

## Features

- Input PI filter
- High Density
- 2:1, 4:1 input range
- High reliability
- Easy Installation
- Rugged
- Compact
- Low profile
- Six side metal shielding
- Low EMI interference
- Able to withstand high vibration and shock
- Perfectly suited for: transportation, base station, telecom, and test equipment



| Model Number   | Nominal Input | Input Range | Output Voltage | Output Current | Output Power | Ripple & Noise | Typical Efficiency |
|----------------|---------------|-------------|----------------|----------------|--------------|----------------|--------------------|
| VDZ300-D12-S12 | 12            | 9-18 Vdc    | 12V            | 6.25 A         | 75W          | 120 (mVpp)     | 83%                |
| VDZ300-D12-S15 | 12            | 9-18 Vdc    | 15V            | 5.0 A          | 75W          | 120 (mVpp)     | 83%                |
| VDZ300-D12-S24 | 12            | 9-18 Vdc    | 24V            | 5.2 A          | 125W         | 200 (mVpp)     | 84%                |
| VDZ300-D12-S28 | 12            | 9-18 Vdc    | 28V            | 2.68 A         | 75W          | 280 (mVpp)     | 84%                |
| VDZ300-D12-S48 | 12            | 9-18 Vdc    | 48V            | 2.6 A          | 125W         | 400 (mVpp)     | 83%                |
| VDZ300-D24-S12 | 24            | 18-36 Vdc   | 12V            | 6.25 A         | 75W          | 120 (mVpp)     | 85%                |
| VDZ300-D24-S15 | 24            | 18-36 Vdc   | 15V            | 5.0 A          | 75W          | 120 (mVpp)     | 88%                |
| VDZ300-D24-S24 | 24            | 18-36 Vdc   | 24V            | 5.2 A          | 125W         | 200 (mVpp)     | 89%                |
| VDZ300-D24-S28 | 24            | 18-36 Vdc   | 28V            | 2.68 A         | 75W          | 280 (mVpp)     | 88%                |
| VDZ300-D24-S48 | 24            | 18-36 Vdc   | 48V            | 3.13 A         | 150W         | 400 (mVpp)     | 89%                |
| VDZ300-D48-S12 | 48            | 36-72 Vdc   | 12V            | 10.4 A         | 125W         | 120 (mVpp)     | 88%                |
| VDZ300-D48-S15 | 48            | 36-72 Vdc   | 15V            | 8.33 A         | 125W         | 120 (mVpp)     | 89%                |
| VDZ300-D48-S24 | 48            | 36-72 Vdc   | 24V            | 5.2 A          | 125W         | 200 (mVpp)     | 90%                |
| VDZ300-D48-S28 | 48            | 36-72 Vdc   | 28V            | 5.36 A         | 150W         | 280 (mVpp)     | 89%                |
| VDZ300-D48-S48 | 48            | 36-72 Vdc   | 48V            | 3.125 A        | 150W         | 400 (mVpp)     | 87%                |
| VDZ300-Q24-S12 | 18            | 9-36 Vdc    | 12V            | 6.25 A         | 75W          | 120 (mVpp)     | 83%                |
| VDZ300-Q24-S15 | 18            | 9-36 Vdc    | 15V            | 5.0 A          | 75W          | 150 (mVpp)     | 83%                |
| VDZ300-Q24-S24 | 18            | 9-36 Vdc    | 24V            | 5.0 A          | 120W         | 200 (mVpp)     | 85%                |
| VDZ300-Q24-S28 | 18            | 9-36 Vdc    | 28V            | 4.29 A         | 120W         | 280 (mVpp)     | 85%                |
| VDZ300-Q24-S48 | 18            | 9-36 Vdc    | 48V            | 2.6 A          | 125W         | 480 (mVpp)     | 82%                |
| VDZ300-Q48-S12 | 48            | 18-72 Vdc   | 12V            | 6.25 A         | 75W          | 120 (mVpp)     | 85%                |
| VDZ300-Q48-S15 | 48            | 18-72 Vdc   | 15V            | 5.0 A          | 75W          | 150 (mVpp)     | 85%                |
| VDZ300-Q48-S24 | 48            | 18-72 Vdc   | 24V            | 5.0 A          | 120W         | 240 (mVpp)     | 86%                |
| VDZ300-Q48-S28 | 48            | 18-72 Vdc   | 28V            | 4.29 A         | 120W         | 280 (mVpp)     | 86%                |
| VDZ300-Q48-S48 | 48            | 18-72 Vdc   | 48V            | 3.125 A        | 150W         | 400 (mVpp)     | 84%                |

## Input

| Specification             | Typical                                                                                                          | Range | Units |
|---------------------------|------------------------------------------------------------------------------------------------------------------|-------|-------|
| Input Voltage Range       | 12V                                                                                                              | 9~18  | Vdc   |
|                           | 24V                                                                                                              | 18~36 | Vdc   |
|                           | 48V                                                                                                              | 36~72 | Vdc   |
|                           | 18V                                                                                                              | 9~36  | Vdc   |
|                           | 48V                                                                                                              | 18-72 | Vdc   |
| Input Reversal Protection | Protected if an external input fuse is installed.                                                                |       |       |
| Remote On/Off Control     | Min. of 5.5V to turn on, Max. of 1.2V to turn off.<br>Unit defaults to normal output if control pin is not used. |       |       |

