



HGL90-12

12-Volt,90AH@20HR

Valve Regulated
Lead-Acid Battery

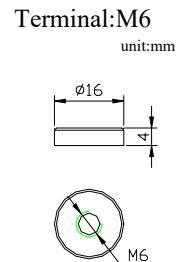
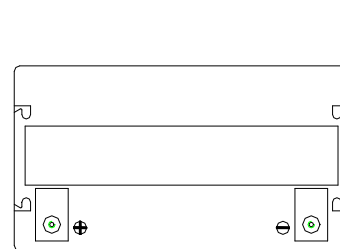
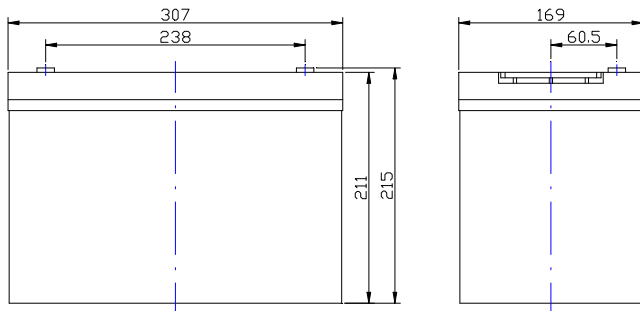
Design for Standby
Power Applications

Life Expectancy:	Application
Expected trickle life: 6-8 years at 25°C.	UPS, Telecom Systems, Switch Boards, Lawn Mowers, Medical Systems, Golf Carts.

Specifications	
Nominal Voltage	12V(6 cells per unit)
Rated Capacity	90AH @20HR-Rate to 1.75V per cell@25°C
	83.7AH @10HR-Rate to 1.75V per cell@25°C
	76.5AH @5HR-Rate to 1.70V per cell@25°C
	54AH @1HR-Rate to 1.60V per cell@25°C
Weight	Approx. 28.2kg (62.04lbs.)
Max. Short-Duration Discharge Current	1000 A (5S)
Internal Resistance of charged battery	Approx.4.10 mΩ
Short Circuit Current	2100 A
Operating Temperature Range	
Nominal Operating Temperature	25°C (77°F)
Discharge	-15°C~+ 50°C 5°F~122°F
Charge	-15°C~ +40°C 5°F~104°F
Storage	-15°C~ +40°C 5°F~104°F
Capacity affected by Temperature (20 hour rate)	40°C (104°F) 102%
	25°C (77°F) 100%
	0°C (32°F) 85%
	-15°C (5°F) 65%
Capacity loss per month at 20°C	<3%

Mechanical Specifications		
Overall Height (H)	215±2.0mm	8.46"
Container Height (h)	211±2.0mm	8.31"
Length (L)	307±2.0mm	12.08"
Width (W)	169±2.0mm	6.65"
Terminal	M6 Female threaded terminal	
Terminal Torque	5.6 ~7.9N.M	
Container Material	Standard	ABS (UL 94-HB)
	Optional	ABS Flame Retardant (UL94-VO)
Sealed Construction	Can be operated in any position without leakage.	
Charge Characteristics		
Trickle use	Initial current	No limit
	Control Voltage	13.5 to 13.8 VDC/unit(25°C)
Cycle use	Initial current	30 A or smaller
	Control Voltage	14.40~14.9VDC/unit (25°C)
Charging Temperature Compensation	Cycle use	-4mV/cell/°C
	Float use	-3mV/cell/°C
CAUTION : Do not charge in a sealed container.		

DIMENSIONS (All units shown in mm)



Constant Current Discharge Rating Amperes @ 77°F (25°C)

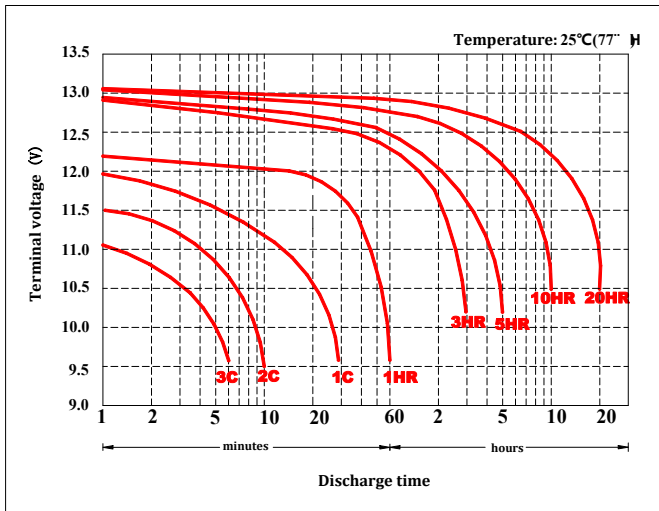
Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	143	89	64	51.8	29.5	22.1	15.0	10.24	8.37	7.13	4.50

