

# Product Selection Guide

High Efficiency & High Precision & High Stability



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## Company Profile

APM Technologies Ltd is a high-tech enterprise specialized in the research & development (R&D), production and distribution of programmable power supply, Electronic Load, automated testing system, automated manufacturing equipment, marine smart system (MSS) and PV solar inverter. Our company has complete systems in product planning, research & development, laboratory experiment, testing, and quality control. In addition, we have passed the ISO 9001 standard certifications(2018-2021).

APM Technologies' R&D team consists of more than 100 personnel encompassing Ph.D. and master degree holders as well as senior experts in the related industries. By collaborating with a number of domestic and international research teams and maintaining a long term strategic cooperation with leading colleges and universities, our company can ensure products and services are leading the industry. Through applying our professional techniques and technologies to continually innovate and break through, so far APM Technologies has applied for a number of invention patents and already obtained a number of utility patents, design patents, software copyrights and other related patents. Our products have passed the CE, VDE, SAA, CQC, CSA, FCC, ROHS, etc. certifications.

APM Technologies from the beginning to the present, and from the past to the future, has always uphold the company spirit of "Constant Pursuit of Excellence" so as to provide our customers with the "24 Hours a Day of Continuing Services".



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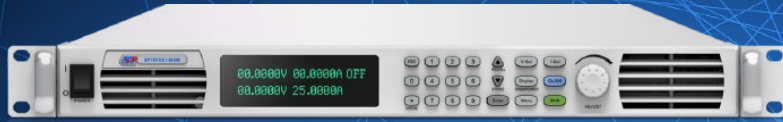
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# SP-1U/2U Series High Performance Programmable DC Power Supply



(1U) 600W~1600W



(2U) 1000W~4000W

## Product Introduction

APM provides stable DC output and wider range voltage and current. For single unit, current range could reach to 200A. Voltage range could reach to 800V. One unit programmable power supplier could substitute several rectangular power. It could output multiple voltage and current group, timer control function, provide OVP、OCP、OPP、OTP、SCP via front panel or PC. It supports list file function with built-in automotive electronics test waveform. Standard interfaces include RS232、RS485、USB、LAN. GPIB is optional. It could apply in various fields.

## Features

- Low ripple and noise.
- High accuracy and high resolution.
- CC and CV working mode switch freely.
- Support LIST/SEQUENCE file editing.
- OVP/OCP/OPP/OTP/SCP.
- Remote compensation.
- With external analog control input interface.
- Standard USB/LAN/RS485/RS232 communication interface.
- Master/Slave parallel and series operation mode for up to 10 units.

## Quick Selection

Output Voltage	1U					2U			
	600W	1000W	1200W	1500W	1600W	1000W	2000W	3000W	4000W
20VDC	60A	60A	60A	*	*	*	*	*	*
32VDC	50A	50A	50A	*	50A	200A	200A	200A	200A
40VDC	40A	40A	40A	*	40A	120A	120A	120A	120A
75VDC	25A	25A	25A	25A	*	*	*	*	60A
80VDC	*	*	*	*	*	60A	60A	60A	*
120VDC	*	*	*	*	*	40A	40A	40A	40A
150VDC	10A	10A	10A	10A	*	30A	30A	30A	30A
200VDC	8A	8A	8A	8A	*	24A	24A	24A	24A
600VDC	*	*	*	*	*	10A	10A	10A	10A
800VDC	*	*	*	*	*	7.5A	7.5A	7.5A	7.5A

## Product Configuration

Product Code *1	Configuration Content
<b>Basic configuration *2</b>	
001	USB & RS232 & RS485 & LAN (Standard)
002	USB & RS232 & RS485 & LAN + GPIB
003	USB & RS232 & RS485 & LAN + Voltage Meter & External Control
004	USB & RS232 & RS485 & LAN + GPIB + Voltage Meter & External Control
005	GPIB (applicable in 1U)
006	GPIB (applicable in 2U)
<b>Options *3</b>	
L001	Three-pin plug power cable (10A)
L002	Three-pin plug power cable (16A)
L003	Power Cable (1.5 M)

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select basic configuration before order, 005~006 support the model which has shipped.

\*3 Only 600W model is standard with three-pin plug power cable (16A). The rest models are equipped with power cable (1.5 M).  
If need extra optional cable, please check if it could meet the requirement of safety standard.

# SP-3U/6U Series Wide-range High-power Programmable DC Power Supply



(3U) 6000W~18000W



(6U) 24000W~36000W

## Product Introduction

This series Wide-range High-power Programmable DC Power Supply adopts high frequency isolation and active PFC design, which makes it can achieve high efficiency at any output point. DSP and FPGA control circuit provides faster but stable internal data computing and response capability. An optional built-in electronic load enables the power supply to work as a two-quadrant power supply. Solar array simulation function provides a unique feature to simulate the output characteristics of a solar panel. Users can select built-in standard automotive power network voltage curves to do the DUT performance test directly according to the demand. Built-in smart 3-stage charging algorithm simulation which is suitable for commonly known types of batteries on the market. List and Step modes can be used for auto sequence output. Built-in RS232, RS485 and USB communication interfaces, LAN&GPIB or CAN communication card is optional.

## Features

- Large color touch screen with intuitive interface provides an excellent intuition operational experience.
- 3-phase input voltage meets worldwide power distribution regulation, AC mains 187~253Vac/340~460Vac for optional.
- Constant voltage (CV), constant current (CC) and constant power (CP) operation mode, CC or CV working priority setting.
- Adjustable voltage/current slew rate.
- DDS arbitrary function generator.\*
- Solar panel I-V curve simulation function.\*
- Smart 3-stage charging algorithm simulation.\*
- Battery simulator function.\*
- Continuous source & sink function, with APM DC E-load to expand loading capability (optional).
- List/ Step mode programming.
- TTL/Analog control and monitoring.
- Built-in standard automotive power network voltage curves.\*
- Full protection: OVP, OCP, OPP and OTP protection.
- Supports master-slave mode, paralleling up to 16 units.
- Supports SCPI commands, provides web GUI function.

\*Only professional version units support these functions.

