APM Technologies

Efficiency, Stability, Reliable, Precision

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

>> Product specification sheet







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Contents

| SP20VDC600W | 01 |
|----------------|----|
| SP32VDC600W | 01 |
| SP40VDC600W | 01 |
| SP75VDC600W | 01 |
| SP150VDC600W | 01 |
| SP200VDC600W | 01 |
| | |
| SP20VDC1000W | 02 |
| SP32VDC1000W | 02 |
| SP40VDC1000W | 02 |
| SP75VDC1000W | 02 |
| SP150VDC1000W | 02 |
| SP200VDC1000W | 02 |
| | |
| SP20VDC1200W | 03 |
| SP32VDC1200W | 03 |
| SP40VDC1200W | 03 |
| SP75VDC1200W | 03 |
| SP150VDC1200W | 03 |
| SP200VDC1200W | 03 |
| | |
| SP75VDC1500W | 04 |
| SP150VDC1500W | 04 |
| SP200VDC1500W | 04 |
| | |
| SP32VDC1600W | 05 |
| SP40VDC1600W | 05 |
| | |
| SPS32VDC1000W | 06 |
| SPS40VDC1000W | 06 |
| SPS80VDC1000W | 06 |
| SPS120VDC1000W | 06 |
| 000150VD01000W | 07 |
| | 07 |
| SPS200VDC1000W | 07 |
| | 07 |
| SPS800VDC1000W | 07 |

| SP32VDC2000W | 80 |
|---------------|----|
| SP40VDC2000W | 80 |
| SP80VDC2000W | 80 |
| SP120VDC2000W | 80 |
| | |
| SP150VDC2000W | 09 |
| SP200VDC2000W | |
| SP600VDC2000W | |
| SP800VDC2000W | 09 |
| | |
| SP32VDC3000W | |
| SP40VDC3000W | |
| SP80VDC3000W | 10 |
| SP120VDC3000W | 10 |
| | |
| SP150VDC3000W | |
| SP200VDC3000W | |
| SP600VDC3000W | 11 |
| SP800VDC3000W | 11 |
| | |
| SP32VDC4000W | 12 |
| SP40VDC4000W | |
| SP75VDC4000W | |
| SP120VDC4000W | 12 |
| | |
| SP150VDC4000W | |
| SP200VDC4000W | |
| SP600VDC4000W | 13 |
| SP800VDC4000W | 13 |
| | |

Selection List:

| Model | Voltage | Current | Power | Corresponding page |
|----------------|---------|---------|-------|--------------------|
| SP20VDC600W | 20V | 60A | 600W | P01 |
| SP32VDC600W | 32V | 50A | 600W | P01 |
| SP40VDC600W | 40V | 40A | 600W | P01 |
| SP75VDC600W | 75V | 25A | 600W | P01 |
| SP150VDC600W | 150V | 10A | 600W | P01 |
| SP200VDC600W | 200V | 8A | 600W | P01 |
| SP20VDC1000W | 20V | 60A | 1000W | P02 |
| SP32VDC1000W | 32V | 50A | 1000W | P02 |
| SP40VDC1000W | 40V | 40A | 1000W | P02 |
| SP75VDC1000W | 75V | 25A | 1000W | P02 |
| SP150VDC1000W | 150V | 10A | 1000W | P02 |
| SP200VDC1000W | 200V | 8A | 1000W | P02 |
| SP20VDC1200W | 20V | 60A | 1200W | P03 |
| SP32VDC1200W | 32V | 50A | 1200W | P03 |
| SP40VDC1200W | 40V | 40A | 1200W | P03 |
| SP75VDC1200W | 75V | 25A | 1200W | P03 |
| SP150VDC1200W | 150V | 10A | 1200W | P03 |
| SP200VDC1200W | 200V | 8A | 1200W | P03 |
| SP75VDC1500W | 75V | 25A | 1500W | P04 |
| SP150VDC1500W | 150V | 10A | 1500W | P04 |
| SP200VDC1500W | 200V | 8A | 1500W | P04 |
| SP32VDC1600W | 32V | 50A | 1600W | P04 |
| SP40VDC1600W | 40V | 40A | 1600W | P05 |
| SPS32VDC1000W | 32V | 200A | 1000W | P06 |
| SPS40VDC1000W | 40V | 1200A | 1000W | P06 |
| SPS40VDC1000W | 80V | 60A | 1000W | P06 |
| | 120V | 40A | 1000W | P06 |
| SPS120VDC1000W | | | 1000W | |
| SPS150VDC1000W | 150V | 30A | | P07 |
| SPS200VDC1000W | 200V | 24A | 1000W | P07 |
| SPS600VDC1000W | 600V | 10A | 1000W | P07 |
| SPS800VDC1000W | 800V | 7.5A | 1000W | P07 |
| SP32VDC2000W | 32V | 200A | 2000W | P08 |
| SP40VDC2000W | 40V | 120A | 2000W | P08 |
| SP80VDC2000W | 80V | 60A | 2000W | P08 |
| SP120VDC2000W | 120V | 40A | 2000W | P08 |
| SP150VDC2000W | 150V | 30A | 2000W | P09 |
| SP200VDC2000W | 200V | 24A | 2000W | P09 |
| SP600VDC2000W | 600V | 10A | 2000W | P09 |
| SP800VDC2000W | 800V | 7.5A | 2000W | P09 |
| SP32VDC3000W | 32V | 200A | 3000W | P10 |
| SP40VDC3000W | 40V | 120A | 3000W | P10 |
| SP80VDC3000W | 80V | 60A | 3000W | P10 |
| SP120VDC3000W | 120V | 40A | 3000W | P10 |
| SP150VDC3000W | 150V | 30A | 3000W | P11 |
| SP200VDC3000W | 200V | 24A | 3000W | P11 |
| SP600VDC3000W | 600V | 10A | 3000W | P11 |
| SP800VDC3000W | 800V | 7.5A | 3000W | P11 |
| SP32VDC4000W | 32V | 200A | 4000W | P12 |
| SP40VDC4000W | 40V | 120A | 4000W | P12 |
| SP75VDC4000W | 75V | 60A | 4000W | P12 |
| SP120VDC4000W | 120V | 40A | 4000W | P12 |
| SP150VDC4000W | 150V | 30A | 4000W | P13 |
| SP200VDC4000W | 200V | 24A | 4000W | P13 |
| SP600VDC4000W | 600V | 10A | 4000W | P13 |
| SP800VDC4000W | 800V | 7.5A | 4000W | P13 |

