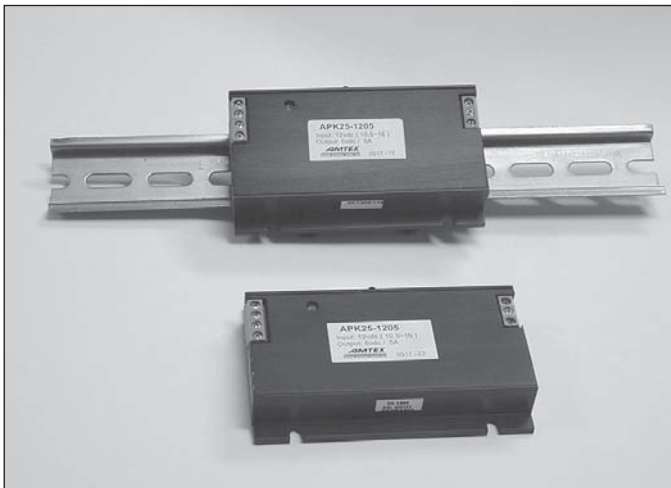


APK25-60 SERIES

DC/DC Converters Single Output: 25 - 60 Watts



Features

- Standard input voltage options: 12V, 24V and 48VDC
- Two power levels: 25 and 60 watts
- Low profile: 18mm
- Ideal for harsh environments, fully encapsulated
- Adjustable output
- Overload protection
- Input - Output isolation
- Suitable for a wide range of industrial and Telecom applications
- Field proven reliability, mature product
- Panel mounting flanges
- Optional Din Rail mounting

General Specifications

| | |
|---------------------------|------------------------------------------------------------------------------|
| Input Voltage: | 12VDC (10.5 - 16) 24VDC (20 - 30) 48VDC (40 - 60) |
| Output Power: | 25 - 60 watts |
| Output Voltage: | 5 - 48VDC |
| Voltage Range: | ±10% adjustment via on-board trim pot |
| Load Regulation: | ±0.5% |
| Line Regulation: | ±0.5% |
| Isolation: | Input - Output 500VDC |
| EMI: | EN55011 Level A |
| Operating Temp: | -20°C to +50°C, derate linearly to 75% at 60°C |
| Efficiency: | Model dependent, typically 80% |
| Protection: | Overload protection with auto restart thermal protection |
| Dimensions/Weight: | APK25 - APK60: 100 x 65 x 18mm 180g |

Description

The APK25 and APK60 series DC/DC converter is a mature, field proven product with over 8 years track record.

Designed for a wide range of industrial applications with input voltage options from 12 - 48VDC

Mounting flanges provide an easy way to panel mount these units and the standard protection features provide an excellent DC/DC converter solution.

Options

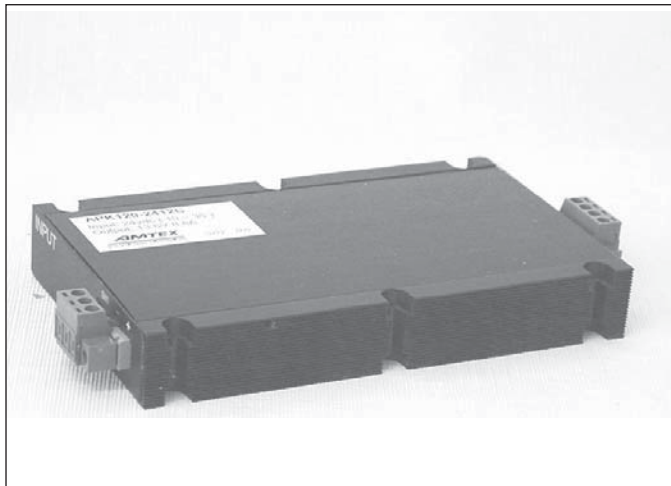
| | |
|-----------------------|----------------------------------------------------------------------------------------------------------------|
| C-CL01-002: | DIN Rail mounting clips (two per model required) |
| APK120: | APK120 series rated at 120 watts |
| Input Voltage: | Units are also available with 3.1 wide input voltage range: 10-30V and 20-60V. (Minimum quantity may apply) |

| Model | Input | Output | | Power W |
|--------------|-------|--------|-------|---------|
| | | V | A | |
| APK25 - 1205 | 12V | 5V | 5A | 25W |
| APK25 - 1212 | 12V | 12V | 2A | 25W |
| APK25 - 1215 | 12V | 15V | 1.6A | 25W |
| APK25 - 1224 | 12V | 24V | 1.04A | 25W |
| APK25 - 1248 | 12V | 48V | 0.52A | 25W |
| APK25 - 2405 | 24V | 5V | 5A | 25W |
| APK25 - 2412 | 24V | 12V | 2A | 25W |
| APK25 - 2415 | 24V | 15V | 1.6A | 25W |
| APK25 - 2424 | 24V | 24V | 1.04A | 25W |
| APK25 - 2448 | 24V | 48V | 0.52A | 25W |
| APK25 - 4805 | 48V | 5V | 5A | 25W |
| APK25 - 4812 | 48V | 12V | 2A | 25W |
| APK25 - 4815 | 48V | 15V | 1.6A | 25W |
| APK25 - 4824 | 48V | 24V | 1.04A | 25W |
| APK25 - 4848 | 48V | 48V | 0.52A | 25W |

| Model | Input | Output | | Power W |
|--------------|-------|--------|-------|---------|
| | | V | A | |
| APK60 - 1205 | 12V | 5V | 12A | 60W |
| APK60 - 1212 | 12V | 12V | 5A | 60W |
| APK60 - 1215 | 12V | 15V | 4A | 60W |
| APK60 - 1224 | 12V | 24V | 2.5A | 60W |
| APK60 - 1248 | 12V | 48V | 1.25A | 60W |
| APK60 - 2405 | 24V | 5V | 12A | 60W |
| APK60 - 2412 | 24V | 12V | 5A | 60W |
| APK60 - 2415 | 24V | 15V | 4A | 60W |
| APK60 - 2424 | 24V | 24V | 2.5A | 60W |
| APK60 - 2448 | 24V | 48V | 1.25A | 60W |
| APK60 - 4805 | 48V | 5V | 12A | 60W |
| APK60 - 4812 | 48V | 12V | 5A | 60W |
| APK60 - 4815 | 48V | 15V | 4A | 60W |
| APK60 - 4824 | 48V | 24V | 2.5A | 60W |
| APK60 - 4848 | 48V | 48V | 1.25A | 60W |

APK120 SERIES

DC/DC Converters Single Output: 120 Watts



Features

- Standard input voltage options: 12V, 24V, 48 & 110VDC
- Low profile: 25mm
- Ideal for harsh environments, fully encapsulated
- Adjustable output
- Overload protection
- Input - Output isolation
- Suitable for a wide range of industrial and Telecom applications
- Field proven reliability, mature product
- Panel mounting flanges

General Specifications

| | |
|---------------------------|------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 12VDC (10.5 - 20) 24VDC (18.5 - 40) 48VDC (36 - 72) 110VDC (80 - 175) |
| Output Power: | 120 watts |
| Output Voltage: | 12 - 48VDC |
| Voltage Range: | Fixed |
| Load Regulation: | ±0.5% |
| Line Regulation: | ±0.5% |
| Isolation: | Input - Output 1000VDC |
| EMI: | EN55011 Level A |
| Operating Temp: | -10°C to +55°C, derate linearly to 70% |
| Efficiency: | Model dependent, typically 85% |
| Protection: | By external input fuse. Overvoltage protection. Short circuit protection |
| Dimensions/Weight: | 150 x 90 x 25mm 500g |

Description

The APK120 series DC/DC converter is an extension of our proven AK25 and AK60 series modules. They are specifically designed for harsh environments.

Suitable for a wide range of industrial applications with input voltage options from 12 - 110VDC

Mounting flanges provide an easy way to panel mount and the standard protection features provide an excellent low cost DC/DC converter solution.

• For more detailed information on APK120 visit our website

Options

| | |
|------------------------|------------------------------------------------------------------------|
| APK25 - APK60: | Low power 25 and 60 watt modules |
| Output Voltage: | Non standard output voltages possible |
| Wide Input: | Wide input voltage options, eg: 11-36VDC. Power maximum (100 watts) |

| Model | Input | Output | | Power W |
|-----------------|-------|--------|------|---------|
| | | V | A | |
| APK120 - 1212 | 12V | 12V | 10A | 120W |
| APK120 - 1213.8 | 12V | 13.8V | 8.7A | 120W |
| APK120 - 1224 | 12V | 24V | 5A | 120W |
| APK120 - 1248 | 12V | 48V | 2.5A | 120W |
| APK120 - 2412 | 24V | 12V | 10A | 120W |
| APK120 - 2413.8 | 24V | 13.8V | 8.7A | 120W |
| APK120 - 2424 | 24V | 24V | 5A | 120W |
| APK120 - 2448 | 24V | 48V | 2.5A | 120W |

| Model | Input | Output | | Power W |
|------------------|-------|--------|------|---------|
| | | V | A | |
| APK120 - 4812 | 48V | 12V | 10A | 120W |
| APK120 - 4813.8 | 48V | 13.8V | 8.7A | 120W |
| APK120 - 4824 | 48V | 24V | 5A | 120W |
| APK120 - 4848 | 48V | 48V | 2.5A | 120W |
| APK120 - 11012 | 110V | 12V | 10A | 120W |
| APK120 - 11013.8 | 110V | 13.8V | 8.7A | 120W |
| APK120 - 11024 | 110V | 24V | 5A | 120W |
| APK120 - 11048 | 110V | 48V | 2.5A | 120W |

8862 SERIES

DC/DC Converters Single Output: 70 Watts



Features

- Switched mode design
- DC input options: 12V, 24V, 36V, 48V, 110VDC
- Regulated output
- Short circuit protection
- Thermal protection
- Fully isolated output
- Panel mounting
- Suitable for mobile communications and industrial applications
- Emission: EN50081 - 1
- Immunity: EN50082 - 1

General Specifications

| | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 12VDC (10 - 16) 24VDC (18 - 32) 36VDC (30 - 48) 48VDC (40 - 64) 110VDC (75 - 140) |
| Output Power: | 70 watts |
| Output Voltage: | 12 - 48VDC |
| Voltage Range: | ±10% adjustment via internal trim pot |
| Load Regulation: | ±5% |
| Line Regulation: | ±5% |
| Isolation: | Input - Output 1000VDC |
| EMC: | Emission: EN580081-1 Immunity: EN580082-1 |
| Operating Temp: | -20°C to +40°C, derate linearly to 60°C |
| Efficiency: | Model dependent, typically 80% |
| Protection: | Reverse input polarity Input transorb protection Overvoltage protection Short circuit protection Thermal protection |
| Terminals: | 6.3mm push-on spade terminals |
| Dimensions/Weight: | 135 x 119 x 46mm 600g |

Description

The 8862 series DC/DC converter is a mature field proven product with over 15 years track record.

Designed for a wide range of industrial applications with input voltage options from 12 - 140VDC

Mounting flanges provide an easy way to panel mount these units and the standard protection features provide an excellent DC/DC converter solution.

