

## **SPECIFICATIONS**

Programmable DC Power Supply

MODEL: OPS-30010



Load Voltage	Parameter			Specifications		
Output WATT	Voltag			·		
Programming Accuracy   Wintings   Codes   Service   Course   Codes	Output rating(@0 C ~ 40 C)	Current		0 to 10		
	Output WATT			3 KW		
Pacificate Accuracy   Vallage   O.05% s 50mV			0.05% + 95mV			
	(@25℃ ±5℃)±(%of output + offset)	Current		0.2% + 10mA		
Voltage   Vol	Readback Accuracy	_		0.05% + 50mV		
	(@25℃ ±5℃)±(%of output + offset)			0.15% + 5mA		
Current   Continue	Voltage		≤ 0.01%mVrms			
Cool Regulation (with V-Sensing)	Ripple and Noise(20Hz to 20MHz)					
Current				≤ 4mV		
Current	Load Regulation (with V-Sensing)					
	Line Regulation (with V-Sensing)	Voltage				
Nesolation						
Nesolation		Programming/Readback		≤ 3mV / ≤ 100 <i>µ</i> A		
Temperature Certificent ± (Set output + offset)   Verlage   Verl	Resolution					
After a 1 hour warm-up	Temperature Coefficient +(%of output + offset)					
Stability 4*(%of output + offset)   Output						
After a 1 hour warn—up	-					
Transiert Response Time	, , , , , , , , , , , , , , , , , , , ,					
Frankent response time   From full load to half load or vice versa   From full load to half load or vice versa   From full load to half load or vice versa   Frankent Programming Speed   Falling time   \$7.5 V/tsp   Falling time   \$3.25 V/tsp   \$3.25	Culletti					
No load   Falling time   \$ 3.9/ms   \$ 3.9	Transient Response Time			from full load to half load or vice versa		
Falling time   \$3    Falling time   \$3 \text{   Falling time   \$3 \text{   Falling time   \$3 \text{   Falling time   \$3 \text{   Falling time   \$4	Voltage Programming Speed	No load	Rising time	≤ 7.5V/ms		
Half load		110 1040	Falling time	≤ 3V/ms		
Falling time   Sc W/les   Sc W		Half load	Rising time	≤ 3.25V/ms		
Remote Sensing Capability				≤ 6V/ms		
Load Voltage	Remote Sensing Capability	Voltage Drop		Up to 1V per each lead		
OVP And OCP Accuracy ± (%of output + offset)         OVP OP S% + 3V OOP S% + 1A A Activation Time		Load Regulation		Add 5 mV to spec for each 1-volt change in the + output lead due to load current changes		
OVP and OCP Accuracy ±(%of output + offset)         OCP Activation Time		Load Voltage		Subtract voltage drop in load leads from specified output voltage ratiing.		
Activation Time		OVP		5% + 3V		
Output Voltage Overshoot & Undershoot    Power Switch ON/OFF Voltage Output Setting Voltage Output Setting No overshoot, No undershoot ≤ < −0.8V Voltage Output Setting No overshoot, No undershoot   Programming Language		OCP		5% + 1A		
Output Voltage Overshoot & Undershoot         Voltage Output Settling         No overshoot, No undershoot           Remote Interface         GPIB(IEEE-488.2) Option , R5232C Standard           Programming Language         SCPI(ISCEE-488.2) Option , R5232C Standard           Command Processing Time(average)         Apply         Settling 20ms 32ms 32ms 32ms 32ms 32ms 32ms 32ms 32		Activation Time		< 80ms when maximum output rating		
Molage Output Setting   No overshoot, No undershoot   Semble Horizande		Power Switch ON/OFF		No overshoot, undershoot : ≤ -0.8V		
Remote Interface         GPIB(IEEE-488.2) Option , RS232C Standard           Programming Language         SCPI(Standard Commands for Programmable Instruments)           Command Processing Time(average)         Apply         Setting Query         32ms           Command Processing Time(average)         Output Setting Voltage & Current Setting 15ms         15ms           Command Processing Time(average)         Voltage & Current Query 32ms         32ms           Measurement 7 Voltage & Current Query 32ms         32ms           The Other 8 Setting & Query 32ms         32ms           State Storage Memory 7 The Other 8 Setting & Query 32ms         32ms           State Storage Memory 8 Set	Output Voltage Overshoot & Undershoot			No overshoot, No undershoot		
Apply			GPIB(IEEE-488.2) Option , RS232C Standard			
Apply         Query         32ms           Command Processing Time(average)         Output Setting         Voltage & Current Setting         15ms           Voltage & Current Query         32ms           Voltage & Current Query         32ms           State Storage Memory         Ten user-configurable(voltage,current,OVP & OCP level)stored states           Stap (Voltage, Current, Slope & Delay time)         Stap (Voltage, Current, Slope & Delay time)           Slope time         Osec ~ 86,400 sec (24 hours)           Delay time         100ms ~ 86,400 sec (24 hours)           Repeat         Maximum 15million times           Operation Temperature           Cooling           Output Terminal Isolated (maximum, from chassis ground)         Isolation AC FAN           ±60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)osense terminals           AC Input Ratings         Standard         220V ± 10% 50~60Hz           110V ± 10% 50~60Hz           110V ± 10% 50~60Hz           230V ± 10% 50~60Hz           110V ± 10% 50~60Hz           110V ± 10% 50~60Hz           110V ± 10% 50~60Hz           110V ± 10% 50~60Hz	Programming Language			SCPI(Standard Commands for Programmable Instruments)		