## Supported Functions Professional Version Only

No.	Description	Application
1	DDS arbitrary function generator	Includes a true function generator, built-in typical functions, supports complex waveforms creation, used for testing purposes in development and production
2	Solar panel I-V curve simulation function	Users can set the parameters to simulate I-V curve characteristic output
3	Smart 3-stage charging algorithm simulation	Commonly used charging curve simulation
4	Battery simulator function	Truly simulate the changes of internal resistance of battery in charging and discharging test.
5	Built-in standard automotive power network voltage curves	Users can recall the built-in standard curve to do the DUT performance test directly.

## Quick Selection

Output Voltage	3U			6U		
	6000W	12000W	18000W	24000W	30000W	36000W
80VDC	200A	400A	600A	800A	1000A	1200A
165VDC	*	180A	*	360A	*	540A
250VDC	*	*	180A	*	*	*
360VDC	42.5A	85A	127.5A	170A	212.5A	255A
500VDC	32A	64A	96A	128A	160A	192A
750VDC	21A	42A	63A	84A	105A	126A
1000VDC	*	32A	*	64A	*	96A
1500VDC	*	21A	32A	42A	*	63A
2250VDC	*	*	21A	*	*	*

## Product Configuration

Product Code *1	Configuration Content
<b>Product Version *2</b>	
A	Advanced
P	Professional
<b>Basic configuration *2</b>	
001	3P-400Vac input, include USB & RS232 & RS485(Standard)
002	3P-400Vac input, include USB & RS232 & RS485 + CAN
003	3P-400Vac input, include USB & RS232 & RS485 + LAN & GPIB
004	3P-400Vac input, include USB & RS232 & RS485 + External Control
005	3P-400Vac input, include USB & RS232 & RS485 + CAN + LAN & GPIB
006	3P-400Vac input, include USB & RS232 & RS485 + CAN + External Control
007	3P-400Vac input, include USB & RS232 & RS485 + LAN & GPIB + External Control
008	3P-400Vac input, include USB & RS232 & RS485 + CAN + LAN & GPIB + External Control
009	3P-208Vac input, include USB & RS232 & RS485(Standard)
010	3P-208Vac input, include USB & RS232 & RS485 + CAN
011	3P-208Vac input, include USB & RS232 & RS485 + LAN & GPIB
012	3P-208Vac input, include USB & RS232 & RS485 + External Control
013	3P-208Vac input, include USB & RS232 & RS485 + CAN+ LAN & GPIB
014	3P-208Vac input, include USB & RS232 & RS485 + CAN + External Control
015	3P-208Vac input, include USB & RS232 & RS485 + LAN & GPIB + External Control
016	3P-208Vac input, include USB & RS232 & RS485 + CAN+ LAN & GPIB + External Control
017	Advanced version upgrade to professional version
018	CAN
019	LAN & GPIB
020	External Control
<b>Options *3</b>	
021	Option Sink for dual quadrant function
L001	Power Cable (4M)
L002	Power Cable (10M)

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 017~020 support the model which has shipped.

\*3 This series of power cable is optional, 021 need to select before shipment.

# SPS Series DC Power Supply System



13U



19U



27U

## Product Introduction

Built-in voltage and current measurement function could provide wider range voltage and current combination. Single unit could cover range from 12KW to 40KW. Power rang could reach to 2000A and voltage range could reach to 1200V. DC source system can fulfill different kinds of DC power applications. Users can set the output voltage, current arbitrarily. Measure all kinds of features and display on VFD. At the meanwhile, power source provide multi standard interface, simplify and accelerate test development.

## Features

- With accurate voltage and current measurement capability.
- Coded knobs, multifunctional keyboard.
- Standard RS232/LAN/RS485/USB interface, GPIB is optional.
- Remote sensing to compensate for voltage drop in load leads.
- Support CV and CC automatically switch.
- Function of editing List waveform.
- Use SCPI commands.
- CE certified.
- OVP/OCP/OPP/OTP/SCP.

## Quick Selection

Output Voltage	13U Cabinet		19U Cabinet			27U Cabinet			
	2 Parallel	3 Parallel	4 Parallel	5 Parallel	6 Parallel	7 Parallel	8 Parallel	9 Parallel	10 Parallel
	8KW	12KW	16KW	20KW	24KW	28KW	32KW	36KW	40KW
32VDC	400A	600A	800A	1000A	1200A	1400A	1600A	1800A	2000A
40VDC	240A	360A	480A	600A	720A	840A	960A	1080A	1200A
75VDC	120A	180A	240A	300A	360A	420A	480A	540A	600A
120VDC	80A	120A	160A	200A	240A	280A	320A	360A	400A
150VDC	60A	90A	120A	150A	180A	210A	240A	270A	300A
200VDC	48A	72A	96A	120A	144A	168A	192A	216A	240A
600VDC	20A	30A	40A	50A	60A	70A	80A	90A	100A
800VDC	15A	22.5A	30A	37.5A	45A	52.5A	60A	67.5A	75A
<b>Output Voltage</b>	<b>6KW</b>	<b>9KW</b>	<b>12KW</b>	<b>15KW</b>	<b>18KW</b>	<b>21KW</b>	<b>24KW</b>	<b>27KW</b>	<b>30KW</b>
80VDC	120A	180A	240A	300A	360A	420A	480A	540A	600A
Output Current	13U Cabinet		19U Cabinet			27U Cabinet			
	2 Series	3 Series	4 Series	5 Series	6 Series	7 Series	8 Series	9 Series	10 Series
	8KW	12KW	16KW	20KW	24KW	28KW	32KW	36KW	40KW
200A	64V	96V	128V	160V	192V	224V	256V	288V	320V
120A	80V	120V	160V	200V	240V	280V	320V	360V	400V
60A	150V	225V	300V	375V	450V	525V	600V	675V	750V
40A	240V	360V	480V	600V	720V	840V	960V	1080V	1200V
30A	300V	450V	600V	750V	900V	1050V	1200V	*	*
24A	400V	600V	800V	1000V	1200V	*	*	*	*
10A	1200V	*	*	*	*	*	*	*	*
<b>Output Current</b>	<b>6KW</b>	<b>9KW</b>	<b>12KW</b>	<b>15KW</b>	<b>18KW</b>	<b>21KW</b>	<b>24KW</b>	<b>27KW</b>	<b>30KW</b>
60A	80V	240V	320V	400V	480V	560V	640V	720V	800V

\* This formula is the standard cabinet for SP-2U model; it is available to select cabinet with different specification according to exact situation.

