

## GEL12-40 12V40AH

### GEL SERIES-GEL Battery



#### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	40AH	
Dimension	Length	197 ± 2mm (7.76 inches)
	Width	165 ± 2mm (6.50 inches)
	Container Height	176 ± 2mm (6.92 inches)
	Total Height (with Terminal)	182 ± 2mm (7.16inches)
Approx Weight	Approx 11.9 Kg (26.3lbs)	
Terminal	T6 / T12	
Container Material	ABS	
Rated Capacity	41.8AH/2.09A	(20hr ,1.80V/cell,25°C/77°F)
	40.0 AH/4.00A	(10hr,1.80V/cell,25°C/77°F)
	33.3AH/6.66A	(5hr,1.75V/cell,25°C/77°F)
	30.5 AH/10.1A	(3hr,1.75V/cell,25°C/77°F)
	24.2AH/24.2A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	380A (5s)	
Internal Resistance	Approx 10.5 mΩ	
Operating Temp.Range	Discharge : -30~50°C (5~122°F)	
	Charge : 0~40°C (32~104°F)	
	Storage : -30~40°C (5~104°F)	
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F )	
Cycle Use	Initial Charging Current less than 12 A.Voltage	
	14.4V~14.9V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104 °F)	103%
	25°C (77 °F)	100%
	0°C (32 °F)	86%
Self Discharge	Techfine GEL series batteries may be stored for up to 9 months at 25°C(77°F) and battery should be recharge before use.For higher temperatures the time interval will be shorter.	

#### Applications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Engine starting
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats

ISO 9001	ISO 14001	OHSAS 18001	TLC
CE	RoHS	UL	Battery

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	32.1	25.2	19.3	16.1	10.2	7.79	6.45	5.57	4.81	4.26	3.84	3.51	3.32	1.82
1.80V/cell	36.8	28.2	21.2	17.8	11.1	8.35	6.84	5.85	5.05	4.46	4.02	3.69	3.47	1.90
1.75V/cell	41.4	31.0	23.0	19.0	11.7	8.82	7.16	6.08	5.23	4.61	4.15	3.80	3.53	1.94
1.70V/cell	44.6	33.2	24.4	20.1	12.4	9.18	7.40	6.27	5.41	4.77	4.28	3.90	3.62	1.96
1.67V/cell	46.4	34.5	25.2	20.9	12.7	9.47	7.58	6.40	5.50	4.84	4.34	3.95	3.66	1.98
1.60V/cell	50.3	36.9	27.1	22.2	13.3	9.85	7.87	6.60	5.63	4.94	4.42	4.04	3.73	2.01

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	61.5	48.6	37.3	31.4	20.0	15.3	12.7	11.0	9.52	8.45	7.64	6.99	6.61	3.64
1.80V/cell	69.6	53.8	40.9	34.4	21.5	16.3	13.4	11.5	10.0	8.82	7.98	7.33	6.90	3.79
1.75V/cell	77.3	58.7	43.9	36.7	22.7	17.2	14.0	11.9	10.3	9.11	8.22	7.54	7.03	3.86
1.70V/cell	82.4	62.3	46.2	38.6	24.0	17.8	14.4	12.3	10.6	9.39	8.45	7.74	7.18	3.90
1.67V/cell	84.8	64.0	47.5	39.8	24.5	18.3	14.7	12.5	10.8	9.50	8.56	7.82	7.26	3.94
1.60V/cell	90.8	67.9	50.7	42.1	25.3	19.0	15.2	12.8	11.0	9.68	8.69	7.97	7.39	3.99

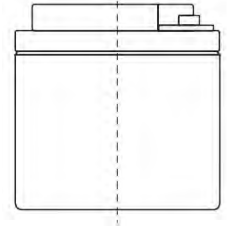
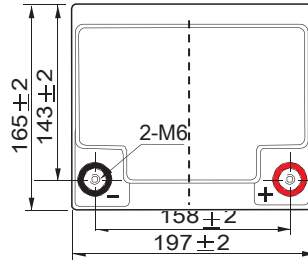
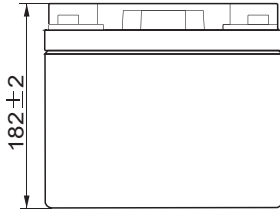
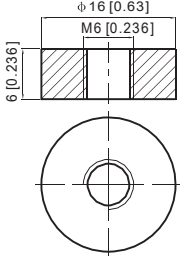
**Note** The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

