RHL45-12FR (Flame Retardant) 12 Volt, 45 Watt/Cell High Rate Industrial Battery



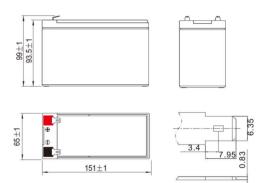
Features

- High Rate Industrial Battery 30% better high power discharge performance compared to conventional batteries
- Pure Lead Battery Technology improves battery theoritical lifetime
- UL 94-V0 Grade Flame Retardant Material

Specifications

Rated Voltage 12V Nominal Rate (W₁, 1.67V/cell) 45W Nominal Capacity(C₁, 1.80V/cell) 7.8Ah Length Width 65±1mm (2.56 inches) Container Height Total Height 99±1mm (3.68 inches) 4.69 inches) 7.61 Height 99±1mm (3.90 inches) 7.61 Height 99±1mm (3.90 inches) 7.61 Height 7.60 Height										
Nominal Capacity (C ₁₀ , 1.80V/cell) T.88h	Rated Voltage									
Length 151±1mm (5.94 inches) Width 65±1mm (2.56 inches) Container Height 93.5±1mm (3.68 inches) Total Height 99±1mm (3.90 inches) Total Height 99±1mm (3.90 inches) Total Height 99±1mm (3.90 inches) Total Height Po±1mm (3.90 inches) Po±1mm (3.90 inches) Total Height To										
Dimension Width 65±1mm (2.56 inches) Container Height 93.5±1mm (3.68 inches) 99±1mm (3.90 inches)	Nominal Capacity(C ₁₀ ,1.80V/cell)	7.8Ah								
Terminal T2 Container Material ABS: UL 94 HB or V-0 Rated Capacity (25°C) 7.81 Ah (10hr, 0.781A,1.80V/cell) (8hr, 0.958A,1.80V/cell) (7.66 Ah (8hr, 0.958A,1.80V/cell) (5hr, 1.44A,1.75V/cell) (6.63 Ah (3hr, 2.21A,1.75V/cell) (10hr, 5.46A,1.67V/cell) (10hr, 5.46A,1.67V/cell) Max. Discharge Current 108A Internal Resistance (25°C) Approx. 20mΩ Operating Temp.Range -20 ~ 55°C (-4 ~ 131°F) (-4 ~ 104°F) (5 ~ 122°F) Charge -20 ~ 40°C (-4 ~ 104°F) (5 ~ 122°F) Recomended Operating Temperature <= 25°C	Dimension	Width Container Height	65±1mm (2.56 inches) 93.5±1mm (3.68 inches)							
Container Material ABS: UL 94 HB or V-0 Rated Capacity (25°C) 7.81 Ah (10hr, 0.781A, 1.80V/cell) 7.66 Ah (8hr, 0.958A, 1.80V/cell) (5hr, 1.44A, 1.75V/cell) 7.20 Ah (5hr, 1.44A, 1.75V/cell) (5hr, 1.44A, 1.75V/cell) 6.63 Ah (3hr, 2.21A, 1.75V/cell) (1hr, 5.46A, 1.67V/cell) Max. Discharge Current 108A Internal Resistance (25°C) Approx. 20mΩ Operating Temp.Range -20 ~ 55°C (-4 ~ 131°F) Charge -20 ~ 40°C (-4 ~ 104°F) Storage -15 ~ 50°C (5 ~ 122°F) Recomended Operating Temperature <= 25°C	Approx. Weight		2.50 Kg (5.51 lbs)							
7.81Ah	Terminal		T2							
Rated Capacity (25°C) 7.66 Ah	Container Material		ABS: UL 94 HB or V-0							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Rated Capacity (25°C)	7.66 Ah 7.20 Ah 6.63 Ah	(8hr, 0.958A,1.80V/cell) (5hr, 1.44A,1.75V/cell) (3hr, 2.21A,1.75V/cell)							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Max. Discharge Current		108A							
Operating Temp.Range Charge $-20^{\circ} \times 40^{\circ} \times (-4^{\circ} \times 104^{\circ} \times F)$ Storage $-15^{\circ} \times 50^{\circ} \times (5^{\circ} \times 122^{\circ} \times F)$ Recomended Operating Temperature $<=25^{\circ} \times 104^{\circ} \times (-15^{\circ} \times 50^{\circ} \times (5^{\circ} \times 122^{\circ} \times F))$ Max.Charging Current($25^{\circ} \times (200000000000000000000000000000000000$	Internal Resistance (25°C)		Approx. 20mΩ							
Max.Charging Current(25°C) Charge voltage Charge voltage(25°C) Float Equalization 2.00A Charge voltage Temp. Coefficient 2.25 ~2.30V/cell -3mV/cell/°C -4mV/cell/°C	Operating Temp.Range	Charge	-20~ 40°C (-4 ~ 104°F)							
Charge voltage (25°C) Float Equalization Charge voltage Temp. Coefficient 2.25 ~2.30V/cell -3mV/cell/°C -4mV/cell/°C	Recomended Operating Temperature		<= 25°C							
Charge voltage(25°C) Float 2.25 ~2.30V/cell -3mV/cell/°C Equalization 2.30~2.40V/cell -4mV/cell/°C	Max.Charging Current(25°C)		2.00A							
40°C (104°F) 106%	Charge voltage(25°C)		2.25 ~2.30V/cell -3mV/cell/°C							
Effect of temp. to Capacity 25°C (77°F) 100% 0°C (32°F) 86%	Effect of temp. to Capacity	25°C (77°F)	100%							
Self Discharge ≤3%/month @ 25°C	Self Discharge	Self Discharge ≤3%/month @ 25°								





