

# PH300S/PH600S-SERIES

Single output 300W ~ 600W  
DC-DC power module

**LAMBDA**  
DENSEI-LAMBDA



## Model name

**PH 600 S 280-5**

Name of series      Output power      Function      Nominal input voltage      Nominal output voltage  
S: Simple function

## Features

- CE marking (Low Voltage Directive)
- Compact DC-DC power module  
Large power 300W/600W  
High power density: 61.6W/inch<sup>3</sup> (600W type)  
600W type: 146 × 86 × 12.7mm  
300W type: 83 × 86 × 12.7mm
- Wide baseplate temperature: -20 ~ +100°C  
Conduction cooling
- Wide input voltage range  
DC48V input: DC36 ~ 76V, DC280V input: DC200 ~ 400V
- 2 year warranty

Power Module

## Specifications

|                                  |                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Input voltage range           | PH300S48(300W type): DC36 ~ 76V<br>PH300S280(300W type)/PH600S280(600W type): DC200 ~ 400V                                                                                                                                                                                                                        |
| 2. Output voltage range          | ±10% (12V ~ 28V types), -10 ~ +20% (3.3V, 5V and 48V types)<br>(by TRM terminal and external resistor)<br>Output voltage range is different according to input voltage.                                                                                                                                           |
| 3. Line regulation               | 0.4%, within nominal input voltage range at constant load (3.3V output: 20mV)                                                                                                                                                                                                                                     |
| 4. Load regulation               | 0.8%, no load to full load at constant input voltage (3.3V output: 40mV)                                                                                                                                                                                                                                          |
| 5. Cooling                       | Conduction cooling (Heatsink & airflow has to be chosen according to instruction manual)                                                                                                                                                                                                                          |
| 6. Operating ambient temperature | Baseplate temperature: -20 ~ +100°C (Output derating is different according to condition)<br>Ambient temperature: above -20°C                                                                                                                                                                                     |
| 7. Withstand voltage             | DC48V input/input to output: 1.5kVAC, Input to baseplate: 1.5kVAC for 1 min.<br>DC280V input/input to output: 3.0kVAC, Input to baseplate: 2.5kVAC for 1 min.                                                                                                                                                     |
| 8. Safety standard               | Approved by UL1950  , CSA950(C-UL)  and EN60950  (BSI) |
| 9. Functions                     | Over voltage protection (Can be reset by external signal), Over current protection, Thermal protection<br>Remote sensing, Remote on/off control, Inverter good signal (IOG terminal)<br>CS terminal (Load current balancing is possible with external control circuit under parallel operation)                   |

## Product lineup

|                             | Model name     | Output voltage | Output current | Output power | UL | CSA | EN |
|-----------------------------|----------------|----------------|----------------|--------------|----|-----|----|
| PH300S48<br>(input 48VDC)   | PH300S-48-3.3  | 3.3V           | 50A            | 165W         | ○  | ○   | ○  |
|                             | PH300S-48-5    | 5V             | 50A            | 250W         | ○  | ○   | ○  |
|                             | PH300S-48-12   | 12V            | 25A            | 300W         | ○  | ○   | ○  |
|                             | PH300S-48-15   | 15V            | 20A            | 300W         | ○  | ○   | ○  |
|                             | PH300S-48-24   | 24V            | 12.6A          | 302.4W       | ○  | ○   | ○  |
|                             | PH300S-48-28   | 28V            | 10.8A          | 302.4W       | ○  | ○   | ○  |
|                             | PH300S-48-48   | 48V            | 6.3A           | 302.4W       | ○  | ○   | ○  |
| PH300S280<br>(input 280VDC) | PH300S-280-3.3 | 3.3V           | 50A            | 165W         | ○  | ○   | ○  |
|                             | PH300S-280-5   | 5V             | 50A            | 250W         | ○  | ○   | ○  |
|                             | PH300S-280-12  | 12V            | 25A            | 300W         | ○  | ○   | ○  |
|                             | PH300S-280-15  | 15V            | 20A            | 300W         | ○  | ○   | ○  |
|                             | PH300S-280-24  | 24V            | 12.5A          | 300W         | ○  | ○   | ○  |
|                             | PH300S-280-28  | 28V            | 10.8A          | 302.4W       | ○  | ○   | ○  |
|                             | PH300S-280-48  | 48V            | 6.3A           | 302.4W       | ○  | ○   | ○  |
| PH600S280<br>(input 280VDC) | PH600S-280-3.3 | 3.3V           | 100A           | 330W         | ○  | ○   | ○  |
|                             | PH600S-280-5   | 5V             | 100A           | 500W         | ○  | ○   | ○  |
|                             | PH600S-280-12  | 12V            | 50A            | 600W         | ○  | ○   | ○  |
|                             | PH600S-280-15  | 15V            | 40A            | 600W         | ○  | ○   | ○  |
|                             | PH600S-280-24  | 24V            | 25A            | 600W         | ○  | ○   | ○  |
|                             | PH600S-280-28  | 28V            | 21.5A          | 602W         | ○  | ○   | ○  |
|                             | PH600S-280-48  | 48V            | 12.5A          | 600W         | ○  | ○   | ○  |