## GEL12-38 12V38AH GEL SERIES-GEL Battery

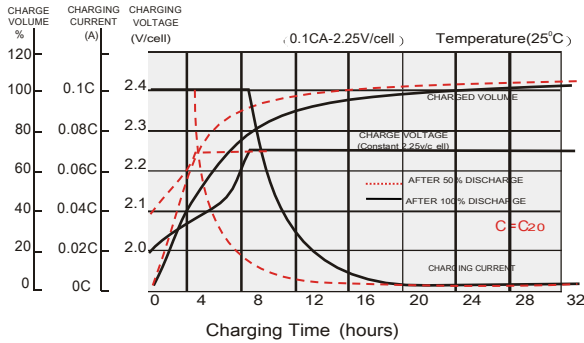
### Dimensions

#### T6 Terminal

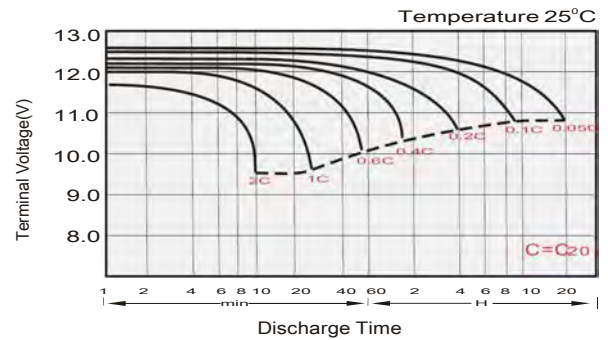
Unit: mm [inches]



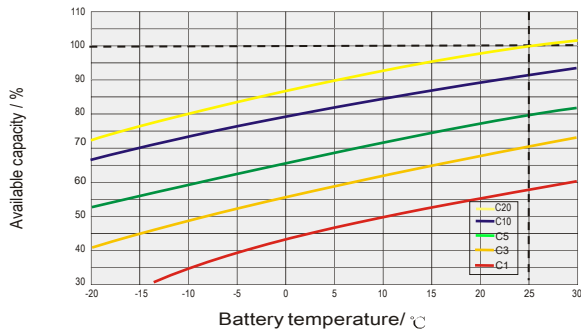
### Float Charging Characteristics



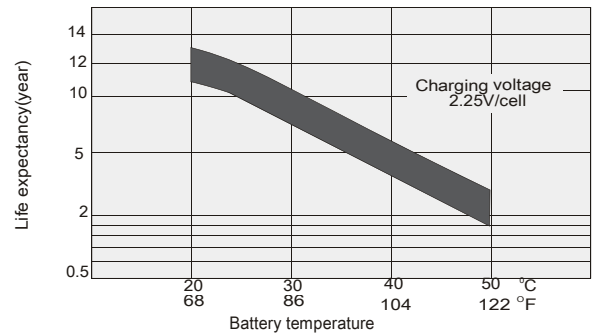
### Discharge Characteristics



### Temperature Effects in Relation to Battery Capacity

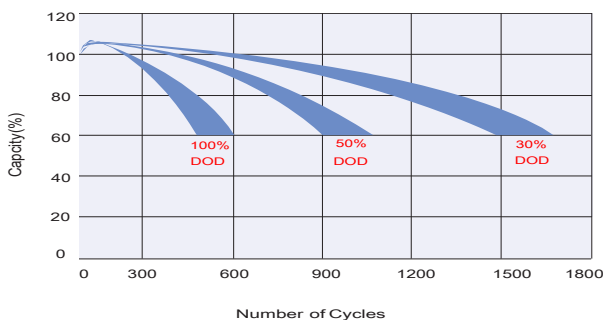


### Effect of Temperature on Long Term Float Life

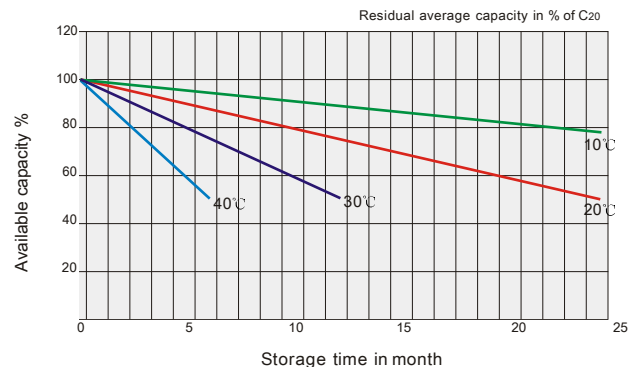


### Cycle Life in Relation to Depth of Discharge

Testing condition  
Discharging: current 0.17C (FV 1.7V/cell);  
Charging: current 0.25C max, voltage 2.45V/cell;  
Charging volume: 125% of discharged capacity.



### General Relation of Capacity VS. Storage Time



### TECHFINE GEL BATTERIES

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