



MSTronic Co., Ltd.

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SOL40P12-56B1N

Solar/PoE Charge Controller + Gigabit PoE Injector

SPECIFICATION

1. INPUT :

- 1.1 Input Voltage: POE : 36Vdc ~ 57Vdc
Solar : 18V ~ 45V
Battery : 12V



2. OUTPUT :

2.1 Output Voltage & Current:

Model	POE (front)	LOAD (rear)
OUTPUT	56V	12V
Max. Current	0.63A	10A

3. CHARGER :

- 3.1 POE Charge Current : 1.5A (max)
*** for load first, only the balance used to charging.
- 3.2 POE Input Watts : 30W(min)
- 3.3 POE Input compliant to 802.3at, all 4 pairs available, GIGA.
- 3.4 SOLAR Charge Current : 40A(max) @ 14.2 ± 0.3V Vin

4. PROTECTION

4.1 Load Short Circuit Protection

DC (P3) or POE output short circuit will not damage the fuse, will Auto-Recover when Load back to normal.



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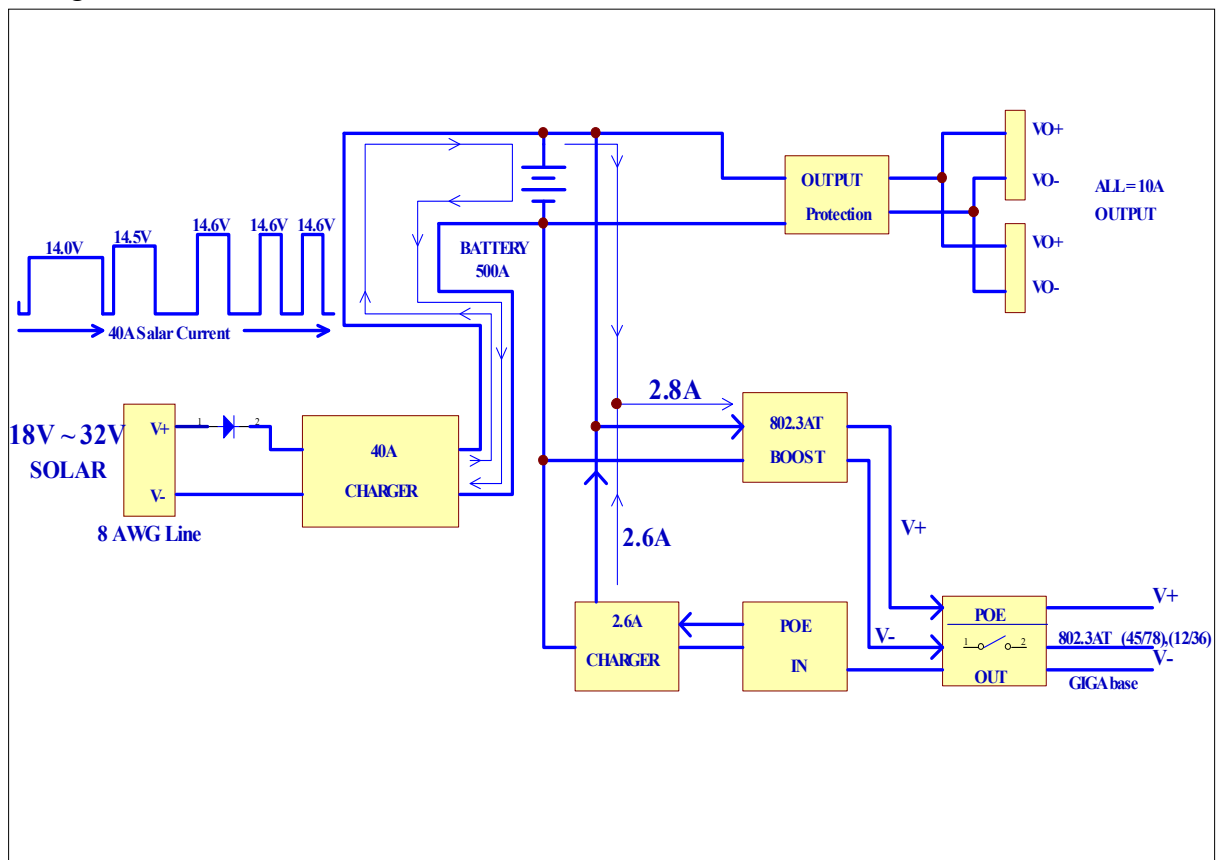
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- 4.2 Battery Reverse, with LED indicates, will not damage the load device.
 - 4.3 Battery low voltage protection : $11V \pm 0.3V$
 - 4.4 Battery voltage back to $12V \pm 0.3V$ will auto recover offer power to load.
 - 4.5 LED indicates Load be powered.
 - 4.6 Solar Reverse will no charge current.
 - 4.7 Solar voltage lower than 10.5V stop charge.
 - 4.8 Only solar input, no battery connected, no charge current.
- 5 POE to Battery Charger Voltage :
Float = $13.4V \pm 0.2V$
Equalize = $14.4V \pm 0.2V$
- 6 SOLAR to Battery Charger Voltage :
charger go to Equalize = $14.2 V \pm 0.3V$
Charger Mode :





