




**MICON**  
**McUH273**

*12V / 24V 20A Solar Charge Controller  
RS 485 Data Port  
Bluetooth Data Monitoring on Mobile App*



Conforms to IEC 62093

**PROTECTIONS:**

- Full Electronic protection against over load or short circuits
- Protections against deep discharge and over charge of battery
- Protections against reverse flow of current from battery to panel during night
- Protections against lightening
- Epoxy coating of electronics for protections against humidity and dust

**SELF DIAGNOSTIC LED INDICATORS**

- Bicolour LED for battery status
- Two different LED indicators for charge status and overload condition

**MODE OF OPERATION**

User selectable on board

- Normal mode (Load will be on day and night)
- Dusk to Dawn mode (Load will be on only during night)

**BATTERY TYPE SELECTION**

Select the type of battery SMF or LFP

**AUX:** Battery is continuously available irrespective of mode selection or battery level. Output limited to 2A max.

**DATA:** Available in the form 9600 801  
RS 485 (Optional): Bluetooth Data(Optional)

**LONGER BATTERY LIFE**

- Battery charging management for better SOC
- Battery specific charging as per SMF/Lithium batteries
- Low voltage disconnect of battery
- Over voltage disconnect of battery

**SAVES ENERGY**

- High efficiency series control to regulate the battery and load
- Extremely efficient and low no-load current to save battery power

**EASE OF INSTALLATION AND USE**

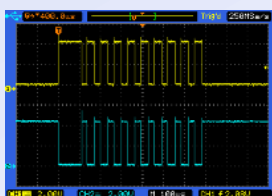
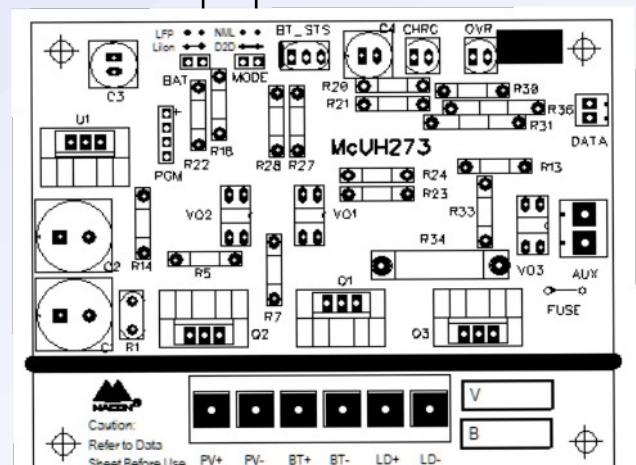
- Industrial grade sheet metal enclosure
- Easily accessible terminals for connections

**QUALITY CONTROL AND CERTIFICATION**

- 100% testing of each controller
- Conforms to IEC 62093 to assure the reliability

If link, Li Ion battery  
If no link, LFP battery

If link, D2D operation  
If no link, normal operation



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16:30:02 BN:MACON
16:30:02
16:30:02 CH:OFF
16:30:02 PV:12851
16:30:02 BV:12851
16:30:02 LW:28
16:30:02
16:30:04 BN:MACON
16:30:04
16:30:04 CH:ON
16:30:04 PV:13294
16:30:04 BV:13294
16:30:04 LW:31
  
```



# TECHNICAL SPECIFICATIONS

## LED INDICATORS:

**OVER LOAD:** RED LED

If overload or short at output, this will be on and load will be off for 5 sec. Remove the fault, it will automatically reset after 5sec

**CHARGING:** Green LED stable on.  
Bat Fully Charged: LED blinking

## BAT STATUS :

- ➡ Bat Low: RED stable
- ➡ Bat Reserve: RED blinking (below LVR)
- ➡ Bat Healthy: GREEN stable (above LVR)
- ➡ Over Voltage: RED and GREEN blinking alternately

## 6-WAY TERMINAL :

On board connector marked PV+, PV-, BT+, BT-, LD+ and LD- to make connections to Solar, battery and load

## SELECTABLE SETTINGS:

BAT\_SEL:

With Link: LFP  
No Link: SMF

MODE:

With Link: Dusk to Dawn operation  
No Link: Normal operation

SYSTEM:	12/24 V	
CAPACITY:	Solar Panel: 12V: 350 W/ 20 A 24V: 650 W/ 20 A Load: 20 A	
REGULATION:	Low Loss, Series Type	
OUTPUT VOLTAGE DROP:	<250mV at 20A (OVD)	
INPUT VOLTAGE DROP:	<400mV at 20A (IVD)	
BATTERY OPERATION (Based on selection of Link)	BATTERY	
	TYPE	
	<b>Lead Acid</b> <b>12V</b> <b>24V</b>	<b>LFP</b> <b>12.8</b> <b>25.6V</b>
LOW VOLTAGE PROTECT:	9.5 V 18.5V	10 V 20 V
LOW VOLTAGE DISCONNECT:	10.7 V 21.5 V	11.2 V 22.5 V
LOW VOLTAGE RECONNECT:	12.3 V 24.5 V	13.2 V 26 V
HIGH VOLTAGE DISCONNECT:	14.4 V 28.5 V	14.4 V 29 V
HIGH VOLTAGE RECONNECT:	14.3 V 28 V	13.8 V 27.5 V
HIGH VOLTAGE PROTECTION:	15 V 30 V	15 V 30 V
DUSK_SENSE	Panel Voltage <2V <5V	
DAWN_SENSE (10Sec Delay)	Panel Voltage > 4V, >8V	
PROTECTIONS:	*Short Circuit / Overload *Reverse Battery *Reverse Solar Panel *Reverse flow of current from Battery to Panel during night *Lightening	
Electronic shutdown	If load>20A, load off and checks after 5 seconds automatically	
APPLICATION;	In Door Use Only	
OPERATING TEMP RANGE;	0 to 60° C	
DIMENSIONS: (Enclosure)	155 L x90 W x 45 H (mm)	