

PSW-Series

Multi-Range D.C. Power Supply

FEATURES

- Voltage Rating : 30V/40V/80V/160V/250V/800V, Output Power Rating : 360W~1080W
- Multi-range Voltage & Current Combinations in One Power Supply
- C.V/C.C Priority ; Particularly Suitable for the Battery and LED Industry
- Adjustable Slew Rate
- Series Operation (2 units in Series) for (30V/40V/80V/160V), Parallel Operation (3 units in Parallel) for (30V/40V/80V/160V/250V/800V)
- High Efficiency and High Power Density
- 1/2, 1/3, 1/6 Rack Mount Size Design (EIA/JIS Standard) for 360W, 720W, 1080W
- Standard Interface : LAN, USB, Analog Control Interface
- Optional Interface : GPIB-USB Adaptor, RS232-USB Cable
- LabVIEW Driver



Powerful Stretch with Multi-range Technology

The PSW-Series is a single-output multi-range programmable switching DC Power Supply covering a power range up to 1080W. This series of products include fifteen models with the combination of 30V, 40V, 80V, 160V, 250V and 800V rated voltages and 360W, 720W and 1080W maximum output powers. The multi-range feature allows the flexible and efficient configuration of voltage and current within the rated power range. As the PSW-Series can be connected in series for maximum 2 units or in parallel for maximum 3 units, the capability of connecting multiple PSW-Series units for higher voltage or higher current output provides a broad coverage of applications. With the flexibility of multi-range power utilization and series/parallel connection, the PSW-Series significantly reduces the users' cost for various power supply products to accommodate the projects with different power requirements.

The C.V/C.C priority selection of the PSW-Series is a very useful feature for DUT protection. The conventional power supply normally operates under C.V mode when the power output is turned on. This could bring a high inrush current to the capacitive load or current-intensive load at the power output-on stage. Taking the I-V curve verification of LED as an example, it becomes a very challenging task to perform this measurement using a conventional power supply. With LED connected to a power supply under C.V mode as the initial setting, when the power output is turned on and the voltage rises to the LED forward voltage, the current will suddenly peak up and exceed the preset value of current limit. Upon detecting this high current, the power supply starts the transition from C.V mode to C.C mode. Though the current becomes stable after the C.C mode being activated, the current spike occurred at the C.V and C.C priority to limit the current spike occurred at the threshold voltage and therefore protects DUT from the inrush current damage.

The adjustable slew rate of the PSW-Series allows users to set for either output voltage or output current, a specific rise time from low to high level transition, and a specific fall time from high to low level transition. This facilitates the characteristic verification of a DUT during voltage or current level changes with controllable slew rates. Most manufacturing tests of lighting device or large capacitor during power output-on are associated with the occurrence of high surge current, which can greatly reduce the life time of the DUT. To prevent inrush current from damaging current-intensive devices, a smooth and slow voltage transition during power On-Off can significantly reduce the spike current and protect the device from high current damage.

The OVP and OCP are provided with the PSW-Series. Both OVP and OCP levels can be selected, with default level set at 110%, of the rated voltage/current of the power supply. When any of the protection levels is tripped, the power output will be switched off to protect the DUT. The PSW-Series provides USB Host/Device and LAN interfaces as standard, GPIB-USB adapter and RS232-USB cable as optional. The LabView driver and the Data Logging PC software are supported on all the available interfaces. An analog control/monitoring connector is also available on the rear panel for external control of power On/Off and external monitoring of power output Voltage and Current.

PANEL INTRODUCTION



PSW-Series (HV) Rear Panel



PARALLEL OPERATION (3 UNITS)

MODEL	SINGLE UNIT	2 UNITS	3 UNITS
PSW 30-36	30V/36A	30V/72A	30V/108A
PSW 30-72	30V/72A	30V/144A	30V/216A
PSW 30-108	30V/108A	30V/216A	30V/324A
PSW 40-27	40V/27A	40V/54A	40V/81A
PSW 40-54	40V/54A	40V/108A	40V/162A
PSW 40-81	40V/81A	40V/162A	40V/243A
PSW 80-13.5	80V/13.5A	80V/27A	80V/40.5A
PSW 80-27	80V/27A	80V/54A	80V/81A
PSW 80-40.5	80V/40.5A	80V/81A	80V/121.5A
PSW 160-7.2	160V/7.2A	160V/14.4A	160V/21.6A
PSW 160-14.4	160V/14.4A	160V/28.8A	160V/43.2A
PSW 160-21.6	160V/21.6A	160V/43.2A	160V/64.8A
PSW 250-4.5	250V/4.5A	250V/9A	250V/13.5A
PSW 250-9	250V/9A	250V/18A	250V/27A
PSW 250-13.5	250V/13.5A	250V/27A	250V/40.5A
PSW 800-1.44	800V/1.44A	800V/2.88A	800V/4.32A
PSW 800-2.88	800V/2.88A	800V/5.76A	800V/8.64A
PSW 800-4.32	800V/4.32A	800V/8.64A	800V/12.96A

PSW-Series (LV) Rear Panel



SERIES OPERATION (2 UNITS)

MODEL	SINGLE UNIT	2 UNITS
PSW 30-36	30V/36A	60V/36A
PSW 30-72	30V/72A	60V/72A
PSW 30-108	30V/108A	60V/108A
PSW 40-27	40V/27A	80V/27A
PSW 40-54	40V/54A	80V/54A
PSW 40-81	40V/81A	80V/81A
PSW 80-13.5	80V/13.5A	160V/13.5A
PSW 80-27	80V/27A	160V/27A
PSW 80-40.5	80V/40.5A	160V/40.5A
PSW 160-7.2	160V/7.2A	320V/7.2A
PSW 160-14.4	160V/14.4A	320V/14.4A
PSW 160-21.6	160V/21.6A	320V/21.6A
PSW 250-4.5	N/A	N/A
PSW 250-9	N/A	N/A
PSW 250-13.5	N/A	N/A
PSW 800-1.44	N/A	N/A
PSW 800-2.88	N/A	N/A
PSW 800-4.32	N/A	N/A



PSW 80-40.5 (0~80V, 0~40.5A, 1080W)

