

HiRange Series....the World Compact, Accurate, 1U, Programmable DC Power Supplies for Instrumentation and System Integration

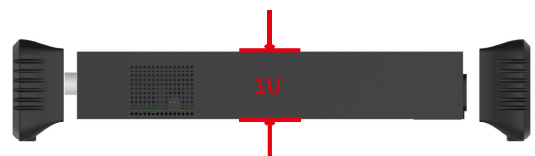
Description:

HiRange Series is the scroll wheel version of C3V and features of very wide ranges output to 60V and 10A. It consists of both a constant current and constant voltage sources for a high quality DC power supply. Technically speaking, it incorporates 1U mechanism, high efficiency power conversion, linear regulator, accurate measurement, full programmability and diverse communication interfaces. Commercially speaking, it integrates all the advantages for both the instrument and industry DC power supplies in the market. The high efficiency conversion implements the 1U low profile while the linear regulation and the accurate measure make it suitable for the laboratory uses. The programmability and communication ability are essential to automatic control and data acquisition purpose.



Features:

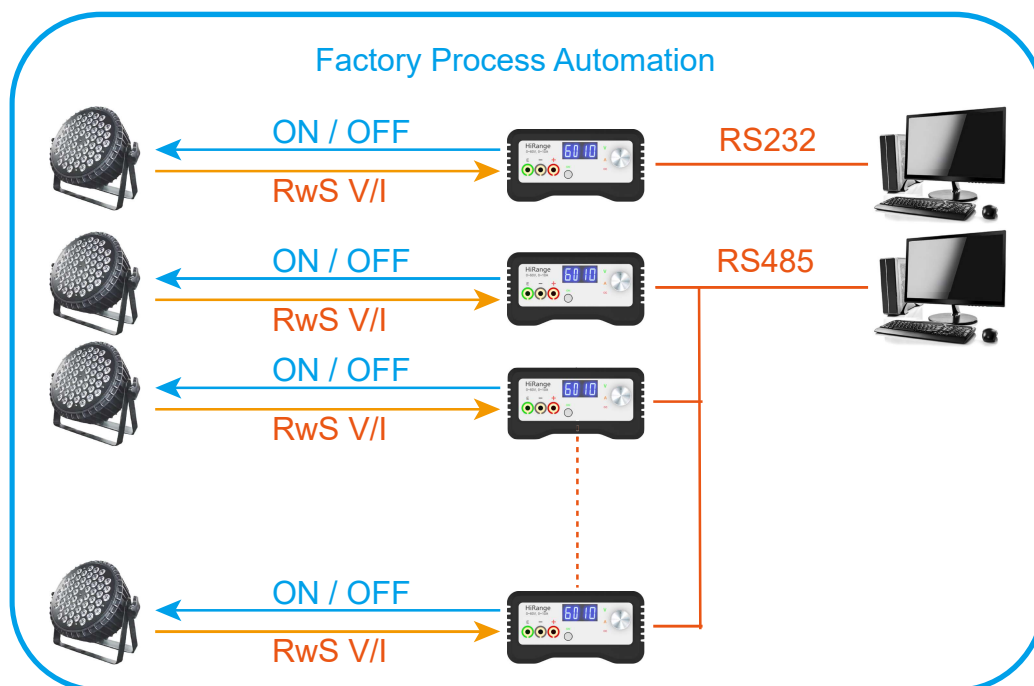
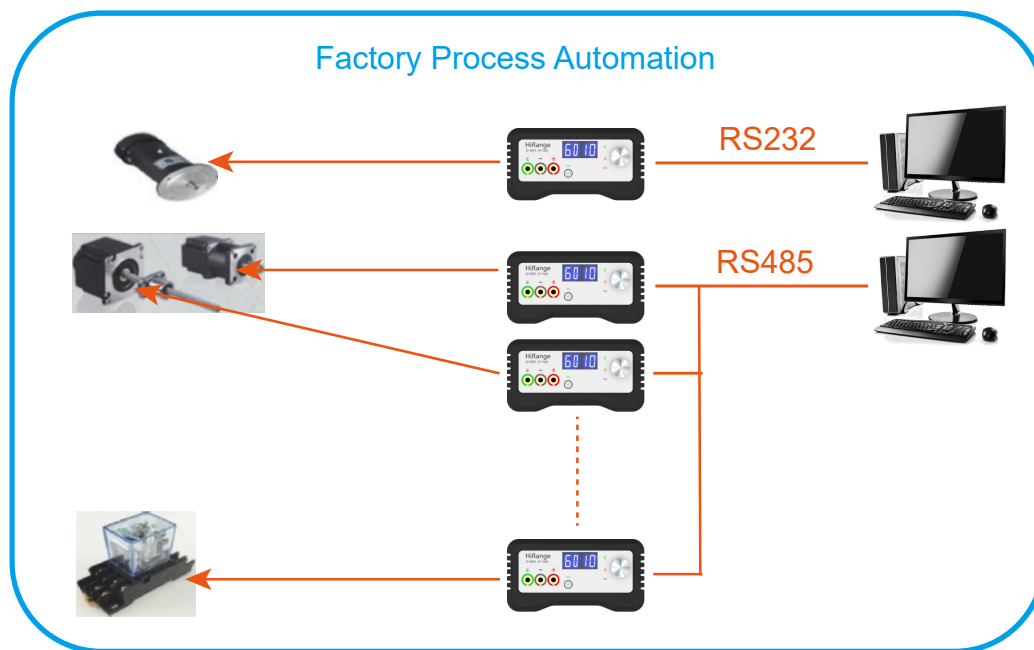
- Accurate 4-digit measure with voltage tolerance $< 0.05\%$.
- Compact 1U design and light weight.
- Higher ranges to 60V and 10A output.
- Linear regulator for clean DC output.
- Optional RS232, USB and RS485 interfaces.
- Panel calibration system available.
- Perfect for industry automation & remote control.
- Portable, stand-alone, and in-system versatilities.
- Power factor nearly 0.99.



