



H02PW 程控电源使用说明书

一、产品型号列表

型 号	额定功率	外形尺寸
H02PW	0.07A	93×95×82mm
H02PW-e	0.1A	93×95×82mm

二、指示灯说明

- 1、PWR: 电源指示灯，绿色。常亮 - 电源正常；不亮 - 电源异常。
- 2、CV/CC/ON: 恒压/恒流/PWM 指示灯，红色。常亮 - 对应的恒压/恒流/PWM 输出；不亮 - 未输出。
- 3、LINK: 通讯指示灯。根据错误的严重程度分 4 种颜色指示，从正常到严重为：绿色，黄色闪，红色闪烁，红色常亮。用户需根据指示灯的不同状态做出相应的处理，详见下表：

LINK 指示灯状态	指示信息分类	参考处理方式
绿色	常暗	主机未识别模块且无通信
	常亮	主机已识别模块且无通信
	快速抖动	串口、并口通信
黄色	亮暗闪烁	无并/串口通信
	暗和抖动交替	有并/串口通信
	亮暗闪烁	无并/串口通信
红色	暗和抖动交替	有并/串口通信
	常亮	无并/串口通信
	快速抖动	有并/串口通信

注： 抖动:指示灯亮 30ms 灭 30ms； 闪烁: 指示灯亮 0.5s 灭 0.5s； 交替: 指示灯灭 0.5s 抖动 0.5s

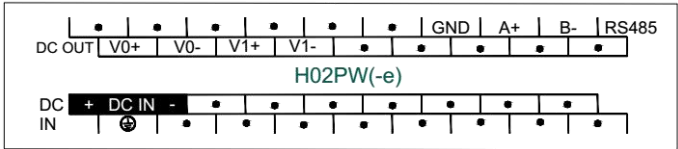
三、技术指标

项目	参数
输入电压范围	24V~62V
输出电压调节范围	3V~50V
输出电流调节范围	单路: 0~5A 双路: 0~3A
输出功率	单路: 60W 双路: 90W (各 45W)
输出电压分辨率	10mV
输出电流分辨率	5mA
电压/电流精度	CV: 0.5%+5mV CC: 0.5%+5mA
电源调整率	CV: 0.5%+5mV CC: 0.5%+1mA
负载调整率	CV: 4%+20mV CC: 0.5%+1mA
输出纹波	Max. 300mV (规定输出指标范围内)
典型效率	86% (输入 65V, 输出 30V, 电流 2A)
电压/电流显示精度	CV: 1%+5mV CC: 1%+2mA
保护类型	OVP、OCP、OPP (过压、过流、过载保护)
散热方式	散热片

四、产品环境规格

项目	环境规格
温度/湿度	工作温度: 0~+55 ℃ 储存温度: -25~+70 ℃ 湿度: 5~95%RH, 无凝露
抗干扰能力	DC EFT: ±3000V, 浪涌: ±500V
耐压能力	DC 端子对地线端子间 500VAC, 1 分钟
绝缘阻抗	DC 端子对地线端子间 500VDC, 5MΩ 以上 (所有输入/输出点对地间 500VDC)
使用环境	防尘、防潮、防腐蚀、免受电击及外力冲击等环境

五、模块端子配线图



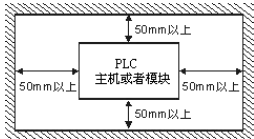
六、模块的安装

在安装时，请安装在封闭式配电箱内，其周围应保持一定的空间（如右图所示），以确保 PLC 能良好地进行散热。

导轨安装方式：使用标准 35mm 导轨。

螺丝安装方式：每台模块均有两个螺丝定位孔，其孔径为 4.5mm，定位孔的位置及间距请参考产品外型尺寸图。

不管用何种安装方式，为确保 PLC 能正常良好地进行散热，防止温度升高，切勿将 PLC 安装在柜内靠近柜壁的底部、上部及垂直方向安装。



七、通讯地址的设定

方法一：通过 PLC 上的编码开关修改。右图用于设定 PLC 地址的 4 位编码开关示意图，上面为 ON，下面为 OFF，图中黑色部分表示编码开关的位置，拨到 ON 时表示该位为 1，拨到 OFF 时表示该位为 0，反映到 PLC 地址时用二进制表示：第 1 位表示二进制的第 1 位（b0），第 4 位表示二进制的第 4 位（b3），由此，4 位编码开关可用于表示二进制的数从 0000 ~ 1111，把二进制数转化为十进制数后即为 PLC 地址。