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

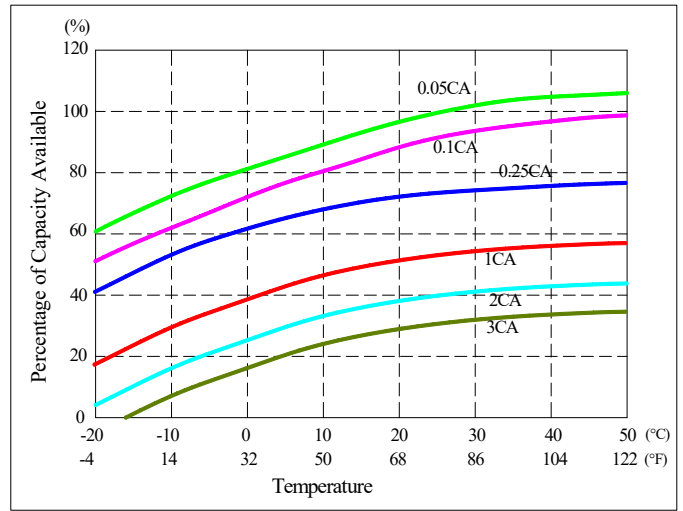


PRODUCT DATA SHEET

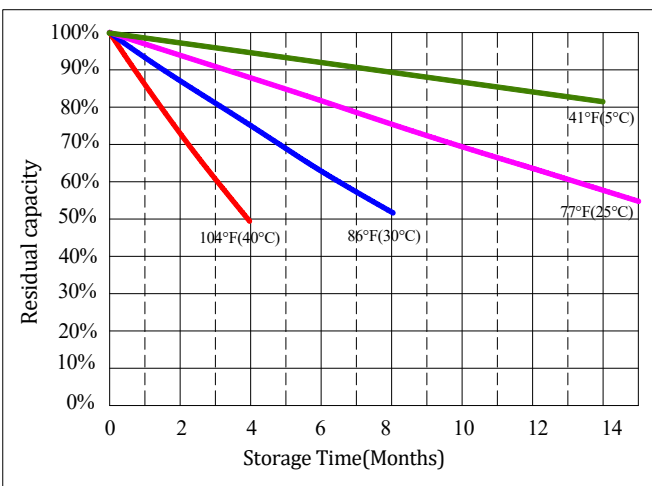
Discharge Characteristic Curves at 25°C (77°F)



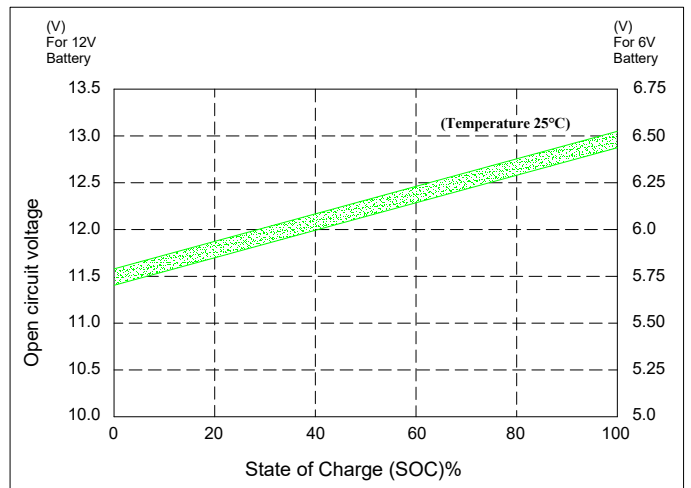
Temperature Effects In Relation to Battery



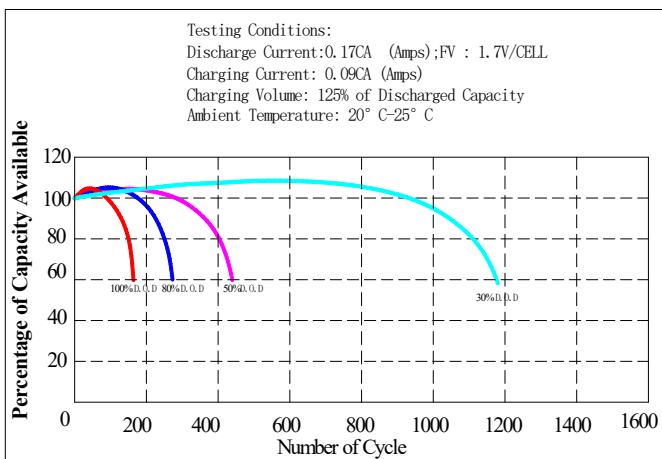
Capacity Retention Characteristic



State of Charge (SOC) vs Open Circuit



Cycle Life vs. Depth of Discharge (DOD)



Float Service Life

