

# P 6

## P 6 Watt Series DC/DC Converters

**Total power** 6 Watts  
**Input voltages** 5V, 12V, 24V, 48V Input  
**#of outputs** Single, Dual Output



### SPECIAL FEATURES

- CE(LVD) Marking
- High efficiency
- 300KHz fixed frequency
- Wide 2:1 input range
- Isolated output
- Surface mounting technology
- Small, compact size 1.85"×1.1"×0.35"
- Current mode control
- Low output ripple & noise
- Low start up current
- 3 years warranty

### ENVIRONMENTAL

- Operating temperature range ..... -20 °C ~ 71 °C
- Option, see Note 1 ..... -40 °C ~ 85 °C
- Storage temperature range ..... -40 °C ~ 105 °C
- Operating humidity (non condensing) .... 20%~90%RH
- Storage humidity (non condensing) ..... 10%~95%RH
- Cooling method ..... Convection
- Case material ..... Zn
- MTBF .....  $7.4 \times 10^5$  hrs
- Safety(Single output) ..... CE (EN 60950)  
\*Approved through TÜV

### ELECTRICAL SPECIFICATIONS

<b>INPUT</b>	<ul style="list-style-type: none"> <li>• Input range ..... 4.5V to 7.2 VDC, 8V to 16.5 VDC, 18 to 32 VDC, 32V to 63 VDC</li> <li>• Efficiency ..... 69 ~ 82% typ.</li> </ul>
<b>OUTPUT</b>	<ul style="list-style-type: none"> <li>• Voltage tolerance ..... <math>\pm 2\%</math> (Single and uncomplementary dual) <math>\pm 3\%</math> (Complementary dual)</li> <li>• Line regulation ..... <math>\pm 0.5\%</math></li> <li>• Load regulation ..... <math>\pm 1\%</math> @ single <math>\pm 2.5\%</math> @ dual (minimum load 10%)</li> <li>• Ripple and Noise, pk-pk ..... Bandwidth : 20MHz Magnitude : 1% Vout nom</li> </ul>
<b>PROTECTION CIRCUIT</b>	<ul style="list-style-type: none"> <li>• Short circuit protection ..... Current limited output (note2)</li> </ul>
<b>ELECTRICALLY ISOLATED</b>	<ul style="list-style-type: none"> <li>• Isolation ..... Input-output, input-case, output-case / DC 500V, 100Mohms</li> <li>• High pot ..... Input-output, input-case, output-case / AC 500V, 1minute</li> </ul>

**NOTE** 1. As a factory added option, the all model can be operated down to -40 °C, the suffix 'M' should be added to the model number when ordering ex) PS6-24-5M  
 2. Long term continuous operation into a short circuit will compromise the reliability of the unit

