APM Technologies

MOMENTUM

MS Series



Multi-channel Programmable DC Power Supply

INTEGRATE INNOVATION · WISDOM LEADS THE FUTURE

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MOMENTUM

MS SERIES MULTI-CHANNEL PROGRAMMABLE DC POWER SUPPLY

- Reversible full touch screen
- Free configuration of modules
- Sync function
- 300 channels MAX.300



The Momentum MS series provides multiple isolated channels with up to 3400W of power per channel, and single-phase or three-phase input are available. This series has a flexible modular architecture, and channels can be freely configured according to test requirements to meet customized solutions. The wide-range output design expands the output range of current and voltage at full power output, making it more flexible to use. High-end appearance with a new UI touch interface, built-in software unique test function, high precision and high-speed dynamic response, could offer a complete solution for semiconductor power components and aging, automotive parts, solar energy, batteries and industrial automation and other fields.

Product Features

- Touch flip panel design, more convenient to operate and more intuitive to display.
- Universal input voltage, single/three-phase input optional.
- Flexible modular architecture, each channel can be freely configured.
- Wide range output design, full power provides a wider range of voltage and current combinations.
- Support multiple channel timing output, support proportional tracking output.
- Optical fiber parallel communication, synchronous/independent control up to 300 channels(Optional).
- Support channel series/parallel connection(Optional).
- Adjustable voltage/current slew rate.
- Constant voltage (CV), constant current (CC) and constant power (CP) operation mode, CC or CV working priority setting.
- List/ Step mode programming.
- DDS arbitrary function generator.*
- Solar panel I-V curve simulation function.*
- Smart 3-stage charging algorithm simulation.*
- Battery simulator function.*
- Built-in standard automotive power network voltage curves.*
- TTL/Analog control and monitoring(Optional).
- Supports SCPI commands, provides web GUI function.
- Full protection: OVP, OCP, OPP, OTP and SCP.
- Standard USB communication interface, optional GPIB/LAN& RS232/RS485/CAN.

* Only professional version units support these functions.

Quick Models Selection

Models	Input mode & Voltage*1	Input Current *1	Output Voltage	Output Current	Output Power	Height
MSS80VDC3400W	1P220 187~305Vac	1P220 L,N-22A	CH1: 80V	CH1: 130A	CH1: 3400W	2U
	3P208 187~305Vac	3P208 L3-0, L1,L2-22A				
	3P400 340~480Vac	3P400 L3-0, L1,L2-12A				
MSS250VDC3400W	1P220 187~305Vac	1P220 L,N-22A	CH1: 250V	CH1: 55A	CH1: 3400W	2U
	3P208 187~305Vac	3P208 L3-0, L1,L2-22A				
	3P400 340~480Vac	3P400 L3-0, L1,L2-12A				
MSS500VDC3400W	1P220 187~305Vac	1P220 L,N-22A	CH1: 500V	CH1: 27A	CH1: 3400W	2U
	3P208 187~305Vac	3P208 L3-0, L1,L2-22A				
	3P400 340~480Vac	3P400 L3-0, L1,L2-12A				
MSD80/80VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 80V CH2: 80V	CH1: 130A CH2: 130A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MSD80/250VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 80V CH2: 250V	CH1: 130A CH2: 55A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MSD80/500VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 80V CH2: 500V	CH1: 130A CH2: 27A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MSD250/250VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 250V CH2: 250V	CH1: 55A CH2: 55A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MSD250/500VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 250V CH2: 500V	CH1: 55A CH2: 27A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MSD500/500VDC6800W	1P220 187~305Vac	1P220 L-44A,N-44A	CH1: 500V CH2: 500V	CH1: 27A CH2: 27A	CH1: 3400W CH2: 3400W	2U
	3P208 187~305Vac	3P208 L1-35A, L2,L3-22A				
	3P400 340~480Vac	3P400 L1-20A, L2,L3-12A				
MST80/80/80VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 80V CH3: 80V	CH1: 130A CH2: 130A CH3: 130A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST80/80/250VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 80V CH3: 250V	CH1: 130A CH2: 130A CH3: 55A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST80/80/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 80V CH3: 500V	CH1: 130A CH2: 130A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST80/250/250VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 250V CH3: 250V	CH1: 130A CH2: 55A CH3: 55A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST80/250/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 250V CH3: 500V	CH1: 130A CH2: 55A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST80/500/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 80V CH2: 500V CH3: 500V	CH1: 130A CH2: 27A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST250/250/250VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 250V CH2: 250V CH3: 250V	CH1: 55A CH2: 55A CH3: 55A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST250/250/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 250V CH2: 250V CH3: 500V	CH1: 55A CH2: 55A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST250/500/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 250V CH2: 500V CH3: 500V	CH1: 55A CH2: 27A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				
MST500/500/500VDC10000W	3P208 187~305Vac	3P208 L1, L2,L3-37A	CH1: 500V CH2: 500V CH3: 500V	CH1: 27A CH2: 27A CH3: 27A	CH1: 3400W CH2: 3400W CH3: 3400W	2U
	3P400 340~480Vac	3P400 L1, L2,L3-21A				

*1 Input mode must be confirmed when ordering.

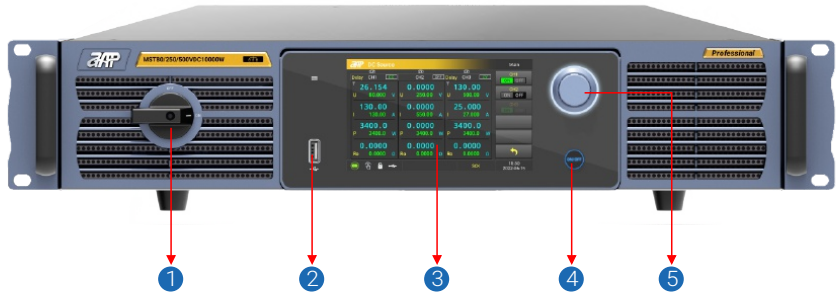
Supported Functions For Professional Version Only

No.	Description	Application
1	DDS arbitary 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.

Panel Introduction

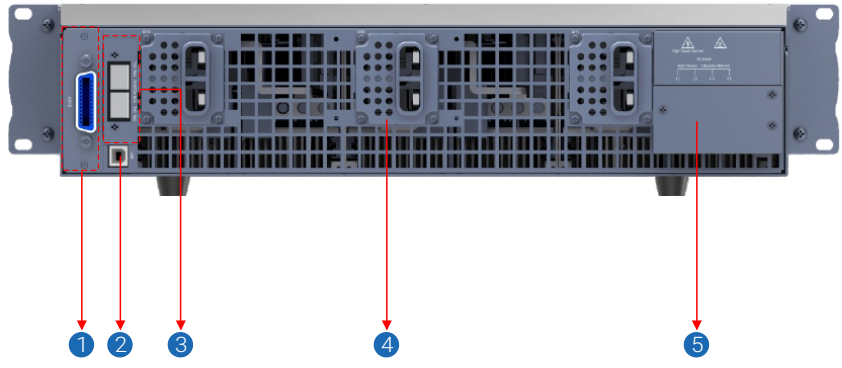
Front Panel Description

1. Power switch
2. USB port, for data transfers and firmware
3. Color touch screen
4. Output switch
5. Press knob



Rear Panel Description

1. GPIB communication interface (optional)/ CAN communication interface (optional)/ LAN&RS232 communication interface (optional)/ RS485 communication interface (optional)/ External control interface (optional)*
2. USB communication interface (standard)
3. SYSTEM BUS optical fiber interface (optional)
4. Output terminal
5. AC power input terminal



* The interface option occupies the same physical slot.

