
POWER Q
never will be dark

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Who ***We are***

At Power Q, we are dedicated to shaping the future of energy by providing innovative and sustainable energy storage solutions. Our goal is to drive both environmental and technological progress through advanced battery technologies that meet diverse global needs.

With expertise in Gel, Lead-Acid, and Lithium batteries, we deliver high-performance, durable, and reliable solutions for industries such as automotive, renewable energy, industrial applications, and backup power systems.

We are deeply committed to sustainability, focusing on the recycling and repurposing of spent lithium-ion batteries to minimize electronic waste and promote a cost-effective circular energy ecosystem. Through innovation and responsible practices, Power Q ensures that our solutions meet today's energy demands while contributing to a cleaner, greener future for the generations ahead.

Our **Identity**

VISION

To power the future by leading in innovative energy storage solutions, creating a sustainable world through advanced battery technology that meets global needs

MISSION

Create and provide high-quality, efficient, and eco-friendly battery solutions that blend innovation with sustainability to meet current and future energy needs

OUR COMMITMENT

We develop cost-effective, high-performance batteries, ensuring top quality through rigorous testing while promoting eco-friendly processes, waste reduction, and recycling

OUR VALUES

Innovation, quality, and sustainability guide everything we do, driving us to push boundaries, maintain excellence, and protect the environment

our Products

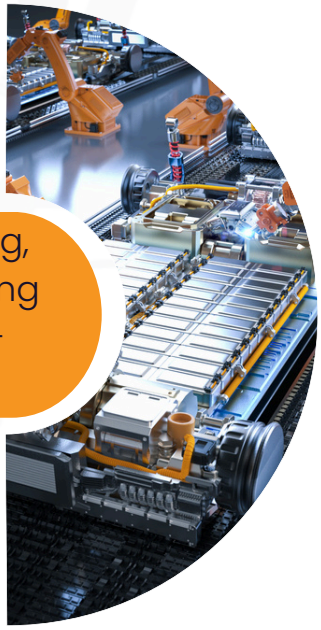
Gel Battery

A gel battery is a sealed, spill-proof lead-acid battery with silica gel electrolyte, offering low maintenance and safe use in any position.

Lead Acid Battery

PQL: Designed to last, 10–15 years

PQ: Standard life, about 3–5 years



Lithium Battery

Lithium-ion batteries offer fast charging, long life, and high energy density, making them ideal for efficient, portable, low-maintenance energy storage.

Gel
Battery

PQG12-100
12V-100A

(Units: mm (inch))

DIMENSIONS

Length (L)	338 ± 2 (13.31 ± 0.08)
Width (W)	170 ± 2 (6.69 ± 0.08)
Height (H)	212 ± 2 (8.35 ± 0.08)
Overall Height (HT)	217 ± 2 (8.54 ± 0.08)
Terminal	F8

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)

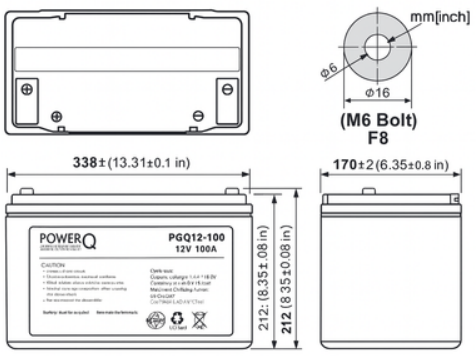
1 month	98%
3 month	94%
6 month	85%

Case Material

ABS UL94 HB
Option Flammability resistance of UL94 V-0

Description of torque value of hardware for the terminals

Recommended torque value:
M6: 7 N·m (71 Kgf·cm)
Maximum allowable torque value:
M6: 10 N·m (102 Kgf·cm)



SPECIFICATIONS

Nominal Voltage (V)

12v

Nominal Capacity

10 hour rate	(10 A to 10.80V)	100Ah
5 hour rate	(17A to 10.20V)	85Ah
1 hour rate	(60A to 9.60V)	60Ah
1C	(100A to 9.60V)	63.3Ah

Weight

Approx. 31.2 kg (68.6 lbs.)

