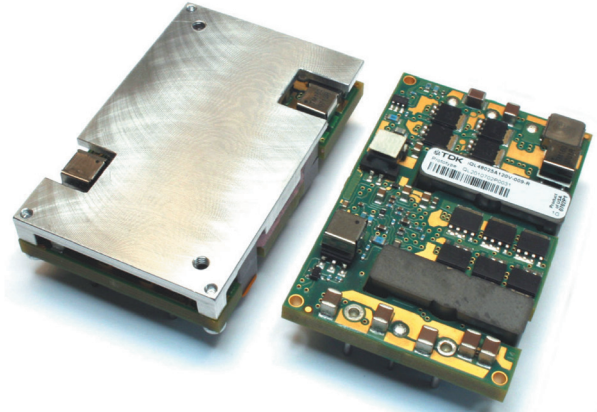


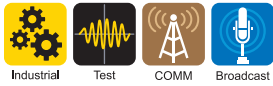
72-308W Quarter Brick Converter

Features

- ◆ Standard Quarter Brick Footprint
- ◆ 18-36, 36-75VDC Inputs
- ◆ 1.2V 60A, 28V 11A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ 1500VDC Basic Isolation
- ◆ Baseplate cooling
- ◆ High operating efficiency (up to 93.5%)
- ◆ Constant switching frequency



Key Market Segments & Applications



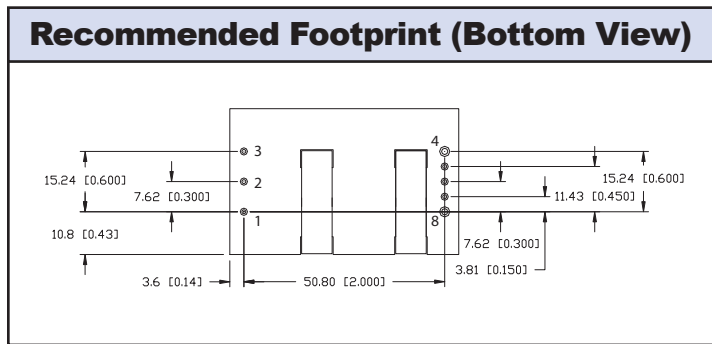
| Specifications | | IQL | | | | | |
|-----------------------------------|-----|--|------------|------------|------------|--------------------|------------|
| Model | | 1.2 | 2.5 | 3.3 | 5 | 12 | 28 |
| Nominal Output Voltage | VDC | 1.2 | 2.5 | 3.3 | 5 | 12 | 28 |
| Input Voltage Range | VDC | See Model Selector | | | | | |
| Ripple & Noise (max)(pk-pk) (1) | mV | 60 | 30 | 100 | 80 | 120 | 500 |
| Line Regulation (max) | mV | 1 | 5 | 6.6 | 10 | 60 | 100 |
| Load Regulation (max) | mV | 1 | 5 | 15 | 10 | 60 | 100 |
| Overload Protection Threshold (3) | A | 71 | 69 | 70 | 50 | 27.5 | 12.4 |
| Overvoltage Protection (Typ) (2) | VDC | 1.4 | 3.1 | 4.1 | 6.1 | 14.7 | 33.6 |
| Overtemperature Protection (3) | - | Yes | | | | | |
| Remote Sense | - | Yes | Yes | Yes | Yes | Yes ⁽⁴⁾ | Yes |
| Remote On / Off | - | Negative Logic (5) | | | | | |
| Temperature (operating) | °C | -40 to 115 | -40 to 115 | -40 to 125 | -40 to 119 | -40 to 118 | -40 to 115 |
| Temperature (storage) | °C | -55 to 125 | | | | | |
| Humidity (operating) | - | 20 to 95% (non-condensing) | | | | | |
| Humidity (storage) | - | 10 to 95% (non-condensing) | | | | | |
| Cooling | - | Conduction, convection, or forced air | | | | | |
| Isolation Voltage | VDC | 1500 Input - Output, 1500 Input - Baseplate | | | | | |
| Vibration (non operating) | - | 5 to 50Hz@0.5g (4.9m/s ²), and 50 to 500Hz@1.5g (14.7m/s ²) per Bellcore TR-EOP-000063-5.4.4 | | | | | |
| Shock | - | 50 G at 6 ms pulse in three axes | | | | | |
| Safety Agency Approvals | - | IEC/UL/CSA/EN62368-1, 60950-1, CE Mark | | | | | |
| Weight (max) | g | 55g open frame, 70g with base plate | | | | | |
| Size | mm | 57.9 x 36.8 x 13.21 | | | | | |
| Warranty | yrs | 3 Years | | | | | |