Flexible Input Mode

Supports global AC input specifications, and can select single/three-phase AC input to meet more test application.

Channel / AC Input Voltage Selection	2U		
	Single channel 3400W	Dual channel 6800W	Three channels 10000W
1P220(187-305Vac)	√	√	
3P208(187-305Vac)	√	√	√
3P400(340-480Vac)	√	√	√

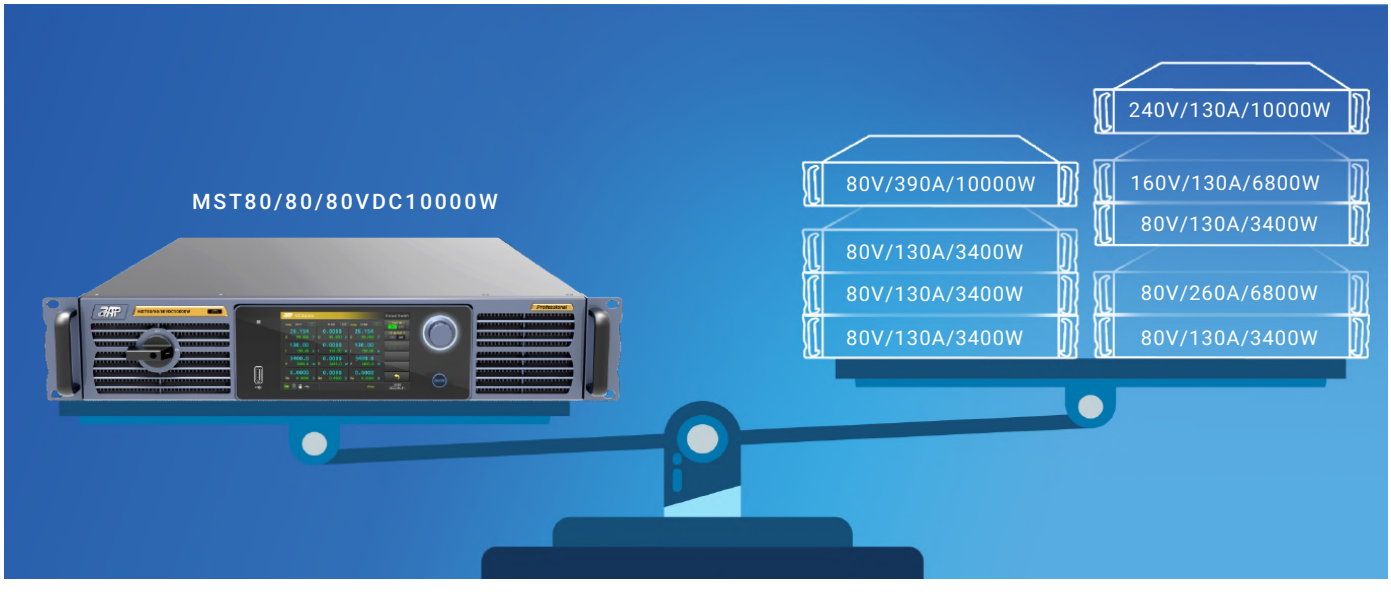
Multi-purpose in One Design, Highly Cost-effective

Users can choose standard series/parallel components and upgrade software to use channels in series or parallel, to obtain higher power capacity to achieve voltage up to 1500V or current up to 390A, to cover more requirements.

If you buy one MST80/80/80VDC10000W, it is equivalent to having the following nine power supplies applications of different specifications, with one for nine, ultra-high cost-effective:

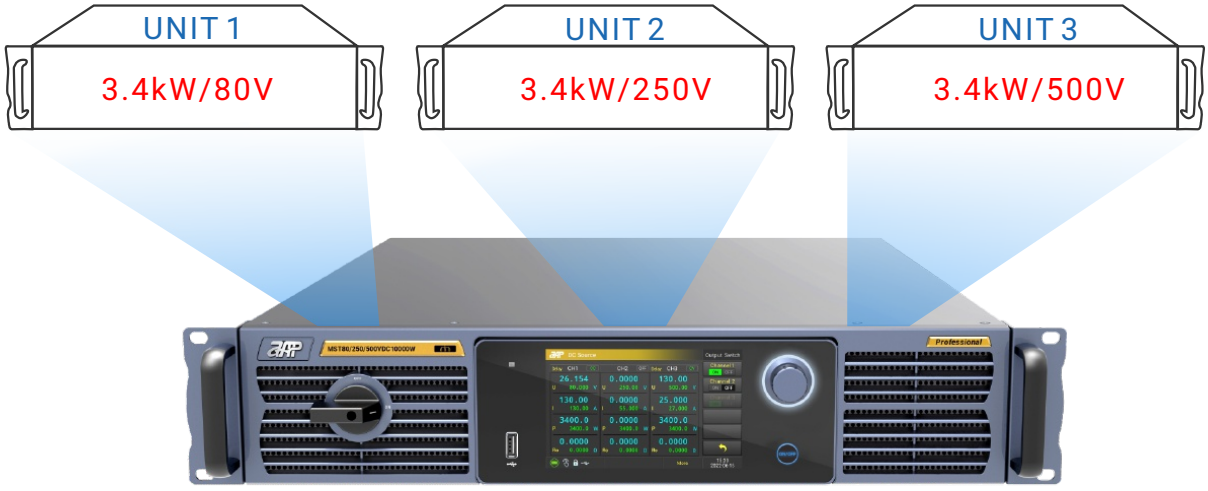
1. One 80V/390A/10000W power supply
2. One 80V/260A/6800W power supply + one 80V/130A/3400W power supply
3. Three 80V/130A/3400W power supplies
4. One 160V/130A/6800W power supply + one 80V/130A/3400W power supply
5. One 240V/130A/10000W power supply

*Only units with the same power module is supported.



Wide Output Range, High Power Density Design

This series of products provide industry-leading high power density, achieve 2U/each channel 3.4kW output, extending the current and voltage output range at full power output to meet a wider range of testing needs without purchasing additional models.



Multi-Channel Test Applications

This series is suitable for simultaneous testing/power supply of multiple DUTs. It adopts high-speed optical fiber synchronous communication to meet the test capability of up to 300 channels. Each channel can be controlled synchronously or operated independently. The work efficiency is greatly improved and the user operation is more convenient. By connecting the communication interface of one of the power supplies to the computer, could control the whole multi-channel power supply system through PC software.



