GS PE12V4.5

Rechargeable Sealed Lead - Acid (VRLA) Battery

PORTALAC

PE Series

Nominal Voltage 12 Volt

20 Hour Rate Capacity 4.5 Ah

Dimensions	mm	Inches	Tolerance
Length	90	3.54	+/- 1mm (0.04In)
Width	70	2.76	+/- 1mm (0.04In)
Case Height	102	4.02	+/- 1mm (0.04In)
Terminal Height	106	4.17	+/- 2mm (0.08In)

	Kg.	Lbs.	
Weight	1.75	3.86	(approx.)

Case Material Synthetic Resin (ABS)

Terminal F1: Amp Faston Type 187

Maximum Short Duration Discharge Current

(Maximum Duration: 1 Minute) 27 Amperes

(Maximum Duration: 5 Seconds) 67.5 Amperes

Internal Resistance *(Fully Charged Battery)*

40 mOhm (approx.)

Energy Density (@ 20 Hour Rate)

84.03 Watt-Hours / Litre (1.38 Watt-Hours / Cubic Inch)

Specific Energy (@ 20 Hour Rate)

30.86 Watt-Hours / Kg (14 Watt-Hours / Pound)

Operating Temperature Range

Discharge -20°C (-4°F) ~ 50°C (122°F)

Recharge 0°C (32°F) ~ 40°C (104°F)

Storage -20°C (-4°F) ~ 40°C (104°F)

Self Discharge Rate

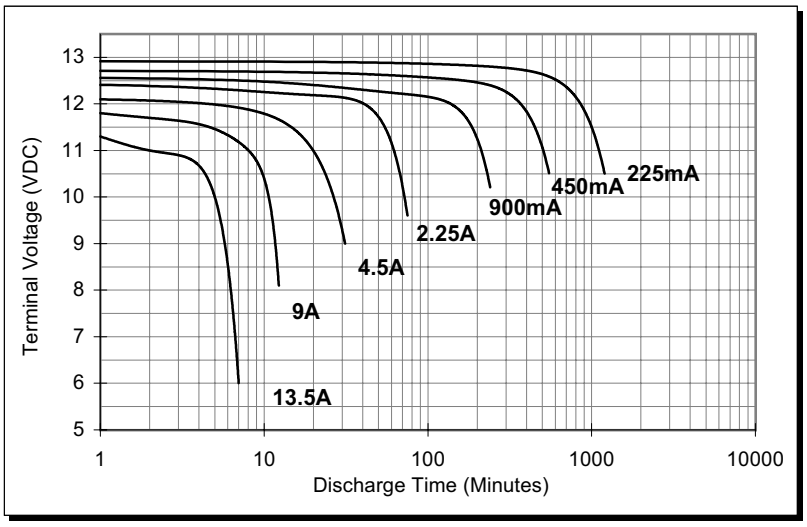
3% Per Month at 25°C (77°F)

Vibration Test No Loss in Capacity or Performance

2000 Cycles Per Minute, 2.5 mm (0.10 Inch) Excursion, 2 Hours

Constant Current Discharge Characteristics (25°C / 77°F)

Discharge Time	Capacity in Ah's	Discharge Amperes	Final Voltage	Discharge C-Rate
20 Hrs	4.50	0.23	10.50	0.05
9 Hrs	4.13	0.45	10.50	0.10
4 Hrs	3.60	0.90	10.20	0.20
75 Min	2.81	2.25	9.60	0.50
31 Min	2.34	4.50	9.00	1.00
12 Min	1.85	9.00	8.10	2.00
7 Min	1.58	13.50	6.00	3.00



Constant Voltage Recharge Methods and Notes

Cyclic Application Recharge

- Charge between 14.4 to 14.7 Volts DC. (2.4 to 2.45 Volts Per Cell.)
- Limit Initial Recharge Current to 1.125 Amperes or less. (Minimum Recommended is 0.45 Amperes.)
  (Higher charge currents may be used for Rapid recharge, provided a Heat Protection and/or Safety System is used - Consult with us.)
- Remove from Charge or switch to Standby Charge when Current draw falls to about 45 mA.
- When Recharge Voltage requires Temperature Compensation, use the coefficient of - 5mV / °C / Cell. Derate from 25ºC and 2.45 VPC.

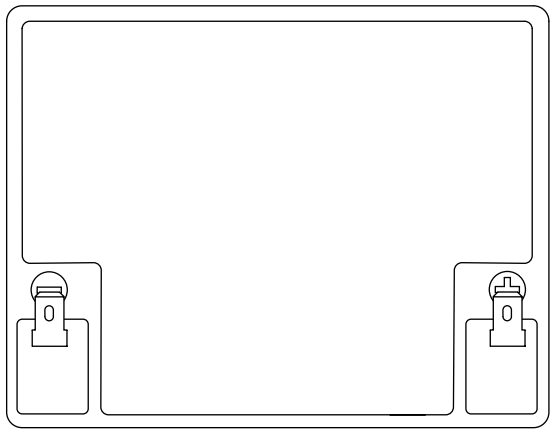
Standby Application Recharge

- Charge between 13.5 to 13.8 Volts DC. (2.25 to 2.3 Volts Per Cell.) 13.65 Volts DC or 2.275 VPC is recommended for maximum life.
- When Recharge Voltage requires Temperature Compensation, use the coefficient of - 3mV / °C / Cell. Derate from 25ºC and 2.275 VPC.

Temperature Compensation

- Employ Charge Voltage Temperature Compensation when the battery temperature is less than 5°C or greater than 35°C.

Recognized by UL File No. MH13567



GS Portalac PE Series Rechargeable Sealed Lead-Acid (VRLA) Battery			
Model:	**PE12V4.5**		
Voltage:	**12**	Capacity:	**4.5 Ah (20 Hr)**
Terminal:	Amp Faston Type 187 (F1)		
Dimensions:	mm (Inch)		
Drawing:	PE12V4.5T-0202CE		
Date:	2002.02.04		
DO NOT SCALE DRAWING