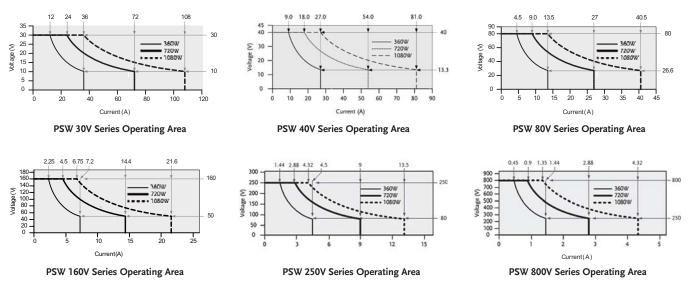


PSW 80-27 (0~80V, 0~27A, 720W)



PSW 80-13.5 (0~80V, 0~13.5A, 360W)

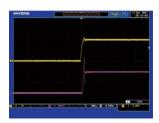


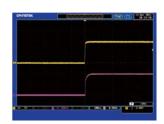


When the power supply is configured that the total output (Current x Voltage output) is less than the rated power output, it functions as a typical Constant Current (C.C) and Constant Voltage (C.V) power supply.

However, when the power supply is configured such that the total output power (Current x Voltage Output) exceeds the rated power output, the effective output is actually limited to the operation area of the unit.

B. C.V / C.C PRIORITY SELECTION





The Inrush Current and Surge Voltage occur at LED Forward Voltage(Vf)Under C.V Priority

The CC Priority Feature Effectively Limits the Occurrence of Inrush Current and Surge Voltage when the Supplied Voltage Rises to the LED Forward Voltage

The PSW-Series provides C.C Mode and C.V Mode to fit various applications in the general purpose market. To get into critical application niches, however, the power supply needs to provide

. ADJUSTABLE SLEW RATE

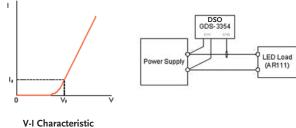


The Adjustable Rise Time of the PSW 30V



The Adjustable Rise Time of the PSW 800V

The PSW-Series has adjustable slew rates for the level transition of both Current and Voltage. This gives the PSW-Series power supply the ability to set specific rise time and fall time of the Voltage and Current drawn from the power supply to verify DUT performance during the Voltage / Current level transition. The feature also provides the benefit to slow down the voltage transition at the power output-on to protect DUT from inrush current damage. This is especially useful for the test of heavycurrent-drawn devices like capacitors.

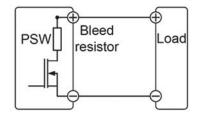


of Diode

Operation Under C.V Priority and C.C Priority Respectively

advanced features to meet the specific requirements. The C.C and C.V Priority Selection enable the power supply to run under C.C priority, rather than normal CV priority, at the output-on stage.

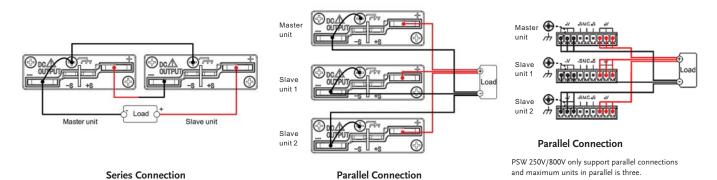
D. BLEEDER CONTROL



PSW-Series Built-in Bleed Resistor

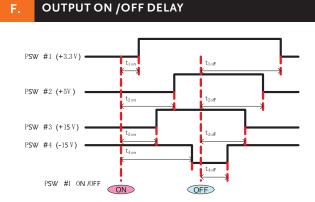
The PSW-Series employs a bleed resistor in parallel with the output terminal. Bleed resistor is designed to dissipatch the power from the power supply filter capacitors when power is turned off and the load is disconnected. Without a bleed resistor, power terminal may remain charged on the filter capacitors for some time and be potentially hazardous. In addition, bleed resistor also allows for smoother voltage regulation of the power supply as the bleed resistor acts as a minimum voltage load. The bleed resistance can be turned on or off using the configuration setting.

SERIES AND PARALLEL CONNECTIONS



To increase power output capacity, the PSW-Series could be connected in Series mode to perform double voltage rating or in parallel mode to

perform triple current rating for each model. With Multi-Range feature



The Example of Output On/Off Delay Control Among Multiple Outputs of the PSW Units

The output On/Off delay feature enables the setting of a specific time delay for output on after the power supply output is turned on, and a specific time delay for output off after the power supply output is turned off. When multiple PSW units are used, the On/Off delay time of each unit can be set respectively referring to fix time points. This multiple-output control can be done through the Analog Control terminal at the rear panel or through the PC programming with standard commands.

and Series/Parallel connection capability, the PSW-Series is a high power density and cost-effective equipment for the tests of DC power modules, batteries and components in a broad power range.

USING THE RACK MOUNT KIT G

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35.00.0	3500.0	3600.0	3600.	3600.0	3500.0	
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Rack Mount Kit GRA-410-J (JIS)

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Rack Mount Kit GRA-410-E (EIA)

The Rack Mount Kit of the PSW-Series supports both EIA and JIS standards. A standard rack can accommodate 6 units of type I (360W Output Power) models, or 3 units of type II (720W Output Power) models, or 2 units of type III (1080W Output Power) models. The Rack Mount Kits for EIA standard (P/N: GRA-410-E) and for JIS standard (P/N: GRA-410-J) are provided as optional accessaries for the PSW-Series.

VARIOUS INTERFACES SUPPORT & EXTENDED TERMINAL BOX

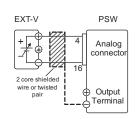


The PSW-Series provides USB Host port in the front panel for easy access of stored data, such as test script program. In the rear panel, a USB Device port is available for remote control or I & V data logging of power output through a PC controller. The LAN interface, which meets DHCP standard, is provided as a standard feature of the PSW-Series for system communications and ATE applications.

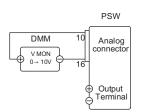
An Extender Terminal box (P/N: GET-001/GET-002/GET-005) is provided as optional accessory to extend the power output form the rear panel to the front side. This extender terminal gives R&D or QC engineers convenience to do the jobs without frequently reaching the output

terminal at the rear side of the PSW-Series.