600W in 1U

| Model | SP20VDC600W | SP32VDC600W | SP40VDC600W | SP75VDC600W | SP150VDC600W | SP200VDC600W |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | | | Input | | | |
| Input Voltage | 90~265VAC | | | | | |
| Input Frequency | 47~63Hz | | | | | |
| Power Factor | >0.98 | | | | | |
| nput Power | 750VA(MAX) | | | | | |
| | | | Output | | | |
| Output Voltage Range | 0~20V | 0~32V | 0~40V | 0~75V | 0~150V | 0~200V |
| Output Current Range | 0~60A | 0~50A | 0~40A | 0~25A | 0~10A | 0~8A |
| Output Power Range | 0~600W | | | | | |
| /oltage Load Regulation | 10mV | 10mV | 10mV | 10mV | 15mV | 15mV |
| Current Load Regulation | 60mA | 50mA | 40mA | 25mA | 10mA | 8mA |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 1mV | 1mV |
| Current Display Resolution | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.1mA |
| oltage Programmable Resolution | 1.5mV | 1.5mV | 1.5mV | 1.5mV | 3mV | 3mV |
| Current Programmable Resolution | 2mA | 2mA | 2mA | 1mA | 1mA | 1mA |
| /oltage Setting Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| /oltage Measurement Accuracy 👳 | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| Voltage Ripple ^[2] | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 120mVp-p 40mVrms | 120mVp-p 40mVrms |
| Current Ripple ^[3] | 60mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 40mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) |
| ine Regulation(Voltage) | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.02%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 4mA | 4mA | 4mA | 4mA | 10mA | 30mA |
| oltage Temperature Coefficient [4] | 100ppm/°C | | | | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | | | | |
| OVM Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 4mV | 1mV |
| OVM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+30mV | 0.1%+15mV |
| Dperating Mode | Constant voltage (CV) | Constant current (CC) | | | | |
| Remote Compensation | 4V MAX | | | | | |
| Aaster-slave Control | Yes | | | | | |
| Response (Voltage Increase) | ≤10ms | ≤12ms | ≤10ms | ≤10ms | ≤25ms | ≤30ms |
| Response (Voltage Drop) | ≤150ms (no load) ≤20ms (full load) | ≤150ms (no load) ≤20ms (full load) | ≤150ms (no load) ≤20ms (full load) | ≤160ms (no load) ≤20ms (full load) | ≤400ms (no load) ≤32ms (full load) | ≤600ms (no load) ≤30ms (full load) |
| oad Transient Recovery Time | ≤2ms | ≤2ms | ≤2ms | ≤2ms | ≤3ms | ≤3ms |
| Command Response Time | 50ms | | | | | |
| Series Capability 6 | Up to 10 units | Up to 8 units | Up to 6 units |
| Parallel Capability | Up to 10 units | | | | | |
| Current Sharing ¹⁷¹ | 9V | 9V | 12V | 20V | 40V | 50V |
| Efficiency (full load) | 85% | 86% | 87% | 88% | 88% | 87% |
| | 03% | 00% | Other | 00% | 00% | 07.% |
| Protection Function | OVP/OCP/OTP/OPP/S | | oulei | | | |
| Anti Reverse rrigation Protection | Yes | | | | | |
| nput Fuse | 20A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 10A, 125VAC/250VAC, fast-acting type | 10A, 125VAC/250VA fast-acting type |
| Jnit Weight/Shipping Weight | 9.2kg/12kg | 9.2kg/12kg | 9.2kg/12kg | 8.9kg/11.7kg | 9.3kg/12.7kg | 9.3kg/12.7kg |
| 0 11 0 0 | | sizing/ izing | 5.2Ng/ 12Ng | 5.5kg/11.7kg | 5.5Ng/12.7Ng | 2.0Kg/12.7Kg |
| Dimensions(WxHxD) | 423.0x44.0x447.0 mm | ANI: 0 00000/00 105 | | | | |
| Communication Modes | 1. RS232/RS485/USB/I | | | | | |
| Operating Environment | | elative Humidity 10%~90 | 1%(no condensation); Pol | lution degree 2, Installatio | on category II, Indoor use | |
| Cooling Mode | Forced air-cooling | | | | | |
| Altitude | 2000m | | | | | |
| nsulation | AC input <->DC output, | 4242VDC, AC input <-> | PE, 2121VDC | | | |

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

| Model | SP20VDC1000W | SP32VDC1000W | SP40VDC1000W | SP75VDC1000W | SP150VDC1000W | SP200VDC1000W |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | | | Input | | | |
| nput Voltage | 90~265VAC | | | | | |
| nput Frequency | 47~63Hz | | | | | |
| Power Factor | >0.98 | | | | | |
| Input Power | 1300VA(MAX) | | | | | |
| | | | Output | | | |
| Output Voltage Range | 0~20V | 0~32V | 0~40V | 0~75V | 0~150V | 0~200V |
| Output Current Range | 0~60A | 0~50A | 0~40A | 0~25A | 0~10A | 0~8A |
| Output Power Range | 0~1000W | | | | | |
| Voltage Load Regulation | 10mV | 10mV | 10mV | 10mV | 15mV | 15mV |
| Current Load Regulation | 60mA | 50mA | 40mA | 25mA | 10mA | 8mA |
| Voltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 1mV | 1mV |
| Current Display Resolution | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.1mA |
| Voltage Programmable Resolution | 1.5mV | 1.5mV | 1.5mV | 1.5mV | 3mV | 3mV |
| Current Programmable Resolution | 2mA | 2mA | 2mA | 1mA | 1mA | 1mA |
| Voltage Setting Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| Voltage Measurement Accuracy ^{III} | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| Voltage Ripple ^[2] | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 120mVp-p 40mVrms | 120mVp-p 40mVrms |
| Current Ripple | 60mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 40mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) |
| ine Regulation(Voltage) | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.02%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 4mA | 4mA | 4mA | 4mA | 10mA | 30mA |
| /oltage Temperature Coefficient [4] | 100ppm/°C | | | | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | | | | |
| DVM Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 4mV | 1mV |
| OVM Precision ^{III} | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+30mV | 0.1%+15mV |
| Operating Mode | Constant voltage (CV) / | Constant current (CC) | | | | |
| Remote Compensation | 4V MAX | | | | | |
| Master-slave Control | Yes | | | | | |
| Response (Voltage Increase) | ≤10ms | ≤12ms | ≤10ms | ≤10ms | ≤25ms | ≤30ms |
| Response (Voltage Drop) | ≤150ms (no load) ≤20ms (full load) | ≤150ms (no load) ≤15ms (full load) | ≤150ms (no load) ≤15ms (full load) | ≤160ms (no load) ≤15ms (full load) | ≤400ms (no load) ≤25ms (full load) | ≤600ms (no load) ≤40ms (full load) |
| oad Transient Recovery Time ^[5] | ≤2ms | ≤2ms | ≤2ms | ≤2ms | ≤3ms | ≤3ms |
| Command Response Time | 50ms | | | | | 1 |
| Series Capability 161 | Up to 10 units | Up to 8 units | Up to 6 units |
| Parallel Capability | Up to 10 units | | | | | |
| Current Sharing 🕅 | 9V | 9V | 12V | 20V | 40V | 50V |
| Efficiency (full load) | 85% | 89% | 89% | 89% | 89% | 87% |
| Protection Function | OVP/OCP/OTP/OPP/S | CP/FOLDBACK | Other | | | |
| Anti Reverse rrigation Protection | Yes | | | | | |
| nput Fuse | 20A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250V fast-acting type |
| Jnit Weight/Shipping Weight | 9.2kg/12kg | 9.2kg/12kg | 9.2kg/12kg | 8.9kg/11.7kg | 9.3kg/12.7kg | 9.3kg/12.7kg |
| Dimensions(WxHxD) | 423.0x44.0x447.0 mm | 5. 5 | 5. 5 | 3 | 5 | J |
| Communication Modes | | _AN; 2. RS232/RS485/ | USB/LAN/GPIB | | | |
| Operating Environment | | | | lution degree 2, Installatio | on category IL Indoor use | |
| Cooling Mode | Forced air-cooling | stative framidity 1070-90 | in concensation, For | actor degree 2, mataliatit | n sategory n, muoor use. | |
| Altitude | 2000m | | | | | |
| | | | PE, 2121VDC | | | |

 (1) output of set, when output is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

[6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.