Internal Resistance (at 1 KHz)

Approx. 5 mΩ

Maximum Discharge Current For

5 seconds: 600A

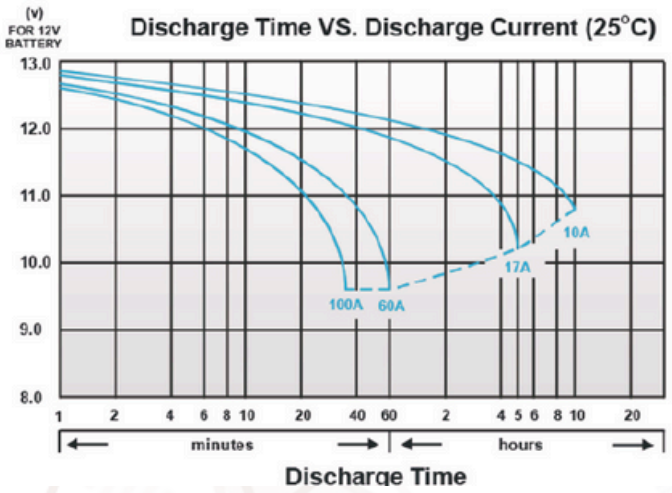
Charging Methods at 25°C (77°F)

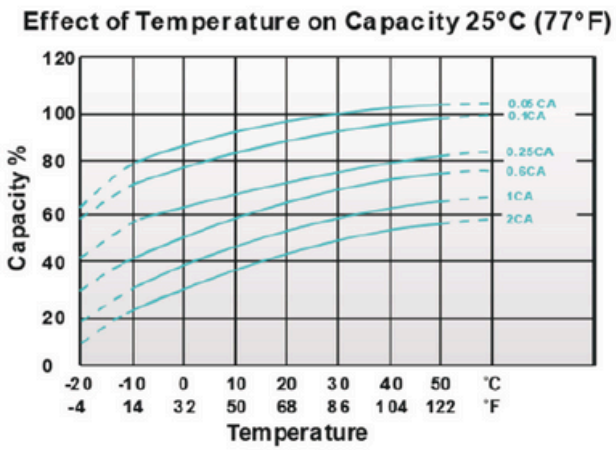
Cycle use:

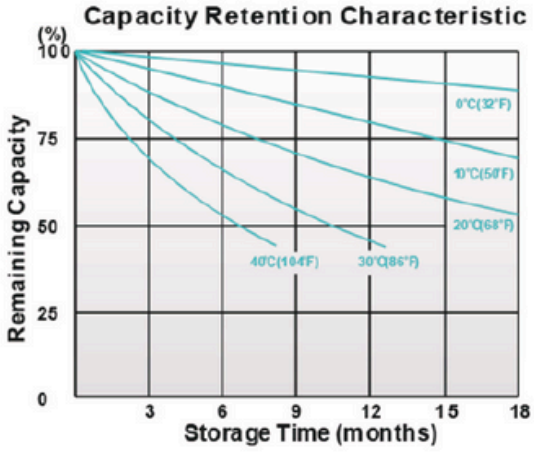
Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current	30A

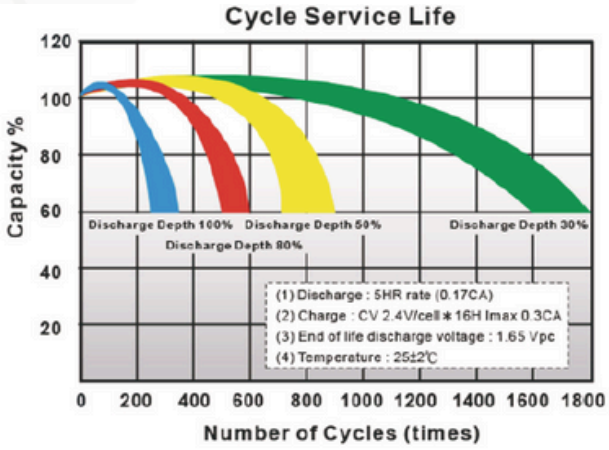
Standby use:

