



TC Series-GEL Battery

TC12-80(12V80Ah)

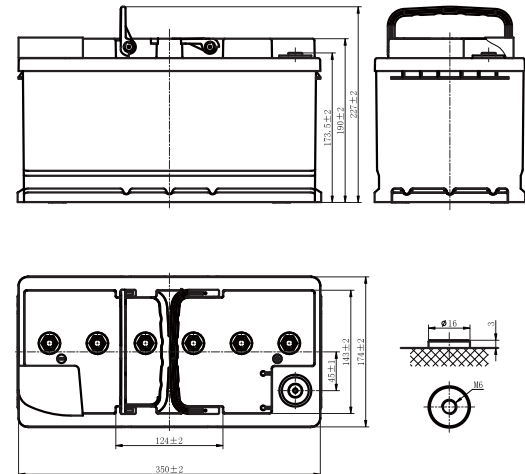


Specifications

Rated Voltage	12V	
Nominal Capacity	80Ah	(C ₂₀ , 1.75V/cell)
Dimension	Length	350±2mm (13.8 inches)
	Width	174±2mm (6.85 inches)
	Container Height	190±2mm (7.48 inches)
	Total Height	190±2mm (7.48 inches)
Approx Weight	26.3 Kg (58.0lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity (25°C)	80.0 Ah	(20hr, 4.00A, 1.75V/cell)
	72.1 Ah	(10hr, 72.1A, 1.75V/cell)
	62.0 Ah	(5hr, 12.4A, 1.75V/cell)
	55.2 Ah	(3hr, 18.4A, 1.75V/cell)
	42.9 Ah	(1hr, 42.9A, 1.60V/cell)
Max. Discharge Current	700A (5s)	
Internal Resistance (25°C)	Approx 7.00mΩ	
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 17,5A. Voltage 14.4V~14,8V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 17,5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	TC series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Layout



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

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.9	20.3	16.2	13.1	11.4	10.0	8.09	6.86	3.78
1.80V/cell	36.4	22.4	17.7	14.3	12.0	10.6	8.44	7.00	3.86
1.75V/cell	40.8	24.0	18.4	14.7	12.4	10.9	8.58	7.21	4.00
1.67V/cell	42.9	25.0	19.0	15.0	12.7	11.1	8.73	7.28	4.12
1.60V/cell	44.3	25.5	19.3	15.2	13.0	11.3	8.80	7.35	4.18

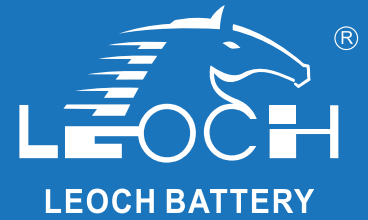
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	64.0	39.7	31.7	25.8	22.5	19.7	16.0	13.6	7.52
1.80V/cell	70.3	43.6	34.6	27.9	23.6	20.8	16.6	13.8	7.90
1.75V/cell	78.2	46.5	35.9	28.7	24.2	21.4	16.9	14.2	7.99
1.65V/cell	81.3	47.9	36.7	29.0	24.8	21.6	17.1	14.3	8.13
1.60V/cell	83.2	48.6	36.9	29.4	25.2	21.9	17.2	14.4	8.25



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Applications

- Caravan/RV
- Marine

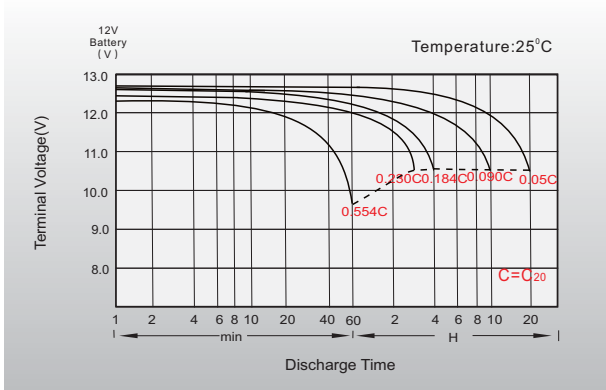
General Features

- Special plate design, long cycle life
≥600 Cycles @ 80%DOD
- Operation temperature -20~55°C
- ≤3% Self discharge per month
- Excellent deep discharge resilience performance

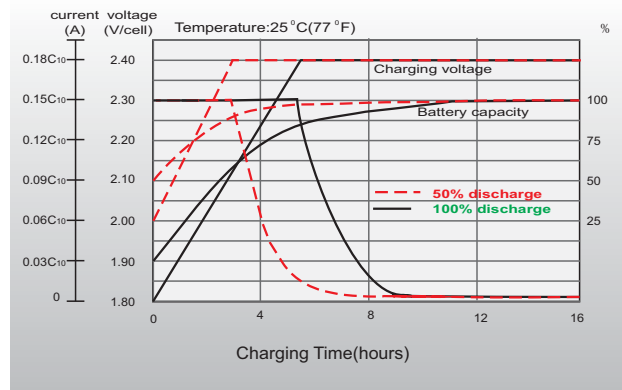
Standards

- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

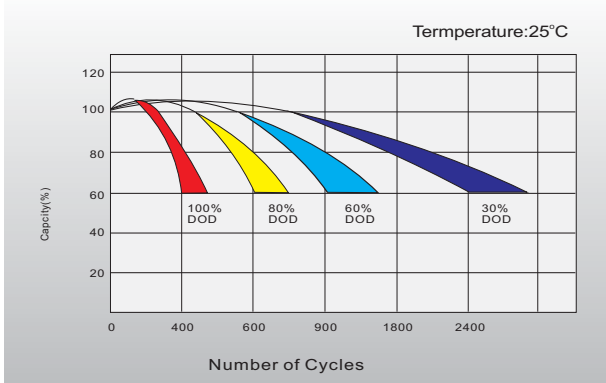
Discharge Characteristics



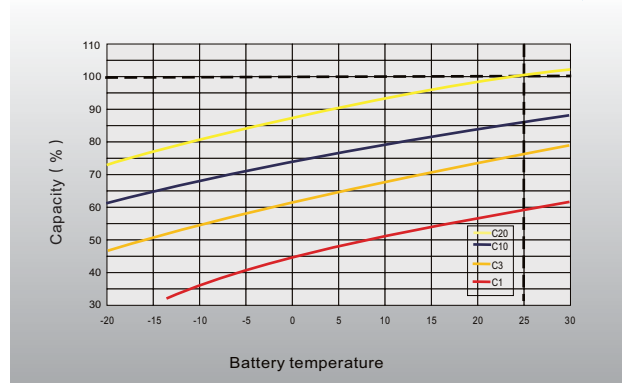
Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Temperature Effects in Relation to Battery Capacity



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Publication No.:LB-TC12-80-PD-EN-V1.3-2020.08