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7 802.3at POE OUTPUT Pin: (45 = + , 78 = -)

OUTPUT	56V
Max. Current	0.63A
Max. Watts	35W

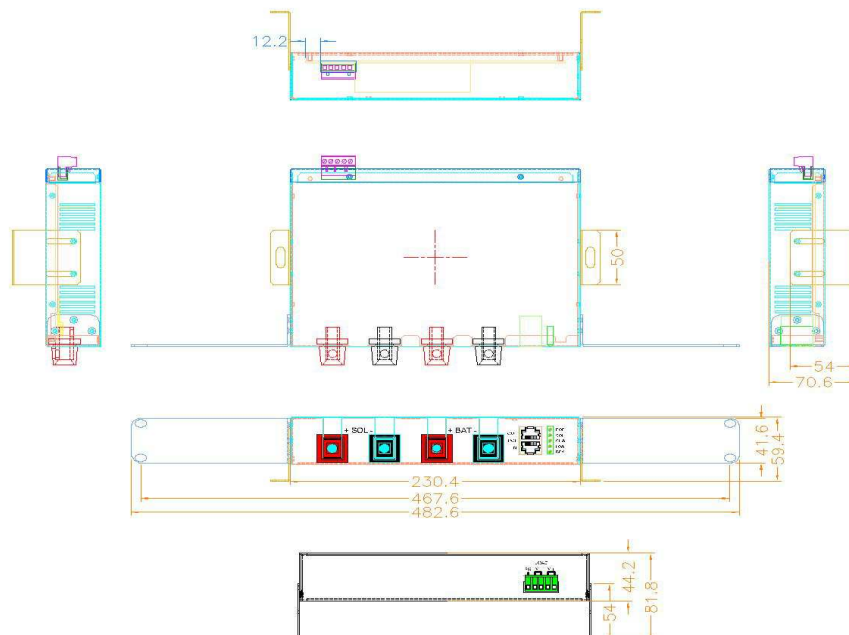
8 P3 = 10A Output.

9. INDICATORS:

- 9.1 POE indicator: POE input
- 9.2 SOL indicator: Solar input
- 9.3 CHA indicator: charging
- 9.4 LOA indicator: load device drawing
- 9.5 REV indicator: battery reversed

10. GENERAL DESCRIPTION

- 10.1 Operation Temperature: -40 - +50 Degree
- 10.2 Storage Temperature: -40 - +85 Degree
- 10.3 Operation Humidity: 5% - 90%
- 10.4 Cooling: Free air cooling
- 10.5 SIZE 230*160*42(D*W*H)
- 10.6 Mounting: 19" 1U rack mount or desktop (L brackets)





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11. PIN ASSIGNMENT:

RJ-45 Input (Data & Power) lower socket		
Pin	Symbol	Description
1	BI_DA+, Vin +/-	Data Pair A+ & power Vin +/-
2	BI_DA-, Vin +/-	Data Pair A- & power Vin +/-
3	BI_DB+, Vin +/-	Data Pair B+ & power Vin +/-
4	BI_DC+, Vin +/-	Data Pair C+ & power Vin +/-
5	BI_DC-, Vin +/-	Data Pair C- & power Vin +/-
6	BI_DB-, Vin +/-	Data Pair B- & power Vin +/-
7	BI_DD+, Vin +/-	Data Pair D+ & power Vin +/-
8	BI_DD-, Vin +/-	Data Pair D- & power Vin +/-

