

Battery Chargers - Phase Three Series

Phase Three "Smart" battery charging technology is now available in a wide range of power levels, allowing you to select the right size, features and flexibility you require for virtually any application from providing quick recharge of auxiliary batteries in vehicles parked in the station house, to powering continuous loads and maintaining peak charge in large battery systems in remote communication sites as well as industrial generator and marine applications. These chargers interact with batteries to put them through the optimum three stage charge process which provides for fastest recovery and ideal conditioning, maximizing battery performance and extending battery life.

A selector switch adjusts output voltage to adapt for gel-cell/flooded lead-acid/AGM battery types. An optional temperature compensation sensor also adjusts output for ideal voltage based on changes in the batteries' ambient temperature. All models are housed in a rugged stainless steel case, and the internal circuitry is polyurethane coated for maximum corrosion resistance.



Features

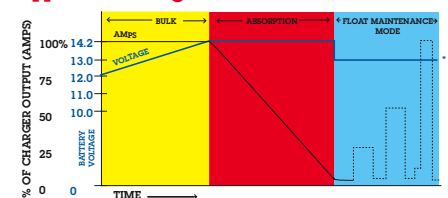
- "Smart" circuitry provides three stage charging—bulk, absorption, float.
- Wide model range covers battery system ratings from 14-950 amp-hours
- Gel-Cell/Flooded Lead-acid/AGM battery type switch selects optimum charge/float voltages.
- Multiple isolated output banks; ammeter indicates total output current*.
- Optional sensor adjusts output voltage based on battery temperature (except PT-7).
- Current limiting-prevents damage from overloading.
- Charger status clearly displayed with L.E.D. and/or audible indicators or optional remote panel.
- Use as a power supply; can power loads without a battery in line.
- Built to last—rugged stainless steel case with drip shield and polyurethane coated internal circuitry.
- Numerous Safety and EMC Compliances
- Two year parts and labor warranty

Models

12 Volt	24 Volt	32 Volt
PT-7	PT-24-8	PT-32-25
PT-14	PT-24-13	
PT-25	PT-24-20	
PT-40	PT-24-40	
PT-70A	PT-24-45F	
	PT-24-60F	
	PT-24-95F	

See next page for detailed specifications.

Typical Charge Curve



Optional Accessories



Remote Indicator Panel, Model: RP
(Not available for all models - refer to Specifications on following page)



DCE
DC Energy Monitor, reads Volts, Amps, Amp Hours (See page 30 for details)



Temperature Compensation Sensor, Model: TCS-12/24 shown (see next page for applicable sensor depending on charger model)