1200W in 1U

| Model | SP20VDC1200W | SP32VDC1200W | SP40VDC1200W | SP75VDC1200W | SP150VDC1200W | SP200VDC1200W |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | | | Input | | | |
| nput Voltage | 90~265VAC | | | | | |
| nput Frequency | 47~63Hz | | | | | |
| Power Factor | >0.98 | | | | | |
| nput Power | 1500VA(MAX) | | | | | |
| | | | Output | | | |
| Output Voltage Range | 0~20V | 0~32V | 0~40V | 0~75V | 0~150V | 0~200V |
| Output Current Range | 0~60A | 0~50A | 0~40A | 0~25A | 0~10A | 0~8A |
| Output Power Range | 0~1200W | | | | | |
| /oltage Load Regulation | 10mV | 10mV | 10mV | 10mV | 15mV | 15mV |
| Current Load Regulation | 60mA | 50mA | 40mA | 25mA | 10mA | 8mA |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 1mV | 1mV |
| Current Display Resolution | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.2mA | 0.1mA |
| oltage Programmable Resolution | 1.5mV | 1.5mV | 1.5mV | 1.5mV | 3mV | 3mV |
| current Programmable Resolution | 2mA | 2mA | 2mA | 1mA | 1mA | 1mA |
| /oltage Setting Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| oltage Measurement Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+60mA | 0.1%+50mA | 0.1%+40mA | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| /oltage Ripple 🛛 | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 120mVp-p 40mVrms | 120mVp-p 40mVrms |
| Current Ripple | 60mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 40mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) |
| ine Regulation(Voltage) | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.005%+1mV | 0.02%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 4mA | 4mA | 4mA | 4mA | 10mA | 30mA |
| oltage Temperature Coefficient [4] | 100ppm/°C | | | | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | | | | |
| OVM Resolution | 0.1mV | 0.1mV | 0.1mV | 0.1mV | 4mV | 1mV |
| OVM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+30mV | 0.1%+15mV |
| Dperating Mode | Constant voltage (CV) | Constant current (CC) | | | | |
| Remote Compensation | 4V MAX | | | | | |
| Aaster-slave Control | Yes | | | | | |
| Response (Voltage Increase) | ≤10ms | ≤10ms | ≤10ms | ≤10ms | ≤25ms | ≤30ms |
| Response (Voltage Drop) | ≤150ms (no load) ≤12ms (full load) | ≤150ms (no load) ≤12ms (full load) | ≤150ms (no load) ≤12ms (full load) | ≤160ms (no load) ≤12ms (full load) | ≤400ms (no load) ≤21ms (full load) | ≤600ms (no load) ≤36ms (full load) |
| oad Transient Recovery Time | ≤2ms | ≤2ms | ≤2ms | ≤2ms | ≤3ms | ≤3ms |
| command Response Time | 50ms | 121110 | 121110 | 121110 | 20110 | 20110 |
| Series Capability 6 | Up to 10 units | Up to 8 units | Up to 6 units |
| Parallel Capability | Up to 10 units | • | | | | |
| Current Sharing ¹⁷¹ | 9V | 9V | 12V | 20V | 40V | 50V |
| Efficiency (full load) | 84% | 84% | 89% | 90% | 89% | 90% |
| | | | Other | | | |
| Protection Function | OVP/OCP/OTP/OPP/S | CP/FOLDBACK | | | | |
| Anti Reverse rrigation Protection | Yes | | | | | |
| nput Fuse | 20A, 125VAC/250VAC, fast-acting type | 20A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VA fast-acting type |
| Jnit Weight/Shipping Weight | 9.2kg/12kg | 9.2kg/12kg | 9.2kg/12kg | 8.9kg/11.7kg | 9.3kg/12.7kg | 9.3kg/12.7kg |
| Dimensions(WxHxD) | 423.0x44.0x447.0 mm | | | | | |
| Communication Modes | | LAN; 2. RS232/RS485/ | USB/LAN/GDIR | | | |
| Operating Environment | | | | lution dograe 2. Installation | | |
| sponding chimoninent | Forced air-cooling | elative Humidity 10%~90 | %(no condensation); Pol | iution degree 2, installatio | n category II, Indoor Use | |
| Cooling Mode | | | | | | |
| Cooling Mode | 2000m | | | | | |

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.



1500W in 1U

| Model | SP75VDC1500W | SP150VDC1500W | SP200VDC1500W |
|--|---|--|--|
| | | Input | |
| nput Voltage | 90~265VAC | | |
| nput Frequency | 47~63Hz | | |
| Power Factor | >0.98 | | |
| nput Power | 1900VA(MAX) | | |
| | | Output | |
| Output Voltage Range | 0~75V | 0~150V | 0~200V |
| Output Current Range | 0~25A | 0~10A | 0~8A |
| Output Power Range | 0~1500W | | |
| Voltage Load Regulation | 10mV | 15mV | 15mV |
| Current Load Regulation | 25mA | 10mA | 8mA |
| /oltage Display Resolution | 0.1mV | 1mV | 1mV |
| Current Display Resolution | 0.2mA | 0.2mA | 0.1mA |
| oltage Programmable Resolution | 1.5mV | 3mV | 3mV |
| Current Programmable Resolution | 1mA | 1mA | 1mA |
| /oltage Setting Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV |
| Current Setting Accuracy | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| /oltage Measurement Accuracy ¹¹ | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+25mA | 0.1%+10mA | 0.1%+8mA |
| Voltage Ripple ^[2] | 40mVp-p 6mVrms | 120mVp-p 40mVrms | 120mVp-p 40mVrms |
| Current Ripple ¹³¹ | 25mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) | 40mA (Full Range) 10mA (TYP Value) |
| Line Regulation(Voltage) | 0.005%+2mV | 0.02%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 4mA | 10mA | 30mA |
| /oltage Temperature Coefficient ^[4] | 100ppm/°C | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | |
| OVM Resolution | 0.1mV | 4mV | 1mV |
| DVM Precision ¹¹ | 0.05%+15mV | 0.1%+30mV | 0.1%+15mV |
| Operating Mode | Constant voltage (CV) / Constant currer | | |
| Remote Compensation | 4V MAX | | |
| Aaster-slave Control | Yes | | |
| Response (Voltage Increase) | ≤10ms | ≤25ms | ≤30ms |
| Response (Voltage Drop) | ≤160ms (no load) ≤10ms (full load) | ≤400ms (no load) ≤18ms (full load) | ≤600ms (no load) ≤30ms (full load) |
| oad Transient Recovery Time | ≤2ms | ≤3ms | ≤3ms |
| Command Response Time | 50ms | | |
| Series Capability ¹⁶¹ | Up to 10 units | Up to 8 units | Up to 6 units |
| Parallel Capability | Up to 10 units | | |
| Current Sharing ¹⁷¹ | 20V | 40V | 50V |
| Efficiency (full load) | 91% | 90% | 91% |
| | | Other | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOLDBACK | | |
| Anti Reverse rrigation Protection | Yes | | |
| nput Fuse | 30A, 125VAC/250VAC, fast-acting type | | |
| Jnit Weight/Shipping Weight | 8.9kg/11.7kg | 9.3kg/12.7kg | 9.3kg/12.7kg |
| | | 2.0kg/12.7kg | 5.6Kg/ 12.7 Kg |
| Dimensions(WxHxD) | 423.0x44.0x447.0 mm | | |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2. RS232 | | |
| Operating Environment | | 10%~90%(no condensation); Pollution degree | e 2, installation category II, indoor USE. |
| Cooling Mode | Forced air-cooling | | |
| Altitude | 2000m | | |
| nsulation | AC input <->DC output, 4242VDC, AC in | nput <-> PE, 2121VDC | |

[1] % output offset, when output ones are a part of the range show above. [2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

All specifications are subject to change without notice.