## Product Configuration

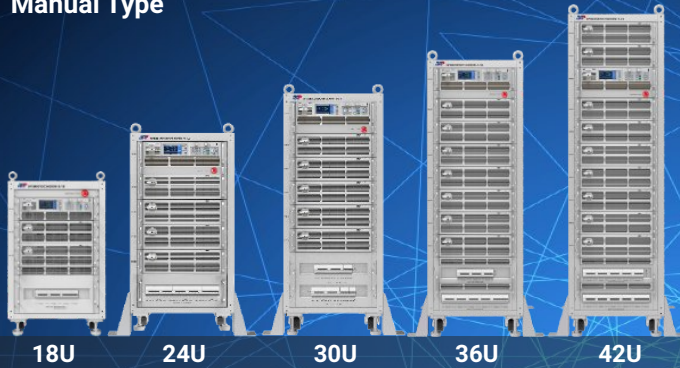
Product Code <sup>*1</sup>	Configuration Content
<b>Basic configuration<sup>*2</sup></b>	
001	USB & RS232 & RS485 & LAN (Standard)
002	USB & RS232 & RS485 & LAN + GPIB
003	USB & RS232 & RS485 & LAN + Voltage Meter & External Control
004	USB & RS232 & RS485 & LAN + GPIB + Voltage Meter & External Control
005	GPIB (applicable in 1U)
006	GPIB (applicable in 2U)

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

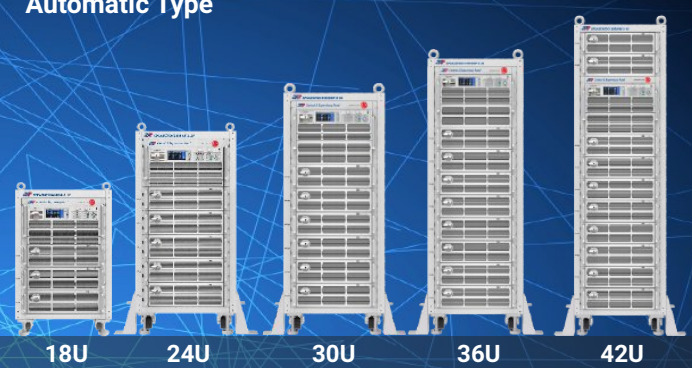
\*2 Select basic configuration before order, 005~006 support the model which has shipped.

# SPS-M/A Series DC Power Supply System

## Manual Type



## Automatic Type



## Product Introduction

The SPS-M/A Series DC Power Supply System supports two series cabinets based on the control mode : SPSM and SPSA. The maximum output voltage and current of a single cabinet is up to 2250V and 3000A respectively. Output power of a single cabinet is up to 180kW. Support master-slave configuration to increase the output capacity to 576kW.

SPSM series cabinets use world famous circuit breaker to control the input of each power module inside. After power on, the specified 3U or 6U height power supply will be configured as a Master to control all of the slave units.

CSP is the Master in SPSA series cabinets, which is equipped with a PDU (Power Distribution Unit) and a CSP (Control & Supervisory Panel). The PDU consolidate microprocessor and management of hundreds of thousand VA AC mains in a 5U/8U height chassis. The CSP will display the input and output parameters of this system. The touchpanel provides a complete, intuitive user interface for users to easily manage all configuration, setup and update. Full protection designs prevent potential injury.

## Quick Selection

Output Voltage	18U Cabinet		24U Cabinet		30U Cabinet	36U Cabinet		42U Cabinet	
	2 Parallel	3 Parallel	4 Parallel	5 Parallel	6 Parallel	7 Parallel	8 Parallel	9 Parallel	10 Parallel
80VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	1200A	1800A	2400A	3000A	3000A	3000A	3000A	3000A	3000A
165VDC	24KW	36KW	48KW	60KW	72KW	84KW	96KW	108KW	120KW
	360A	540A	720A	900A	1080A	1260A	1440A	1620A	1800A
250VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	360A	540A	720A	900A	1080A	1260A	1440A	1620A	1800A
360VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	255A	382.5A	510A	637.5A	765A	892.5A	1020A	1147.5A	1275A
500VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	192A	288A	384A	480A	576A	672A	768A	864A	960A
750VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	126A	189A	252A	315A	378A	441A	504A	567A	630A
1000VDC	24KW	36KW	48KW	60KW	72KW	84KW	96KW	108KW	120KW
	64A	96A	128A	160A	192A	224A	256A	288A	320A
1500VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	64A	96A	128A	160A	192A	224A	256A	288A	320A
2250VDC	36KW	54KW	72KW	90KW	108KW	126KW	144KW	162KW	180KW
	42A	63A	84A	105A	126A	147A	168A	189A	210A

\* Above cabinets are formed with 3U height DC power supplies. Different height cabinets can be connected in parallel to a 576kW system. Please contact APM sales representative for details.

## Features

- Large color touch screen, rotary knob and keys provide an excellent operational experience.
- 3-phase input voltage meets worldwide power distribution regulation, AC mains 187~253Vac/340~460Vac for optional.
- Constant voltage (CV), constant current (CC) and constant power (CP) operation mode, CC or CV working priority setting.
- Adjustable voltage/current slew rate.
- Smart 3-stage charging algorithm simulation.
- Full protection: OVP, OCP, OPP and OTP protection.
- Equipped with Emergency Stop, physically off all managed DC power supplies at once.
- Back door with protect switch, safe to the operator.
- List/ Step mode programming.
- Standard RS232/RS485/USB interface, optional LAN & GPIB interface, optional CAN interface.
- SCPI compatible, provide web GUI function.

## SPSA Series Advantage

- CSP5/CSP8\*, connect with 5units /10 units 3U height DC power supply or 2units /5 units 6U height DC power supply.
- Built-in power meter, to monitor the AC mains parameters such as V, A, Frequency, Power and PF.
- Support efficiency calculation and electrical quantities recording.
- Built-in Timer, allows to set output running time.
- Easy to enable the output of each power supply from the touch screen, sequence On/Off DC power supplies.
- Display the output parameters of each DC power supply in the same system.
- PDU significantly simplifies the wiring for DC power system.
- Use-defined AC input protection parameters such as OVP, UVP, OFP, UFP, OCP and Phase loss.
- Provide web GUI function to monitor & control the CSP via Ethernet.

