# TDK·Lambda CCG15-30 Series

## 15 to 30W DC-DC Converters

### Features

- Industry Standard 1 x 1” Footprint
- Wide Range DC Input 9 - 36 or 18 - 76V
- High Efficiency - Up to 92%
- Six Sided Shielding


### Key Market Segments & Applications

Industrial Test COMM Broadcast

Isolated RoHS

## Specifications

| Model | | CCG15/CCG30 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Nominal Output Voltage | VDC | 3.3V | 5V | 12V | 15V | 24V | 30V | ±12V | ±15V |
| Input Voltage Range | VDC | 9 - 36V or 18 - 76VDC | | | | | | | |
| Input Current | A | See model selector | | | | | | | |
| Output Voltage Adjustment | VDC | 2.97 - 3.63 | 4.5 - 5.5 | 10.8 - 13.2 | 13.5 - 16.5 | None | | | |
| Output Voltage Accuracy | % | ±2% | | | | ±5% | | | |
| Ripple & Noise (max) pk-pk | mV | 70 | 70 | 95 | 95 | 190 | 190 | 95 | 95 |
| Line Regulation (max) | mV | 13.2 | 20 | 48 | 60 | 120 | 150 | 60 | 75 |
| Load Regulation (max) | mV | 13.2 | 20 | 48 | 60 | 240 | 300 | 120 | 150 |
| Cross Regulation (1) | mV | Not applicable | | | | | | 480 | 600 |
| Overcurrent Protection | % | >105% (Hiccup current style) | | | | | | | |
| Overvoltage Protection | % | - | | | | | | | |
| Remote On/Off | - | Standard: Low = ON, Open = OFF. Positive Logic (/P suffix): Open = ON, Low = OFF | | | | | | | |
| Operating Temperature | °C | -40°C to +110°C Case, -40°C to +85°C Ambient. See installation manual for operation above 60°C | | | | | | | |
| Storage Temperature | °C | -55°C to +125°C | | | | | | | |
| Temperature Coefficient | %/°C | 0.02%/°C | | | | | | | |
| Humidity (non condensing) | %RH | 5 - 95% RH Operating and Non Operating | | | | | | | |
| Cooling | - | Convection or forced air | | | | | | | |
| Withstand Voltage | VAC | Input to Case: 1kVDC; Input to Output 1.5kVDC; Output to Case: 1kVDC | | | | | | | |
| Isolation Resistance | MΩ | >100M at 25°C and 70%RH, Output to Case 500VDC | | | | | | | |
| Vibration | - | Non Operating, 10-55Hz (sweep for 3 min.)<br>Amplitude 1.52mm constant (Max 90.8m/s$^2$) X,Y,Z 1 hour each | | | | | | | |
| Shock | - | 490.3m/s$^2$ | | | | | | | |
| Safety Agency Certifications | - | IEC/EN/UL/CSA60950-1, IEC/EN/UL/CSA62368-1 and CE Mark | | | | | | | |
| Weight (Typ) | g | 20 | | | | | | | |
| Size (WxHxD) | in (mm) | 1.0 x 0.39 x 1.0” (25.4 x 9.9 x 25.4) | | | | | | | |
| Warranty | yrs | 5 Years | | | | | | | |

Note: See Installation Manual for full details, test methods of parameters and application notes

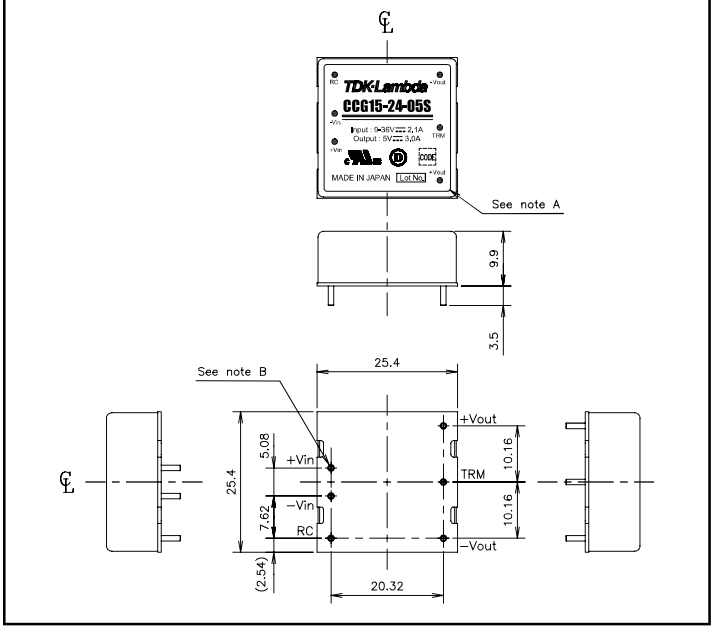
(1) Dual outputs only. One output at 100%, the other output at 20% load