## Output

| Specification                                  | Min. | Typ. | Max.  | Units |
|------------------------------------------------|------|------|-------|-------|
| Voltage Accuracy                               |      |      | ±1%   |       |
| Ripple and Noise(@ 20MHz Bandwidth)            |      |      | <1%   | mVpp  |
| Line Regulation                                |      |      | ±0.2% |       |
| Load Regulation                                |      |      | ±0.4% |       |
| Temperature Coefficient                        |      |      | ±0.01 | %/°C  |
| Transient Response (25%-50%-25% & 50%-75%-50%) |      |      | 200   | µs    |

## General Specifications

| Specification        | Min.         | Typ. | Max. | Units |
|----------------------|--------------|------|------|-------|
| Switching Frequency  | 160K         | 180K | 200K | Hz    |
| Isolation Resistance | 200M         |      |      | Ω     |
| MTBF                 | 200K         |      |      | hours |
| Isolation Voltage    | Input-Output | 1000 |      | Vdc   |
|                      | Input-Case   | 1000 |      | Vdc   |
|                      | Output-Case  | 1000 |      | Vdc   |

## Environmental Specifications

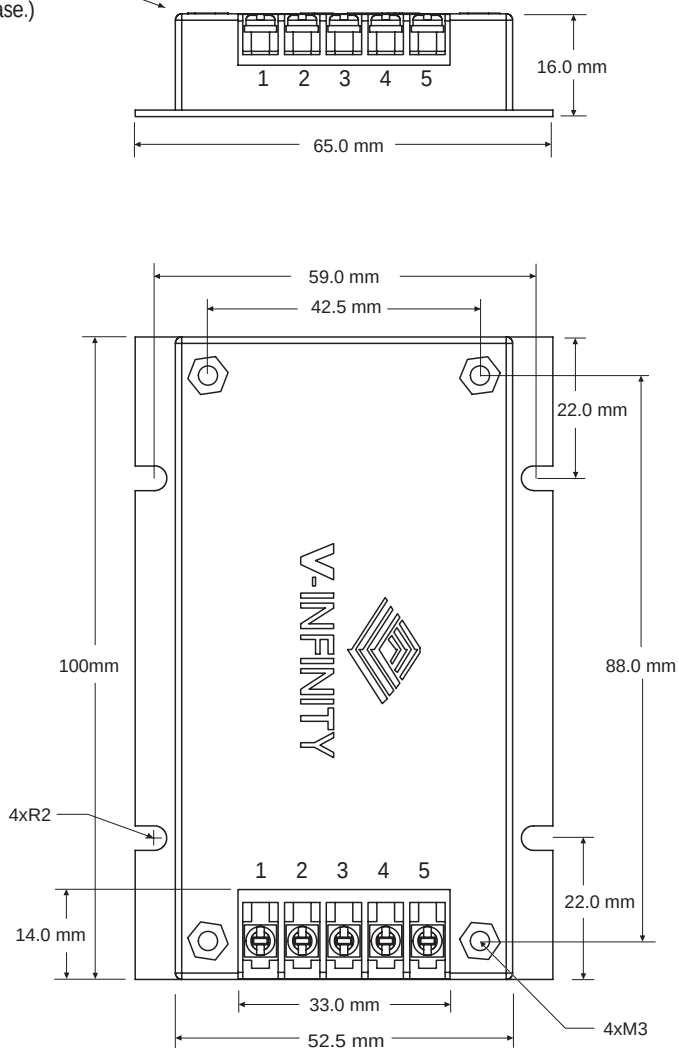
| Specification       | Min.                | Typ. | Max. | Units |
|---------------------|---------------------|------|------|-------|
| Case Temperature    | (Industrial Grade)  | -25  | +85  | °C    |
|                     | (Military Grade I)  | -40  | +85  | °C    |
|                     | (Military Grade II) | -55  | +85  | °C    |
| Storage Temperature | (Industrial Grade)  | -45  | +105 | °C    |
|                     | (Military Grade)    | -55  | +105 | °C    |
| Case Humidity       | (Non-condensing)    | 5%   | 85%  | RH    |
| Storage Humidity    | (Non-condensing)    | 5%   | 95%  | RH    |

## Thermal Characteristics

| Cooling Method     |             | Thermal Impedance |
|--------------------|-------------|-------------------|
| Natural convection |             | 4.38°C/W          |
| 0.5 (M/S)          | 1.64 (LF/S) | 3.65°C/W          |
| 1.0 (M/S)          | 3.28 (LF/S) | 2.72°C/W          |
| 1.5 (M/S)          | 4.92 (LF/S) | 1.98°C/W          |
| 2.0 (M/S)          | 6.56 (LF/S) | 1.64°C/W          |

## Dimensions

(Most heat to be dissipated from the top of case.)



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