\* Even the same model CSP may be configured differently, which is based on the connected DC power supplies.

## System Configuration

SPSM Series Cabinets					
Cabinet Height	18U	24U	30U	36U	42U
Capacity for Power Supplies	9U	15U	18U	24U	30U
Capacity (3U height unit)	3	4~5	4~6	7~8	9~10
Capacity (6U height unit)	1	2	3	4	5
PDU Height	4U	4U	7U	7U	7U
EMS Panel Height	1U	1U	1U	1U	1U
Cabinet Frame	2U	2U	2U	2U	2U
Wiring Height	2U	2U	2U	2U	2U

SPSA Series Cabinets					
Cabinet Height	18U	24U	30U	36U	42U
Capacity for Power Supplies	9U	15U	18U	24U	30U
Capacity (3U height unit)	3	4~5	4~6	7~8	9~10
Capacity (6U height unit)	1	2	3	4	5
CSP Height	5U	5U	8U	8U	8U
Cabinet Frame	2U	2U	2U	2U	2U
Wiring Height	2U	2U	2U	2U	2U

\* PDU or CSP will be equipped based on the connected DC power supplies.

## Product Configuration

Product Code *1	Configuration Content
<b>Product Version *2</b>	
A	Advanced
P	Professional
<b>Basic configuration *2</b>	
001	3P-400Vac input, include USB & RS232 & RS485(Standard)
002	3P-400Vac input, include USB & RS232 & RS485 + CAN
003	3P-400Vac input, include USB & RS232 & RS485 + LAN & GPIB
004	3P-400Vac input, include USB & RS232 & RS485 + External Control
005	3P-400Vac input, include USB & RS232 & RS485 + CAN + LAN & GPIB
006	3P-400Vac input, include USB & RS232 & RS485 + CAN + External Control
007	3P-400Vac input, include USB & RS232 & RS485 + LAN & GPIB + External Control
008	3P-400Vac input, include USB & RS232 & RS485 + CAN + LAN & GPIB + External Control
009	3P-208Vac input, include USB & RS232 & RS485(Standard)
010	3P-208Vac input, include USB & RS232 & RS485 + CAN
011	3P-208Vac input, include USB & RS232 & RS485 + LAN & GPIB
012	3P-208Vac input, include USB & RS232 & RS485 + External Control
013	3P-208Vac input, include USB & RS232 & RS485 + CAN+ LAN & GPIB
014	3P-208Vac input, include USB & RS232 & RS485 + CAN + External Control
015	3P-208Vac input, include USB & RS232 & RS485 + LAN & GPIB + External Control
016	3P-208Vac input, include USB & RS232 & RS485 + CAN+ LAN & GPIB + External Control
017	Advanced version upgrade to professional version
018	CAN
019	LAN & GPIB
020	External Control
<b>Panel Configuration *3</b>	
S001	Only master unit display, slave unit hidden
S002	Both master and slave unit display
<b>Options *3</b>	
021	Option Sink for dual quadrant function

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 017~020 support the model which has shipped.

\*3 Panel Configuration & options need to confirm before shipment.

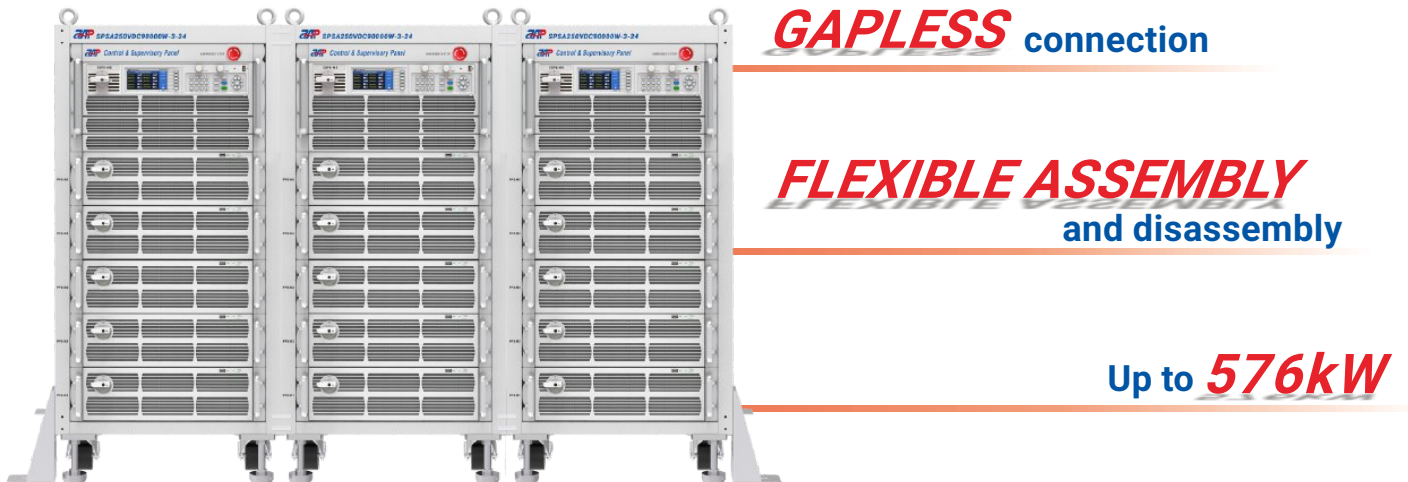
## Connecting the cabinet

### 1. The cabinets can be connected in parallel in order to increase output power.

- Maximum 16 units 3U height same model DC power supplies or 6U height same model DC power supplies can be connected via the bus.
- 16 units each with a power of 18kW are connected together to a 288kW system.
- 16 units each with a power of 36kW are connected together to a 576kW system.

### 2. Different height cabinets can be connected in parallel.

- Use parallel bars to simplify the connection between multiple rack cabinets.
- Realized the gapless connection between multiple rack cabinets.