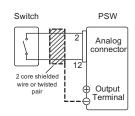
EXTERNAL ANALOG REMOTE CONTROL



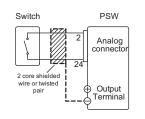
External Voltage Control of the Voltage Output



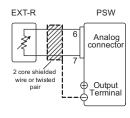
External DMM Monitoring of the Output Voltage



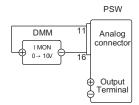
External Switch Control of the Main Power Shut-down



External Switch Control of the Output On/Off



External Resistance control of the Voltage Output



External DMM Monitoring of the Output Current

The power supply output on/off and main power shut-down can also be controlled using external switches. This Analog Control Connector is complied with the Mil 26 pin connector (OMRON XG4 IDC plug) standard.

On the rear panel of the PSW-Series power supply, a 26-pin Analog Control connector is available to perform lots of remote control and monitoring functions. The output voltage and current can be set using external voltage or resistance.

OPTIONAL ASSESSORIES



SPECIFICATIONS										
	PSW 30-36	PSW 30-72	PSW 30-108	PSW 40-27	PSW 40-54	PSW 40-81	PSW 80-13.5	PSW 80-27	PSW 80-40.5	
OUTPUT RATING	0 ~ 30V	0 ~ 30V	0 ~ 30V	0 ~ 40V	0 ~ 40V	0 ~ 40V	0 ~ 80V	0 ~ 80V	0 ~ 80V	
Voltage Current	0~36A	0~30V 0~72A	0~30V 0~108A	0~40V 0~27A	0~40V 0~54A	0~40V 0~81A	0~30V 0~13.5A	0 ~ 27A	0~ 30V 0~ 40.5A	
Power	360W	720W	1080W	360W	720W	1080W	360W	720W	1080W	
REGULATION(CV)					I	I	I	F	F	
Load Line	20mV	20mV	20mV	25mV	25mV	25mV	45mV	45mV	45mV	
REGULATION(CC)	18mV	18mV	18mV	23mV	23mV	23mV	43mV	43mV	43mV	
Load	41mA	77mA	113mA	32mA	59mA	86mA	18.5mA	32mA	45.5mA	
Line	41mA	77mA	113mA	32mA	59mA	86mA	18.5mA	32mA	45.5mA	
RIPPLE & NOISE (N						1				
CV p-p CV rms	60mV 7mV	80mV 11mV	100mV 14mV	60mV 7mV	80mV 11mV	100mV 14mV	60mV 7mV	80mV 11mV	100mV 14mV	
CC rms	72mA	144mA	216mA	54mA	108mA	162mA	27mA	54mA	81mA	
PROGRAMMING AC	CURACY				1	1	I.			
Voltage	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1%+10mV	0.1%+10mV	0.1%+10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	
Current	0.1% + 30mA	0.1% + 60mA	0.1% + 100mA	0.1%+20mA	0.1%+50mA	0.1%+80mA	0.1% + 10mA	0.1% + 30mA	0.1% + 40mA	
MEASUREMENT ACC		0.10/ 10 1/	0.10/ 10.1/	0.1%+10mV	0.1%+10mV	0.1%+10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	
Voltage Current	0.1% +10mV 0.1% +30mA	0.1% +10mV 0.1% +60mA	0.1% +10mV 0.1% +100mA	0.1%+10mV 0.1%+20mA	0.1%+10mV	0.1%+10mV	0.1% +10mA	0.1% +10mV 0.1% +30mA	0.1% +10mV 0.1% +40mA	
RESPONSE TIME	0.170 1301171	0.170 1001171	0.170 11001171				011/01101101		011/01101101	
Raise Time	50ms	50ms	50ms	50ms	50ms	50ms	50ms	50ms	50ms	
Fall Time(Full Load)	50ms	50ms	50ms	50ms	50ms	50ms	50ms	50ms	50ms	
Fall Time (No Load)	500ms	500ms	500ms	500ms	500ms	500ms	500ms	500ms	500ms	
Load Transient Recover Time (Load change from 50~100%)	lms	lms	lms	lms	lms	lms	lms	lms	lms	
PROGRAMMING RE	SOLUTION (By	PC Remote Cont	rol Mode)		<u> </u>	1	I			
Voltage	1mV	1mV	1mV	1mV	lmV	lmV	2mV	2mV	2mV	
Current	1mA	2mA	3mA	1mA	2mA	3mA	1mA	2mA	3mA	
MEASUREMENT RES	OLUTION (By	PC Remote Cont	rol Mode)							
Voltage Current	1mV 1mA	1mV 2mA	1mV 3mA	1mV	1mV	1mV	2mV 1mA	2mV 2mA	2mV 3mA	
SERIES AND PARALL		ZmA	SITIA	1mA	2mA	3mA	IIIIA	ZITIA	JIIA	
Parallel Operation		including the ma	ster unit							
Series Operation		including the ma								
PROTECTION FUNC	· ·	0								
OVP	3~33V	3~33V	3~33V	4 ~ 44V	4 ~ 44V	4 ~ 44V	8~88V	8~88V	8~88V	
OCP	3.6~39.6A	5~79.2A	5~118.8A	2.7 ~ 29.7A	5 ~ 59.4A	5 ~ 89.1A	1.35~14.85A	2.7~29.7A	4.05~44.55A	
OHP	Activated by e	lecated internal t	emperatures							
FRONT PANEL DISP	AY ACCURACY,	4 digits			1					
Voltage	0.1%±20mV	0.1%±20mV	0.1%±20mV	0.1%+20mV	0.1%+20mV	0.1%+20mV	0.1%±20mV	0.1%±20mV	0.1%±20mV	
Current	0.1%±40mA	0.1%±70mA	0.1%±100mA	0.1%+30mA	0.1%+60mA	0.1%+80mA	0.1%±20mA	0.1%±40mA	0.1%±50mA	
ENVIRONMENT CO	IDITION									
Operation Temp										
Storage Temp	0°C ~ 50°C -25°C ~ 70°C									
Operating Humidity	-25℃ ~ 70℃	H: No condensat								
Operating Humidity Storage Humidity	-25℃ ~ 70℃ 20% ~ 85% RH	H; No condensat ss; No condensa								
	-25℃ ~ 70℃ 20% ~ 85% RH 90% RH or Le	,								
Storage Humidity READ BACK TEMP CO Voltage	-25℃ ~ 70℃ 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/℃ of	ss; No condensa	tion tage : after a 30							
Storage Humidity READ BACK TEMP Co Voltage Current	-25℃ ~ 70℃ 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/℃ of	ss; No condensa	tion tage : after a 30							
Storage Humidity READ BACK TEMP C Voltage Current OTHER	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of	ss; No condensa	tion tage : after a 30							
Storage Humidity READ BACK TEMP Co Voltage Current OTHER Analog Control	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes	ss; No condensa Frated output vol Frated output cu	tion tage : after a 30 rrent : after a 30	minute warm-up						
Storage Humidity READ BACK TEMP CO Voltage Current OTHER	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le: DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of Yes USB/LAN/GP	ss; No condensa	tion tage : after a 30 rrent : after a 30	minute warm-up						
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s	ss; No condensa Frated output vol Frated output cu IB-USB(Option)/	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt	minute warm-up						
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA	ss; No condensa frated output vol frated output cu IB-USB(Option)/ sensing control IC, 47~63Hz, sin	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt	minute warm-up		214(W)x124(H)	71 (W)x124(H)	142(W)x124(H)	214(W)x124(H)	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ;	ss; No condensa frated output vol frated output cui IB-USB(Option)/ sensing control .C, 47~63Hz, sing 142(W)x124(H) x350(D)mm ;	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H) x350(D) mm ;	minute warm-up tion) 71 (W)x124(H) x350(D) mm ;	0 142(W)x124(H) x350(D) mm ;	x350(D) mm ;	x350(D) mm;	x350(D) mm;	x350(D) mm ;	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H)	ss; No condensa frated output vol frated output cui IB-USB(Option)/ sensing control C, 47~63Hz, sin; 142(W)x124(H)	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H)	minute warm-up tion) 71 (W)x124(H)	142(W)x124(H)					
