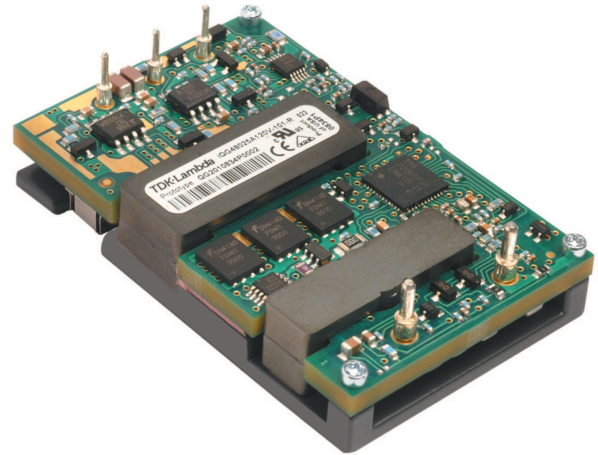


## 300 to 396W Quarter Brick Converters

### Features

- ◆ Standard Quarter Brick Footprint
- ◆ 36-75VDC Input
- ◆ 12V 25A or 33A Output
- ◆ Through Hole Mounting
- ◆ Low 13.2mm Profile
- ◆ 1500VDC Basic Isolation
- ◆ High operating efficiency (up to 95%)
- ◆ Constant switching frequency
- ◆ Starts with pre-biased output
- ◆ Baseplate cooled
- ◆ Parallel Operation (400W model)



### Key Market Segments & Applications



| Specifications                 |     |                                                                                                                    |                       |                              |
|--------------------------------|-----|--------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------|
| Model                          |     | iQG48025A120V                                                                                                      | iQG48033A120V-000~xx9 | iQG48033A120V-1D9            |
| Nominal Output Voltage         | VDC | 11.6V                                                                                                              | 11.5V                 | 11.8V                        |
| Input Voltage Range            | VDC | 36 - 75VDC                                                                                                         |                       |                              |
| Input Current (max)            | A   | 9A                                                                                                                 | 10.5A                 | 10.5A                        |
| Efficiency (48V Input)         | %   | 94-95% Load Dependent                                                                                              |                       |                              |
| Output Voltage Tolerance       | VDC | 11.2 - 12V                                                                                                         | 11.15 - 11.85V        | 11.6 - 12V                   |
| Output Voltage Adjustment      | -   | None                                                                                                               |                       |                              |
| Ripple & Noise (max) (pk - pk) | mV  | 70mV                                                                                                               | 125mV                 | 150mV                        |
| Line Regulation (typical)      | mV  | 50mV                                                                                                               | 20mV                  | 20mV                         |
| Load Regulation (typical)      | mV  | 50mV                                                                                                               | 35mV                  | 20mV/A                       |
| Overload Protection (typ)      | A   | 30A - auto recovery                                                                                                | 39A - auto recovery   | 39A - auto recovery          |
| Overvoltage Protection         | VDC | 13.7 - 15.6V (Latching)                                                                                            |                       |                              |
| Remote Sense                   | -   | None                                                                                                               |                       |                              |
| Remote On / Off                | -   | Negative Logic standard. Positive logic available, contact factory                                                 |                       |                              |
| Current Share (Droop Mode)     | -   | None                                                                                                               | None                  | Yes, 20mV/A                  |
| Current Share Accuracy         | -   | Not Applicable                                                                                                     | Not Applicable        | ±10% (50-100% of total load) |
| Temperature (operating)        | °C  | -40 to 124°C (See detailed datasheet for derating)                                                                 |                       |                              |
| Temperature (storage)          | °C  | -55 to 125                                                                                                         |                       |                              |
| Humidity (operating)           | %RH | 20-95% RH Non condensing                                                                                           |                       |                              |
| Humidity (storage)             | %RH | 10-95% RH Non condensing                                                                                           |                       |                              |
| Cooling                        | -   | Conduction, convection or forced air (See detailed datasheet for derating)                                         |                       |                              |
| Isolation Voltage              | VDC | 1500VDC Input to Output, Input to Baseplate                                                                        |                       |                              |
| Vibration (non operating)      | -   | 5~50Hz @ 0.5g (4.9m/s <sup>2</sup> ), and 50~500Hz @ 1.5g (14.7m/s <sup>2</sup> ) per Bellcore TR-EOP-000063-5.4.4 |                       |                              |
| Shock                          | -   | 196.1m/s <sup>2</sup>                                                                                              |                       |                              |
| Safety Agency Certifications   | -   | UL60950-1 (US and Canada), VDE0805 (IEC60950-1), CB scheme (IEC60950-1), CE Mark                                   |                       |                              |
| Weight (max)                   | g   | 55g open frame, 70g with baseplate                                                                                 |                       | 70g                          |
| Size (LxWxH)                   | mm  | 57.91 x 36.83 x 13.21                                                                                              |                       |                              |
| Warranty                       | Yrs | 3 Years                                                                                                            |                       |                              |

