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EPSOLAR TECHNOLOGY

Tracer-AN series

Introduction(50-100 A)

BEIJING EPSOLAR TECHNOLOGY CO., LTD

2018

Contents

Tracer-AN

low current series

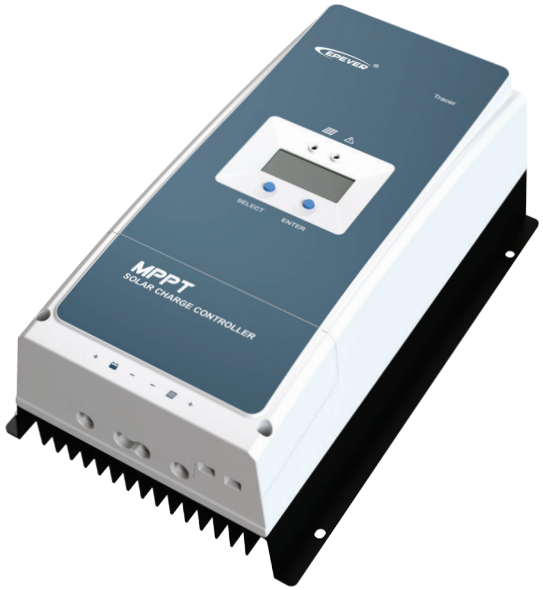
Tracer-AN

high current series

36 ,24 ,12 and 48 battery bank
PV array 200Volts and 5KW

Mobile device, PC or MT 50
remote monitoring device

IEC62109-1 and EN61000-6-1/3



Overview


EPEVER
Tracer
SELECT
ENTER
MPPT
SOLAR CHARGE CONTROLLER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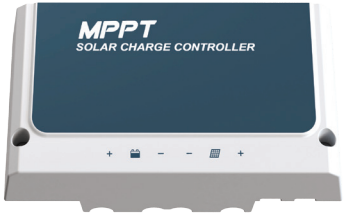
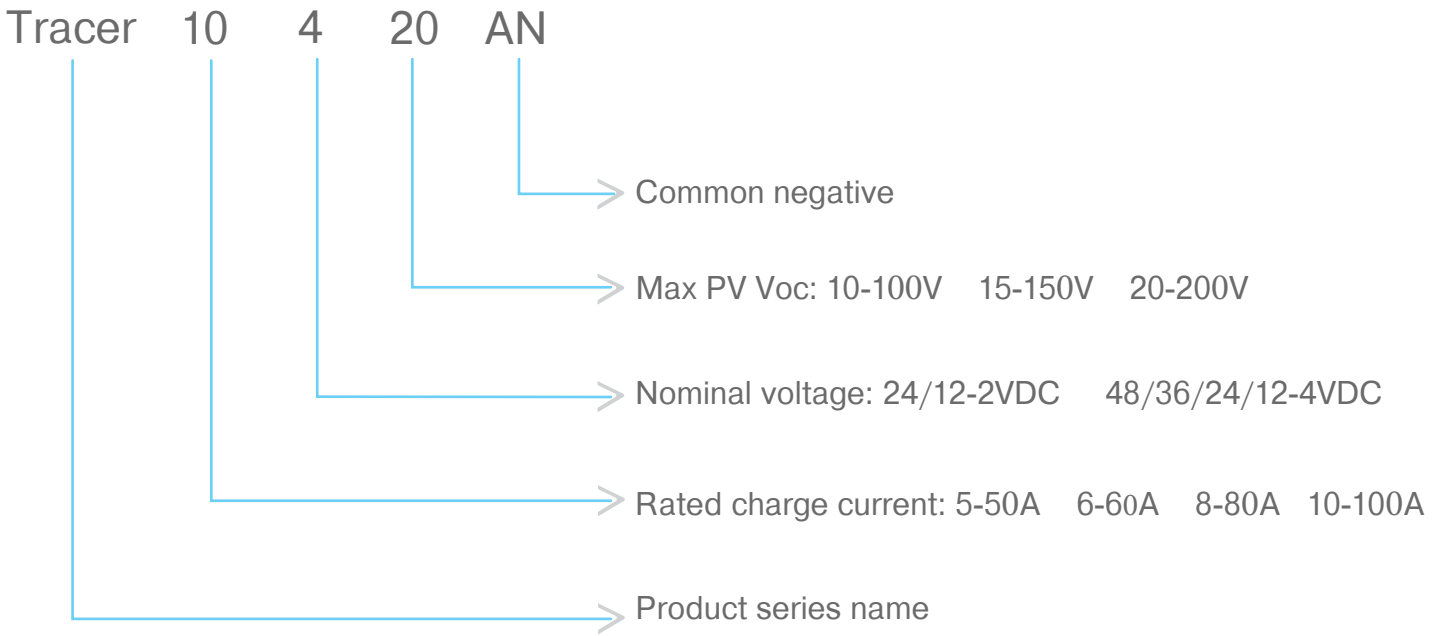
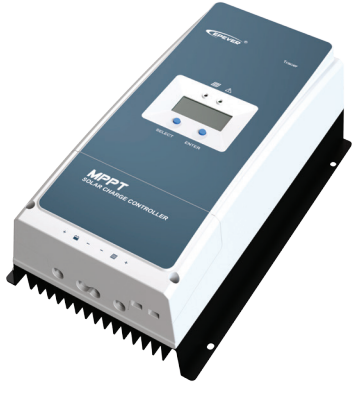
Tracer
SELECT
ENTER


