

# TPCM6085Series

## Module high-voltage power supply

Output voltage 50kV, current 1.7mA



Teslaman TPCM6085 series high-voltage power supply adopts a compact design, has efficient adjustment ability, and can output low ripple high voltage. Compared with traditional high-voltage modules, the size of TPCM6085 series modules is greatly reduced, and advanced offline resonant converter technology is adopted. The resonant converter adopts a unique control scheme to maintain high efficiency while running at constant frequency. Zero current switch (ZCS) resonance control technology is used. The working frequency is usually 60.KHz. TPCM6085 series high-voltage power supply voltage and current can be Transfer. Monitoring and control signals are simple and flexible. TPCM6085 series high-voltage power supply input range is 85 -265VAC (50/60hz single-phase).Use active power factor correction.

- Output voltage 50kV (other voltages can be customized)
- Output power 85W
- Power factor: better than0.99
- Digital programmable
- Overvoltage, overcurrent, short circuit, arc and over-temperature protection
- Secure interlock function
- Can be customized according to user requirements.

### Typical application:

PCB detection; electrostatic field; insulation voltage resistance test; detector; electrophoresis; cable test

### Specifications:

**Input:**85 -265VAC, 50/60hz single-phase

**Output:**50kV, positive or negative polarity optional

**Power factor:** Full load:0.99 No load: 0.98

#### Voltage control:

External analog control: External 0 to 10V control signals can adjust the output from 0 to the maximum output voltage.

Digital communication control: Through the RS-485 communication interface, the output can be adjusted from 0 to the maximum voltage according to the standard Modbus communication protocol. (Optional))

#### Current control:

External analog control: The external 0 to 10V control signal can adjust the output from 0 to the maximum current.

Digital communication control: Through the RS-485 communication interface, the output can be adjusted from 0 to the maximum current according to the standard Modbus high communication protocol. (Optional))

#### Voltage adjustment rate:

Relative load: 0.01% (noload to rated load).

Relative input:  $\pm 0.01\%$  (input voltage change is  $\pm 10\%$ ).

#### Current adjustment rate:

Relative load: 0.01% (noload to rated load).

Relative input:  $\pm 0.01\%$  (input voltage change is  $\pm 10\%$ ).

#### Ripple voltage:

Rated output conditions, better than 0.1%<sub>op-p</sub>.

Ambient temperature: When working: 0°C to +50°C. Storage: -20°C to +80°C.

**Temperature coefficient:**Voltage and current are better than 100ppm/° C.

**Stability:**Less than 0.1% every 8 hours after 0.5 hours of booting.

#### Dimensions:

126mm wide, 102.5mm high and 228mm deep.

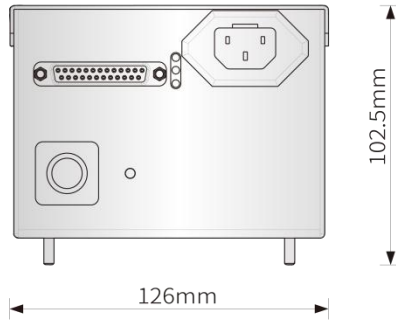
**High pressureCable:**The standard high-voltage cable is 2 meters long, with a shielded layer and can be plugged in.

**Weight:**3kg.

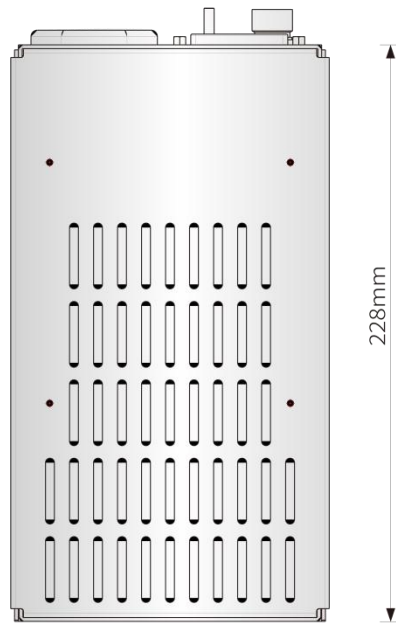
### TPCM6085 Power Supply DB25 Connector Signal Definition J3:

Line of stitches	Signal	Explain
1	Earth	Signal ground line
2	High-pressure enable	High-voltage enabling, low-level effective
3	Power supply error	The power supply error indicates that the low current is a power supply error.
4	Voltage display	Voltage display, 0 to 10 V = 0 to 100% rated output
5	Earth	Signal ground line
6	Remote voltage setting	Remote voltage setting, 0 to 10V = 0 to 100% rated output
7	Keep back3	Keep back
8	Earth	Signal ground line
9	Interlock	Interlock, low-level effective, can only turn on the voltage after it is effective.
10	Current display	Current display, 0 to 10V = 0 to 100% rated output
11	Keep back2	Standby 2
12	10V	10V, 1mA (max)
13	Remote current setting	Remote current setting, 0 to 10V = 0 to 100% rated output
14	RS485-A	485 Communication A
15	RS485-B	485 COMMUNICATION B
16	GenerationND-RS485	485 Communication GND
17	Reduce	Reset, low-level reset
18	Earth	Signal ground line
19	Earth	The earth of the enclosure
20	Earth	Signal ground line
21	Keep back1	Alternate 1
22	Keep back4	Keep back
23	10V	10V
24	10V	10V
25	10V	10V
Screen	Earth	Signal ground line

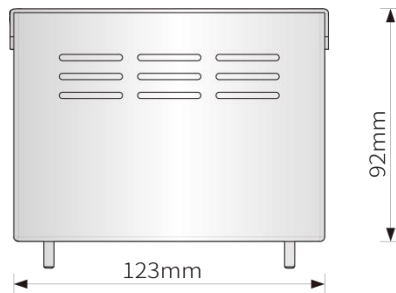
**Dimensions: mm**



**Front view**



**Top view**



**Back view**