




**POWERQ**  
never will be dark



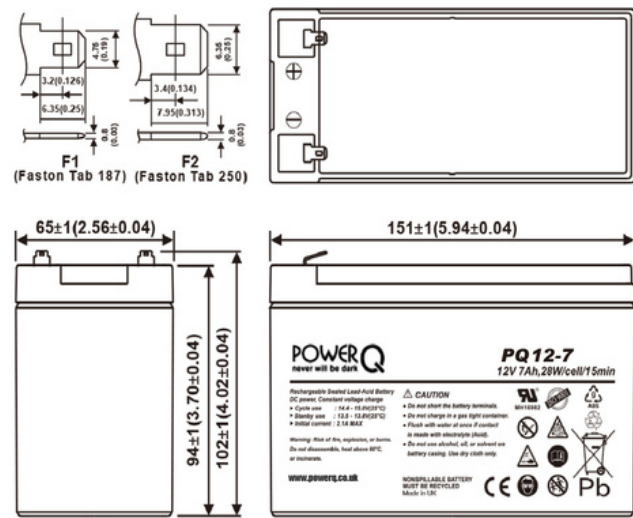
*PQ12-7*  
**12V-7AH**  
*Lead Acid Battery*



The PQ12-7 is a 12V-7Ah lead-acid battery designed for solar, UPS, and backup power. It delivers reliable performance, long service life, and stable energy storage.

## DIMENSIONS

<b>Length (L)</b>	151±1 (5.94±0.04)
<b>Width (W)</b>	65±1 (2.56±0.04)
<b>Height (H)</b>	94±1 (3.70±0.04)
<b>Overall Height (HT)</b>	102±1 (4.02±0.04)



## SPECIFICATIONS

(Units: mm (inch))

### Nominal Voltage (V)

12v

### Nominal Power

15 mins rate : 28W/cell to 1.60V/cell

### Nominal Capacity

20 hour rate	(0.35A to 10.50V)	7Ah
10 hour rate	(0.665A to 10.50V)	6.65Ah
5 hour rate	(1.19A to 10.20V)	5.95Ah
1 C	(7A to 9.60V)	4.43Ah
3 C	(21A to 9.60V)	2.8Ah

### Weight

Approx. 2.18kg (4.8 Lbs.)

### Internal Resistance (at 1 KHZ)

Approx. 22 mΩ

### Maximum Discharge Current For

5 seconds: 105A

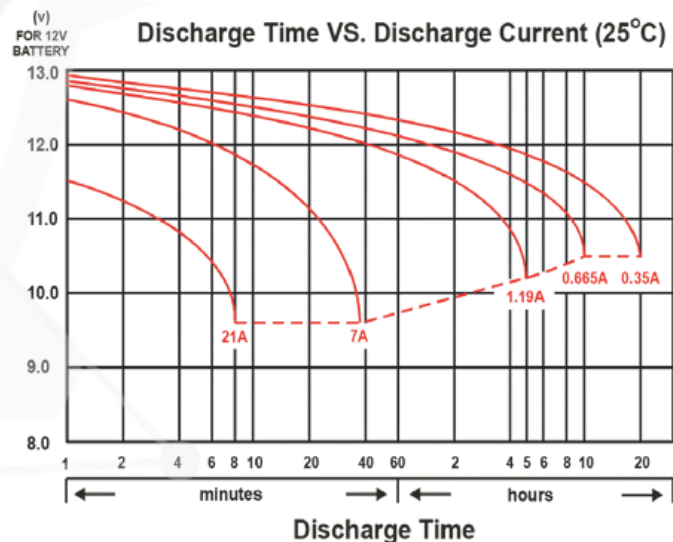
### Charging Methods at 25°C (77°F)

#### Cycle use:

Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current	2.1A

#### Standby use:

Float Charging Voltage	13.5 to 13.8V
Coefficient	-3.0mV/°C/cell



(Units: mm (inch))

### Operating Temperature Range

Charge	-15°C (5°F) to	40°C (104°F)
Discharge	-15°C (5°F) to	50°C (122°F)
Storage	-15°C (5°F) to	40°C (104°F)

### Charge Retention (Shelf life) (at 20°C (68°F))

1 month	97%
3 months	92%
6 months	85%

### Case Material

ABS UL94 HB  
Optional: Flammability resistance of (UL94 V-0)