MPPT
SOLAR CHARGE CONTROLLER

Specification

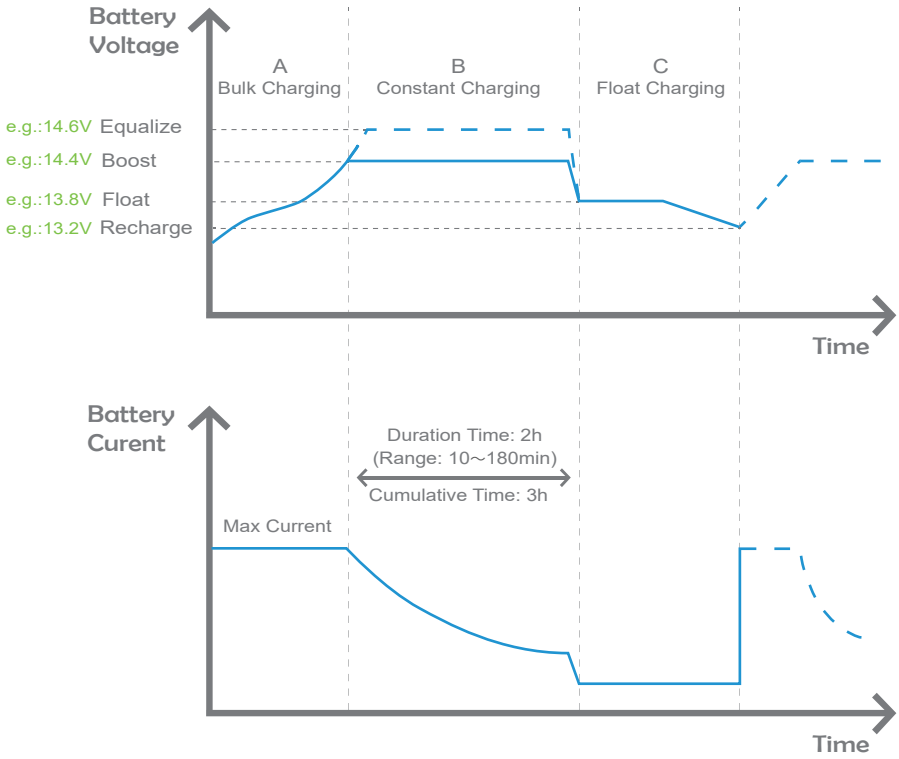


Specification



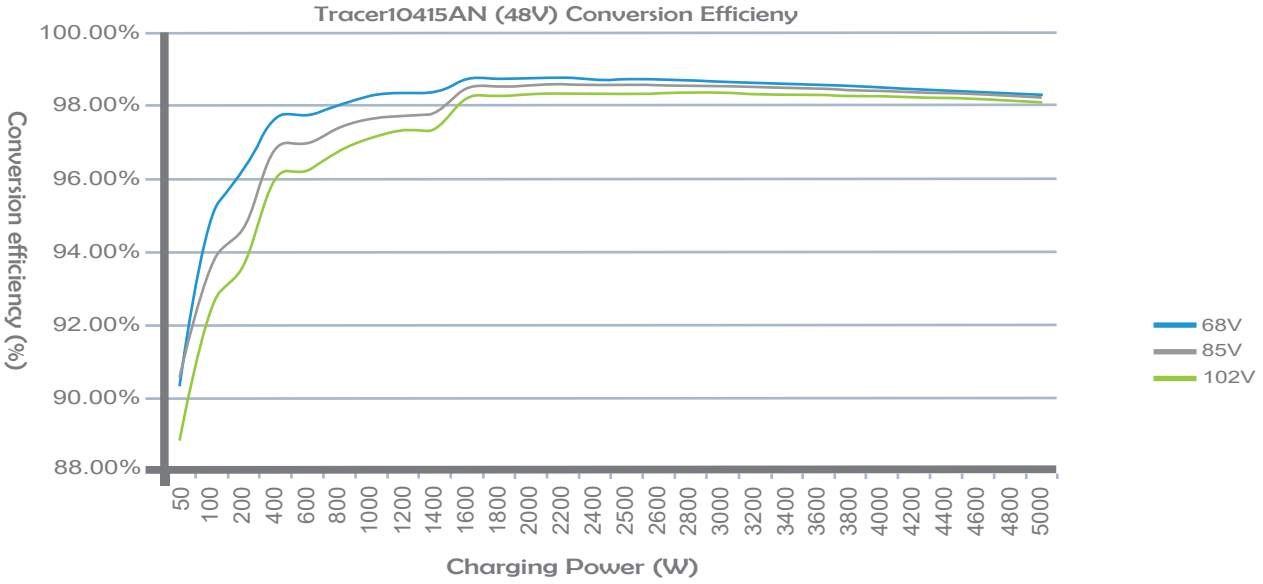
- 100A
  - 150V
  - 200V
- 80A
  - 150V
  - 200V
- 60A
  - 100V
  - 150V
  - 200V
- 50A
  - 100V
  - 150V
  - 200V

