

# FT SERIES-Front Terminal

## FT12-100 (12V100AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	100.0AH	
Dimension	Length	508±3mm (20.0 inches)
	Width	110±2mm (4.33 inches)
	Container Height	238.5±3mm (9.39 inches)
	Total Height (with Terminal)	238.5±3mm (9.39 inches)
Approx Weight	Approx 35.0 Kg (77.2 lbs)	
Terminal	T13	
Container Material	ABS	
Rated Capacity	106.0 AH/5.30A	(20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	95.2 AH/11.9A	(8hr, 1.80V/cell, 25°C/77°F)
	87.0 AH/17.4A	(5hr, 1.75V/cell, 25°C/77°F)
	63.7 AH/63.7A	(1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1000A (5s)	
Internal Resistance	Approx 4.3mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 30.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch FT 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.	



### Applications

- ◆ For standard 19 inches or 23 inches power cabinets
- ◆ Network connection equipment of communication system
- ◆ Power system of special network or local area network
- ◆ UPS, standby power supply
- ◆ Power station systems
- ◆ Railway and marine systems



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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	144.6	127.2	114.0	91.6	69.6	56.3	33.6	24.7	19.9	16.7	14.5	11.5	9.56	5.07
1.80V/cell	168.0	146.8	127.2	99.0	74.3	59.5	34.8	25.7	20.5	17.2	14.8	11.9	10.0	5.30
1.75V/cell	185.4	158.0	133.2	103.2	76.8	61.4	35.6	26.1	20.8	17.4	15.1	12.1	10.1	5.35
1.70V/cell	197.4	165.6	138.6	106.0	78.8	62.8	36.2	26.5	21.1	17.6	15.3	12.2	10.2	5.38
1.67V/cell	206.4	171.2	144.0	108.4	80.1	63.7	36.6	26.7	21.3	17.8	15.4	12.3	10.3	5.41
1.60V/cell	215.4	176.0	146.4	110.6	80.9	64.3	37.1	27.0	21.5	18.1	15.6	12.5	10.4	5.44

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	270.0	239.9	217.2	176.4	135.2	109.7	65.8	48.6	39.3	33.1	28.7	22.9	19.1	10.1
1.80V/cell	310.0	273.2	238.8	187.8	143.1	115.3	67.7	50.4	40.3	33.9	29.3	23.6	20.0	10.6
1.75V/cell	336.7	290.5	247.7	194.2	146.6	118.5	69.0	51.0	40.7	34.2	29.7	23.9	20.2	10.7
1.70V/cell	350.5	300.2	255.8	198.3	149.9	120.8	70.1	51.6	41.2	34.4	30.0	24.2	20.3	10.7
1.67V/cell	365.1	309.1	264.7	202.4	151.9	122.2	70.8	51.9	41.5	34.8	30.2	24.4	20.5	10.8
1.60V/cell	370.4	311.5	265.3	203.8	152.8	123.2	71.1	52.2	41.7	35.2	30.6	24.6	20.7	10.8

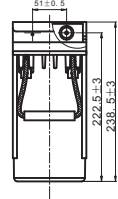
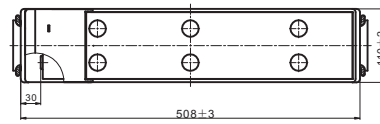
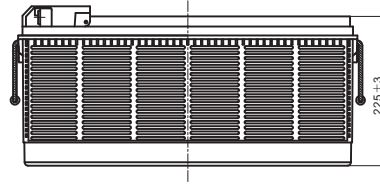
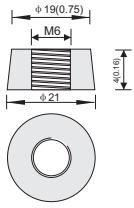
Specifications subject to change without notice.