Powering the Network

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Specifications

	12 Volt Models					24 Volt Models							32 Volt
	PT-7	PT-14	PT-25	PT-40	PT-70A	PT-24-8	PT-24-13	PT-24-20	PT-24-40	PT-24-45F	PT-24-60F	PT-24-95F	PT-32-25
Input VAC (50-60 Hz.)	88-132 or 176-264	85-264	90-132 or 180-264	85-135 or 170-270	90-264	85-264	90-132 or 180-264	85-135 or 170-270	90-264	207-253	207-253	90-130	207-253
Input Amps @ Full Load @ 115 VAC	2	2.8	6.5	8.5	12	2.8	6.5	8.5	12	N/A	NA	N/A	14
@ 230 VAC	1	1.4	4	4.3	6	1.4	4	4.3	6	8	13	17	N/A
P.F. Rating	>.65	.95@230V .98@115V	.7	.7	.95@230V .98@115V	.95@230V .98@115V	.7	.7	.95@230V .98@115V	.7	.7	.7	.7
Max Output Amps @ 115 VAC Input	7	14	25	40	64	8	13	20	37	N/A	NA	N/A	25
@ 230 VAC Input	7	14	25	40	70	8	13	20	40	45	60	95	N/A
Output Banks	2	3	3	3	3	3	3	3	3	3	3	3	3
Battery Capacity (Amp-Hours)	14-70	28-140	50-250	80-400	140-700	16-80	26-130	40-200	80-400	90-450	150-600	180-950	60-300
Operating Temp. Rating Reference	T-2	T-2	T-2	T-1	T-2	T-2	T-2	T-1	T-2	T-3	T-3	T-3	T-3
Case Size Ref.	A-1	A-2	A-2	A-3	A-5	A-2	A-2	A-3	A-5	A-4	A-6	A-6	A-5
Weight: Lbs./Kg.	3.2/1.5	8/4	8.2/4	12/6	15.2/7	8/4	8.2/4	12/6	15.2/7	12.2/6	34.0/15	34.0/15	15.2/7
Optional Temp. Sensor Model	N/A	TCS-12/24	TCS-12/24	TCS-12/24	TCS-12/24	TCS-12/24	TCS-12/24	TCS-12/24	TCS-12/24	TP	TP	TP	TP
Remote Panel Model	N/A	RP	RP	RP	RP	RP	RP	RP	RP	N/A	N/A	N/A	N/A
Equalize Option	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Output Indicator Ref.	M-2	M-1	M-1	M-1	M-1	M-1	M-1	M-1	M-1	M-3	M-3	M-3	M-3
Compliance Ref.	CG, CE	CG, CE	CG	UL, CG, CE	CE	CG, CE	CG	UL, CG, CE	CE	EN, CE	EN, CE	EN, CE	EN, CE

Case Size:



Ref	Inches			Centimeters		
	H	W	D	H	W	D
A-1	10.5	5.0	2.8	26.7	12.7	7.1
A-2	12.5	7.7	4.3	31.8	19.6	10.9
A-3	14.1	9.5	4.0	35.8	24.1	10.2
A-4	15.5	9.7	5.0	39.4	24.6	12.7
A-5	16.7	9.8	6.7	42.4	24.9	17.0
A-6	19.5	12.2	8.2	49.5	40.0	20.8

Compliance References*:

See matrix for applicable models

UL UL 1950 (Per DNB report)

CG USCG CFR 183.410 (Ignition protected)

EN EN 60335-1, EN 60335-2-29

CE Carries the CE Mark

* Numerous other Safety and EMC compliances may also apply. Contact factory if further compliance information is required.

Temperature Rating References:

T-1 -25°C to +60°C; Derate linearly from 100% @ 50°C to 75% @ 60°C

T-2 -10°C to +60°C; Derate linearly from 100% @ 50°C to 80% @ 60°C

T-3 -20°C to +60°C; Derate linearly from 100% @ 45°C to 70% @ 60°C

Output Indicator References:

M-1 Total output ammeter

M-2 Charge/Float L.E.D.

M-3 Total output ammeter and charger status L.E.D.'s/Alarms

Nominal Output Voltages at Gel/Flooded Switch Settings

(Without Temperature Compensation option installed or at 22.2°C (72°F) with Temperature Compensation option installed.)

Setting	12 Volt Models		24 Volt Models		32 Volt Model	
	Charge @ 50 % load	Float @ .5 amp load	Charge @ 50 % load	Float @ .5 amp load	Charge @ 50 % load	Float @ .5 amp load
Gel-Cell	14.0 VDC	13.6 VDC	28.0 VDC	27.2 VDC	37.3 VDC	36.2 VDC
Flooded/AGM	14.2 VDC	13.4 VDC	28.4 VDC	26.8 VDC	37.8 VDC	35.7 VDC

Temperature Compensation:

- 5 mV per cell per ° C. Sensor supplied with 25' cable and plug-in connector

Protection (all models):

Input/Output Fuses, Current Limiting, Thermal Protection, Forced Air Cooling, Drip Shield

Remote Panel, Model RP:

LED's indicate charger output stage. Button allows manual reinitialization of three stage charge cycle. Supplied with 25' cable and plug-in connector. Panel dimensions: 3" H x 4.75" W



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