

BAP236R SERIES

Rail DC/DC Converters Single Output: 200 Watts



General Specifications

| | |
|---------------------------------|--|
| Input Voltage | 24VDC (15 ~ 34) 36VDC (22 ~ 51) 48VDC (29 ~ 67) 72VDC (42 ~ 101) 96VDC (58~135) 110VDC (66 ~ 154) |
| | • Other voltages on request |
| Input Protection | Reverse polarity protection. Inrush current limiting & Input Fuse |
| Isolation | Input - Output 3000vdc Input – Chassis 1500vdc Output – Chassis 1500vdc |
| Efficiency | Model dependent , typically 80-90% |
| Output voltage | See tables |
| Output Power | 200 watts |
| Voltage Adjust. | Customer specified |
| Immunity | EN50155 & EN50121-3-2 EN61000-4-2 ESD EN61000-4-3 RF Immunity EN61000-4-4 Fast Transients EN50155 Surge & Voltage variations EN61000-4-6 Conducted Immunity |
| EMI | EN5022 Class B Conducted & Radiated |
| Switching Freq. | 55kHz ±5kHz |
| Regulation | ±% Line / Load combined |
| Dynamic Response | Max ±5% deviation for 10% - 50% load step with 1msec recovery |
| Ripple & Noise | Typically 1% pk-pk or 0.2% RMS of output voltage (20MHZ BW) |
| Overload Protection | Rectanular current limiting, with short-circuit protection |
| Overvoltage Protection | Double regularor loop |
| Operating Temp. | -25°C to +55°C cold plate temperature at 100% load, +70°C at 60% load |
| Cooling | Conduction cooling via base plate to customer chassis or heatsink & natural convection |
| Environmental Protection | Ruggedized & Conformal coating of PCB's |
| Shock & Vibration | IEC61373 Cat 1 A & B and Cat 2 |
| Humidity | 5-95% non-condensing, higher ration option |
| MTBF | >150,000 hrs |

Features

- Designed to rail standards EN50155 & EN50121
- Wide input range
- Rugged design for on-board train applications
- Convection cooled: No fans
- Fully isolated input – output 3000VDC
- Over voltage protection
- Overload and short circuit protection
- MTBF > 200,000hrs
- Specials input / output combinations on request.
- Any output from 12vdc ~ 130vdc possible
- **N+1 Redundancy** option

Description

The **BAP236R** series dc/dc converters are an upgraded product from the very popular and mature BAP industrial grade product, with, field proven reliability over 20 years. These units are specifically designed for rolling stock / rail applications and can be manufactured to customer specifications with total flexibility to match customer requirements.

Units are supplied with conformal coating of PCB's and a high level of ruggedization for shock & vibration to IEC 61373

Designed for a wide range of i input voltage options from 24 ~ 168vdc and any output voltage from 12 ~ 130VDC

Options

| | |
|-----------------------|--|
| Redundancy | Units can be supplied with built-in isolation diode for use in N+1 Redundancy / parallel applications |
| Alarm | Voltage Free Relay contacts for monitoring DC output |
| Output Voltage | Any output voltage options from 12 ~ 130VDC |
| Terminals | Customer specified connectors |

