

### Physical Specifications

Part Number: GEL TED1246  
 Length: 197 ± 2 mm (7.75 inches)  
 Width: 165 ± 2 mm (6.49 inches)  
 Height: 170 ± 2 mm (6.69 inches)  
 Weight: ~ 14.4 kg (31.75 lbs)

Standard case material is flame retardant to (UL94) HBO. The TED Batteries range provide an extremely reliable and versatile valve regulated lead acid battery. Their unique construction and sealing techniques ensures that no electrolyte leakage can occur, and provides safe and effective operation in any orientation, and meets all requirements of the International Air Transport Association Dangerous Goods Regulations to allow transportation by air.



### Specifications

Terminal Type: Standard M6 (F6/T6/I2) or any suitable terminal (at customer request)

Design Floating Life 20°C (68°F): 10 Years

Maxim Discharge Current: 542A/5sec.

Internal Resistance: Approximative 8.6mΩ

Cycle Use: Initial Charging Current Less Than 13.5A • Voltage 14.4÷14.8 at 25°C (77°F) • Temperature Coefficient -30mV/°C  
 Standby Use: No Limit on Initial Charging Current Voltage 13.5÷13.8V at 25°C (77°F) • Temperature Coefficient -20mV/°C  
 Capacity Affected by Temperature 40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%

Self Discharge: TED Batteries may be stored for up to 6 months at 25°C (77°F) and than refresh charge is required. For higher temperatures the time interval will be shorter.

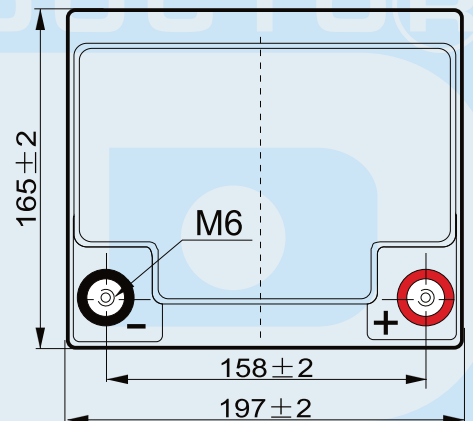
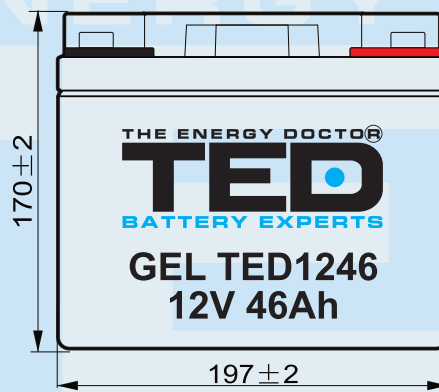
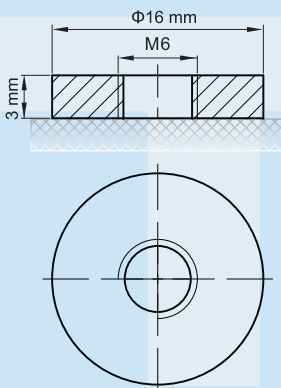
### Rated Capacity

46.9Ah/2.34A	20hr	1.80V/cell 25°C/77°F
46.0Ah/4.60A	10hr	1.80V/cell 25°C/77°F
38.7Ah/7.74A	5hr	1.75V/cell 25°C/77°F
35.1Ah/11.7A	3hr	1.75V/cell 25°C/77°F
27.5Ah/27.5A	1hr	1.60V/cell 25°C/77°F

### Discharge Characteristics

Operating Temperature Range
Charge: 0°C÷40°C (5°F÷104°F)
Storage: -15°C÷40°C (5°F÷104°F)
Nominal: 25°C±3°C (77°F±5°F)
Discharge: -15°C÷50°C (5°F÷122°F)

Terminal Type:  
 Standard M6 (F6/T6/I2)



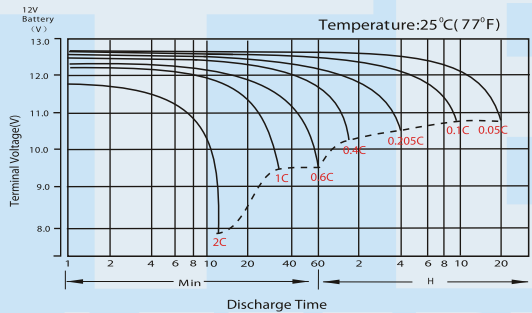
**Constant Current Discharge (Amperes) at 25°C**