Options

9262 Series: Sister product with a higher level of input voltage transient protection



| Model | Input DC | Output | | Out (pk) |
|--------------|----------|--------|------|----------|
| | | V | A | |
| 8862 - 12/12 | 12V | 13.2V | 3.0A | 4.0A |
| 8862 - 12/24 | 12V | 24V | 1.7A | 2.2A |
| 8862 - 12/48 | 12V | 48V | 0.7A | 0.8A |
| 8862 - 24/12 | 24V | 13.2V | 6.0A | 10.0A |
| 8862 - 24/24 | 24V | 24V | 3.0A | 4.0A |
| 8862 - 24/36 | 24V | 36V | 2.5A | 3.0A |
| 8862 - 24/48 | 24V | 48V | 1.5A | 2.0A |

| Model | Input DC | Output | | Out (pk) |
|--------------|----------|--------|------|----------|
| | | V | A | |
| 8862 - 36/12 | 36V | 13.2V | 6.0A | 8.0A |
| 8862 - 36/24 | 36V | 24V | 3.0A | 4.0A |
| 8862 - 48/12 | 48V | 13.2V | 6.0A | 8.0A |
| 8862 - 48/24 | 48V | 24V | 3.0A | 4.0A |
| 8862 - 48/48 | 48V | 48V | 1.5A | 2.0A |
| 8862 - 80/12 | 110V | 13.2V | 6.0A | 8.0A |
| 8862 - 80/24 | 110V | 24V | 3.0A | 4.0A |

9262 SERIES

DC/DC Converters Single Output: 70 Watts



Features

- Designed for electrical forklift trucks and other electromotive applications
- DC input options: 24V, 48V, 72V and 110VDC
- Protected against reverse polarity and overvoltage (transorb diode against transients and input fuse)
- Input to output isolated
- High quality sturdy enclosure
- High peak capability
- CE marked
- EMC and immunity standards: EN61000-6

General Specifications

| | |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (21 - 32) 48VDC (40 - 64) 72VDC (60 - 96) 110VDC (72 - 110) |
| Input Voltage: (1 sec max) | 24VDC (21 - 40) 48VDC (40 - 100) 72VDC (60 - 120) 110VDC (72 - 160) |
| Output Power: | 70 watts |
| Output Voltage: | 12 - 24VDC |
| Voltage Range: | ±10% adjustment via internal trim pot |
| Load Regulation: | ±5% |
| Line Regulation: | ±5% |
| Isolation: | Input - output: 1000VDC |
| EMC: | Emission: EN61000-6-3 Immunity: EN61000-6-1 |
| Operating Temp: | -20°C to +40°C, derate linearly to 60°C |
| Efficiency: | Model dependent, typically 80% |
| Protection: | Reverse input polarity Input transorb protection & fuse Overvoltage protection Short circuit protection Thermal protection |
| Terminals: | 6.3mm push-on spade terminals |
| Dimensions/Weight: | 135 x 119 x 46mm 600g |

Description

The 9262 series DC/DC converter is a mature field proven product with over 15 years track record.

Although it is suitable for a wide range of industrial applications with input voltage options from 24 - 140VDC, the 9262 series was specially designed for use in electrical forklift trucks and other electromotive applications where high voltage transients may occur.

Mounting flanges provide an easy way to panel mount these units and the standard protection features provide an excellent DC/DC converter solution.

Options

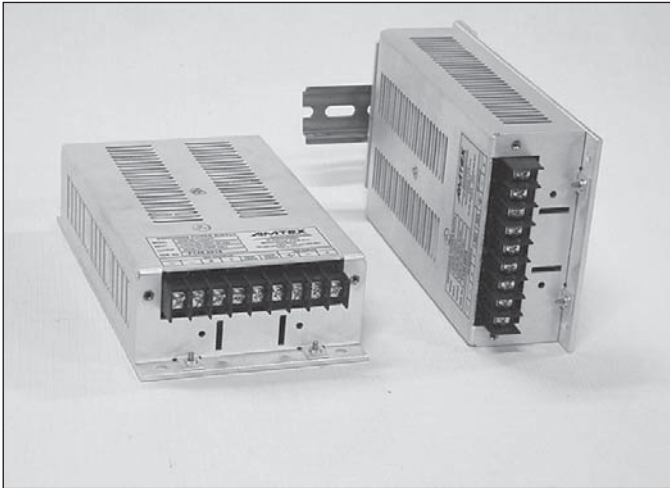
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| Model | Input V | Output V | Output A | Peak A |
|--------------|---------|----------|----------|--------|
| 9262 - 24/12 | 24V | 13.2V | 6A | 8A |
| 9262 - 24/24 | 24V | 24V | 3A | 4A |
| 9262 - 48/12 | 48V | 13.2V | 6A | 8A |
| 9262 - 48/24 | 48V | 24V | 3A | 4A |
| 9262 - 72/12 | 72V | 13.2V | 6A | 8A |
| 9262 - 72/24 | 72V | 24V | 3A | 4A |
| 9262 - 80/12 | 110V | 13.2V | 6A | 8A |
| 9262 - 80/24 | 110V | 24V | 3A | 4A |

DCW100-200 SERIES

DC/DC Single Output: 100 - 200 Watts



Features

- Wide input range: **20 - 60VDC, 65 - 160VDC**
- Convection cooled - no fans
- Three power levels: 100, 150 and 200 watts
- Overvoltage protection
- Overload and short circuit protection
- Inrush current limiting
- MTBF > 150,000 hours
- Special input/output combinations on request
- Any output from 5VDC - 125VDC possible
- Customised mechanical solutions on request
- **Din Rail** mounting options

General Specifications

| | |
|----------------------------|--------------------------------------------------------------------------------------------|
| Input Voltage: | 24/48VDC (20 - 60) 72/110VDC (65 - 160) • Other voltages on request |
| Input Protection: | Reverse polarity protection. Inrush current limiting and input fuse |
| Isolation: | Input - Output 1500 VDC |
| Efficiency: | Model dependent, typically 80% |
| Output Voltage: | Any voltage from 5 to 48VDC |
| Output Power: | 100 - 200 watts |
| Voltage Adjustment: | -1.0% to +15% |
| Regulation: | Line: $\pm 1\%$ Load: $\pm 2\%$ |
| Output Protection: | Overvoltage protection Current limiting and short circuit protection |
| EMI: | EN55022 Class A |
| Immunity: | EN61000-4 |
| Operating Temp: | 0°C to 50°C at full load. Derate 2.5% per °C from 50 - 70°C |
| Dimensions/Weight: | 100W: 87 x 155 x 50mm 560g 150W: 198 x 112 x 51mm 900g 200W: 254 x 113 x 58mm 1.13Kg |

Description

The DCW100-200 series DC/DC converters use a field proven high frequency push-pull topology to generate 100 - 200 watts output power with convection/conduction cooling.

The main feature of this product is the extra wide input range, allowing total flexibility in system design.

Any DC input/output configuration is possible, apart from the most requested outputs listed on the table below.

The chassis mount design features low component count and high efficiency, resulting in a demonstrated MTBF > 150,000 hours confirmed by a track record established in hundreds of applications.

Additional ruggedising and conformal coating are available for applications requiring higher immunity to shock, vibration, humidity, moisture, dust and insects.

- **For more detailed information on DCW100-200 series, visit our website.**

Options

| | |
|------------------------|---------------------------------------------------------------------|
| Alarm: | Voltage Free Relay contacts for monitoring DC output on some models |
| Output Voltage: | Special voltage outputs |
| Terminals: | Customer specified connectors |
| Power: | DCW300 - 500 watt model options |
| Din-Rail: | Din-Rail Mounting Option available for DCW100-150W |

| Model | Input | Output | | Power W |
|-------------|--------|--------|-----|---------|
| | | V | A | |
| DCW100-5FT | 20-60V | 5V | 15A | 75W |
| DCW100-12FT | 20-60V | 12V | 8A | 96W |
| DCW100-24FT | 20-60V | 24V | 4A | 96W |
| DCW100-48FT | 20-60V | 48V | 2A | 96W |
| DCW150-12FT | 20-60V | 12V | 12A | 144W |
| DCW150-24FT | 20-60V | 24V | 6A | 144W |
| DCW150-48FT | 20-60V | 48V | 3A | 144W |
| DCW200-12FT | 20-60V | 12V | 16A | 192W |
| DCW200-24FT | 20-60V | 24V | 8A | 192W |
| DCW200-48FT | 20-60V | 48V | 4A | 192W |

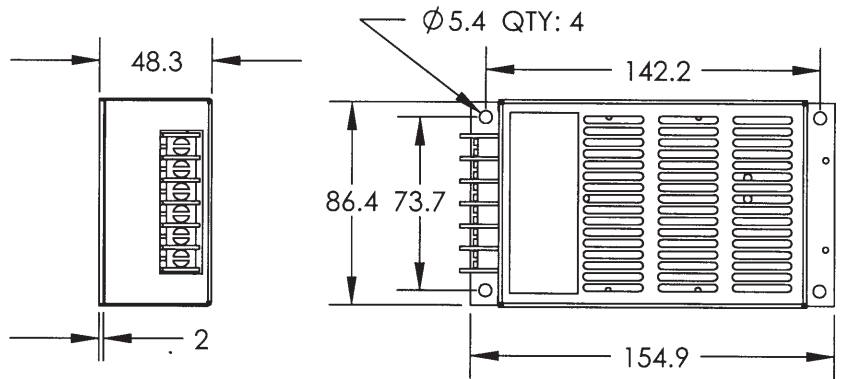
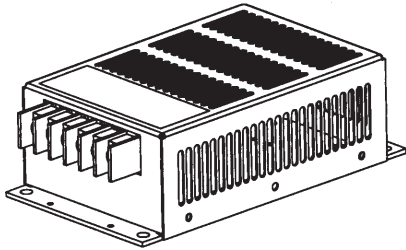
| Model | Input | Output | | Power W |
|-----------------|-------|--------|-----|---------|
| | | V | A | |
| DCW100-110-5FT | 110V | 5V | 15A | 75W |
| DCW100-110-12FT | 110V | 12V | 8A | 96W |
| DCW100-110-24FT | 110V | 24V | 4A | 96W |
| DCW100-110-48FT | 110V | 48V | 2A | 96W |
| DCW150-110-12FT | 110V | 12V | 12A | 144W |
| DCW150-110-24FT | 110V | 24V | 6A | 144W |
| DCW150-110-48FT | 110V | 48V | 3A | 144W |
| DCW200-110-12FT | 110V | 12V | 16A | 192W |
| DCW200-110-24FT | 110V | 24V | 8A | 192W |
| DCW200-110-48FT | 110V | 48V | 4A | 192W |

