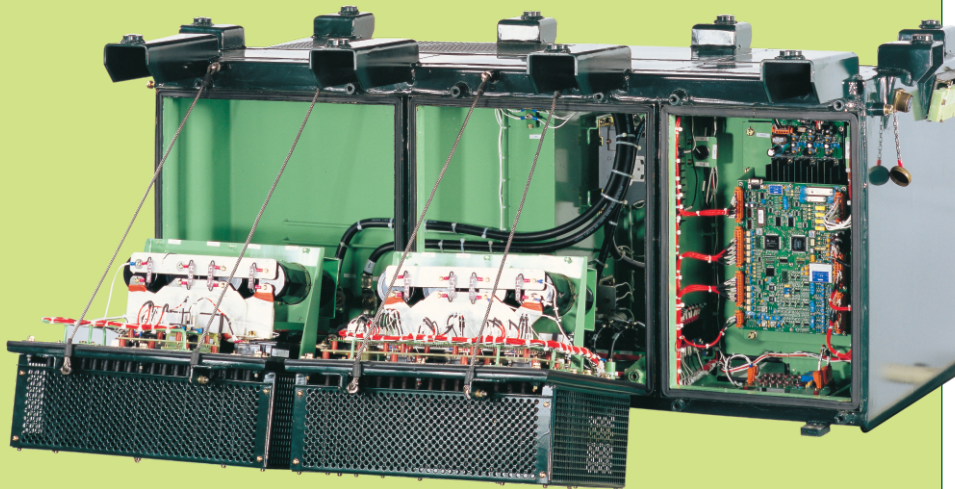
Autometers Alliance Ltd



25 kVA UNDERSLUNG CONVERTER FOR SELF GENERATING COACHES

Salient Features

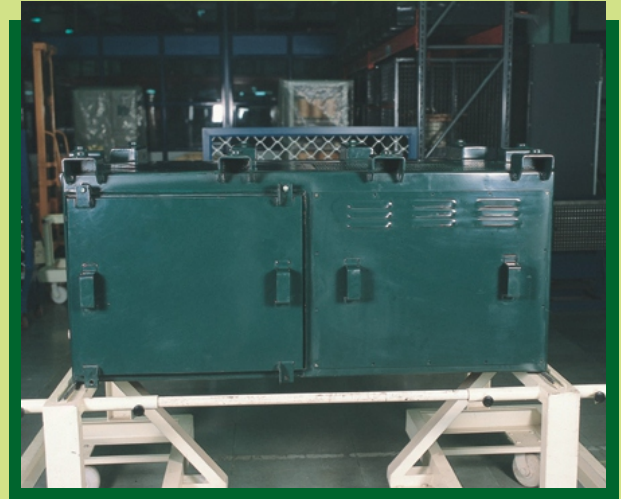
- Under carriage mounting of converter saves space for 2 extra berths inside the coach, enhancing revenue earnings.
- Under carriage mounting also prevents noise pollution, adding to passenger comfort.
- Sturdy MS sheet fabricated enclosure, with special protective surface treatment, makes it ideal for under carriage mounting.
- IP 65 protection makes the enclosure impervious to water, even in flood situations.
- High efficiency leads to low power consumption.
- Being naturally cooled the converter does not require any moving parts for cooling. This enhances life and reliability.
- Vacuum pressure impregnation using 'H-class' resins for filter inductors makes it ideal for traction duty.
- Maintenance free, being fully static.
- Converter's modular design makes it easily accessible through side panels and affords easy maintenance.
- State of the art DSP based system.
- Fault logging facility for ease of maintenance.
- Data transfer through serial communication between onboard display and underslung converter.
- Control and monitoring through interactive VFD panel.
- PC interface facility for downloading of logged data and online monitoring.



Autometers Alliance Ltd has indigenously developed 25 KVA Underslung IGBT-based Static Converter in technical collaboration with Hyundai Heavy Industries Co. Ltd., South Korea. The product, exclusively developed for railway passenger coaches, has been complying IEC 60571, IEC 61287-1 and IEC 60310 standards.

Salient Features

- Converts 110V DC supply of the coach batteries into 3-phase 415V, 50 Hz AC.
- Feeds 3-phase stabilised power to the loads of the passenger coaches, viz., air conditioning, lights, ventilation, pantry, and the like.
- Coach wheel/axle driven alternator rectifier system charges the batteries.



Technical Specifications

A. Input

Features	Values
Minimum voltage	90 V DC
Nominal voltage	110 V DC
Maximum voltage	140 V DC

B. Output

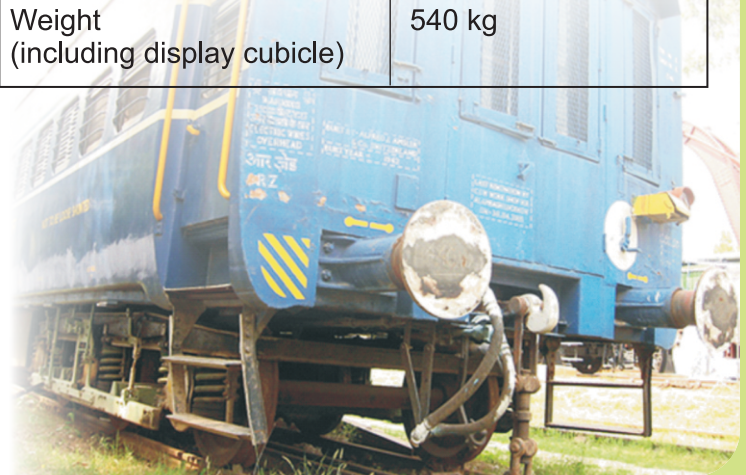
Features	Values
Output capacity	25 kVA
Output voltage	415V \pm 5%, 50Hz \pm 3%, 3-phase PWM sine wave
Current harmonics at full load	Less than 5% up to 20th harmonic
Efficiency at full load	\geq 92%

C. Control function

Feature	Value
Supply voltage	77-140 V DC

D. General

Features		Values
Operating ambient temperature		-5° to 55°C
Cooling		Natural cooled
Mounting	Main cubicle	Under carriage
	Display panel	Onboard at the entrance of the coach
Size: main cubicle		1630x1040x724 mm
Weight (including display cubicle)		540 kg



Option

Onboard 25kVA IGBT based static converter is also readily available.



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