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	77.0	60.6	51.5	43.1	34.2	25.9	21.2	13.5	10.7	8.73	7.03	6.12	4.97	4.25	2.32
1.80V/cell	103.4	77.4	62.2	50.9	40.4	30.1	23.8	14.7	11.5	9.32	7.56	6.57	5.27	4.50	2.34
1.75V/cell	116.6	85.0	68.0	54.8	41.9	31.3	24.9	15.3	11.7	9.53	7.74	6.75	5.36	4.55	2.36
1.70V/cell	128.4	92.7	72.6	57.6	43.6	32.5	25.6	15.9	12.0	9.78	7.95	6.89	5.44	4.59	2.41
1.67V/cell	141.5	100.0	77.1	61.2	46.0	33.3	26.5	16.3	12.5	10.12	8.17	7.04	5.53	4.68	2.44
1.60V/cell	156.1	108.6	82.5	65.1	48.6	34.7	27.5	16.9	12.9	10.43	8.44	7.20	5.58	4.73	2.45

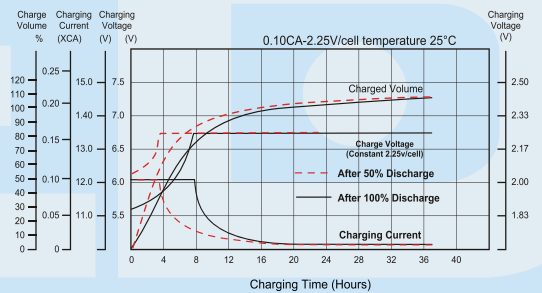
**Constant Power Discharge (Watts) at 25°C**

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	140.8	111.9	96.1	81.2	65.2	49.8	40.9	26.2	20.8	17.1	13.8	12.0	9.82	8.41	4.59
1.80V/cell	187.0	141.2	114.5	94.6	75.8	57.5	45.6	28.4	22.3	18.1	14.7	12.9	10.4	8.89	4.63
1.75V/cell	206.4	152.7	123.6	100.7	78.1	59.1	47.5	29.4	22.6	18.5	15.1	13.2	10.5	8.97	4.67
1.70V/cell	220.9	162.7	130.1	105.1	80.8	61.2	48.8	30.5	23.2	18.9	15.4	13.4	10.7	9.05	4.75
1.67V/cell	240.2	173.9	137.3	110.8	84.5	62.2	50.1	31.2	24.1	19.5	15.8	13.7	10.8	9.22	4.81
1.60V/cell	258.8	184.5	144.4	116.7	88.6	64.4	51.6	32.1	24.7	20.0	16.3	13.9	10.9	9.31	4.83

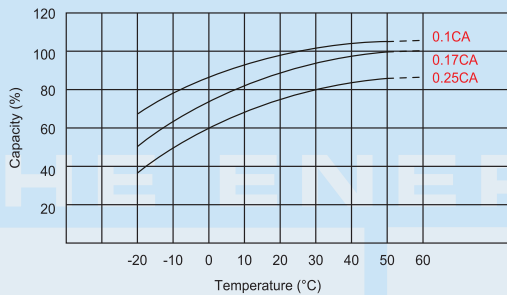
**Discharge Characteristics**



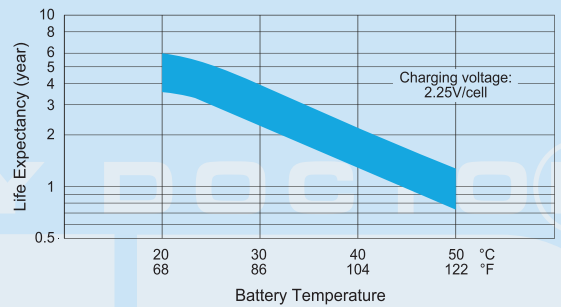
**Float Charging Characteristics**



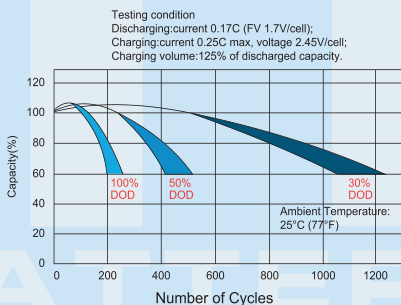
**Temperature Effects in Relation to Battery Capacity**



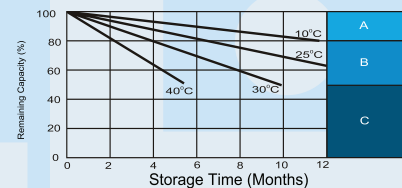
**Effect of Temperature on Long Term Float Life**



**Cycle Life in Relation to Depth of Discharge**



**Self Discharge Characteristics**



- A** No supplementary required (Carryout 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 limited current 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.  
 3. Charged for 8-10 hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.