THE ENERGY DOCTOR®
TED
BATTERY EXPERTS

TECHNICAL DATA SHEET

TED1252EV 12V 52Ah



- Long cycle life: approx. 400–600 cycles 100% DOD. Flame retardant (UL94) HBO.
- Higher energy capacity: +10% compared to standard (patent negative pasting formula).
- Better durability: less then 50% grid corrosion resistance (rare-earth patent alloy).
- Extended performance: 0% acid stratification (nano silica GEL technology).

PHYSICAL SPECIFICATIONS

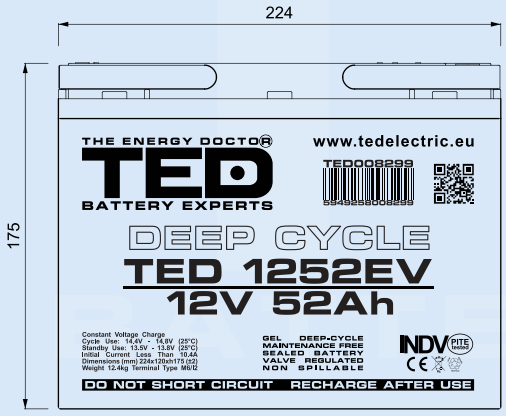
Model	Dimensions (mm)			Weight (kg)	Terminal	Design Life
	Length	Width	Height			
TED008299	224	120	175	12.4 kg	M6/I2	20°C (68°F): 5-7 Years

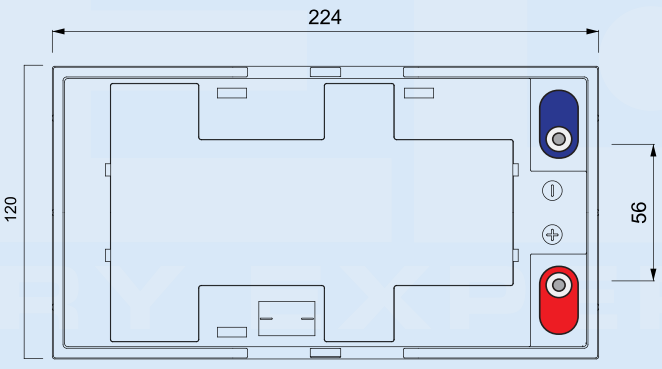
PRODUCT SPECIFICATIONS

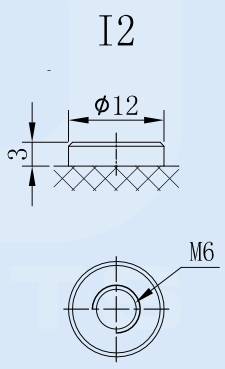
Nominal Voltage	Rated Capacity25°C/77°C	Operating Temp.Range	Capacity Effected Temp	Capacity vs Storge Time (25°C/77°F)
12V	52Ah 20hr Rate (1.80V/cell)	Discharge: -15°C ~ 50°C	40°C (104°F): 106%	3 months: 90%
	49Ah 10hr Rate (1.75V/cell)	Charge: 0°C ~ 40°C	25°C (77°F): 100%	6 months: 80%
	47Ah 5hr Rate (1.75V/cell)	Storage: -15°C ~ 40°c	0°C (32°F): 85%	9 months: 60%
	45Ah 3hr Rate (1.75V/cell)	Optimum: 25°C ± 2°C	-15°C (5°F): 72%	12 months: 45%

Charging Current	Limited Voltage	Floating Voltage
Limited Current: ≤ 10.4A (0.2C2A)	14.6 ~ 14.8V 25°C (77°F)	13.6 ~ 13.8V 25°C (77°F)
Container Material	**Internal Resistance**	**Maximum Discharge Current**
ABS UL94-HBO	~ 8mΩ	520A

PRODUCT DIMENSIONS







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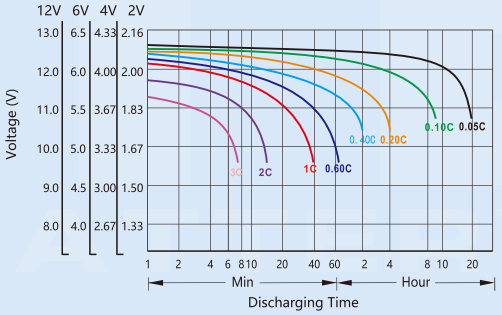
Constant Current Discharge (A) at 25°C (77°F)