方法二：通过编程软件的界面修改。在菜单栏中“PLC”下选择“设置 PLC 参数”，然后勾选“使用 PLC 软地址”。

缺省 IP 地址为：192.168.1.111，子网掩码：255.255.255.0，网关：192.168.1.1。



八、模块参数表（注：CR 号就是对应的 Modbus 寄存器地址）

CR 号	功能说明	属性	出厂值	备注
00H	低字节为模块代码，高字节为模块版本号	R		
01H	通讯地址	R/W	1	范围：1~254
02H	通讯协议 低字节低 4 位：0 - N,8, 2 For RTU, 1 - E,8, 1 For RTU, 2 - O 8,1 For RTU, 3 - N,7, 2 For ASCII, 4 - E,7, 1 For ASCII, 5 - O,7, 1 For ASCII, 6 - N,8, 1 For RTU 低字节高 4 位：0 - 2400, 1 - 4800, 2 - 9600, 3 - 19200, 4 - 38400, 5 - 57600, 6 - 115200	R/W	48	(19200,N,8, 2,RTU)
03H~06H	模块名称	R/W		
07H	IP 地址	R/W		
08H	IP 地址	R/W		
09H	月日	R		
0AH	年批号	R		
0BH	高字节子网掩码（b3~b0,1 表示 255,0 表示 0）低字节厂商代码 HW	R/W		
0CH	验证码	R		
0DH	流水号低字	R		
0EH	流水号高字	R		
0FH	错误代码：0:正常；1:非法固件身份；2:固件不完整；3:系统数据访问异常；4:无外部 24V 电源	R		
10H	通道 1 的电压测量值	R		单位：0.01V
11H	通道 1 的电流测量值	R		单位：mA
12H	通道 2 的电压测量值	R		单位：0.01V
13H	通道 2 的电流测量值	R		单位：mA
14H	通道 1 的电压输出值	R/W	0	单位：0.01V
15H	通道 1 的电流输出值	R/W	0	单位：mA
16H	通道 2 的电压输出值	R/W	0	单位：0.01V
17H	通道 2 的电流输出值	R/W	0	单位：mA
18H	输出 1 PWM 周期(单位 ms)	R/W		
19H	输出 2 PWM 周期(单位 ms)	R/W		
1AH	输出 1 PWM 占空比	R/W	1000	0-1000
1BH	输出 2 PWM 占空比	R/W	1000	0-1000
1CH~3FH	保留	R		

感谢您选用 Haiwell PLC，若您对我们的产品或服务有问题或不足之处，敬请告诉我们！

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User's manual of H02PW Module

1.Product Model List

Model	Power Consumption	Dimension
H02PW	0.07A	93×95×82mm
H02PW-e	0.1A	93×95×82mm

2.Indicator Description

- ① PWR:Power indicator,green. Continuous ON - Power good; OFF - Power error.
② CV/CC/ON:Constant voltage/constant current/PWM indicator,red. Continuous ON - The corresponding constant voltage/constant current/PWM output; OFF - No output.
③ LINK:Communication indicator. According to the severity of the error indication in 4 colors: Green, Yellow Flash, Flashing Red, Red from normal to severely.

According to the different states of the indicator, users are recommended to take the following actions:

State of the LINK Indicato		Indication Information	Actions to Take
Green	Keep dark	Host is not recognition module and no communication	Nothing
	Keep light	Host identified modules and no communication	
	Quick jitter	Serial, parallel communication	
Yellow	Flashing light and dark	No parallel / serial communication	Lack of external power supply
	Alternating dark and jitter	Parallel / serial communication	
	Flashing light and dark	No parallel / serial communication	
Red	Alternating dark and jitter	Parallel / serial communication	Firmware incomplete
	Keep light	No parallel / serial communication	
	Quick jitter	Parallel / serial communication	

Note: Jitter: 30 second's on with 30 second's off ; Flicker: 0.5 second's on with 0.5 second's off ; Alternately: 0.5 second's off with 0.5 second's jitter

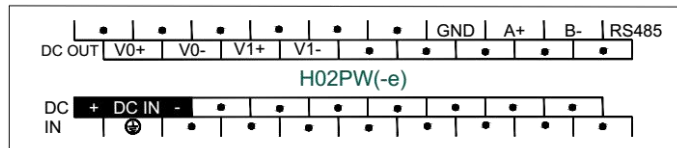
3.Technical Specifications

Item	Parameter
Input voltage range	24V~62V
Output voltage range	3V~50V
Output current range	Single: 0~5A Dual: 0~3A
Output Power	Single: 60W Dual: 90W (Each 45W)
Output voltage resolution	10mV
Output current resolution	5mA
Accuracy	CV: 0.5%+5mV CC: 0.5%+5mA
Line regulation	CV: 0.5%+5mV CC: 0.5%+1mA
Load regulation	CV: 4%+20mV CC: 0.5%+1mA
Ripple	Max.300mV (Within the specified range)
Typical Efficiency	86% (Input 65V, Output 30V/2A)
Measurement Accuracy	CV: 1%+5mV CC: 1%+2mA
Type of protection	OVP、OCP、OPP
Cooling	Heat sink

