GEL SERIES- Deep cycle GEL

463-8910(12V40AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	38.0AH	
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height (with Terminal)	170±2mm (6.69 inches)
Approx Weight	Approx 13.5 kg (29.77lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	38.0 AH/1.90A	(20hr ,1.80V/cell,25°C/77°F)
	35.0AH/3.50A	(10hr,1.80V/cell,25°C/77°F)
	30.7 AH/6.14A	(5hr,1.75V/cell,25°C/77°F)
	27.1 AH/9.02A	(3hr,1.75V/cell,25°C/77°F)
	22.5 AH/22.5A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	380A (5s)	
Internal Resistance	Approx 10.5mΩ	
Operating Temp.Range	Discharge : -20～55°C (-4～131°F)	
	Charge : 0～40°C (32～104°F)	
	Storage : -20～50°C (-4～122°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 12A. Voltage 14.1V~14.4V (14.1V is optimum) at 25°C(77°F).	
Standby Use	No limit on Initial Charging Current .Voltage 13.5V~13.8V (13.5V is optimum) at 25°C(77°F) . Coefficient -18mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	GEL series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Typical Applications

- Railway and marine systems
- *Electric tools*
- *Vehicle in place of walking*
- *Lawn mowers*
- *Golf trolleys and golf cart*
- *Electric toys*
- *Portable power*
- *Wheelchairs*
- *Medical equipments.*

Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	42.9	37.2	33.4	26.6	20.2	16.9	10.6	7.99	6.54	5.60	4.86	3.92	3.33	1.85
1.80V/cell	51.5	42.9	38.0	29.6	22.7	18.8	11.5	8.62	7.01	5.95	5.16	4.14	3.50	1.90
1.75V/cell	59.8	48.9	42.2	32.2	24.2	19.9	12.1	9.02	7.29	6.14	5.32	4.24	3.55	1.93
1.70V/cell	66.4	53.2	45.3	34.2	25.3	20.8	12.7	9.33	7.50	6.32	5.47	4.33	3.61	1.96
1.67V/cell	71.1	55.9	47.3	35.5	26.3	21.5	13.0	9.60	7.67	6.47	5.57	4.40	3.67	1.98
1.60V/cell	77.5	59.8	50.6	37.6	27.8	22.5	13.5	9.92	7.90	6.64	5.70	4.46	3.73	2.00

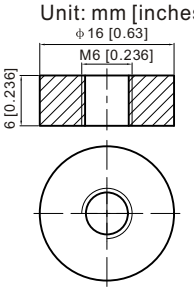
Constant Power Discharge (Watts) at 25 °C (77°F)

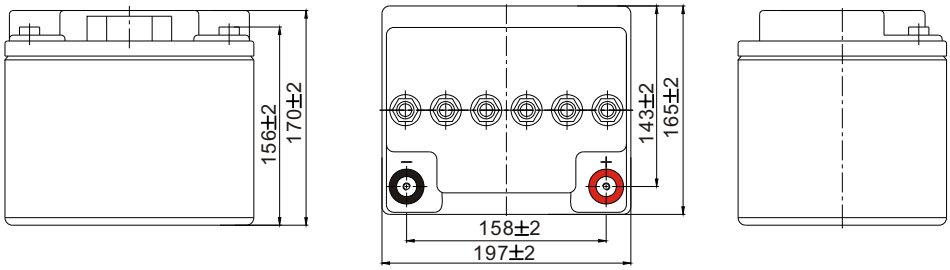
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	80.6	70.3	63.8	51.1	39.2	32.8	20.7	15.6	12.8	11.0	9.62	7.79	6.62	3.70
1.80V/cell	95.4	80.1	71.6	56.3	43.7	36.3	22.4	16.8	13.7	11.7	10.2	8.19	6.95	3.79
1.75V/cell	109.0	90.1	78.8	61.0	46.3	38.3	23.4	17.5	14.2	12.0	10.5	8.38	7.05	3.84
1.70V/cell	119.3	97.1	83.8	64.2	48.1	39.8	24.4	18.1	14.6	12.3	10.7	8.55	7.16	3.90
1.67V/cell	126.3	100.9	86.7	66.2	49.7	41.0	25.0	18.6	14.9	12.6	10.9	8.67	7.27	3.94
1.60V/cell	135.2	106.4	91.8	69.4	52.1	42.7	25.8	19.1	15.3	12.9	11.1	8.78	7.37	3.97

