

BAP65R SERIES

Rail DC/DC Converters Single Output: 300 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 | 300 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 **BAP65R** 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 |

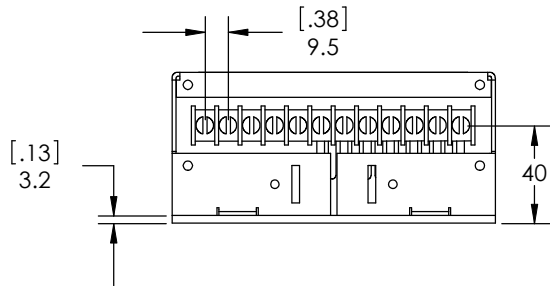
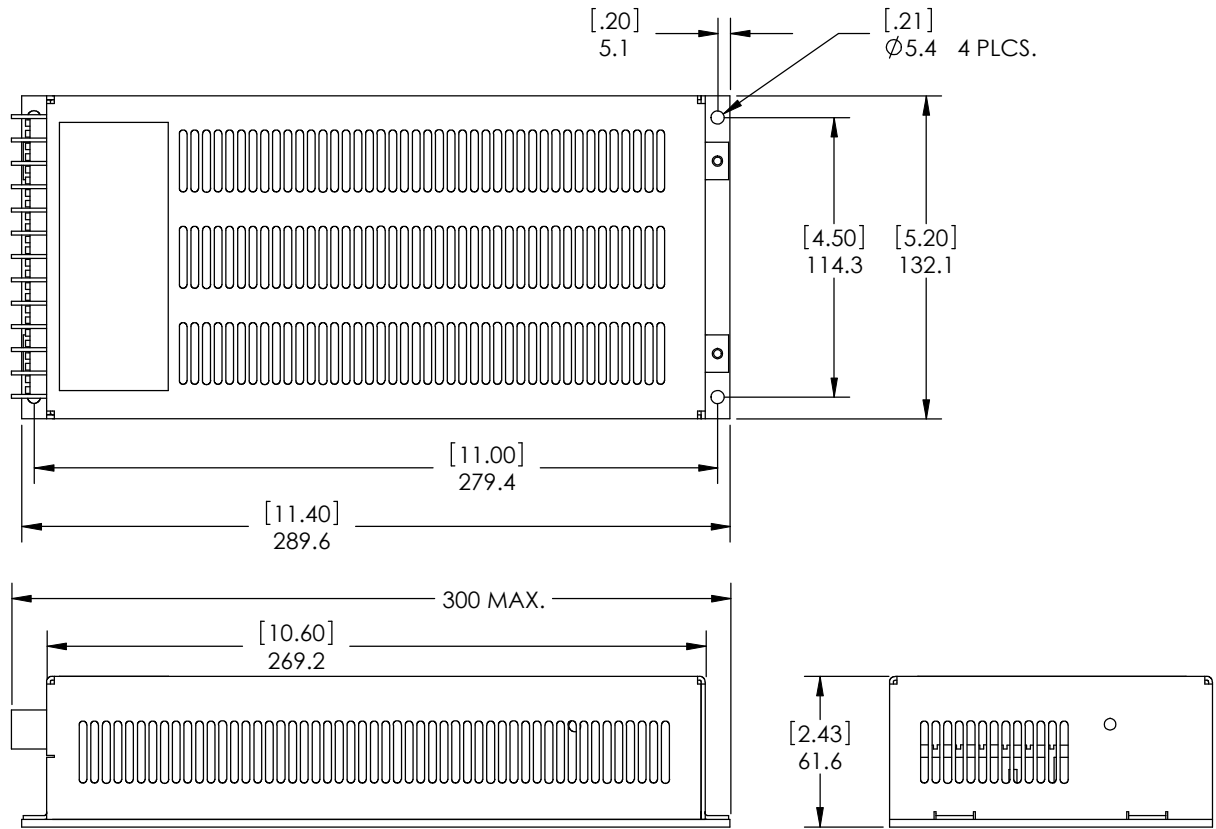
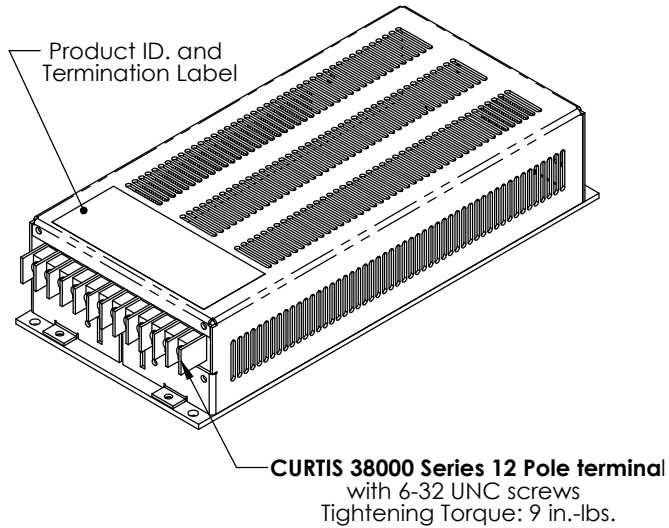
| Model | Input Options V | Standard Outputs | | Power W |
|--------|---------------------------------|------------------|-------|------------|
| | | V | A | |
| BAP65R | 24V, 36V 48V,72V 96V,110V | 12V | 25.0A | 300W |
| | | 24V | 12.0A | |
| | | 48V | 6.0A | |
| | | 110V | 2.7A | |

- 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 | 12 pole barrier-type terminal block with 3/8"spacing. (optional cover) |
| Dimensions | 132 x 62 x 300mm (F3) W x H x L (includes terminal block & mounting flanges) |
| Weight | 2kg |

BAP65R SERIES

Rail DC/DC Converters Single Output: 300 Watts



Case material: Aluminum 5052-H32
Finish: clear Iridite as per MIL-C-5541E Class 3
Typical weight: 2Kg [4.4 lbs.]

DIMENSIONS ARE IN MILLIMETERS
[Inches] TOLERANCES ON
DECIMALS: XXX \pm 0.2mm
 XX \pm 0.3mm
ANGLES: \pm 2°
FRACTIONS: \pm 0.4mm
UNLESS OTHERWISE STATED

THIS DOCUMENT IS THE PROPERTY
OF AMTEX ELECTRONICS LTD.
ITS CONTENTS ARE PROPRIETARY AND
MAY NEITHER BE COPIED, REPRODUCED
NOR ITS CONTENTS DISCLOSED TO OTHERS
WITHOUT PRIOR WRITTEN AGREEMENT
FROM AMTEX ELECTRONICS LTD.

| | | | |
|-------------------------------------|--|-----------------|--|
| Title: | | OUTLINE DRAWING | |
| Model No: | | F3 Package | |
| SIGNATURES (ON PRINTED MASTER ONLY) | | | |
| Checked by: | | Approved by: | |