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg	Frated output vol frated output cul IB-USB(Option)/ sensing control C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H) x350(D) mm ;	minute warm-uj tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg	142(W)x124(H) x350(D) mm ; Approx. 5.3kg	x350(D) mm ;	x350(D) mm;	x350(D) mm;	x350(D) mm ;	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT ORDERING INF	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg	ss; No condensa frated output vol frated output cu IB-USB(Option)/ sensing control C, 47~63Hz, sinį 142(W)x124(H) x350(D)mm ; Approx. 5.3kg	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg	minute warm-up tion) x350(D) mm ; Approx. 3kg	142(W)x124(H) x350(D) mm ; Approx. 5.3kg SORIES	x350(D) mm ; Approx. 7.5kg	x350(D) mm; Approx. 3kg	x350(D) mm; Approx. 5.3kg	x350(D) mm ; Approx. 7.5kg	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 (0~300	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg CORMATION V/0~36A/360W)	ss; No condensa frated output vol frated output cu IB-USB(Option)/ sensing control C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x 1	142(W)x124(H) x350(D) mm ; Approx. 5.3kg SORIES	x350(D) mm ; Approx. 7.5kg I, User Manual), GT	x350(D) mm;	x350(D) mm; Approx. 5.3kg PSW 30V/40V/80V/1	x350(D) mm ; Approx. 7.5kg 60V), Power Cord x 1	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 (0~30 PSW 30-72 (0~30)	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~72A/720W)	ss; No condensa frated output vol frated output cur IB-USB(Option)/ sensing control C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply Power Supply	minute warm-up tion) 71 (W)x124 (H) x350 (D) mm ; Approx. 3kg CD-ROM x 1 (Region depe Includes : M/	142(W)x124(H) x350(D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB F Terminal Screws and	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt	x350(D) mm; Approx. 3kg L-123 Test Lead x 1 (for	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW	x350(D) mm ; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V),	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 (0~30 PSW 30-72 (0~30 PSW 30-108 (0~30 PSW 40-27 (0~40)	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~72A/720W)	ss; No condensa frated output vol frated output cu IB-USB(Option)/ sensing control C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opi gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply C Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x11 (Region depe Includes : Mr lever x 1, M8	142(W)x124(H) x350(D) mm ; Approx. 5.3kg Programming Manua ndent), GTL-240 USB Terminal screws and terminal bolts, nuts a	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2	x350(D) mm; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW protection dummy x 1,	x350(D) mm ; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-72 PSW 30-72 PSW 30-708 0-300 PSW 40-27 0-400 PSW 40-54 (0-400	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC~265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~27A/720W)	ss; No condensa frated output vol frated output cui lB-USB(Option)/ sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply	T1 (W) x124 (H) x350 (D) mm ; Approx. 3kg CD-ROM x 1 (Region dep Includes : M lever x 1, M8 PSW-008 Ba:	142(W)x124(H) x350(D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB Terminal screws and terminal bolts, nuts a sic Accessories kit for	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2 PSW 250V/800V mo	x350(D) mm; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x1 (for PSW orotection dummy x1, put terminal cover for	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-72 0-30 PSW 30-108 PSW 40-27 PSW 40-54 PSW 40-81	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA 71(W)x124(H) x350(D) mm ; Approx. 3kg CORMATION V/0~36A/360W) V/0~72A/720W) V/0~27A/360W) V/0~27A/360W) V/0~28A/720W)	ss; No condensa frated output vol frated output cu lB-USB(Option)/ sensing control C, 47~63Hz, sin 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x 1 (Region dep Includes : M4 lever x 1, M8 PSW-009 Gu	142(W)x124(H) x350(D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB Terminal screws and terminal bolts, nuts a sic Accessories kit for	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x1 (for PSW orotection dummy x1, put terminal cover for	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT SW 30-36 PSW 30-72 PSW 30-708 OPSW 40-27 PSW 40-81 PSW 80-13.5	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of Ves USB/LAN/GP With thermal s 85VAC~265VA 71(W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~72A/720W) V/0~108A/1080W V/0~27A/360W) V/0~54A/720W) V/0~81A/1080W V/0~13.5A/360W	ss; No condensa frated output vol frated output cui lB-USB(Option)/ sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opi gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply 2 Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x1 (Region depe Includes : MM lever x1, M8 PSW-009 Cu OPTION PSW-001 Ac	142 (W)x124 (H) x350 (D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB Terminal screws and terminal bolts, nuts a is caccessories kit for tput terminal cover for AL ACCESSOR zessory Kit	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m	x350(D) mm; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out hodels PSW-012 High	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW protection dummy x 1, put terminal cover for a voltage output terminal GRA-410-J Rack Moi	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V mode	
