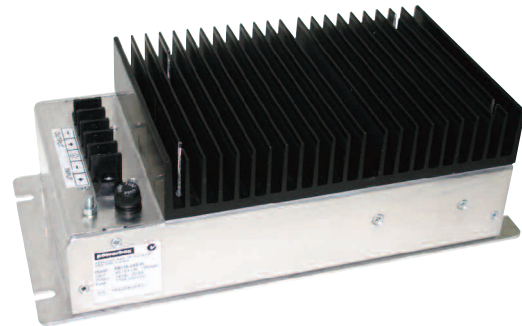


PB315 Series

500 WATTS ROLLING STOCK DC/DC CONVERTER

FEATURES

- Designed from the ground up specifically for Rolling Stock.
- High temp operation without additional heatsinking. No additional cold plate necessary.
- Protection functions (excluding output overvoltage) auto reset, unit restarts once fault is removed.
- No vent holes, conformal coating of PCB. High degree of protection against dust / moisture / pollution ingress.
- Ruggedised mechanically for shock and vibration. Input protection against, spikes, bursts and high ripple.
- Meets EN50155 operating conditions, EN50121 for EMC / EMI.



SPECIFICATIONS

| INPUT | |
|--------------------------|---|
| Input voltage | 45-154Vdc |
| Input current | 15A |
| Inrush Current | 25A at 110Vdc input |
| DC ripple factor | 15% |
| OUTPUT | |
| Voltage | 24Vdc |
| Current | 20.8A |
| Continuous power | 500W |
| Ripple voltage | 100mV p-p |
| Line regulation | 0.5% at full load |
| Load regulation | 1.5% from 0 to full load |
| OPERATING SPECIFICATIONS | |
| Efficiency | 90% at full load |
| Power dissipated | 55W at full load |
| Isolation | Input to Chassis - 2121Vdc Input to Output - 4242Vdc Output to Chassis - 707Vdc |
| Temperature | Up to 50C ambient at full load. Derate linearly from 50C full load to 80C zero load |
| Relative humidity | 5 to 90% Non Condensing |
| Cooling | Natural convection. No additional cold plate or heatsinking required. |
| PROTECTION | |
| Input reverse polarity | Indefinite. Series diode on input. |
| High input ripple | Indefinite. Series diode on input. |
| Input overvoltage | Approx 160Vdc, Auto recovery. |
| Output overcurrent | 120% of nominal. Auto recovery. |
| Output short circuit | Indefinite. Auto recovery |
| Output overvoltage | 130% nominal. Input cycled off and on to reset. |
| Over temperature | 110C internal temperature. Auto restart. |

| Pollution protection | PD3 as per IEC60077-1 |
|-------------------------------|---|
| Ingress protection | IP40 as per AS1939 |
| Rated impulse Withstand volts | Input 2.5kV, Output 0.8kV as per IEC60077-1 |
| MECHANICAL | |
| Enclosure | Chassis Mount Aluminium |
| Dimensions | 322L x 150W x 102H including heatsink |
| Weight | 4.0 kg |
| Terminations | Screw Terminals as standard. Other terminals such as Cage Clamp, Fastons available on request |
| STANDARDS | |
| Safety | Meets IEC60077-1, AS/NZS 60950-2000 |
| EMC / EMI | Meets EN50121-3-2:2000 and EN50155 |
| Electrical service conditions | Meets EN50155 |