• Other voltage options on request

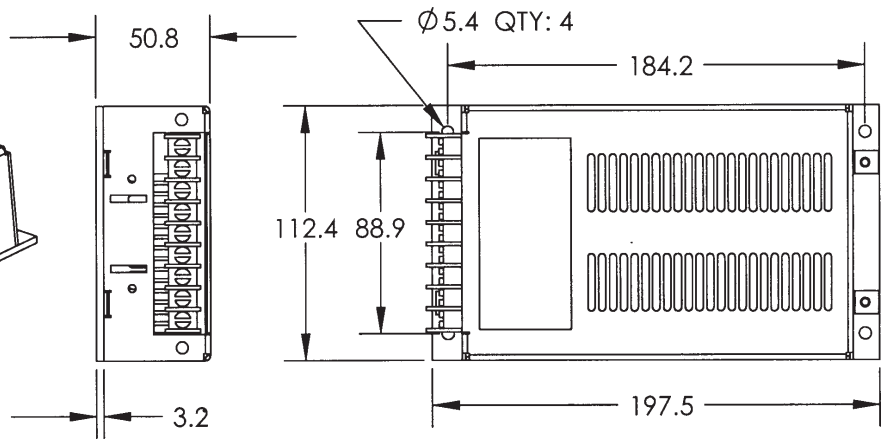
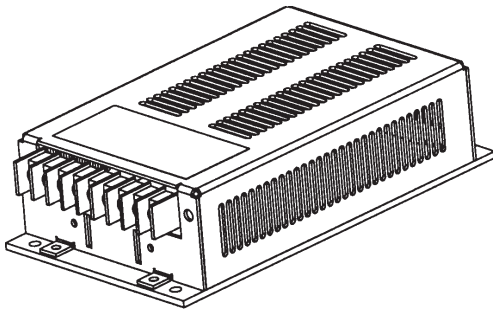
DCW100-200 SERIES

DC/DC Single Output: 100 - 200 Watts

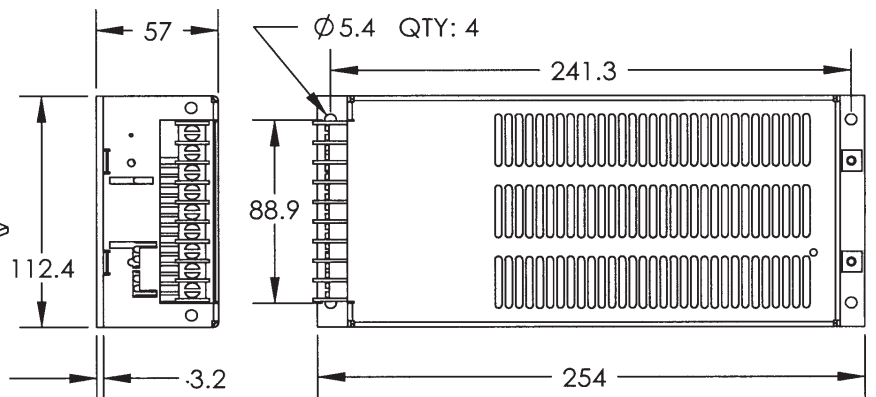
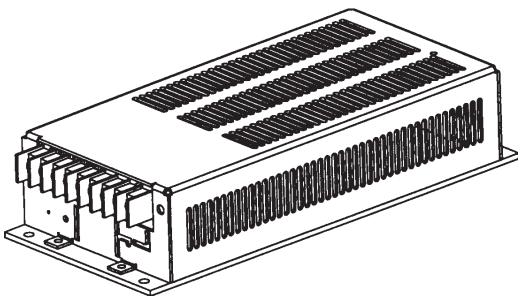
DCW100



DCW150



DCW200



DCW300-500 SERIES

DC/DC Single Output: 300 - 500 Watts



Features

- Wide range of input/output voltage combinations
- 300 and 500 watt models
- Convection cooled - no fans
- **N+1** redundancy: standard
- Output Fail Alarm: standard
- Input - Output isolation
- Overvoltage protection
- Overload and short circuit protection
- MTBF >200,000 hours
- Any output from 12VDC - 120VDC possible

General Specifications

| | |
|----------------------------|-------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (20 - 29) 48VDC (38 - 60) 110VDC (88 - 135) • Other voltages on request |
| Output Voltage: | 12V, 24V, 48V are standard. On request: any voltage from 12 to 120VDC |
| Output Power: | 300/500 watts at input of 24VDC - 120VDC 250 watts at input of 12VDC (DCW300) |
| Voltage Adjustment: | -1% to +15% |
| Output Protection: | Overcurrent protection Overvoltage protection |
| Operating Temp: | 0°C to 50°C at 100% load |
| Isolation: | Input - Output 1500VDC |
| Parallel Operation: | Built-in isolation diode allows maximum two units to be connected in parallel for N+1 redundancy |
| Alarm: | Yes. Built-in Voltage Free Contacts |
| Dimensions/Weight: | DCW300: 290 x 132 x 62mm 2Kg DCW500: 352 x 132 x 62mm 2.5Kg |

Description

The DCW300-500 series DC/DC converters use a field proven high frequency push-pull topology to generate 300 and 500 watts output power with convection/conduction cooling. Any DC input/output configuration is possible, apart from the most frequently requested outputs listed on the table below. The chassis mount design features low component count and high efficiency, resulting in a demonstrated MTBF>200,000 hours confirmed by a track record established in hundreds of applications. Additional ruggedising and conformal coating are available for applications requiring higher immunity to shock, vibration, humidity, moisture, dust and insects. Built-in redundancy diode and output DC fail alarm makes them suitable for parallel operation in **N+1** redundancy applications.

- **For more detailed information on DCW300-500 series, visit our website.**

Options

| | |
|-------------------------|------------------------------------------------------|
| Special Voltage: | Customer specified input and output voltage options. |
| Ruggedising: | For higher level of shock and vibration. |

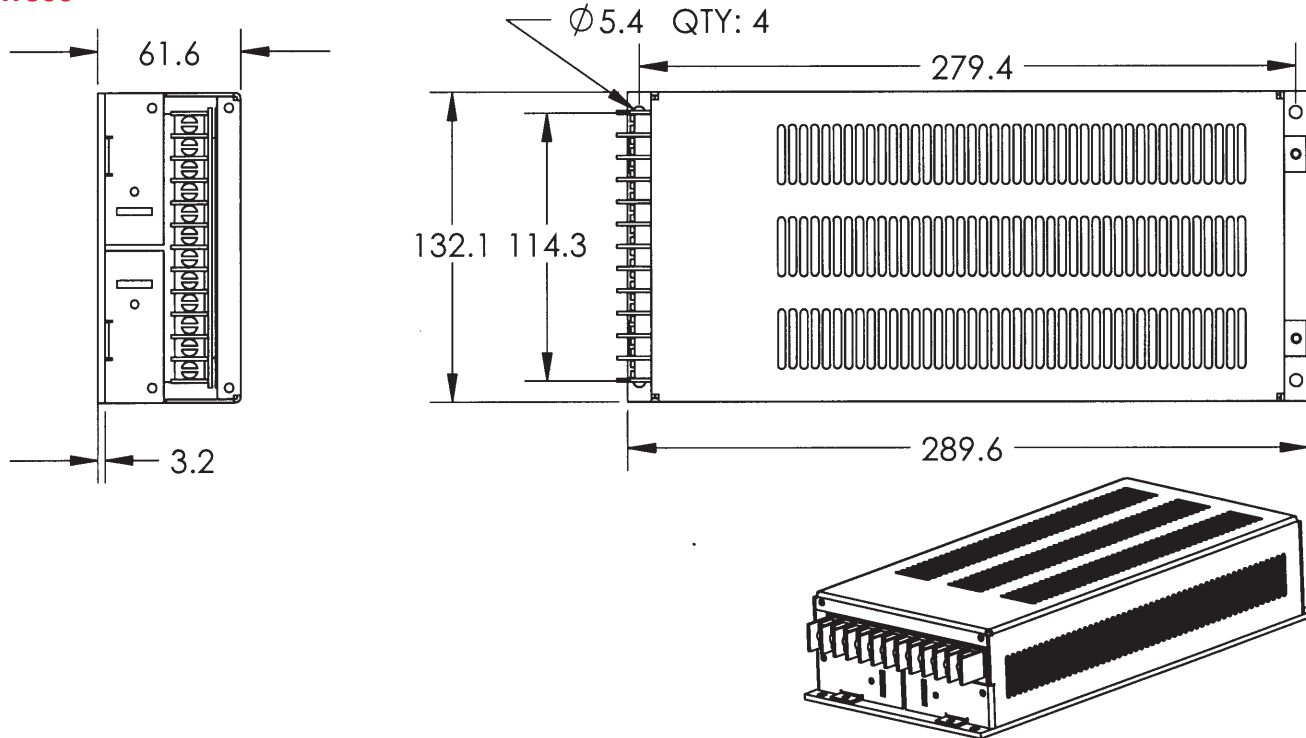
| Model | Input | Output | | Power W |
|-----------------|-------|--------|-------|---------|
| | | V | A | |
| DCW300-24-12FT | 24V | 12V | 25A | 300W |
| DCW300-24-15FT | 24V | 15V | 20A | 300W |
| DCW300-24-24FT | 24V | 24V | 12.5A | 300W |
| DCW300-24-48FT | 24V | 48V | 6.2A | 300W |
| DCW300-24-110FT | 24V | 110V | 2.7A | 300W |
| DCW300-48-12FT | 48V | 12V | 25A | 300W |
| DCW300-48-15FT | 48V | 15V | 20A | 300W |
| DCW300-48-24FT | 48V | 24V | 12.5A | 300W |
| DCW300-48-48FT | 48V | 48V | 6.2A | 300W |
| DCW300-48-110FT | 48V | 110V | 2.7A | 300W |
| DCW300-110-12FT | 110V | 12V | 25A | 300W |
| DCW300-110-15FT | 110V | 15V | 20A | 300W |
| DCW300-110-24FT | 110V | 24V | 12.5A | 300W |
| DCW300-110-48FT | 110V | 48V | 6.2A | 300W |

| Model | Input | Output | | Power W |
|-----------------|-------|--------|------|---------|
| | | V | A | |
| DCW500-24-12FT | 24V | 12V | 40A | 480W |
| DCW500-24-15FT | 24V | 15V | 33A | 500W |
| DCW500-24-24FT | 24V | 24V | 20A | 500W |
| DCW500-24-48FT | 24V | 48V | 10A | 500W |
| DCW500-24-110FT | 24V | 110V | 4.5A | 500W |
| DCW500-48-12FT | 48V | 12V | 40A | 500W |
| DCW500-48-15FT | 48V | 15V | 33A | 500W |
| DCW500-48-24FT | 48V | 24V | 20A | 500W |
| DCW500-48-48FT | 48V | 48V | 10A | 500W |
| DCW500-48-110FT | 48V | 110V | 4.5A | 500W |
| DCW500-110-12FT | 110V | 12V | 40A | 500W |
| DCW500-110-15FT | 110V | 15V | 33A | 500W |
| DCW500-110-24FT | 110V | 24V | 20A | 500W |
| DCW500-110-48FT | 110V | 48V | 10A | 500W |

