

POWER-SPIN**3-phase input****High-Power Programmable DC Power Supply****In a Nutshell:**

- ✓ Output voltage: 10V up to 1500V;
- ✓ Output current: 3.5A to 12000A;
- ✓ Output power: 4kW up to 600kW;
- ✓ 15kW/3U high power density, constant power output;
- ✓ 0.1%+0.1%F.S. and 0.1%+0.2%F.S. accuracy for voltage and current measurement respectively;
- ✓ 10 user programmable sequence files, each support up to 100 steps;
- ✓ 1ms typical transient response, Voltage & current slew rate control;
- ✓ CV / CC priority start (prevents voltage or current overshoot with output ON);
- ✓ Internal resistance simulating, voltage remote sense compensation;
- ✓ Optional analog programming & monitoring interface;
- ✓ ±OVP, ±OCP, ±OPP, OTP, ±LVP, Foldback protection, as well as voltage / current limit;
- ✓ Standard LAN, RS232, optional GPIB ports;
- ✓ SCPI and ModBus RTU protocol;
- ✓ TFT color LCD display.

General

POWER-SPIN series DC power supplies adopt modular architecture, which simplifies sparing and maintenance. The series offer a high power density, with 15 kW in a 3U chassis, output power ranges from 4 kW to 600 kW, voltage ranges from 10 V to 1500 V, and current up to 12000 A. Most importantly, its 10V, 15V low voltage high current output makes it ideal for testing of sensors, superconducting materials, cables, etc..

The POWER-SPIN provide accurate output, fast transient response, low ripple noise, excellent line and load regulation, fast and precise programmability. With 4.3-inch colour TFT screen, full keypad and rotary knob, convenient for benchtop users. In addition, this series offer standard LAN and RS232 interfaces support both SCPI and Modbus protocol, which is ideal for automated test systems.

Furthermore, the POWER-SPIN come standard with user programmable sequence, CV or CC priority start, CV-to-CC or CC-to-CV fold-back and built-in test routines for battery internal resistance simulation, etc., to name a few. In conclusion, POWER-SPIN delivers unsurpassed quality with premium features at an affordable price, and models of large output power are provided in a convenient rack-mount cabinet.

Applications Matrix

Inverter Test	Superconductors Current Sensors Cables	Energy Storage	Renewable Energies	Automotive electronics
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AC Input

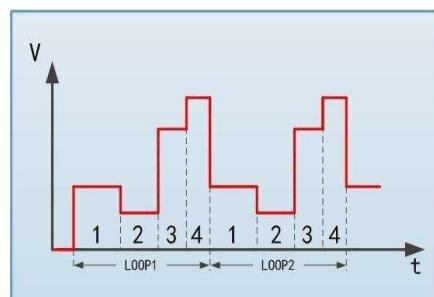
All models are designed for a usage in three-phase 340 VAC ~ 420 VAC input, power supply efficiency is higher than 87%.

15kW/3U High Power Density

The POWER-SPIN provides a high-power density of 15kW/3U, with features suchas accurate output, fast response, and low ripple noise.

User programmable sequence function

All models provide users with a programmable sequence function, which can simulate power supply interruptions, instantaneous drops, and other voltage and current changes. The sequence feature allows users to program a list of steps to the power supply's internal memory and execute them. A total of 100 steps can be allocated to each internal memory location, up to a maximum of 10 locations (sequences). The test sequence can be programmed locally through the keypad and rotary knob. Test sequences can be linked, as well as configured for single or repeated execution. Each steps' settings include voltage current, duration, the duration time range is 1ms...86400 s

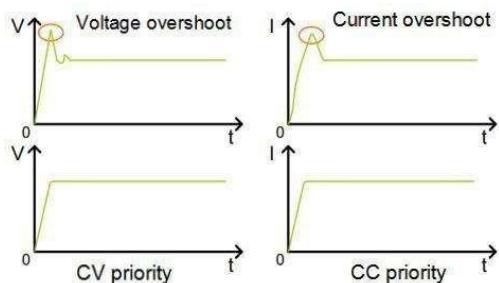


Internal Resistance Simulating

All models can simulate the output characteristic of battery by setting the internal resistance. When the output current of the power supply increases, the output voltage will be adjusted automatically according to the preset internal resistance value.