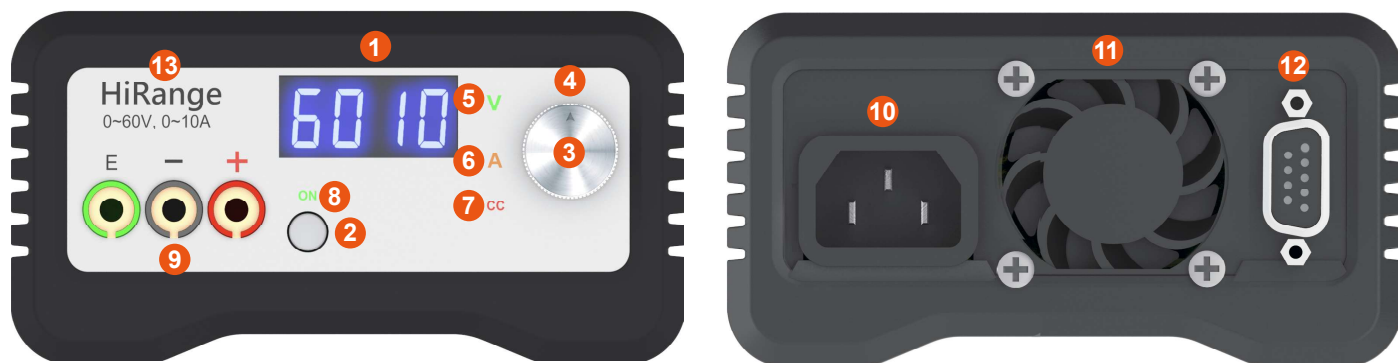
Applications:

• Personal possession (PP)	• Factory process automation(FA)
• Laboratory uses(LAB)	• Factory automatic test(ATE)
• Education & training(ED)	• Electro- mechanical system(EMS)
• Industrial control(IC)	• Precise battery charger(PCH)
• Lithium battery array charger (LCH)	• Smart home control (SCS)

Application examples for max. 32 units connection:



Options on front and rear panels:



1	7-segment LED module	4-digit meter measures and displays values of voltage and current. Also for auxiliary purpose of system parameters setup.
2	Output key	Press to turn the output on/off.
3	Knob enter key	Modes selection and input termination
4	Knob cw/ccw	Input increment/decrement
5	V-LED	Green "V" denotes unit = " VOLT" for meter display. Lit state : shows meter display in Reading mode. Blinking : shows meter display in Setting mode.
6	A-LED	Orange "A" denotes unit = " AMPERE" for meter display. Lit state : shows meter display in Reading mode. Blinking : shows meter display in Setting mode.
7	cc-LED	Red symbol "cc" . Off state : denotes output in constant voltage (CV) mode. Lit state: denotes output in constant current (CC) mode.
8	Output LED	Green symbol "ON" . Off state : denotes output Off. Lit state : denotes output On.
9	DC output	'Earth' terminal, '-' terminal and '+' terminal
10	AC input	IEC male socket
11	Cooling fan	Temperature control DC fan
12	Comm. port	RS-232 interface
13	Series & specifications	Series name / Output ratings

