



TC Series

TC12-120(12V120Ah)

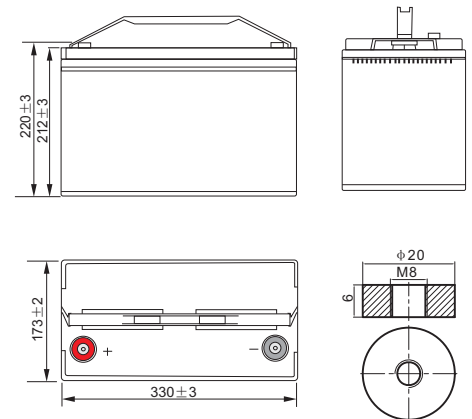


Specifications

Rated Voltage	12V	
Nominal Capacity	120Ah	(C ₂₀ , 1.80V/cell)
Dimension	Length	330±2mm (13.0 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±2mm (8.35 inches)
	Total Height	220±2mm (8.66 inches)
Approx Weight	34.2 Kg (75.4lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity (25°C)	120.0 Ah	(20hr, 6.00A, 1.80V/cell)
	108.0 Ah	(10hr, 10.8A, 1.80V/cell)
	97.5 Ah	(5hr, 19.5A, 1.75V/cell)
	87.6Ah	(3hr, 29.2A, 1.75V/cell)
	70.5Ah	(1hr, 70.5A, 1.60V/cell)
Max. Discharge Current	1080A (5s)	
Internal Resistance (25°C)	Approx 4.20mΩ	
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 27,0A. Voltage 14.4V~14,8V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 27,0A. 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



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

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	54.0	33.6	25.4	20.5	18.0	15.6	12.5	10.6	5.70
1.80V/cell	59.4	36.9	27.9	22.3	19.1	16.5	13.0	10.8	6.00
1.75V/cell	66.2	40.5	29.2	22.8	19.5	17.0	13.2	11.1	6.08
1.67V/cell	68.6	41.9	29.8	23.4	19.8	17.3	13.5	11.3	6.14
1.60V/cell	70.5	42.8	30.1	23.8	20.0	17.6	13.6	11.4	6.18

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	105.0	65.7	49.8	40.3	35.5	30.7	24.7	20.9	11.3
1.80V/cell	114.7	71.7	54.5	43.6	37.4	32.4	25.7	21.3	11.9
1.75V/cell	126.9	78.3	56.7	44.5	38.2	33.4	26.1	21.9	12.1
1.65V/cell	129.9	80.2	57.5	45.3	38.5	33.7	26.4	22.2	12.2
1.60V/cell	132.4	81.4	57.7	45.8	38.7	34.1	26.5	22.4	12.2



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Applications

- Caravan/RV
- Marine

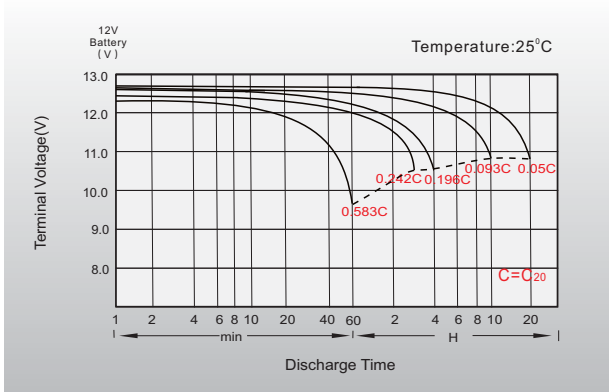
General Features

- Special plate design, long cycle life
- ≥ 550 Cycles @ 60% DOD
- Operation temperature $-20 \sim 55^\circ\text{C}$
- $\leq 3\%$ Self discharge per month
- Excellent deep discharge resilience performance

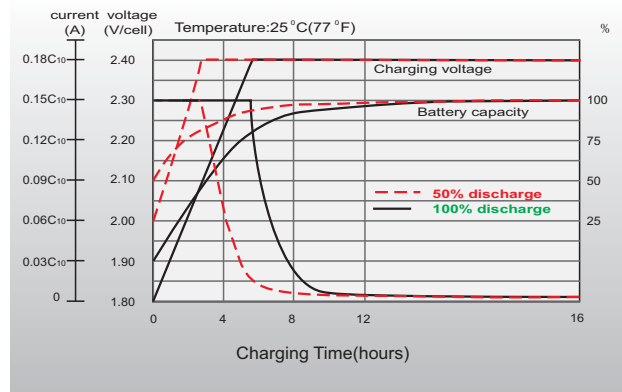
Standards

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

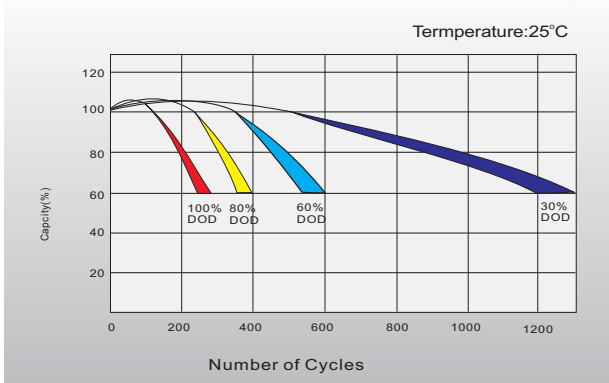
Discharge Characteristics



Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Temperature Effects in Relation to Battery Capacity

