



- 60 - 160VDC Input to EN50155/IEC60571
- EN/IEC 61373 Shock and Vibration
- Base plate Cooled
- Full Power at +100°C base plate
- Five Year Warranty

## Key Market Segments & Applications

- Railway Applications
- Suitable for battery powered railway systems
- Power Plants

## CN-A Series

30W to 200W 110VDC Input  
Quarter Brick & Half Brick Railway DC-DC Converters

### CN-A Features and Benefits

#### Features

- Small Size
- Quarter & Half Brick Footprint
- Full Power from -40°C to +100°C
- UVLO Function

#### Benefits

- Less PCB space used
- Industry Standard size
- No Derating required - covers TX class for Railway
- Protects battery against deep discharges

### Specifications

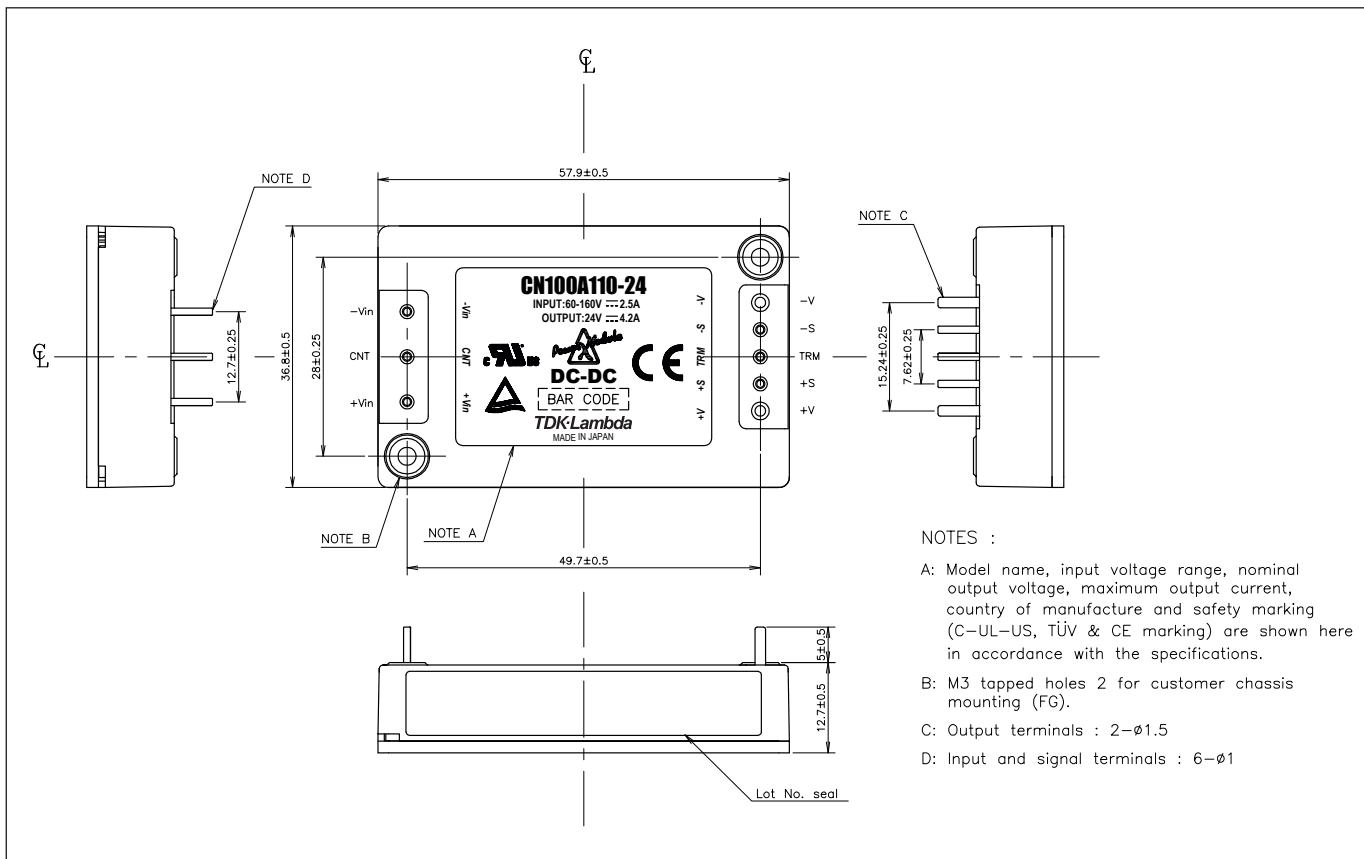
ITEMS	MODELS	CN30A110, CN50A110, CN100A110, CN200A110			
		See model selector			
Nominal Output Voltage	VDC	5V	12V	15V	24V
Input Voltage Range	VDC	60 - 160VDC			
Input Current	A	0.34 - 2.16A (model dependant)			
Output Voltage Adjustment	VDC	4.5 - 6	10.8 - 13.2	13.5 - 16.5	21.6 - 26.4
Ripple & Noise (max) pk-pk	mV	100	150	150	240
Line Regulation (max)	mV	20	48	60	96
Load Regulation (max)	mV	40	96	120	192
Overcurrent Protection	%	105 - 140%			
Overvoltage Protection	%	125 - 145% (Cycle input or remote on/off to reset)			
Remote Sense	-	Yes			
Remote On/Off	-	Yes; Low = ON, Open = OFF			
Parallel Operation	-	CN30-50 : No / CN200 : 5V : No; 12, 15, 24V : Yes			
Operating Temperature	°C	-40°C to +100°C Baseplate			
Storage Temperature	°C	-40°C to +100°C			
Temperature Coefficient	%/°C	0.02%/°C			
Humidity (non condensing)	%RH	5 - 95% RH Operating and Non Operating			
Cooling	-	Conduction (See Installation Manual for heatsink selection)			
Withstand Voltage	VAC	Input to Baseplate: 1.5kVAC; Input to Output 3.0kVAC for 1 min.;			
		Output to Baseplate: 500VAC for 1 min			
Isolation Resistance	Ω	>100MΩ at 25°C and 70%RH, Output to Base plate 500VDC			
Vibration	-	Non Operating, 10-55Hz (sweep for 1 min.) Amplitude 0.825mm constant (Max 49 m/s <sup>2</sup> ) X,Y,Z 1 hour each IEC61373 - Category 1, Grade B			
Shock	-	196.1m/s <sup>2</sup> , EN/IEC61373 - Category 1, Grade B			
Safety Agency Certifications	-	UL60950-1, CSA60950-1, EN60950-1, CE LVD			
Weight (Typ)	g	CN30-50 : 70 / CN200 : 100			
Size (WxHxD)	mm	CN30A - 100A : 36.8 x 12.7 x 57.9, CN200A : 61 x 12.7 x 57.9			
Warranty	yrs	5			

