

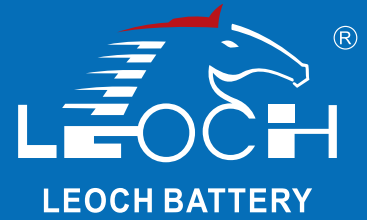


IEEE/UL Battery  
Sizing by  
**MooreU**  
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# LPF Series-Front Terminal

## LPF12-50(12V50Ah)

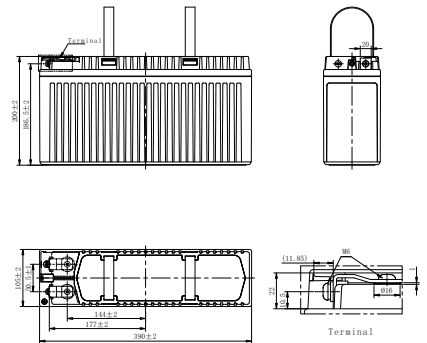


### Specifications

Rated Voltage	12V	
Nominal Capacity	$C_{10}, 1.80V/cell$	50.0Ah
Dimension	Length	390±2mm (15.3 inches)
	Width	105±2mm (4.17 inches)
	Container Height	200±2mm (7.87 inches)
	Total Height	200±2mm (7.87 inches)
Approx Weight	18.5 Kg (40.8 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	52.6 Ah	(20hr, 2.63A, 1.80V/cell)
	50.0 Ah	(10hr, 5.00A, 1.80V/cell)
	48.9 Ah	(8hr, 6.11A, 1.75V/cell)
	43.8 Ah	(5hr, 8.75A, 1.75V/cell)
	33.6 Ah	(1hr, 33.6A, 1.60V/cell)
Max. Discharge Current	500A (5s)	
Internal Resistance (25°C)	Approx 7.6mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 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 15.0A. Voltage 14.1V~14.4V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Effect of temp. to Capacity	Initial Charging Current less than 15.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
	40°C (104°F)	103%
	25°C (77°F)	100%
Self Discharge	0°C (32°F)	86%
	LPF 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	79.8	64.7	59.9	41.8	35.8	26.3	15.8	11.9	9.50	7.94	7.15	5.60	4.69	2.46
1.80V/cell	92.1	75.2	66.4	47.2	38.6	29.2	17.2	12.9	10.2	8.56	7.54	6.00	5.00	2.63
1.75V/cell	101.7	79.6	71.7	49.4	39.9	30.2	17.7	13.3	10.5	8.75	7.63	6.11	5.08	2.67
1.70V/cell	107.4	84.1	74.5	51.6	40.8	31.3	18.3	13.6	10.8	8.95	7.69	6.22	5.16	2.71
1.67V/cell	112.2	87.6	76.8	52.9	41.4	32.0	18.6	13.8	10.9	9.06	7.75	6.28	5.20	2.73
1.60V/cell	117.0	93.0	78.5	55.9	41.9	33.6	19.4	14.4	11.3	9.34	7.83	6.43	5.31	2.79

### 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	152.0	132.6	116.2	86.2	70.2	54.6	33.0	25.0	19.9	16.7	14.4	11.8	9.89	5.33
1.80V/cell	174.2	152.6	127.8	96.6	75.4	60.1	35.7	26.9	21.4	17.9	15.1	12.6	10.5	5.62
1.75V/cell	190.9	159.8	137.4	100.1	77.7	61.8	36.6	27.5	21.9	18.3	15.3	12.8	10.7	5.68
1.70V/cell	198.9	167.0	141.5	103.6	78.8	63.7	37.6	28.2	22.3	18.6	15.4	13.0	10.8	5.75
1.67V/cell	204.6	172.7	143.9	105.6	79.3	64.7	38.1	28.5	22.6	18.8	15.5	13.1	10.9	5.79
1.60V/cell	208.9	180.1	145.1	110.2	79.5	67.2	39.4	29.4	23.2	19.3	15.5	13.4	11.1	5.89