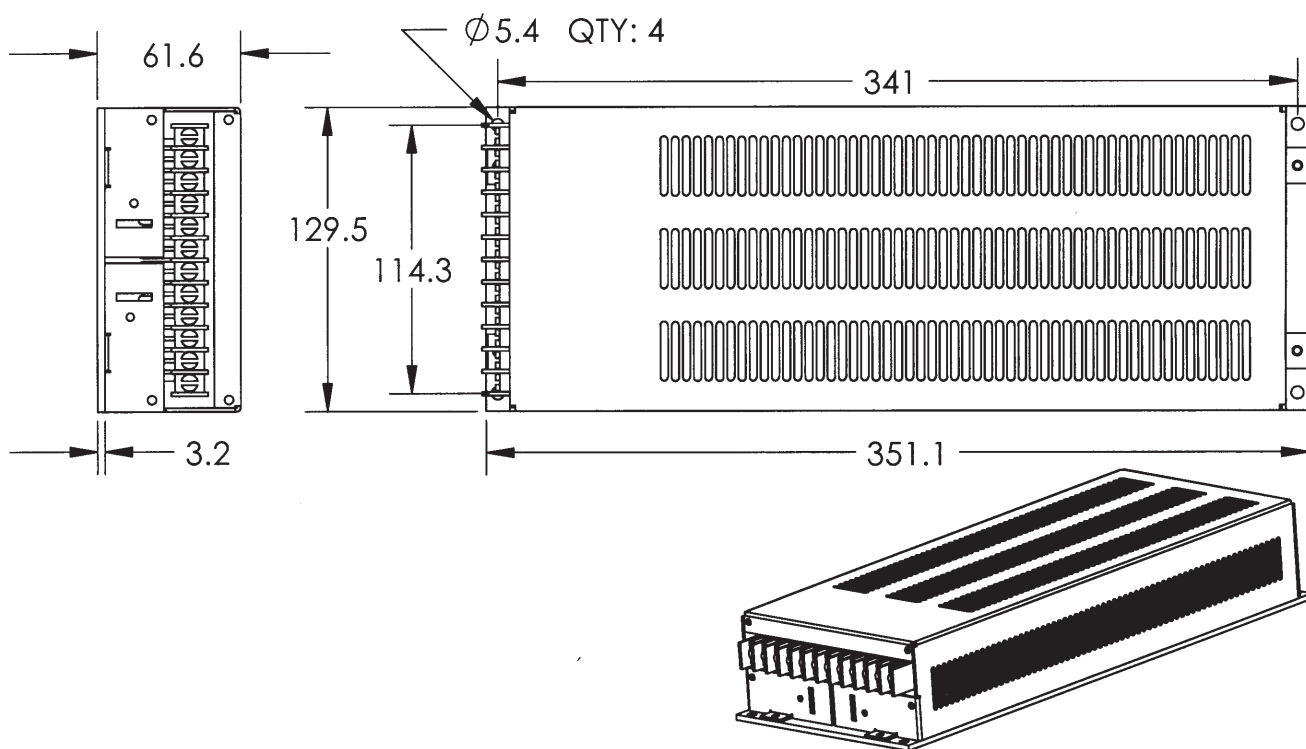
DCW300-500 SERIES

DC/DC Single Output: 300 - 500 Watts

DCW300

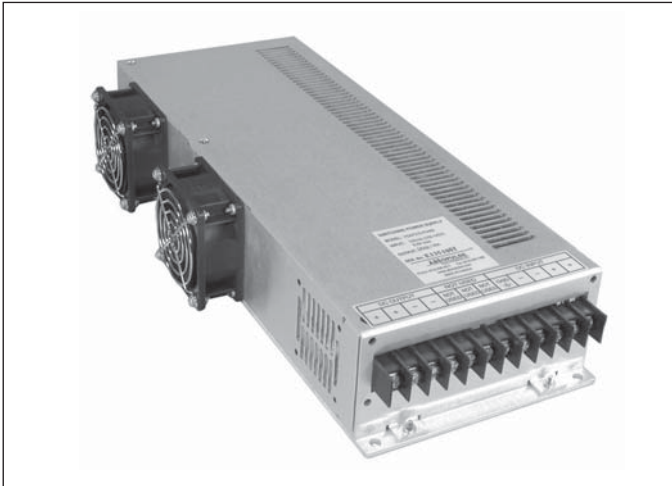


DCW500



BAP319F SERIES

DC/DC Converters Single Output: 750 Watts



Features

- Input voltage options from 48 - 140VDC
- Output voltage options 12 - 125VDC
- Constant current overload protection
- Input - Output isolation
- Suitable for a wide range of Industrial and Telecom applications
- Battery charging option
- Field proven reliability design
- N+1 Redundancy option
- Alarm option
- Customer specified input and output voltage options

General Specifications

| | |
|---------------------------------|----------------------------------------------------------------------------------------|
| Input Voltage: | 48VDC (42 - 60), 72VDC (60 - 85) 110 VDC (90 - 140) Other options on request |
| Output Power: | 750 watts |
| Output Voltage: | 12 - 125VDC |
| Voltage Range: | ±5% adjustment via on-board trim pot (other options on request) |
| Load Regulation: | ±1% |
| Line Regulation: | ±0.5% |
| Isolation: | Input - output 1500V 2250V option |
| EMC: | EN55022 Class A |
| Operating Temp: | -0°C to +50°C Derate 2.5% per °C to 70°C |
| Efficiency: | Model dependent, typically 85% |
| Protection: | Overvoltage protection Overload protection - constant current Thermal protection |
| Terminals: | Barrier Strip terminals |
| Cooling: | Built-in fans |
| Dimensions & Weight: | 358 x 152 x 62mm 2.3Kg (includes terminals and fans) |

Model Selection:

1. Any output voltage is possible, within the range of 12-125V
2. Input and out voltage settings are customer specified and factory set.
3. Part number will be allocated at time of order.
4. A number of units can be connected in parallel for increased power and N+1 redundancy applications

Description

The **BAP319F** series DC/DC converters are based on our BAP series, with over 20 years field proven track record and, with added fan cooling able to provide up to 750 watts of power.

These units are designed to be manufactured to customer specifications with total flexibility to match application requirements.

Designed for a wide range of industrial applications, with input voltage options from 48 - 140VDC and any output voltage from 12 - 125VDC.

- **For more detailed information on the BAP319F series, visit our website.**

Options

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------|
| Redundancy: | Units can be supplied with a built-in isolation diode for use in N+1 Redundancy operations. |
| Alarm: | Voltage Free Relay contacts for monitoring DC output. |
| Ruggedising: | Units can be supplied with conformal coating of PCBs and a high level of ruggedisation for harsh environments. |
| Output Voltage: | Any output voltage option from 12 - 125VDC |

| Model | Input V | Output | | Power W |
|---------------------|------------|--------|-----|------------|
| | | V | A | |
| BAP319F - 48 - 12 | 48V | 12V | 50A | 600W |
| BAP319F - 48 - 24 | | 24V | 31A | 750W |
| BAP319F - 48 - 48 | | 48V | 15A | 750W |
| BAP319F - 48 - 125 | | 125V | 6A | 750W |
| BAP319F - 72 - 12 | 72V | 12V | 50A | 600W |
| BAP319F - 72 - 24 | | 24V | 31A | 750W |
| BAP319F - 72 - 48 | | 48V | 15A | 750W |
| BAP319F - 72 - 125 | | 125V | 6A | 750W |
| BAP319F - 110 - 12 | 110V | 12V | 50A | 600W |
| BAP319F - 110 - 24 | | 24V | 31A | 750W |
| BAP319F - 110 - 48 | | 48V | 15A | 750W |
| BAP319F - 110 - 125 | | 125V | 6A | 750W |

BAP765F SERIES

DC/DC Single Output Converters: 750 - 1500 Watts



Features

- Input voltage options from 24 - 140VDC
- Output voltage options 12 - 125VDC
- Power level input voltage dependent up to 1500 watts
- Constant current overload protection
- Input - Output isolation
- Suitable for a wide range of Industrial and Telecom applications
- Battery charging option
- Field proven reliability design
- **N+1** Redundancy option
- Alarm option
- Customer specified input and output voltage options

General Specifications

| | |
|---------------------------------|----------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (21 - 29) 48VDC (42 - 60), 72VDC (60 - 85) 110 VDC (90 - 140) Other options on request |
| Output Power: | 750 - 1500 watts |
| Output Voltage: | 12 - 125VDC |
| Voltage Range: | ±5% adjustment via on-board trim pot (other options on request) |
| Load Regulation: | ±1% |
| Line Regulation: | ±0.5% |
| Isolation: | Input - output 1500V (2250V option) |
| EMC: | EN55022 Class A |
| Operating Temp: | -0°C to +50°C Derate 2.5% per °C to 70°C |
| Efficiency: | Model dependent, typically 85% |
| Protection: | Overvoltage protection Overload protection - constant current Thermal protection |
| Terminals: | ¼in brass studs or screw terminals, depending on input/output |
| Cooling: | Built-in fans |
| Dimensions & Weight: | 292 x 160 x 60mm 2.3Kg (includes terminals and fans) |

Model Selection:

1. Any output voltage is possible, within the range of 12-125V
2. Input and out voltage settings are customer specified and factory set.
3. Part number will be allocated at time of order.
4. A number of units can be connected in parallel for increased power and N+1 redundancy applications

Description

The **BAP765F** series DC/DC converters are based on our BAP series, with over 20 years field proven track record. These units are designed to be manufactured to customer specifications with total flexibility to match application requirements. Designed for a wide range of industrial applications, with input voltage options from 24 - 140VDC and any output voltage from 12 - 125VDC.

- **For more detailed information on the BAP765F series, visit our website.**

Options

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------|
| Redundancy: | Units can be supplied with a built-in isolation diode for use in N+1 Redundancy operations. |
| Alarm: | Voltage Free Relay contacts for monitoring DC output. |
| Ruggedising: | Units can be supplied with conformal coating of PCBs and a high level of ruggedisation for harsh environments. |
| Output Voltage: | Any output voltage option from 12 - 125VDC |

| Model | Input V | Output V | Output A | Power W |
|---------------------|---------|----------|----------|---------|
| BAP765F - 24 - 12 | 24V | 12V | 60A | 750W |
| BAP765F - 24 - 24 | | 24V | 31A | 750W |
| BAP765F - 24 - 48 | | 48V | 15A | 750W |
| BAP765F - 24 - 125 | | 125V | 6A | 750W |
| BAP765F - 48 - 12 | 48V | 12V | 60A | 750W |
| BAP765F - 48 - 24 | | 24V | 40A | 1000W |
| BAP765F - 48 - 48 | | 48V | 20A | 1000W |
| BAP765F - 48 - 125 | | 125V | 8A | 1000W |
| BAP765F - 72 - 12 | 72V | 12V | 60A | 750W |
| BAP765F - 72 - 24 | | 24V | 58A | 1400W |
| BAP765F - 72 - 48 | | 48V | 29A | 1400W |
| BAP765F - 72 - 125 | | 125V | 11A | 1400W |
| BAP765F - 110 - 12 | 110V | 12V | 60A | 750W |
| BAP765F - 110 - 24 | | 24V | 62A | 1500W |
| BAP765F - 110 - 48 | | 48V | 31A | 1500W |
| BAP765F - 110 - 125 | | 125V | 12A | 1500W |

BAP Euro SERIES

DC/DC Converters Single Output: 200 - 500 Watts



Features

- Eurocard plug-in modules for 3U and 4U x 19in rack systems
- Input voltage options from 24 - 140VDC
- Three power levels: 200, 300 and 500 watts
- Constant current overload protection
- Input - Output isolation
- Suitable for a wide range of industrial and Telecom applications
- Battery charging option
- Mature product, field proven reliability
- **N+1** redundancy of converter modules
- DC fail alarm
- Customer specified input and output voltage options

General Specifications

| | |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (21 - 30) 48VDC (42 - 60) 72VDC (60 - 85) 110VDC (90 - 140) • Other options on request) |
| Output Power: | Modules: 200, 300 and 500 watts 3U Rack up to 6 x 200W modules 4U Rack up to 5 x 300W or 500W modules |
| Output Voltage: | 12 - 125VDC |
| Voltage Range: | ±5% adjustment via on-board trim pot (other options on request) |
| Load Regulation: | ±1.5% |
| Line Regulation: | ±1% |
| Isolation: | Input - Output: 1500VDC (2250V option) |
| EMC: | EN55022 Class A |
| Operating Temp: | -0°C to +50°C, derate linearly to 70°C |
| Efficiency: | Model dependent, typically 85% |
| Protection: | Overvoltage protection Overload protection - constant current Thermal protection |
| Cooling: | Convection cooled |
| Parallel: | Yes. Parallel with N+1 Redundancy |
| Alarm: | Optocoupler alarm on modules DC Fail Alarm (voltage free contacts on Rack) |
| Indicator: | Led on front panel Test points on front panel |
| Terminals: | H15 DIN connector modules Screw terminals on rear of Rack |
| Dimensions: | BAP236: 3U x 14HP x 220mm DCP65: 4U x 16HP x 304mm BAP419: 4U x 16HP x 304mm |

Description

The **BAP Euro** series DC/DC converters are a field proven product with over 20 years track record.