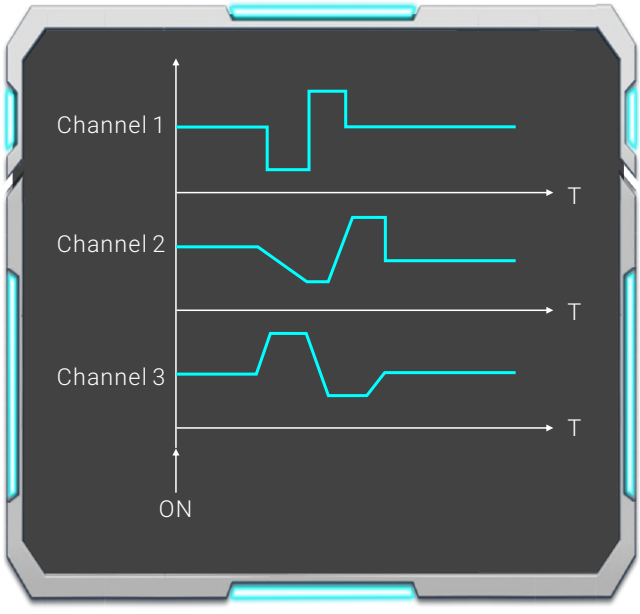
Modular Design, Flexible Combination

Using a flexible modular architecture, each channel is isolated and independent for voltage/current control and measurement. There are up to 49 combinations of 3 groups of voltage and power modules. Users can freely mix and match according to their needs, avoiding repeated purchases and saving costs.

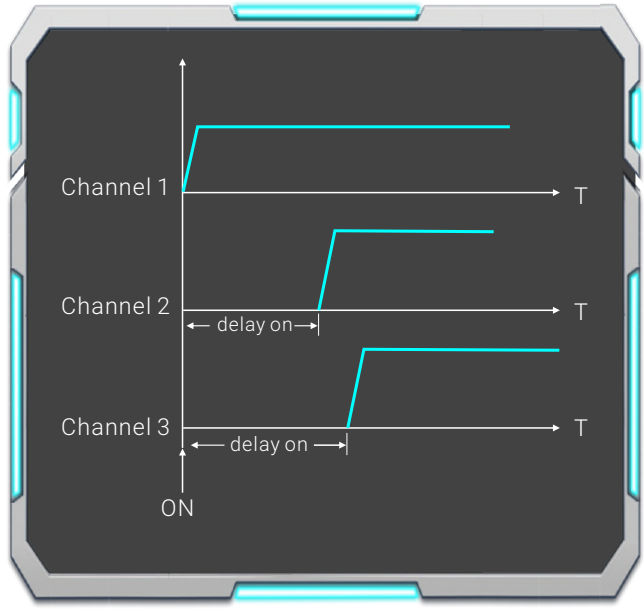


Synchronous Operation Function

Whether three-channel power supply or multi-channel system, all support synchronization function. Users can set synchronous/ delayed output according to their test requirements. It supports output of parameter proportional tracking and synchronous upgrade of multiple power supplies, simplify tedious and repetitive operations and improve test efficiency.



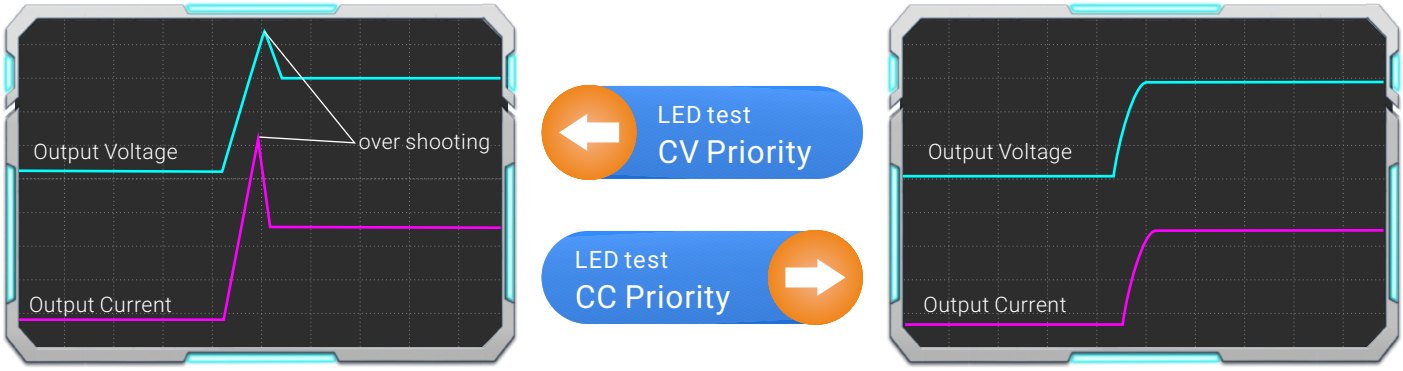
Synchronous Power-on



Delayed Power-on

CC&CV Priority

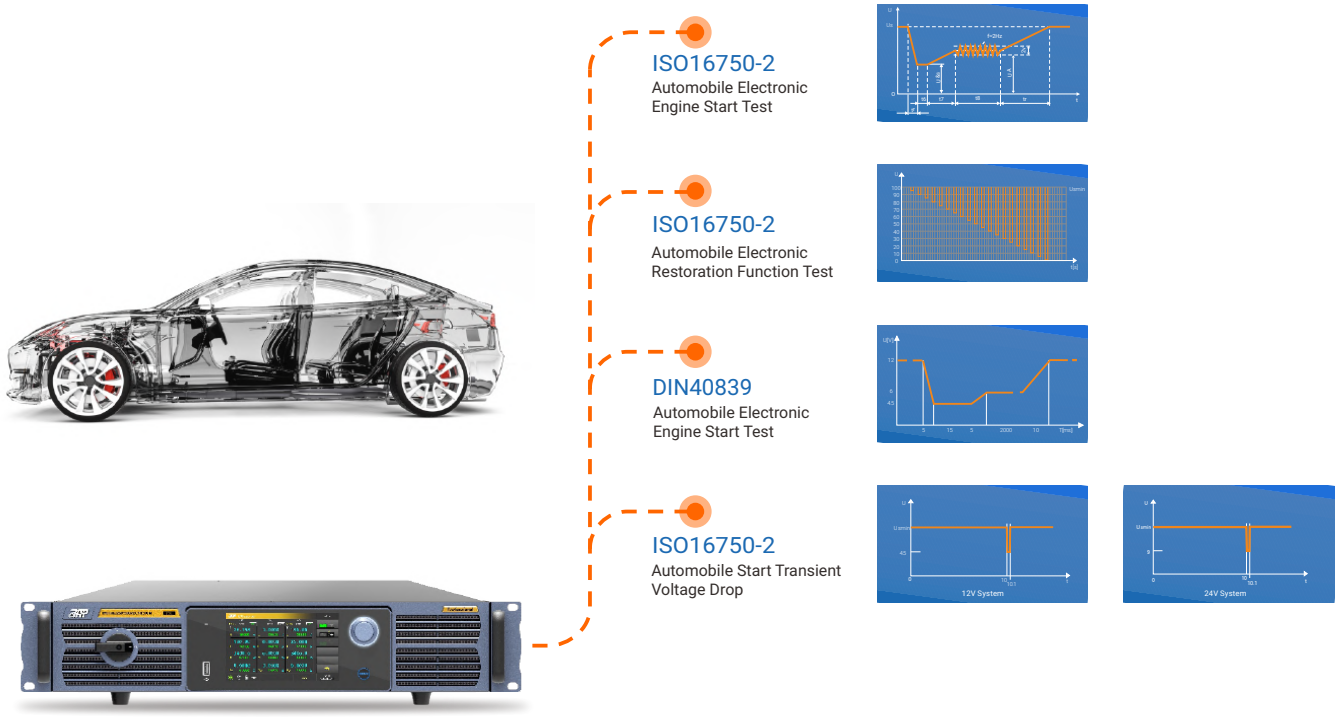
This series power supply provides CC/CV priority function allows the user to select suitable mode correspond to test requirement, let the output be voltage high speed or current no overshoot mode. Below shows an application of CC priority to avoid current overshoot during LED test. Suitable for integrated circuit test, charge and discharge test, automotive electronics power transient simulation.



