

SPECIFICATIONS

Programmable DC Power Supply

MODEL: OPS-503



Parameter			Specifications	
Output rating(@0℃ ~ 40℃)	Voltage		0 to 50	
Cutput lating(@0 C ~ 40 C)	Current		0 to 3	
Output WATT		150W		
ogramming Accuracy Voltage		0.05% + 12mV		
(@25℃ ±5℃)±(%of output + offset)	(%of output + offset) Current		0.15% + 5mA	
Readback Accuracy	Voltage		0.05% + 6mV	
$25^{\circ} \pm 5^{\circ} \pm (\% \text{ of output + offset})$ Current		0.08% + 3mA		
Ripple and Naise (20Hz to 20MHz)	Voltage		≤ 3mVp-p	
Ripple and Noise(20Hz to 20MHz)	Current		≤ 2mArms	
Load Regulation (with V-Sensing)	Voltage		≤ 2mV	
Load Regulation (with V-Sensing)	Current		≤ 500 <i>µ</i> A	
Line Regulation (with V-Sensing)	Voltage		≤ 500 µV	
Line negulation (with v-sensing)	Current		≤ 500,µA	
D. Lui	Programm	ing/Readback	≤ 500 µV / ≤ 30 µA	
Resolution	Display Me	eter	1mV / 100 <i>µ</i> A	
emperature Coefficient ±(%of output + offset) Voltage		0.01% + 3mV		
After a 30-minute warm-up	Current		0.02% + 3mA	
Stability ±(%of output + offset)	Voltage		0.02% + 1mV	
After a 1 hour warm-up	Current		0.1% + 1mA	
	1		Less than 50//s for output to recover to within 15mV following a change in output current	
Transient Response Time			from full load to half load or vice versa	
		Rising time	≤ 7.5V/ms	
	No load	Falling time	≤ 3V/ms	
Voltage Programming Speed		Rising time	≤ 3.25V/ms	
	Half load	_	≤ 6V/ms	
	Valtaga Dr	Falling time		
Remote Sensing Capability	Voltage Drop		Up to 1V per each lead	
	Load Regulation		Add 5 mV to spec for each 1-volt change in the + output lead due to load current changes Subtract voltage drop in load leads from specified output voltage rating.	
	Load Voltage OVP			from specified output voltage ratiling.
0//0 1 000 4 1/0/			5% + 0.5V	
OVP and OCP Accuracy \pm (%of output + offset)		T '	5% + 0.5A	
	Activation		< 80ms when maximum output ratin	
Output Voltage Overshoot & Undershoot		tch ON/OFF	No overshoot, undershoot ≤ -0.8	V
Voltage Output Setting			No overshoot, No undershoot	
Remote Interface			GPIB(IEEE-488.2) Option , RS232C	
Programming Language			SCPI(Standard Commands for Progr	
Command Processing Time(average)	Apply		Setting	20ms
			Query	32ms
	Output Set	ttina	Voltage & Current Setting	15ms
			Voltage & Current Query	32ms
	Measurem		Voltage & Current Query	32ms
	Measurem The Other		Voltage & Current Query Setting & Query	32ms < 35ms
State Storage Memory			Voltage & Current Query	32ms < 35ms
State Storage Memory	The Other		Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre	32ms < 35ms
State Storage Memory	The Other	ent ge,Current,	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre Maximum 100 steps	32ms < 35ms
State Storage Memory Cycling Mode	The Other Step(Volta	ge,Current,	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre	32ms < 35ms
	The Other Step(Volta	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre Maximum 100 steps	32ms < 35ms
	Step(Volta Slope & D Slope time	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre Maximum 100 steps 0sec ~ 86,400sec (24 hours)	32ms < 35ms
Cycling Mode	Step(Volta Slope & D Slope time Delay time	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre Maximum 100 steps 0sec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times 0°C ~ 40°C for full rated output. At h	32ms < 35ms ent,OVP & OCP level)stored states nigher temperatures the output current is derated
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Cycling Mode Operation Temperature Cooling	Step(Volta Slope & D Slope time Delay time Repeat	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps 0sec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times 0°C ~ 40°C for full rated output. At holinearly to 50% at 55°C maximum tellsolation DC FAN ±60 Vdc when connecting shorting	32ms < 35ms ent,OVP & OCP level)stored states higher temperatures the output current is derated mperature conductors without insulation to the (+)output to the