Note: See website for detailed specifications and test methods

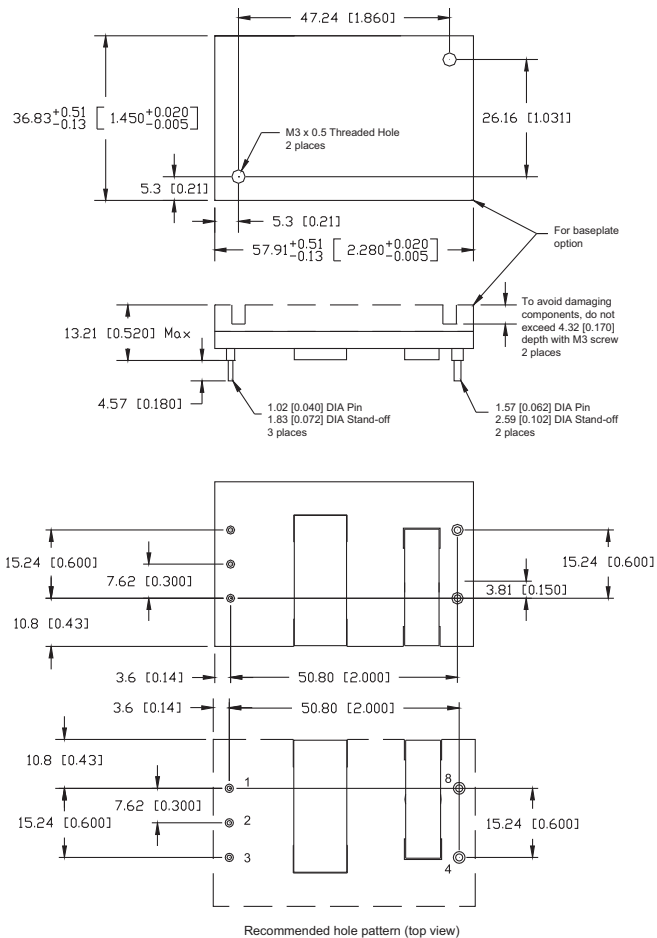
## Model Selector

| Model               | Input Voltage (V) | Output Voltage (V) | Max. Curr. (A) | Max. Output Power (W) | On/Off Polarity | Pin Length | Base Plate |
|---------------------|-------------------|--------------------|----------------|-----------------------|-----------------|------------|------------|
| iQG48025A120V-101-R | 36 - 75           | 12                 | 25             | 300                   | Neg             | 0.145"     | Yes        |
| iQG48025A120V-109-R | 36 - 75           | 12                 | 25             | 300                   | Neg             | 0.180"     | Yes        |
| iQG48033A120V-109-R | 36 - 75           | 12                 | 33             | 396                   | Neg             | 0.180"     | Yes        |
| iQG48033A120V-1D9-R | 36 - 75           | 12                 | 33             | 396                   | Neg             | 0.180"     | Yes        |

## Preferred Model

### Recommended Footprint (Top View)

Dimensions are in mm [in]. Unless otherwise specified tolerances are: x.x  $\pm$  0.5 [0.2], x.xx and x.xxx  $\pm$  0.25 [0.010]



## Pinout

| PIN | Function | PIN | Function |
|-----|----------|-----|----------|
| 1   | Vin (+)  | 5   | None     |
| 2   | On / Off | 6   | None     |
| 3   | Vin (-)  | 7   | None     |
| 4   | Vout (-) | 8   | Vout (+) |

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/iqg-series.htm](http://us.tdk-lambda.com/lp/products/iqg-series.htm)



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