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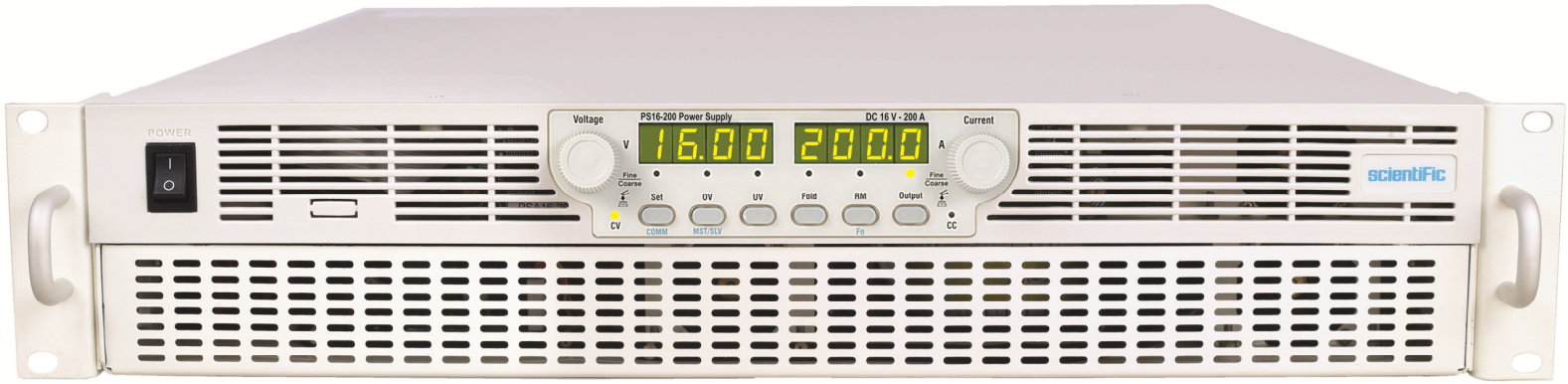
3200W Programmable DC Power Supply

MADE IN INDIA



Technical Specifications

Parameter		PS16-200	PS20-160	PS32-100	PS40-80	PS60-52	PS80-40	PS100-32	PS120-26	PS160-20	PS300-10	PS400-8	PS600-5	PS800-4	PS1000-3
Output Voltage (V) (*1)		16	20	32	40	60	80	100	120	160	300	400	600	800	1000
Output Current (A) (*2)		200	160	100	80	53.3	40	32	26	20	10.6	8	5.3	4	3.2
Rated Power (W)		3200													
Efficiency at 230V, full load (%)		80	80	83	83	83	85	85	85	85	85	85	87	87	87
Constant Voltage Mode															
Load regulation 0 ~ 100% (mV) (*3)		6	7	8	9	11	13	15	17	21	35	45	65	85	105
Line Regulation (mV) (*4)		2	2	3	4	6	8	10	12	16	30	40	60	80	100
Ripple	BW= 5Hz~1MHz (mVrms) (*5)	8	10	10	12	15	15	15	18	20	60	75	100	150	250
	20 MHz (mpp) (*5)	75	75	75	75	80	80	100	100	100	200	300	480	550	750
Remote sense drop (V) (*6)		2	2	5	5	5	5	5	5	5	5	5	5	5	5

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Constant Current Mode															
Load regulation 0 ~ 100% (mA) (*7)		160	128	80	64	42	32	25	20	16	8	6.4	4	3	2
Line Regulation (mA) (*4)		100	80	50	40	26	20	16	13	10	5	4	2.5	2	1.6
Ripple (At full load)	BW= 5Hz~1MHz (mArms)	600	450	300	300	200	70	45	40	30	12	10	5	5	5
Programming Speed (into resistive load) (*8)															
Rise time (10% to 90%)	100% load (ms)	30	30	30	30	50	50	50	50	50	50	70	100	125	150
Fall time (90% to 10%)	100% load (ms)	50	50	80	80	80	100	100	100	100	100	150	200	250	300
	No Load (ms)	450	600	800	900	1100	1300	2100	2200	2500	3000	3100	3100	3500	4000
Temperature Coefficients	CV	100 ppm/℃ (after warm up of 30 min and during 8 Hrs) at constant line and load													
	CC														
Output Stability	CV	100 ppm (after warm up of 30 min and during 8 Hrs) at constant line, load and temperature													
	CC														
Analog Programing (Standard)															
Programing	Voltage	0 ~ 5 V, Accuracy: ± 0.5 % of Vrated, Input Impedance: 1 MΩ													
	Current	0 ~ 5 V, Accuracy: ± 1 % of Irated, Input Impedance: 1 MΩ													
Monitoring	Voltage	0 ~ 5 V, Accuracy: ±1 % of Vrated, Output Impedance: <150 Ω / 4 mA max													
	Current	0 ~ 5 V, Accuracy: ±1 % of Irated, Output Impedance: <150 Ω / 4 mA max													
Isolated Analog Programing (Optional)															
Programing	Voltage	0 ~ 10 V, Accuracy: ± 1 % of Vout rated, Input impedance: 1 MΩ													
	Current	0 ~ 10 V, Accuracy: ± 1 % of Iout rated, Input impedance: 1 MΩ													
Monitoring	Voltage	0 ~ 10 V, Accuracy: ±1 % of Vout rated, Output impedance: 150 Ω / 4 mA max													
	Current	0 ~ 10 V, Accuracy: ±1 % of Iout rated, Output impedance: 150 Ω / 4 mA max													
V reference		5.1 V ± 15 mV													
Status outputs		Power Supply : OK = Logic 1 (High), AC Fail = Logic 0 (Low), DC Fail : Logic 0 (low) for DC fail by ± 5% of set value, CV / CC Status : CV = Logic 0 / CC = Logic 1 Interlock : Short = Power Supply Enabled, Open = Power Supply Disabled DC ON Status : ON = Logic 1, OFF= Logic 0, OVP Status : Fault = Logic 0, OK = Logic 1, OTP Status : Fault = Logic 0, OK = Logic 1,													