Professional Version Power Supply Function

Built-in Standard Automotive Power Network Voltage Curves

This series power supply has built-in German DIN40839 standard voltage curve for the automotive power network and the international standard ISO-16750-2 pulse waveform. The fast rise/fall response time together with arbitrary function generate ability make it can truly simulate the influence on the performance of automotive electronic equipment under different test conditions, is the preferred power testing instrument in the automotive electronics industry.



Battery Simulator Function

This series power supply built-in typical battery internal resistance curves and discharging curves can easily simulate battery behavior in real-case. It can be matched with battery simulation software, according to the change of external load current, the output voltage can be changed in real time according to the simulation curve. The software provides real-time data monitoring and data report query functions, providing real experimental data for engineers to study battery power systems.



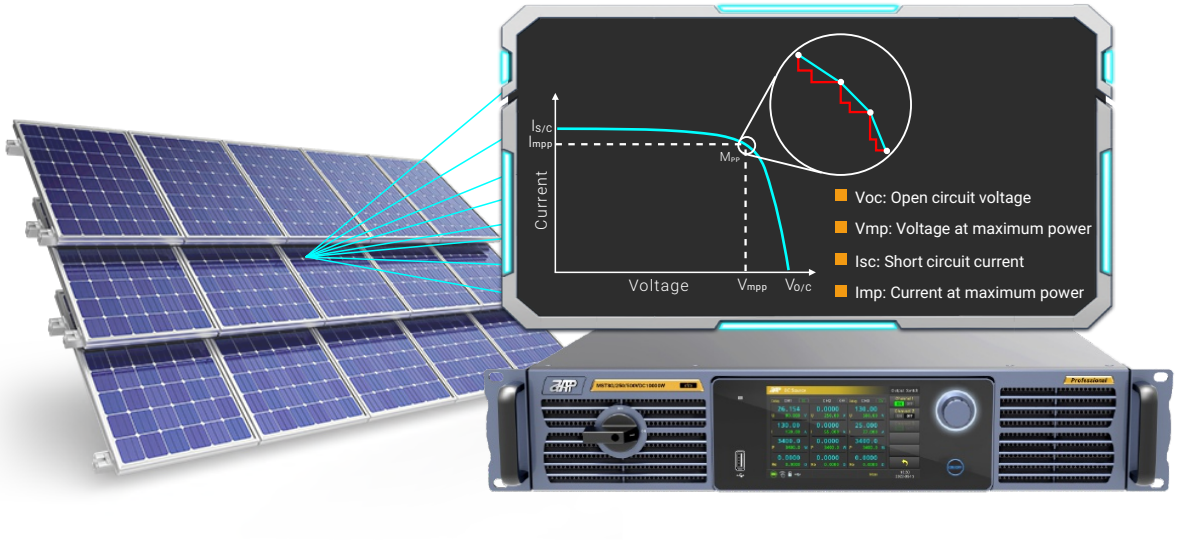
Smart 3-stage Charging Algorithm Simulation

This series power supply adopts 3-stage charging algorithm, built-in charging curves which is suitable for the commonly known types of batteries on the market. Users can directly recall the default curves or change the switching conditions at different charging stage according to the test requirement. Through the internal design, it improved and optimized hardware improvements, the current passing from the battery to power supply will be less than 10mA at any battery voltage when turn off the power supply. Thus avoid battery capacity loss, even when there is no anti-reverse irrigation equipment.



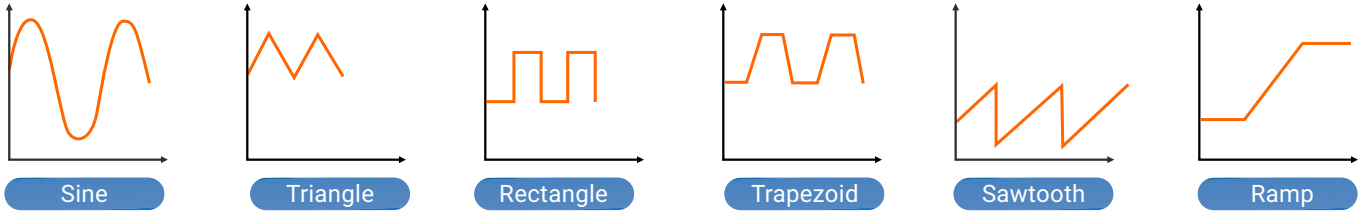
Solar Panel I-V Curve Simulation Function

The power supply provides an unique feature to simulate the output characteristics of a solar array includes Curve Mode, User-defined Mode and SAS Mode. With Curve mode, only need to set four parameters to simulate the solar array I-V curve. With User-defined mode,user can shape an I-V curve by entering up to 4096 points to simulate dynamic cloud cover effect which is useful for MPPT performance evaluation on PV inverter device. With built-in SAS mode, user can set the parameters to simulate I-V curve characteristic output and generate reports.



DDS Arbitrary Function Generator

This series power supply includes a true function generator which can generate typical functions as displayed below, convenient for editing or directly recall. Additional to the standard functions, this arbitrary generator is accessible for the creation and execution of complex sets of functions, which is can be used for testing purposes in development and production.