Advantages
Charging Mode

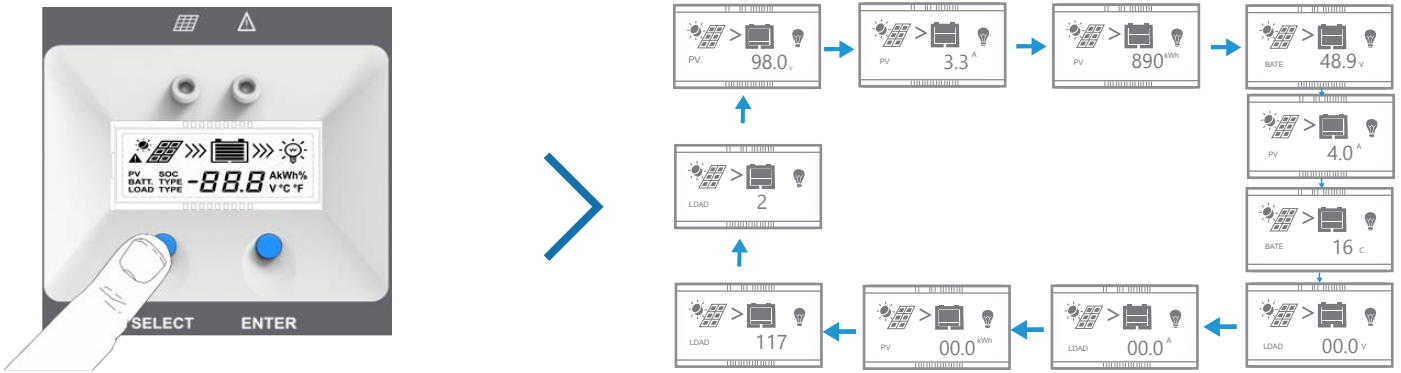


Advantage in software & hardware

Unique circuit design, to achieve the maximum conversion efficiency up to %98.7, maximum full load efficiency up to %98.