These **Plug-in** modules are designed for insertion/assembly into industry standard 19in racks, which can be manufactured to customer specifications and come fully wired ready for installation.

Available in two mechanical styles, 3U 200W and or 4U 300W and 500W modules. Each module has a built-in isolation diode for **N+1** Redundancy applications for critical systems that require no break power.

Up to six 3U/200W modules can be assembled into one 3U x 19in rack and up to five 4U/300-500W modules into one 4U x 19in rack.

Complete power rack systems can be supplied, offering a total solution to any DC/DC converter application.

Designed for a wide range of industrial applications, with input voltage options from 24 - 140VDC and any output voltage from 12 - 125VDC

For more detailed information on BAP Euro series, visit our website

Options

| | |
|------------------------|-------------------------------------------------------------------------------------------------------------------|
| Ruggedising: | Modules can be supplied with conformal coating of PCB's and a high level of ruggedisation for harsh environments. |
| Output Voltage: | Any output voltage option from 12 - 125VDC |
| Racks: | Rack systems can be designed to meet customer requirements. |

| Model | Output Voltage Options V | Maximum Output A | Power W |
|--------|-----------------------------|---------------------|------------|
| BAP236 | 12 - 125V | 16A | 200W |
| DCP65 | 12 - 125V | 25A | 300W |
| BAP419 | 12 - 125V | 20A | 500W |

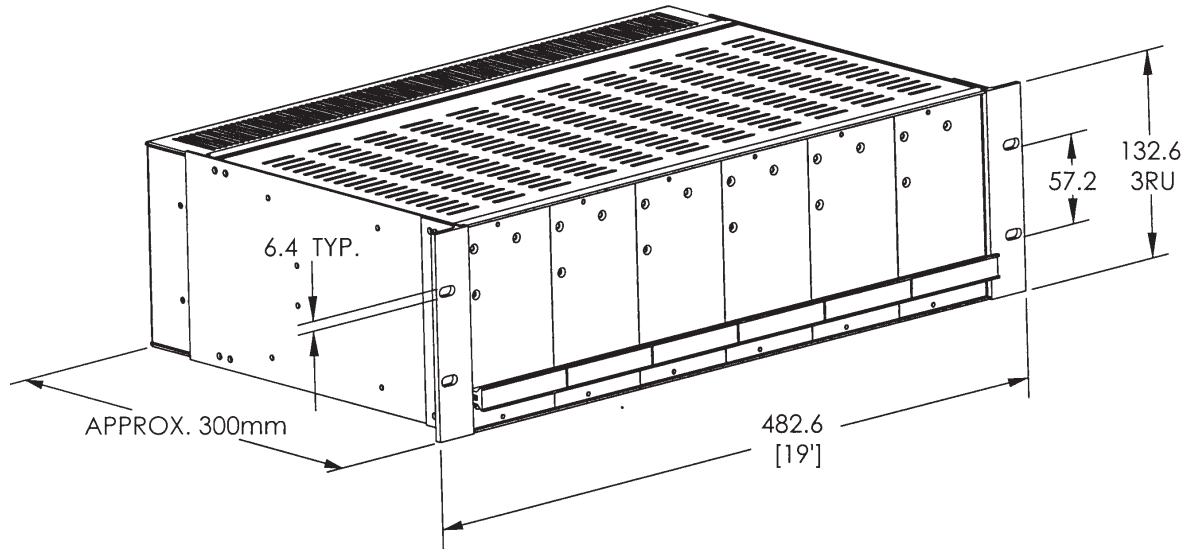
Model Selection:

1. Any output voltage is possible, within the range of 12 - 125V.
2. Input & output voltage settings are customer specified and factory set.
3. Output current must not exceed the maximum indicated.
4. Part number will be allocated at time of order.
5. A number of units can be connected in parallel for increased power and N+1 redundancy applications - option.

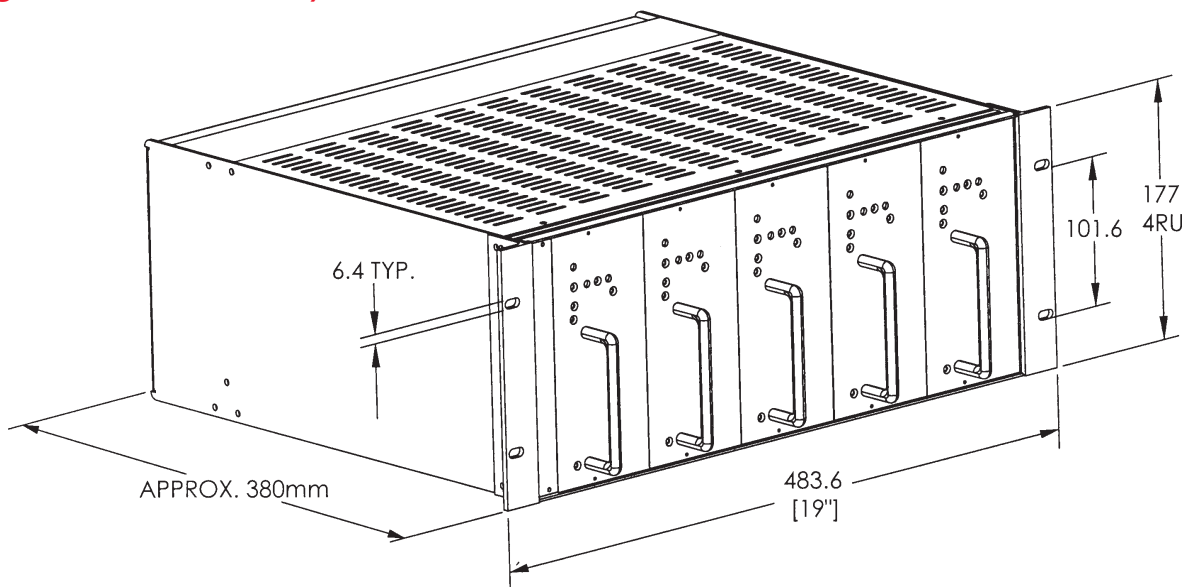
BAP Euro SERIES

DC/DC Converters Single Output: 200 - 500 Watts

3U x 19" Rack System (Using 200W modules)



4U x 19" Rack System (Using 300/500W modules)



DCWR SERIES

Rail DC/DC Converters: 100 - 150 Watts



Features

- Designed to rail standards EN50155 and EN50121
- Wide input range
- Ruggedised design for on-board train applications
- Convection cooled - no fans
- Two power levels: 100 and 150 watts
- Fully isolated input - output 3000VDC
- Overvoltage protection
- Overload and short circuit protection
- MTBF >150,000 hours
- Special input/output combinations on request
- Single output options 12VDC - 130VDC possible
- Dual output models

General Specifications

| | |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (15 - 37), 36VDC (22 - 55) 48VDC (28 - 72), 72VDC (42 - 110) 110VDC (57 - 168) • Other voltages on request |
| Input Protection: | Reverse polarity protection. Inrush current limiting and input fuse |
| Isolation: | Input - Output 3000 VDC |
| Efficiency: | Model dependent, typically 80% |
| Output Voltage: | See tables |
| Output Power: | 100 - 500 watts |
| Voltage Adjustment: | ±5.0% |
| Regulation: | Line: ±1% Load: ±2% |
| Output Protection: | Overvoltage protection Current limiting and short circuit protection |
| EMI: | EN55022 Class B, EN50121-3-2 |
| Immunity: | EN50155 & EN50121-3-2, EN61000-4 |
| Operating Temp: | -25°C to 50°C at full load. 70°C cold plate temperature |
| Dimensions/Weight: | DCW100R/102R: 155 x 87 x 49mm 0.6Kg DCW150R/152R: 198 x 113 x 51mm 0.8Kg |

Description

The DCWR series DC/DC converters are an upgraded product from the very popular and mature DCW industrial grade product, with field proven reliability for over 10 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 ruggedisation for shock and vibration to IEC61373.

Designed for a wide range of input voltage options from 24 - 168VDC and any **single** output voltage from 12 - 130VDC, and dual output options that are totally isolated from each other and fully regulated.

- **For more detailed information on DCWR series, visit our website.**

Options

| | |
|------------------------|---------------------------------------------------------------------|
| Alarm: | Voltage Free Relay contacts for monitoring DC output on some models |
| Output Voltage: | Special voltage outputs |
| Terminals: | Customer specified connectors |

| Model Single Outputs | Input Options V | Standard Outputs | | Power W |
|-------------------------|-----------------------------|---------------------|-----|------------|
| | | V | A | |
| DCW100R | 24V, 36V, 48V, 72V, 110V | 12V | 8A | 100W |
| | | 24V | 4A | 100W |
| | | 48V | 2A | 100W |
| DCW150R | 24V, 36V, 48V, 72V, 110V | 12V | 12A | 150W |
| | | 24V | 6A | 150W |
| | | 48V | 3A | 150W |

| Model Dual Outputs | Input Options V | Standard Outputs | | Power W |
|-----------------------|-----------------------------|---------------------|----|------------|
| | | V | A | |
| DCW102R | 24V, 36V, 48V, 72V, 110V | V1: 12V | 4A | 100W |
| | | V2: 12V | 4A | |
| DCW152R | 24V, 36V, 48V, 72V, 110V | V1: 5 - - 48V | 3A | 150W |
| | | V2: 5 - - 24V | 3A | |

DCW102R: Both outputs are individually regulated, floating and isolated from each other. Other voltages on request.