Model		MSS80VDC3400W
Input		
Voltage[1]		1P220 187~305Vac
		3P208 187~305Vac
		3P400 340~480Vac
Current[1]		1P220 L,N-22A
		3P208 L3-0A, L1,L2-22A
		3P400 L3-0A, L1,L2-12A
Frequency		45-65Hz
Connection		1ph+PE/3ph+PE
Fuse (Internal)[1]		1P220 T30A*2PCS
		3P208 T30A*2PCS
		3P400 T20A*2PCS
Power Factor		>0.99
Input Power		1P220 4.15KVAmax
		3P208 4.15KVAmax
		3P400 4.1KVAmax
Efficiency[1]		1P220 88.5%@80V , 1P220 82.5%@130A
		3P208 88.5%@80V , 3P208 82.5%@130A
		3P400 89.5%@80V , 3P400 83.5%@130A
Output		
Voltage Range		0~80V
Current Range[2]		0~130A
Power Range		0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)
	Current	0~136.5A(0-105%)
	Power	0~3570W(0-105%)
	Internal Resistance	0~18Ω
Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax
	Current	<0.05%Imax
	Power	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax
	Power	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V
	Current	0.01A
	Power	0.26W
	Internal Resistance	0.0015Ω
Display Resolution	Voltage	0.001V
	Current	0.001A
	Power	0.1W
	Internal Resistance	0.0001Ω
Measurement Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%Pmax
	Internal Resistance	<0.4% Rmax

Model		MSS80VDC3400W
Ripple [5]	Voltage	180mVpp/20mVrms
	Current	65mArms
Remote Compensation		5%Umax(4V)
General		
Graphic Display		5" Color touch LCD
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles		Yes
FAN		Temperature control
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time		<3ms
Analog Interface / Industrial communication control (Optional)		
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I		<0.2%
Control Signals		DC ON/OFF, External control Enable/Disable
Status Signals		CV, OVP, OTP, OCP
Sampling Rate of Input & Output		45Hz
Galvanic Isolation to the Device		4242VDC
Master/Slave Control		
Multi-machine Parallel		MAX 100 units
Environmental		
Operating Temperature [2]		0~40°C
Storage Temperature		-20~70°C
Temperature coefficient of readback value		100ppm/°C (Voltage)
		100ppm/°C (Current)
Temperature coefficient of setting value		100ppm/°C (Voltage)
		150ppm/°C (Current)
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude		<2000m@40°C
Fan Noise		71dB Idle; 73dB Max;
Mechanical		
Dimensions(WxHxD)		423x88x635mm
Package Dimensions(WxHxD)		635x280x905mm
Unit Weight		18kg
Shipping Weight		25kg
Miscellaneous		
Over Voltage Category		II
Protection Class		I
Pollution Degree		2
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.
[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.
[3] Load transient from 0% to 100% of rated output.
[4] Test value at 100% voltage and 100% power.
[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSS250VDC3400W
Input		
Voltage[1]		1P220 187~305Vac
		3P208 187~305Vac
		3P400 340~480Vac
Current[1]		1P220 L,N-22A
		3P208 L3-0A, L1,L2-22A
		3P400 L3-0A, L1,L2-12A
Frequency		45-65Hz
Connection		1ph+PE/3ph+PE
Fuse (Internal)[1]		1P220 T30A*2PCS
		3P208 T30A*2PCS
		3P400 T20A*2PCS
Power Factor		>0.99
Input Power		1P220 4.15KVAmax
		3P208 4.15KVAmax
		3P400 4.1KVAmax
Efficiency[1]		1P220 90%@250V , 1P220 86%@55A
		3P208 90%@250V , 3P208 86%@55A
		3P400 91.5%@250V , 3P400 88%@55A
Output		
Voltage Range		0~250V
Current Range[2]		0~55A
Power Range		0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)
	Current	0~57.75A(0-105%)
	Power	0~3570W(0-105%)
	Internal Resistance	0~136Ω
Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax
	Current	<0.05%Imax
	Power	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax
	Power	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V
	Current	0.004A
	Power	0.26W
	Internal Resistance	0.01Ω
Display Resolution	Voltage	0.01V
	Current	0.001A
	Power	0.1W
	Internal Resistance	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%Pmax
	Internal Resistance	<0.4% Rmax

Model		MSS250VDC3400W
Ripple [5]	Voltage	250mVpp/60mVrms
	Current	27mArms
Remote Compensation		5%Umax(12.5V)
General		
Graphic Display		5" Color touch LCD
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles		Yes
FAN		Temperature control
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time		<3ms
Analog Interface / Industrial communication control (Optional)		
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I		<0.2%
Control Signals		DC ON/OFF, External control Enable/Disable
Status Signals		CV, OVP, OTP, OCP
Sampling Rate of Input & Output		45Hz
Galvanic Isolation to the Device		4242VDC
Master/Slave Control		
Multi-machine Parallel		MAX 100 units
Environmental		
Operating Temperature [2]		0~40°C
Storage Temperature		-20~70°C
Temperature coefficient of readback value		100ppm/°C (Voltage)
		100ppm/°C (Current)
Temperature coefficient of setting value		100ppm/°C (Voltage)
		150ppm/°C (Current)
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude		<2000m@40°C
Fan Noise		71dB Idle; 73dB Max;
Mechanical		
Dimensions(WxHxD)		423x88x635mm
Package Dimensions(WxHxD)		635x280x905mm
Unit Weight		18kg
Shipping Weight		25kg
Miscellaneous		
Over Voltage Category		II
Protection Class		I
Pollution Degree		2
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.
[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.
[3] Load transient from 0% to 100% of rated output.
[4] Test value at 100% voltage and 100% power.
[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSS500VDC3400W
Input		
Voltage[1]		1P220 187~305Vac
		3P208 187~305Vac
		3P400 340~480Vac
Current[1]		1P220 L,N-22A
		3P208 L3-0A, L1,L2-22A
		3P400 L3-0A, L1,L2-12A
Frequency		45-65Hz
Connection		1ph+PE/3ph+PE
Fuse (Internal)[1]		1P220 T30A*2PCS
		3P208 T30A*2PCS
		3P400 T20A*2PCS
Power Factor		>0.99
Input Power		1P220 4.15KVAmax
		3P208 4.15KVAmax
		3P400 4.1KVAmax
Efficiency[1]		1P220 89.5%@500V , 1P220 86%@27A
		3P208 89.5%@500V , 3P208 86%@27A
		3P400 91%@500V , 3P400 88%@27A
Output		
Voltage Range		0~500V
Current Range[2]		0~27A
Power Range		0~3400W
Max. Setup Range	Voltage	0~525V(0-105%)
	Current	0~28.35A(0-105%)
	Power	0~3570W(0-105%)
	Internal Resistance	0~556Ω
Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax
	Current	<0.05%Imax
	Power	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax
	Power	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.04V
	Current	0.002A
	Power	0.26W
	Internal Resistance	0.04Ω
Display Resolution	Voltage	0.01V
	Current	0.001A
	Power	0.1W
	Internal Resistance	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax
	Current	<0.2%Imax
	Power	<0.5%Pmax
	Internal Resistance	<0.4% Rmax

