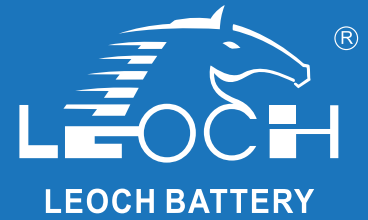




TC Series

TC12-90(12V90Ah)

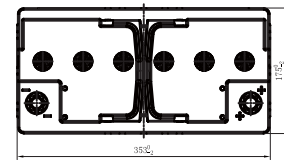
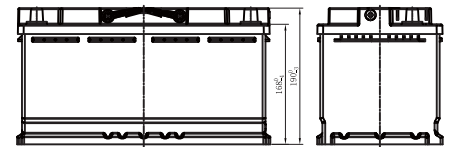


Specifications

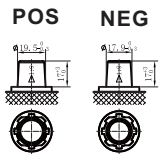
Rated Voltage	12V	
Nominal Capacity	90Ah	(C ₂₀ , 1.80V/cell)
Dimension	Length	353±2mm (13.9 inches)
	Width	175±2mm (6.89 inches)
	Container Height	190±2mm (7.48 inches)
	Total Height	190±2mm (7.48 inches)
Approx Weight	26.2 Kg (57.8lbs)	
Terminal	\	
Container Material	PP	
Rated Capacity (25°C)	90.0 Ah	(20hr, 4.50A, 1.80V/cell)
	84.0 Ah	(10hr, 8.40A, 1.80V/cell)
	74.5 Ah	(5hr, 14.9A, 1.75V/cell)
	65.4 Ah	(3hr, 21.8A, 1.75V/cell)
	52.5 Ah	(1hr, 52.5A, 1.60V/cell)
Max. Discharge Current	840A (5s)	
Internal Resistance (25°C)	Approx 4.80mΩ	
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 21.0A. Voltage 14.4V~14.8V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 21.0A. 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



Terminal



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

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	42.0	26.1	19.7	15.8	14.0	12.1	9.70	8.23	4.43
1.80V/cell	46.2	28.7	21.1	16.9	14.4	12.8	10.1	8.40	4.50
1.75V/cell	48.7	30.2	21.8	17.7	14.9	13.2	10.2	8.65	4.56
1.65V/cell	51.2	31.9	22.3	18.2	15.4	13.4	10.4	8.78	4.65
1.60V/cell	52.5	32.4	22.7	18.5	15.5	13.7	10.6	8.86	4.73

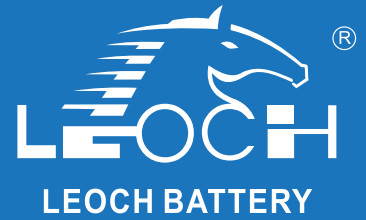
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	81.6	51.1	38.7	31.1	27.6	23.9	19.2	16.3	8.81
1.80V/cell	89.2	55.7	41.3	33.2	28.3	25.2	19.9	16.6	8.94
1.75V/cell	93.4	58.5	42.5	34.6	29.1	25.9	20.1	17.1	9.05
1.65V/cell	97.1	61.2	43.0	35.2	29.9	26.2	20.3	17.3	9.22
1.60V/cell	98.5	61.7	43.5	35.7	30.1	26.5	20.6	17.4	9.36



TC Series

TC12-90(12V90Ah)



Applications

- Caravan/RV
- Marine

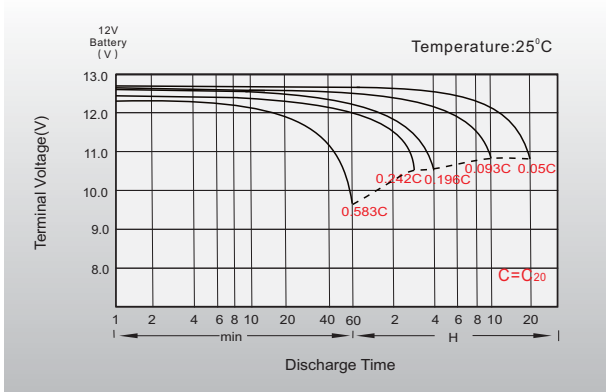
General Features

- Special plate design, long cycle life
≥550 Cycles @ 60%DOD
- Operation temperature -20~55°C
- ≤3% Self discharge per month
- Excellent deep discharge resilience performance

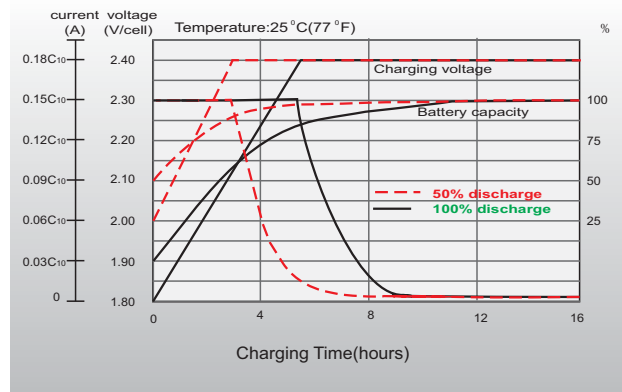
Standards

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

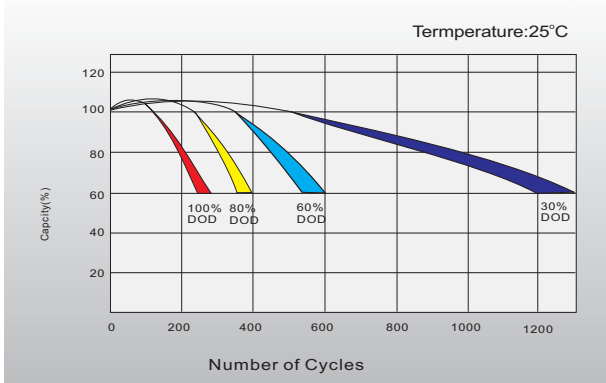
Discharge Characteristics



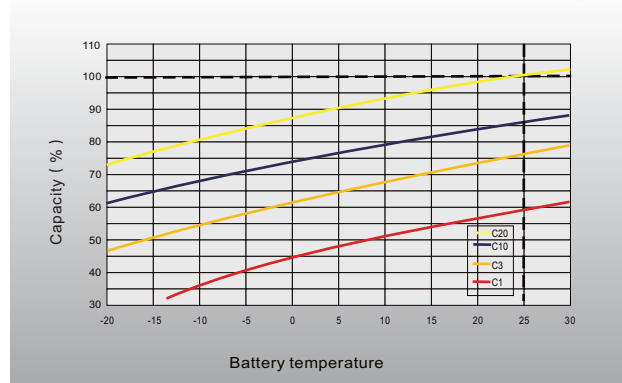
Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Temperature Effects in Relation to Battery Capacity



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