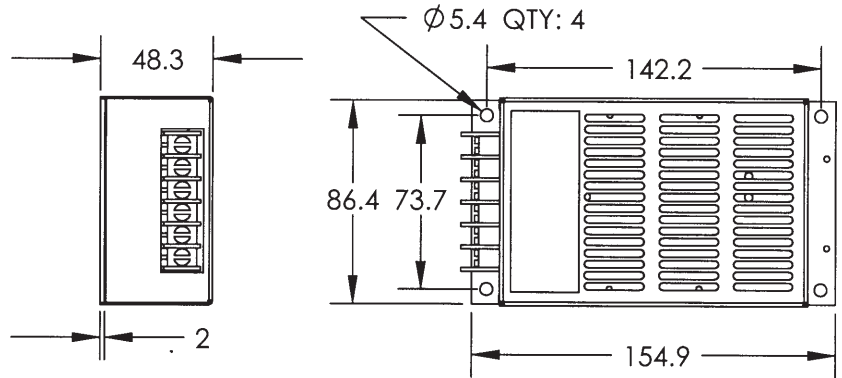
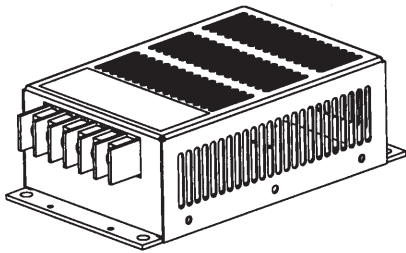
DCW152R: Any voltage is available within the range indicated. Both outputs are individually regulated, floating and isolated from each other.

DCW100R/DCW150R: Other output voltages on request

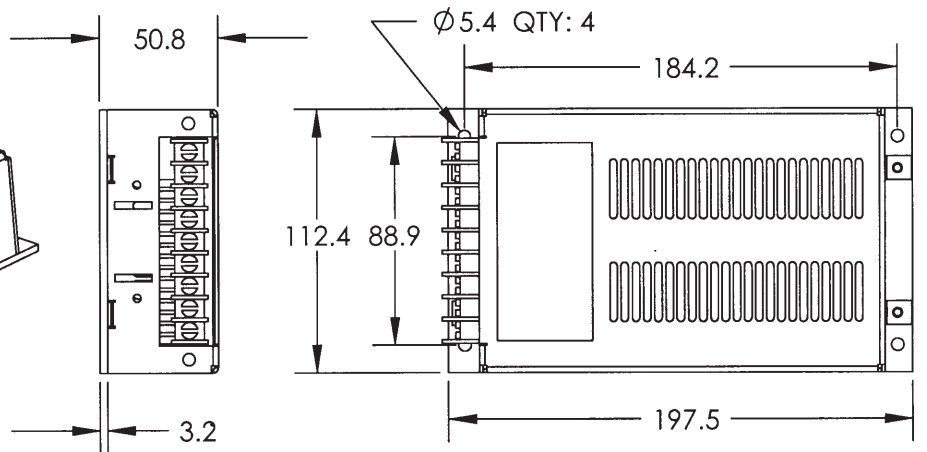
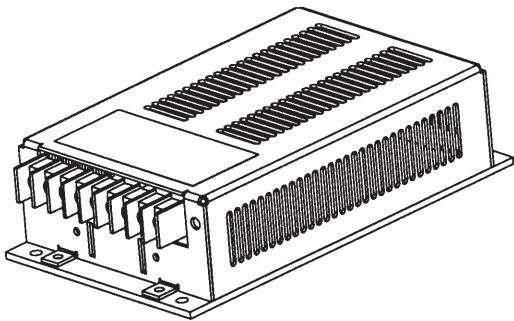
DCWR SERIES

Rail DC/DC Converters: 100 - 150 Watts

DCW100R



DCW150R



BAPR SERIES

Rail DC/DC Converters Single Output: 200 - 500 Watts



Features

- Designed to rail standards EN50155 & EN50121
- Wide input range
- Rugged design for on-board train applications
- Convection cooled. No fans
- Three power levels: 200, 300 & 500 watts
- Fully isolated input - output 3000 VDC
- Over voltage protection
- Overload and short circuit protection
- MTBF > 200,000 hours
- Special input/output combinations on request
- Any output from 12 VDC - 130 VDC possible
- **N+1 Redundancy** option

General Specifications

| | |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (15 - 37), 36VDC (22 - 55) 48VDC (28 - 72), 72VDC (42 - 110) 110VDC (57 - 168) • Other voltages on request |
| Input Protection: | Reverse polarity protection. Inrush current limiting and input fuse |
| Isolation: | Input - Output 3000 VDC |
| Efficiency: | Model dependent, typically 83% |
| Output voltage: | Any voltage from 12 to 130 VDC |
| Output Power: | 200 - 500 watts |
| Voltage Adjustment: | ±5.0% |
| Regulation: | Line: ±1%, Load: ±2% |
| Output Protection: | Over voltage protection. Current limiting, constant current mode. Thermal protection. |
| EMC: | EN55022 Class B, EN50121-3-2 |
| Immunity: | EN50155, EN50121-3-2 & EN61000-4 |
| Operating Temp: | -25°C to +50°C at full load 70°C cold plate temperature |
| Dimensions/Weight: | BAP236R, 200W: 254 x 114 x 58mm. 1.2Kg BAP65R, 300W: 290 x 132 x 60mm. 1.8Kg BAP319R, 500W: 351 x 133 x 67mm. 2.0Kg |

Notes:

1. Standard output voltage options are illustrated, however any voltage is possible from 12 - 130VDC.
2. Output voltage is customer specified and factory set.
3. Contact our sales office for 24VDC input range for 300W and 500W.
4. Final part number will be factory allocated.

Description

The BAPR 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 ruggedisation for shock and vibration to IEC61373

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

- **For more detailed information on BAPR Series, visit our website.**

Options

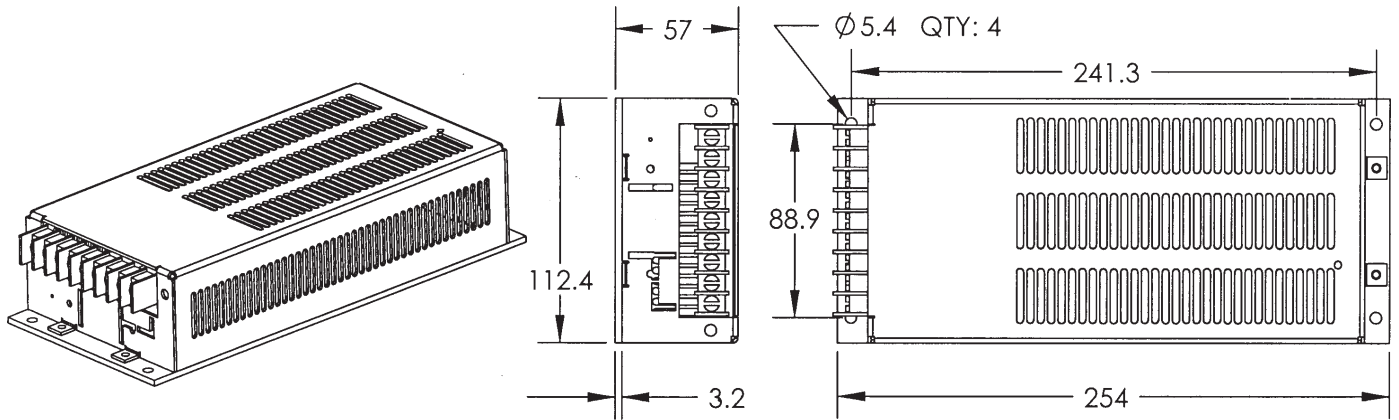
| | |
|------------------------|---------------------------------------------------------------------------------------------------------------|
| Redundancy: | Units can be supplied with a built-in isolation diode for use in N+1 Redundancy /parallel applications |
| Alarm: | Voltage Free Relay contacts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

| Model | Input Options V | Standard Outputs V A | Power W |
|----------------|-----------------------------|-------------------------|------------|
| BAP236R | 24V, 36V, 48V 72V, 110V | 12V 16A | 200W |
| | | 24V 8.3A | |
| | | 48V 4.0A | |
| | | 110V 1.8A | |
| BAP65R | 24V, 36V, 48V, 72V, 110V | 12V 25A | 300W |
| | | 24V 12.5A | |
| | | 48V 6.2A | |
| | | 110V 2.7A | |
| BAP319R | 24V, 36V, 48V, 72V, 110V | 24V 20A | 500W |
| | | 48V 10A | |
| | | 110V 4.5A | |