Cycling Mode Operation Temperature Cooling Output Terminal Isolated (maximum, from cha	The Other Step(Volta Slope & D Slope time Delay time Repeat	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps 0sec ~ 86,400sec (24 hours) 100ms ~ 86,400sec (24 hours) Maximum 15million times 0°C ~ 40°C for full rated output. At hinearly to 50% at 55°C maximum telesolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the	32ms < 35ms ent,OVP & OCP level)stored states higher temperatures the output current is derated mperature conductors without insulation to the (+)output to the
Cycling Mode Operation Temperature Cooling	The Other Step(Volta Slope & D Slope time Delay time Repeat	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps 0sec ~ 86,400sec (24 hours) 100ms ~ 86,400sec (24 hours) Maximum 15milion times 0°C ~ 40°C for full rated output. At the linearly to 50% at 55°C maximum tended to the linear linea	32ms < 35ms ent,OVP & OCP level)stored states higher temperatures the output current is derated mperature conductors without insulation to the (+)output to the
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Cycling Mode Operation Temperature Cooling Output Terminal Isolated (maximum, from cha	Step(Volta Slope & Dollay time Repeat Standard Option Precision Excepted Step (Volta Slope time Delay time Repeat Standard Option Precision Recomment Excepted Standard Standard Standard Option Recomment Excepted Standard Standard Standard Option Recomment Standard Standard Standard Standard Option Recomment Standard	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps Osec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times O°C ~ 40°C for full rated output. At half linearly to 50% at 55°C maximum telesolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 10% 50~60Hz 110V ± 10% 50~60Hz 115V ± 10% 50~60Hz 230V ± 10% 50~60Hz 6 month 1 year 213mm(W) * 133mm(H) * 394mm(D	32ms < 35ms ent,OVP & OCP level)stored states nigher temperatures the output current is derated mperature conductors without insulation to the (+)output to the (-)sense terminals
Cycling Mode Operation Temperature Cooling Output Terminal Isolated (maximum, from characteristic) AC Input Ratings Calibration Interval Dimensions (19-inch 3U Standard)	Step(Volta Slope & Dollay time Repeat Standard Option Recomme	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps Osec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times O°C ~ 40°C for full rated output. At hinearly to 50% at 55°C maximum telesolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 10% 50~60Hz 115V ± 10% 50~60Hz 115V ± 10% 50~60Hz 230V ± 10% 50~60Hz 6 month 1 year 213mm(W) * 133mm(H) * 394mm(D) 226mm(W) * 147mm(H) * 394mm(D)	32ms < 35ms ent,OVP & OCP level)stored states nigher temperatures the output current is derated mperature conductors without insulation to the (+)output to the (-)sense terminals
Cycling Mode Operation Temperature Cooling Output Terminal Isolated (maximum, from cha	Step(Volta Slope & Dollay time Repeat Standard Option Precision Excepted Step (Volta Slope time Delay time Repeat Standard Option Precision Recomment Excepted Standard Standard Standard Option Recomment Excepted Standard Standard Standard Option Recomment Standard Standard Standard Standard Option Recomment Standard	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curred) Maximum 100 steps Osec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times O°C ~ 40°C for full rated output. At half linearly to 50% at 55°C maximum telesolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 10% 50~60Hz 110V ± 10% 50~60Hz 115V ± 10% 50~60Hz 230V ± 10% 50~60Hz 6 month 1 year 213mm(W) * 133mm(H) * 394mm(D	32ms < 35ms ent,OVP & OCP level)stored states nigher temperatures the output current is derated mperature conductors without insulation to the (+)output to the (-)sense terminals