



Sentinel 300P

Configurable Switch Mode Battery Chargers

ENGLISH

RS Stock number: 885-3675
Model: SNTL300P

RS Stock number: 885-3679
Model: ESNTL300PM



- Microprocessor controlled, programmable battery chargers
- Switch Mode Power Supply technology: light and compact, power efficient with low heat dissipation
- High rate automatic float charging: 10 Amp @ 12/24 VDC
- For 12 or 24V lead acid and NiCd standby battery applications: engines, generators, pumps, etc.
- Low ripple (<1%) DC output: for safe charging of sealed VRLA (AGM/Gel) or vented Lead Acid/NiCd cells, or operation as a 12/24V DC power supply.
- Selectable output calibrations for optimal battery performance, reliability and lifetime
- AutoBoost: time limited, automatic boost for cell charge equalization – prevents sulphation/stratification
- Temperature compensation: automatic adjustment of charge output based on battery temperature (remote sensor option)
- Alarm outputs: remote signalling of battery and charger faults
- Configuration using circuit board DIP switches or PC/Windows® software
- Panel mounted module, or wall-mounted stainless steel enclosure with meters
- , us/ and NFPA110 compliant (model dependant)

Specifications

Power supply

Operating voltage: 95 – 250 V AC
Operating frequency: 47 – 63 Hz.

DC Charge Output

Nominal voltage: programmable 12 or 24 V DC
Float/boost voltage: programmable, see 'output calibration' table
Maximum current limit: 10 A
Voltage ripple: <1%
Line regulation: <2%
Load regulation: <2%

Outputs x4 :

1 x SPCO (RL1), 1 x SPNC (RL2), 1 x SPNO (RL3),
dry/volt-free contacts (common feed for RL1, RL2 & RL3)
1 x SPNC (RL4), dry/volt-free contacts
Standard output functions (charge fail, AC fail, low battery volts,
high battery volts) are NFPA 110 compliant.
Rating (all relays): 1A max @ 30 VDC (resistive load), UL class 2

Inputs x2:

Closed to negative DC to activate, configurable function.
Default functions: IP1=AutoBoost initiate, IP2=Reduce output
to nominal 12 or 24V

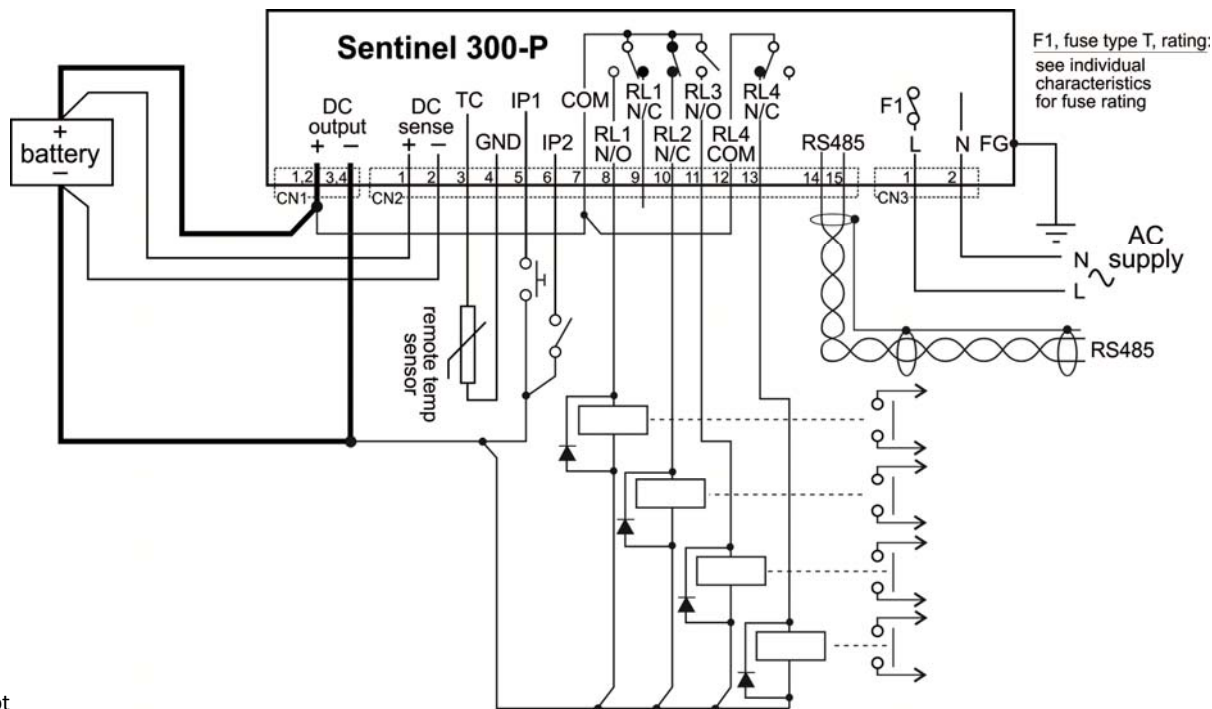
Physical

Operating temperature: –40 to +60°C / –40 to +140°F
Humidity: 20% to 90% RH
Dimensions: see Dimensions/Weights section
Weights: see Dimensions/Weights section
Electrical safety: 2006/95/EC
Electromagnetic compatibility:
2004/108/EC, EN 55022 class B
(EN 61000-6-1, EN 61000-6-3)