Query         32ms           Voltage & Current Setting         15ms           Voltage & Current Query         32ms           Measurement         Voltage & Current Query         32ms           The Other         Setting & Query         < 35ms           State Storage Memory         Ten user-configurable(voltage, current, OVP & OCP level)stored states           Cycling Mode         Step(Voltage, Current, Slope & Delay time)         Maximum 100 steps           Stope time         Osec ~ 86.400sec (24 hours)         Maximum 15million times           Operation Temperature         Maximum 15million times           Operation Temperature         Maximum 15million times           Output Terminal Isolated (maximum, from chassis ground)         Isolation AC FAN         ±60 Vdc when connecting shorting conductors without insulation to the (+)output to 16 (+)sense and the (-)output and the (-)sense terminals           AC Input Ratings         Standard         220V ± 10% 50~60Hz         50~60Hz           110V ± 10% 50~60Hz           230V ± 10% 50~60Hz <td co<="" td=""><td rowspan="4">Command Processing Time(average)</td><td colspan="2"></td><td colspan="2">Setting 20ms</td></td>	<td rowspan="4">Command Processing Time(average)</td> <td colspan="2"></td> <td colspan="2">Setting 20ms</td>	Command Processing Time(average)			Setting 20ms	
Command Processing Time(average)         Output Setting Woltage & Current Query         32ms           Measurement The Other         Voltage & Current Query         32ms           State Storage Memory         Ten user-configurable(voltage,current, OVP & OCP level)stored states           State Storage Memory         Step(Voltage, Current, Slope & Delay time)         Maximum 100 steps           Cycling Mode         Slope time Delay time Delay time         100ms ~ 86,400sec (24 hours)           Memory Perental         Maximum 15million times           Operation Temperature         0° ~ 40° for full rated output. At higher temperatures the output current is derated list 50% at 55° maximum temperature           Cooling         Isolation AC FAN           Output Terminal Isolated (maximum, from chassis ground)         ±60 V/dc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals           AC Input Ratings         Standard         220v ± 10% 50~60Hz           110v ± 10% 50~60Hz         115v ± 10% 50~60Hz           230v ± 10% 50~60Hz         230v ± 10% 50~60Hz           Calibration Interval         Precision         6 month           Recommended         1 year           Objects         2466mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size           Maximum Input Power(full load)         Net weight         100kg <td colspan="2" rowspan="3"></td> <td>Query</td> <td>32ms</td>			Query	32ms		
Voltage & Current Query   32ms			Voltage & Current Setting	15ms		
Measurement   Voltage & Current Query   32ms			Voltage & Current Query	32ms		
The Other   Setting & Query   < 35ms		Measurement			32ms	
State Storage Memory   Ten user-configurable (voltage, current, OVP & OCP level) stored states		The Other				
Step(Voltage,Current, Slope & Delay time)  Stope & Delay time Delay time Delay time Repeat Maximum 100 steps  Operation Temperature  Cooling  Output Terminal Isolated (maximum, from chassis ground)  AC Input Ratings  Callibration Interval  Precision Recommended Diagona Step(Voltage,Current, Slope & Delay time) Slope & Delay time Diagona Step & Delay time Osec ~ 86,400sec (24 hours) Maximum 15millon times  Ove ~ 40°C for full rated output. At higher temperatures the output current is derated lite to 50% at 55°C maximum temperature  Isolation AC FAN  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output of 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output of 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output of 1 (+)sense and the (-)output and the (-)sense terminals  #60 Vdc when connecting shorting conductors without insulation to the (+)output of 1 (+)sen						
Slope & Delay time   Slope & Delay time		Step(Voltage, Current,				
Cycling Mode         Slope time Delay time         Osec ~ 86,400sec (24 hours)           Poetat         Maximum 15million times           Operation Temperature         0° ~ 40° for full rated output. At higher temperatures the output current is derated lite to 50% at 55° maximum temperature           Cooling         Isolation AC FAN           Output Terminal Isolated (maximum, from chassis ground)         ±60 Vdc when connecting shorting conductors without insulation to the (+)output to 1 (+)sense and the (-)output and the (-)sense terminals           AC Input Ratings         Standard         220∨ ± 10% 50~60Hz           1110∨ ± 10% 50~60Hz         115∨ ± 10% 50~60Hz           230∨ ± 10% 50~60Hz         230∨ ± 10% 50~60Hz           230∨ ± 10% 50~60Hz         230∨ ± 10% 50~60Hz           Dimensions         Standard         426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size           Maximum Input Power(full load)         Net weight         100kg	Cycling Mode	_ ·		Maximum 100 steps		