F.V/Time	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/Cell	53.0	37.7	30.2	17.3	13.9	10.8	8.79	7.43	5.68	4.62	2.51
1.80V/Cell	54.8	38.9	31.2	17.9	14.5	11.2	9.13	7.71	5.86	4.76	2.60
1.75V/Cell	56.3	40.3	32.3	19.0	15.0	11.6	9.36	7.90	6.03	4.86	2.65
1.70V/Cell	57.7	41.4	33.4	19.3	15.3	11.9	9.69	8.21	6.17	4.98	2.71
1.67V/Cell	58.9	42.7	34.6	19.5	15.5	12.0	9.87	8.27	6.28	5.06	2.73
1.60V/Cell	60.5	43.9	35.3	20.2	16.1	12.4	10.1	8.50	6.43	5.20	2.75

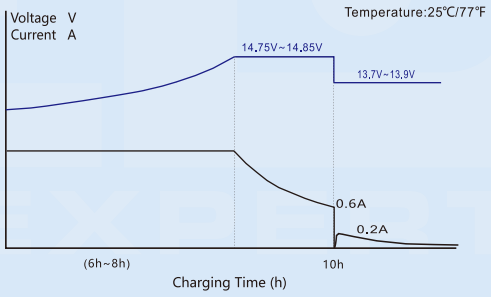
Constant Power Discharge (W/ce11) at25°C (77°F)

F.V/Time	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/Cell	103	74.2	59.8	34.5	27.9	21.8	17.7	15.0	11.5	9.38	5.12
1.80V/Cell	107	76.2	61.4	35.5	28.9	22.4	18.3	15.5	11.8	9.61	5.27
1.75V/Cell	109	78.8	63.5	37.7	29.8	23.1	18.7	15.8	12.1	9.80	5.35
1.70V/Cell	111	80.3	65.3	38.0	30.3	23.7	19.3	16.4	12.3	10.0	5.45
1.67V/Cell	113	82.2	67.2	38.2	30.5	23.8	19.5	16.4	12.5	10.1	5.46
1.60V/Cell	115	84.0	67.9	39.1	31.3	24.3	19.8	16.7	12.7	10.3	5.49

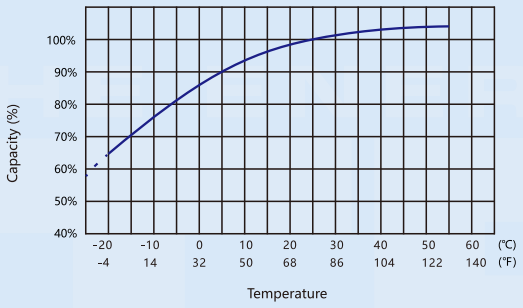
Discharging Characteristics@25°C(77°F)



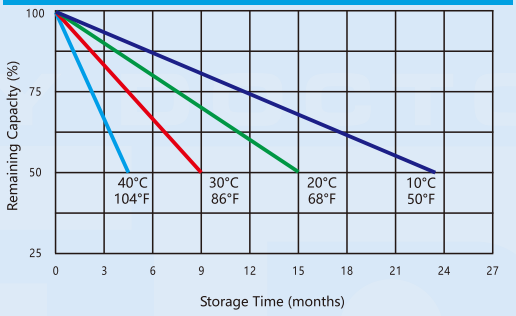
Charging Characteristics@25°C(77°F)



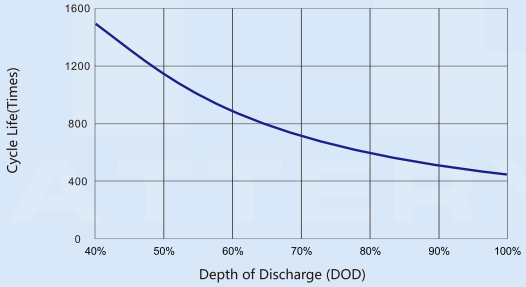
Capacity vs Temperature



Self-discharge vs Time



Cycle Life vs Depth of Discharge@25°C(77°F)



Cycle Life vs Remaining Capacity@25°C(77°F)

