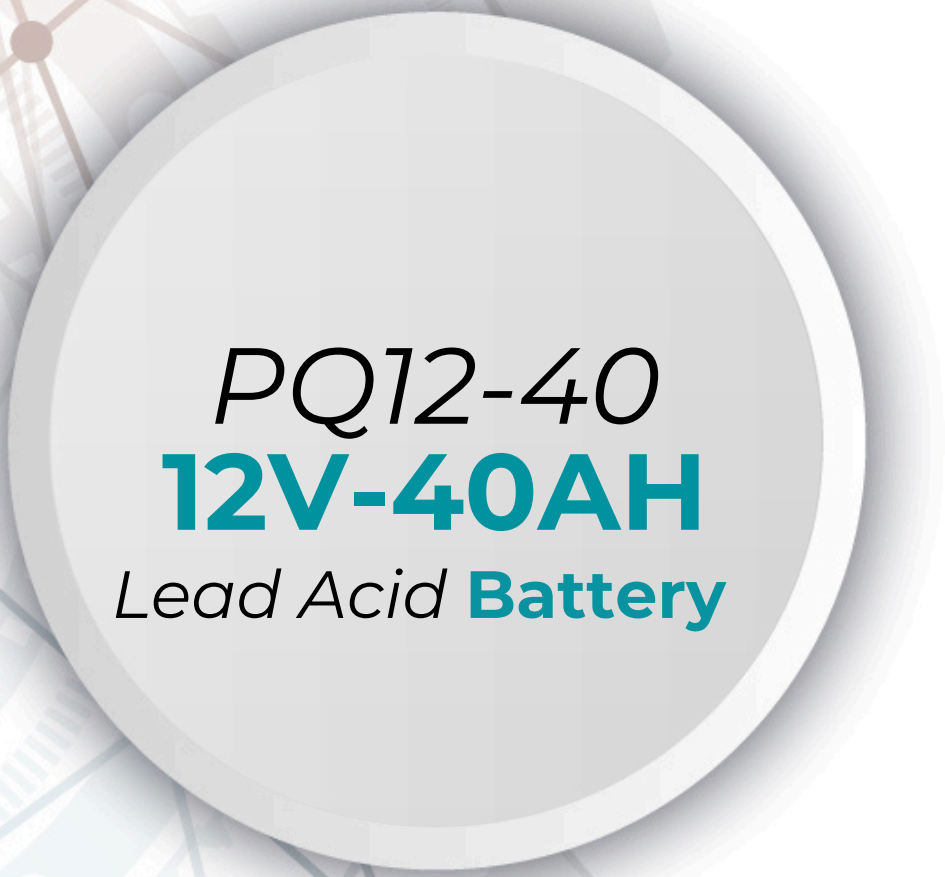




**POWERQ**  
never will be dark



*PQ12-40*  
**12V-40AH**  
*Lead Acid Battery*



The PQ12-40 is a 12V-40Ah 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>	$198 \pm \frac{2}{1}$ (7.80 $\pm \frac{0.08}{0.04}$ )
<b>Width (W)</b>	$166 \pm \frac{2}{1}$ (6.54 $\pm \frac{0.08}{0.04}$ )
<b>Height (H)</b>	$171 \pm \frac{2}{1}$ (6.73 $\pm \frac{0.08}{0.04}$ )
<b>Overall Height (HT)</b>	$171 \pm \frac{2}{1}$ (6.73 $\pm \frac{0.08}{0.04}$ )

(Units: mm (inch))

## SPECIFICATIONS

**Nominal Voltage (V)**

12v

**Nominal Capacity at 25°C (77°F)**

20 hour rate	(2A to 10.50V)	40Ah
10 hour rate	(3.8A to 10.50V)	38Ah
5 hour rate	(6.8A to 10.20V)	34Ah
1 C	(40A to 9.60V)	21.33Ah
3C	(120A to 9.60V)	14Ah

**Weight**

Approx. 12.6kg (27.7 Lbs.)

**Internal Resistance (at 1 KHz)**

Approx. 8.5mΩ

**Maximum Discharge Current For**

5 seconds: 480A

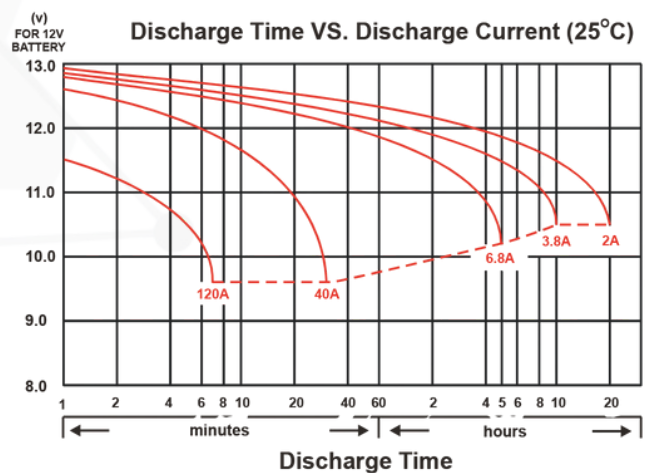
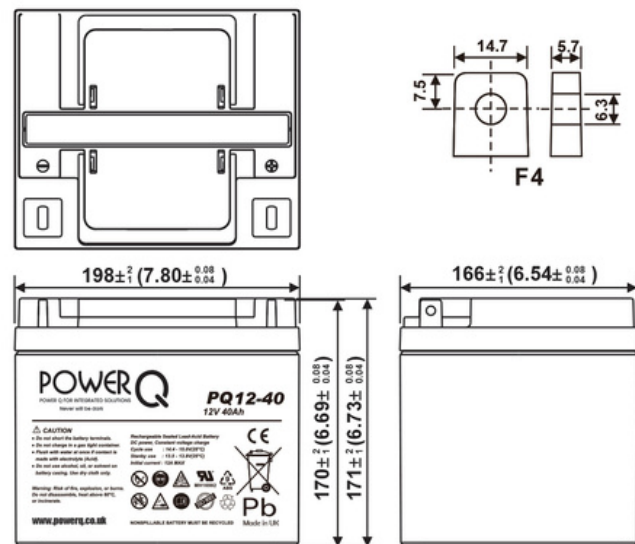
**Charging Methods at 25°C (77°F)**