04

1600W in 1U

| 1600W in 10 | | |
|--|--|---|
| Model | SP32VDC1600W | SP40VDC1600W |
| | Input | |
| Input Voltage | 90~265VAC | |
| Input Frequency | 47~63Hz | |
| Power Factor | >0.98 | |
| Input Power | 2000VA(MAX) | |
| | Output | |
| Output Voltage Range | 0~32V | 0~40V |
| Output Current Range | 0~50A | 0~40A |
| Output Power Range | 0~1600W | |
| Voltage Load Regulation | 10mV | |
| Current Load Regulation | 50mA | 40mA |
| Voltage Display Resolution | 0.1mV | |
| Current Display Resolution | 0.2mA | |
| Voltage Programmable Resolution | 1.5mV | |
| Current Programmable Resolution | 2mA | |
| Voltage Setting Accuracy [1] | 0.05%+15mV | |
| Current Setting Accuracy | 0.1%+50mA | 0.1%+40mA |
| Voltage Measurement Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV |
| Current Measurement Accuracy | 0.1%+50mA | 0.1%+40mA |
| Voltage Ripple ^[2] | 40mVp-p 6mVrms | |
| Current Ripple | 50mA (Full Range) 20mA (TYP Value) | 40mA (Full Range) 20mA (TYP Value) |
| Line Regulation(Voltage) | 0.005%+1mV | |
| Line Regulation(Current) | 4mA | |
| Voltage Temperature Coefficient [4] | 100ppm/°C | |
| Current Temperature Coefficient [4] | 150ppm/°C | |
| DVM Resolution | 0.1mV | |
| DVM Precision ^[1] | 0.05%+15mV | |
| Operating Mode | Constant voltage (CV) / Constant current (CC) | |
| Remote Compensation | 4V MAX | |
| Master-slave Control | Yes | |
| Response (Voltage Increase) | ≤12ms | ≤10ms |
| Response (Voltage Drop) | ≤150ms (no load) ≤10ms (full load) | |
| Load Transient Recovery Time [9] | ≤2ms | |
| Command Response Time | 50ms | |
| Series Capability 6 | Up to 10 units | |
| Parallel Capability | Up to 10 units | |
| Current Sharing 171 | 9V | 12V |
| Efficiency (full load) | 89% | 90% |
| | Other | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOLDBACK | |
| Anti Reverse Irrigation Protection | Yes | |
| Input Fuse | 30A, 125VAC/250VAC, fast-acting type | |
| Unit Weight/Shipping Weight | 9.2kg/12kg | |
| Dimensions(WxHxD) | 423.0x44.0x447.0 mm | |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2. RS232/RS485/USB/LAN/GPIB | |
| Operating Environment | Temperature 0~40°C, Relative Humidity 10%~90%(no condensation) | ; Pollution degree 2, Installation category II, Indoor use. |
| Cooling Mode | Forced air-cooling | |
| Altitude | 2000m | |
| Insulation | AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC | |
| | ut voltage less than 5V offset voltage is 30mV | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

(1) output of the range of t

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

1000W in 2U(1)

| Model | SPS32VDC1000W | SPS40VDC1000W | SPS80VDC1000W | SPS120VDC1000W | |
|---|--|--|---|---------------------------------------|--|
| | | Input | | | |
| nput Voltage | 90~265VAC | | | | |
| nput Frequency | 47~63Hz | | | | |
| Power Factor | >0.98 | >0.98 | >0.97 | >0.98 | |
| nput Power | 1500VA(MAX) | 1300VA(MAX) | 1200VA(MAX) | 1300VA(MAX) | |
| | | Output | | | |
| Output Voltage Range | 0~32V | 0~40V | 0~80V | 0~120V | |
| Output Current Range | 0~200A | 0~120A | 0~60A | 0~40A | |
| Output Power Range | 0~1000W | | | | |
| Voltage Load Regulation | 30mV | 15mV | 15mV | 15mV | |
| Current Load Regulation | 200mA | 120mA | 60mA | 40mA | |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV | |
| Current Display Resolution | 1mA | 1mA | 0.2mA | 0.1mA | |
| /oltage Programmable Resolution | 1mV | 1mV | 1.5mV | 3mV | |
| Current Programmable Resolution | | 3mA | 2mA | 1mA | |
| /oltage Setting Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | |
| Current Setting Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA | |
| /oltage Measurement Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | |
| Current Measurement Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA | |
| Voltage Ripple ^[2] | 60mVp-p 10mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 80mVp-p 15mVrms | |
| Current Ripple | 400mA (Full Range) 200mA (TYP Value) | 150mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 10mA (TYP Value) | 60mA (Full Range) 10mA (TYP Value) | |
| Line Regulation(Voltage) | 0.01%+8mV | 0.02%+8mV | 0.01%+8mV | 0.02%+8mV | |
| ine Regulation(Current) | 200mA | 30mA | 30mA | 40mA | |
| /oltage Temperature Coefficient [4] | 100ppm/°C | | | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | | | |
| OVM Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV | |
| OVM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | |
| Dperating Mode | Constant voltage (CV) / Constant c | urrent (CC) | | | |
| Remote Compensation | 4V MAX | 4V MAX | 4V MAX | 5V MAX | |
| Aaster-slave Control | Yes | | | | |
| Response (Voltage Increase) | ≤20ms (no load) ≤40ms (full load) | ≤10ms | ≤15ms | ≤20ms | |
| Response (Voltage Drop) | ≤500ms (no load) ≤45ms (full load) | ≤350ms (no load) ≤10ms (full load) | ≤450ms (no load) ≤30ms (full load) | ≤350ms (no load) ≤21ms (full load) | |
| Load Transient Recovery Time ^[5] | ≤2ms | | | | |
| Command Response Time | 50ms | | | | |
| Series Capability 16 | Up to 10 units | | | | |
| Parallel Capability | Up to 10 units | | | | |
| Current Sharing ¹⁷¹ | 12V | 12V | 20V | 30V | |
| Efficiency (full load) | 85% | 87% | 89% | 88% | |
| | | Other | · · · · · · · · · · · · · · · · · · · | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOLDB | ACK | | | |
| Anti Reverse Irrigation Protection | No(customers can purchase other accessorie to achieve this function, please consult the salesrepresentative for details) | s Yes | Yes | Yes | |
| nput Fuse | 20A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | |
| Jnit Weight/Shipping Weight | 14.7kg/18.7kg | 14.7kg/18.7kg | 13.2kg/16.8kg | 13.2kg/16.8kg | |
| Dimensions(WxHxD) | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm | |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2. RS | | | | |
| Operating Environment | | | n); Pollution degree 2, Installation cate | gory II, Indoor use. | |
| Cooling Mode | | | | | |
| | Forced air-cooling | | | | |
| Altitude | 2000m | | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. [3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load

is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.