Storage Humidity READ BACK TEMP CC Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-108 PSW 40-27 PSW 40-54 PSW 40-51 PSW 40-54 PSW 40-54 PSW 40-54 PSW 40-54 PSW 40-54 PSW 40-54 PSW 80-27 PSW 80-27 PSW 80-27 PSW 80-27 PSW 80-40.5 PSW 80-40.5	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of Yes USB/LAN/GP With thermal s 85VAC-265VA 71(W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~27A/720W) V/0~27A/360W) V/0~27A/360W) V/0~21A/306W V/0~21A/306W V/0~21A/20W)	ss; No condensa frated output vol frated output cul frated output cul sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Wulti-Range DC Wulti-Range DC Wulti-Range DC Wulti-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Dower Supply Dower Supply Dower Supply	minute warm-up tion) 71 (W)x124 (H) x350 (D) mm ; Approx. 3kg ACCES3 CD-ROM x 1 (Region depe Includes : M4 Iever x 1, M8 PSW-008 Bar PSW-009 Ou OPTION AC PSW-001 AC PSW-002 Sir	142 (W)x124 (H) x350 (D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB I Terminal screws and terminal bolts, nuts a sic Accessories kit for tput terminal cover for AL ACCESSOR cessory Kit nple IDC Tool	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Access er x 1, Analog control p dels PSW-011 Out hodels PSW-012 High	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW orotection dummy x 1, put terminal cover for a voltage output terminal GRA-410-J Rack Moi GRA-410-E Rack Moi	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models alt Kit (JIS) unt Kit (JIS)	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-72 00-400 PSW 40-27 PSW 40-54 0-400 PSW 40-53 PSW 80-13.5 0-800 PSW 80-40.5 0-800 PSW 80-40.5 PSW 80-40.5 0-800 PSW 80-40.5 PSW 80-40.5 PSW 80-40.5 PSW 80-40.5 PSW 80-40.5 PSW 80-40.5 Analoge Addition PSW 80-40.5 PSW 160-7.2 0-16	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 71(W)x124(H) x350(D) mm; Approx. 3kg CORMATION V/0~25A/360W) V/0~72A/720W) V/0~27A/360W) V/0~27A/360W) V/0~27A/360W) V/0~27A/360W) V/0~27A/720W) V/0~27A/720W) V/0~27A/720W) V/0~27A/720W) V/0~27A/720W)	ss; No condensa frated output vol frated output cui lB-USB(Option)/ sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC V) Multi-Range DC V) Multi-Range DC Wilti-Range DC V) Multi-Range DC Wilti-Range DC Wilti-Range DC Wilti-Range DC Wilti-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply C Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x1 (Region depe Includes : MM lever x1, M8 PSW-009 Cu OPTION PSW-001 Ac PSW-003 Co PSW-003 Co PSW-003 Co	142 (W)x124 (H) x350 (D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB i Terminal screws and terminal bolts, nuts a is caccessories kit for tput terminal cover for AL ACCESSOR cessory Kit nple IDC Tool ntact Removal Tool be for 2 Units of PSW	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt d washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m IES	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out nodels PSW-012 High de Connection	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW orotection dummy x 1, put terminal cover for voltage output termina GRA-410-J Rack Mo GRA-410-L Rack Mo	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) er (Type II/III) JSB Adaptor	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT SW 30-36 PSW 30-72 PSW 30-72 PSW 40-77 PSW 40-81 PSW 80-13.5 PSW 80-13.5 PSW 80-72 SW 80-40.5 PSW 80-72 PSW 80-72 PSW 80-73 PSW 80-74.5 PSW 80-74.5 PSW 80-72.2 PSW 80-74.5 PSW 160-74.4 PSW 160-74.4	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA 71(W)x124(H) x350(D) mm ; Approx. 3kg CORMATION V/0~36A/360W) V/0~72A/720W) V/0~27A/720W) V/0~81A/1080W V/0~27A/720W) V/0~41.5A/360W V/0~27A/720W) V/0~40.5A/1080	Ss; No condensa Ss; No condensa Frated output vol frated output cur IB-USB(Option)/ sensing control (C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC W Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB(Opt gle phase 214(W)x124(H) x350(D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply Power Supply C Power Supply Power Supply Power Supply Power Supply C Power Supply Power Supply Power Supply Power Supply Power Supply C Power Supply	minute warm-up tion) 71 (W)x124 (H) x350 (D) mm ; Approx. 3kg CD-ROM x 1 (Region depe Includes : M4 Iever x 1, M8 PSW-008 Bat PSW-009 Ou OPTION AC PSW-002 Sir PSW-002 Cal PSW-003 Cal PSW-005 Cal (fo	142 (W)x124 (H) x350(D) mm ; Approx. 5.3kg Programming Manua ndent), GTL-240 USB I Terminal screws and terminal bolts, nuts a sic Accessories kit for tput terminal cover for AL ACCESSOR ressory Kit nple IDC Tool ntact Removal Tool	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m IES Series in Series Mod 60V)	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out todels PSW-012 High de Connection	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW protection dummy x 1, put terminal cover for voltage output termina: GRA-410-J Rack Moo GRA-410-F Rack Moo PSW-010 Large filt	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) er (Type II/III) JSB Adaptor	
Storage Humidity READ BACK TEMP CC Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-72 PSW 30-72 PSW 40-54 PSW 40-54 PSW 80-13.5 PSW 80-13.5 PSW 80-27 PSW 80-13.5 PSW 80-13.5 PSW 80-14.4 PSW 160-7.2 PSW 160-7.4.6 PSW 160-7.2.6 PSW 160-7.4.6 PSW 160-7.4.6 PSW 160-7.2.6 PSW 250-4.5	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA 71(W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~72A/720W) V/0~36A/360W V/0~27A/360W) V/0~36A/360W V/0~27A/360W V/0~27A/720W) V/0~40.5A/1080W V/0~27A/720W) V/0~40.5A/1080W	Ss; No condensa Ss; No condensa Frated output vol frated output cur IB-USB(Option)/ sensing control (C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC W Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x1 (Region depe Includes : MM PSW-008 Bat PSW-009 OU OPTION PSW-001 Ac PSW-003 Co PSW-003 Co PSW-003 Ca PSW-005 Cal (PSW-005 Cal PSW-005 Cal (PSW-005 Cal PSW-005 Cal (PSW-007 Cal	2 142 (W)x124 (H) x350(D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB i Terminal screws and terminal bolts, nuts a is caccessories kit for tput terminal cover for AL ACCESSOR tersory Kit nple IDC Tool natc Removal Tool ple for 2 Units of PSW r PSW 30V/40V/80V/1 ple for 2 Units of PSW ble for 3 Units of PSW ble for 3 Units of PSW	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt d washers x 2 PSW 250V/800V mo 30V/40V/80V/160V m 30V/40V/80V/160V m 30V/80V/80V/80V/80V/80V/80V/80V/80V/80V/8	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out todels PSW-012 High de Connection ode Connection ode Connection	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW orotection dummy x 1, put terminal cover for voltage output termina GRA-410-J Rack Mo GRA-410-L Rack Mo	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) er (Type II/III) JSB Adaptor	