Model		MSS500VDC3400W
Ripple [5]	Voltage	500mVpp/150mVrms
	Current	13mArms
Remote Compensation		5%Umax(25V)
General		
Graphic Display		5" Color touch LCD
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles		Yes
FAN		Temperature control
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time		<3ms
Analog Interface / Industrial communication control (Optional)		
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I		<0.2%
Control Signals		DC ON/OFF, External control Enable/Disable
Status Signals		CV, OVP, OTP, OCP
Sampling Rate of Input & Output		45Hz
Galvanic Isolation to the Device		4242VDC
Master/Slave Control		
Multi-machine Parallel		MAX 100 units
Environmental		
Operating Temperature [2]		0~40°C
Storage Temperature		-20~70°C
Temperature coefficient of readback value		100ppm/°C (Voltage)
		100ppm/°C (Current)
Temperature coefficient of setting value		100ppm/°C (Voltage)
		150ppm/°C (Current)
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude		<2000m@40°C
Fan Noise		71dB Idle; 73dB Max;
Mechanical		
Dimensions(WxHxD)		423x88x635mm
Package Dimensions(WxHxD)		635x280x905mm
Unit Weight		18kg
Shipping Weight		25kg
Miscellaneous		
Over Voltage Category		II
Protection Class		I
Pollution Degree		2
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD80/80VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 88.5%@80V , 1P220 82.5%@130A	1P220 88.5%@80V , 1P220 82.5%@130A
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 88.5%@80V , 3P208 82.5%@130A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 89.5%@80V , 3P400 83.5%@130A
Output			
Channel		CH1	CH2
Voltage Range		0~80V	0~80V
Current Range[2]		0~130A	0~130A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~84V(0-105%)
	Current	0~136.5A(0-105%)	0~136.5A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~18Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <50ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<850ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.006V
	Current	0.01A	0.01A
	Power	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.0015Ω
Display Resolution	Voltage	0.001V	0.001V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.0001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD80/80VDC6800W	
Ripple [5]	Voltage	180mVpp/20mVrms	180mVpp/20mVrms
	Current	65mArms	65mArms
Remote Compensation		5%Umax(4V)	5%Umax(4V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD80/250VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 88.5%@80V , 1P220 82.5%@130A	1P220 90%@250V , 1P220 86%@55A
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 90%@250V , 3P208 86%@55A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91.5%@250V , 3P400 88%@55A
Output			
Channel		CH1	CH2
Voltage Range		0~80V	0~250V
Current Range[2]		0~130A	0~55A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~262.5V(0-105%)
	Current	0~136.5A(0-105%)	0~57.75A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~136Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.02V
	Current	0.01A	0.004A
	Power	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.01Ω
Display Resolution	Voltage	0.001V	0.01V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD80/250VDC6800W	
Ripple [5]	Voltage	180mVpp/20mVrms	250mVpp/60mVrms
	Current	65mArms	27mArms
Remote Compensation		5%Umax(4V)	5%Umax(12.5V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD80/500VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 88.5%@80V , 1P220 82.5%@130A	1P220 89.5%@500V , 1P220 86%@27A
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 89.5%@500V , 3P208 86%@27A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91%@500V , 3P400 88%@27A
Output			
Channel		CH1	CH2
Voltage Range		0~80V	0~500V
Current Range[2]		0~130A	0~27A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~525V(0-105%)
	Current	0~136.5A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.04V
	Current	0.01A	0.002A
	Power	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.04Ω
Display Resolution	Voltage	0.001V	0.01V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD80/500VDC6800W	
Ripple [5]	Voltage	180mVpp/20mVrms	500mVpp/150mVrms
	Current	65mArms	13mArms
Remote Compensation		5%Umax(4V)	5%Umax(25V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD250/250VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 90%@250V , 1P220 86%@55A	1P220 90%@250V , 1P220 86%@55A
		3P208 90%@250V , 3P208 86%@55A	3P208 90%@250V , 3P208 86%@55A
		3P400 91.5%@250V , 3P400 88%@55A	3P400 91.5%@250V , 3P400 88%@55A
Output			
Channel		CH1	CH2
Voltage Range		0~250V	0~250V
Current Range[2]		0~55A	0~55A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)	0~262.5V(0-105%)
	Current	0~57.75A(0-105%)	0~57.75A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~136Ω	0~136Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V	0.02V
	Current	0.004A	0.004A
	Power	0.26W	0.26W
	Internal Resistance	0.01Ω	0.01Ω
Display Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD250/250VDC6800W	
Ripple [5]	Voltage	250mVpp/60mVrms	250mVpp/60mVrms
	Current	27mArms	27mArms
Remote Compensation		5%Umax(12.5V)	5%Umax(12.5V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.
[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.
[3] Load transient from 0% to 100% of rated output.
[4] Test value at 100% voltage and 100% power.
[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD250/500VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 90%@250V , 1P220 86%@55A	1P220 89.5%@500V , 1P220 86%@27A
		3P208 90%@250V , 3P208 86%@55A	3P208 89.5%@500V , 3P208 86%@27A
		3P400 91.5%@250V , 3P400 88%@55A	3P400 91%@500V , 3P400 88%@27A
Output			
Channel		CH1	CH2
Voltage Range		0~250V	0~500V
Current Range[2]		0~55A	0~27A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)	0~525V(0-105%)
	Current	0~57.75A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~136Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V	0.04V
	Current	0.004A	0.002A
	Power	0.26W	0.26W
	Internal Resistance	0.01Ω	0.04Ω
Display Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD250/500VDC6800W	
Ripple [5]	Voltage	250mVpp/60mVrms	500mVpp/150mVrms
	Current	27mArms	13mArms
Remote Compensation		5%Umax(12.5V)	5%Umax(25V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MSD500/500VDC6800W	
Input			
Voltage[1]		1P220 187~305Vac	
		3P208 187~305Vac	
		3P400 340~480Vac	
Current[1]		1P220 L-44A,N-44A	
		3P208 L1-35A, L2,L3-22A	
		3P400 L1-20A, L2,L3-12A	
Frequency		45-65Hz	
Connection		1ph+PE/3ph+PE	
Fuse (Internal)[1]		1P220 T30A*2PCS	
		3P208 T30A*2PCS	
		3P400 T20A*2PCS	
Power Factor		>0.99	
Input Power		1P220 8.3KVAmax	
		3P208 8.3KVAmax	
		3P400 8.2KVAmax	
Efficiency[1]		CH1	CH2
		1P220 89.5%@500V , 1P220 86%@27A	1P220 89.5%@500V , 1P220 86%@27A
		3P208 89.5%@500V , 3P208 86%@27A	3P208 89.5%@500V , 3P208 86%@27A
		3P400 91%@500V , 3P400 88%@27A	3P400 91%@500V , 3P400 88%@27A
Output			
Channel		CH1	CH2
Voltage Range		0~500V	0~500V
Current Range[2]		0~27A	0~27A
Power Range		0~3400W	0~3400W
Max. Setup Range	Voltage	0~525V(0-105%)	0~525V(0-105%)
	Current	0~28.35A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~556Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <80ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<1500ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.04V	0.04V
	Current	0.002A	0.002A
	Power	0.26W	0.26W
	Internal Resistance	0.04Ω	0.04Ω
Display Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax

Model		MSD500/500VDC6800W	
Ripple [5]	Voltage	500mVpp/150mVrms	500mVpp/150mVrms
	Current	13mArms	13mArms
Remote Compensation		5%Umax(25V)	5%Umax(25V)
General			
Graphic Display		5" Color touch LCD	
Operation Key Feature		Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.	
Interface		USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)	
Command Response Time		<3ms	
Analog Interface / Industrial communication control (Optional)			
Set Value Inputs		Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output		Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R		U/I/R: <0.2% F.S ; P: <0.5% F.S	
Actual Output U/I		<0.2%	
Control Signals		DC ON/OFF, External control Enable/Disable	
Status Signals		CV, OVP, OTP, OCP	
Sampling Rate of Input & Output		45Hz	
Galvanic Isolation to the Device		4242VDC	
Master/Slave Control			
Multi-machine Parallel		MAX 100 units	
Environmental			
Operating Temperature [2]		0~40°C	
Storage Temperature		-20~70°C	
Temperature coefficient of readback value		100ppm/°C (Voltage)	
		100ppm/°C (Current)	
Temperature coefficient of setting value		100ppm/°C (Voltage)	
		150ppm/°C (Current)	
Relative Humidity		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude		<2000m@40°C	
Fan Noise		71dB Idle; 74dB Max;	
Mechanical			
Dimensions(WxHxD)		423x88x635mm	
Package Dimensions(WxHxD)		635x280x905mm	
Unit Weight		24kg	
Shipping Weight		31kg	
Miscellaneous			
Over Voltage Category		II	
Protection Class		I	
Pollution Degree		2	
Insulation		AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC	

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/80/80VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 88.5%@80V , 3P208 82.5%@130A	3P208 88.5%@80V , 3P208 82.5%@130A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 89.5%@80V , 3P400 83.5%@130A	3P400 89.5%@80V , 3P400 83.5%@130A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~80V	0~80V
Current Range[2]		0~130A	0~130A	0~130A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~84V(0-105%)	0~84V(0-105%)
	Current	0~136.5A(0-105%)	0~136.5A(0-105%)	0~136.5A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~18Ω	0~18Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <50ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<850ms(No Load) <15ms(Full Load)	<850ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.006V	0.006V
	Current	0.01A	0.01A	0.01A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.0015Ω	0.0015Ω
Display Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.0001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	180mVpp/20mVrms	180mVpp/20mVrms
	Current	65mArms	65mArms	65mArms
Remote Compensation		5%Umax(4V)	5%Umax(4V)	5%Umax(4V)

Model	MST80/80/80VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/80/250VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 88.5%@80V , 3P208 82.5%@130A	3P208 90%@250V ,3P208 86%@55A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91.5%@250V ,3P400 88%@55A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~80V	0~250V
Current Range[2]		0~130A	0~130A	0~55A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~84V(0-105%)	0~262.5V(0-105%)
	Current	0~136.5A(0-105%)	0~136.5A(0-105%)	0~57.75A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~18Ω	0~136Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<850ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.006V	0.02V
	Current	0.01A	0.01A	0.004A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.0015Ω	0.01Ω
Display Resolution	Voltage	0.001V	0.001V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	180mVpp/20mVrms	250mVpp/60mVrms
	Current	65mArms	65mArms	27mArms
Remote Compensation		5%Umax(4V)	5%Umax(4V)	5%Umax(12.5V)

Model	MST80/80/250VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/80/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 88.5%@80V , 3P208 82.5%@130A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~80V	0~500V
Current Range[2]		0~130A	0~130A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~84V(0-105%)	0~525V(0-105%)
	Current	0~136.5A(0-105%)	0~136.5A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~18Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<850ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.006V	0.04V
	Current	0.01A	0.01A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.0015Ω	0.04Ω
Display Resolution	Voltage	0.001V	0.001V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	180mVpp/20mVrms	500mVpp/150mVrms
	Current	65mArms	65mArms	13mArms
Remote Compensation		5%Umax(4V)	5%Umax(4V)	5%Umax(25V)

Model	MST80/80/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/250/250VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 90%@250V ,3P208 86%@55A	3P208 90%@250V ,3P208 86%@55A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91.5%@250V ,3P400 88%@55A	3P400 91.5%@250V ,3P400 88%@55A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~250V	0~250V
Current Range[2]		0~130A	0~55A	0~55A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~262.5V(0-105%)	0~262.5V(0-105%)
	Current	0~136.5A(0-105%)	0~57.75A(0-105%)	0~57.75A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~136Ω	0~136Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.02V	0.02V
	Current	0.01A	0.004A	0.004A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.01Ω	0.01Ω
Display Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	250mVpp/60mVrms	250mVpp/60mVrms
	Current	65mArms	27mArms	27mArms
Remote Compensation		5%Umax(4V)	5%Umax(12.5V)	5%Umax(12.5V)

Model	MST80/250/250VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/250/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 90%@250V ,3P208 86%@55A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91.5%@250V ,3P400 88%@55A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~250V	0~500V
Current Range[2]		0~130A	0~55A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~262.5V(0-105%)	0~525V(0-105%)
	Current	0~136.5A(0-105%)	0~57.75A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~136Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.02V	0.04V
	Current	0.01A	0.004A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.01Ω	0.04Ω
Display Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	250mVpp/60mVrms	500mVpp/150mVrms
	Current	65mArms	27mArms	13mArms
Remote Compensation		5%Umax(4V)	5%Umax(12.5V)	5%Umax(25V)

Model	MST80/250/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST80/500/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 88.5%@80V , 3P208 82.5%@130A	3P208 89.5%@500V ,3P208 86%@27A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 89.5%@80V , 3P400 83.5%@130A	3P400 91%@500V ,3P400 88%@27A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~80V	0~500V	0~500V
Current Range[2]		0~130A	0~27A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~84V(0-105%)	0~525V(0-105%)	0~525V(0-105%)
	Current	0~136.5A(0-105%)	0~28.35A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~18Ω	0~556Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <50ms(Full Load)	<15ms(No Load) <80ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<850ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.006V	0.04V	0.04V
	Current	0.01A	0.002A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.0015Ω	0.04Ω	0.04Ω
Display Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.0001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	180mVpp/20mVrms	500mVpp/150mVrms	500mVpp/150mVrms
	Current	65mArms	13mArms	13mArms
Remote Compensation		5%Umax(4V)	5%Umax(25V)	5%Umax(25V)

Model	MST80/500/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST250/250/250VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 90%@250V ,3P208 86%@55A	3P208 90%@250V ,3P208 86%@55A	3P208 90%@250V ,3P208 86%@55A
		3P400 91.5%@250V ,3P400 88%@55A	3P400 91.5%@250V ,3P400 88%@55A	3P400 91.5%@250V ,3P400 88%@55A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~250V	0~250V	0~250V
Current Range[2]		0~55A	0~55A	0~55A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)	0~262.5V(0-105%)	0~262.5V(0-105%)
	Current	0~57.75A(0-105%)	0~57.75A(0-105%)	0~57.75A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~136Ω	0~136Ω	0~136Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <60ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V	0.02V	0.02V
	Current	0.004A	0.004A	0.004A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.01Ω	0.01Ω	0.01Ω
Display Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	250mVpp/60mVrms	250mVpp/60mVrms	250mVpp/60mVrms
	Current	27mArms	27mArms	27mArms
Remote Compensation		5%Umax(12.5V)	5%Umax(12.5V)	5%Umax(12.5V)