# LPF Series-Front Terminal

## LPF12-50(12V50Ah)



### Applications

- UPS
- For standard power cabinet
- Network connection equipment of communication system
- Power system of special network of local area network
- Power station systems

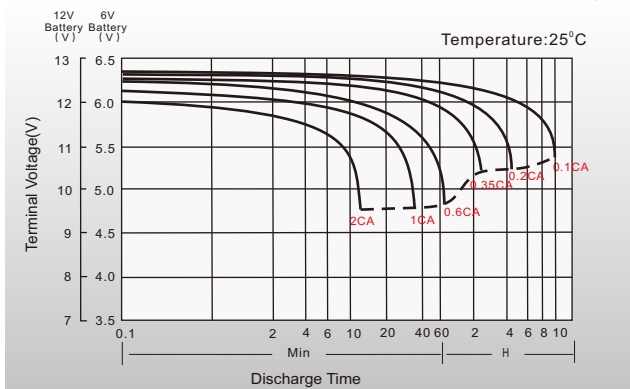
### General Features

- 12 years design life(25°C)
- Specifically ideal for 19 inches or 23 inches power cabinets
- Front terminals make the installation, maintenance and supervision easy
- Shield designs protect terminals from short circuit and show good appearance
- Unique vent valve design: reduce water losing and prevent air/spark going inside

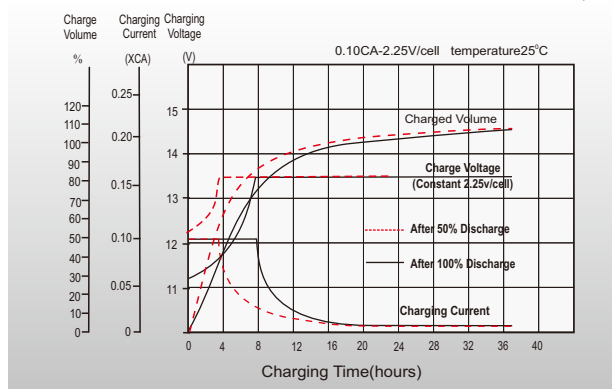
### Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- CE Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

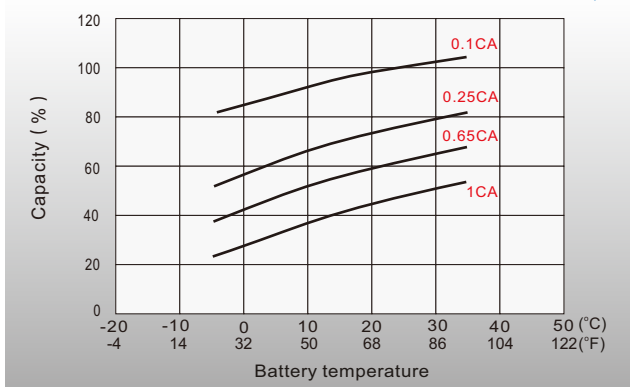
### Discharge Characteristics



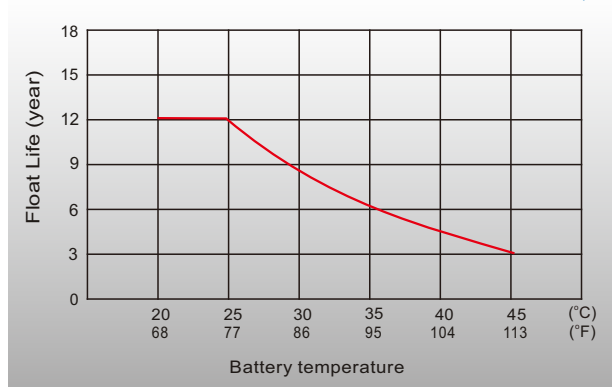
### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



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