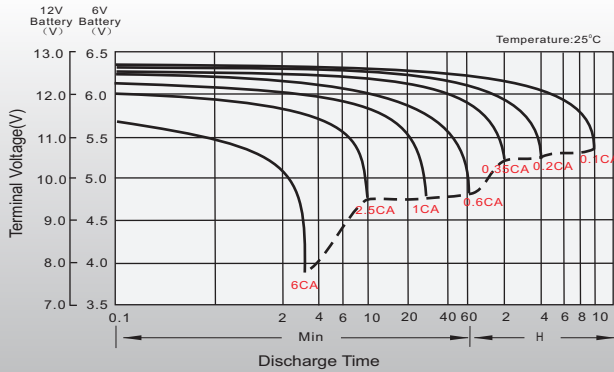
# Dimensions

## T13 Terminal

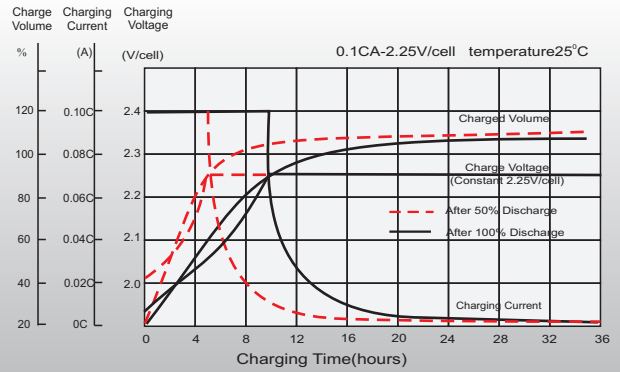
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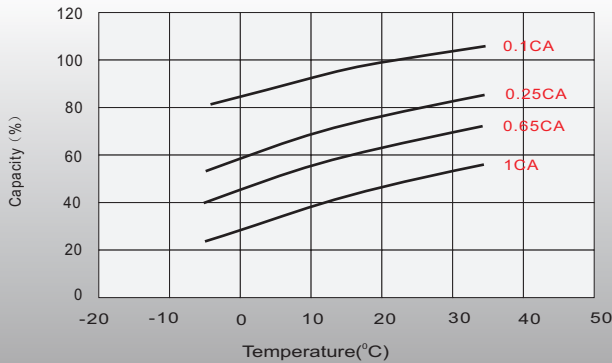
## Discharge Characteristics



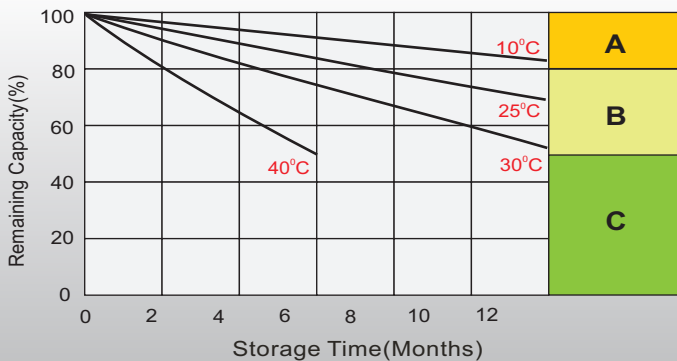
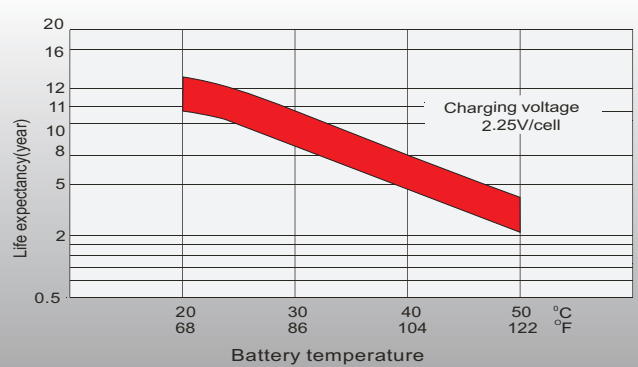
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
  3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