1000W in 2U(2)

| Model | SPS150VDC1000W | SPS200VDC1000W | SPS600VDC1000W | SPS800VDC1000W | | |
|--|---------------------------------------|---------------------------------------|---|---------------------------------------|--|--|
| | | Input | | | | |
| nput Voltage | 90~265VAC | | | | | |
| nput Frequency | 47~63Hz | | | | | |
| Power Factor | >0.98 | | | | | |
| nput Power | 1300VA(MAX) | | | | | |
| | | Output | | | | |
| Output Voltage Range | 0~150V | 0~200V | 0~600V | 0~800V | | |
| Output Current Range | 0~30A | 0~24A | 0~10A | 0~7.5A | | |
| Output Power Range | 0~1000W | | | | | |
| /oltage Load Regulation | 15mV | 15mV | 30mV | 200mV | | |
| Current Load Regulation | 30mA | 24mA | 10mA | 20mA | | |
| /oltage Display Resolution | 1mV | | | | | |
| Current Display Resolution | 0.1mA | | | | | |
| /oltage Programmable Resolution | 3mV | 4mV | 12mV | 24mV | | |
| Current Programmable Resolution | 1mA | | | | | |
| /oltage Setting Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Current Setting Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | |
| /oltage Measurement Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Current Measurement Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | |
| /oltage Ripple ^[2] | 80mVp-p 15mVrms | 150mVp-p 30mVrms | 350mVp-p 40mVrms | 800mVp-p 200mVrms | | |
| Current Ripple ^[3] | 60mA (Full Range) 10mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | | |
| ine Regulation(Voltage) | 0.02%+8mV | 0.02%+8mV | 0.01%+30mV | 0.01%+40mV | | |
| ine Regulation(Current) | 30mA | 30mA | 15mA | 15mA | | |
| /oltage Temperature Coefficient [4] | 100ppm/°C | | | | | |
| Current Temperature Coefficient | 150ppm/°C | | | | | |
| VM Resolution | 1mV | 1mV | 12mV | 12mV | | |
| VM Precision ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Dperating Mode | Constant voltage (CV) / Const | | | | | |
| Remote Compensation | 5V MAX | | | | | |
| Aaster-slave Control | Yes | | | | | |
| Response (Voltage Increase) | ≤25ms | ≤30ms | ≤60ms | ≤60ms | | |
| Response (Voltage Drop) | ≤500ms (no load) ≤25ms (full load) | ≤500ms (no load) ≤35ms (full load) | ≤800ms (no load) ≤110ms (full load) | ≤800ms (no load) ≤60ms (full load) | | |
| oad Transient Recovery Time [5] | ≤2ms | ≤2ms | ≤3ms | ≤3ms | | |
| Command Response Time | 50ms | | | | | |
| Series Capability ^[6] | Up to 8 units | Up to 6 units | Up to 2 units | Not Recommended | | |
| Parallel Capability | Up to 10 units | | | | | |
| Current Sharing ^{17]} | 40V | 50V | 200V | 250V | | |
| Efficiency (full load) | 88% | 88% | 86% | 85% | | |
| , | | Other | | | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FC | | | | | |
| nti Reverse rigation Protection | Yes | | | | | |
| nput Fuse | 30A, 125VAC/250VAC, fast-acting type | | | | | |
| Jnit Weight/Shipping Weight | 13.2kg/16.8kg | 14.7kg/18.7kg | 13.2kg/16.8kg | 13.2kg/16.8kg | | |
| Dimensions(WxHxD) | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | | |
| Communication Modes | 1. RS232/RS485/USB/LAN: | 2. RS232/RS485/USB/LAN/GPIB | | | | |
| Operating Environment | | | ı); Pollution degree 2, Installation cate | gory II, Indoor use. | | |
| Cooling Mode | Forced air-cooling | ,, | ,, | | | |
| Altitude | 2000m | | | | | |
| | | | | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

2000W in 2U(1)

| Model | SP32VDC2000W | SP40VDC2000W | SP80VDC2000W | SP120VDC2000W |
|---|--|--|---|---------------------------------------|
| | | Input | | |
| nput Voltage | 190~265VAC | | | |
| nput Frequency | 47~63Hz | | | |
| Power Factor | >0.98 | | | |
| nput Power | 2600VA(MAX) | 2400VA(MAX) | 2400VA(MAX) | 2400VA(MAX) |
| | | Output | | |
| Output Voltage Range | 0~32V | 0~40V | 0~80V | 0~120V |
| Output Current Range | 0~200A | 0~120A | 0~60A | 0~40A |
| Output Power Range | 0~2000W | | | |
| Voltage Load Regulation | 30mV | 15mV | 15mV | 15mV |
| Current Load Regulation | 200mA | 120mA | 60mA | 40mA |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| Current Display Resolution | 1mA | 1mA | 0.2mA | 0.1mA |
| /oltage Programmable Resolution | 1mV | 1mV | 1.5mV | 3mV |
| Current Programmable Resolution | 6mA | 3mA | 2mA | 1mA |
| Voltage Setting Accuracy ^[1] | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| /oltage Measurement Accuracy | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| /oltage Ripple ^[2] | 60mVp-p 10mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 80mVp-p 15mVrms |
| Current Ripple ¹⁹ | 400mA (Full Range) 200mA (TYP Value) | 150mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 10mA (TYP Value) | 60mA (Full Range) 10mA (TYP Value) |
| ine Regulation(Voltage) | 0.01%+8mV | 0.01%+8mV | 0.01%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 200mA | 30mA | 30mA | 30mA |
| /oltage Temperature Coefficient [4] | 100ppm/°C | | | |
| Current Temperature Coefficient | 150ppm/°C | | | |
| VM Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| VM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| perating Mode | Constant voltage (CV) / Constant of | | | |
| temote Compensation | 4V MAX | 4V MAX | 4V MAX | 5V MAX |
| laster-slave Control | Yes | TT MAA | TT WAX | OT MIAA |
| esponse (Voltage Increase) | ≤20ms (no load) ≤30ms (full load) | ≤10ms | ≤15ms | ≤20ms |
| Response (Voltage Drop) | ≤500ms (no load) ≤30ms (full load) | ≤350ms (no load) ≤10ms (full load) | ≤450ms (no load) ≤30ms (full load) | ≤350ms (no load) ≤21ms (full load) |
| oad Transient Recovery Time [5] | ≤2ms | ≤2ms | ≤2ms | ≤3ms |
| Command Response Time | 50ms | | | |
| Series Capability ^[6] | Up to 10 units | Up to 10 units | Up to 10 units | Up to 8 units |
| arallel Capability | Up to 10 units | | | |
| Current Sharing ¹⁷¹ | 12V | 12V | 20V | 30V |
| Efficiency (full load) | 91% | 88% | 89% | 89% |
| | | Other | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOLDB | | | |
| Anti Reverse rrigation Protection | No(customers can purchase other accessorie to achieve this function, please consult the salesrepresentative for details) | | Yes | Yes |
| nput Fuse | 20A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type |
| Jnit Weight/Shipping Weight | 14.7kg/18.7kg | 14.7kg/18.7kg | 13.2kg/16.8kg | 13.2kg/16.8kg |
| Vimensions(WxHxD) | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2. R | | | |
| Operating Environment | | | n); Pollution degree 2, Installation cate | gory II, Indoor use. |
| Cooling Mode | Forced air-cooling | , | , | |
| Altitude | 2000m | | | |
| | | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[1] % output on set, which output is stage to the set of the se [3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load

is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.