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

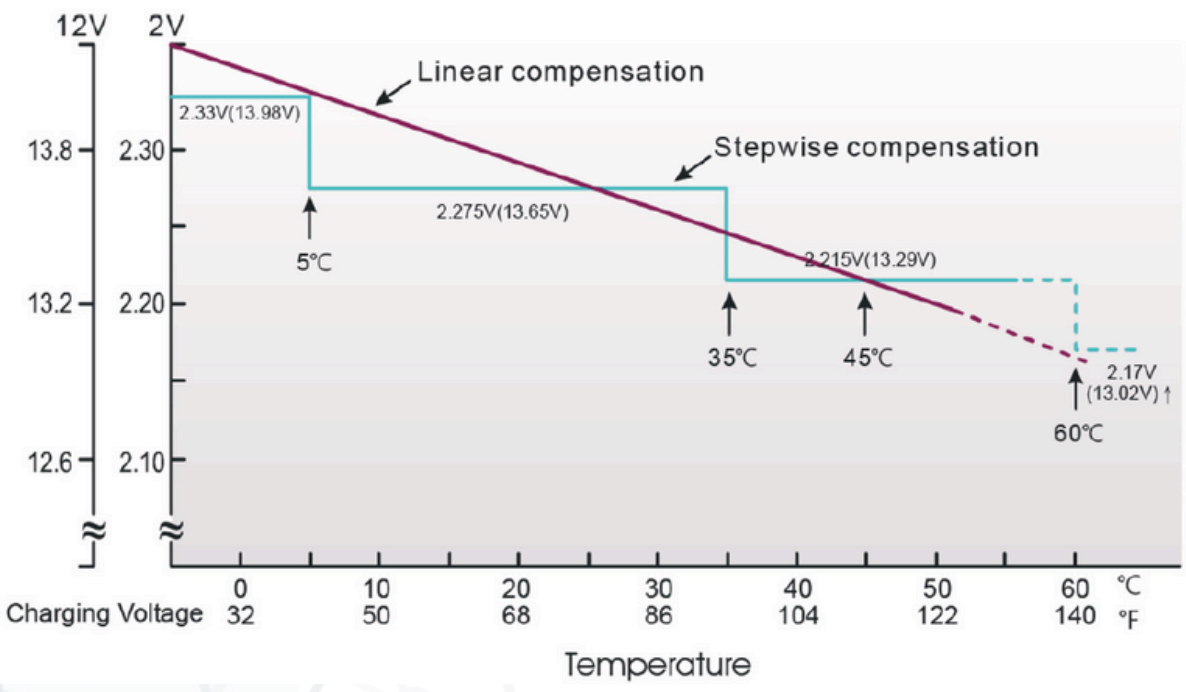








Relationship Between Temperature and Charging Voltage



Lead-acid **Battery**

Lead-acid **Battery**

PQL12-100
12V-100AH

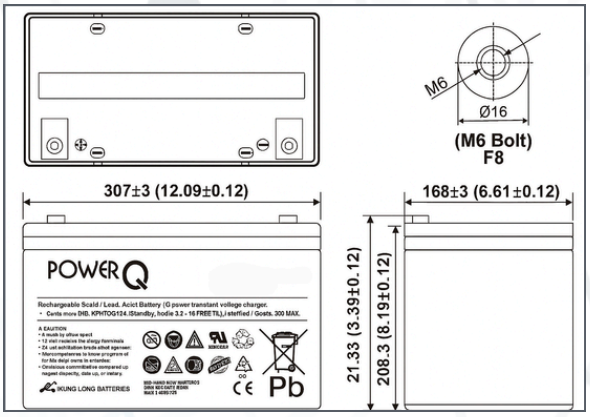
DIMENSIONS

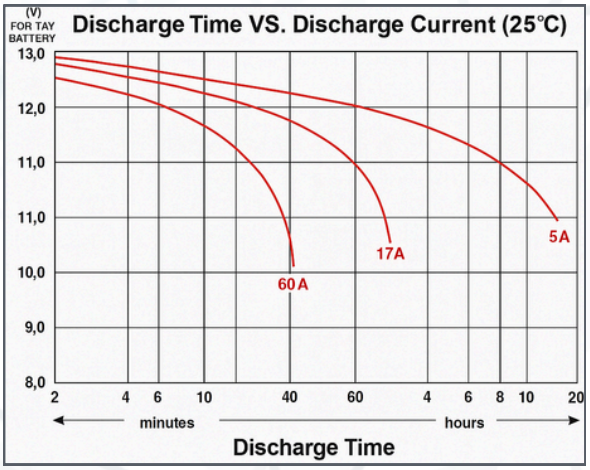
Length (L)	307 ±3 (12.09 ±0.12)
Width (W)	168 ±3 (6.61 ±0.12)
Height (H)	208 ±3 (8.19 ±0.12)
Overall Height (HT)	213 ±3 (8.39 ±0.12)

(Units: mm (inch))

Description of torque value of hardware for the terminals
Recommended torque value: M6: 7 N·m (71 Kgf·cm)
Maximum allowable torque value: M6: 10 N·m (102 Kgf·cm)

(Units: mm (inch))





SPECIFICATIONS

Nominal Voltage (V)	(numbers of cells: 6)
12v	

Nominal Capacity at 25°C (77°F)		
20 hour rate	(5A to 10.50V)	100Ah
10 hour rate	(10A to 10.80V)	100Ah
5 hour rate	(17A to 10.20V)	85Ah
1 hour rate	(60A to 9.60V)	60Ah
1C	(100A to 9.60V)	63.3Ah

Weight
Approx. 29.9kg (65.8 lbs.)