Storage Humidity READ BACK TEMP CC Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-36 PSW 30-108 PSW 40-27 PSW 40-54 PSW 40-531 PSW 80-40.5 PSW 80-40.5 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.4.5 PSW 250-4.5 PSW 250-4.5	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of 85VAC-265VA 71 (W)x124(H) x350(D) mm ; Approx. 3kg ORMATION V/0~36A/360W) V/0~27A/720W) V/0~108A/1080 W/0~27A/720W) V/0~21A/360W) V/0~27A/720W) V/0~21.5A/360W 0V/0~14.5A/360W 0V/0~21.6A/1080	ss; No condensa frated output vol frated output cul frated output cul lB-USB (Option)/ sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC V) Multi-Range DC V) Multi-Range DC Wilti-Range DC Wilti-Range DC Wilti-Range DC Wilti-Range DC V) Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply C Power Supply Dower Supply Dower Supply C Power Supply Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x1 (Region depe Includes : MM lever x1, M8 PSW-008 Ba: PSW-009 Cu OPTION PSW-001 Ac PSW-003 Co PSW-003 Ca (fo PSW-005 Cal (for PSW-005 Cal (for	142 (W)x124 (H) x350(D) mm ; Approx. 5.3kg SORIES (Programming Manua ndent), CTL-240 USB I Terminal screws and terminal bolts, nuts a sic Accessories kit for tput terminal cover for ALACCESSOR Dele IDC Tool ntact Removal Tool Dele for 2 Units of PSW pole IDC Tool ntact Removal Tool Dele for 2 Units of PSW bole for 3 Units of PSW oneded Terminal with r	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2, Air Filt nd wa	x350(D) mm; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-011 Out todels PSW-012 High de Connection ode Connection ode Connection NV/40V/80V/160V)	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW orotection dummy x 1, put terminal cover for voltage output termina GRA-410-J Rack Mo GRA-410-L Rack Mo	x350(D) mm ; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) ar (Type II/III) JSB Adaptor	
Storage Humidity READ BACK TEMP CO Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT Strange PSW 30-36 PSW 30-72 O-30 PSW 30-72 PSW 30-72 PSW 40-77 O-400 PSW 40-54 PSW 80-13.5 O-800 PSW 80-13.5 O-800 PSW 160-72.2 O-16 PSW 160-71.4 O-16 PSW 160-72.5 O-25 PSW 250-9 PSW 250-13.5 O-800	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of 85VAC-265VA 71(W)x124(H) x350(D) mm; Approx. 3kg CORMATION V/0~36A/360W) V/0~72A/720W) V/0~27A/360W) V/0~27A/360W) V/0~27A/720W) V/0~38A/1080 W/0~5A1/080W V/0~27A/720W) V/0~21.6A/1080 0V/0~21.6A/1080 0V/0~21.6A/1080 0V/0~21.6A/1080 0V/0~21.6A/1080	ss; No condensa frated output vol frated output cul frated output cul sensing control C, 47~63Hz, sini 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC W) Multi-Range DC W) Multi-Range DC W) Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC	tion tage : after a 30 rrent : after a 30 RS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply C Power Supply Power Supply DC Power Supply DC Power Supply	minute warm-up tion) 71 (W)x124(H) x350(D) mm ; Approx. 3kg Acccess CD-ROM x1 (Region depe Includes : Mk lever x1, M8 PSW-003 Ba: PSW-009 Du OPTION PSW-001 Ac PSW-003 Co PSW-003 Co PSW-005 Cal (for PSW-005 Cal (for (for CET-005 Ext	142 (W)x124 (H) x350 (D) mm ; Approx. 5.3kg SORIES Programming Manua ndent), GTL-240 USB Terminal screws and terminal bolts, nuts a sic Accessories kit for tput terminal cover for AL ACCESSOR tact Removal Tool bef or 2 Units of PSW PSW 30V/40V/80V/1 oble for 2 Units of PSW ended Terminal with 1 ended European Term	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2, Air Filt Series in Series Mox 60V) -Series in Parallel M nax. 30A(for PSW 2 inal with max. 20A	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-012 High dels PSW-012 High de Connection ode Connection ode Connection ode Connection N/40/V/80V/160V) S0V/80V/160V)	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW protection dummy x 1, put terminal cover for voltage output termin: GRA-410-J Rack Moo GRA-410-E Rack Moo PSW-010 Large filt GUG-001 GPIB to 1 GUR-001A USB to R	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) er (Type II/III) JSB Adaptor	
Storage Humidity READ BACK TEMP CC Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT PSW 30-36 PSW 30-36 PSW 30-108 PSW 40-27 PSW 40-54 PSW 40-531 PSW 80-40.5 PSW 80-40.5 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.2 PSW 160-7.4.5 PSW 250-4.5 PSW 250-4.5	-25°C ~ 70°C 20% ~ 85% RH 90% RH or Le DEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/	ss; No condensa frated output vol frated output vol frated output cur lB-USB(Option)/ sensing control (C, 47~63Hz, sin; 142(W)x124(H) x350(D)mm ; Approx. 5.3kg Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC Multi-Range DC W) Multi-Range DC	tion tage : after a 30 rrent : after a 30 rRS232-USB (Opt gle phase 214 (W)x124 (H) x350 (D) mm ; Approx. 7.5kg Power Supply Power Supply Power Supply Power Supply Power Supply C Power Supply DC Power Supply DC Power Supply DC Power Supply DC Power Supply DC Power Supply C Power Supply DC Power Supply DC Power Supply DC Power Supply C Power	minute warm-up 71 (W)x124(H) x350(D) mm ; Approx. 3kg CD-ROM x 1r (Region depe Includes : Mr lever x 1, M8 PSW-008 Ba: PSW-009 Ou OPTION PSW-007 Ca PSW-007 Ca PSW-007 Ca PSW-007 Ca GET-001 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-002 Ext GET-003 Ext	142 (W)x124 (H) x350(D) mm ; Approx. 5.3kg Programming Manua ndent), GTL-240 USB I Terminal screws and terminal botts, nuts a sic Accessories kit for tput terminal over for AL ACCESSOR cessory Kit nple IDC Tool ntact Removal Tool be for 2 Units of PSW ended Terminal with n ended Terminal with n	x350(D) mm ; Approx. 7.5kg I, User Manual), GT Cable " L " Type x 1, washers x 2, Air Filt nd washers x 2, Air Filt nd wa	x350(D) mm ; Approx. 3kg L-123 Test Lead x 1 (for PSW-004 Basic Acces er x 1, Analog control p dels PSW-012 High dels PSW-012 High de Connection ode Connection ode Connection ode Connection N/40/V/80V/160V) S0V/80V/160V)	x350(D) mm ; Approx. 5.3kg PSW 30V/40V/80V/1 sories Kit x 1 (for PSW protection dummy x 1, put terminal cover for voltage output termin: GRA-410-J Rack Moo GRA-410-E Rack Moo PSW-010 Large filt GUG-001 GPIB to 1 GUR-001A USB to R	x350(D) mm; Approx. 7.5kg 60V), Power Cord x 1 30V/40V/80V/160V), Analog control lock 250V/800V models al for 250V/800V models al for 250V/800V models unt Kit (JIS) unt Kit (EIA) er (Type II/III) JSB Adaptor	