CV / CC Priority

When power supply is connected to an inductive or capacitive load, it will cause voltage or current overshoot, which may trigger the protection of the device under test, or even cause the device under test to be damaged in severe cases. This series power supply provides CC priority and CV priority function, which forces the power supply to operate in CC or CV mode at the moment the output is turned on, effectively avoids the current or voltage overshoot resulted from capacitive or inductive load.



Optional analogue programming and monitoring interface

In addition to front panel and remote interface control, there is a galvanically isolated analogue interface terminal, located on the rear of the device. It offers analogue inputs to set voltage, current from 0...100% through control voltages of 0 V...10 V or 0 V...5 V. To monitor the output voltage and current, there are analogue outputs with 0 V...10 V or 0 V...5 V. Also, several inputs and outputs are available for controlling and monitoring the device status. The controlling speed of analogue programming is 1000 points per second.

Protection

For protection of the equipment connected, the series provide programmable protection functions such as OVP, OCP, OPP and LVP. Moreover, there are built-in hardware protection function OTP. If a protection is triggered, the DC output will be shut off immediately and a status signal will be prompt on the display and via the interfaces. Similarly, fold-back protection is used to disable the output when a transition is made between the CC and CV operating modes. The DC output will be shut off and locked in fold-back mode after a specified delay if the power supply transitions into CV or CC mode, depending on the fold-back mode settings. This feature is particularly useful for protecting current or voltage sensitive loads.

Digital interfaces

All models feature two galvanically isolated digital interfaces by default, these are standard LAN and RS232 (optional GPIB interface). LAN and RS232 can be used to control and monitor the devices either with SCPI language commands or ModBus RTU protocol, while with GPIB only SCPI is supported.



Control software

The series provide a control software for Windows PCs, which can read test data, generate images, export reports, print reports, etc. in real time, it is convenient for customers to use.

Options

Digital interface modules for GPIB, CAN, RS485;

Analogue programming and monitoring interface (analogue interface on the rear)

Anti-backflow current module (Configurable for models of 50V or above).

Overview

- ✓ Other voltage range models such as 75V/80V/120V/150V/200V are not listed.
- ✓ Models with rated power larger than 120kW are not listed.

Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
10V	PS-T-004-V0010-A0400	400A	4kW	15V	PS-T-004.5-V0015-A0300	300A	4.5kW	20V	PS-T-005-V0020-A0250	250A	5kW
	PS-T-008-V0010-A0800	800A	8kW		PS-T-009-V0015-A0600	600A	9kW		PS-T-010-V0020-A0500	500A	10kW
	PS-T-012-V0010-A1200	1200A	12kW		PS-T-013.5-V0015-A0900	900A	13.5kW		PS-T-015-V0020-A0750	750A	15kW
	PS-T-016-V0010-A1600	1600A	16kW		PS-T-0018-V0015-A1200	1200A	18kW		PS-T-020-V0020-A1000	1000A	20kW
	PS-T-020-V0010-A2000	2000A	20kW		PS-T-022.5-V0015-A1500	1500A	22.5kW		PS-T-025-V0020-A1250	1250A	25kW
	PS-T-008-V0010-A2400	2400A	24kW		PS-T-027-V0015-A1800	1800A	27kW		PS-T-020-V0020-A1500	1500A	30kW
	PS-T-036-V0010-A3600	3600A	36kW		PS-T-040.5-V0015-A2700	2700A	40.5kW		PS-T-045-V0020-A2250	2250A	45kW
	PS-T-048-V0010-A4800	4800A	48kW		PS-T-054-V0015-A3600	3600A	54kW		PS-T-060-V0020-A3000	3000A	60kW
	PS-T-060-V0010-A6000	6000A	60kW		PS-T-067.5-V0015-A4500	4500A	67.5kW		PS-T-090-V0020-A4500	4500A	90kW
	PS-T-120-V0010-A12000	12000A	120kW		PS-T-108-V0015-A7200	7200A	108kW		PS-T-120-V0020-A6000	6000A	120kW

Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
30V	PS-T-005-V0030-A0167	167A	5kW	40V	PS-T-005-V0040-A0125	125A	5kW	50V	PS-T-005-V0050-A0100	100A	5kW
	PS-T-010-V0030-A0334	334A	10kW		PS-T-010-V0040-A0250	250A	10kW		PS-T-010-V0050-A0200	200A	10kW
	PS-T-015-V0030-A0500	500A	15kW		PS-T-015-V0040-A0375	375A	15kW		PS-T-015-V0050-A0300	300A	15kW
	PS-T-020-V0030-A0667	667A	20kW		PS-T-020-V0040-A0500	500A	20kW		PS-T-020-V0050-A0400	400A	20kW
	PS-T-025-V0030-A0833.5	833.5A	25kW		PS-T-025-V0040-A0625	625A	25kW		PS-T-025-V0050-A0500	500A	25kW
	PS-T-030-V0030-A1000	1000A	30kW		PS-T-030-V0040-A0750	750A	30kW		PS-T-030-V0050-A0600	600A	30kW
	PS-T-045-V0030-A1500	1500A	45kW		PS-T-045-V0040-A1125	1125A	45kW		PS-T-045-V0050-A0900	900A	45kW
	PS-T-060-V0030-A2000	2000A	60kW		PS-T-060-V0040-A1500	1500A	60kW		PS-T-060-V0050-A1200	1200A	60kW
	PS-T-090-V0030-A3000	3000A	90kW		PS-T-090-V0040-A2250	2250A	90kW		PS-T-090-V0050-A1800	1800A	90kW
	PS-T-120-V0030-A4000	4000A	120kW		PS-T-120-V0040-A3000	3000A	120kW		PS-T-120-V0050-A2400	2400A	120kW

Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
60V	PS-T-005-V0060-A083.5	83.5A	5kW	100V	PS-T-005-V0100-A0050	50A	5kW	160V	PS-T-005-V0160-A0031.5	31.5A	5kW
	PS-T-010-V0060-A0167	167A	10kW		PS-T-010-V0100-A0100	100A	10kW		PS-T-010-V0160-A0062.5	62.5A	10kW
	PS-T-015-V0060-A0250	250A	15kW		PS-T-015-V0100-A0150	150A	15kW		PS-T-015-V0160-A0094	94A	15kW
	PS-T-020-V0060-A0333.5	333.5A	20kW		PS-T-020-V0100-A0200	200A	20kW		PS-T-020-V0160-A0125	125A	20kW
	PS-T-025-V0060-A0417	417A	25kW		PS-T-025-V0100-A0250	250A	25kW		PS-T-025-V0160-A0156.5	156.5A	25kW
	PS-T-030-V0060-A0500	500A	30kW		PS-T-030-V0100-A0300	300A	30kW		PS-T-030-V0160-A0188	188A	30kW
	PS-T-045-V0060-A0750	750A	45kW		PS-T-045-V0100-A0450	450A	45kW		PS-T-045-V0160-A0281.5	281.5A	45kW
	PS-T-060-V0060-A1000	1000A	60kW		PS-T-060-V0100-A0600	600A	60kW		PS-T-060-V0160-A0375	375A	60kW
	PS-T-090-V0060-A1500	1500A	90kW		PS-T-090-V0100-A0900	900A	90kW		PS-T-090-V0160-A0562.5	562.5A	90kW
	PS-T-120-V0060-A2000	2000A	120kW		PS-T-120-V0100-A1200	1200A	120kW		PS-T-120-V0160-A0750	750A	120kW

Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
250V	PS-T-005-V0250-A0020	20A	5kW	300V	PS-T-005-V0300-A0017	17A	5kW	400V	PS-T-005-V0400-A0012.5	12.5A	5kW
	PS-T-010-V0250-A0040	40A	10kW		PS-T-010-V0300-A0033.5	33.5A	10kW		PS-T-010-V0400-A0025	25A	10kW
	PS-T-015-V0250-A0060	60A	15kW		PS-T-015-V0300-A0050	50A	15kW		PS-T-015-V0400-A0037.5	37.5A	15kW
	PS-T-020-V0250-A0080	80A	20kW		PS-T-020-V0300-A0067	67A	20kW		PS-T-020-V0400-A0020	50A	20kW
	PS-T-025-V0250-A0100	100A	25kW		PS-T-025-V0300-A0083.5	83.5A	25kW		PS-T-025-V0400-A0062.5	62.5A	25kW
	PS-T-030-V0250-A0120	120A	30kW		PS-T-030-V0300-A0100	100A	30kW		PS-T-030-V0400-A0075	75A	30kW
	PS-T-045-V0250-A0180	180A	45kW		PS-T-045-V0300-A0150	150A	45kW		PS-T-045-V0400-A0112.5	112.5A	45kW
	PS-T-060-V0250-A0240	240A	60kW		PS-T-060-V0300-A0200	200A	60kW		PS-T-060-V0400-A0150	150A	60kW
	PS-T-090-V0250-A0360	360A	90kW		PS-T-090-V0300-A0300	300A	90kW		PS-T-090-V0400-A0225	225A	90kW
	PS-T-120-V0250-A0480	480A	120kW		PS-T-120-V0300-A0400	400A	120kW		PS-T-120-V0400-A03005	300A	120kW

Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
500V	PS-T-005-V0500-A0010	10A	5kW	600V	PS-T-005-V0600-A0008.5	8.5A	5kW	800V	PS-T-005-V0800-A0006.5	6.5A	5kW
	PS-T-010-V0500-A0020	20A	10kW		PS-T-010-V0600-A0017	17A	10kW		PS-T-010-V0800-A0012.5	12.5A	10kW
	PS-T-015-V0500-A0030	30A	15kW		PS-T-015-V0600-A0025	25A	15kW		PS-T-015-V0800-A0019	19A	15kW
	PS-T-020-V0500-A0040	40A	20kW		PS-T-020-V0600-A0033.5	33.5A	20kW		PS-T-020-V0800-A0025	25A	20kW
	PS-T-025-V0500-A0050	50A	25kW		PS-T-025-V0600-A0042	42A	25kW		PS-T-025-V0800-A0031.5	31.5A	25kW
	PS-T-030-V0500-A0060	60A	30kW		PS-T-030-V0600-A0050	50A	30kW		PS-T-030-V0800-A0037.5	37.5A	30kW
	PS-T-045-V0500-A0090	90A	45kW		PS-T-075-V0600-A0075	75A	45kW		PS-T-045-V0800-A0056.5	56.5A	45kW
	PS-T-060-V0500-A0120	120A	60kW		PS-T-060-V0600-A0100	100A	60kW		PS-T-060-V0800-A0075	75A	60kW
	PS-T-090-V0500-A0180	180A	90kW		PS-T-090-V0600-A0150	150A	90kW		PS-T-090-V0800-A0112.5	112.5A	90kW
	PS-T-120-V0500-A0240	240A	120kW		PS-T-120-V0600-A0200	200A	120kW		PS-T-0120-V0800-A0150	150A	120kW