1. Display and operation

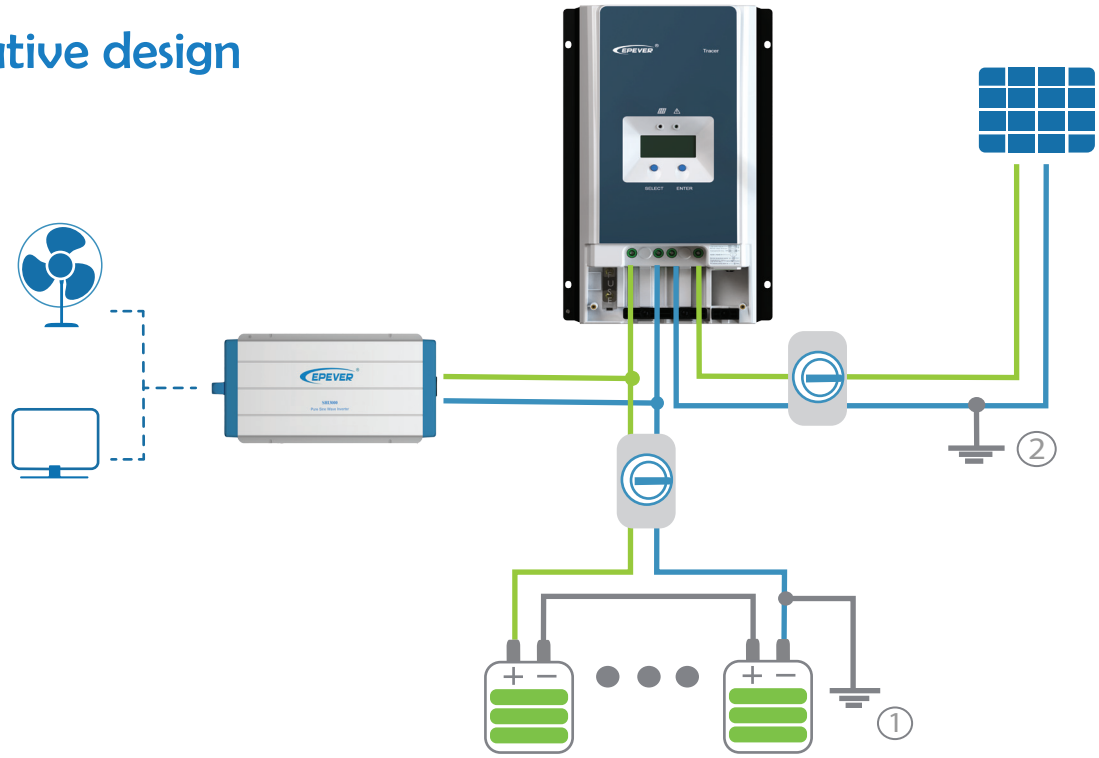


LED indicator: Indicates PV working status, fault alarm

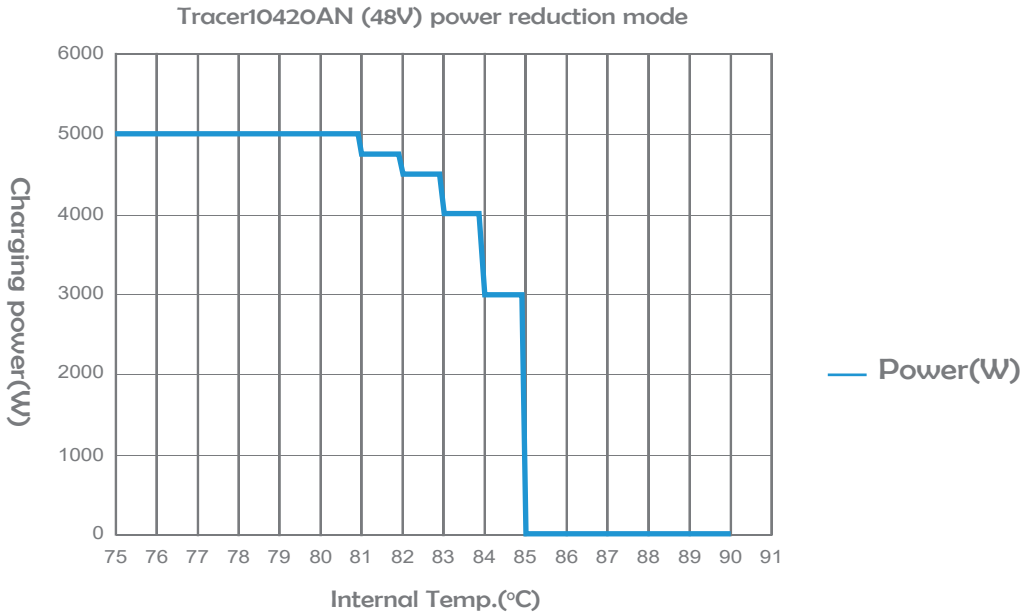
Button: Browse and set parameters, control the load relay on/off, clear fault

Local settable contents: Clear generated energy, switch the battery temperature unit, choose battery type

Common negative design



Automatic over-temperature power reduction function



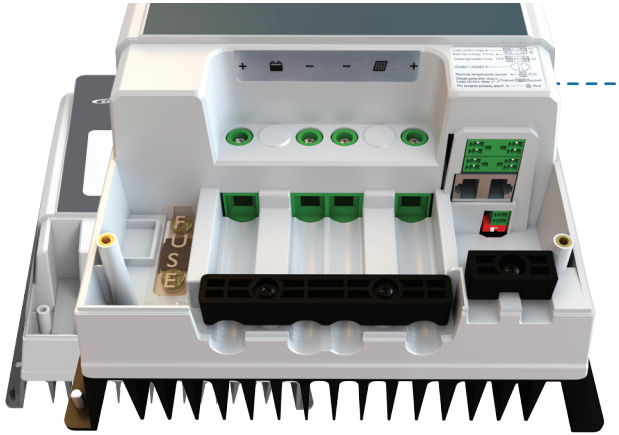
Main function

Dual auto-limitation of rated charge power & charge current function

Main electronic protection

WARNING: This controller series doesn't have the protection against battery reverse polarity, so please do not reverse the polarity when installation, otherwise the controller would be damaged.

