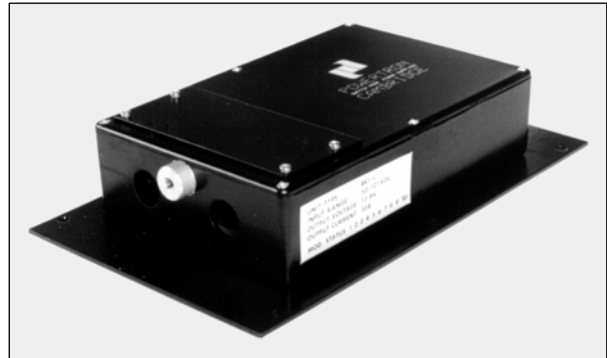


140W EBR

Rail Applications

Summary

A fully enclosed single output unit, which has been widely used for supplying the power to train radios. The unit meets the traditional RIA rail standards, and many thousands are in service. The design has been adapted for several other rail applications, with alternative input and output voltage requirements.



Special features include:

- Enclosed design with removable terminal access cover
- Traditional construction, with earth boss. Conduit compatible.
- Compliant with RIA standards (12, 13, 18, 20) and EN50155
- Many variants on standard design

Input Specification

The following input voltage versions are available as standard:

110V (66.0 - 137.5V) dc (suffix A)

72V (43.2 - 90.0V) dc (suffix D)

52V (31.2 - 65.0V) dc (suffix C)

24V (16.8 - 33.6V) dc (suffix B)

Other ranges are available to order

Input Ripple	:	To BRB/RIA 13 and EN50155
Input Protection	:	Reverse polarity protection. Surges and transients to BRB/RIA 12 (Direct and Indirect) & EN50155
Inrush Current	:	Limited to typically 5 x nominal current (<i>after 0.1ms</i>)
Efficiency	:	85% typical

Output Specification

Maximum Output Power	:	140W
Output Voltage ¹	:	13.8V
Setting Tolerance	:	±1.0% at 50% load, 15°C to 25°C
Output Current	:	10A
Line Regulation	:	±0.5%
Load Regulation	:	±0.5%
Temperature Coefficient	:	<0.02% / °C
Output Ripple	:	<50mV Pk-Pk
Output Noise	:	<200mV Pk-Pk
Response Time	:	0.5ms to within 1% (for a 10% - 100% load change)
Holdup Time	:	10ms at nominal input and maximum load
Primary Power Limit	:	Operates at approximately 160W (i.e. approximately 11.5A output current)
Thermal Protection	:	Output shuts off when safe operating temperature is exceeded
Isolation	:	Input to Output 2.0kV ac Input to Case 2.0kV ac Output to Case 2.0kV ac (Optional internal link to connect output to case)

¹ Other output voltages can be produced on request.

Mechanical Details

Construction	: Fully enclosed in rugged splash-proof case
Mounting	: Flush mounting with six M6 fixing holes on base plate
Dimensions	: Depth = 222mm (300mm with plate) Width = 146mm (180mm " ") Height = 57mm (60mm " ")
Weight	: 2.0kg
Connections	: Connections, which are accessible via a removable plate on the top cover, are as follows: Input - M5 studs Output - M6 studs Earth - M6 stud and M6 boss on outside of case
Cooling	: By convection

Environmental

Operating Temperature	: -25°C to +55°C
Storage Temperature	: -40°C to +80°C
Relative Humidity	: 85% maximum
Vibration	: BRB/RIA 13 - Para 10.5.11, BRB/RIA 20
Environmental Protection	: IP52 (IP54 available – specify Option 'S')

Applicable Norms

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