Delay time   100ms ~ 86,400sec(24 hours)				0sec ~ 86,400sec (24 hours)		
Repeat Maximum 15million times  Operation Temperature  Isolation AC FAN  Output Terminal Isolated (maximum, from chassis ground)  AC Input Ratings  Option  Standard  Option  Precision Recommended  Option  Precision Recommended  Option  Precision Recommended  Option  Option  Precision Recommended  Option  Option  Precision Recommended  Option  Opt		· ·		, , , , , , , , , , , , , , , , , , , ,		
Operation Temperature  OPE ~ 40 °C for full rated output. At higher temperatures the output current is derated li to 50% at 55 °C maximum temperature  Cooling  Isolation AC FAN  Output Terminal Isolated (maximum, from chassis ground)  AC Input Ratings  Standard  220V ± 10% 50~60Hz  110V ± 10% 50~60Hz  115V ± 10% 50~60Hz  230V ± 10% 50~60Hz  Calibration Interval  Precision Recommended 1 year  Dimensions  Standard  426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size  Maximum Input Power(full load)  Net weight  Net weight  Net weight  OC ~ 40 °C for full rated output. At higher temperatures the output current is derated li to 50% at 155 °C maximum temperature  1 solation AC FAN  +60 Vdc when connecting shorting conductors without insulation to the (+)output to 10 (+)sense and the (-)output and the (-)sense terminals  50~60Hz  110V ± 10% 50~60Hz  230V ± 10% 50~60Hz  230V ± 10% 50~60Hz  230V ± 10% 50~60Hz  115V ± 10% 50~60Hz  230V ±						
Cooling    Isolation AC FAN		Hopodi				
Cooling Output Terminal Isolated (maximum, from chassis ground)  Edo Vdc when connecting shorting conductors without insulation to the (+)output to the (+)sense and the (-)output and the (-)sense terminals  Edo Vdc when connecting shorting conductors without insulation to the (+)output to the (+)sense and the (-)output and the (-)sense terminals  Edo Vdc when connecting shorting conductors without insulation to the (+)output to the (+)output to the (+)output and the (-)sense terminals  Edo Vdc when connecting shorting conductors without insulation to the (+)output to the (+)output to the (+)output and the (-)sense terminals  Edo Vdc when connecting shorting conductors without insulation to the (+)output to the (+)output to the (+)output of the	Operation Temperature					
Output Terminal Isolated (maximum, from chassis ground) $ \begin{array}{c} \pm 60 \text{ Vdc when connecting shorting conductors without insulation to the (+)output to the (+)sense and the (-)output and the (-)sense terminals} \end{array} $ $ AC Input Ratings $ $ \begin{array}{c} Standard & 220V \pm 10\% & 50 \sim 60 \text{Hz} \\ 110V \pm 10\% & 50 \sim 60 \text{Hz} \\ 230V \pm 10\% & 50 \sim 60 \text{Hz} \end{array} $ $ \begin{array}{c} 115V \pm 10\% & 50 \sim 60 \text{Hz} \\ 230V \pm 10\% & 50 \sim 60 \text{Hz} \end{array} $ $ \begin{array}{c} Calibration Interval & Precision & 6 month \\ Recommended & 1 year \end{array} $ $ \begin{array}{c} Dimensions & Standard & 426mm(W) * 265mm(H) * 650mm(D) & 19-inch 6U Standard Size \\ Maximum Input Power(full Ioad) & 7739W $ Weight $ \begin{array}{c} Net weight & 100 \text{kg} \end{array} $	Cooling					
Culput Terminal Isolated (maximum, from chassis ground)   (+)sense and the (-)output and the (-)sense terminals						
AC Input Ratings	Output Terminal Isolated (maximum, from chassis ground)			(+)sense and the (-)output and the (-)sense terminals		
AC Input Ratings         Option         115V ± 10% 50~60Hz           230V ± 10% 50~60Hz         230V ± 10% 50~60Hz           Calibration Interval         Precision 6 month Recommended 1 year         1 year           Dimensions         Standard 426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size           Maximum Input Power(full load)         7739W           Weight         Net weight           100kg		Standard				
Option	AC Input Ratings					
Calibration Interval         Precision Recommended         6 month 1 year           Dimensions         Standard         426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size           Maximum Input Power(full load)         7739W           Weight         Net weight         100kg	, to input natings			115V ± 10% 50~60Hz		
Calibration Interval Recommended 1 year  Dimensions Standard 426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size  Maximum Input Power(full load) 7739W  Weight 100kg						
Recommended   1 year	Calibration Interval	Precision		6 month		
Maximum Input Power(full load)  7739W  Weight  Net weight  100kg		Recommended		1 year		
Weight 100kg	Dimensions Standard		426mm(W) * 265mm(H) * 650mm(D) 19-inch 6U Standard Size			
Weight	Maximum Input Power(full load)			7739W		
INVEIGNI	NA - : - I- 4	Net weight		100kg		
Gross weight 102kg	Weight	Gross weig	ht	102kg		