2000W in 2U(2)

| Vlodel | SP150VDC2000W | SP200VDC2000W | SP600VDC2000W | SP800VDC2000W | | | |
|--|---------------------------------------|---------------------------------------|---|---------------------------------------|--|--|--|
| | | Input | | | | | |
| nput Voltage | 190~265VAC | | | | | | |
| nput Frequency | 47~63Hz | | | | | | |
| Power Factor | >0.98 | | | | | | |
| nput Power | 2400VA(MAX) | 00VA(MAX) | | | | | |
| | | Output | | | | | |
| Output Voltage Range | 0~150V | 0~200V | 0~600V | 0~800V | | | |
| Output Current Range | 0~30A | 0~24A | 0~10A | 0~7.5A | | | |
| Output Power Range | 0~2000W | | | | | | |
| /oltage Load Regulation | 15mV | 15mV | 30mV | 200mV | | | |
| Current Load Regulation | 30mA | 24mA | 10mA | 20mA | | | |
| oltage Display Resolution | 1mV | | | | | | |
| Current Display Resolution | 0.1mA | | | | | | |
| oltage Programmable Resolution | 3mV | 4mV | 12mV | 24mV | | | |
| current Programmable Resolution | | | | | | | |
| /oltage Setting Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | | |
| Current Setting Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | | |
| /oltage Measurement Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | | |
| Current Measurement Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | | |
| /oltage Ripple ^[2] | 40mVp-p 6mVrms | 150mVp-p 30mVrms | 350mVp-p 40mVrms | 800mVp-p 200mVrms | | | |
| Current Ripple | 60mA (Full Range) 10mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | | | |
| ine Regulation(Voltage) | 0.02%+8mV | 0.02%+8mV | 0.01%+30mV | 0.01%+40mV | | | |
| ine Regulation(Current) | 30mA | 30mA | 15mA | 20mA | | | |
| /oltage Temperature Coefficient [#] | 100ppm/°C | | | | | | |
| Current Temperature Coefficient [4] | 150ppm/°C | | | | | | |
| VM Resolution | 1mV | 1mV | 12mV | 12mV | | | |
| VM Precision ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | | |
| perating Mode | Constant voltage (CV) / Consta | | | | | | |
| emote Compensation | 5V MAX | | | | | | |
| Aaster-slave Control | Yes | | | | | | |
| esponse (Voltage Increase) | ≤25ms | ≤30ms | ≤60ms | ≤60ms | | | |
| Response (Voltage Drop) | ≤500ms (no load) ≤25ms (full load) | ≤500ms (no load) ≤20ms (full load) | ≤800ms (no load) ≤90ms (full load) | ≤800ms (no load) ≤60ms (full load) | | | |
| oad Transient Recovery Time [5] | ≤3ms | | | | | | |
| command Response Time | 50ms | | | | | | |
| Series Capability 16 | Up to 8 units | Up to 6 units | Up to 2 units | Not Recommended | | | |
| arallel Capability | Up to 10 units | | -p 11 - 1.110 | | | | |
| Current Sharing ¹⁷¹ | 40V | 50V | 200V | 250V | | | |
| Efficiency (full load) | 90% | 90% | 90% | 91% | | | |
| | | Other | 2070 | | | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOL | | | | | | |
| Anti Reverse rrigation Protection | Yes | | | | | | |
| nput Fuse | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 20A, 125VAC/250VAC, fast-acting type | 20A, 125VAC/250VAC, fast-acting type | | | |
| Init Weight/Shipping Weight | 13.2kg/16.8kg | 13.2kg/16.8kg | 14.7kg/18.7kg | 14.7kg/18.7kg | | | |
| Dimensions(WxHxD) | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | | | |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2 | . RS232/RS485/USB/LAN/GPIB | | | | | |
| Operating Environment | Temperature 0~40°C, Relative H | lumidity 10%~90%(no condensation | i); Pollution degree 2, Installation cate | gory II, Indoor use. | | | |
| Cooling Mode | Forced air-cooling | | | | | | |
| Altitude | 2000m | | | | | | |
| nsulation | AC input <->DC output 4242// | OC, AC input <-> PE, 2121VDC | | | | | |

[2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.



| /lodel | SP32VDC3000W | SP40VDC3000W | SP80VDC3000W | SP120VDC3000W |
|--|--|--|--|--|
| | | Input | | |
| nput Voltage | 190~265VAC | | | |
| nput Frequency | 47~63Hz | | | |
| Power Factor | >0.98 | | | |
| nput Power | 3700VA(MAX) | 3400VA(MAX) | 3400VA(MAX) | 3400VA(MAX) |
| | | Output | | |
| output Voltage Range | 0~32V | 0~40V | 0~80V | 0~120V |
| Output Current Range | 0~200A | 0~120A | 0~60A | 0~40A |
| Output Power Range | 0~3000W | | | |
| /oltage Load Regulation | 30mV | 15mV | 15mV | 15mV |
| Current Load Regulation | 200mA | 120mA | 60mA | 40mA |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| Current Display Resolution | 1mA | 1mA | 0.2mA | 0.1mA |
| oltage Programmable Resolution | 1mV | 1mV | 1.5mV | 3mV |
| Current Programmable Resolution | 6mA | 2mA | 2mA | 1mA |
| /oltage Setting Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| /oltage Measurement Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| /oltage Ripple ^[2] | 60mVp-p 10mVrms | 40mVp-p 6mVrms | 40mVp-p 6mVrms | 80mVp-p 15mVrms |
| Current Ripple 🔋 | 400mA (Full Range) 200mA (TYP Value) | 150mA (Full Range) 20mA (TYP Value) | 50mA (Full Range) 10mA (TYP Value) | 60mA (Full Range) 10mA (TYP Value) |
| ine Regulation(Voltage) | 0.01%+8mV | 0.01%+8mV | 0.01%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 200mA | 30mA | 30mA | 30mA |
| oltage Temperature Coefficient [4] | 100ppm/°C | | | |
| urrent Temperature Coefficient [4] | | | | |
| VM Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| VM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| perating Mode | Constant voltage (CV) / Constant cu | | | |
| emote Compensation | 4V MAX | 4V MAX | 4V MAX | 5V MAX |
| laster-slave Control | Yes | | | 000000 |
| esponse (Voltage Increase) | ≤20ms (no load) ≤20ms (full load) | ≤10ms | ≤15ms | ≤20ms |
| Response (Voltage Drop) | ≤500ms (no load) ≤25ms (full load) | ≤350ms (no load) ≤10ms (full load) | ≤450ms (no load) ≤30ms (full load) | ≤350ms (no load) ≤21ms (full load) |
| oad Transient Recovery Time | ≤2ms | | | |
| command Response Time | 50ms | | | |
| eries Capability 6 | Up to 10 units | | | |
| Parallel Capability | Up to 10 units | | | |
| Current Sharing ¹⁷¹ | 12V | 12V | 20V | 30V |
| fficiency (full load) | 91% | 88% | 91% | 91% |
| | | Other | | |
| rotection Function | OVP/OCP/OTP/OPP/SCP/FOLDBA | | | |
| Anti Reverse rrigation Protection | No(customers can purchase other accessorie to achieve this function, please consult the salesrepresentative for details) | | Yes | Yes |
| nput Fuse | 30A, 125VAC/250VAC, fast-acting type | 40A, 125VAC/250VAC, fast-acting type | 40A, 125VAC/250VAC, fast-acting type | 40A, 125VAC/250VAC fast-acting type |
| nit Weight/Shipping Weight | 14.7kg/18.7kg | 14.7kg/18.7kg | 13.2kg/16.8kg | 13.2kg/16.8kg |
| imensions(WxHxD) | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm |
| Communication Modes | 1. R\$232/R\$485/U\$B/LAN; 2. R\$232/R\$485/U\$B/LAN/GPIB | | | |
| perating Environment | | |); Pollution degree 2, Installation cate | aory II Indoor use |
| Cooling Mode | Forced air-cooling | any 1070 9070(110 Condensation | , i onation degree 2, instanation cate | gory 11, 110001 050. |
| Altitude | 2000m | | | |
| unude | 200011 | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

