

# TNP5050 Series

Deep sea converter | 10kVDC to 375VDC,10kW,Design for 30 years operation



- Input Voltage -10kVDC
- Output Voltage 375VDC
- Output Power 10kW
- Over-current, over-voltage, over-temperature, and output short-circuit protection

## Information:

The TNP5050 series by Teslaman is a high-voltage power converter designed for long-distance power transmission. Its feature is the ability to convert high-voltage power into low-voltage DC power suitable for the load. Utilizing various advanced technologies and equipped with comprehensive protection functions, it boasts high efficiency, high performance, high reliability, high redundancy, and a long service life. It has been applied in fields requiring high reliability, such as deep-sea observation network power supply.

## Typical Applications:

Deep-sea observation network power supply; high-voltage direct current transmission; long-distance power transmission; other high-voltage to low-voltage equipment, and scientific research, etc.

## Specifications:

<b>Input voltage</b>	-6.5kVDC~-10kVDC.
<b>Input polarity</b>	Negative to Ground.
<b>Output voltage</b>	375VDC.
<b>Output Polarity</b>	Optional: floating.
<b>Output Power</b>	10kW(Can be flexibly configured according to user needs).
<b>Efficiency</b>	≥90%(FS).
<b>Ripple</b>	Better than 0.5%rms under rated output.
<b>Stability</b>	Less than 25ppm/hr after 2 hours warm-up.
<b>Temperature Coe.</b>	Voltage and current less than 50ppm/°C.
<b>Environmental</b>	Operational:+2°C~+14°C. Storage:-20°C~+80°C.
<b>Protection</b>	Over-voltage,under-voltage,over-current,over-temperature.
<b>Dimensions</b>	Diameters 369.8mm,Length1000mm.
<b>Output Ports</b>	Voltage display:1:100; 375V feedback signal 3.75V. Current display:1:10; 25A feedback signal 2.5V. Temp. display:Temperature is reported in the International System of Units as 300K; a feedback voltage of 3V represents a temperate of 26.85°C. (0.1V corresponds to 1°C).
<b>Voltage protection signal</b>	Feedback signal±15V,+15V for protection.
<b>Current protection signal</b>	Feedback signal±15V,+15V for protection.
<b>Temp. protection</b>	Feedback signal±15V,+15V for protection.

<b>Input Cable</b>	Maximum insulation voltage 30kV.
<b>Output Cable</b>	Maximum output current 50A, voltage rating AC380V.

### Description of Model Code

The model code represents the performance and parameters of the power supply, which are:

Maximum output voltage in kV;

Fixed output 375V

Maximum output power in W;

Output polarity, P for positive output, N for negative output;

TNP5050	N	10	-	10000
Model	Polarity	Maximum input voltage		Maximum power

**TNP5050Series High Voltage Power Supply Model Selection Table:**

kV	kW	Type of Power Supply
-10	10	TNP5050N10-10000
-5	5	TNP5050N5-5000

### Dimensions:mm

