

PM5-12 12V5AH

PM SERIES-VRLA BATTERY



Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

Specification

Nomial Voltage	12V	
Nomial Capacity(20HR)	5.0AH	
Dimension	Length	90±1mm (3.54 inches)
	Width	70±1mm (2.76 inches)
	Container Height	101±2mm (3.98 inches)
	Total Height (with Terminal)	107±2mm (4.21 inches)
Approx Weight	Approx 1.41 kg	
Terminal	T1	
Container Material	ABS	
Rated Capacity	5.00 AH/0.250A	(20hr , 1.80V/cell, 25°C/77°F)
	4.65 AH/0.465A	(10hr, 1.80V/cell, 25°C/77°F)
	4.25 AH/0.850A	(5hr, 1.75V/cell, 25°C/77°F)
	3.82 AH/1.275A	(3hr, 1.75V/cell, 25°C/77°F)
	3.14 AH/3.14A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	75A (5s)	
Internal Resistance	Approx 45mΩ	
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 1.5A.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	PALMA PM series batterys 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.	

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	9.52	7.31	6.06	5.24	4.05	2.98	2.51	1.49	1.16	0.95	0.77	0.67	0.540	0.451	0.248
1.80V/cell	12.8	9.34	7.32	6.19	4.78	3.47	2.82	1.62	1.25	1.01	0.83	0.72	0.573	0.465	0.250
1.75V/cell	14.4	10.3	7.99	6.66	4.96	3.60	2.95	1.68	1.28	1.03	0.85	0.74	0.583	0.478	0.253
1.70V/cell	15.9	11.2	8.53	7.00	5.16	3.74	3.04	1.73	1.31	1.06	0.87	0.75	0.591	0.487	0.257
1.65V/cell	17.5	12.1	9.07	7.44	5.45	3.84	3.11	1.75	1.37	1.10	0.90	0.77	0.600	0.497	0.261
1.60V/cell	19.3	13.1	9.71	7.92	5.75	4.00	3.14	1.83	1.41	1.13	0.93	0.79	0.606	0.503	0.262

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.4	13.5	11.3	9.87	7.72	5.73	4.85	2.89	2.27	1.85	1.51	1.32	1.066	0.893	0.490
1.80V/cell	23.1	17.1	13.5	11.5	8.97	6.62	5.40	3.13	2.43	1.96	1.62	1.41	1.127	0.919	0.495
1.75V/cell	25.5	18.4	14.5	12.3	9.23	6.80	5.63	3.23	2.46	2.00	1.65	1.44	1.144	0.942	0.499
1.70V/cell	27.3	19.6	15.3	12.8	9.56	7.05	5.79	3.31	2.53	2.05	1.69	1.47	1.159	0.960	0.507
1.65V/cell	29.7	21.0	16.1	13.5	10.0	7.16	5.88	3.34	2.62	2.11	1.73	1.50	1.174	0.979	0.514
1.60V/cell	32.0	22.3	17.0	14.2	10.5	7.42	5.90	3.46	2.69	2.17	1.78	1.52	1.183	0.988	0.516

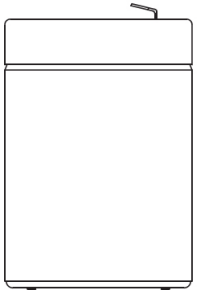
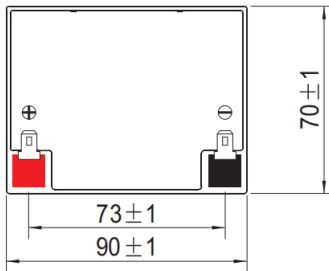
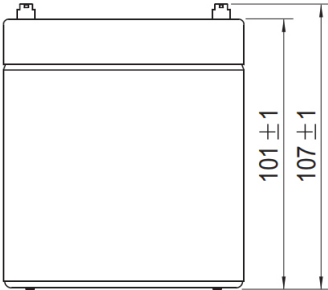
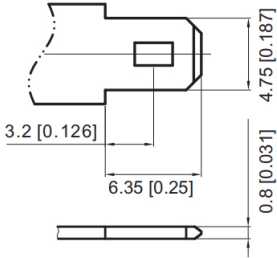
Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

