

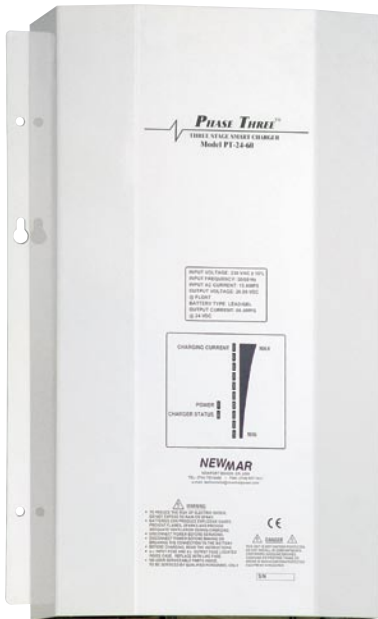
Battery Chargers - Phase Three Series

Three Stage "Smart" Chargers

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 small recreational craft to large live-aboards, workboats and other commercial vessels. 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.



New PT-24-60W in White Powder Coat Case

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. (except PT-7)
- 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 marinated 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-32-70**
PT-25	PT-24-20	
PT-40	PT-24-40	
PT-70A	PT-24-45F	
	PT-24-60W	
	PT-24-95F	

See next page for detailed specifications.

** In Development

Optional Accessories

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

DC Energy Monitor, reads Volts, Amps, Amp Hours (See page 20 for details)

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

Phase Three Monitor/Control Unit For ABS Installation

This unit, when used in conjunction with certain PT Chargers* creates a system which is fully compliant with American Bureau of Shipping (ABS) Battery Charging standards for commercial installations

* For use with all models except PT-7, PT-24-45F, PT-24-60W, PT-24-95F, and PT-32-25.

Incorporates

- Digital readout of float voltage to 1/10th volt
- Output float voltage adjustment pot; permits fine tuning from -4% to +5%
- AC circuit breaker; provides overcurrent protection and manual disconnect
- AC power ON indicator light
- 10' wiring harness for easy connection of PT Series charger

Model: PT-MCU

Size (HxWxD): 8.7"x4.6"x5.5"

Weight: 3.5 lbs.

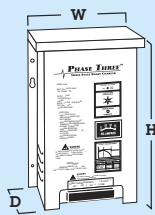


Battery Chargers - Phase Three Series

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-24-60W	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	207-253	104-126
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	7
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	.98
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	25
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-7	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-7	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
A-7	19.7*	12.1	5.2*	50.0	30.7	13.2

*Add 1" (2.54 cm) to height and depth with drip shield installed

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.

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

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 +50°C; Full output
T-4 -10°C to +60°C; Derate linearly from 100% @ 50°C to 60% @ 60°C
T-5 -10°C to +60°C; Derate linearly from 100% @ 40°C to 60% @ 60°C
T-6 -10°C to +45°C; Derate linearly from 100% @ 0°C to 80% @ -10°C
T-7 -10°C to +50°C; Derate linearly from 100% @ 40°C to 80% @ -50°C

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.)

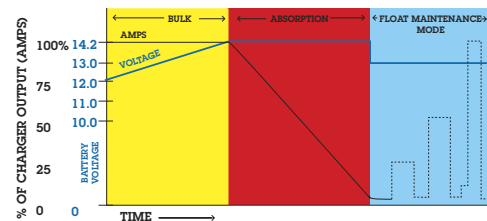
Setting	12 Volt Models		24 Volt Models		32 Volt Model	
	Charge @ 50 % load	Float @ .5 amp load	Charge @ 50 % load	Float @ .5 amp load	Charge @ 50 % load	Float @ .5 amp load
Gel-Cell	14.0 VDC	13.6 VDC	28.0 VDC	27.2 VDC	37.3	36.2
Flooded/AGM	14.2 VDC	13.4 VDC	28.4 VDC	26.8 VDC	37.8	35.7

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. Manual reset button reinitializes three stage charge cycle. Supplied with 25' cable and plug-in connector. Panel dimensions: 3" H x 4.75" W

Typical Charge Curve



Newport Beach, CA USA

DC Power Onboard

www.newmarpower.com ■ 800-854-3906