# SP-300 Series Single-phase Programmable AC Power Supply



(2U) 600W~1500W



(3U) 2000W



(4U) 3000W~5000W

## Product Introduction

It is a switching mode single-channel output high-precision programmable AC power source, which adopts high speed DSP+CPLD control, high frequency PWM power technology and active PFC design to realize AC/DC stable output. It is featured with high power density, high reliability and high precision, meanwhile it possesses operation interface of touch screen and keys manually. It is able to analog output normal or abnormal input for electrical device to meet test requirements. Meet the verification of power electronics, motors, lighting, automotive electronics research and development quality assurance laboratory, as well as the production test verification of factory production line.

## Features

- Large color touch screen with intuitive interface, easy to operate.
- Features AC, DC, AC+DC output modes, AC+DC output mode for voltage DC offset simulation.
- Turn on, turn off phase angle control, 0-359.9°.
- Output frequency: 15-1200Hz, programmable slew rate setting for changing voltage and frequency.
- High output current crest factor which is ideal for inrush current testing.
- Built-in power meter function, can real-time measure 15 electrical parameters such as RMS voltage, current, power, apparent power and etc. This series AC source can measure up to 40 orders of the voltage or current harmonics. Support LIST/PULSE/STEP modes to simulate all kinds of power line disturbance conditions.
- Triac Dimmer function for dimming/governor simulation function.
- Sweep function for efficiency testing and shows voltage and frequency value at max power.
- Multiple current range to make current measurement more accurate.
- Front panel USB interface supports CSV format to import waveform.
- OCP/OVP/OPP/OTP/reverse current protection/short circuit protection.
- Programmable voltage and current limit, support CC mode.
- Support up to 2 units in series, 4 units in parallel.
- Support three phase power output, can simulate three phase unbalanced output.
- Support external analog input control and TTL electrical level output.
- Two versions to meet the cost performance and different applications.

## Difference Between Advanced Version and Professional Version

Function description	Advanced Version	Professional Version
Output frequency range	15~1000Hz	15~1200Hz
Built-in IEC standards	IEC 61000-4-11	IEC 61000-4-11; IEC 61000-4-13; IEC 61000-4-14; IEC 61000-4-28
Programmable output impedance	Not supported	Support, meet IEC 61000-3-2/ IEC 61000-3-3 output impedance test requirements
Harmonic/inter-harmonic generation simulation and measurement function	Not supported	Support, the harmonic components can be up to 40 orders

## Quick Selection

Output Voltage	2U			3U	4U		
	600W	1000W	1500W	2000W	3000W	4000W	5000W
150VAC/300VAC	5.6A/2.8A	9.2A/4.6A	13.8A/6.9A	16A/8A	27.6A/13.8A	32A/16A	46A/23A

## Product Configuration

### Applicable to 2U unit

Product Code <sup>*1</sup>	Configuration Content
<b>Product Version <sup>*2</sup></b>	
A	Advanced
P	Professional
<b>Basic configuration <sup>*2</sup></b>	
001	USB & RS232 & RS485 (Standard)
002	USB & RS232 & RS485 + LAN & GPIB
003	USB & RS232 & RS485 + External Control
004	USB & RS232 & RS485 + Multiphase Card
005	USB & RS232 & RS485 + LAN & GPIB + External Control
006	USB & RS232 & RS485 + LAN & GPIB + Multiphase Card
007	USB & RS232 & RS485 + External Control + Multiphase Card
008	USB & RS232 & RS485 + LAN & GPIB + External Control + Multiphase Card
009	Advanced version upgrade to professional version
010	LAN & GPIB
011	External Control
012	Multiphase Card
<b>Options <sup>*3</sup></b>	
L001	Three-pin plug power cable (10A)
L002	Three-pin plug power cable (16A)
L003	Power Cable (1.5M)

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 009~012 support the model which has shipped.

\*3 2U model is standard with three-pin plug power cable (16A). If need extra optional cable, please check if it could meet the requirement of safety standard.

### Applicable to 3U/4U unit

Product Code <sup>*1</sup>	Configuration Content
<b>Product Version <sup>*2</sup></b>	
A	Advanced
P	Professional
<b>Basic configuration <sup>*2</sup></b>	
001	USB & RS232 & RS485 & LAN (Standard)
002	USB & RS232 & RS485 & LAN + GPIB
003	USB & RS232 & RS485 & LAN + External Control & Multiphase Card
004	USB & RS232 & RS485 & LAN + GPIB + External Control & Multiphase Card
005	Advanced version upgrade to professional version
006	GPIB
007	External Control & Multiphase Card
<b>Options <sup>*3</sup></b>	
L001	Three-pin plug power cable (10A)
L002	Three-pin plug power cable (16A)
L003	Power Cable (1.5M)

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 005~007 support the model which has shipped.

\*3 3U/4U is standard with power cable(1.5M). If need extra optional cable, please check if it could meet the requirement of safety standard.

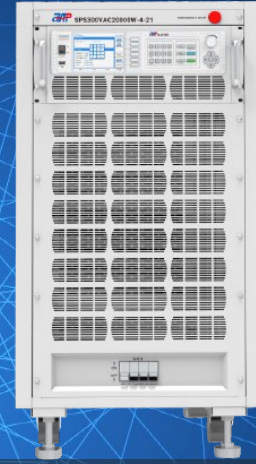
# SPS-300 Series AC Power Supply System



(9U) 1200W~4500W



(17U) 6000W~15000W



(21U) 12000W~20000W

## Product Introduction

This series AC Power Supply System adopts high speed DSP+CPLD control, high frequency PWM power technology and active PFC design to realize AC/DC stable output, high power up to 20kW.

The user friendly interface allows for quick access to AC source's function through a large graphic LCD display front panel with touch screen or keypad. Can simulate complex AC lines conditions and measure critical product characteristics during testing.