## Sales Office

### China sales office:

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# FT SERIES-Front Terminal

## FT 12-150 (12V150AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	150AH	
Dimension	Length	552±3mm (21.7 inches)
	Width	110±2mm (4.33 inches)
	Container Height	288±3mm (11.3 inches)
	Total Height (with Terminal)	288±3mm (11.3 inches)
Approx Weight	Approx 46.6 Kg (102.8 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	158.8 AH/7.94A	(20hr, 1.80V/cell, 25°C/77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell, 25°C/77°F)
	142.4 AH/17.8A	(8hr, 1.80V/cell, 25°C/77°F)
	130.5 AH/26.1A	(5hr, 1.75V/cell, 25°C/77°F)
	95.9 AH/95.9A	(1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.1mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 45.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch FT 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.	



### Applications

- ◆ For standard 19 inches or 23 inches power cabinets
- ◆ Network connection equipment of communication system
- ◆ Power system of special network or local area network
- ◆ UPS, standby power supply
- ◆ Power station systems
- ◆ Railway and marine systems



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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	216.9	190.8	171.0	136.8	105.8	85.7	50.9	37.3	29.9	25.1	21.7	17.2	14.3	7.60
1.80V/cell	252.0	220.2	190.8	148.5	112.6	90.6	52.7	38.6	30.8	25.8	22.3	17.8	15.0	7.94
1.75V/cell	278.1	237.0	203.4	154.8	115.8	93.0	53.9	39.2	31.2	26.1	22.6	18.1	15.2	8.02
1.70V/cell	296.1	248.4	211.5	160.5	118.8	94.5	54.7	39.7	31.6	26.4	22.9	18.3	15.3	8.07
1.67V/cell	309.6	256.8	216.0	163.8	121.0	95.9	55.4	40.1	31.9	26.7	23.1	18.5	15.5	8.12
1.60V/cell	323.1	264.0	222.3	167.4	123.4	97.5	56.1	40.6	32.2	27.1	23.5	18.7	15.6	8.16

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

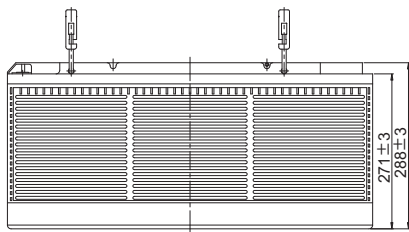
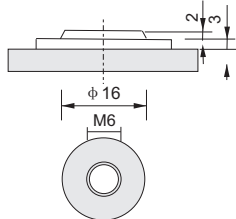
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	405.0	359.8	325.8	263.5	205.5	166.9	99.9	73.4	59.0	49.6	43.0	34.4	28.7	15.2
1.80V/cell	465.1	409.8	358.2	281.7	217.0	175.6	102.8	75.6	60.5	50.8	44.0	35.5	29.9	15.9
1.75V/cell	505.1	435.7	378.2	291.2	221.1	179.5	104.7	76.5	61.1	51.3	44.5	35.9	30.2	16.0
1.70V/cell	525.7	450.3	390.4	300.3	226.0	181.8	105.9	77.4	61.8	51.6	45.0	36.3	30.5	16.1
1.67V/cell	547.6	463.7	397.1	305.8	229.4	183.9	107.2	77.9	62.3	52.3	45.3	36.6	30.8	16.2
1.60V/cell	555.7	467.2	402.9	308.5	231.4	185.3	107.6	78.3	62.5	52.8	45.9	36.9	31.0	16.2

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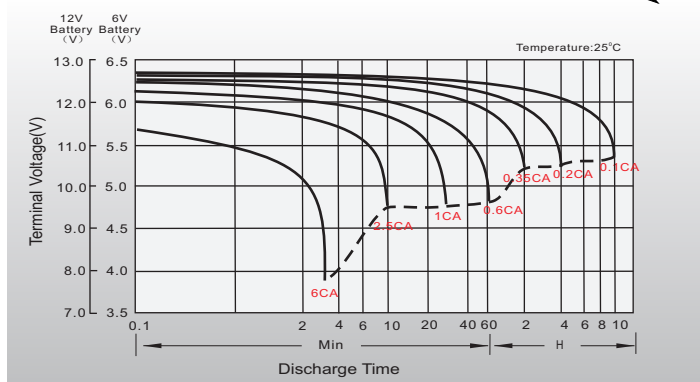
# Dimensions