Innovative function



Load control relay ← P3.81 ⊖ ⊕

Remote voltage sensor ←

Diesel generator relay OFF — OFF P3.5 ON

RS485 || RS485 ←

Remote temperature sensor ← P3.81

Diesel generator relay
Load control relay
← Enabled Disabled

PV reserve polarity alarm ← Red

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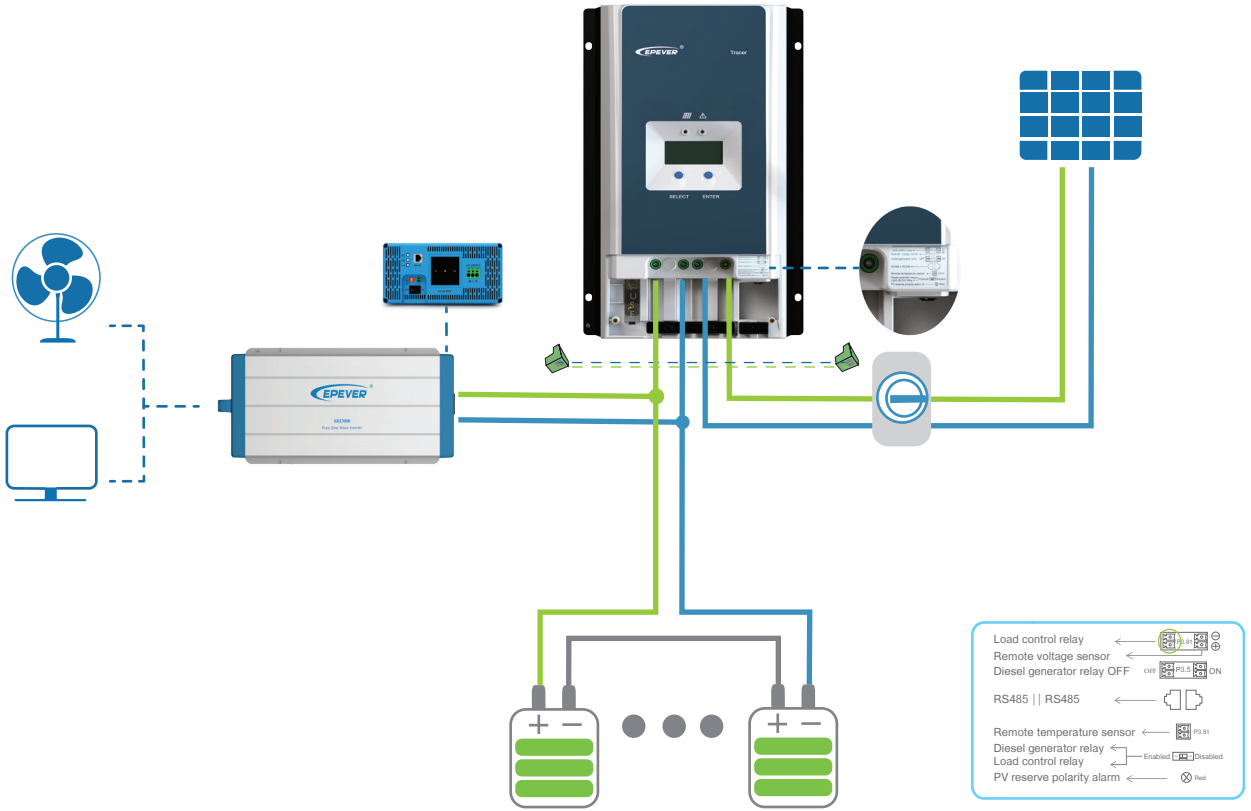
Application 1-Load control relay and load disconnect



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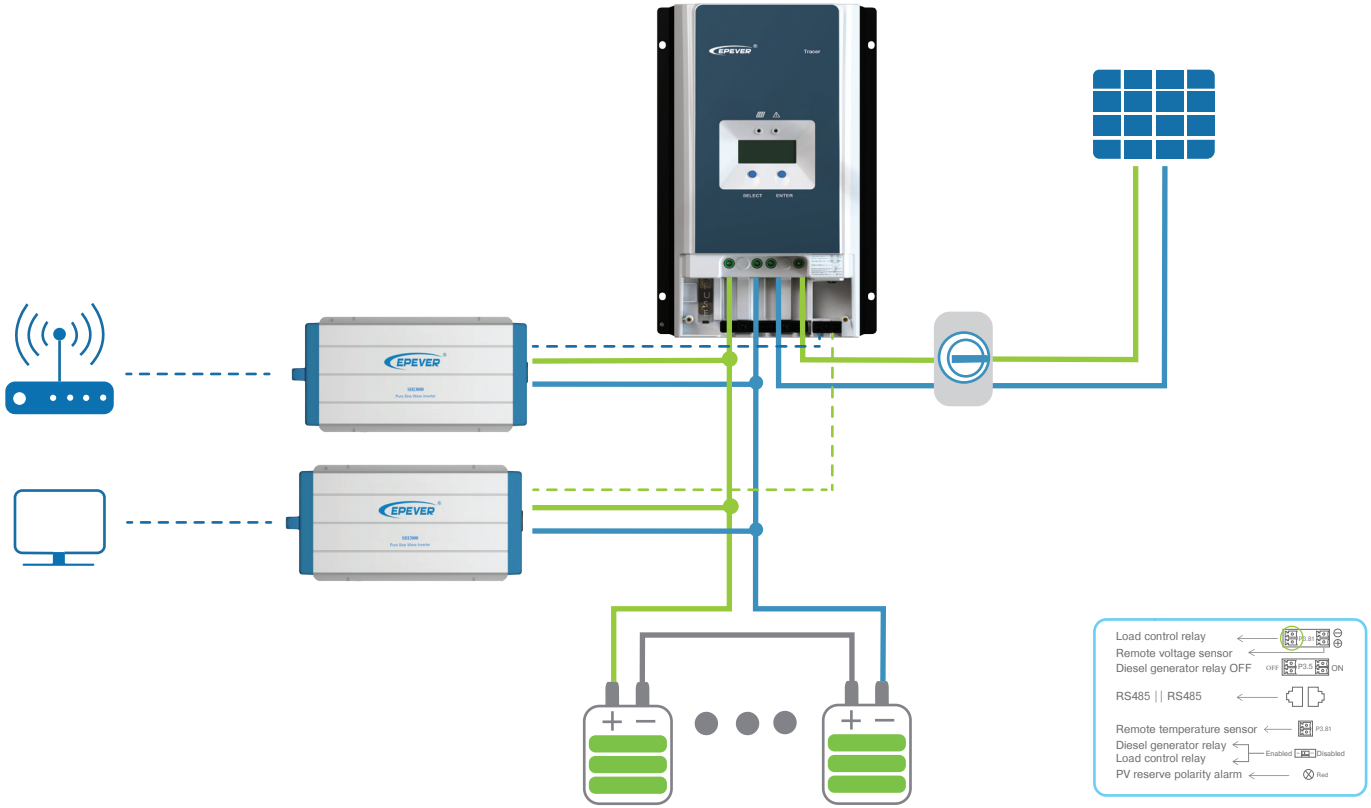
Application 1-Load control relay and load disconnect