Dimensions

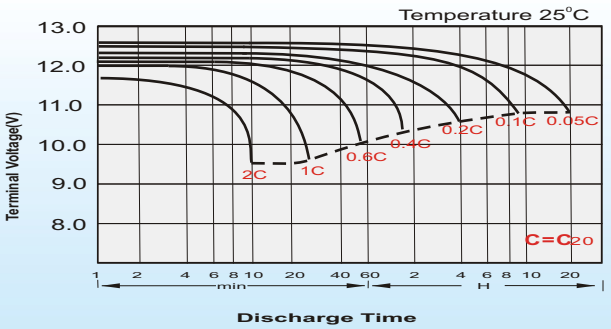
T6 Terminal

Unit: mm [inches]

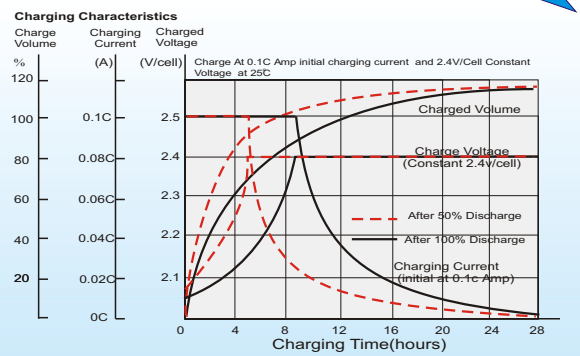




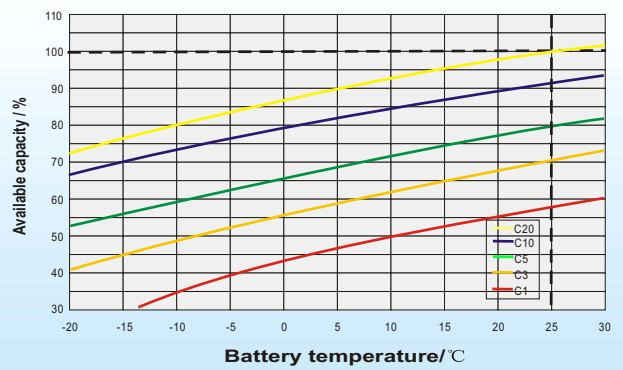
Discharge Characteristics



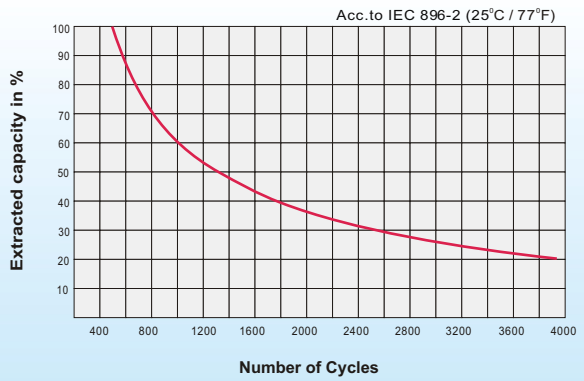
Charging Characteristics (cycle use)

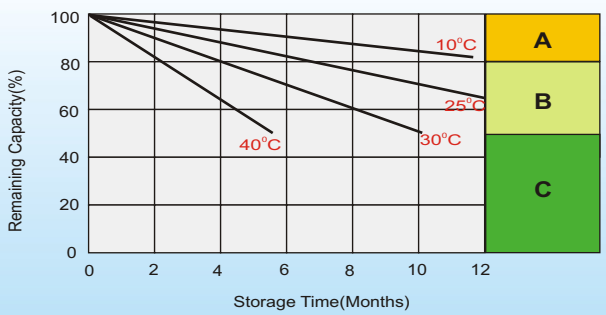


Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge





Self Discharge Characteristics

A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B 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 .

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

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