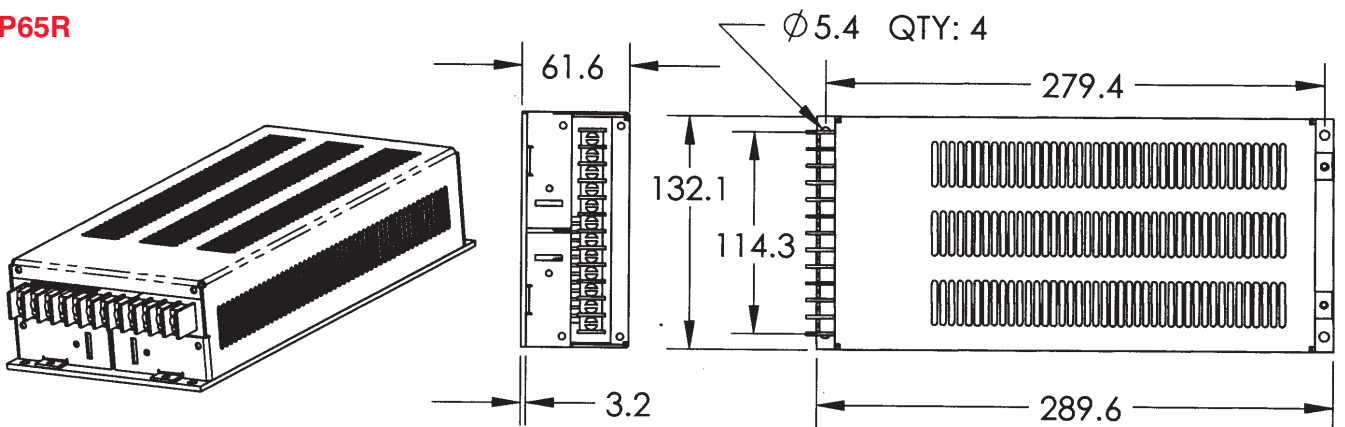
BAPR SERIES

Rail DC/DC Converters Single Output: 200 - 500 Watts

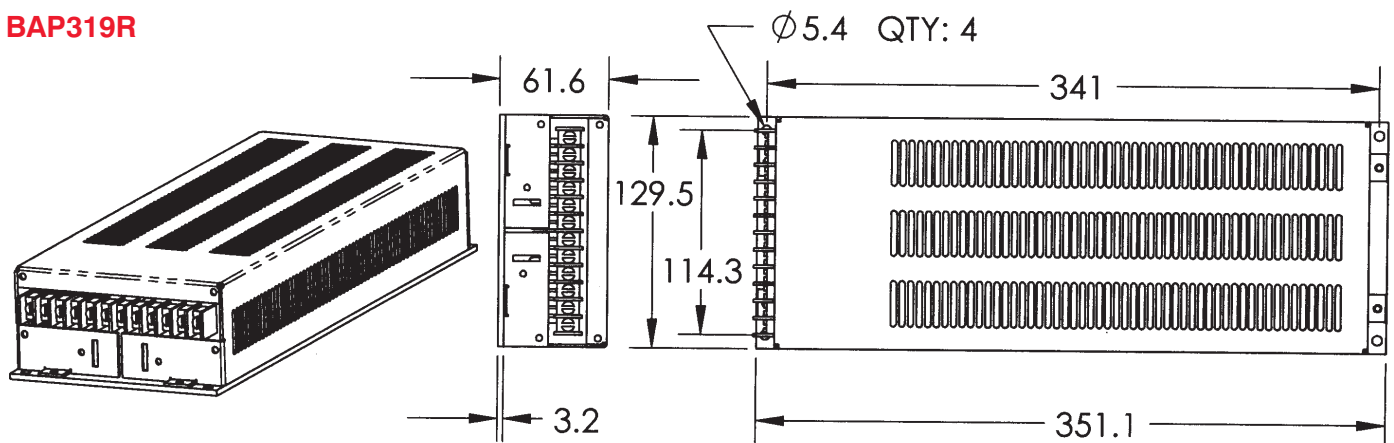
BAP236R



BAP65R

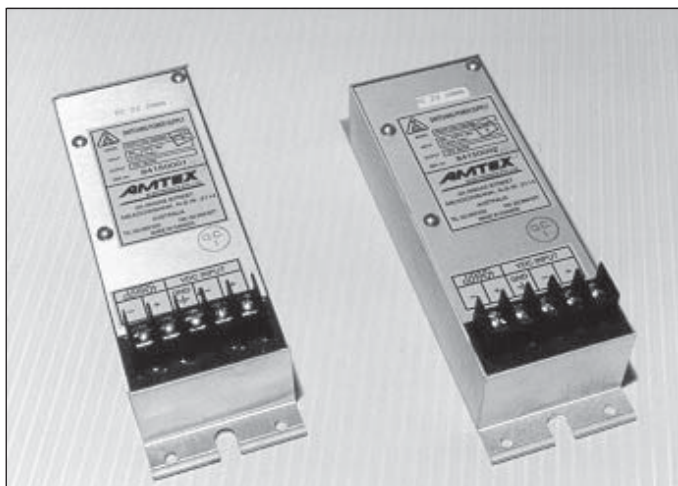


BAP319R



RWY SERIES

Rail DC/DC Converters Single Output: 30 - 280 Watts



Features

- Designed to rail standards EN50155 and EN50121
- Fully potted with thermally conductive MIL-Spec silicon rubber compound
- Rugged design for on-board train applications
- Wide input voltage range
- Convection/Conduction cooled. No fans
- Fully isolated input - output 3000VDC
- Over voltage protection
- Overload and short circuit protection
- MTBF > 150,000 hours
- Single and dual output options

General Specifications

| | |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 24VDC (17 - 30), 72VDC (50 - 90), 110VDC (77 - 137) • Other voltages options on request. |
| Input Protection: | Reverse polarity protection. Inrush current limiting |
| Isolation: | Input - Output: 3000VDC |
| Efficiency: | Model dependent, typically 80% |
| Output Voltage: | See tables |
| Output Power: | 30 - 280 watts |
| Voltage Adjustment: | Fixed output |
| Regulation: | Line: $\pm 1.5\%$ Load: $\pm 2\%$ |
| Output Protection: | Over voltage protection Current limiting and short circuit protection. Thermal protection |
| EMI: | EN55022 Class A, EN50121 -3 -2 |
| Immunity: | EN50155, EN50121 -3 -2 and EN61000 -4 |
| Operating Temp: | -40°C to +50°C at full load +70°C cold plate temperature |
| Dimensions/Weight: | RWY30 -150: 181 x 59 x 56mm 500 -650g RWY200: 210 x 69 x 58mm 900g RWY280: 201 x 113 x 61mm 1.3Kg RWY72: 180 x 105 x 60mm 1.3Kg RWY182: 201 x 113 x 61mm 1.3Kg RWY272: 180 x 105 x 58mm 1.3Kg RWY250: 201 x 113 x 61mm 1.5Kg RWY282: 201 x 113 x 61mm 1.5Kg |

Description

The **RWY** series DC/DC converters are designed for use on Rail Rolling Stock and for many extremely harsh environments. They are fully potted with a thermally conductive with a MIL-Spec silicon compound, meeting a high level of shock and vibration. The tables below illustrate some of the most common output voltages, but these DC/DC converters can also be manufactured to customer input and output specifications, with total flexibility to match those requirements.

The dual output models have two floating outputs, which if required, can be connected in series, for high output voltage options.

- **For more detailed information on the RWY series, visit our website.**

Options

| | |
|------------------------|--------------------------------|
| Output Voltage: | Special voltage outputs. |
| Terminals: | Customer specified connectors. |

| Model Single | Output | | Power W |
|------------------|--------|-------|---------|
| | V | A | |
| RWY30 - xx - 12 | 12V | 2.5A | 30W |
| RWY30 - xx - 24 | 24V | 1.25A | |
| RWY60 - xx - 12 | 12V | 5.0A | 60W |
| RWY60 - xx - 24 | 24V | 2.5A | |
| RWY100 - xx - 12 | 12V | 8.3A | 100W |
| RWY100 - xx - 24 | 24V | 4.1A | |
| RWY150 - xx - 12 | 12V | 12.5A | 150W |
| RWY150 - xx - 24 | 24V | 6.0A | |
| RWY200 - xx - 12 | 12V | 16A | 200W |
| RWY200 - xx - 24 | 24V | 8A | |
| RWY280 - xx - 12 | 12V | 23A | 280W |
| RWY280 - xx - 24 | 24V | 11A | |

Notes re table (above):

- Final part numbers will be factory allocated to reflect customer input and output requirements.
- **XX** will be replaced by input voltage: RWY150 - 110 - 12
- Other output voltage options on request

Notes re table (left):

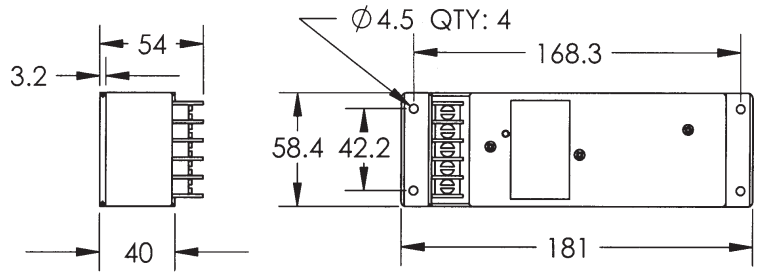
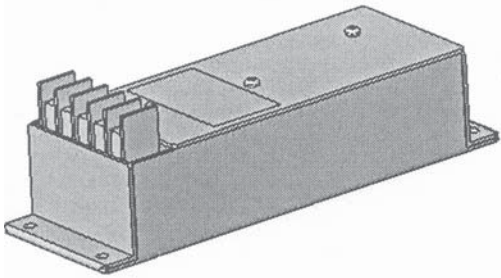
- Final part numbers will be factory allocated to reflect customer input and output requirements.
- RWY182, RWY250, RWY282: Any output voltage setting is possible between 5-72V on each of the two outputs.
- Other output voltage options on request.

| Model Dual | Output | | | | Power W |
|------------------|---------|-----|---------|-----|---------|
| | V1 | | V2 | | |
| RWY72 - xx - 12 | 12V | 6A | 12V | 6A | 150W |
| RWY72 - xx - 24 | 24V | 3A | 24V | 3A | |
| RWY272 - xx - 12 | 12V | 8A | 12V | 8A | 200W |
| RWY272 - xx - 24 | 24V | 4A | 24V | 4A | |
| RWY182 - xxxx | 5 - 72V | 8A | 5 - 72V | 8A | 200W |
| RWY250 - xxxx | 5 - 72V | 8A | 5 - 72V | 8A | |
| RWY282 - xxxx | 5 - 72V | 12A | 5 - 72V | 12A | 280W |

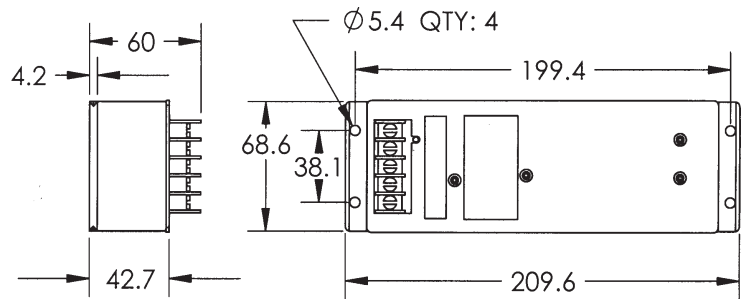
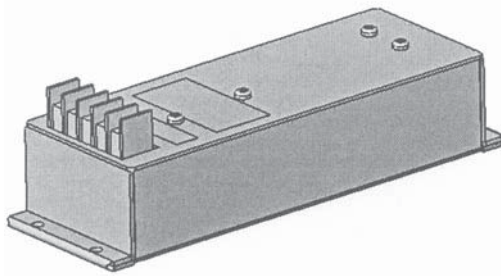
RWY SERIES

Rail DC/DC Converters Single Output: 30 - 280 Watts

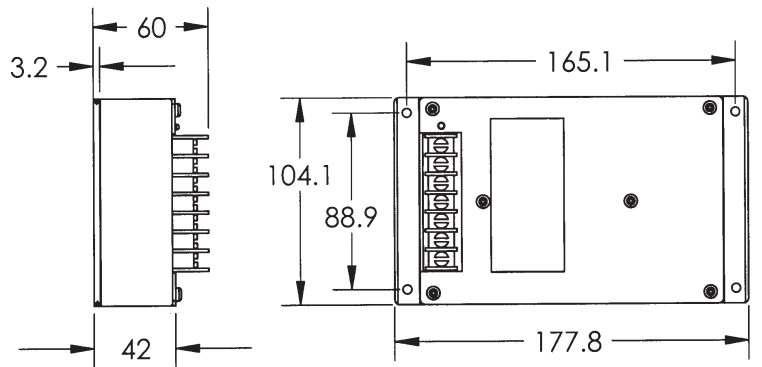
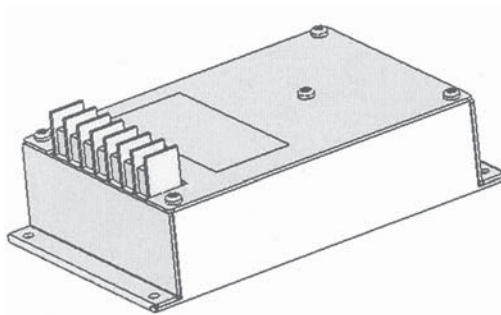
RWY30~150



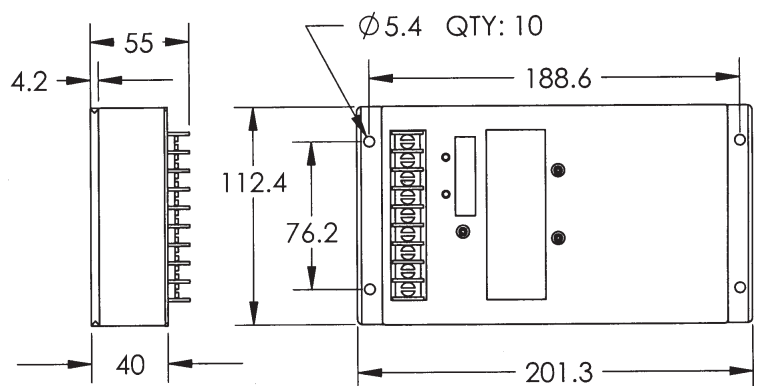
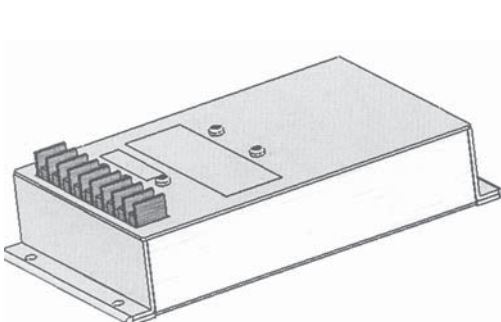
RWY200