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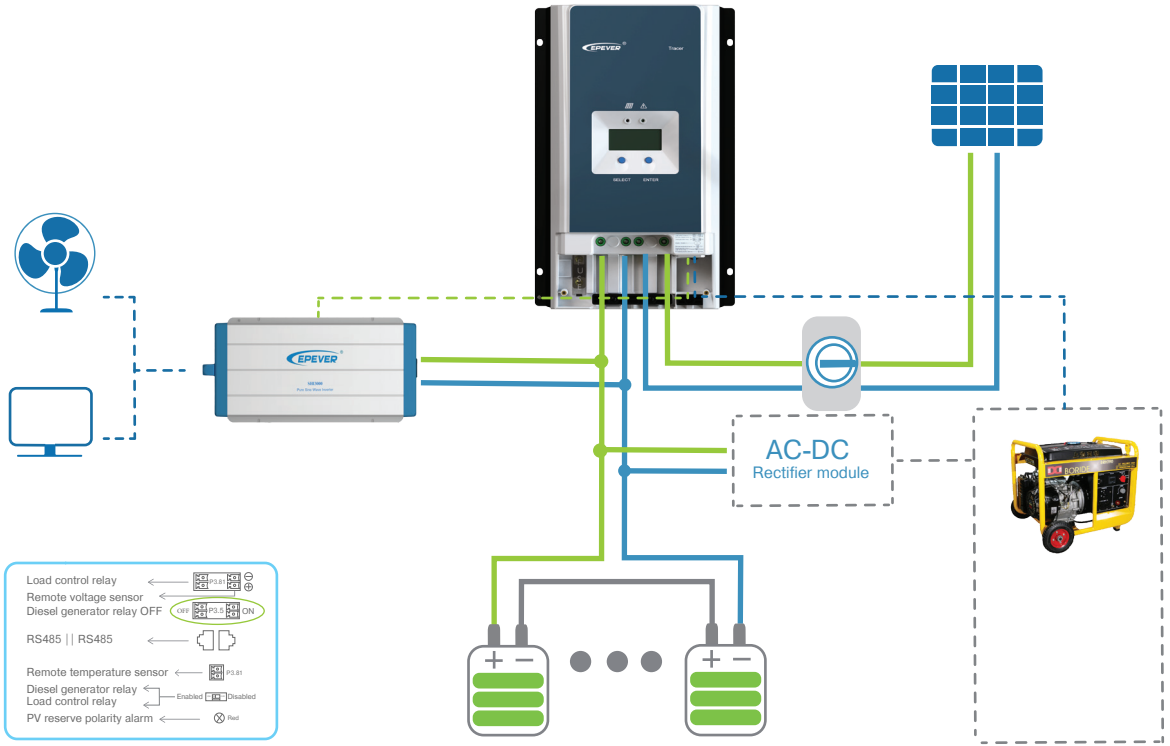
Application 2-Utility/generator hybrid power system



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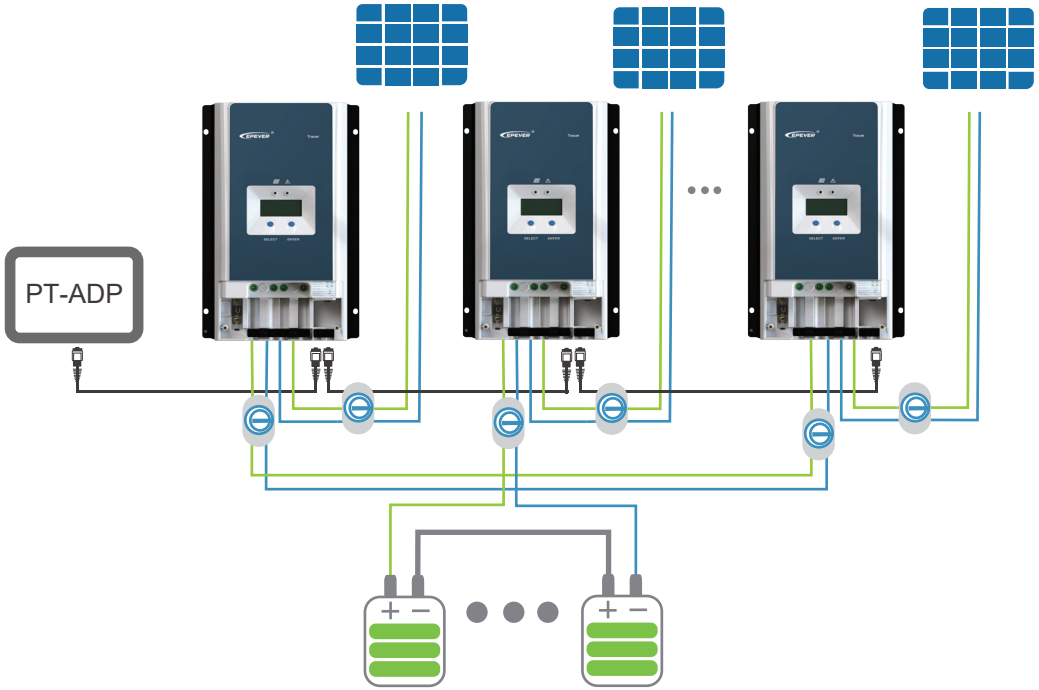
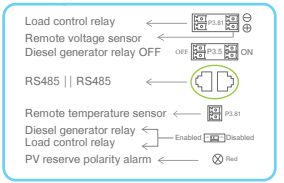
Application 3-Multiple units work in parallel





