



750W ACR SERIES

DC/AC INVERTER



Description

The ACR series is a range of medium power inverters that provide a 230Vac true sinewave output with very low distortion. Designed for connection directly to the train auxiliary supply, the inverters incorporate surge and transient filtering ensuring compliance with both the traditional and latest rail specifications and norms for protection and EMC. The rugged construction and various mounting options ensure compliance with vibration and shock requirements.

Special features include:

- True sinewave output
- 750W continuous output power (800W peak)
- Very low distortion
- IP65 rated

Input Specifications

The following input voltage versions are available as standard:

110V (66.0 - 137.5V) dc (suffix A)	24V (16.8 - 33.6V) dc (suffix B)
72V (43.2 - 90.0V) dc (suffix D)	(24V version de-rated to 600W output power)
52V (31.2 - 65.0V) dc (suffix C)	Other ranges are available to order

Product reference	All references
Input Range	60% - 125% of nominal
Input Ripple	To BRB/RIA 13 and EN50155
Input Protection	Reverse polarity protection via a shunt diode that will trip an external circuit breaker Surges and transients to BRB/RIA 12, EN50155 (Direct and Indirect)
Inrush Current	5 x nominal current (after 0.1ms)
Efficiency	85% typical

Output Specifications

Product reference	All references
Maximum Output Power	750W continuous 800W peak (for 15 seconds.)
Output Voltage	230V
Setting Tolerance	± 1% at 50% load, 15°C to 25°C
Output Frequency	50Hz
Frequency Tolerance	±2%
Waveform	True Sinewave
Harmonic Distortion	<6%
Output Current	Nominal 3.3Arms
Line & Load Regulation	± 4%
Temperature Coefficient	<0.02% / °C
Output Ripple	typically 5% Pk-Pk of output voltage
Holdup Time	10ms at nominal input and maximum load
Short Circuit Protection	Operates instantaneously if output current exceeds 10A (typically). Auto recovery.
Overload Protection	Inverter shuts down if output power exceeds approximately 800W for longer than 16 to 20 seconds. LED indication provided. Resets automatically after approximately 10 seconds
Thermal Protection	Output shuts off when safe operating temperature is exceeded. Automatic reset.
Isolation	Input to Output 1.5kV ac (Tested at 2.2kV dc) Input to Case 1.5kV ac (Tested at 2.2kV dc) Output to Case 1.5kV ac (Tested at 2.2kV dc) Relay contacts 1.5kV ac
Indicators & signaling	Input present Green LED Output present Green LED Overload trip Red LED Relay contacts NO / NC volt-free contacts changeover to indicate output is present. Contact rating – 1A.



Environmental Details

Product reference	All references
Operating Temperature	-25°C to +55°C
Storage Temperature	-40°C to +80°C
Environmental protection	IP65
Relative Humidity	99% maximum
Vibration	BRB/RIA 13 – Para 10.5.11, BRB/RIA 20

Applicable Norms

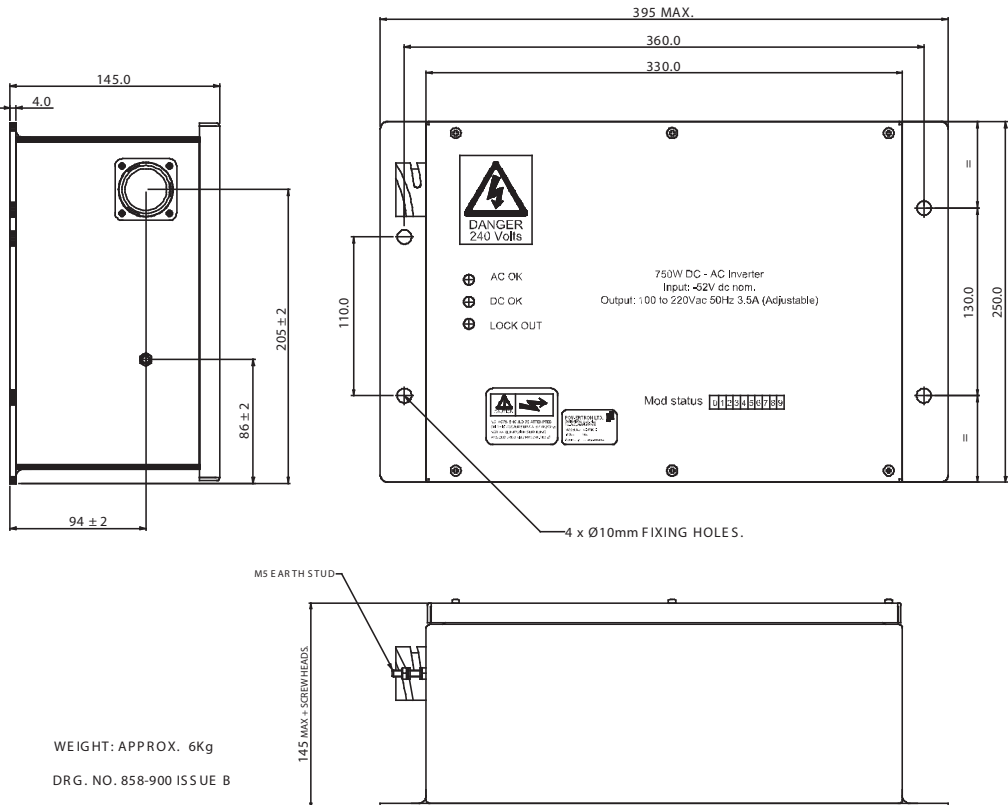
Item	Reference
EMC	BRB/RIA 12, 18; EN50155, EN50121-3-2
Other	BRB/RIA 13, 18, 20; EN50155

Mechanical Characteristics

Product reference	All references
Construction	Fully enclosed in sealed aluminium case
Mounting	Base plate allows surface mounting via four Ø10.0mm fixing holes, other base plates available upon request.
Dimensions (excluding base plate and connector)	Length = 330 mm Width = 250 mm Height = 145 mm
Weight	<6kg
Connections	19 way circular connector (22-14 shell size)
Cooling	By convection
Outline drawing	Please refer to document 858-900

Technical Drawing

- NOTES**
- All dimensions in mm
 - Specifications subject to change without notification
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WEIGHT: APPROX. 6Kg
DRG. NO. 858-900 ISSUE B