

## Non-isolated DC-DC Converter

Compact Size, Full-load Efficiency > 90%

Die Cast Housing & Epoxy Resin Sealing, Waterproof

**Low Cost & Long Life Circuit Design Customize Solution Available** 

CLL is a low cost series designed for common usage in low voltage range (3~56VDC). It is a cost effective solution for pumps, LED lights, small motor etc.

Small case (66×59×24 mm)

Big case (74×72×28 mm)

Curstomize solution available with CLL Series: input and output voltage between 5VDC ~ 56VDC Output power < 200W



**Small Case** 



Big Case

Input Characteristic Default Input Voltage Range\*: Step-up Converter: 12V = 10~15VDC 24V = 20~30VDC Step-down Converter:

> 12V = 10~30VDC 24V = 18~36VDC  $36V = 30 \sim 44VDC$  $48V = 40 \sim 56VDC$

**Output Characteristic** 

Full-load Efficiency: 90~94%\*\*\* Ripple p-p: 1% of output voltage (MAX) Load Regulation: 1.5% Max Non-load Consumption: 0.5% of full-load power Over-load Protection: +10% of rated output current Short-circuit Protection: yes

Other info

Allowed Case Temperature: -10℃ ~ 75℃ -20℃ ~80℃ Storage Temperature: 20~90%

Input Reverse Protection: NOT implemented by defaul Storage Humidity:

Weight:

Small Case: 170~190g Big Case: 240~280g

<sup>\*</sup> Input range can be customized, the range listed is for standard types. Input range is not always the same for different models

<sup>\*\*</sup> Can implement in customize products

<sup>\*\*\*</sup> Not every model can achieve 94% efficiency.



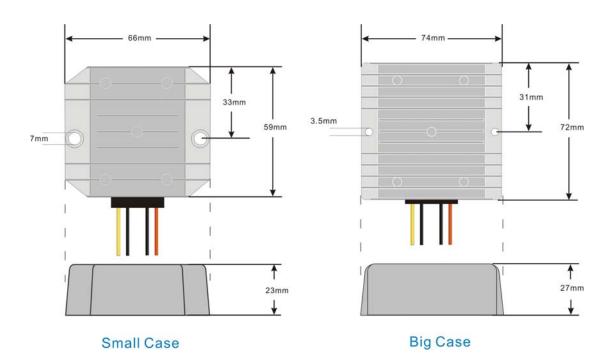
## **Ordering Information:**



## Example:

Input: 12V (10~15VDC)	Output: 24V	Output Power: 8A (200W)	CLL200-12S24
Output: 12V (10~30VDC)	Output: 5V	Output Power: 10A (50W)	CLL50-12S05

## **Dimensions:**



NOTE: The size may change slightly (a few mm). If you need exactly the same size, please contact before ordering.