

System power supply

8910-PS-DC

- ◆ power for 2/2 (general purpose) node
- ◆ 12 V DC output
- ◆ 18.5 - 36V DC input
- ◆ 4.9 A capacity
- ◆ supports redundancy with second supply

MODULE SPECIFICATION

HAZARDOUS AREA APPROVALS

Location of node Safe area or
 Class 1, Div 2, Groups A, B, C, D T4 hazardous location or
 Zone 2, IIC T4 hazardous area

Applicable standards:

- ◆ Factory Mutual Research Co., Class No. 3611 for Class I, Division 2, Groups A, B, C, D hazardous locations

ELECTRICAL

EMC compliance To EN 50081-2 and EN 50082-2
 generic emission/immunity standards

Electrical safety . EN 61010-1:1993 and Amendment A2:1995

OUTPUT

Output voltage 12 V dc \pm 5%

Output current 4.9 A

Input-output isolation 50 V ac rms, 720 V dc
 (Continuous working to EN 61010-1, Pollution Degree 2,
 Installation Category 2)

Hold-up (on i/p supply failure) 7 ms
 (- 40°C, full load and 22V input)

Thermal protection Protected against output s/c

Supply health indicator LED (fed from final output)

Power-fail signal to BIM (o/p threshold) $\leq 8.5 \pm 2$ V

INPUT

Input voltage 18.5–36 V dc

Efficiency (at full load)

20 V input at 3.6 A 82.5%

24 V input at 3.1 A 80.0%

36 V input at 2.1 A 80.0%

Input connection Two-part, screw terminal
 each connection duplicated, 2.5 mm² max. cable cross-section

Input protection Fuse + supply reversal diode

Power-fail signal to BIM (i/p threshold) $\leq 19.9 \pm 0.5$ V



ENVIRONMENTAL

Operating temperature (no forced ventilation)

(60% of full load) - 40°C to + 70°C

Optimum orientation (full load) - 40°C to + 55°C

Worst case orientation (full load) - 40°C to + 50°C

Storage - 40°C to + 85°C

Relative Humidity 5 to 95% RH (non-condensing)

Vibration 2 g @ 10-100 Hz to BS EN 60068-2-6
 and BS 2011- part 2.1

Shock 10 g, 11 ms pulse width, to BS EN 60068-2-27

MTBF @ 50°C external ambient 80,000 hrs

Ingress Protection IP20 to IEC 529/BS EN 60529
 (tested on power supply carrier with all supply connectors in place)

Corrosive atmospheres

To withstand gaseous corrosion level G3 as defined by ISA Standard SP71.04:1995, when protected by a suitable field enclosure.

MECHANICAL

Dimensions (approx.) 42 (w) x 110 (h) x 160 (d) mm

Carrier mounting types 8711-CA-NS or 8712-CA-NS

Weight 775 g