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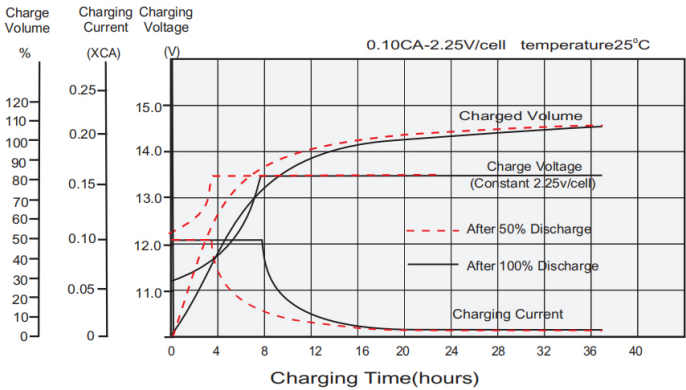
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Dimensions

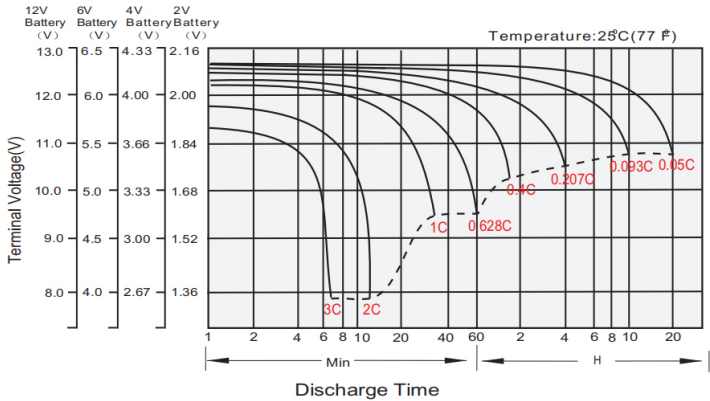
T1 Terminal
Unit: mm [inches]



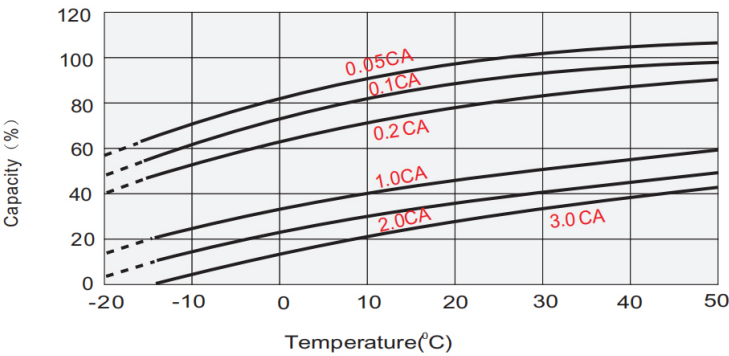
Float Charging Characteristics



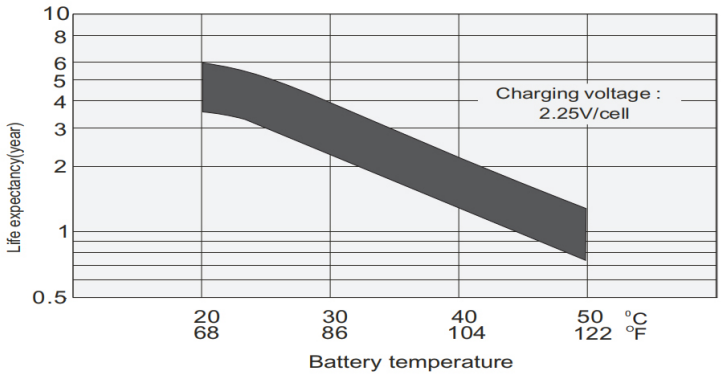
Discharge Characteristics



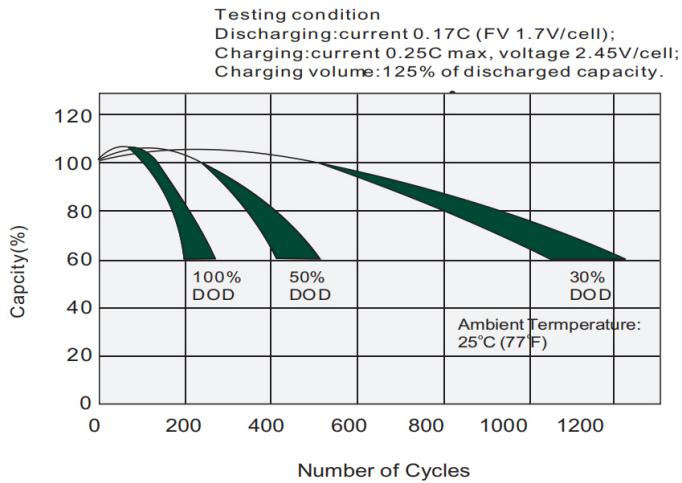
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

