

**Non-isolated DC-DC Converter**

**Compact Size, Full-load Efficiency > 90%**

**Die Cast Housing & Epoxy Resin Sealing, IP67**

**Low Cost & Long Life Circuit Design**

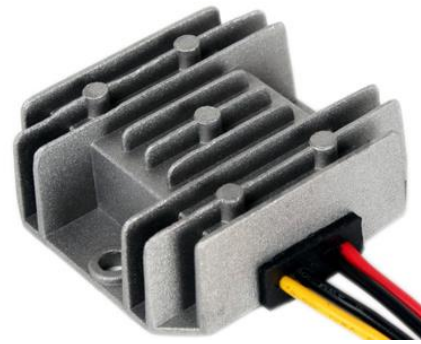
**Customize Solution Available**

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 (66x59x24 mm)

Big case (74x72x28 mm)

Customize 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 = 30~44VDC

48V = 40~56VDC

Input Reverse Protection: NOT implemented by default

**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**

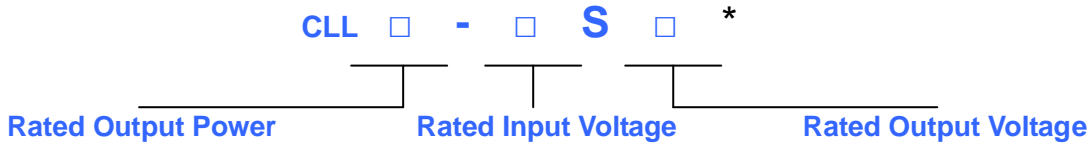
Allowed Case Temperature: -10°C ~ 75°C  
Storage Temperature: -20°C ~ 80°C  
Storage Humidity: 20-90%  
Weight:  
Small Case: 170-190g  
Big Case: 240-280g

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

\*\* Can implement in customize products

\*\*\* Not every model can achieve 94% efficiency.

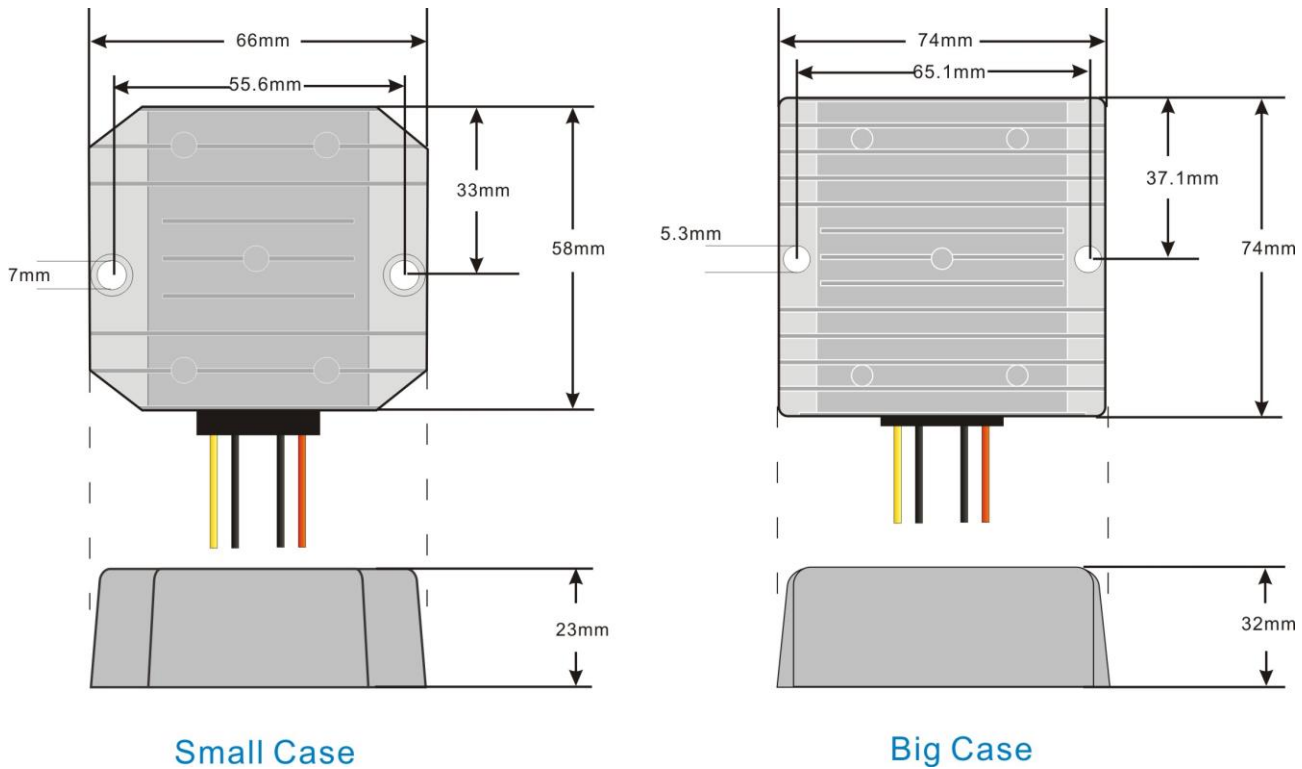
## Ordering Information:



## Example:

Input: 12V (10~15VDC)	Output: 24V	Output Power: 10A (200W)	CLL240-12S24
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.