4.Environmental specifications for Product

Item	Environment Specification
Temperature/Humidity	Operating temperature:0~+55℃ Storage temperature:-25~+70℃ Humidity: 5~95%RH, No condensation
Interference Immunity	DC EFT:±2500V Anti surge: ±500V
Over Voltage Resistance	500VAC/1min between DC terminal and PE terminal
Insulation Impedance	≥5MΩbetween DC terminal and all input/output points to PE terminal @500VDC
Operating environment	Avoid dust, moisture, corrosion, electric shock and external shocks

5.Terminal Wiring Diagram



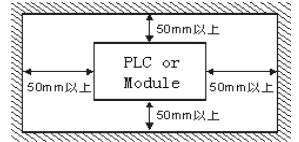
6.Mounting and installation

The PLC should be secured to an enclosed cabinet while mounting. For heat dissipation, make sure to provide a minimum clearance of 50mm between the unit and all sides of the cabinet. (See the figure.)

Rail Mounting: Use standard 35 mm rail.

Screw Mounting: Each MPU or extension module has two positioning screw holes, the diameter of the hole is 4.5mm. Please refer to the dimension figure for the location of the positioning holes and their spacing.

To avoid over temperature and for a better heat dissipation, do not mount PLC to a position near to the bottom/top of the cabinet. Do not mount PLC in vertical direction.



7.Correspondence Address Setting

Method 1: modify address by code switch. The 4-bit code switch is used to set PLC's address, as shown in the figure on the right side. The black rectangle indicates the position of each code switch. When the switch was toggled to ON, the bit was set to 1, bit will be set to 0 when the corresponding switch was toggled to OFF. The 4-bit code switch's state indicates PLC's address by the following rule: the "1" switch represents the first bit (b0), the "4" switch represents the fourth bit (b3). Therefore the 4-bit code switch is able to represent binary number range from 0000 to 1111, PLC's address will be the decimal number converted from the binary number set by the code switch.

Method 2: modify address through programming software interface. Select "PLC" option in the menu bar, then select "Setup PLC Parameters" option from the follow-up options, checked "Use PLC Soft Address".

With Ethernet port, the default IP address is : 192.168.1.111, subnet mask: 255.255.255.0, gateway: 192.168.1.1.



8.Module CR Table(Note: CR number is the corresponding Modbus register address)

CR No.	Function	R/W	Default	Note
00H	Low byte represents the module code, the high byte represents the module version	R		
01H	Communication Address	R/W	1	Range:1~254
02H	Protocol: Low 4 bit: 0 - N,8, 2 For RTU, 1 - E,8, 1 For RTU, 2 - O,8,1 For RTU, 3 - N,7, 2 For ASCII, 4 - E,7, 1 For ASCII, 5 - O,7, 1 For ASCII, 6 - N,8, 1 For RTU High 4 bit: 0 - 2400, 1 - 4800, 2 - 9600, 3 - 19200, 4 - 38400, 5 - 57600, 6 - 115200	R/W	48	(19200,N,8, 2,RTU)
03H~06H	Module Name	R/W		
07H	IP address	R/W		
08H	IP address	R/W		
09H	Factory Information	R		
0AH	Factory Information	R		
0BH	High byte subnet mask, low byte HW vendor code	R/W		
0CH	Factory Information	R		
0DH	Factory Information	R		
0EH	Factory Information	R		
0FH	Error code: 0: Normal; 1: Illegal firmware; 2: Firmware is incomplete; 3: System data access exception; 4: No external 24V power supply	R		
10H	1 channel voltage measurements	R		Unit: 0.01V
11H	1 channel Current measurements	R		Unit: mA
12H	2 channel voltage measurements	R		Unit: 0.01V
13H	2 channel Current measurements	R		Unit: mA
14H	Channel 1 output voltage	R/W	0	Unit: 0.01V
15H	Channel 1 current voltage	R/W	0	Unit: mA
16H	Channel 2 output voltage	R/W	0	Unit: 0.01V
17H	Channel 2 current current	R/W	0	Unit: mA
18H	Channel 1 PWM output cycle (Unit ms)	R/W		
19H	Channel 2 PWM output cycle (Unit ms)	R/W		
1AH	Channel 1 PWM output duty	R/W	1000	0-1000
1BH	Channel 2 PWM output duty	R/W	1000	0-1000
1CH~3FH	Reserved	R		

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