RJ-45 Output (Data & Power) upper socket		
Pin	Symbol	Description
1	BI_DA+,	Data Pair A+
2	BI_DA-,	Data Pair A-
3	BI_DB+,	Data Pair B+
4	BI_DC+, Vout +	Data Pair C+ & power Vout (+)
5	BI_DC-, Vout +	Data Pair C- & power Vout (+)
6	BI_DB-,	Data Pair B-
7	BI_DD+, Vout -	Data Pair D+ & power Vout (-)
8	BI_DD-, Vout -	Data Pair D- & power Vout (-)

Note :

1. the model is isolated design, the output +/- or input +/- can be shorted to ground (FG).
2. (option model) 12/36 Output.(12= + , 36= -, SOL40P12-56A1R) or (12= - , 36= +, SOL40P12-56A1N)



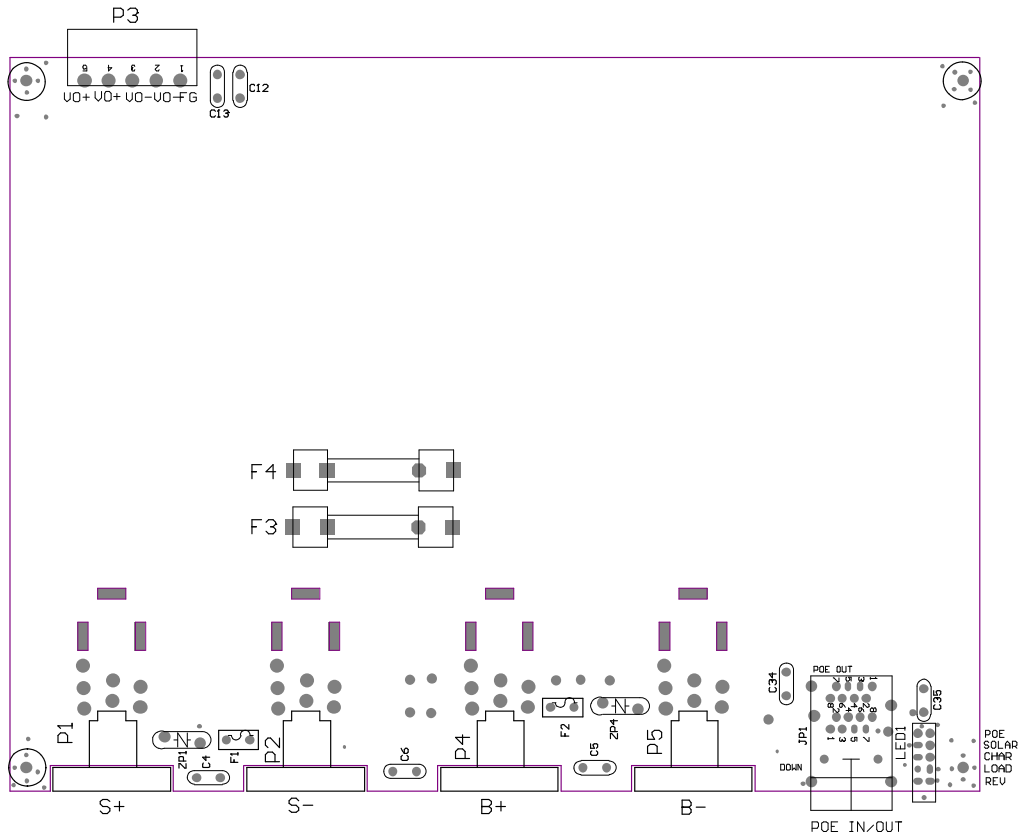
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- S+ = SOLAR INPUT CONNECTER Positive polarity
- S- = SOLAR INPUT CONNECTER Negative polarity.
- B+ = BATTERY CONNECTER Positive polarity
- B- = BATTERY CONNECTER Negative polarity.
- POE IN/OUT = POE IN/OUT 803.3at CONNECTER
- F3,4 = T25A/250V
- P3 = 12V/10A OUTPUT
- IND = LED INDICATORS



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