Internal Resistance (at 1 KHz)
Approx. 5 mΩ

Maximum Discharge Current For
5 seconds: 1200A

Charging Methods at 25°C (77°F)	
Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient	-30mV/°C/cell
Maximum Charging Current	30A
Standby use:	
Float Charging Voltage	13.5 to 13.8V

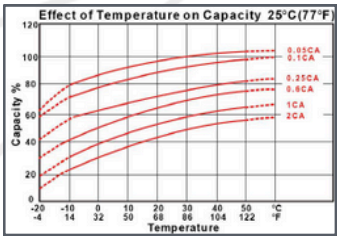
Operating Temperature Range		
Charge	-15°C (5°F) to	40°C (104°F)
Discharge	-15°C (5°F) to	50°C (122°F)
Storage	-15°C (5°F) to	40°C (104°F)

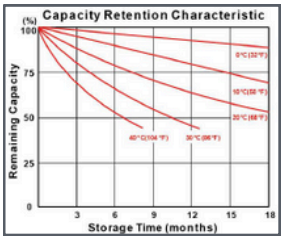
Charge Retention (Shelf life) (at 20°C (68°F))	
1 month	98%
3 months	94%
6 months	85%

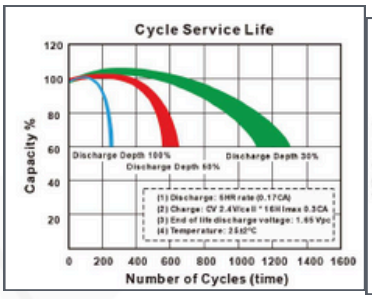
Case Material
ABS UL94 HB
Optional: Flammability resistance of UL94-V0

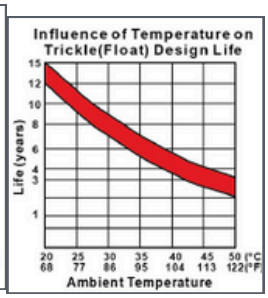
Design Life & Standard	
EUROBAT (20°C)	12+ YEARS VERY LONG LIFE

Terminal
F8









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	490	545	575	600	605	610	615
10	425	476	506	535	490	495	500
15	315	349	374	384	398	404	410
20	276	289	300	305	308	310	312
30	191	200	210	213	215	216	218
60	89.3	90.7	101	112	124	138	138
90	87.5	92	92.9	93.3	93.5	93.7	93.8
120	70	73.5	74.2	74.5	74.7	74.8	75
180	52.6	54.5	55.5	56.5	57.3	58.1	58.8
240	38.1	37.5	39.2	39.7	40	40.2	40.4
300	28	28.5	29.2	35	36.5	37.4	37.7
600	18.9	19.5	19.9	19.9	20.3	20.5	20.7
1200	10.3	10.6	10.9	111	112	113	114

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	250	290	320	335	348	353	358
10	205	235	260	271	285	290	294
15	166	186	201	211	216	221	224
20	140	162	167	170	174	176	178
30	98.5	105	110	114	118	121	123
60	63	42	54.1	51.8	52.5	51.6	51.6
90	48.1	49.5	51.1	52.2	52.6	53.5	54.6
120	36.2	37.2	38.1	38.6	39	39.9	39.4
180	27.9	28.8	29.4	29.6	29.8	29.9	30
240	20.6	20.6	21.3	21.5	21.7	21.7	21.8
300	15.6	16.5	17.2	17.7	18	18.2	18.4
600	9.54	9.86	10.1	10.3	10.4	10.5	5.42
1200	5.07	5.23	5.36	5.38	5.4	5.42	5.44

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%)

PQ12-9
12V-9AH

DIMENSIONS

Length (L)	90 ± (3.54±0.04)
Width (W)	70 ± (2.76±0.04)
Height (H)	101.5 ± (4.00±0.04)
Overall Height (HT)	107 ± (4.21±0.04)

(Units: mm (inch))

SPECIFICATIONS

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	92%
3 month	90%
6 month	80%

