

# P3 Series

## 3W DC-DC CONVERTER



### FEATURES 5V, 12V, 24V, 48V Inputs / Single, Dual Outputs

- High Efficiency
- Encapsulated Small / Compact Size
- Wide 2:1 Input Range
- 300kHz Fixed Frequency
- Input / Output Isolation
- Surface Mounting Technology
- Current Mode Control
- Output Low Ripple / Noise
- Low Start up Current
- 3 Year Warranty

### ELECTRICAL SPECIFICATIONS

<b>Input</b>	<ul style="list-style-type: none"> <li>· Input Range ..... DC 5V(4.5 - 7.2), 12V(8 - 16.5), 24V(18 - 32), 48V(32 - 63)</li> <li>· Efficiency ..... 66 - 85% Typ.</li> </ul>
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<b>Output</b>	<ul style="list-style-type: none"> <li>· Output Voltages ..... 3.3V, 5V, 12V, 15V, ±12V, ±15V</li> <li>· Output Voltage Tolerance ..... ±2.0% (Single and Uncomplementary Dual) ±3.0% (Complementary Dual)</li> <li>· Line Regulation ..... ±0.5% Max.</li> <li>· Load Regulation ..... ±1.0% Max. (Single), ±2.5% Max. (Dual : Minimum Load 10%)</li> <li>· Ripple and Noise ..... 1% of Vout (Bandwidth : 20MHz)</li> </ul>
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<b>Protection Circuit</b>	<ul style="list-style-type: none"> <li>· Over Current Protection ..... Work Over 105% of Rating (Current Limited Output) (<b>NOTE 1</b>)</li> </ul>
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<b>Electrically Isolated</b>	<ul style="list-style-type: none"> <li>· Isolation ..... Input-Output, Input-Case, Output-Case / DC500V, 100MΩ</li> <li>· High Pot ..... Input-Output, Input-Case, Output-Case / AC500V, 1Min.</li> </ul>
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### ENVIRONMENTAL

· Operating Temperature Range	..... -20℃ ~ 71℃
· Option, See <b>NOTE 2</b>	..... -40℃ ~ 85℃
· Operating Humidity (Non-Condensing)	..... 20% ~ 90%RH
· Storage Temperature Range	..... -40℃ ~ 105℃
· Storage Humidity (Non-Condensing)	..... 10% ~ 95%RH
· Cooling Method	..... Convection
· MTBF (MIL-HDBK-217F)	..... 7.3 x 10 <sup>5</sup> hrs
· Safety (Single Output)	..... CE_LVD (EN 60950) through TÜV

**NOTE** 1. Long term continuous operation into a short circuit will compromise the reliability of the unit.  
 2. As a factory added option, the all model can be operated from -40℃ to 85℃, the suffix 'M' should be added to the model number when ordering. ex) PS3-24-5M

