

HGL40-12

12-Volt,40AH@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	40AH @20HR-Rate to 1.75V per cell@25℃
	37.2AH @10HR-Rate to 1.75V per cell@25℃
	34AH @5HR-Rate to 1.70V per cell@25℃
	24AH @1HR-Rate to 1.60V per cell@25℃
Weight	Approx. 13.4kg (29.48lbs.)
Max. Short-Duration Discharge Current	400 A (5S)
Internal Resistance of charged battery	Approx. 11 mΩ
Short Circuit Current	1140 A

Operating Temperature Range

Nominal Operating Temperature	25℃(77℉)	
Discharge	-15℃~+ 50℃	5℉~122℉
Charge	-15℃~ +40℃	5℉~104℉
Storage	-15℃~ +40℃	5℉~104℉
Capacity affected by Temperature (20 hour rate)	40℃(104℉)	102%
	25℃(77℉)	100%
	0℃(32℉)	85%
	-15℃(5℉)	65%
Capacity loss per month at 20°C	<3%	

Mechanical Specifications

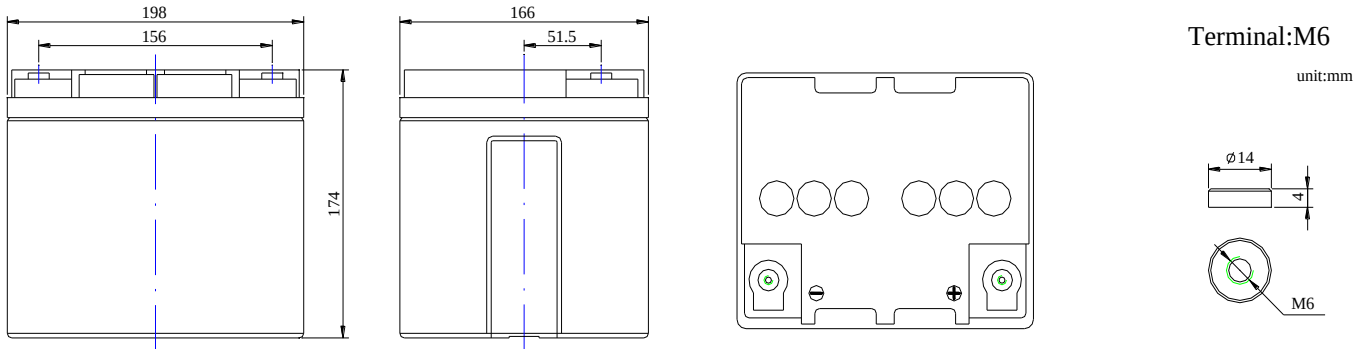
Overall Height (H)	174±2.0mm	6.85″
Container Height (h)	174±2.0mm	6.85″
Length（L）	198±2.0mm	7.80″
Width（W）	166±2.0mm	6.54″
Terminal	M6 Female threaded terminal	
Terminal Torque	5.6 ~7.9 N.M	
Container Material	**Standard**	ABS (UL 94-HB)
	Optional	ABS Flame Retardant (UL94-VO)
Sealed Construction	Can 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**	12 A or smaller
	Control Voltage	14.40~14.9VDC/unit (25°C)
Charging Temperature Compensation	Cycle use	-4mV/cell/℃
	Float use	-3mV/cell/℃

CAUTION ： Do not charge in a sealed container.

DIMENSIONS (All units shown in mm)



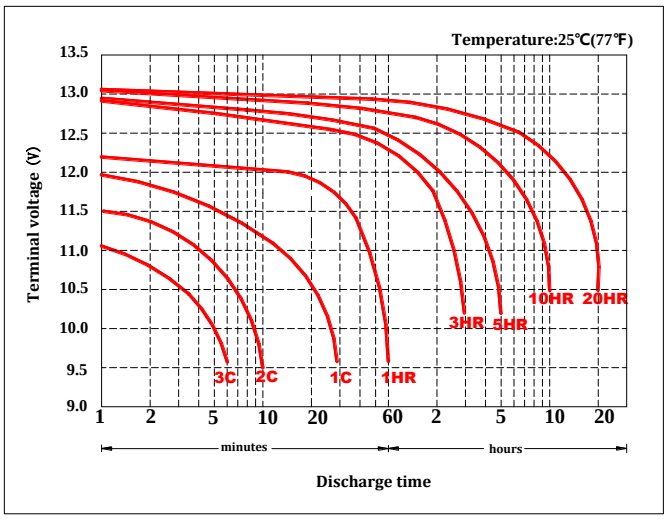
Constant Current Discharge Rating Amperes @ 77℉(25℃)

Cut off voltage V/cell	15M	30M	45M	1H	2H	3H	5H	8H	10H	12H	20H
1.75V	63	40	28	23.0	13.5	9.8	6.7	4.55	3.72	3.17	2.00

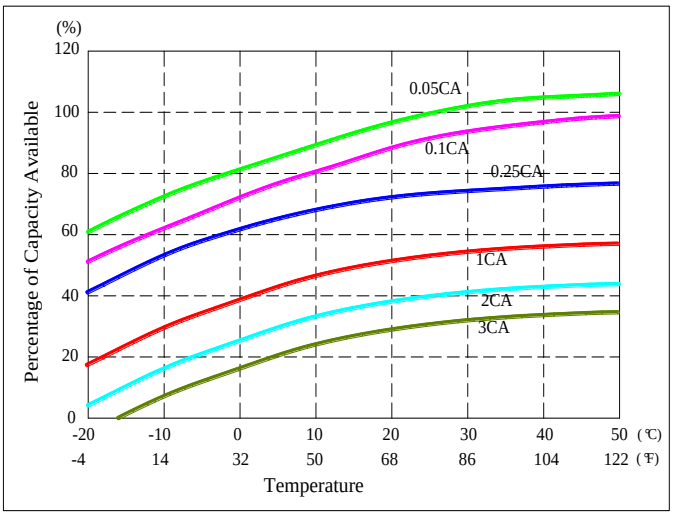
Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs specification are subject to modification without notice. Contact Fullriver for the latest information.

