



400W DC/DC Rail Power Supply

Input 48V Nominal (34-60Vdc) Isolated Output 27Vdc at 15A

APPLICATION

DC/DC Power Supply/Battery Charger for Steam Locomotive applications. This MR series DC/DC converter typically operates above 93% efficiency at full load over the specified input range. This 48MR converter has been specially designed to operate with the rectified and filtered 32Vac alternator, driven from a steam turbine, to charge 2 x 12V cells for communications. The Charge current is 15A but as the alternator output falls the charge current is also reduced which is ideal as it does not unduly load the turbine further. Input can withstand runaway turbine – up to 90Vdc.



48MR400EB-27V-15A

Part No. 48MR400EB-27V-15A

Features	Benefits	Advantage
No External Fins	Operates in position with restricted airflows	No special ventilation required, install it anywhere
Fan-less & Fuse-less Design	High Reliability	Fans & Fuses are susceptible to failure – eliminating them increases reliability
90+% Efficiency	No Ventilation Ports Required	Reduces dust ingress which increases reliability
Compact Size for rated power	Ease of mounting position	Small size allows for mounting unit right where you need it

Specifications	48MR400EB-27V-15A
Input Voltage	34 – 60Vdc
Output Voltage	27.2Vdc (+/- 25mV)
Regulation (44 < Vin < 60V, Iout = 15A)	Vout = > 27V, Iout = 14.5A < 1% Error
Regulation (34 < Vin < 44V, Iout = 15A)	Vout = 22V – 27V, Iout 5A – 14.5A
Input Fuse	12A
Output Fuse	No Fuse – Internal Protection
Input LED, ON if I/P is	Within Range 34 – 60Vdc (Vin > 40V to start)
Output LED, ON if O/P is	> 22Vdc
Efficiency	Typically > 95% at Full Load
Isolation	I/P to O/P 1kV Minimum (Tested)
Isolation	I/P to GND 1kV Minimum (Tested)
Isolation	O/P to GND 500V Minimum (Tested)
Ripple & Noise (RMS)	< 100mV (Typically <= 50mV @ 15A & Vin = 44 – 60V)
Operating Temperature	0° – 60°C
Weight	950g
Dimensions	184L x 111W x 63H (mm)

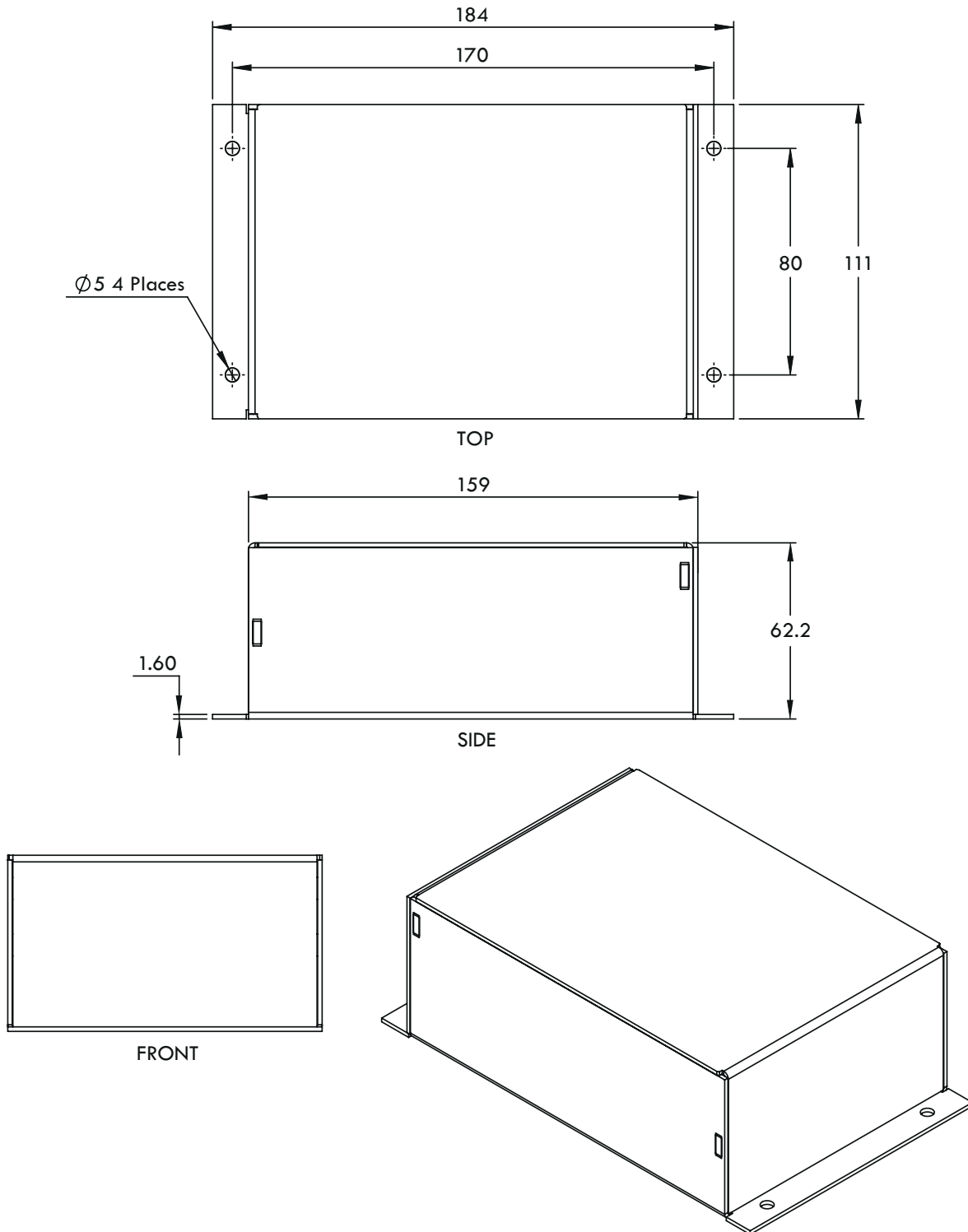




Computer
Control
Instrumentation

Enclosure Dimensions and Mounting Details

For Models up to 400W



T: (08) 8401 9823 E: sales@ccisa.com.au W: www.c-c-i.com.au

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