UL approvals

All standard (E)SNTL300P models:
BBGQ: UL1236, CSA22.2 no. 107.2
BBHH: UL1236 SE

Electrical Connection



Not

- 1) AC input fusing (F1): replaceable, circuit board mounted fuse, rating as shown on the product label.
- 2) DC output fusing: all models include a self-resetting electronic output fuse.
- 3) DC output is isolated from chassis.

Output Calibration

Battery type is selected by circuit board DIP switches or SNTL300P-PCSUITE configuration software. Calibration figures at 20 deg C. If temperature compensation is enabled, and remote SNTL-RTC temperature sensor connected, output voltage automatically varies by 3mV per cell per 1°C deviation from 20°C, within the range -10 to +50°C. Increasing temperatures give decreasing outputs; decreasing temperatures give increasing outputs.

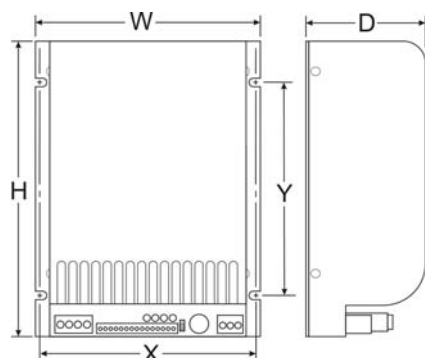
Battery type		float volts (V DC)	boost volts (V DC)
12V	Wet (vented) lead acid, 6 cells	13.5	14.1
	Calcium-Calcium, 6 cells	13.8	15.6
	Lead acid hybrid Sb-Ca, 6 cells	13.5	14.7
	VRLA, AGM, 6 cells	13.5	14.4
	VRLA, Gel, 6 cells	13.5	13.8
	NiCd, 10 cells	14.1	14.5
24V	Wet (vented) lead acid, 12 cells	27.0	28.2
	Calcium-Calcium, 12 cells	27.6	31.2
	Lead acid hybrid Sb-Ca, 12 cells	27.0	29.4
	VRLA, AGM, 12 cells	27.0	28.8
	VRLA, Gel, 12 cells	27.0	27.6
	NiCd, 18 cells	25.6	26.1
NiCd, 20 cells	28.2	29.0	



Dimensions / Weights

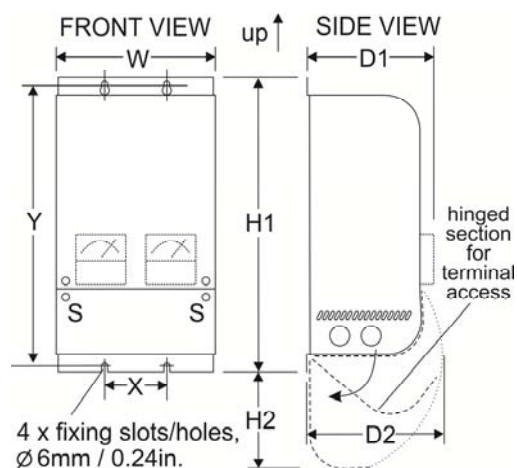
ENGLISH

SNTL300P



Overall:	
W	158 mm / 6.22 in.
H	208 mm / 8.19 in.
D	84 mm / 3.31 in.
Fixing holes:	
X	150 mm / 5.91 in.
Y	150 mm / 5.91 in.
Weight:	
	1.1 kg / 2.5 lb.

ESNTL300PM



Overall:	
W	165 mm / 6.50 in.
H1	300 mm / 11.81 in.
H2	80 mm / 3.15 in.
D1	125 mm / 4.92 in.
D2	130 mm / 5.12 in.
Fixing holes:	
X	63.5 mm / 2.50 in.
Y	285.5 mm / 11.25 in.
Weight:	
	2.0 – 2.1 kg / 4.4 – 4.6 lb.

Accessories

Remote Temperature Compensation Sensor

Model: RTC

RS Stock number: 882-3688

An optional sensor with 3 Metre integral lead that allows Sentinel chargers to measure battery temperature, and optimize charging by automatic compensation of the DC output voltage (see Output Calibration section for details). For correct operation, the sensor head should be mounted on or close to the batteries being charged.