		Co	nstan	t Pow	er Dis	charge	e (Wat	tts/cel	l) at 2	5 °C (7	7°F)			
F.V/Time	5min	10min	15min	20min	30min	201003 23	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	47.3	31.7	26.6	20.1	15.0	10.9	8.73	6.47	5.19	3.90	3.09	2.58	1.77	1.45
1.80V/cell	54.5	37.0	30.5	22.9	16.8	12.1	9.60	7.04	5.62	4.20	3.32	2.77	1.89	1.54
1.75V/cell	58.7	39.2	32.9	23.8	17.4	12.5	9.88	7.23	5.76	4.30	3.39	2.83	1.92	1.57
1.70V/cell	62.7	41.3	34.3	24.8	18.0	12.9	10.2	7.43	5.91	4.40	3.47	2.88	1.95	1.59
1.67V/cell	64.9	42.5	35.0	25.3	18.4	13.1	10.3	7.54	5.99	4.45	3.51	2.91	1.97	1.60
1.60V/cell	70.7	45.5	36.9	26.6	19.2	13.6	10.7	7.81	6.20	4.59	3.60	2.99	2.01	1.63



Applications

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

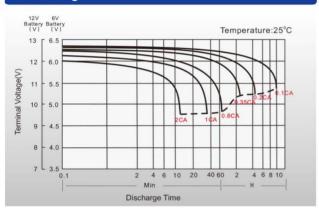
General Features

- 5 Years design life (20°C)
- Unique vent valve design: reduce water losing and prevent air/spark going inside

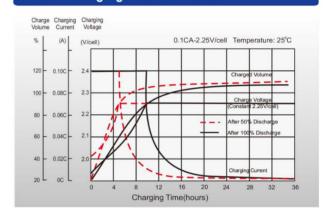
Standards

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

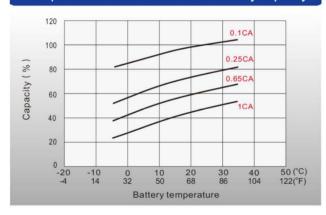
Discharge Characteristics



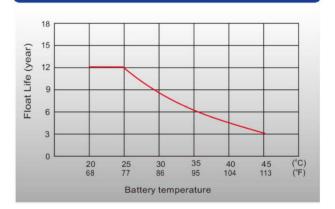
Float Charging Characteristics

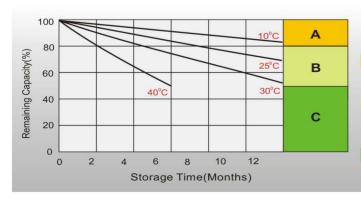


Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life





Self Discharge Characteristics

No supplementary charge required

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(Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:

1. Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.

2. Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.

3. Charged for 8~10hours at limited current 0.05CA

Supplementary charge may often fail to recover the capacity
The battery should never be left standing till this is reached.