## T6 Terminal

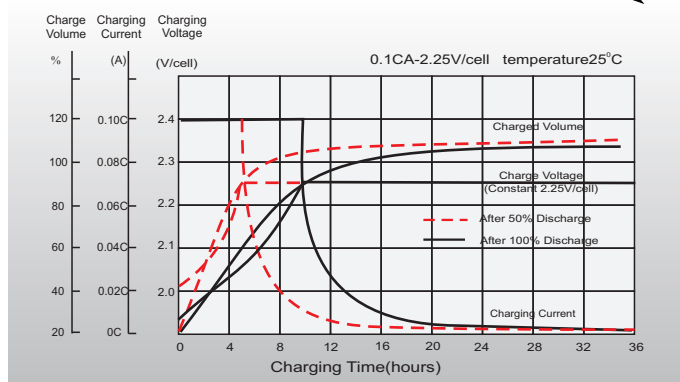
Unit: mm [inches]



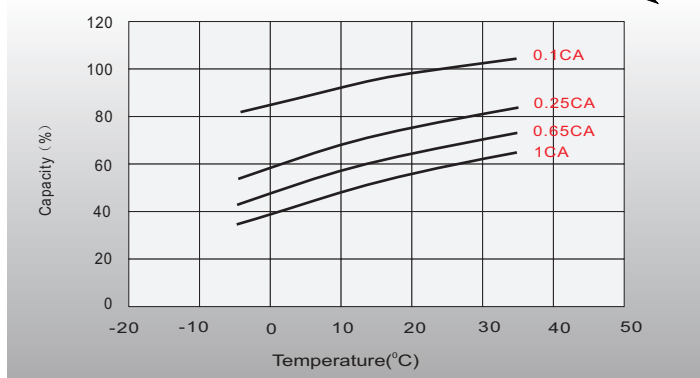
## Discharge Characteristics



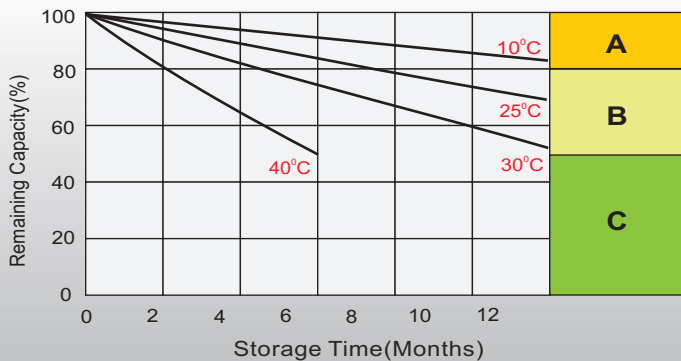
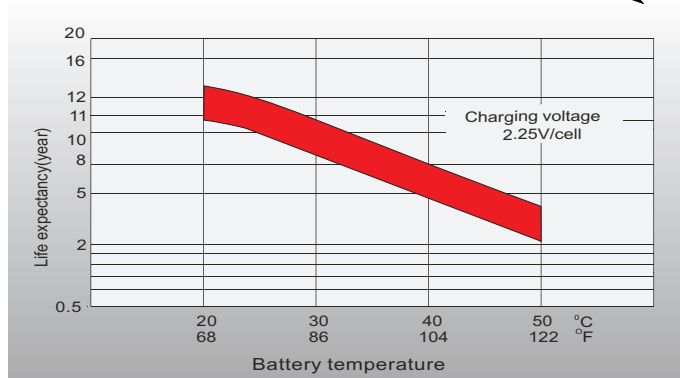
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
  3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplimentary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

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