## Output Ratings

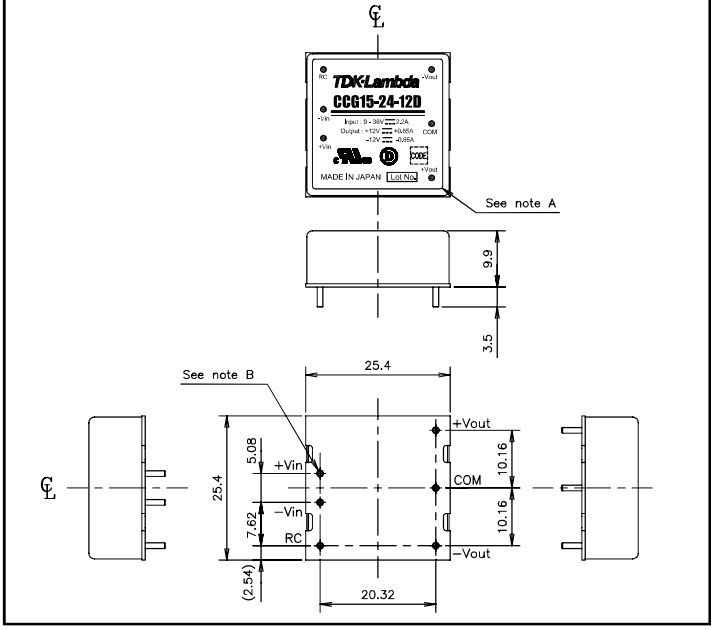
| Model | | Output Voltage (V) | Output Current (A) | Input Voltage (V) | Maximum Power (W) | Input Current at Nominal Input (A) | Efficiency (%) (100% load, nominal input) |
|---|---|---|---|---|---|---|---|
| CCG15-24-03S | | 3.3 | 4 | 9 - 36 | 13.2 | 0.65 | 85 |
| CCG30-24-03S | | 3.3 | 7 | 9 - 36 | 23.1 | 1.12 | 86 |
| CCG15-24-05S | | 5 | 3 | 9 - 36 | 15.0 | 0.72 | 87 |
| CCG30-24-05S | | 5 | 6 | 9 - 36 | 30.0 | 1.4 | 89 |
| CCG15-24-12S | | 12 | 1.3 | 9 - 36 | 15.6 | 0.74 | 88 |
| CCG30-24-12S | | 12 | 2.5 | 9 - 36 | 30.0 | 1.4 | 89 |
| CCG15-24-15S | | 15 | 1 | 9 - 36 | 15.0 | 0.71 | 88 |
| CCG30-24-15S | | 15 | 2 | 9 - 36 | 30.0 | 1.4 | 89 |
| CCG15-24-12D | (2) | 24 | 0.65 | 9 - 36 | 15.6 | 0.73 | 89 |
| CCG30-24-12D | (2) | 24 | 1.25 | 9 - 36 | 30.0 | 1.4 | 89 |
| CCG15-24-15D | (2) | 30 | 0.5 | 9 - 36 | 15.0 | 0.7 | 90 |
| CCG30-24-15D | (2) | 30 | 1 | 9 - 36 | 30.0 | 0.38 | 91 |
| CCG15-24-12D | | ±12V | ±0.65 | 9 - 36 | 15.6 | 0.73 | 89 |
| CCG30-24-12D | | ±12V | ±1.25 | 9 - 36 | 30.0 | 1.4 | 89 |
| CCG15-24-15D | | ±15V | ±0.5 | 9 - 36 | 15.0 | 0.7 | 90 |
| CCG30-24-15D | | ±15V | ±1.0 | 9 - 36 | 30.0 | 0.38 | 91 |
| CCG15-48-03S | | 3.3 | 4 | 18 - 76 | 13.2 | 0.32 | 85 |
| CCG30-48-03S | | 3.3 | 7 | 18 - 76 | 23.1 | 0.55 | 87 |
| CCG15-48-05S | | 5 | 3 | 18 - 76 | 15.0 | 0.36 | 87 |
| CCG30-48-05S | | 5 | 6 | 18 - 76 | 30.0 | 0.69 | 90 |
| CCG15-48-12S | | 12 | 1.3 | 18 - 76 | 15.6 | 0.37 | 88 |
| CCG30-48-12S | | 12 | 2.5 | 18 - 76 | 30.0 | 0.69 | 90 |
| CCG15-48-15S | | 15 | 1 | 18 - 76 | 15.0 | 0.36 | 88 |
| CCG30-48-15S | | 15 | 2 | 18 - 76 | 30.0 | 0.69 | 91 |
| CCG15-48-12D | (2) | 24 | 0.65 | 18 - 76 | 15.6 | 0.37 | 89 |
| CCG30-48-12D | (2) | 24 | 1.25 | 18 - 76 | 30.0 | 0.69 | 91 |
| CCG15-48-15D | (2) | 30 | 0.5 | 18 - 76 | 15.0 | 0.35 | 90 |
| CCG30-48-15D | (2) | 30 | 1 | 18 - 76 | 30.0 | 0.68 | 92 |
| CCG15-48-12D | | ±12V | ±0.65 | 18 - 76 | 15.6 | 0.37 | 89 |
| CCG30-48-12D | | ±12V | ±1.25 | 18 - 76 | 30.0 | 0.69 | 91 |
| CCG15-48-15D | | ±15V | ±0.5 | 18 - 76 | 15.0 | 0.35 | 90 |
| CCG30-48-15D | | ±15V | ±1.0 | 18 - 76 | 30.0 | 0.68 | 92 |

Note (2): CCG can be used as a single output between +Vout and -Vout without COM connected.

## Outline Drawing Single Output




## Outline Drawing Dual Output




## Options

| Suffix | Description |
|---|---|
| Blank | Negative Logic Remote On/Off |
| /P | Positive Logic Remote On/Off |

For Additional Information, please visit
https://product.tdk.com/info/en/products/power/index.html