Model	MST250/250/250VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST250/250/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 90%@250V ,3P208 86%@55A	3P208 90%@250V ,3P208 86%@55A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 91.5%@250V ,3P400 88%@55A	3P400 91.5%@250V ,3P400 88%@55A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~250V	0~250V	0~500V
Current Range[2]		0~55A	0~55A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)	0~262.5V(0-105%)	0~525V(0-105%)
	Current	0~57.75A(0-105%)	0~57.75A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~136Ω	0~136Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)	<600ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V	0.02V	0.04V
	Current	0.004A	0.004A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.01Ω	0.01Ω	0.04Ω
Display Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	250mVpp/60mVrms	250mVpp/60mVrms	500mVpp/150mVrms
	Current	27mArms	27mArms	13mArms
Remote Compensation		5%Umax(12.5V)	5%Umax(12.5V)	5%Umax(25V)

Model	MST250/250/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST250/500/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 90%@250V ,3P208 86%@55A	3P208 89.5%@500V ,3P208 86%@27A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 91.5%@250V ,3P400 88%@55A	3P400 91%@500V ,3P400 88%@27A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~250V	0~500V	0~500V
Current Range[2]		0~55A	0~27A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~262.5V(0-105%)	0~525V(0-105%)	0~525V(0-105%)
	Current	0~57.75A(0-105%)	0~28.35A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~136Ω	0~556Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <60ms(Full Load)	<15ms(No Load) <80ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<600ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.02V	0.04V	0.04V
	Current	0.004A	0.002A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.01Ω	0.04Ω	0.04Ω
Display Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	250mVpp/60mVrms	500mVpp/150mVrms	500mVpp/150mVrms
	Current	27mArms	13mArms	13mArms
Remote Compensation		5%Umax(12.5V)	5%Umax(25V)	5%Umax(25V)

Model	MST250/500/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

Model		MST500/500/500VDC10000W		
Input				
Voltage[1]		3P208 187~305Vac		
		3P400 340~480Vac		
Current[1]		3P208 L1, L2,L3-37A		
		3P400 L1, L2,L3-21A		
Frequency		45-65Hz		
Connection		3ph+PE		
Fuse (Internal)[1]		3P208 T30A*2PCS		
		3P400 T20A*2PCS		
Power Factor		>0.99		
Input Power		3P208 12.4KVAmax		
		3P400 12.1KVAmax		
Efficiency[1]		CH1	CH2	CH3
		3P208 89.5%@500V ,3P208 86%@27A	3P208 89.5%@500V ,3P208 86%@27A	3P208 89.5%@500V ,3P208 86%@27A
		3P400 91%@500V ,3P400 88%@27A	3P400 91%@500V ,3P400 88%@27A	3P400 91%@500V ,3P400 88%@27A
Output				
Channel		CH1	CH2	CH3
Voltage Range		0~500V	0~500V	0~500V
Current Range[2]		0~27A	0~27A	0~27A
Power Range		0~3400W	0~3400W	0~3400W
Max. Setup Range	Voltage	0~525V(0-105%)	0~525V(0-105%)	0~525V(0-105%)
	Current	0~28.35A(0-105%)	0~28.35A(0-105%)	0~28.35A(0-105%)
	Power	0~3570W(0-105%)	0~3570W(0-105%)	0~3570W(0-105%)
	Internal Resistance	0~556Ω	0~556Ω	0~556Ω
Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%+17W	<0.5%+17W	<0.5%+17W
	Internal Resistance	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax	R <2%Rmax, I< 0.3%Imax
Line Regulation	Voltage	<0.02%Umax	<0.02%Umax	<0.02%Umax
	Current	<0.05%Imax	<0.05%Imax	<0.05%Imax
	Power	<0.05% Pmax	<0.05% Pmax	<0.05% Pmax
Load Regulation[3]	Voltage	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current	<0.05%Umax @Rated Voltage, <0.1%Umax @Rated Current
	Current	<0.15%Imax	<0.15%Imax	<0.15%Imax
	Power	<0.75% Pmax	<0.75% Pmax	<0.75% Pmax
Rise Time	Voltage	<15ms(No Load) <80ms(Full Load)	<15ms(No Load) <80ms(Full Load)	<15ms(No Load) <80ms(Full Load)
Drop Time	Voltage	<1500ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)	<1500ms(No Load) <15ms(Full Load)
Transient Response Time[4]	Voltage	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)	<3ms (Voltage will recover to ±0.5% when the load changes from 10% to 90%)
Set Resolution	Voltage	0.04V	0.04V	0.04V
	Current	0.002A	0.002A	0.002A
	Power	0.26W	0.26W	0.26W
	Internal Resistance	0.04Ω	0.04Ω	0.04Ω
Display Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Measurement Accuracy	Voltage	<0.1%Umax	<0.1%Umax	<0.1%Umax
	Current	<0.2%Imax	<0.2%Imax	<0.2%Imax
	Power	<0.5%Pmax	<0.5%Pmax	<0.5%Pmax
	Internal Resistance	<0.4% Rmax	<0.4% Rmax	<0.4% Rmax
Ripple[5]	Voltage	500mVpp/150mVrms	500mVpp/150mVrms	500mVpp/150mVrms
	Current	13mArms	13mArms	13mArms
Remote Compensation		5%Umax(25V)	5%Umax(25V)	5%Umax(25V)

Model	MST500/500/500VDC10000W
General	
Graphic Display	5" Color touch LCD
Operation Key Feature	Flippable touch screen, Rotary knod, USB port for transfer and upgrading firmware
Rack Mount Handles	Yes
FAN	Temperature control
Protection	OVP, UVP, OCP, UCP, OPP, RMP protection parameters and other hardware protection such as OTP can be set.
Interface	USB(Standard), RS232&LAN(Optional), GPIB(Optional), CAN(Optional), RS485(Optional)
Command Response Time	<3ms
Analog Interface / Industrial communication control (Optional)	
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.
Accuracy U/I/P/R	U/I/R: <0.2% F.S ; P: <0.5% F.S
Actual Output U/I	<0.2%
Control Signals	DC ON/OFF, External control Enable/Disable
Status Signals	CV, OVP, OTP, OCP
Sampling Rate of Input & Output	45Hz
Galvanic Isolation to the Device	4242VDC
Master/Slave Control	
Multi-machine Parallel	MAX 100 units
Environmental	
Operating Temperature [2]	0~40°C
Storage Temperature	-20~70°C
Temperature coefficient of readback value	100ppm/°C (Voltage)
	100ppm/°C (Current)
Temperature coefficient of setting value	100ppm/°C (Voltage)
	150ppm/°C (Current)
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C
Altitude	<2000m@40°C
Fan Noise	71dB Idle; 75dB Max;
Mechanical	
Dimensions(WxHxD)	423x88x635mm
Package Dimensions(WxHxD)	635x280x905mm
Unit Weight	31kg
Shipping Weight	38kg
Miscellaneous	
Over Voltage Category	II
Protection Class	I
Pollution Degree	2
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2818VDC

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[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Test value at 100% voltage and 100% power.

[5] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.



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