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

Model Selector

Model	Voltage (V)	Output Current (A)	Maximum Power (W)	Input Current (A)	Efficiency (%) (100% load, 110VDC In)
CN30A110-5	5	6.0	30.0	0.34	83
CN50A110-5	5	10.0	50.0	0.55	85
CN100A110-5	5	20.0	100.0	1.08	85
CN200A110-5	5	40.0	200.0	2.16	85
CN30A110-12	12	2.5	30.0	0.34	84
CN50A110-12	12	4.2	50.4	0.55	86
CN100A110-12	12	8.4	100.8	1.05	88
CN200A110-12	12	16.7	200.4	2.09	88
CN30A110-15	15	2.0	30.0	0.34	84
CN50A110-15	15	3.4	51.0	0.55	86
CN100A110-15	15	6.7	100.5	1.05	88
CN200A110-15	15	13.4	201	2.1	88
CN30A110-24	24	1.3	31.2	0.34	84
CN50A110-24	24	2.1	50.4	0.55	86
CN100A110-24	24	4.2	100.8	1.05	88
CN200A110-24	24	8.4	201.6	2.11	88

Outline Drawing CN30A-CN100A





**TDK-LAMBDA EMEA**

[www.emea.tdk-lambda.com](http://www.emea.tdk-lambda.com)



**TDK-Lambda France SAS**

Route de Grivery  
ZAC des Delaches  
CS 41077  
91978 Courtaboeuf Cedex  
France  
Tel: +33 1 60 12 71 65  
Fax: +33 1 60 12 71 66  
[france@fr.tdk-lambda.com](mailto:france@fr.tdk-lambda.com)  
[www.fr.tdk-lambda.com](http://www.fr.tdk-lambda.com)



**Italy Sales Office**  
Via dei Lavoratori 128/130  
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](mailto:info.italia@it.tdk-lambda.com)  
[www.it.tdk-lambda.com](http://www.it.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](mailto:info.germany@de.tdk-lambda.com)  
[www.de.tdk-lambda.com](http://www.de.tdk-lambda.com)



**Austria Sales Office**  
Aredstrasse 22  
2544 Leobersdorf  
Austria  
Tel: +43 2256 655 84  
Fax: +43 2256 645 12  
[info.germany@de.tdk-lambda.com](mailto:info.germany@de.tdk-lambda.com)  
[www.de.tdk-lambda.com](http://www.de.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](mailto:powersolutions@uk.tdk-lambda.com)  
[www.uk.tdk-lambda.com](http://www.uk.tdk-lambda.com)



**Nemic Lambda Ltd.**

Kibbutz  
Givat Hashlosha 48800  
Israel  
Tel: +9 723 902 4333  
Fax: +9 723 902 4777  
[info@nemic.co.il](mailto:info@nemic.co.il)  
[www.nemic.co.il](http://www.nemic.co.il)



**Russia**

Technical Support:  
St Petersburg  
Tel: +7 (812) 6580463  
Sales:  
Moscow  
Tel: +7 (499) 7557732  
[info@tdk-lambda.ru](mailto:info@tdk-lambda.ru)  
[www.tdk-lambda.ru](http://www.tdk-lambda.ru)

**LOCAL DISTRIBUTION**