How to order HRG Series

Neutral order code :

HRG-vvii-FT-RT-C

options in details

vvii: output ratings
6010: 0~60V, 0~10A

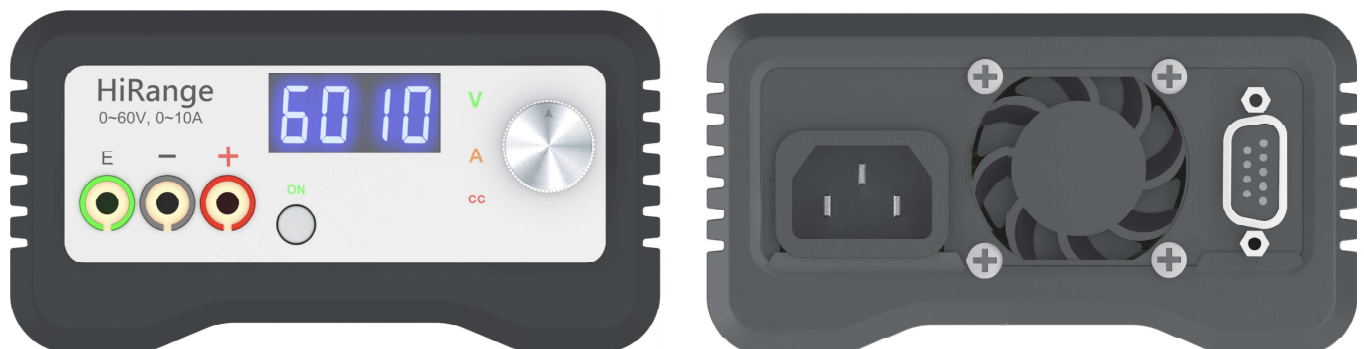
FT: Front panel output types
tb : terminal board
bn : banana jack

C: Comm types
N: not applied
U: USB, type B
2: RS-232
5: RS-485

RT: Rear panel AC in types
tb : terminal board
ec: IEC type

For example:

If a "HRG-6010-BN-EC - 2 " is ordered,
the real product will be looking as followed:



Specifications

HiRange series	HRG-6010		
ELECTRIC			
AC input rating			
Power, Watt	200W max		
Voltage, Volt	85~264VAC		
Current, Amp	2.4A max./115VAC , 1.2A max./230VAC		
Frequency, Hz	47~63Hz		
Inrush, Amp	22A max./115VAC , 46A max./230VAC		
Power factor	PF>0.95/230VAC , PF>0.99/115VAC		
ELECTRONIC			
DC output rating			
Voltage, Volt	0-60V		
Current, Amp	0-9.99A		
Power, Watt	200W		
Line regulation			
CV, mV	<= 10mV		
CC, mA	<= 5mA		
Load regulation			
CV, mV	<= 10mV		
CC, mA	<= 10mA		
Ripple / Noise (*1)			
CV,mVp-p	<= 30mVpp		
CV,mVrms		<= 10mVrms	
CC,mArms		<= 10mArms	

MEASUREMENT	
Panel setting resolution	
Voltage,mV	20mV
Current, mA	5mA
Programming resolution	
Voltage,mV	20mV
Current, mA	5mA
Programming accuracy	
Voltage, %	0.05 % + 7 cnt
Current, %	0.2% + 10 cnt
Measurement resolution	
Voltage,mV	20mV
Current, mA	5mA
Measurement accuracy	
Voltage %	0.05 % + 7 cnt
Current %	0.2% + 10 cnt
Temperature coefficient	
Voltage %/°C	0.001%/°C
Current %/°C	0.005%/°C
PROTECTIONS	
OVP	yes
OCP	yes
OTP	yes

COMMUNICATION

Interface: only 1 option

RS232	DB9
RS485	terminal block
USB	type-B

Protocol

Data rate, B/s	57600/N/8/1
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NORMS

EMC EMISSION	EN61000-3-2,-3
EMC IMMUNITY	EN61000-4-2,3,4,5,6,8,1
SAFETY\FET	EN60950-1

ENVIRONMENT

Operating temp. °C	0°C~50 °C
R. humidity, no condensed, %	20%~85%
Storage temp. °C	-20°C~70 °C
R. humidity, no condensed, %	<90%

PHYSICAL

Dimensions mm cubic	W*D*H = 100mm*250mm*40mm(<1U)
Weight, kg	1.3kg

*1: From output terminals, running a 25cm twisted wire pair terminated with a 0.1uf CC & 10uF EC. Observe voltage across the capacitors under 20 MHz BW at full resistive load.



®

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Eof.