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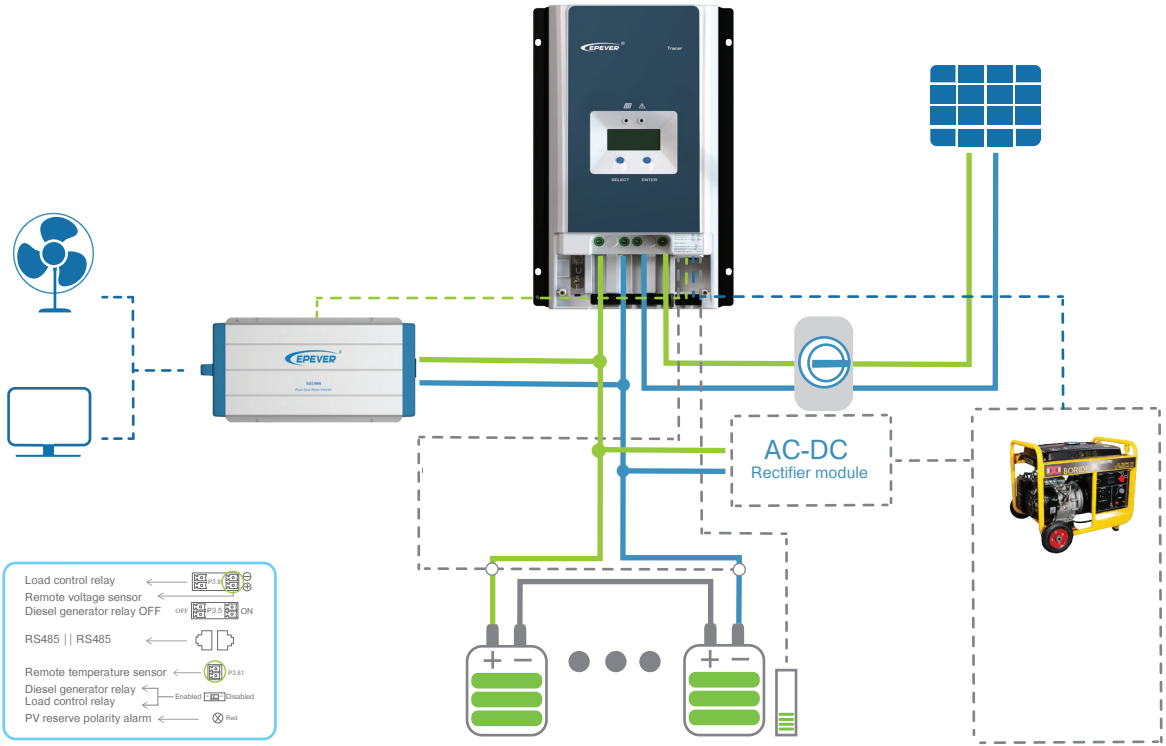
Application 4-Remote temperature and voltage sampling



Technical parameter

Item Tracer****AN	5210	5210	5415	6415	8415	10415	5420	6420	8420	10420
Nominal System Voltage	12/24VDC or Auto		12/24/36/48VDC or Auto							
Battery Input Voltage Range	8V～32V		8V～68V							
Battery Type	Sealed(default)/Gel/Flooded/User									
Battery fuse	80A/58V				150A/58V		80A/58V		150A/58V	
Rated charge current	50A	60A	50A	60A	80A	100A	50A	60A	80A	100A
Rated charge Power	625W/12V 1250W/24V	750W/12V 1500W/24V	625W/12V 1250W/24V 1875W/36V 2500W/48V	750W/12V 1500W/24V 2250W/36V 3000W/48V	1000W/12V 2000W/24V 3000W/36V 4000W/48V	1250W/12V 2500W/24V 3750W/36V 5000W/48V	625W/12V 1250W/24V 1875W/36V 2500W/48V	750W/12V 1500W/24V 2250W/36V 3000W/48V	1000W/12V 2000W/24V 3000W/36V 4000W/48V	250W/12V 2500W/24V 3750W/36V 5000W/48V
Max. PV open circuit voltage	100V (At minimum operating environment temperature) 92V (25℃)		150V (At minimum operating environment temperature) 138V (25℃)				200V(At minimum operating environment temperature) 180V (25℃)			
MPP Voltage Range	(Vbat2+V)～72V		(Vbat2+V)～108V①				(Vbat2+V)～144V			
Tracking efficiency	≥%99.5									
Conversion efficiency	≤%98.7									
Temperature compensate coefficient	-3mV/℃/2V(Default)									
Self-consumption	98mA/12V;60mA/24V;50mA/36V;46mA/48V									
Grounding	Common negative									
Relay	Rated Value:5A/30VDC; Max. Value:0.5A/60VDC									
RS485 interface	RS485(RJ45)									
Ambient temp. range	-30℃～+60℃(Derating above 45℃)									
LCD temp. range	-20℃～+70℃									
Relative humidity	≤95%(N.C.)									
Enclosure	IP30									

