



## 15 to 30W DC-DC Converters



Features	Benefits
• Industry Standard 1" x 1" Footprint	• Fits in place of 2 x 1" converters
• Wide Range DC Input 9 - 36 or 18 - 76V	• Less Parts to Inventory
• High Efficiency - Up to 92%	• Easier System Thermal Management
• Six Sided Shielding	• Reduced Radiated Noise



Specification		CCG15/CCG30							
Model		3.3V	5V	12V	15V	24V	30V	±12V	±15V
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.) Amplitude 1.52mm constant (Max 90.8m/s <sup>2</sup> ) X,Y,Z 1 hour each							
Shock	-	490.3m/s <sup>2</sup>							
Safety Agency Certifications	-	IEC/EN/UL/CSA60950-1, IEC/EN/UL/CSA62368-1 and CE Mark							
Weight (Typ)	g	20							
Size (WxHxD)	mm	25.4 x 9.9 x 25.4							
Warranty	yrs	5							

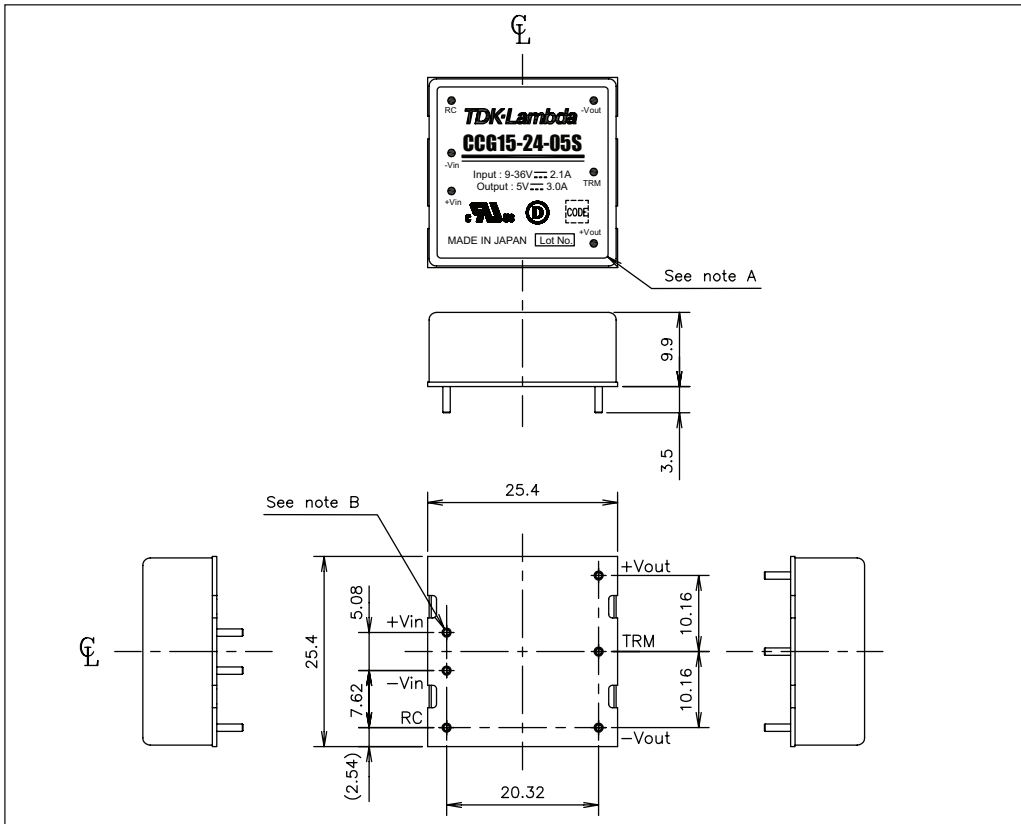
**Note:** See Installation Manual for full details, test methods of parameters and application notes (1) Dual outputs only. One output at 100%, the other output at 20% load

Model Selector Single Output						
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 (1)	24	0.65	9 - 36	15.6	0.73	89
CCG30-24-12D (1)	24	1.25	9 - 36	30.0	1.4	89
CCG15-24-15D (1)	30	0.5	9 - 36	15.0	0.7	90
CCG30-24-15D (1)	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 (1)	24	0.65	18 - 76	15.6	0.37	89
CCG30-48-12D (1)	24	1.25	18 - 76	30.0	0.69	91
CCG15-48-15D (1)	30	0.5	18 - 76	15.0	0.35	90
CCG30-48-15D (1)	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

