

#### FEATURES Single Output



- High Efficiency
- Small, Compact Size
- Universal Input
- Surface Mounting Technology
- Built-in EMI Filter
- Inrush Current Limit
- Adjustable Output Voltage
- Output Over Current Protection
- Output Over Voltage Protection
- Over Temperature Protection
- Low Output Ripple / Noise
- Isolated Output
- 2 Years Warranty

#### ELECTRICAL SPECIFICATIONS

Input	<ul style="list-style-type: none"> <li>• Voltage ..... <span style="font-size: 2em;">[</span> CS150L : AC 90V - 132V (NOTE1) CS150 : AC 170V - 264V (or DC 240 - 340V) (NOTE2)</li> <li>• Current ..... 3.3A Max. (CS150L) / 1.8A Max. (CS150)</li> <li>• Frequency ..... 47 - 440Hz Max. (50 - 60Hz typ.)</li> <li>• Efficiency ..... 81 - 90% Typ.</li> <li>• Inrush Current (at Cold Start) ..... 20A Max. @110Vac (CS150L) / 40A Max. @220Vac (CS150)</li> <li>• Leakage Current ..... 0.5mA Max. @110Vac (CS150L) / 0.75mA Max. @220Vac (CS150)</li> </ul>
Output	<ul style="list-style-type: none"> <li>• Output Voltage Tolerance ..... ±10% Typ.</li> <li>• Ripple and Noise ..... ±1.0% Max.</li> <li>• Line Regulation ..... ±1.0% Max.</li> <li>• Load Regulation ..... ±1.0% Max.</li> <li>• Dynamic Load Regulation ..... ±3.0% Max.</li> <li>• Temperature Drift ..... ±1.0% Typ.</li> <li>• Rising Time ..... 100ms Max.</li> <li>• Holding Time ..... 17ms Min.</li> </ul>
Protection Circuit	<ul style="list-style-type: none"> <li>• Over Current Protection ..... Work Over 105% of Rating (Auto-Restart)</li> <li>• Over Voltage Protection ..... Work at 115~140°C of Rating (Latch-Up Mode)</li> <li>• Over Temperature Protection ..... 80°C Min.</li> </ul>
Electrically Isolated	<ul style="list-style-type: none"> <li>• Input - Output ..... AC 3KV, 1min. 10mA / DC 500V, 100M Min.</li> <li>• Input - FG ..... AC 2KV, 1min. 10mA / DC 500V, 100M Min.</li> <li>• Output - FG ..... AC 0.5KV, 1min. 10mA / DC 500V, 70M Min.</li> </ul>

NOTE 1. For cases where conformance to various safety specs (CE) are required, input voltage and frequency range will be 100-120VAC, 50/60Hz.  
 2. For cases where conformance to various safety specs (CE) are required, input voltage and frequency range will be 200-240VAC, 50/60Hz.

## ENVIRONMENTAL

- Operating Temperature Range ..... -10°C ~ 60°C
- Operating Humidity (Non-Condensing) ..... 20% ~ 90%RH
- Storage Temperature Range ..... -20°C ~ 70°C
- Storage Humidity (Non-Condensing) ..... 20% ~ 90%RH
- Vibration ..... 10 ~ 55Hz at 2G 3Minutes Period
- Impact ..... 20G for 11ms, once on each X, Y and Z-axis
- Cooling Method ..... Convection
- MTBF (MIL-HDBK-217F) ..... 1.5 X 10<sup>5</sup>hrs
- Safety (Single Output) ..... CE\_LVD (EN 60950-1) through TÜV
- Noise ..... Meets CISPR22-B / FCC class B

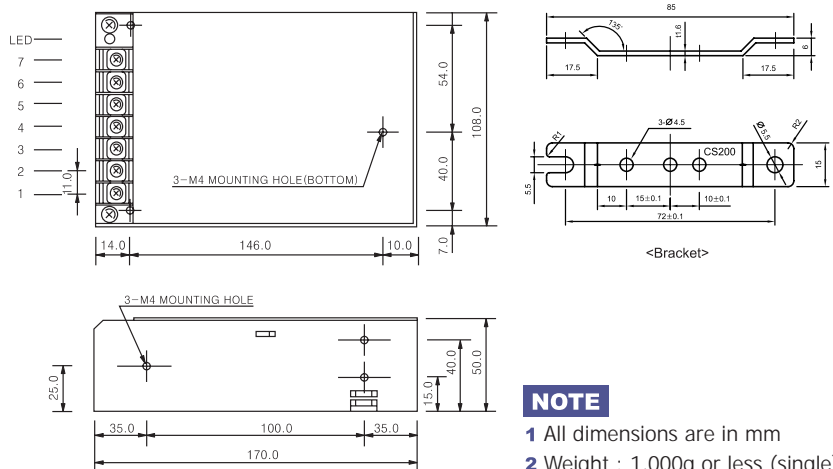
## ORDERING INFORMATION

Input	Output	Maximum Power	Ripple&Noise Max.	Efficiency Typ.	Model Number
AC 90 ~ 132V or AC 170 ~ 264V (DC 240~340V)	3.3V@30.00A	99.0W	80mVp-p	81%	<b>CS150L-3R3</b>
	5V@30.00A	150.0W	100mVp-p	84%	<b>CS150L-5</b>
	12V@12.50A	150.0W	120mVp-p	87%	<b>CS150L-12</b>
	15V@10.00A	150.0W	150mVp-p	88%	<b>CS150L-15</b>
	24V@6.30A	151.2W	200mVp-p	88%	<b>CS150L-24</b>
	48V@3.20A	153.6W	300mVp-p	89%	<b>CS150L-48</b>
	3.3V@30.00A	99.0W	80mVp-p	82%	<b>CS150-3R3</b>
	5V@30.00A	150.0W	100mVp-p	85%	<b>CS150-5</b>
	12V@12.50A	150.0W	120mVp-p	88%	<b>CS150-12</b>
	15V@10.00A	150.0W	150mVp-p	89%	<b>CS150-15</b>
	24V@6.30A	151.2W	200mVp-p	89%	<b>CS150-24</b>
	48V@3.20A	153.6W	300mVp-p	90%	<b>CS150-48</b>

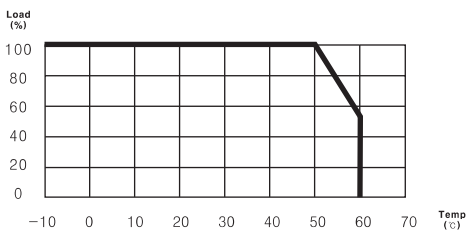
## PIN ASSIGNMENTS

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

## DIMENSION



## DERATING CURVE



### NOTE

- 1 All dimensions are in mm
- 2 Weight : 1,000g or less (single)  
Mounting holes(5) for M3 screw, which should not enter the supply surface by more than 3.5mm.