

SEALED LEAD-ACID BATTERIES v1.2

TCB

LEAD-ACID RECHARGEABLE BATTERY

MODEL: BT-12M18AC (12V 18Ah)



Application

- ☆ Measuring equipment and instrument
- ☆ Telephone sets
- ☆ Lighting equipment
- ☆ Security systems
- ☆ UPS power supply

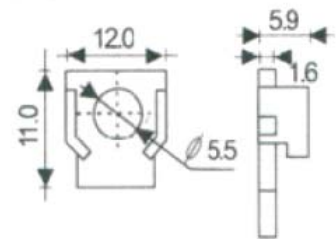
General Features

- ☆ Designed floating charging service life: 8 years (25°C)
- ☆ Sealed and maintenance free operation
- ☆ Safety valve installation for explosion proof
- ☆ Low self-discharge characteristic
- ☆ Wide operating temperature range from 10°C-40°C
- ☆ Lead Aluminum calcium Tin alloy high energy, prevent corrosion

PHYSICAL SPECIFICATIONS

Nominal Voltage		12V
Nominal Capacity (20HR)		18AH
Dimensions	Length	180±2mm
	Width	77±1mm
	Container height	167±2mm
	Total Height (with terminal)	167±2mm
Weight±3%		Approx 5.27Kg(11.62lbs)
Internal Resistance(In full charge status)		≈12.4mΩ
Standard Terminals		F6(standard)

F6



ELECTRICAL SPECIFICATIONS

Rated Capacity	20 hour rate(0.9A)	18.4AH
	10 hour rate(1.8A)	16.8AH
	5 hour rate(2.88A)	14.4AH
	27 minute rate(18A)	8.1AH
	7 minute rate (54A)	6.29AH
Capacity affected by Temperature (20Hour Rate)	40°C(104°F)	103%
	25°C(77°F)	100%
	0°C(32°F)	86%

CYCLE APPLICATION

1. Limit initial current less than 4,5A.
2. Charge until battery voltage (under charge) reaches 14,1V to 14,4V at 25°C.
3. Hold at 14,1V to 14,4V until current drop to under 0,108A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -30mV/°C.

STANDBY SERVICE

1. Hold battery across constant voltage source of 13,6V to 13,8V with current limit 4,5A continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -18mV/°C.

Constant Current Discharge Data Sheet (Amperes at 25°C)

End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
1.70	66.60	43.30	24.25	12.60	10.80	6.40	3.64	2.06	1.72	0.92
1.75	65.96	42.88	24.03	12.44	10.75	6.15	3.56	2.04	1.70	0.91
1.80	65.33	42.46	23.72	12.28	10.69	5.91	3.47	2.02	1.68	0.90

Constant Power Discharge Data Sheet (Watt at 25°C)

End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
1.70	799.4	519.9	291.2	151.4	130.2	76.76	43.73	24.78	20.43	11.01
1.75	792.0	514.6	288.0	149.3	129.2	73.90	42.78	24.56	20.22	10.91
1.80	783.5	509.3	284.8	147.2	128.1	70.94	41.72	24.25	20.01	10.69

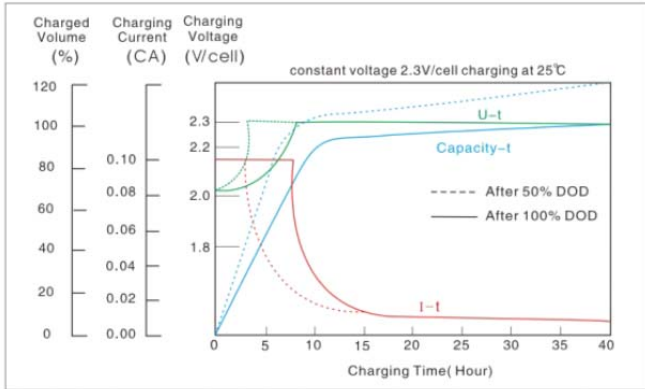
NOTE: the battery should be charged within 6 months of storage. Otherwise, permanent loss of capacity might occur as a result of sulfation.

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Charge Characteristics