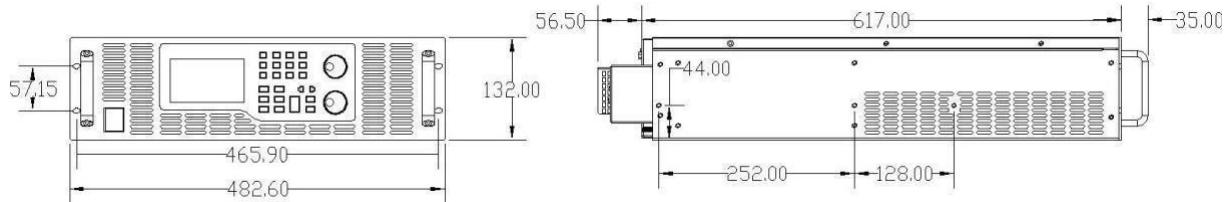
Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power	Voltage	Part Number	Current	Power
1000V	PS-T-005-V1000-A0005	5A	5kW	1200V	PS-T-005-V1200-A0004.5	4.5A	5kW	1500V	PS-T-005-V1500-A0003.5	3.5A	5kW
	PS-T-010-V1000-A0010	10A	10kW		PS-T-010-V1200-A0008.5	8.5A	10kW		PS-T-010-V1500-A0007	7A	10kW
	PS-T-015-V1000-A0015	15A	15kW		PS-T-015-V1200-A0012.5	12.5A	15kW		PS-T-015-V1500-A0010	10A	15kW
	PS-T-020-V1000-A0020	20A	20kW		PS-T-020-V1200-A0017	17A	20kW		PS-T-020-V1500-A0013.5	13.5A	20kW
	PS-T-025-V1000-A0025	25A	25kW		PS-T-025-V1200-A0021	21A	25kW		PS-T-025-V1500-A0017	17A	25kW
	PS-T-030-V1000-A0030	30A	30kW		PS-T-030-V1200-A0025	25A	30kW		PS-T-030-V1500-A0020	20A	30kW
	PS-T-045-V1000-A0045	45A	45kW		PS-T-045-V1200-A0037.5	37.5A	45kW		PS-T-045-V1500-A0030	30A	45kW
	PS-T-060-V1000-A0060	60A	60kW		PS-T-060-V1200-A0050	50A	60kW		PS-T-060-V1500-A0040	40A	60kW
	PS-T-090-V1000-A0090	90A	90kW		PS-T-090-V1200-A0075	75A	90kW		PS-T-090-V1500-A0060	60A	90kW
	PS-T-120-V1000-A0120	120A	120kW		PS-T-120-V1200-A0100	100A	120kW		PS-T-120-V1500-A0080	80A	120kW

General Specifications

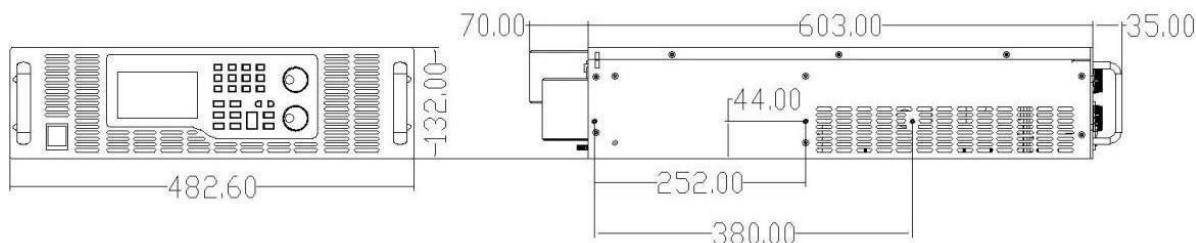
Item	Specification
AC Input	3 Phase input, 340VAC ~ 420VAC, 47Hz ~ 63Hz
Output Voltage	0 ~ rated voltage (Max 1500V)
Output Current	0 ~ rated current (Max 10000A)
Output Power	0 ~ rated power (Max 600kW)
Efficiency	0.87(Typical)
Line Regulation	Voltage: 0.01%F.S.; Current: 0.05%F.S.
Load Regulation	Voltage: 0.02%F.S.; Current: 0.1%F.S.
Analog Programming	V/I control; Support programming voltage: DC 0 ~ 5V/DC 0 ~ 10V input
Voltage Measurement Accuracy	0.1%+0.1%F.S.
Current Measurement Accuracy	0.1%+0.2%F.S.
Voltage slope	0.001V/ms - 5V/ms
Current slope	0.001A/ms - 150A/ms
Voltage/Current Monitoring	Voltage/Current monitoring output voltage: DC 0 ~ 10V
Protection	OVP/OCP/OPP/RVP/LVP/OTP
Transient Response	Typical 1ms
Voltage Temperature Coefficient	20ppm/°C
Current Temperature Coefficient	40ppm/°C
Display	4.3" TFT color LCD
Operation	Function key, number key, and knobs
Communication	Standard RS232, LAN, optional GPIB
Memory capacity	20 groups of fast recall parameters + 10 sequence files+ 1 waveform file
Cooling	Air cooling
Working Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 70°C
Altitude	< 2000m