## Features

- Large touch color screen, possess complete functions and easy to operate.
- AC+DC mixed or independent output mode for voltage DC offset simulation.
- Capable of setting output slope/phase angle, 0~359.9°.
- Output frequency 15~1000Hz, capable of setting output slope of voltage and frequency.
- High output crest factor could satisfy surge tests requirements.
- Multiple current measuring level selection. Increase measurement accuracy.
- Standard USB data interface, support CSV file waveform import.
- OCP/OVP/OPP/OTP/ Short circuit protection.
- Built-in power meter, which is capable of measuring 15 electrical parameters per phase, including voltage, current, power, etc.
- With reverse current protection to avoid current flowing backward.
- Capable of setting voltage and current output restriction, support for constant current output mode.

## Quick Selection

Output Voltage	Output Mode				2 Parallel			
		9U Cabinet			17U Cabinet			
		1200W	2000W	3000W	4000W	6000W	8000W	10000W
150VAC/300VAC	1 Phase	10.08A/5.04A	15.56A/8.28A	24.84A/12.42A	28.8A/14.4A	49.68A/24.84A	57.6A/28.8A	82.8A/41.4A
Output Voltage	Output Mode				3 Parallel			
		9U Cabinet			17U Cabinet			
		1800W	3000W	4500W	6000W	9000W	12000W	15000W
150VAC/300VAC	1 Phase	15.12A/7.56A	24.84A/12.42A	37.26A/18.63A	43.2A/21.6A	74.52A/37.26A	86.4A/43.2A	124.2A/62.1A
Output Voltage	Output Mode				4 Parallel		21U Cabinet	
		17U Cabinet			8000W	12000W	16000W	20000W
		2400W	4000W	6000W	8000W	12000W	16000W	20000W
150VAC/300VAC	1 Phase	20.16A/10.08A	33.12A/15.56A	49.68A/24.84A	57.6A/28.8A	99.36A/49.68A	115.2A/57.6A	165.6A/82.8A
Output Voltage	Output Mode				2 Series			
		9U Cabinet			17U Cabinet			
		1200W	2000W	3000W	4000W	6000W	8000W	10000W
300VAC/600VAC	1 Phase	5.04A/2.52A	8.28A/4.14A	12.42A/6.21A	14.4A/7.2A	24.84A/12.42A	28.8A/14.4A	41.4A/20.7A

\* This formula is the standard cabinet for SP-300 series 2U/3U/4U model. It is available to select cabinet with different specification according to exact situation. Detail please consults our area manager.

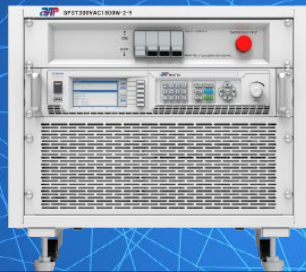
## Product Configuration

Product Code *1	Configuration Content
<b>Product Version *2</b>	
A	Advanced
P	Professional
<b>Basic configuration*2 (Applicable to power range in blue area from above Quick Selection)</b>	
001	USB & RS232 & RS485 (Standard)
002	USB & RS232 & RS485 + LAN & GPIB
003	USB & RS232 & RS485 + External Control
004	USB & RS232 & RS485 + Multiphase Card
005	USB & RS232 & RS485 + LAN & GPIB + External Control
006	USB & RS232 & RS485 + LAN & GPIB + Multiphase Card
007	USB & RS232 & RS485 + External Control + Multiphase Card
008	USB & RS232 & RS485 + LAN & GPIB + External Control + Multiphase Card
009	Advanced version upgrade to professional version
010	LAN & GPIB
011	External Control
012	Multiphase Card
<b>Basic configuration*2 (Applicable to power range out of blue area*from above Quick Selection)</b>	
101	USB & RS232 & RS485 & LAN (Standard)
102	USB & RS232 & RS485 & LAN + GPIB
103	USB & RS232 & RS485 & LAN + External Control & Multiphase Card
104	USB & RS232 & RS485 & LAN + GPIB + External Control & Multiphase Card
105	Advanced version upgrade to professional version
106	GPIB
107	External Control & Multiphase Card

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 009~012, 105~107 support the model which has shipped.

# SPST Series Linked 3-Phase AC Power Supply System



(9U) 1800W~4500W



(17U) 6000W~15000W

## Product Introduction

It is a single 3-phase output programmable AC power supply which provides with high power density. With high speed DSP+CPLD control, high frequency PWM technology, active PFC design, It is able to provide not only stable DC/AC output power, but also 3-phase / 1-phase output. It is featured with high power density, high reliability and high precision, meanwhile it possesses operation interface of touch screen and keys manually. It is able to analog output normal or abnormal power input for electrical device to meet test requirements, which is applicable to electric, lighting, aviation sectors, etc. It could be applied to enterprise's production test as well.

## Features

- Large touch color screen, possess complete functions and easy to operate.
- AC+DC mixed or independent output mode for voltage DC offset simulation.
- Capable of setting output slope/phase angle, 0~359.9°.
- Output frequency 15~1000Hz, capable of setting output slope of voltage and frequency.
- High output crest factor could satisfy surge tests requirements.
- Multiple current measuring level selection. Increase measurement accuracy.
- Standard USB data interface, support CSV file waveform import.
- OCP/OVP/OPP/OTP/Short circuit protection.
- Built-in power meter, which is capable of measuring 15 electrical parameters per phase, including voltage, current, power, etc.
- With reverse current protection to avoid current flowing backward.
- Capable of setting voltage and current output restriction, support for constant current output mode.

## Quick Selection

Output Voltage	Output Mode	9U Cabinet			17U Cabinet			
		1800W	3000W	4500W	6000W	9000W	12000W	15000W
150VAC/300VAC	1/3 Phase	5.6A/2.8A	9.2A/4.6A	13.8A/6.9A	16A/8A	27.6A/13.8A	32A/16A	46A/23A

\* This formula is the standard cabinet for SP-300 series 2U/3U/4U model. It is available to select cabinet with different specification according to exact situation. Detail please consults our area manager.

## Product Configuration

Product Code *1	Configuration Content
<b>Basic configuration *2 (Applicable to 1800W/3000W/4500W)</b>	
001	USB & RS232 & RS485 (Standard)
002	USB & RS232 & RS485 + LAN & GPIB
003	LAN & GPIB
<b>Basic configuration *2 (Applicable to 6000W/9000W/12000W/15000W)</b>	
101	USB & RS232 & RS485 & LAN (Standard)
102	USB & RS232 & RS485 & LAN + GPIB
103	GPIB

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select basic configuration before order, 003 and 103 support the model which has shipped.

