

# C30

## C 30 Series AC/DC Converters

**Total power** 30 Watts  
**Input voltages** AC 90~264V or DC120~340V  
**#of outputs** Single, Dual output



### SPECIAL FEATURES

- UL Making, CE Making (Low Voltage Directive)
- Small, compact size
- Surface mounting technology
- High efficiency
- Universal input
- Built - in EMI filter
- Inrush current limit
- Adjustable output voltage (Output1)
- Output over current protection
- Output over voltage protection
- Over temperature protection
- Low output ripple & noise
- Isolated output
- 2 Years warranty

### ENVIRONMENTAL

- Operating temperature range ..... -10℃~60℃
- Storage temperature range ..... -20℃~70℃
- Humidity ..... 20%~90%RH
- Vibration ..... 10~55Hz at 2G 3minutes period
- Impact ..... 20G for 11ms, once on each X, Y and Z-axis
- Cooling method ..... Natural air
- MTBF ..... 2.1 × 10<sup>5</sup>hrs
- Safety Approved (Single output)
  - ┌ UL (UL 60950) / CSA C22.2 (NO.60950) /
  - └ CB (IEC60950) / CE (EN 60950) through TÜV
- Noise ..... meets CISPR22-B  
FCC class B

### ELECTRICAL SPECIFICATIONS

<b>INPUT</b>	<ul style="list-style-type: none"> <li>• Voltage ..... AC 90~264V (or DC 120~340V) (note1)</li> <li>• Current ..... 0.89A max.</li> <li>• Frequency ..... 47~440Hz max. (50~60Hz typ.)</li> <li>• Efficiency ..... 72% min.</li> <li>• Inrush current (at cold start) ..... 30A max. @ 110VAC / 60A max. @ 220VAC</li> <li>• Leakage current ..... 0.5mA max. @ 110VAC / 0.75mA max. @ 220VAC</li> </ul>
<b>OUTPUT</b>	<ul style="list-style-type: none"> <li>• Voltage adj. Range ..... ±10% typ. @ Output1</li> <li>• Ripple and noise ..... 1% max.</li> <li>• Line regulation ..... ±1% max.</li> <li>• Load regulation ..... ±1% max. @ Output1 / ±2%max. @ Output2</li> <li>• Dynamic load regulation ..... ±3% max. @ Output1</li> <li>• Temperature drift ..... ±1% typ.</li> <li>• Rising time ..... 100ms max.</li> <li>• Holding time ..... 17ms min.</li> <li>• Min load ..... output 1 current &gt; output 2 current (dual)</li> </ul>
<b>PROTECTION CIRCUIT</b>	<ul style="list-style-type: none"> <li>• Over current protection ..... Over 105% of rating (Auto-restart)</li> <li>• Over voltage protection ..... 115~140% of rating</li> <li>• Over temperature protection ..... 80℃ min. (Latch-up mode)</li> </ul>
<b>ELECTRICALLY ISOLATED</b>	<ul style="list-style-type: none"> <li>• Input - Output ..... AC 3kV, 1minute, 10mA / DC 500V, 100MOhms min.</li> <li>• Input - FG ..... AC 2kV, 1minute, 10mA / DC 500V, 100MOhms min.</li> <li>• Output - FG ..... AC 0.5kV, 1minute, 10mA / DC 500V, 70MOhms min.</li> </ul>

**NOTE** 1. For cases where conformance to various safety specs (UL, CSA, CE, etc) are required, input voltage and frequency range will be 100-240VAC, 50/60Hz.