3000W in 211(1)

(1) output of the models, the voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. [3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load

is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

3000W in 2U(2)

| Model | SP150VDC3000W | SP200VDC3000W | SP600VDC3000W | SP800VDC3000W | | |
|--|--|---------------------------------------|---------------------------------------|---------------------------------------|--|--|
| | | Input | | | | |
| nput Voltage | 190~265VAC | | | | | |
| nput Frequency | 47~63Hz | | | | | |
| Power Factor | >0.98 | | | | | |
| nput Power | 3400VA(MAX) | | | | | |
| | | Output | | | | |
| Output Voltage Range | 0~150V | 0~200V | 0~600V | 0~800V | | |
| Output Current Range | 0~30A | 0~24A | 0~10A | 0~7.5A | | |
| Output Power Range | 0~3000W | | | | | |
| Voltage Load Regulation | 15mV | 15mV | 30mV | 200mV | | |
| Current Load Regulation | 30mA | 24mA | 10mA | 20mA | | |
| Voltage Display Resolution | 1mV | | · · · · · · | | | |
| Current Display Resolution | 0.1mA | | | | | |
| /oltage Programmable Resolution | 3mV | 4mV | 12mV | 24mV | | |
| Current Programmable Resolution | | | | | | |
| Voltage Setting Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Current Setting Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | |
| Voltage Measurement Accuracy ^{III} | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Current Measurement Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | | |
| | 80mVp-p | 150mVp-p | 350mVp-p | 800mVp-p | | |
| Voltage Ripple ^[2] | 15mVrms | 30mVrms | 40mVrms | 200mVrms | | |
| Current Ripple 🕫 | 60mA (Full Range) | 50mA (Full Range) | 25mA (Full Range) | 25mA (Full Range) | | |
| | 10mA (TYP Value) | 20mA (TYP Value) | 10mA (TYP Value) | 10mA (TYP Value) | | |
| ine Regulation(Voltage) | 0.02%+8mV | 0.02%+8mV | 0.01%+30mV | 0.01%+40mV | | |
| ine Regulation(Current) | 30mA | 30mA | 15mA | 20mA | | |
| Voltage Temperature Coefficient ^[4] | | | | | | |
| Current Temperature Coefficient ^[4] | 150ppm/°C | | | | | |
| OVM Resolution | 1mV | 1mV | 12mV | 12mV | | |
| DVM Precision ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | | |
| Operating Mode | Constant voltage (CV) / Consta | int current (CC) | | | | |
| Remote Compensation | 5V MAX | | | | | |
| Master-slave Control | Yes | | | | | |
| Response (Voltage Increase) | ≤25ms | ≤30ms | ≤60ms | ≤60ms | | |
| Response (Voltage Drop) | ≤500ms (no load) ≤25ms (full load) | ≤500ms (no load) ≤20ms (full load) | ≤800ms (no load) ≤75ms (full load) | ≤800ms (no load) ≤60ms (full load) | | |
| oad Transient Recovery Time | ≤2.5ms | ≤3ms | ≤3ms | ≤3ms | | |
| Command Response Time | 50ms | | | | | |
| Series Capability 161 | Up to 8 units | Up to 6 units | Up to 2 units | Not Recommended | | |
| Parallel Capability | Up to 10 units | | | | | |
| Current Sharing ¹⁷¹ | 40V | 50V | 200V | 250V | | |
| Efficiency (full load) | 92% | 91% | 91% | 91% | | |
| | | Other | | | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FO | DBACK | | | | |
| Anti Reverse | V. | | | | | |
| rrigation Protection | Yes | | | | | |
| nput Fuse | 40A, 125VAC/250VAC, fast-acting type | 40A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | 30A, 125VAC/250VAC, fast-acting type | | |
| Jnit Weight/Shipping Weight | 13.2kg/16.8kg | 13.2kg/16.8kg | 14.7kg/18.7kg | 14.7kg/18.7kg | | |
| Dimensions(WxHxD) | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | | |
| Communication Modes | 1. RS232/RS485/USB/LAN; 2. RS232/RS485/USB/LAN/GPIB | | | | | |
| Operating Environment | Temperature 0~40°C, Relative Humidity 10%~90% (no condensation); Pollution degree 2, Installation category II, Indoor use. | | | | | |
| | Forced air-cooling | | | | | |
| Cooling Mode | · | | | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