# EL Series High-density Programmable DC Electronic Load



## Product Introduction

This series High-density Programmable DC Electronic Load provides three voltage ranges 200V/600V/1200V. Supports CV, CC, CR and CP these 4 basic operating modes, as well as CV+CC, CV+CR, CR+CC these 3 complex operating modes. Full protection including OCP, OPP, OTP, over voltage and reverse alarm. Support external control and monitor mode, the 0 to 10V input or output signal represent 0 to full range voltage or current. Provide OCP test, OPP test and Short circuit simulation to effectively solve the application demands for power and automated testing. Built-in RS232, RS485 and USB communication interfaces, LAN&GPIB communication card is optional. Two or more loads can be connected in master-slave parallel mode to provide more power or current capacity. This series DC load can be applied to battery discharge, DC charging station and power electronics and other electronics products.

## Features

- Flippable front panel and color touch screen allow convenient access and operation.
- Provides four kinds of basic working mode such as CV/CC/CR/CP, and CV+CC/CV+CR/CR+CC complex operating modes.
- Adjustable current slew rate, adjustable CV loop speed.
- Ultra high precision voltage & current measurement.
- OCP/OPP testing function.
- 50kHz high-speed CC/CR dynamic mode.
- 500kHz high-speed voltage and current sampling rate.
- Timing & discharging measurement for batteries.
- Short circuit test mode.
- Auto mode function provides an easy way to do complicated test.
- Dynamic frequency sweep function for determining worst case voltage peaks.\*
- Non linear load mode function makes the simulated loading current more realistic.\*
- Supports external analog control function
- V-monitor/I-monitor.
- LED load simulation function.
- Full protection: OCP, OPP, OTP, over voltage and reverse alarm.
- Up to 20 units master/slave parallel control.
- Front panel USB interface supports data import and export.
- SCPI language and standard rack size make it ideal for ATE System integration.
- Smart fan control with lower noise and better for environment.
- Multi versions to meet the cost performance and different applications.

\* Only professional Electronic Load units support these functions.

## Quick Selection

Input Voltage	2U					3U			4U
	600W	1200W	1800W	2400W	3000W	3400W	4400W	5600W	6600W
200VDC	60A	130A	190A	260A	320A	370A	480A	610A	720A
600VDC	40A	90A	130A	180A	220A	250A	320A	410A	480A
1200VDC	*	45A	*	90A	*	125A	160A	205A	240A
Input Voltage	7U			10U			13U		
	8800W	11000W	13200W	15400W	17600W	19800W	22000W	24200W	26400W
200VDC	960A	1200A	1440A	1680A	1920A	2160A	2400A	2640A	2880A
600VDC	640A	800A	960A	1120A	1280A	1440A	1600A	1760A	1920A
1200VDC	320A	400A	480A	560A	640A	720A	800A	880A	960A

\* Custom master slave system could extend to 528KW(20 units 26.4KW E-load parallel connect).

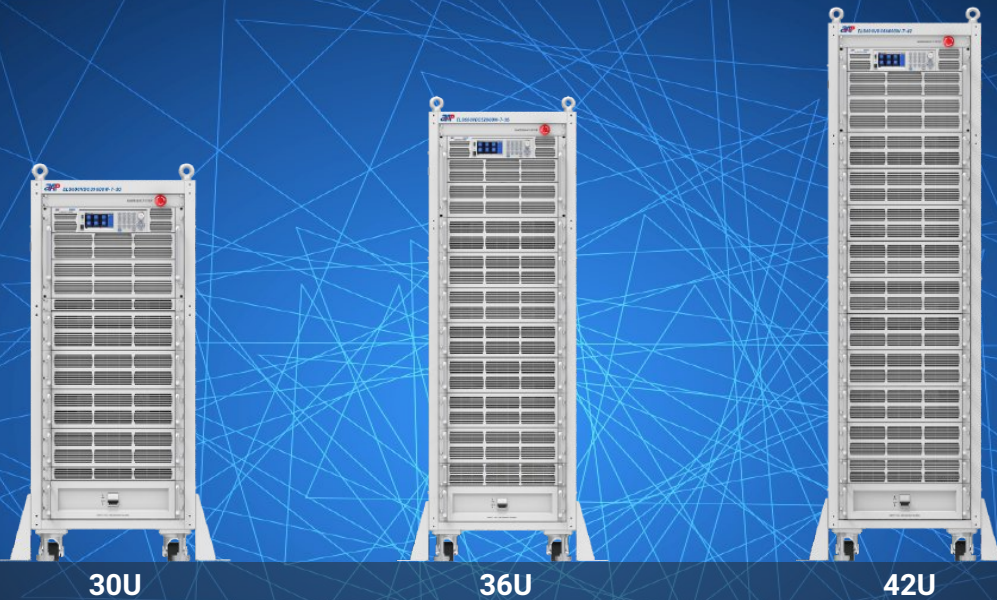
## Product Configuration

Product Code *1	Configuration Content
<b>Product Version *2</b>	
A	Advanced
P	Professional
<b>Basic configuration *2</b>	
001	USB & RS232 & RS485 (Standard)
002	USB & RS232 & RS485 + LAN & GPIB
003	Advanced version upgrade to professional version
004	LAN & GPIB

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 003~004 support the model which has shipped.

# ELS Series DC Electronic Load System



## Product Introduction

The standardized DC electronic load cabinet is formed with 7U height units. The maximum input current and power of a single cabinet is up to 3000A, 66kW. Support master-slave configuration to increase the input capacity to 264kW.

These cabinets use world famous circuit breaker to control the input of DC E-load module inside. After power on, the specified unit will be configured as a Master to control all of the slave units. In an emergency off situation the EMS will cut all units in the cabinet from AC supply, ensure safe operation.

## Features

- Provides four kinds of basic working mode such as CV/CC/CR/CP, and CV+CC/CV+CR/CR+CC complex operating modes.
- Adjustable current slew rate, adjustable CV loop speed.
- Ultra high precision voltage & current measurement.
- Short circuit test mode.
- Auto mode function provides an easy way to do complicated test.
- V-monitor/I-monitor.
- Full protection: OCP, OPP, OTP, over voltage and reverse alarm.
- Equipped with Emergency Stop, physically off all managed DC eLoads at once.
- Back door with protect switch, safe to the operator.
- Front panel USB interface supports data import and export.
- Using standard SCPI communication protocol.

