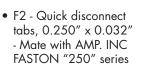
12 Volt 14.0 AH @ 20-hr. rate PDC-12140 13.0 AH @ 10-hr. rate

Rechargeable Sealed Lead Acid Battery PDC SERIES AGM DEEP CYCLE



We've Got The Power.™

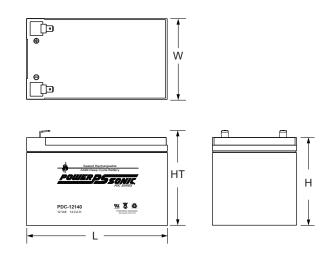




• T15: Threaded insert

with 5mm stud fastener

### **Physical Dimensions: in (mm)**



## L: 5.96 (151) W: 3.92 (100) H: 3.82 (97) HT: 3.98 (101)

Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

### Features

- Absorbent Glass Mat (AGM) technology for superior performance
- Valve regulated, spill proof construction allows safe operation in any position
- Oversize negative plates and a specialized paste formulation provide true deep cycle performance.
- Special additives in the paste ensure superior performance in deep discharge situations.
- Power/volume ratio yielding unrivaled energy density
- Rugged impact resistant ABS case and cover (UL94-HB)
- Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified
- U.L. recognized under file number MH 20845

#### **Performance Specifications**

Nominal Voltage
Nominal Capacity
20-hr. (700mA to 10.50 volts) 14.00 AH
10-hr. (1.3A to 10.50 volts)
8-hr. (1.59A to 10.50 volts) 12.72 AH
5-hr. (2.28A to 10.20 volts) 11.40 AH
1-hr. (8.40A to 9.00 volts) 8.40 AH
15-min. (25.7A to 9.00 volts)6.43 AH
Approximate Weight 9.5 lbs. (4.30 kg)
Energy Density (20-hr. rate) 1.82 W-h/in <sup>3</sup> (110.83 W-h/l)
Specific Energy (20-hr. rate) 16.85 W-h/lb (37.14 W-h/kg)
Internal Resistance (approx.)
Max Discharge Current (7 Min.)
Max Short-Duration Discharge Current (10 Sec.) 130 amperes
Shelf Life (% of nominal capacity at 68°F (20°C)
1 Month 97%
3 Months

# 

# 

Charged

Voltage

(V/cell)

2.5

2.4

2.3

2.2

2.1

0

0

10

40°È

Charge

Volume

%

120

100

80

60

40

20

120

100

80

60

40

20

0 ∟ -20

100

80

60

40

20

0

0

2

4

Remaining Capacity (%)

Capacity Ratio (%)

Charging

Current

(A)

0.1C

0.08C

0.06C

0.04C

0.02C

0C

Charging Characteristics (Cycle Use)

2.45V/Cell Constant Voltage at 25°C

8

Temperature Effects in Relation to Battery Capacity

20

Self Discharge Characteristics

Temperature(°C)

30

4

12 16

Charging Time (Hours)

Charge at 0.1C Amp Initial Charging Current and

Charged Volume

Charge Voltage (Constant 2.45V/Cell)

After 50% Discharge

20

After 100% Discharge I I Charging Current (Initial at 0.1C Amp)

24 28

0.10 CA 0.20CA

0.5CA 1CA

2CA

3ČA

50

А

В

С

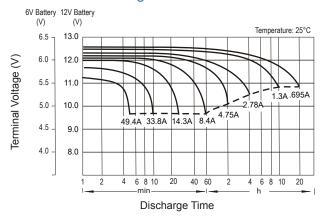
40

10°C

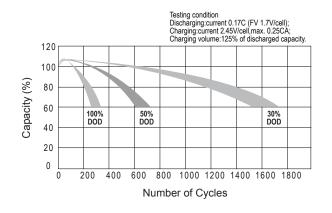
25°C

12

**Discharge Characteristics** 



# Cycle Life in Relation to Depth of Discharge



# Charging

**Cycle Applications:** Limit initial current to 3.9A. Charge until battery voltage (under charge) reaches 14.4 to 14.7 volts at 68°F (20°C). Hold at 14.4 to 14.7 volts until current drops to under 139mA. Battery is fully charged under these conditions, and charger should be disconnected or switched to "float" voltage.

**"Float" or "Stand-By" Service:** Hold battery across constant voltage source of 13.5 to 13.8 volts continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

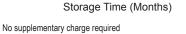
**Note:** Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged within 6 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.

## Chargers

Power-Sonic offers a wide range of chargers suitable for batteries up to 100AH. Please refer to the Charger Selection Guide in our specification sheets for "C-Series Switch Mode Chargers" and "Transformer Type A and F Series". Please contact our Technical department for advice if you have difficulty in locating suitable models.

#### **Contact Information**

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6

(Carry out supplementary charge before use if 100% capacity is required.)

8



Supplementary charge required before use.Optional charging way as below: 1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell. 2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell. 3.Charged for 8~10hours at limted current 0.05CA.

30°C

10



Α

Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached

## **Further Information**

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc..

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