①At 25℃ environment temperature, the max. PV Voc must never exceed 72V(Tracer**10AN), 138V(Tracer**15AN) or 180V(Tracer**20AN).

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Comparison of Tracer-AN high and low current series

- High current
- High PV array support
- IEC certified
- Multiple COM ports
- Load and generator Relays
- Parallel working mode
- Remote battery voltage sensor
- Current limit functions

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Comparison of Tracer-AN high and low current series

Item	Tracer 1206AN	Tracer 2206AN	Tracer 1210AN	Tracer 2210AN	Tracer 3210AN	Tracer 4210AN
Nominal System Voltage	12/24VDC①auto work					
Battery input voltage range	8v～32					
Rated charge current	10A	20A	10A	20A	30A	40A
Rated discharge current	10A	20A	10A	20A	30A	40A
Max. PV open circuit voltage	60V(At minimum operating environment temperature) 46V(25℃)		100V(At minimum operating environment temperature) 92V(25℃)			
MPP Voltage Range	(Vbat+2V)～36V		(Vbat2+V)～72V			
Max. PV input power	130W/12V 260W/24V	260W/12V 520W/24V	130W/12V 260W/24V	260W/12V 520W/24V	390W/12V 780W/24V	520W/12V 1040W/24V
Battery Type	Sealed(default)/Gel/Flooded/LiFePo4/Li(NiCoMn)O2/User					
Self-consumption	≤14mA(12V)；≤15mA(24V)					
Discharge circuit voltage drop	≤0.23V					
Temperature compensate coefficient②	3-mV/℃/2V (default)					
Grounding	Common negative					
RS485 interface	5VDC/100mA					
LCD backlight time	60S(Default)					
Ambient temp. range③	-25℃～+50℃(full load)					
Storage temp. range	-20℃～+70℃					
Relative humidity	≤95%(N.C.)					
Enclosure	IP30					

①When a lithium-ion battery is used, the system voltage can't be identified automatically.

Please confirm the system voltage before using.

②When battery type is Lithium-ion battery, the temperature compensate coefficient would be 0, and cannot change.

③The controller can work at full load in the ambient temperature range,

when the internal temperature is 81℃, the power reduction mode would turn on.

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Comparison of Tracer-AN high and low current series

Series	Tracer-AN 10A～40A series	Tracer-AN 50A～100A series	Mark
Nominal System Voltage	12/24Vdc auto work	12/24/36/48Vdc auto work	
Rated charge/discharge current	10A～40A	50A～100A,no DC load output	High current series doesn't have load output, it needs to add load module(only for OEM project), and the max. DC output is 80A
Max.PV Voc(At minimum operating invironment temperature)	60V,100V	100V(50A/60A),150V,200V	
Battery Type	Sealed/Gel/Flooded/Life Po4/Li(NiCoMn)O2/User	Sealed/Gel/Flooded/User	High current series doesn't have self-activation function for lithium-ion battery, thus it cannot be used with lithium-ion battery
Self-consumption	≤14mA(12V); ≤15mA(24V)	≤98mA(12V)；≤60mA(24V) ≤50mA(36V)；≤46mA(48V)	The reason of higher self-consumption of high current series is that, the isolated interface design had higher consumption, and high power devices has bigger power consumption
Relay	no	Rated value: 5A/30VDC; Max. value: 0.5A/60VDC	
Enclosure	IP30	IP20	IP30：3-dustproof: protect against the dust size over than 2.5mm in diameter; non-waterproof IP20：2-dustproof: protect against the dust size over than 12mm in diameter; non-waterproof
RS485 interface	No isolation, Max. 5V/ 200mA power supply	Isolated interface, Max. 5V/200mA power supply	High current series has dual isolated RS485 interfaces, support up to 8 units work in parallel.
Certification standard (Applied or in the plan)	IEC60950 EMC(Civil grade) FCC ROHS	IEC62109 EMC(Civil grade) FCC ROHS	IEC62109 (Security specification class): specialized for PV industry, high standard of product's security specification IEC60950 (Security specification class): basic standard of product's security specification

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Thank you

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