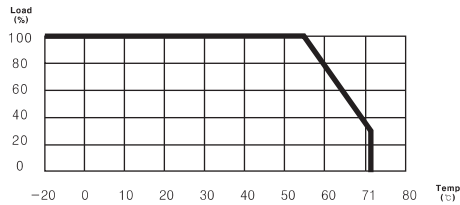
ORDERING INFORMATION

Input	Output1	Output2	Maximum Power	Ripple&Noise Max.	Efficiency Typ.	Model Number
4.5 - 7.2V	3.3V@0.60A		1.98W	50mVp-p	66%	PS3-5-3R3
4.5 - 7.2V	5V@0.60A		3.00W	50mVp-p	68%	PS3-5-5
4.5 - 7.2V	12V@0.25A		3.00W	120mVp-p	74%	PS3-5-12
4.5 - 7.2V	15V@0.20A		3.00W	150mVp-p	70%	PS3-5-15
4.5 - 7.2V	+12V@0.12A	-12V@0.12A	2.88W	120/120mVp-p	75%	PD3-5-1212
4.5 - 7.2V	+15V@0.10A	-15V@0.10A	3.00W	150/150mVp-p	72%	PD3-5-1515
8 - 16.5V	3.3V@0.60A		1.98W	50mVp-p	77%	PS3-12-3R3
8 - 16.5V	5V@0.60A		3.00W	50mVp-p	80%	PS3-12-5
8 - 16.5V	12V@0.25A		3.00W	120mVp-p	80%	PS3-12-12
8 - 16.5V	15V@0.20A		3.00W	150mVp-p	81%	PS3-12-15
8 - 16.5V	+12V@0.12A	-12V@0.12A	2.88W	120/120mVp-p	85%	PD3-12-1212
8 - 16.5V	+15V@0.10A	-15V@0.10A	3.00W	150/150mVp-p	83%	PD3-12-1515
18 - 32V	3.3V@0.60A		1.98W	50mVp-p	75%	PS3-24-3R3
18 - 32V	5V@0.60A		3.00W	50mVp-p	79%	PS3-24-5
18 - 32V	12V@0.25A		3.00W	120mVp-p	80%	PS3-24-12
18 - 32V	15V@0.20A		3.00W	150mVp-p	82%	PS3-24-15
18 - 32V	+12V@0.12A	-12V@0.12A	2.88W	120/120mVp-p	81%	PD3-24-1212
18 - 32V	+15V@0.10A	-15V@0.10A	3.00W	150/150mVp-p	82%	PD3-24-1515
32 - 63V	3.3V@0.60A		1.98W	50mVp-p	75%	PS3-48-3R3
32 - 63V	5V@0.60A		3.00W	50mVp-p	78%	PS3-48-5
32 - 63V	12V@0.25A		3.00W	120mVp-p	78%	PS3-48-12
32 - 63V	15V@0.20A		3.00W	150mVp-p	78%	PS3-48-15
32 - 63V	+12V@0.12A	-12V@0.12A	2.88W	120/120mVp-p	78%	PD3-48-1212
32 - 63V	+15V@0.10A	-15V@0.10A	3.00W	150/150mVp-p	78%	PD3-48-1515

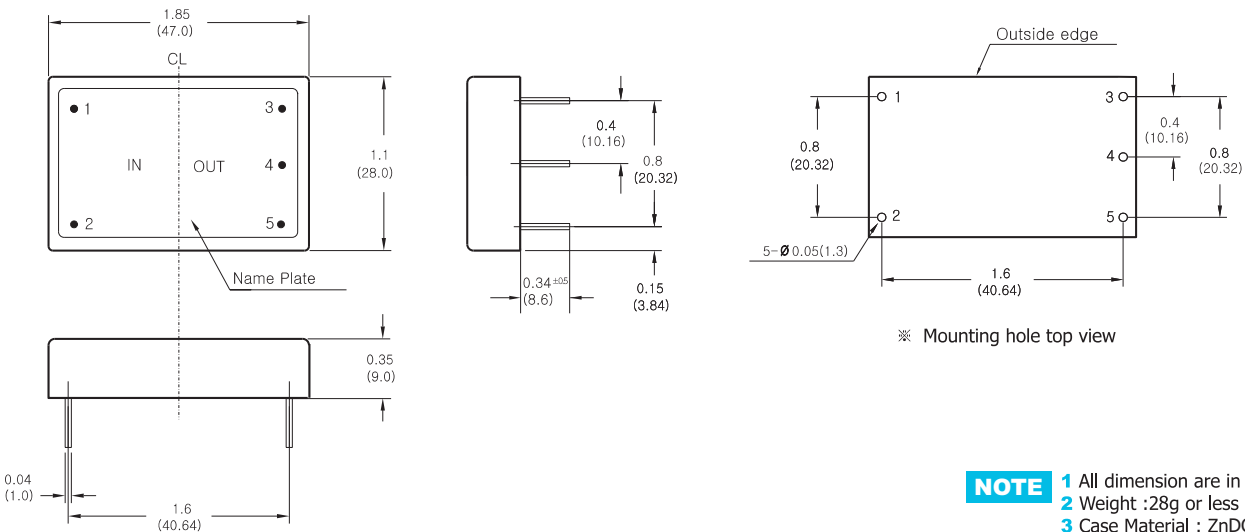
PIN ASSIGNMENTS

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



**NOTE** 1 All dimension are in inches (mm)  
 2 Weight :28g or less  
 3 Case Material : ZnDC