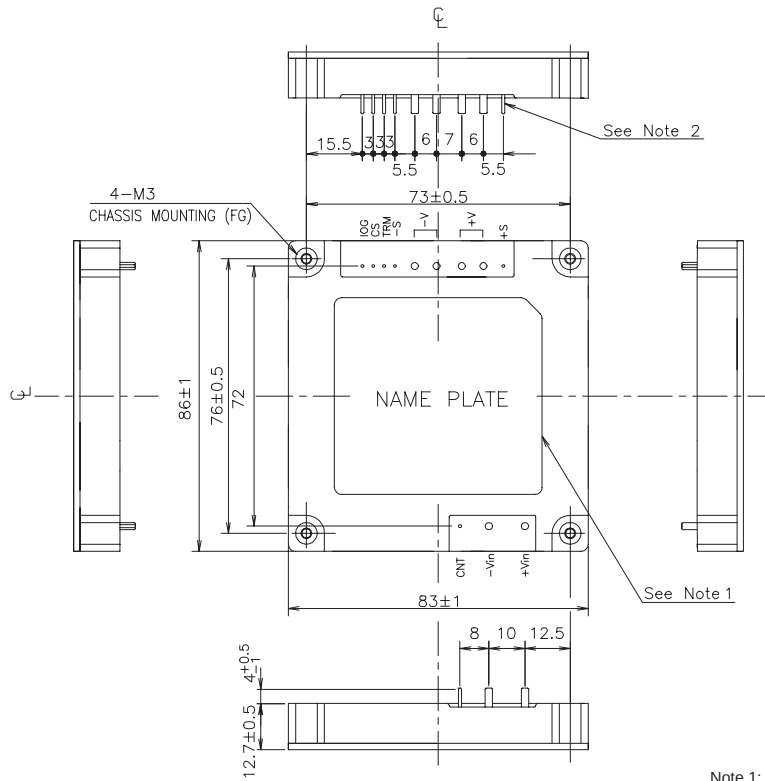
- Request customer specification for further details of specifications, outline, characteristics, etc.  
Read the instruction manual before usage.
- Contact us about delivery before ordering.

○ : Safety standard approved

● Recommended Heatsink  P212

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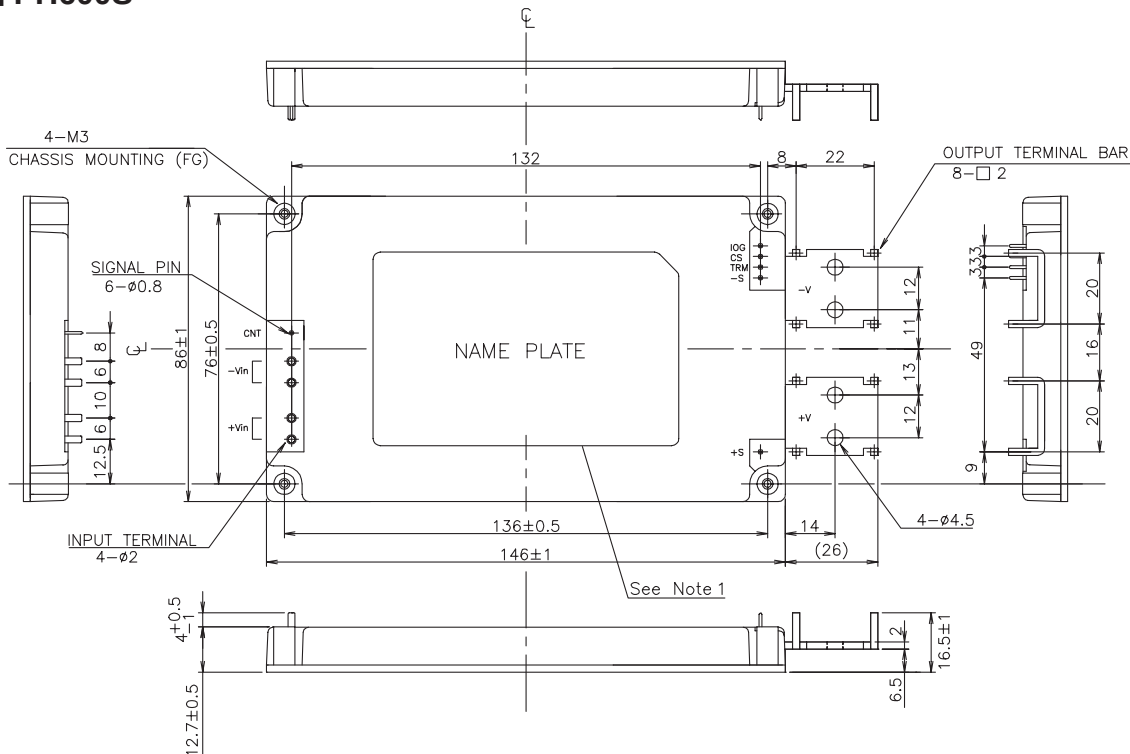
## ■ PH300S



(Unit: mm)

Note 1: "Model name, Input voltage range, Nominal output voltage, Maximum output current and country of manufacture are shown here.  
Note 2: Input & output terminal.....6-Ø2  
6-Ø8

## ■ PH600S



(Unit: mm)

Note 1: "Model name, Input voltage range, Nominal output voltage, Maximum output current and country of manufacture are shown here.