	DSW/ 160 7 2	DSW/ 1/0 14 4	DEW 160 21 6	DCW/ 250 4 5		DCW/ 250 12 5	DCW/ 000 1 44	DC1V/ 900 2 00	
	PSW 160-7.2	PSW 160-14.4	PSW 160-21.6	PSW 250-4.5	PSW 250-9	PSW 250-13.5	PSW 800-1.44	PSW 800-2.88	PSW 800-4.3
OUTPUT RATING	0.000	0.000	0.1001				0 0000	0 00011	0.00001
Voltage	0~160V	0~160V	0~160V	0~250V	0~250V	0~250V	0 ~ 800V 0 ~ 1.44A	0 ~ 800V 0 ~ 2.88A	0 ~ 800V 0 ~ 4.32A
Current Power	0 ~ 7.2A 360W	0~14.4A 720W	0 ~ 21.6A 1080W	0 ~ 4.5A 360W	0 ~ 9A 720W	0~13.5A 1080W	0 ~ 1.44A 360₩	0~2.88A 720W	0~4.32A 1080W
REGULATION(CV)	300 W	720W	1080 w	500 W	720	1000 ₩	50011	, 2011	
Load	85mV	85mV	85mV	130mV	130mV	130mV	405mV	405mV	405mV
Line	83mV	83mV	83mV	128mV	128mV	128mV	403mV	403mV	403mV
REGULATION(CC)						11			
Load	12.2mA	19.4mA	26.6mA	9.5mA	14mA	18.5mA	6.44mA	7.88mA	9.32mA
Line	12.2mA	19.4mA	26.6mA	9.5mA	14mA	18.5mA	6.44mA	7.88mA	9.32mA
RIPPLE & NOISE (N	loise Bandwidt	h 20MHz; Ripp	e Bandwidth=	1MHz)					
CV p-p	60mV	80mV	100mV	80mV	100mV	120mV	150mV	200mV	200mV
CV rms CC rms	12mV 15mA	15mV 30mA	20mV 45mA	15mV 10mA	15mV 20mA	15mV 30mA	30mV 5mA	30mV 10mA	30mV 15mA
PROGRAMMING AC		John	-51174	TOMA	ZUMA	JUITA	JIIA	TOTIA	IJIIA
_	0.1% +100mV	0.1% +100mV	0.1% +100mV	0.1%+200mV	0.1%+200mV	0.1%+200mV	0.1%+400mV	0.1%+400mV	0.1%+400mV
Voltage Current	0.1% +100mV 0.1% + 5mA	0.1% +100mV 0.1% +15mA	0.1% +100mV 0.1% +20mA	0.1%+200mV 0.1%+5mA	0.1%+200mV 0.1%+10mA	0.1%+200mV 0.1%+15mA	0.1%+2mA	0.1%+4mA	0.1%+6mA
MEASUREMENT ACC		0.176 FISHA	5.175 12011P	5.1701 JIIIA	0.1701101174	SHITTE			
Voltage	0.1% +100mV	0.1% +100mV	0.1% +100mV	0.1%+200mV	0.1%+200mV	0.1%+200mV	0.1%+400mV	0.1%+400mV	0.1%+400mV
Current	0.1% +5mA	0.1% +15mA	0.1% +20mA	0.1%+5mA	0.1%+10mA	0.1%+15mA	0.1%+2mA	0.1%+4mA	0.1%+6mA
RESPONSE TIME	-								
Raise Time	100ms	100ms	100ms	100ms	100ms	100ms	150ms	150ms	150ms
Fall Time(Full Load)	100ms	100ms	100ms	150ms	150ms	150ms	300ms	300ms	300ms
Fall Time(No Load)	1000ms	1000ms	1000ms	1200ms	1200ms	1200ms	2000ms	2000ms	2000ms
oad Transient Recover Time	2ms	2ms	2ms	2ms	2ms	2ms	2ms	2ms	2ms
Load change from 50~100%)									
PROGRAMMING RE			,			1			
Voltage Current	3mV 1mA	3mV 2mA	3mV 3mA	5mV	5mV	5mV	14mV 1mA	14mV 1mA	14mV 1mA
				1mA	1mA	1mA	ana	111/5	11174
MEASUREMENT RES				5.14	E .) (E . 14	14ma	14m2)/	14.001/
Voltage Current	3mV 1mA	3mV 2mA	3mV 3mA	5mV 1mA	5mV 1mA	5mV 1mA	14mV 1mA	14mV 1mA	14mV 1mA
SERIES AND PARALL			JIIA						
Parallel Operation			ctor unit	3	3	3	3	3	3
Series Operation		including the ma including the ma		N/A	N/A	N/A	N/A	N/A	N/A
•	•			,//	,	,	,	,,,	,,,
PROTECTION FUNC		16.1704	16.1704						
OVP	16~176V	16~176V	16~176V	20~275V	20~275V	20~275V	20~880V	20~880V	20~880V
OCP	0.72~7.92A	1.44~15.84A	2.16~23.76A	0.45~4.95A	0.9~9.9A	1.35~14.85A	0.144~1.584A	0.288~3.168A	0.432~4.752
ОНР	Activated by e	lecated internal t	emperatures						
						1 1			
Voltage	0.1%±100mV	0.1%±100mV	0.1%±100mV	0.1%±200mV	0.1%±200mV	0.1%±200mV	0.1%±400mV	0.1%±400mV	0.1%±400m
Voltage Current	0.1%±100mV 0.1%±5mA		0.1%±100mV 0.1%±30mA	0.1%±200mV 0.1%±5mA	0.1%±200mV 0.1%±10mA	0.1%±200mV 0.1%±20mA	0.1%±400mV 0.1%±2mA	0.1%±400mV 0.1%±4mA	0.1%±400m\ 0.1%±6mA
Voltage Current	0.1%±100mV 0.1%±5mA	0.1%±100mV				1			