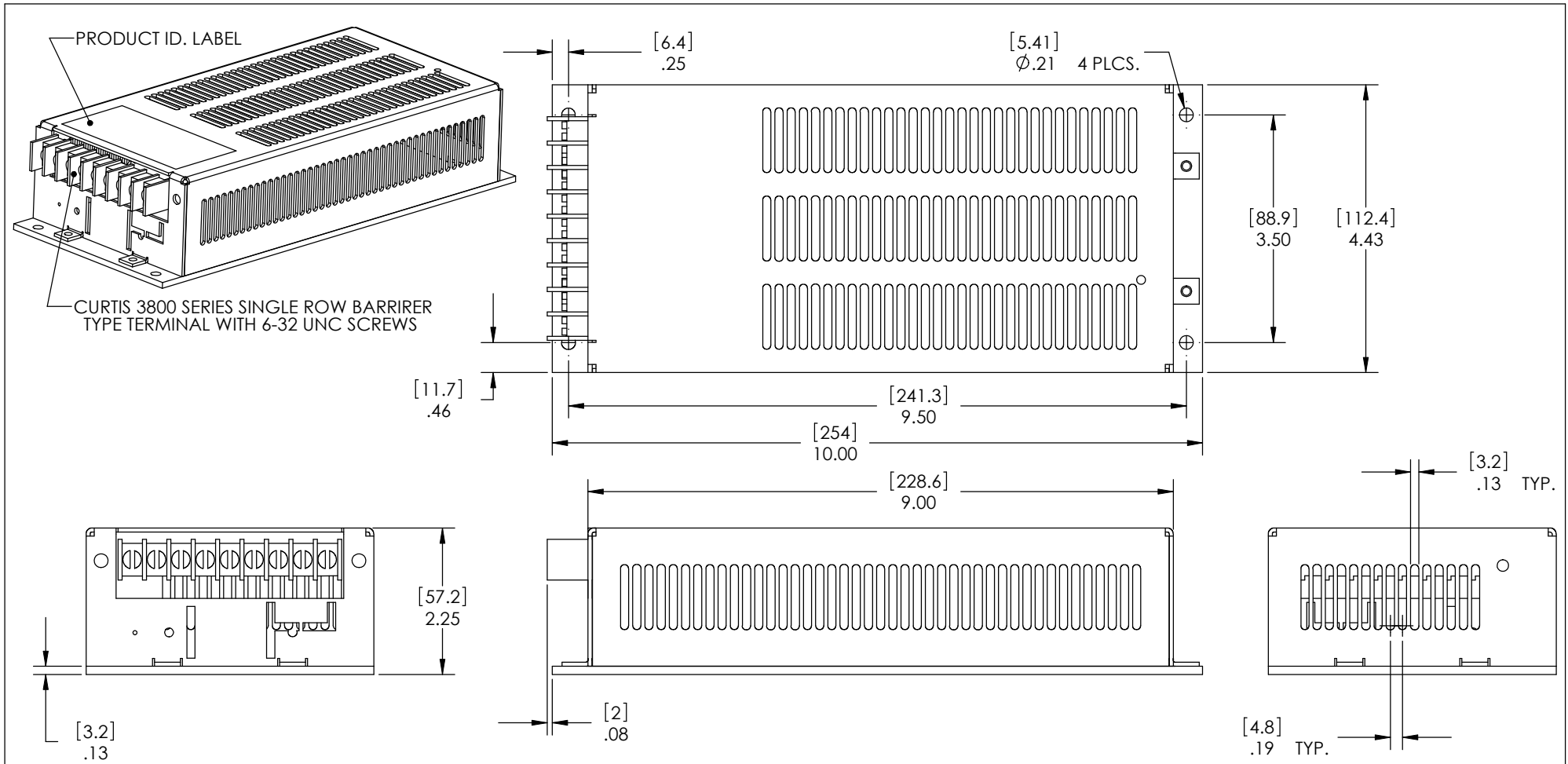
| Model | Input Options V | Standard Outputs | | Power W |
|---------|---------------------------------|------------------|------|------------|
| | | V | A | |
| BAP236R | 24V, 36V 48V,72V 96V,110V | 12V | 16A | 200W |
| | | 24V | 8.3A | |
| | | 48V | 4.0A | |
| | | 110V | 1.8A | |

- Final part numbers will be factory allocated to reflect customer input & output requirements. Any output 12 ~ 130vdc is available

| | |
|------------------------|---|
| LED / Indicator | Visible through side cooling slots |
| Alarm output | Optional |
| Connector | 9 pole barrier-type terminal block with 3/8"spacing. (optional cover) |
| Dimensions | 112 x 57 x 26mm (F2) W x H x L (includes terminal block & mounting flanges) |
| Weight | 1.2kg |

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DIMENSIONS ARE IN INCHES (mm) TOLERANCES ON DECIMALS: XXX ± 0.008" XX ± 0.012" ANGLES: ± 2° FRACTIONS: ± 1/64" UNLESS OTHERWISE STATED

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Title: OUTLINE DRAWING

Part of: F2 PACKAGE