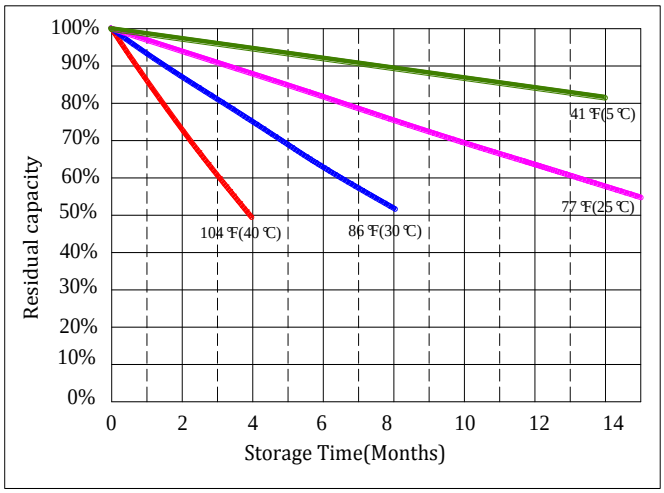
Discharge Characteristic Curves at 25℃ (77℉)



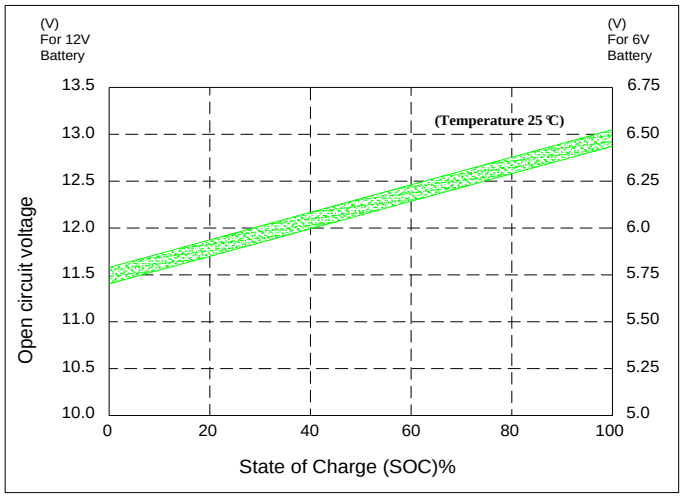
Temperature Effects In Relation to Battery Capacity



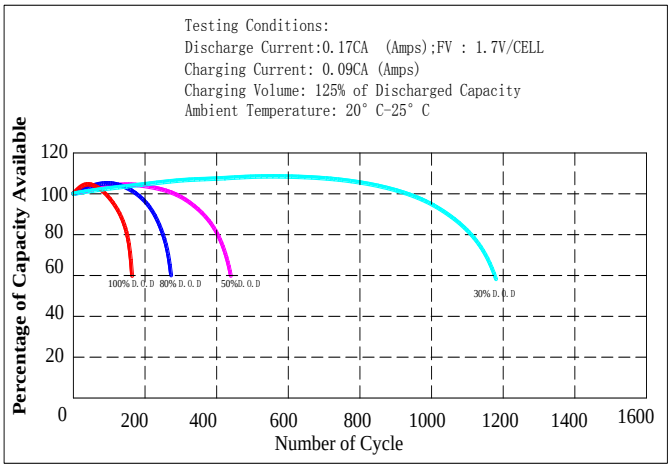
Capacity Retention Characteristic



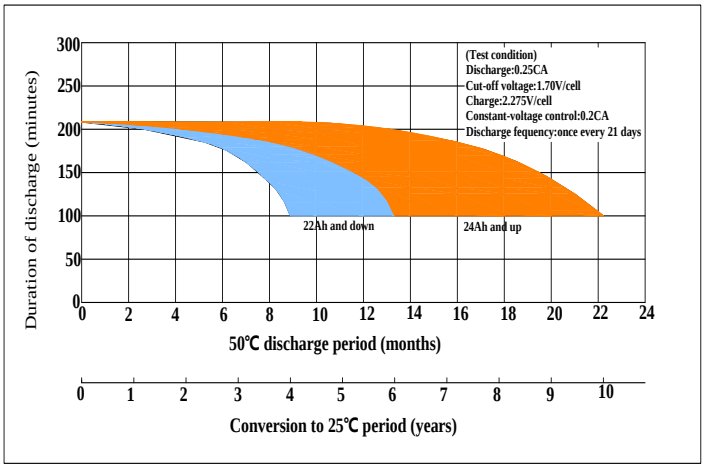
State of Charge(SOC) vs Open Circuit Voltage(OCV)



Cycle Life vs. Depth of Discharge(DOD)



Float Service Life



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