

SPECIFICATIONS

Programmable DC Power Supply

MODEL: OPS-1815



Parameter			Specifications	
Output rating(@0℃ ~ 40℃)	Voltage		0 to 18	
	Current		0 to 15	
Output WATT			270W	
Programming Accuracy			0.05% + 5mV	
(@25℃ ±5℃)±(%of output + offset)	Current		0.2% + 10mA	
Readback Accuracy	Voltage		0.05% + 2.5mV	
25°C ±5°C)±(%of output + offset) Current			0.15% + 5mA	
Ripple and Noise(20Hz to 20MHz)	Voltage		≤ 3mVp-p	
	Current		≤ 2mArms	
Load Regulation (with V-Sensing)	Voltage		≤ 2mV	
	Current		≤ 500,µA	
Line Regulation (with V-Sensing)	Voltage		≤ 500 ½V	
Line riegulation (with violensing)	Current		≤ 1mA	
Resolution	Programm	ing/Readback	≤ 150µN / ≤ 130µA	
nesolution	Display Me	eter	1mV / 1mA	
Temperature Coefficient ±(%of output + offse	rature 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	
			Less than 50\(\mu\)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	
	Τ.	Rising time	≤ 7.5V/ms	
Voltage Programming Speed	No load	Falling time	≤ 3V/ms	
		Rising time	≤ 3.25V/ms	
	Half load	Falling time	≤ 6V/ms	
	Voltage Dr		Up to 1V per each lead	
Remote Sensing Capability	Voltage Drop 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 ratiing.	
	Load Voltage OVP			from specified output voltage rating.
1000			5% + 0.2V	
OVP and OCP Accuracy \pm (%of output + offse			5% + 1.5A	
	Activation Time		< 80ms when maximum output rating	
Output Voltage Overshoot & Undershoot	Power Switch ON/OFF		No overshoot, undershoot : ≤ -0.8	/
Voltage Output Setting		No overshoot, No undershoot		
Remote Interface			GPIB(IEEE-488.2) Option , RS232C Standard	
Programming Language			SCPI(Standard Commands for Progr	
	Apply		Setting	20ms
			Query	32ms
Command Processing Time(average)	Output Set	tina	Voltage & Current Setting	15ms
Command Frocessing Time(average)	Guipui Goi	g	Voltage & Current Query	
			voltage & Current Query	32ms
	Measurem	ent	Voltage & Current Query	32ms 32ms
	Measurem The Other	ent		
State Storage Memory		ent	Voltage & Current Query	32ms < 35ms
State Storage Memory	The Other Step(Voltage	ge,Current,	Voltage & Current Query Setting & Query	32ms < 35ms
	The Other Step(Voltage Slope & December 2)	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre Maximum 100 steps	32ms < 35ms
State Storage Memory Cycling Mode	Step(Voltar Slope & De 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
	The Other Step(Voltar Slope & De 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)	32ms < 35ms
	Step(Voltar Slope & De 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
	The Other Step(Voltar Slope & De 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
Cycling Mode Operation Temperature	The Other Step(Voltar Slope & De 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 hinearly to 50% at 55°C maximum ter	32ms < 35ms ent,OVP & OCP level)stored states nigher temperatures the output current is derated
Cycling Mode	The Other Step(Voltar Slope & De 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 linearly to 50% at 55°C maximum ter Isolation DC FAN	32ms < 35ms ent,OVP & OCP level)stored states sigher temperatures the output current is derated mperature
Cycling Mode Operation Temperature	The Other Step(Volta: Slope & Do Slope time Delay time Repeat	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 linearly to 50% at 55°C maximum ter Isolation DC FAN	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 & Do Slope time Delay time Repeat	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 hinearly to 50% at 55°C maximum ter Isolation 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 & Do Slope time Delay time Repeat	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° ~ 40° for full rated output. At h linearly to 50% at 55° maximum ter Isolation 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 & Do Slope time Delay time Repeat	ge,Current, elay time)	Voltage & Current Query Setting & Query Ten user-configurable(voltage,curre) Maximum 100 steps Osec ~ 86,400sec (24 hours) 100ms ~ 86,400sec(24 hours) Maximum 15milion times O° ~ 40°C for full rated output. At himself to 50% at 55°C maximum tended to 15	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 & De Slope time Delay time Repeat ssis ground) Standard	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 linearly to 50% at 55°C maximum ter Isolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 10% 50~60Hz 110V ± 10% 50~60Hz	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 & De Slope time Delay time Repeat ssis ground) Standard	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° ~ 40° for full rated output. At h linearly to 50% at 55° c maximum tenders to 50% at 55° c maximum tenders and the (-)output and the 220V ± 10% 50~60Hz 110V ± 10% 50~60Hz 115V ± 10% 50~60Hz	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 AC Input Ratings Calibration Interval	Step(Voltaristop) Slope & Delay time Repeat Standard Option Precision Recommet	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° ~ 40°C for full rated output. At h linearly to 50% at 55°C maximum ter Isolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 10% 50~60Hz 115V ± 10% 50~60Hz 230V ± 10% 50~60Hz 6 month	32ms < 35ms ent,OVP & OCP level)stored states higher 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(Voltaristop) Slope & Delay time Repeat Standard Option Precision Recommet	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° ~ 40°C for full rated output. At h linearly to 50% at 55°C maximum ter Isolation DC FAN ±60 Vdc when connecting shorting (+)sense and the (-)output and the 220V ± 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 higher 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 AC Input Ratings Calibration Interval Dimensions (19-inch 3U Standard)	Step(Voltaristics) Slope & De Slope time Delay time Repeat Ssis ground) Standard Option Precision Recommert Excepted to	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° ~ 40°C for full rated output. At h linearly to 50% at 55°C maximum ter Isolation 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	32ms < 35ms ent,OVP & OCP level)stored states higher 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 AC Input Ratings Calibration Interval	Step(Voltaristics) Slope & De Slope time Delay time Repeat Ssis ground) Standard Option Precision Recommert Excepted to	ge,Current, elay time) nded the bumper	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° ~ 40°C for full rated output. At hinearly to 50% at 55°C maximum tellisolation 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