## Quick Selection

Input Voltage	30U Cabinet	36U Cabinet	42U Cabinet
	39.6kW	52.8kW	66kW
200VDC	3000A	3000A	3000A
600VDC	2880A	3000A	3000A
1200VDC	1440A	1920A	2400A

\* This formula is the standard cabinet for EL series 7U model. It could extend to 264W. It is available to select cabinet with different specification according to exact situation. Detail please consults our area manager.

## System Configuration

Cabinet Height	30U	36U	42U
Capacity for Loads	21U	28U	35U
Capacity (7U height unit)	3	4	5
PDU Height	3U	3U	3U
EMS Panel Height	1U	1U	1U
Cabinet Frame	2U	2U	2U
Reserved	3U	2U	1U

## Product Configuration

Product Code *1	Configuration Content
<b>Product Version *2</b>	
A	Advanced
P	Professional
<b>Basic configuration *2</b>	
001	USB & RS232 & RS485 (Standard)
002	USB & RS232 & RS485 + LAN & GPIB
003	Advanced version upgrade to professional version
004	LAN & GPIB
<b>Panel Configuration *3</b>	
S001	Only master unit display, slave unit hidden
S002	Both master and slave unit hidden
S003	Both master and slave unit display

\*1 Product code is for customer to select configuration easily. Kindly note the code is not reflected in the actual model name.

\*2 Select product version + basic configuration before order, 003~004 support the model which has shipped.

\*3 Panel configuration need to confirm before shipment.

# AT-T2000 Series ATE System

## Product Introduction

AT-T2000 ATE system adopts hardware modularization built-in frame structure. With APM multiple power supplies, E-load and APM self-control boards, the structure could adjust according to actual test requirement and budget, which provides elasticity and expandability to the system. In the meanwhile, system is compatible with power analyzer, oscilloscope and multimeter from different brands.

### ► Range of application

AC source, DC source, DC E-load, AC/DC power module, DC/DC power module, adapter, charger, LED power source, telecom power source.

## Features

- Graphic interface, simple and clear.
- Standard test item, available to expand elastically.
- Module design, easy to maintain.
- High measurement accuracy, stable system operation.
- Support single or multi channel parallel test.
- Multilevel managing privileges setting function.
- User privileges setting function.
- Open software edition platform, available to edit and modify the test program.

## Test Item

ATE system is available for below seven test items.

### Product information

SN/MAC information written  
Product information comparison

### Stability test

line regulation test  
load regulation test

### Protection test

Short circuit test  
OVP test  
OLP test  
OPP test

### Time sequence and transient feature

Turn on time test  
Rise time test  
Turn off time test  
Fall time test

### Input feature test

Input current RMS test  
Input power factor test  
Input power disturbance test  
Input frequency fluctuation test  
Input power test

### Output feature test

Output voltage/current/power accuracy test  
Output voltage ripple test  
Output efficiency test  
Dynamic mode test

### Control feature test

RS232 read-write  
RS485 read-write  
USB read-write  
LAN read-write  
GPIB read-write

## AC-DC/DC-DC power module test system

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This system is applicable in AC-DC/DC-DC power module test. AC-DC/DC-DC module power is widely used in military, communication equipment, automotive electronics and aerospace. Standard test item of test system matching with external test fixtures could realize automatic test. It could avoid error that may be caused by repeated test manually and improve test efficiency significantly.

## Low/middle power DC source test system

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This test system is applicable to low/small power range DC source test. Test ability: Voltage 0~800VDC, Current 0~200A, Power 0~4000W, extendable. Besides above standard test item, available to extend custom function.

## Low/middle power AC source test system

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This test system is applicable to low/small power range AC source test. Test ability: Voltage 0~300VAC, Current 0~46A, Power 0~5000W, extendable. Besides above standard test item, available to extend custom function.

## DC E-load test system

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This test system is applicable to DC E-load test .

Test ability: Voltage 0~1200VDC, Current 0~3000A, Power 0~300KW, extendable.

Besides above standard test item, available to extend custom function.



## High power DC sources test system

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This test system is applicable to High power DC sources test.

Test ability: Voltage 0~2250VDC, Current 0~3000A, Power 0~300KW, extendable.

Besides above standard test item, available to extend custom function.



# Company History

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## 2019~2020

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**2020**

Launch ELS Series DC Electronic Load System.

**2019**

Launch SP-3U/6U Series DC Power Supply(6kW~36kW); SPS-M/A Series DC Power Supply System(SPSM; SPSA);  
Launch EL Series DC Electronic Load(1.2kW~26.4kW).

## 2017~2018

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**2018**

Launch SP-300 Series AC Power Supply(2U); SPST Series AC Power Supply System;  
SPS Series DC Power Supply System; Inverter/Switching Power Supply Test System.

**2017**

Launch SP-300 Series AC Power Supply(3U, 4U).

## 2014~2016

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**2016**

Won the "high-tech enterprise" title.

**2015**

Launch one-stop ICT+FCT online test system and dispensing system to realize unattended operation.  
Launch SP-1U/2U Series DC Power Supply(1U).  
Launch Marine smart system products.

**2014**

Launch Energy Saving Burn-in System, with a recovery rate of about 85%.  
Launch SP-1U/2U Series DC Power Supply(2U).  
Board card type electronic load, board card type power meter are included in development, which helps automation test system.

## 2012~2013

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**2013**

Programmable power supply complete product development and experiment, enter into the application and reliability testing stage.  
Launch extended type high speed dispensing machine for Lens.

**2012**

[APM Technoloies Ltd.](#)

## 2010~2011

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**2011**

Set up sheet metal workshop, machining workshop, assembly workshop and painting factory.  
Project development of programmable power supply, marine smart navigation system.

**2010**

New products released: High Speed Dispensing Machine, Conformal Coating Machine, ICT and FCT.

## 1989~1999

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**1999**

Established factory in Dongguan, China.

**1989**

[Factory Found in Taiwan.](#)



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