Voltage Current ENVIRONMENT CO	0.1%±100mV 0.1%±5mA	0.1%±100mV				1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C	0.1%±100mV 0.1%±30mA	0.1%±30mA			1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RF	0.1%±100mV 0.1%±30mA	0.1%±30mA			1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les	0.1%±100mV 0.1%±30mA	0.1%±30mA			1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensa	0.1%±30mA	0.1%±5mA	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat	0.1%±30mA ion tion tage : after a 30	0.1%±5mA	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensa	0.1%±30mA ion tion tage : after a 30	0.1%±5mA	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of 200ppm/°C of	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat	0.1%±30mA ion tion tage : after a 30	0.1%±5mA	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of 200ppm/°C of	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat rated output vol rated output cur	0.1%±30mA ion tion tage : after a 30 rent : after a 30	0.1%±5mA minute warm-u minute warm-u	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control Interface	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GPI	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat rated output vol rated output cut IB-USB(Option)/	0.1%±30mA ion tion tage : after a 30 rent : after a 30	0.1%±5mA minute warm-u minute warm-u	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control Interface Fan	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Le: 0EFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GPI With thermal s	0.1%±100mV 0.1%±30mA H; No condensat rated output vol rated output cur IB-USB(Option)/ sensing control	0.1%±30mA ion tion tage : after a 30 rent : after a 30 RS232-USB (Opt	0.1%±5mA minute warm-u minute warm-u	0.1%±10mA	1			
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control Interface Fan POWER SOURCE	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat rated output vol rated output cul rated output cul B-USB(Option)/ sensing control C, 47~63Hz, sing	0.1%±30mA ion tion rent : after a 30 RS232-USB (Opt gle phase	0.1%±5mA minute warm-u minute warm-u tion)	0.1%±10mA	0.1%±20mA	0.1%±2mA	0.1%±4mA	0.1%±6mA
Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Let 0EFFICIENT 100ppm/°C of 200ppm/°C of Yes USB/LAN/GPI With thermal s 85VAC~265VA 71 (W)x124(H)	0.1%±100mV 0.1%±30mA H; No condensat rated output vol rated output vol rated output cui IB-USB(Option)/ sensing control C, 47~63Hz, sing 142(W)x124(H)	0.1%±30mA ion tion tage : after a 30 rent : after a 30 RS232-USB (Opi gle phase 214(W)x124(H)	0.1%±5mA minute warm-u minute warm-u tion) 71(W)x124(H)	0.1%±10mA	0.1%±20mA	0.1%±2mA	0.1%±4mA	0.1%±6mA
FRONT PANEL DISP Voltage Current ENVIRONMENT CO Operation Temp Storage Temp Operating Humidity Storage Humidity READ BACK TEMP C Voltage Current OTHER Analog Control Interface Fan POWER SOURCE DIMENSIONS & WEIGHT	0.1%±100mV 0.1%±5mA NDITION 0°C ~ 50°C -25°C ~ 70°C 20% ~ 85% RH 90% RH or Les OEFFICIENT 100ppm/°C of 200ppm/°C of 200ppm/°C of 200ppm/°C of With thermal s 85VAC~265VA	0.1%±100mV 0.1%±30mA H; No condensat ss; No condensat rated output vol rated output cul rated output cul B-USB(Option)/ sensing control C, 47~63Hz, sing	0.1%±30mA ion tion rent : after a 30 RS232-USB (Opt gle phase	0.1%±5mA minute warm-u minute warm-u tion)	0.1%±10mA	0.1%±20mA	0.1%±2mA	0.1%±4mA	

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