- (1) See website for detailed specification and test methods.
- (2) Default Over Voltage Protection is Latching mode unless otherwise indicated.
- (3) Over Current and Over Temperature Protection are both Non-Latching.
- (4) iQL24021A120V has remote sense, iQL48025A120V does not have remote sense.
- (5) Positive Logic is an option available for all codes.

| Model Selector | | | | | | | | |
|-------------------------|-------------------|--------------------|------------------|----------------|-----------------------|------------|-----------------------------|-----------------|
| Model | Input Voltage (V) | Output Voltage (V) | Adjust Range (V) | Max. Curr. (A) | Max. Output Power (W) | Base Plate | Efficiency at Full Load (%) | Pin Length (in) |
| iQL48060A012V-0B3-R (6) | 36 - 75 | 1.2 | 0.96 - 1.32 | 60 | 72.0 | No | 83.5 | 0.145 |
| iQL48060A025V-0B3-R (6) | 36 - 75 | 2.5 | 2.0 - 2.75 | 60 | 150.0 | No | 89.0 | 0.145 |
| iQL48060A025V-0B9-R | 36 - 75 | 2.5 | 2.0 - 2.75 | 60 | 150.0 | No | 89.0 | 0.180 |
| iQL24050A033V-009-R | 18 - 36 | 3.3 | 2.64 - 3.63 | 50 | 165.0 | Yes | 90.5 | 0.180 |
| iQL48060A033V-003-R (6) | 36 - 75 | 3.3 | 2.64 - 3.63 | 60 | 198.0 | Yes | 91.0 | 0.145 |
| iQL48060A033V-009-R | 36 - 75 | 3.3 | 2.64 - 3.63 | 60 | 198.0 | Yes | 91.0 | 0.180 |
| iQL48060A033V-0B9-R | 36 - 75 | 3.3 | 2.64 - 3.63 | 60 | 198.0 | No | 91.0 | 0.180 |
| iQL24040A050V-001-R | 18 - 36 | 5.0 | 4.0 - 5.5 | 40 | 200.0 | Yes | 91.0 | 0.145 |
| iQL24040A050V-009-R | 18 - 36 | 5.0 | 4.0 - 5.5 | 40 | 200.0 | Yes | 91.0 | 0.180 |
| iQL48045A050V-001-R | 36 - 75 | 5.0 | 4.0 - 5.5 | 45 | 225.0 | Yes | 91.0 | 0.145 |
| iQL48045A050V-003-R (6) | 36 - 75 | 5.0 | 4.0 - 5.5 | 45 | 225.0 | Yes | 91.0 | 0.145 |
| iQL48045A050V-0B3-R (6) | 36 - 75 | 5.0 | 4.0 - 5.5 | 45 | 225.0 | No | 91.0 | 0.145 |
| iQL48045A050V-009-R | 36 - 75 | 5.0 | 4.0 - 5.5 | 45 | 225.0 | Yes | 91.0 | 0.180 |
| iQL48045A050V-0B9-R | 36 - 75 | 5.0 | 4.0 - 5.5 | 45 | 225.0 | No | 91.0 | 0.180 |
| iQL24021A120V-001-R | 20 - 36 | 12.0 | 9.6 - 13.2 | 21 | 252.0 | Yes | 92.0 | 0.145 |
| iQL24021A120V-009-R | 20 - 36 | 12.0 | 9.28 - 12.76 | 21 | 252.0 | Yes | 92.0 | 0.180 |
| iQL48025A120V-009-R | 36 - 75 | 12.0 | 9.6 - 13.2 | 25 | 300.0 | Yes | 93.5 | 0.180 |
| iQL48025A120V-0B9-R | 36 - 75 | 12.0 | 9.6 - 13.2 | 25 | 300.0 | No | 93.5 | 0.180 |
| iQL48025A120V-001-R | 36 - 75 | 12.0 | 9.6 - 13.2 | 25 | 300.0 | Yes | 94.0 | 0.145 |
| iQL48011A280V-008-R | 36 - 75 | 28.0 | 22.4 - 30.8 | 11 | 308.0 | Yes | 92.5 | 0.180 |
| iQL48011A280V-009-R | 36 - 75 | 28.0 | 22.4 - 30.8 | 11 | 308.0 | Yes | 92.5 | 0.180 |

(6) OVP = Non-Latching Mode

Preferred Model



| Pinout | | | |
|--------|----------|-----|--------------------------|
| PIN | Function | PIN | Function |
| 1 | Vin (+) | 5 | Sense (-)(if applicable) |
| 2 | On / Off | 6 | Trim |
| 3 | Vin (-) | 7 | Sense (+)(if applicable) |
| 4 | Vo (-) | 8 | Vo (+) |

For Additional Information, please visit <https://product.tdk.com/en/power/>