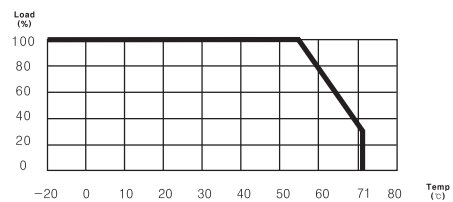
## Ordering Information

Input	Output1	Output2	Maximum Power	Ripple&Noise max	Efficiency Typ.	Model Number
4.5 - 7.2V	3.3V@1.00A		3.3W	50mVp-p	69%	PS6-5-3R3
4.5 - 7.2V	5V@1.00A		5.0W	50mVp-p	71%	PS6-5-5
4.5 - 7.2V	12V@0.45A		5.4W	120mVp-p	72%	PS6-5-12
4.5 - 7.2V	15V@0.35A		5.25W	150mVp-p	72%	PS6-5-15
4.5 - 7.2V	+12V@0.23A	-12V@0.23A	5.25W	120/120mVp-p	72%	PD6-5-1212
4.5 - 7.2V	+15V@0.18A	-15V@0.18A	5.4W	150/150mVp-p	72%	PD6-5-1515
4.5 - 7.2V	+5V@0.80A	+12V@0.13A	5.56W	75/120mVp-p	68%	PD6-5-0512
4.5 - 7.2V	+5V@0.80A	+15V@0.10A	5.5W	75/150mVp-p	68%	PD6-5-0515
8 - 16.5V	3.3V@1.20A		3.96W	50mVp-p	78%	PS6-12-3R3
8 - 16.5V	5V@1.20A		6.0W	50mVp-p	80%	PS6-12-5
8 - 16.5V	12V@0.50A		6.0W	120mVp-p	81%	PS6-12-12
8 - 16.5V	15V@0.40A		6.0W	150mVp-p	81%	PS6-12-15
8 - 16.5V	+12V@0.25A	-12V@0.25A	6.0W	120/120mVp-p	81%	PD6-12-1212
8 - 16.5V	+15V@0.20A	-15V@0.20A	6.0W	150/150mVp-p	81%	PD6-12-1515
8 - 16.5V	+5V@0.80A	+12V@0.13A	5.56W	75/120mVp-p	70%	PD6-12-0512
8 - 16.5V	+5V@0.80A	+15V@0.10A	5.5W	75/150mVp-p	70%	PD6-12-0515
18 - 32V	3.3V@1.20A		3.96W	50mVp-p	79%	PS6-24-3R3
18 - 32V	5V@1.20A		6.0W	50mVp-p	81%	PS6-24-5
18 - 32V	12V@0.50A		6.0W	120mVp-p	82%	PS6-24-12
18 - 32V	15V@0.40A		6.0W	150mVp-p	82%	PS6-24-15
18 - 32V	+12V@0.25A	-12V@0.25A	6.0W	120/120mVp-p	82%	PD6-24-1212
18 - 32V	+15V@0.20A	-15V@0.20A	6.0W	150/150mVp-p	82%	PD6-24-1515
18 - 32V	+5V@0.80A	+12V@0.13A	5.56W	75/120mVp-p	72%	PD6-24-0512
18 - 32V	+5V@0.80A	+15V@0.10A	5.5W	75/150mVp-p	72%	PD6-24-0515
32 - 63V	3.3V@1.20A		3.96W	50mVp-p	78%	PS6-48-3R3
32 - 63V	5V@1.20A		6.0W	50mVp-p	80%	PS6-48-5
32 - 63V	12V@0.50A		6.0W	120mVp-p	81%	PS6-48-12
32 - 63V	15V@0.40A		6.0W	150mVp-p	81%	PS6-48-15
32 - 63V	+12V@0.25A	-12V@0.25A	6.0W	120/120mVp-p	81%	PD6-48-1212
32 - 63V	+15V@0.20A	-15V@0.20A	6.0W	150/150mVp-p	81%	PD6-48-1515
32 - 63V	+5V@0.80A	+12V@0.13A	5.56W	75/120mVp-p	74%	PD6-48-0512
32 - 63V	+5V@0.80A	+15V@0.10A	5.5W	75/150mVp-p	74%	PD6-48-0515

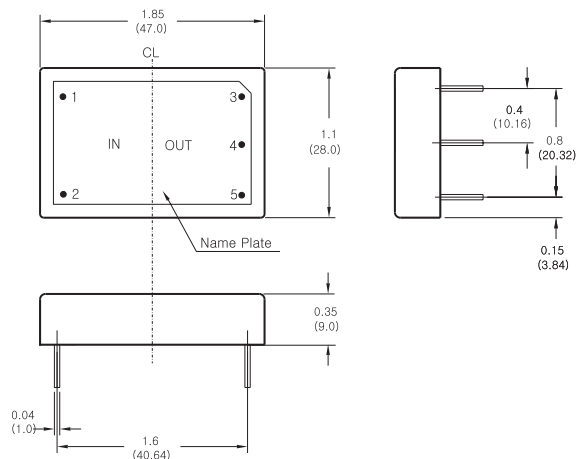
## Pin assignments

Single Output	Dual Output
1. +Vin	1. +Vin
2. - Vin	2. - Vin
3. +Vout	3. Output1
4. No pin	4. COM
5. -Vout	5. Output2

## Derating curve



## Dimensions



### NOTES

1. All dimensions are in inches and (mm).
2. Weight : 22g or less