Dimensions

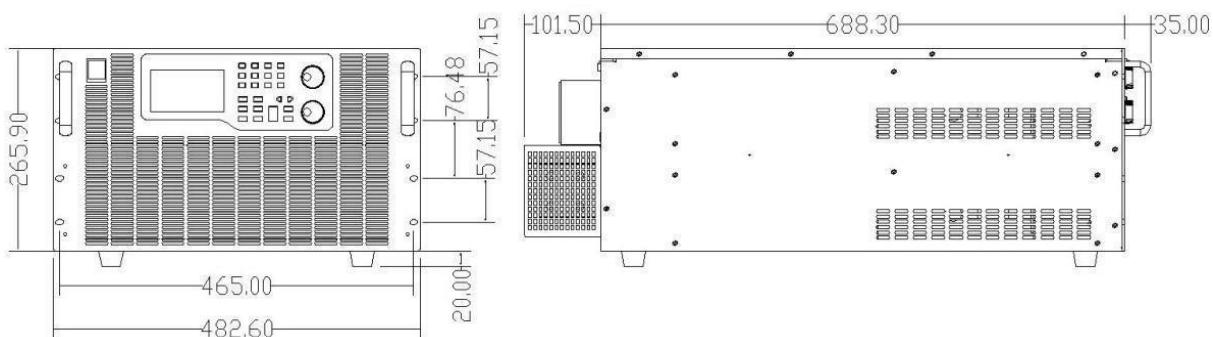
- ✓ 5kW~15kW model dimension (models of 40V or below)



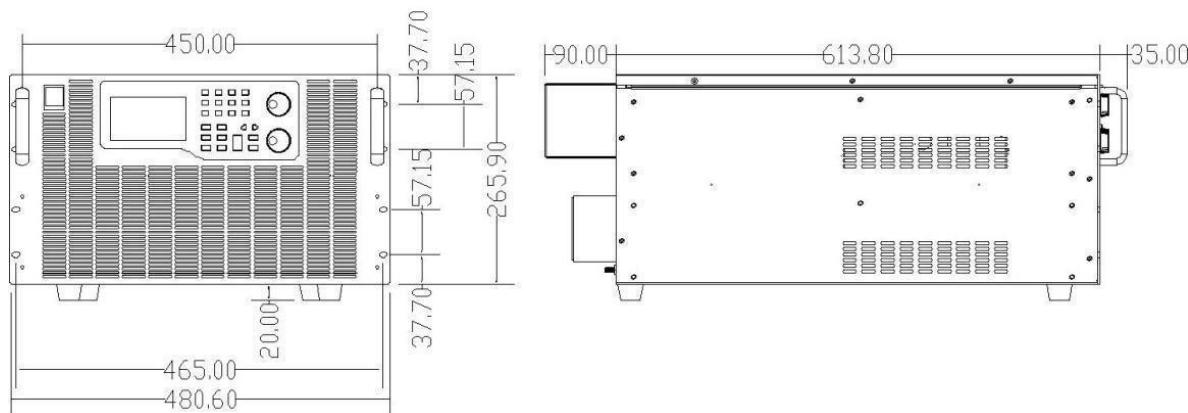
- ✓ 5kW~15kW model dimension (models with voltage > 40V)



- ✓ 20kW~30kW model dimension (models of 40V or below)



- ✓ 20kW~30kW model dimension (models with voltage > 40V)



Optional Accessories

Item	Type or specifications	Notes
GPIB interface	GB	
Analogue Interface	AN	
Anti-back flow current	BFC	Configurable for models of 50V or above

High current test cables

Specification	W1	W2	W3	W4	W5	W6	W7
Max voltage	750V						
Max current	10A	60A	100A	200A	200A	300A	400A
Terminal	M8/Alligator	M8/M8	M8/M8	M8/M8	M8/M8	M8/M8	M10/M10
Length	~1.5m	~1.5m	~2m	~2m	~4m	~2m	~2m
Shape							