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		Remote Status : Remote = Logic 1, Local = Logic 0													
Remote shutdown		+5 V													
Remote Programing															
RS232 / USB / RS485		ADC : 16 Bits, DAC : 16 Bits													
Voltage Programing		Resolution : Better than 15 bit, Accuracy : ≤ ±0.05% Vrated													
Current Programing		Resolution : Better than 15 bit, Accuracy : ≤ ±0.2% Irated													
Monitor Voltage		Resolution : Better than 15 bit, Accuracy : ≤ ±0.5% Vrated													
Monitor Current		Resolution : Better than 15 bit, Accuracy : ≤ ±0.5% Irated													
OVL & UVL Programing		Resolution : Better than 15 bit, Accuracy : ≤ ± 0.05% Vrated													
Front Panel controls:		Mains ON/ OFF, Voltage and Current setting with Encoders, Switch Settings: Set, Over Voltage, Under Voltage, Foldback, Remote & Output													
Indicators:		LEDs for : CV, CC, Over Voltage, Under Voltage, Foldback, Remote & Output ON													
Display:															
Accuracy		Voltage : ± (0.5% + 2D), Current : ± (0.5% + 2D)													
Scale	Voltage (V)	0-16.00	0-20.00	0-32.00	0-40.00	0-60.00	0-80.00	0-100.0	0-120.0	0-160.0	0-300.0	0-400.0	0-600.0	0-800.0	0-1000
	Current (A)	0-200.0	0-160.0	0-100.0	0-80.00	0-53.33	0-40.00	0-32.00	0-26.66	0-20.00	0-10.66	0-8.00	0-5.33	0-4.00	0-3.20
Resolution	Voltage	10mV	10mV	10mV	10mV	10mV	10mV	100mV	100mV	100mV	100mV	100mV	100mV	100mV	1V
	Current	100mA	100mA	100mA	10mA	10mA	10mA	10mA	10mA	10mA	10mA	10mA	10mA	10mA	10mA
Protections:		Over voltage, Over current, Short Circuit, Fold Back, Over temperature													
Output Terminals		Bus bar with M5 bolts													
Mains Input		220 ± 10%, 50 / 60Hz (47 ~ 63Hz)													
Power Factor		0.99 @ full load / 0.98 @ 50% load													
Turn On Delay		600 ms after mains switched ON													
Inrush current		< 50 A													
Hold up Time		20 ms													
Environment Conditions															
Operating Temperature		0 ~ +50℃; with 100% load; derated 75% at 60℃													
Storage		-40 ~ + 85℃													
Humidity		max. 95% non condensing at 40℃, max. 75% non condensing at 50℃													
Insulation		Insulation: Input to Output: 3750 V for 1 min, Input to case: 2500 Vrms, Output to case: 600 V Insulation resistance: 100 MΩ at 25℃, 70% RH, 500 Vdc													

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Safety Standard		EN 60950-1 / IEC61010													
EMC Standards		ESD :EN 61000-4-2: 2009, Fast Transients :EN 61000-4-4: 2012 Conducted & Radiated Emission :EN 61000-6-3/CISPR 11 Conducted Immunity : EN 61000-4-6, Radiated Immunity : EN 61000-4-3 Voltage dips & Interruption : EN 61000-4-11 Harmonics : EN 61000-3-2, Flicker : EN 61000-3-3													
General Specifications															
Dimensions		W x D x H : 443 x 485 x 87 mm (2U, 19" Rack size) excluding connectors, terminals, switches, front and back panel controls, handles etc													
Weight		18.5kg (approx.)													
Cooling		Forced, variable fan speed													
Interfaces	Standard	Analog Programing, USB / RS232 / RS485													
	Optional	LAN													
Standard Accessories		Mains Cable, USB Cable, RS485 Cable													

Subject to change without notice

Notes:
Unit warm up time is 30 min.

*1. Minimum output voltage guaranteed to maximum 0.2% of rated output voltage.
*2: Minimum output current guaranteed to maximum 0.4% of rated output current.
*3: Measured from 0 ~ 100% load at constant input voltage, at the sensing point in local sense.
*4: Measured at 220V±10%, at constant load.
*5: Measured in DSO with JEITA RC-9131C (1:1) probe
*6: The maximum voltage on the power supply terminals must not exceed the rated voltage.
*7. Measured from 0 ~ 100% load voltage change of units rated voltage at constant input voltage.
*8: Measured at rated output voltage

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