| Model | SP32VDC4000W | SP40VDC4000W | SP75VDC4000W | SP120VDC4000W |
|--|---|--|--|---------------------------------------|
| | | Input | | |
| nput Voltage | 190~265VAC | | | |
| nput Frequency | 47~63Hz | | | |
| Power Factor | >0.98 | | | |
| nput Power | 4800VA(MAX) | 4500VA(MAX) | 4500VA(MAX) | 4500VA(MAX) |
| | | Output | | |
| Output Voltage Range | 0~32V | 0~40V | 0~75V | 0~120V |
| Output Current Range | 0~200A | 0~120A | 0~60A | 0~40A |
| Output Power Range | 0~4000W | | | |
| /oltage Load Regulation | 30mV | 15mV | 15mV | 15mV |
| Current Load Regulation | 200mA | 120mA | 60mA | 40mA |
| /oltage Display Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| Current Display Resolution | 1mA | 1mA | 0.1mA | 0.1mA |
| /oltage Programmable Resolution | 1mV | 1mV | 2mV | 3mV |
| Current Programmable Resolution | | 3mA | 2mA | 1mA |
| Voltage Setting Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Setting Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| Voltage Measurement Accuracy ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV | 0.1%+15mV |
| Current Measurement Accuracy | 0.1%+200mA | 0.1%+120mA | 0.1%+60mA | 0.1%+40mA |
| Voltage Ripple ^[2] | 60mVp-p | 40mVp-p | 40mVp-p | 80mVp-p |
| | 10mVrms | 6mVrms | 8mVrms | 15mVrms |
| Current Ripple | 400mA (Full Range) 200mA (TYP Value) | 150mA (Full Range) 20mA (TYP Value) | 60mA (Full Range) 10mA (TYP Value) | 60mA (Full Range) 10mA (TYP Value) |
| Line Regulation(Voltage) | 0.01%+8mV | 0.01%+8mV | 0.01%+8mV | 0.02%+8mV |
| ine Regulation(Current) | 200mA | 30mA | 30mA | 30mA |
| /oltage Temperature Coefficient 🏾 | 100ppm/°C | | | |
| Current Temperature Coefficient | 150ppm/°C | | | |
| OVM Resolution | 0.1mV | 0.1mV | 0.1mV | 1mV |
| VM Precision ¹¹ | 0.05%+15mV | 0.05%+15mV | 0.05%+15mV | 0.1%+15mV |
| perating Mode | Constant voltage (CV) / Constant cu | urrent (CC) | | |
| Remote Compensation | 4V MAX | 4V MAX | 5V MAX | 5V MAX |
| Aaster-slave Control | Yes | | | |
| Response (Voltage Increase) | ≤20ms (no load) ≤20ms (full load) | ≤10ms | ≤15ms | ≤20ms |
| Response (Voltage Drop) | ≤500ms (no load) ≤20ms (full load) | ≤350ms (no load) ≤10ms (full load) | ≤450ms (no load) ≤20ms (full load) | ≤350ms (no load) ≤21ms (full load) |
| _oad Transient Recovery Time | ≤2ms | | | |
| Command Response Time | 50ms | | | |
| Series Capability ^{16]} | Up to 10 units | | | |
| Parallel Capability | Up to 10 units | | | |
| Current Sharing ¹⁷¹ | 12V | 12V | 20V | 30V |
| Efficiency (full load) | 91% | 91% | 91% | 92% |
| | | Other | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FOLDBA | ACK | | |
| Anti Reverse rrigation Protection | No(customers can purchase other accessorie: to achieve this function, please consult the salesrepresentative for details) | | Yes | Yes |
| nput Fuse | 40A, 125VAC/250VAC, fast-acting type | | | |
| Jnit Weight/Shipping Weight | 14.7kg/18.7kg | 14.7kg/18.7kg | 13.2kg/16.8kg | 13.2kg/16.8kg |
| Dimensions(WxHxD) | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm |
| Communication Modes | 1. R\$232/R\$485/USB/LAN; 2. R\$232/R\$485/USB/LAN/GPIB | | | |
| Operating Environment | | |): Pollution degree 2. Installation cate | aory II. Indoor use |
| Cooling Mode | Temperature 0~40°C, Relative Humidity 10%~90%(no condensation); Pollution degree 2, Installation category II, Indoor use. Forced air-cooling | | | |
| Altitude | 2000m | | | |
| | 200011 | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

4000W in 211(1)

(1) output of set, when output output

is less than the Full Range value.

[4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

4000W in 2U(2)

| Model | SP150VDC4000W | SP200VDC4000W | SP600VDC4000W | SP800VDC4000W | |
|--|--|---------------------------------------|---------------------------------------|---------------------------------------|--|
| | | Input | | | |
| nput Voltage | 190~265VAC | | | | |
| nput Frequency | 47~63Hz | | | | |
| Power Factor | >0.98 | | | | |
| nput Power | 4500VA(MAX) | | | | |
| | | Output | | | |
| Output Voltage Range | 0~150V | 0~200V | 0~600V | 0~800V | |
| Output Current Range | 0~30A | 0~24A | 0~10A | 0~7.5A | |
| Output Power Range | 0~4000W | | | | |
| /oltage Load Regulation | 15mV | 25mV | 30mV | 200mV | |
| Current Load Regulation | 30mA | 24mA | 10mA | 20mA | |
| /oltage Display Resolution | 1mV | | | | |
| Current Display Resolution | 0.1mA | | | | |
| /oltage Programmable Resolution | 3mV | 4mV | 12mV | 24mV | |
| Current Programmable Resolution | 1mA | | | | |
| /oltage Setting Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | |
| Current Setting Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | |
| /oltage Measurement Accuracy ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | |
| Current Measurement Accuracy | 0.1%+30mA | 0.1%+24mA | 0.1%+10mA | 0.1%+7.5mA | |
| /oltage Ripple ² | 80mVp-p 15mVrms | 150mVp-p 30mVrms | 350mVp-p 40mVrms | 800mVp-p 200mVrms | |
| Current Ripple | 60mA (Full Range) 10mA (TYP Value) | 50mA (Full Range) 20mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | 25mA (Full Range) 10mA (TYP Value) | |
| ine Regulation(Voltage) | 0.02%+8mV | 0.02%+8mV | 0.01%+30mV | 0.01%+40mV | |
| ine Regulation(Current) | 30mA | 30mA | 15mA | 20mA | |
| /oltage Temperature Coefficient ^[4] | 100ppm/°C | | | | |
| Current Temperature Coefficient | 150ppm/°C | | | | |
| VM Resolution | 1mV | 1mV | 12mV | 12mV | |
| VM Precision ¹¹ | 0.1%+15mV | 0.1%+15mV | 0.05%+150mV | 0.05%+200mV | |
| perating Mode | Constant voltage (CV) / Const | ant current (CC) | | | |
| Remote Compensation | 5V MAX | | | | |
| Aaster-slave Control | Yes | | | | |
| esponse (Voltage Increase) | ≤25ms | ≤30ms | ≤60ms | ≤60ms | |
| Response (Voltage Drop) | ≤500ms (no load) ≤25ms (full load) | ≤500ms (no load) ≤20ms (full load) | ≤800ms (no load) ≤60ms (full load) | ≤800ms (no load) ≤60ms (full load) | |
| oad Transient Recovery Time ^[5] | ≤2.5ms | ≤3ms | ≤3ms | ≤3ms | |
| Command Response Time | 50ms | | | | |
| Series Capability 16] | Up to 8 units | Up to 6 units | Up to 2 units | Not Recommended | |
| Parallel Capability | Up to 10 units | | | | |
| Current Sharing ¹⁷¹ | 40V | 50V | 200V | 250V | |
| Efficiency (full load) | 93% | 92% | 92% | 92% | |
| | | Other | · | | |
| Protection Function | OVP/OCP/OTP/OPP/SCP/FC | DLDBACK | | | |
| Anti Reverse rrigation Protection | Yes | | | | |
| nput Fuse | 40A, 125VAC/250VAC, fast-acting type | | | | |
| Jnit Weight/Shipping Weight | 13.2kg/16.8kg | 13.2kg/16.8kg | 14.7kg/18.7kg | 14.7kg/18.7kg | |
| Dimensions(WxHxD) | 423.0x87.0x469.0 mm | 423.0x87.0x469.0 mm | 423.0x87.0x514.0 mm | 423.0x87.0x514.0 mm | |
| Communication Modes | 1. R\$232/R\$485/U\$B/LAN; 2. R\$232/R\$485/U\$B/LAN/GPIB | | | | |
| Operating Environment | Temperature 0~40°C, Relative Humidity 10%~90% (no condensation); Pollution degree 2, Installation category II, Indoor use. | | | | |
| Cooling Mode | Forced air-cooling | | | | |
| Altitude | 2000m | | | | |
| | | | | | |

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above. The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.

[4] 0~40°C.

1

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output.

 [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.
[7] Current Share error le<(lav*2.5% + 5% FS) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units. Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

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