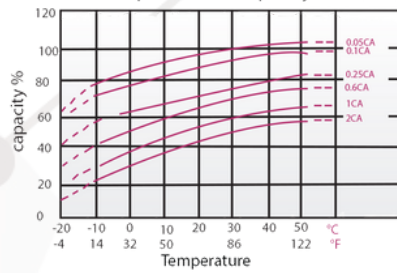
### Design Life & Standard

EUROBAT (20°C)  
3-5 YEARS STANDARD COMMERCIAL

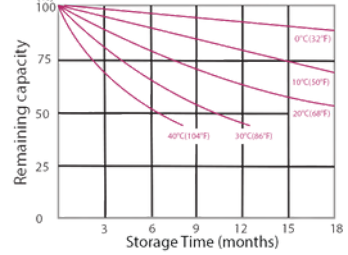
### Terminal

F1 or F2 (Faston Tab 187 or 250)

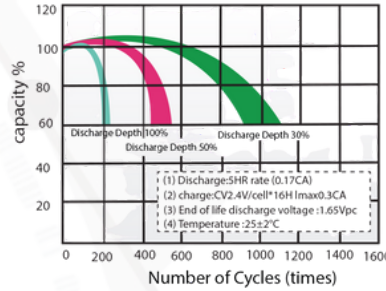
Effect of Temperature on Capacity 25°C(77°)



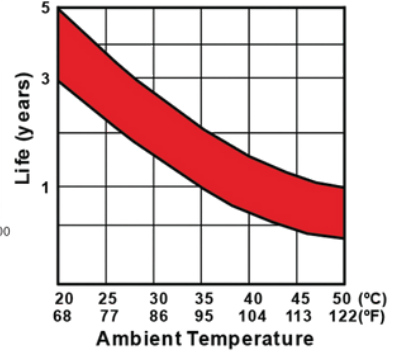
Capacity retention Characteristic



Cycle Service Life



Influence of Temperature on Trickle(Float) Design Life



## PERFORMANCE DATA

Discharge Rates in **Watts** to Various End Voltages at 25°C (77°F)

Time (min)	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	43.8	47.0	49.0	51.0	51.8	52.8	54.3
10	30.0	31.8	33.2	34.3	34.8	35.5	36.5
15	24.0	25.2	25.8	26.5	26.8	27.3	28.0
30	12.1	12.9	13.6	14.1	14.3	14.4	14.6
60	7.70	8.38	8.63	8.87	8.97	9.08	9.23
120	4.10	4.52	4.72	4.92	4.98	5.07	5.20
180	3.08	3.32	3.48	3.62	3.67	3.72	3.80
240	2.85	2.93	3.00	3.05	3.07	3.10	3.15
300	2.47	2.53	2.58	2.62	2.63	2.65	2.68
600	1.36	1.40	1.42	1.43	1.44	1.44	1.45
1200	0.690	0.705	0.718	0.728	0.732	0.737	0.743

Discharge Rates in **Amperes** to Various End Voltages at 25°C (77°F)

Time (min)	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	23.1	26.2	27.8	29.1	29.6	30.5	31.7
10	16.1	17.3	18.1	18.6	18.9	19.2	19.8
15	12.6	13.1	13.5	13.8	14.0	14.1	14.3
30	6.54	7.05	7.28	7.47	7.56	7.68	7.85
60	4.02	4.25	4.41	4.52	4.58	4.63	4.71
120	2.26	2.38	2.45	2.49	2.51	2.54	2.57
180	1.65	1.74	1.79	1.82	1.83	1.85	1.88
240	1.35	1.40	1.44	1.47	1.49	1.51	1.53
300	1.10	1.16	1.21	1.25	1.27	1.28	1.29
600	0.667	0.675	0.682	0.687	0.690	0.694	0.698
1200	0.339	0.346	0.350	0.353	0.355	0.357	0.359

**All data on the spec.sheet is an average value:**

The tolerance range:  $x < 6\text{min}$  (+15%~-15%),  $6\text{min} \leq x < 10\text{min}$  (+12%~-12%),  $10\text{min} \leq x < 60\text{min}$  (+8%~-8%),  $x \geq 60\text{min}$  (+5%~-5%)

# PQ12-7 12V-7AH

## Lead-Acid Battery

For inquiries, orders, or technical support,  
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