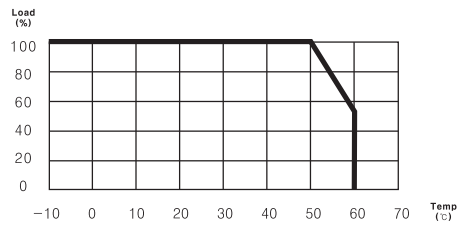
## Ordering Information

Input	Output1	Output2	Maximum Power	Ripple&Noise max	Efficiency Typ.	model Number
AC 90 ~ 264V or DC 120 ~340V	+3.3V@6.0A		19.80W	30mVp-p	72%	<b>CS30-3R3</b>
	+5.0V@6.0A		30.00W	50mVp-p	73%	<b>CS30-5</b>
	+12.0V@2.5A		30.00W	100mVp-p	75%	<b>CS30-12</b>
	+15.0V@2.0A		30.00W	120mVp-p	78%	<b>CS30-15</b>
	+24.0V@1.5A		36.00W	150mVp-p	79%	<b>CS30-24</b>
	+5.0V@3.0A	+5.0V@3.0A	30.0W	50/50mVp-p	75%	<b>CD30-55</b>
	+5.0V@3.0A	+12.0V@1.2A	29.4W	50/120mVp-p	77%	<b>CD30-52</b>
	+5.0V@3.0A	+15.0V@1.0A	30.0W	50/150mVp-p	77%	<b>CD30-5F</b>
	+5.0V@3.0A	+24.0V@0.6A	29.4W	50/200mVp-p	78%	<b>CD30-54</b>
	+12.0V@1.2A	+12.0V@1.2A	28.8W	120/120mVp-p	78%	<b>CD30-1212</b>
+15.0V@1.0A	+15.0V@1.0A	30.0W	150/150mVp-p	78%	<b>CD30-1515</b>	

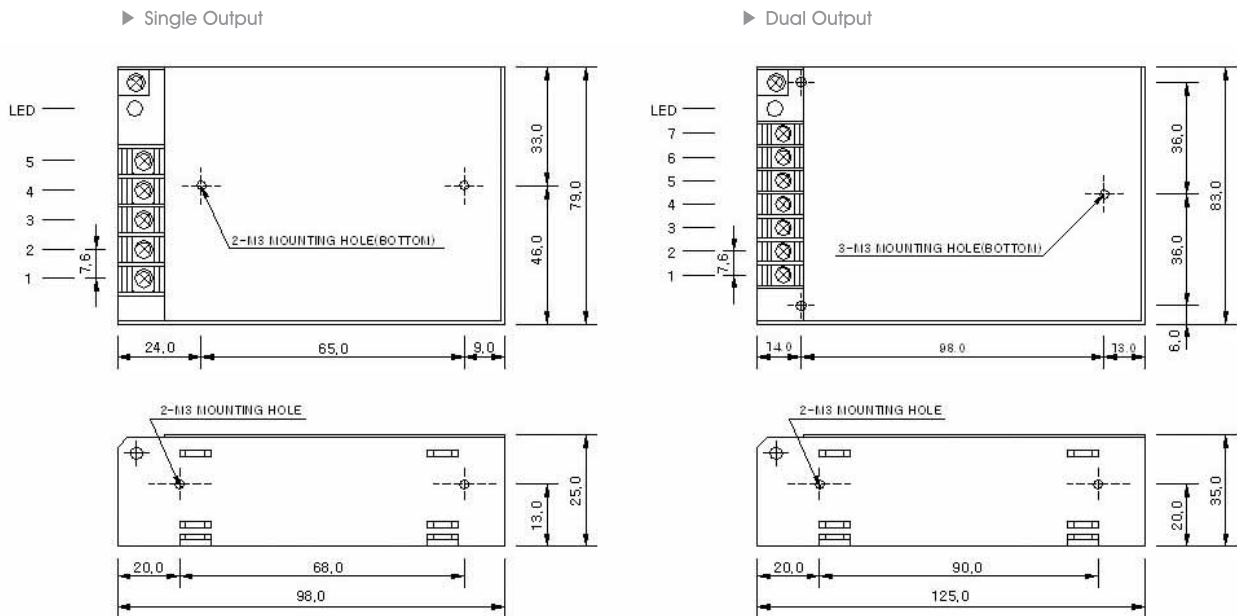
## Pin assignments

Connector	Single	Dual
CN 1	1. AC(L)	1. AC(L)
	2. AC(N)	2. AC(N)
	3. FG	3. FG
	4. -V	4. -V <sub>2</sub>
	5. +V	5. +V <sub>2</sub>
		6. -V <sub>1</sub>
		7. +V <sub>1</sub>

## Derating curve



## Dimensions



### NOTES

- All dimensions are mm.
- Weight : 270g or less (single)  
370g or less(Dual)
- Mounting holes(5) for M3 screw, which should not enter the supply surface by more than 2.5mm.