



DESCRIPTION: 10W 1.5KVDC Wide Voltage Input DC/DC Converters

The rated output power of PP10DB converters is 10W, the outline dimensions is "25.4*25.4*12.7", 2:1, 4:1 wide input voltage range, the voltage range is 18-36V, 36-72V, 9V-36V, 18V-72V. The accuracy of the converter can reach $\pm 1\%$, it can be widely used in telecommunications, railway transportation, instrument and etc.

FEATURES

| | | |
|-----------------------------------|--|---|
| 10W output power | Long-term short-circuit protection, Auto recovery | High switching frequency, High output density |
| Metal shell package (full shield) | With remote control and output adjustment function | RoHS compliant |

SELECTION GUIDE

| Part Number | Input Voltage | | Output | | Efficiency (Typ) % | Maximum capacitive load (uF) |
|--------------|---------------|--------------|---------------|-------------|--------------------|------------------------------|
| | Voltage (VDC) | | Voltage (VDC) | Current (A) | | |
| | Rated | Range values | | | | |
| PP10DB24S05 | 24(2:1) | 18-36 | 5 | 2.00 | 84 | 2200 |
| PP10DB24S12 | 24(2:1) | 18-36 | 12 | 0.83 | 87 | 470 |
| PP10DB24S15 | 24(2:1) | 18-36 | 15 | 0.67 | 87 | 470 |
| PP10DB24S24 | 24(2:1) | 18-36 | 24 | 0.42 | 86 | 470 |
| PP10DB48S05 | 48(2:1) | 36-72 | 5 | 2.00 | 84 | 2200 |
| PP10DB48S12 | 48(2:1) | 36-72 | 12 | 0.83 | 87 | 470 |
| PP10DB48S15 | 48(2:1) | 36-72 | 15 | 0.67 | 87 | 470 |
| PP10DB48S24 | 48(2:1) | 36-72 | 24 | 0.42 | 86 | 470 |
| PP10DB24S05W | 24(4:1) | 9-36 | 5 | 2.00 | 84 | 2200 |
| PP10DB24S12W | 24(4:1) | 9-36 | 12 | 0.83 | 87 | 470 |
| PP10DB24S15W | 24(4:1) | 9-36 | 15 | 0.67 | 87 | 470 |
| PP10DB24S24W | 24(4:1) | 9-36 | 24 | 0.42 | 86 | 470 |
| PP10DB48S05W | 48(4:1) | 18-72 | 5 | 2.00 | 84 | 2200 |
| PP10DB48S12W | 48(4:1) | 18-72 | 12 | 0.83 | 87 | 470 |
| PP10DB48S15W | 48(4:1) | 18-72 | 15 | 0.67 | 83 | 470 |
| PP10DB48S24W | 48(4:1) | 18-72 | 24 | 0.42 | 86 | 470 |

Input voltage 9-18VDC, start-up voltage 9.5-18VDC, input voltage 9-36VDC, start-up voltage 9.5-36VDC.

All specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

INPUT CHARACTERISTICS

| Parameter | Conditions | Min | Typ | Max | Units |
|----------------|--|---|-----|-----|-------|
| Input Voltage | 24V Input module(18V-36V) | 18 | 24 | 36 | VDC |
| Input Voltage | 48V Input module(36V-72V) | 36 | 48 | 72 | VDC |
| Input Voltage | 24V Input module(9V-36V) | 9.5 | 24 | 36 | VDC |
| Input Voltage | 48V Input module(18V-72V) | 18 | 48 | 72 | VDC |
| Remote Control | CNT side plus level, the reference voltage is -Vin | High frequency electric or floating, low level or ground power supply work, output power was turned off | | | |

OUTPUT CHARACTERISTICS

| Parameter | Conditions | Min | Typ | Max | Units |
|-------------------------------|-----------------|-----|------------|---------------------------|-------------------|
| Voltage accuracy | | | | ± 1 | % |
| Adjustment rate | | | | ± 0.2 | % |
| Load effect | | | | ± 0.5 | % |
| Dynamic Response | 50~75% Load | | | $\pm 4\%V_o$ Overshoot | % |
| Dynamic Response | 50~25% Load | | | 400 μ S Recovery Time | % |
| Temperature drift coefficient | | | ± 0.02 | | %/°C |
| Ripple & Noise | 20MHz Bandwidth | | | 100 | mV _{p-p} |

GENERAL CHARACTERISTICS

| Parameter | Conditions | Min | Typ | Max | Units |
|--------------------------|----------------------|-----|---------------------|------|-------|
| Isolation voltage | Input-Ouput | | 1500 | | VDC |
| Isolation voltage | Input - shell | | 1500 | | VDC |
| Isolation voltage | Output nput - shell | | 500 | | VDC |
| Insulation resistance | 500VDC | | 100 | | MΩ |
| Switching frequency | | | 300 | | KHZ |
| Environment temperature | | -40 | | +95 | ℃ |
| Working case temperature | | -40 | | +95 | ℃ |
| Storage temperature | | -40 | | +105 | ℃ |
| Relative humidity | | 10 | | 90 | % |
| MTBF | Mil HDBK 217F Tc=25℃ | | 2 × 10 ⁶ | | |

PROTECTION CHARACTERISTICS

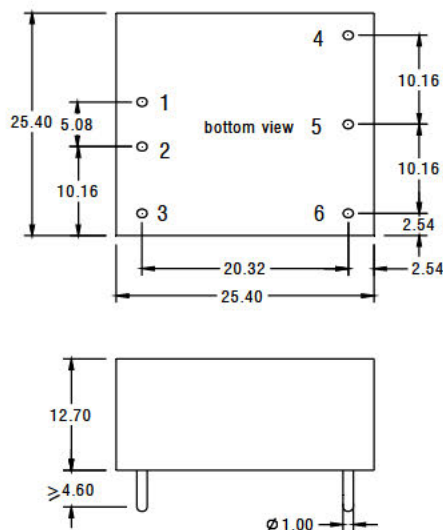
| Parameter | Conditions |
|----------------------------------|---------------|
| Output Over-current protection | Auto recovery |
| Output Short -circuit protection | Auto recovery |

NOTES

- The maximum temperature can not exceed the specified value While product work.
- The highest working environment temperature of product is variable, the cooling conditions and the actual use of power changes will affect the product's maximum working temperature.
- This series of high power density products, more heat dissipation, cooling area is limited; In high temperature environment & full-Load, it is recommended to use auxiliary cooling measures (plus radiator, paste the metal box wall, etc.) to ensure that The temperature of the product substrate does not exceed the specified value.

MECHANICAL DIMENSIONS

DIP Package

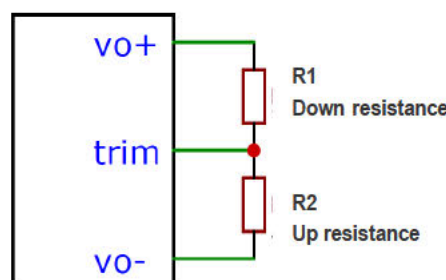


Units: mm
Pin diameter tolerances: $\pm 0.1\text{mm}$
General Tolerance: $\pm 0.5\text{mm}$

PIN CONNECTION

| PIN | Single output |
|-----|---------------|
| 1 | +Vin |
| 2 | -Vin |
| 3 | CNT |
| 4 | +V0 |
| 5 | NP |
| 6 | GND |

OUTPUT ADJUSTMENT SCHEMATIC DIAGRAM



MODEL SELECTION