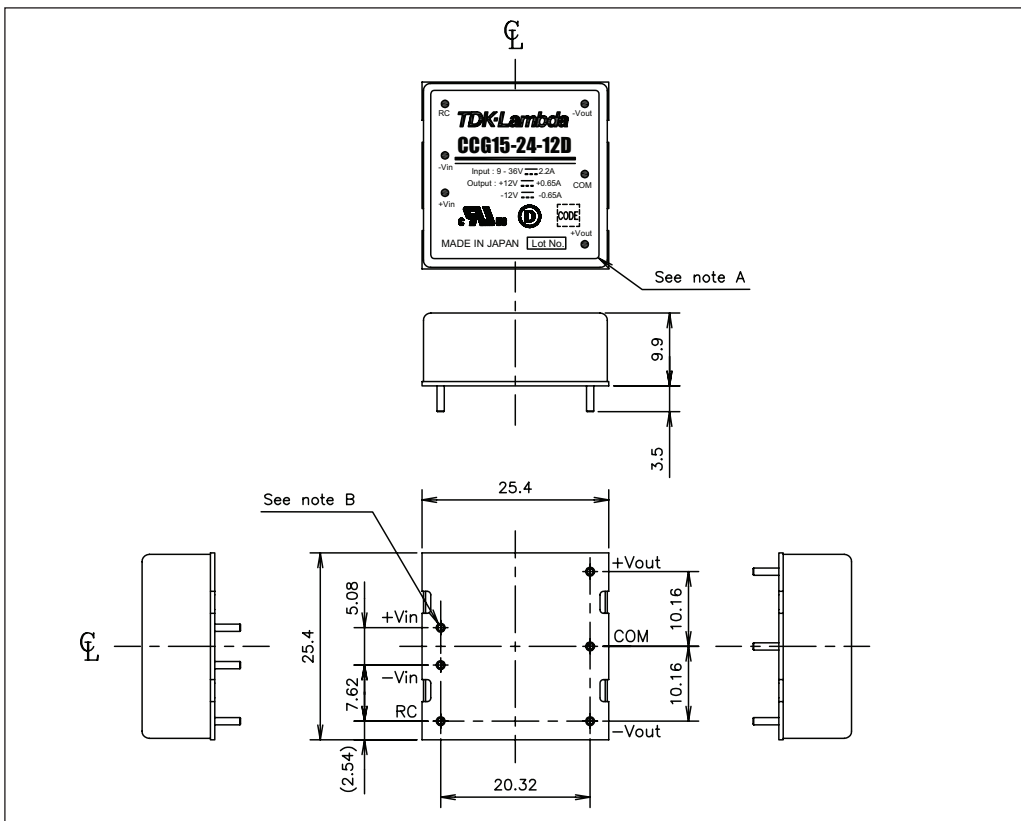
**Note (1):** CCG can be used as a single output connecting between +Vout and -Vout leaving the COM pin open

Options	
Suffix	Description
Blank	Negative Logic Remote On/Off
/P	Positive Logic Remote On/Off

## Outline Drawing CCG15-30 Series Single Output



## Outline Drawing CCG15-30 Series Dual Output





## TDK-Lambda France SAS

3 Avenue du Canada  
Parc Technopolis  
Bâtiment Sigma  
91940 les Ulis  
France  
Tel: +33 1 60 12 71 65  
Fax: +33 1 60 12 71 66  
france@fr.tdk-lambda.com  
www.fr.tdk-lambda.com



## Italy Sales Office

Via Giacomo Matteotti 62  
20092 Cinisello Balsamo (MI)  
Italy  
Tel: +39 02 61 29 38 63  
Fax: +39 02 61 29 09 00  
info.italia@it.tdk-lambda.com  
www.it.tdk-lambda.com



## Netherlands

info@nl.tdk-lambda.com  
www.nl.tdk-lambda.com



## TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40  
77855 Achern  
Germany  
Tel: +49 7841 666 0  
Fax: +49 7841 5000  
info.germany@de.tdk-lambda.com  
www.de.tdk-lambda.com



## Austria Sales Office

Aredstrasse 22  
2544 Leobersdorf  
Austria  
Tel: +43 2256 655 84  
Fax: +43 2256 645 12  
info@at.tdk-lambda.com  
www.de.tdk-lambda.com



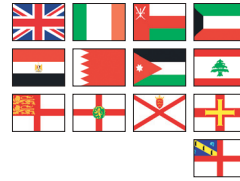
## Switzerland Sales Office

Eichtalstrasse 55  
8634 Hombrechtikon  
Switzerland  
Tel: +41 44 850 53 53  
Fax: +41 44 850 53 50  
info@ch.tdk-lambda.com  
www.de.tdk-lambda.com



## Nordic Sales Office

Haderslevvej 36B  
DK-6000 Kolding  
Denmark  
Tel: +45 8853 8086  
info@dk.tdk-lambda.com



## TDK-Lambda UK Ltd.

Kingsley Avenue  
Ilfracombe  
Devon EX34 8ES  
United Kingdom  
Tel: +44 (0) 12 71 85 66 66  
Fax: +44 (0) 12 71 86 48 94  
powersolutions@uk.tdk-lambda.com  
www.uk.tdk-lambda.com



## TDK-Lambda Ltd.

1 Alexander Yanai  
Segula  
Petah-Tikva  
Israel  
Tel: +9 723 902 4333  
Fax: +9 723 902 4777  
info@tdk-lambda.co.il  
www.tdk-lambda.co.il



## C.I.S.

### Commercial Support:

Tel: +7 (495) 665 2627

### Technical Support:

Tel: +7 (812) 658 0463

info@tdk-lambda.ru

www.tdk-lambda.ru

## Local Distribution

