



> Description

The JLSP series is designed specifically for use on railway rolling stock. These units are available in single or dual output versions with input ranges to cover those typically found in rail applications. The JLSP range is fully compliant with current international railway



Special features include:

- Open frame PCB - low profile 20mm
- Suitable for cold wall mounting

> Input Specifications

The following input voltages 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)
- 36V (21.0 - 50.4V) dc (Suffix F)
- 24V (16.8 - 33.6V) dc (Suffix B)

Other ranges are available to order

Parameter	Detail
Input Ripple	To RIA and EN50155
Input Protection	Reverse polarity protection (series diode). Surges and transients to RIA 12, EN50155
Inrush Current	Limited to typically 5 x nominal current (after 0.1ms)
Efficiency	75% to 90% dependant on voltage combinations
Hold up time	10ms to EN50155 Class S2
Input fuse	Board mounted. Factory replacement only.

> Output Specifications

Parameter	Detail
Maximum Output Power	60W
Output Versions	Single and dual outputs
Output Voltage	Can be specified from 5V to 30Vdc. U1 > U2 +1Vdc
Setting Tolerance	±0.5% at 50% load, 15°C to 25°C
Minimum Load	Zero for all outputs
Line Regulation	±0.2% all outputs
Load Regulation	±0.5% all outputs
Temperature Coefficient	<0.02% / °C
Output Ripple	<1% Pk-Pk of Output Voltage
Output Noise	<1% Pk-Pk superimposed (up to 20MHz)
Response Time	0.5ms to within 2% (for a 20% - 90% load change)
Inhibit	PL1 Pin 1 & 5, short to inhibit
Output Protection	Output and signal lines protected against indirect transients to RIA 12, EN50155
Current limit	Operates at approximately 110% of full power. Auto recovery.
Thermal Protection	Shuts down PSU if safe internal temperature is exceeded. Auto recovery.
Isolation (tested at dc equivalent voltage)	Input to Output 2.0kV ac (tested at 3.0kVdc) Input to Chassis 1.0kV ac (tested at 1.5kVdc) Output to Chassis 1.0kV ac (tested at 1.5kVdc)





> Environmental Details

Parameter	Detail
Operating Temperature	-25°C to +71°C (no derating)
Storage Temperature	-40°C to +85°C
Cooling	Convection
Relative Humidity	95% max.
Shock & Vibration	EN50155 (EN61373), RIA 20

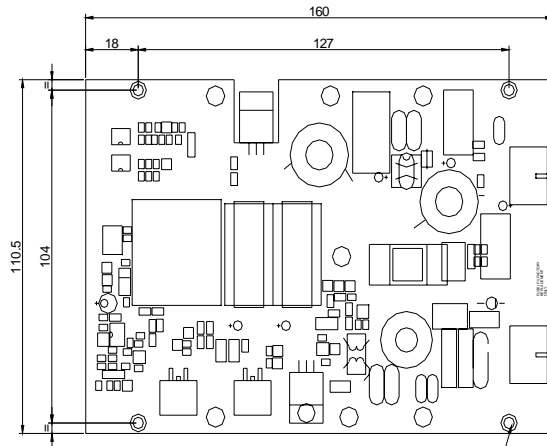
Option	Detail	Code
Extended temperature range	-40°C to +71°C	T

> Applicable Norms

Parameter	Detail
EMC	RIA 12, 18; EN50155(2007), EN50121-3-2 (2006)
Other	RIA 13, 18, 20; EN50155 (2007)

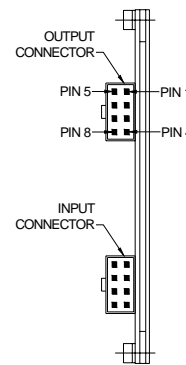
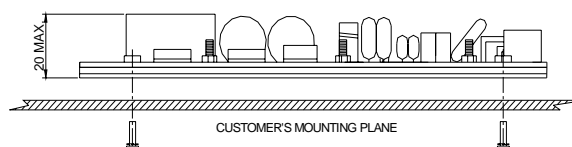
> Mechanical Characteristics

Parameter	Detail
Construction	Open frame PCB with base plate
Dimensions	Length = 160 mm Width = 110.5 mm Height = 20 mm
Weight	< 0.5kg
Connections	2x8 way Molex Mini-Fit Jr.
Fixings	Four holes in base plate.



4 OFF CUSTOMER MOUNTING HOLES (#4-40 THREADED PCB INSERTS)

Dig No. 84C-900 issue C



OUTPUT CONNECTOR: 8 WAY MOLEX MINI-FIT JR

PINS 1 & 5: U1
PINS 2,3,6 & 7: 0V (COMMON)
PINS 4 & 8: U2

INPUT CONNECTOR: 8 WAY MOLEX MINI-FIT JR

PINS 1 & 5: INHIBIT
PIN 3: EARTH (CHASSIS)
PIN 6: +Ve IN
PIN 8: -Ve IN
PINS 2,4 & 7 UNUSED

WEIGHT OF UNIT: <0.5Kg