RWY72



RWY282, 182, 202, 280, 272



VADS SERIES

DC/DC Single Output: 300 - 1500 Watts



Features

- Based on **PH** Series power modules
- Wide DC input voltage range
- Output voltage trim option
- Fully isolated input - output 3000VDC
- Floating output
- Regulated output
- Overload and over voltage correction
- **N+1** redundancy option
- DC Fail alarm output option
- MTBF > 200,000 hours

General Specifications

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage: | 48VDC (20 - 36), 48VDC (36 - 76), 110VDC (85 - 185) |
| Input Protection: | Reverse polarity protection. Inrush current limiting |
| Efficiency: | Model dependent 85 - 90% |
| Output Voltage: | 12 - 48VDC |
| Voltage Adjustment: | Only on Case style 210069 |
| Output Power: | 300 - 1500 watts |
| Output Protection: | Overload protection, constant current limiting, overvoltage Protection |
| Parallel Operation: | F models only |
| Isolation: | Input - output 3000VAC |
| Redundancy: | Built-in isolation diode - Option |
| Alarm: | Dc Fail Relay Alarm - Option |
| Operating Temp: | 0°C to +50°C at rated load |
| Cooling: | 300W: convection cooled 500 - 1500W: internal fan |
| Dimensions: | Case: NL210069: 278 x 130 x 70mm NL405117: 330 x 150 x 140mm NL405118: 330 x 150 x 200mm NL411140: 350 x 150 x 140mm NL411141: 350 x 150 x 200mm |
| Weight: | Model dependent: 2.45Kg |

Description

The **VADS** series converters use the field proven PH power modules, packaged in a suitable assembly to provide a high quality DC/DC converter product range.

Using the PH series power modules as a building block, allows us to bring on-board the reliability of these modules and their features of high isolation, safety approvals and 'constant current' overload protection.

For more detailed information on the VADS series, visit our website.

Options

| | |
|-------------------------|--------------------------------------------------------------------------|
| Alarm: | Output voltage alarm, free relay contacts: Add ' R ' to model. |
| Isolation Diode: | Isolation diode for N+1 Redundancy: Add ' D ' to model. |

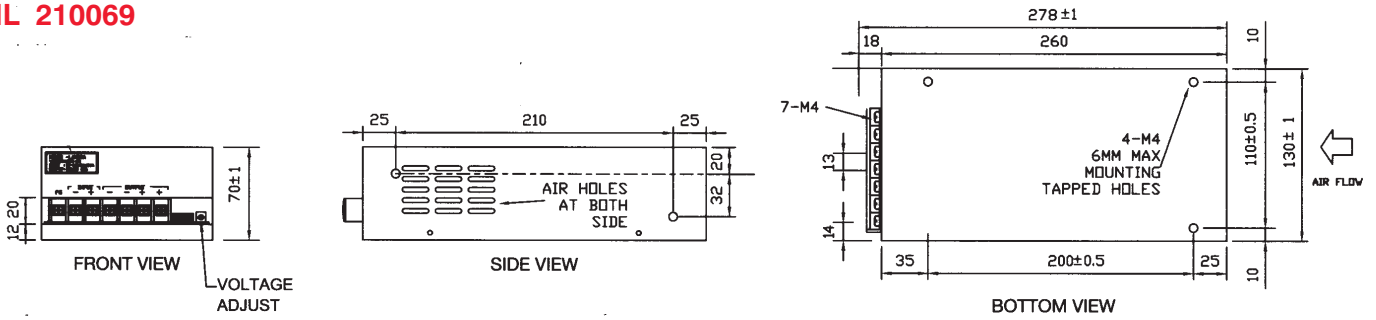
| Model | Input V | Output V | Output A | Power W | Case |
|------------------|---------|----------|----------|---------|--------|
| VADS300F24 - 12 | 24V | 12V | 20A | 240W | 210069 |
| VADS300F24 - 24 | 24V | 24V | 10.8A | 260W | 210069 |
| VADS300F24 - 28 | 24V | 28V | 10.8A | 300W | 210069 |
| VADS500F24 - 12 | 24V | 12V | 42A | 500W | 210069 |
| VADS500F24 - 24 | 24V | 24V | 18A | 430W | 210069 |
| VADS500F24 - 28 | 24V | 28V | 18A | 500W | 210069 |
| VADS500F24 - 48 | 24V | 48V | 10A | 500W | 405117 |
| VADS600F24 - 24 | 24V | 24V | 21.5A | 516W | 210069 |
| VADS1000F24 - 12 | 24V | 12V | 84A | 1000W | 411140 |
| VADS1000F24 - 24 | 24V | 24V | 40A | 960W | 405117 |
| VADS1000F24 - 28 | 24V | 28V | 36A | 864W | 405117 |
| VADS1500F24 - 12 | 24V | 12V | 125A | 1500W | 411141 |
| VADS1500F24 - 24 | 24V | 24V | 60A | 1440W | 411141 |
| VADS1500F24 - 28 | 24V | 28V | 54A | 1500W | 411141 |

| Model | Input V | Output V | Output A | Power W | Case |
|------------------|---------|----------|----------|---------|--------|
| VADS300F48 - 12 | 48V | 12V | 25A | 300W | 210069 |
| VADS300F48 - 15 | 48V | 15V | 20A | 300W | 210069 |
| VADS300F48 - 24 | 48V | 24V | 12.6A | 300W | 210069 |
| VADS300F48 - 28 | 48V | 28V | 10.8A | 300W | 210069 |
| VADS500F48 - 12 | 48V | 12V | 42A | 500W | 210069 |
| VADS500F48 - 24 | 48V | 24V | 18A | 432W | 210069 |
| VADS500F48 - 28 | 48V | 28V | 18A | 500W | 210069 |
| VADS600F48 - 12 | 48V | 12V | 50A | 600W | 210069 |
| VADS600F48 - 24 | 48V | 24V | 21.5A | 516W | 210069 |
| VADS600F48 - 28 | 48V | 28V | 21.5A | 600W | 210069 |
| VADS1000F48 - 12 | 48V | 12V | 84A | 1000W | 411140 |
| VADS1000F48 - 24 | 48V | 24V | 40A | 960W | 405117 |
| VADS1000F48 - 28 | 48V | 28V | 40A | 1120W | 405117 |
| VADS1500F48 - 12 | 48V | 12V | 125A | 1500W | 411141 |
| VADS1500F48 - 24 | 48V | 24V | 60A | 1440W | 405118 |
| VADS1500F48 - 28 | 48V | 28V | 54A | 1500W | 405118 |
| VADS300F110 - 12 | 110V | 12V | 25A | 300W | 210069 |
| VADS300F110 - 15 | 110V | 15V | 20A | 300W | 210069 |
| VADS300F110 - 24 | 110V | 24V | 12.6A | 300W | 210069 |
| VADS300F110 - 28 | 110V | 28V | 10.8A | 300W | 210069 |
| VADS600F110 - 24 | 110V | 24V | 25A | 600W | 405117 |

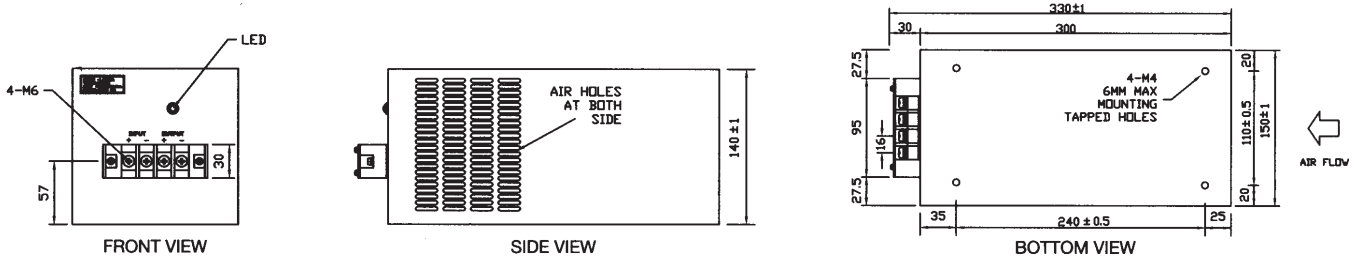
VADS SERIES

DC/DC Single Output: 300 - 1500 Watts

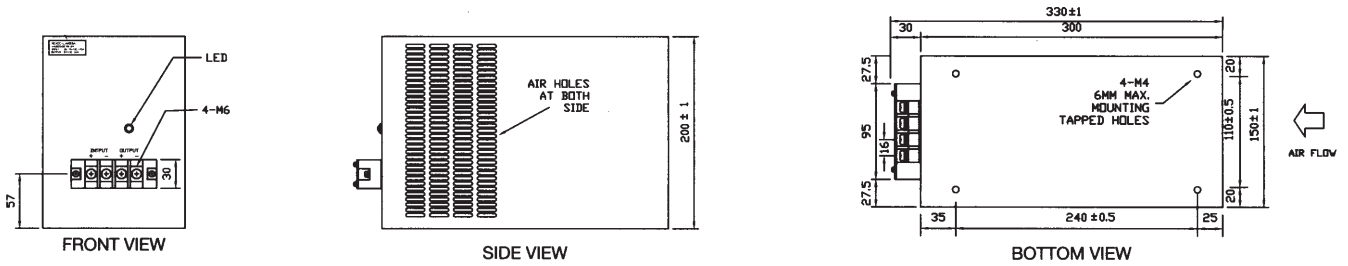
NL 210069



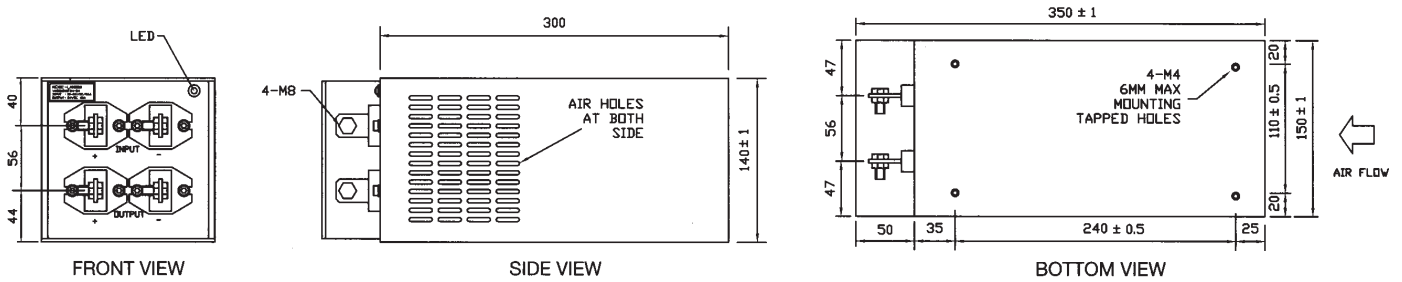
NL 405117



NL 405118



NL 411140



NL 411141