**Cycle use:**

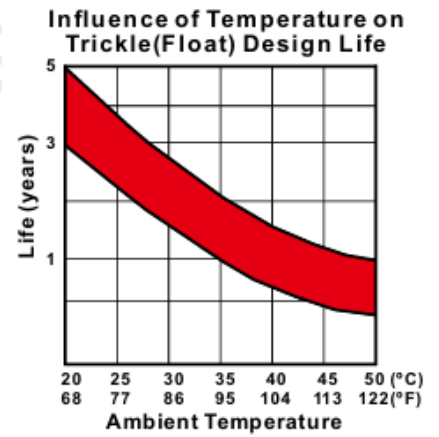
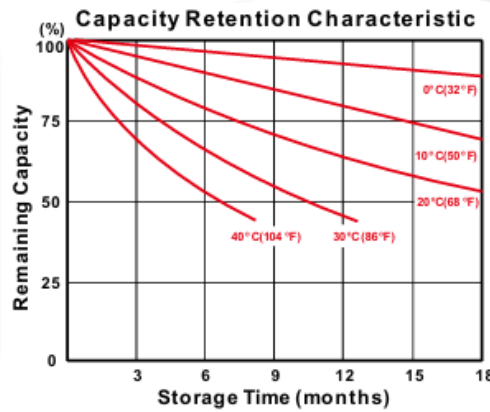
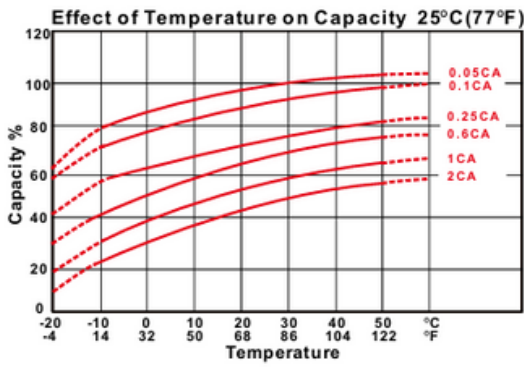
Maximum Charging Current 12A

**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**

F4

**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
10	113	133	149	159	163	163	166
15	101	113	123	128	130	131	132
20	90.7	98.2	102	105	106	106	107
25	79.2	83.5	87.0	88.7	89.2	89.5	90.0
30	70.7	73.8	75.8	76.5	76.7	77.0	77.3
45	56.5	59.2	62.5	62.7	63.0	63.2	63.3
60	43.8	45.8	46.8	47.3	47.5	47.7	47.8
90	33.7	35.0	35.7	36.0	36.2	36.5	36.7
120	27.7	28.7	29.2	29.5	29.7	29.8	30.0
180	19.2	19.8	20.2	20.3	20.5	20.5	20.7
240	15.4	15.9	16.1	16.2	16.3	16.4	16.4
300	13.2	13.6	13.7	13.8	13.9	13.9	14.0
480	9.03	9.22	9.37	9.47	9.52	9.55	9.63
600	7.80	7.95	8.05	8.13	8.18	8.22	8.27
1200	3.92	4.00	4.03	4.07	4.08	4.08	4.10

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
10	66.4	77.0	86.2	92.3	94.2	94.4	96.2
15	55.1	61.6	66.8	69.6	70.6	71.2	72.2
20	47.4	51.3	53.3	55.0	55.5	55.8	56.3
25	39.9	42.1	43.9	44.7	45.0	45.1	45.4
30	35.9	37.5	38.5	38.9	39.0	39.1	39.2
45	28.7	30.1	31.5	31.9	32.0	32.1	32.2
60	22.5	23.5	24.0	24.3	24.4	24.5	24.6
90	17.2	17.9	18.2	18.4	18.5	18.6	18.7
120	13.9	14.4	14.7	14.8	14.9	15.0	15.1
180	9.6	10.0	10.1	10.2	10.2	10.3	10.3
240	7.70	7.94	8.03	8.09	8.13	8.15	8.20
300	6.57	6.76	6.82	6.87	6.90	6.93	6.97
480	4.49	4.58	4.65	4.70	4.73	4.75	4.79
600	3.87	3.95	4.00	4.04	4.06	4.08	4.10
1200	1.94	1.98	2.00	2.02	2.02	2.03	2.04

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

The tolerance range: x<6min(+15%~-15%), 6min≤x<10min(+12%~-12%), 10min≤x<60min(+8%~-8%), x≥60min(+5%~-5%)

# PQ12-40 12V-40AH

## Lead-Acid Battery

For inquiries, orders, or technical support,  
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