Case Material

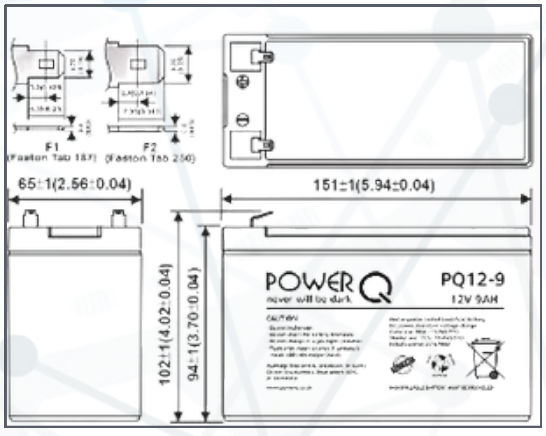
ABS UL94 HB
Option Flammability resistance of UL94 V-0

Design Life

3-5 Years

Terminal

F1 or F2 (faston Tab 187 or 250)



Nominal Voltage (V)

12v

Nominal Power

15 mins rate	36W/cell to 1.60V/cell

Nominal Capacity at 25°C (77°F)

5 hour rate	(1.35A to 10.20V)	7.65 Ah
1C	(9A to 9.60V)	63.3Ah
3C	(27A to 9.60V)	5.36Ah

Weight

Approx. 2.7kg(5.94Lbs.)

Internal Resistance (at 1 KHz)

Approx. 14 mΩ

Maximum Discharge Current For

5 seconds:135A

Charging Methods at 25°C (77°F)

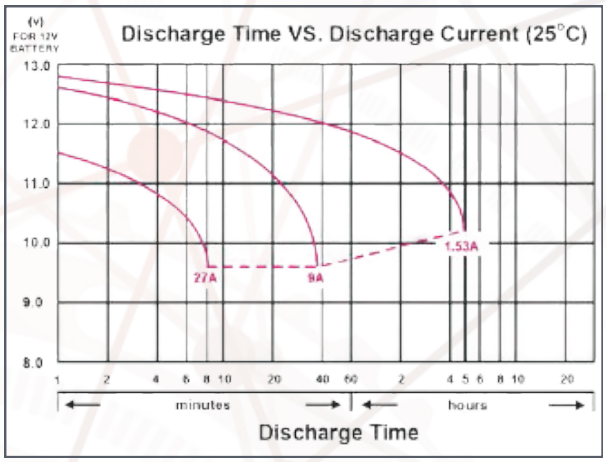
Cycle use:

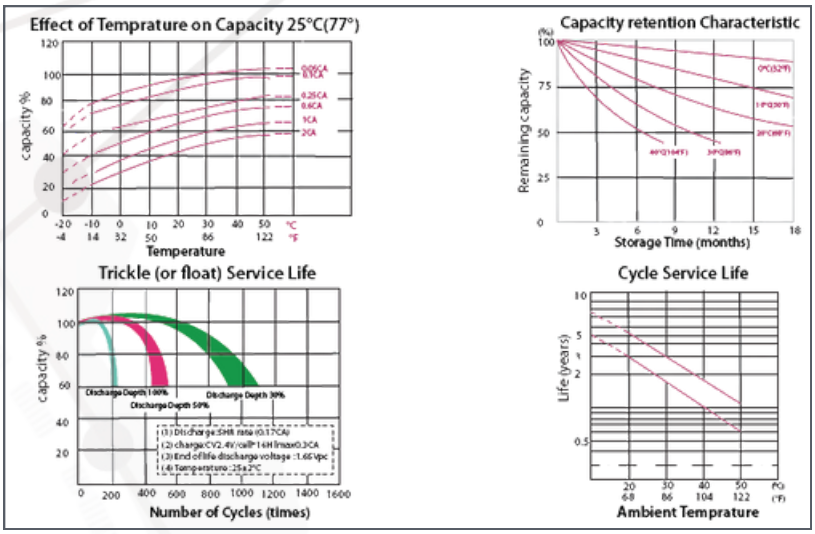
Charging Voltage	14.4 to 15.0V
Coefficient	-30mV/°C/cell
Maximum Charging Current	30A

Standby use:

Float Charging Voltage	13.5 to 13.8V

Coefficient: -18mV/°C/cell
Maximum Charging Current: 2.24A





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	57.1	60.2	64.7	67.8	69.8	71.2	74.7
10	36.5	39.1	42	44	45.2	46.1	48.3
15	30.1	31.2	32.3	33.4	34	34.7	35.9
30	15.8	16.2	17	17.7	17.8	18	19.1
60	9.97	10.4	10.7	11	11.1	11.3	11.5
120	5.4	5.56	5.69	5.82	5.87	5.9	5.95
180	4.2	4.35	4.49	4.62	4.67	4.75	4.85
240	3.4	3.53	3.63	3.73	3.78	3.85	3.92
300	2.89	2.99	3.05	3.1	3.12	3.15	3.18
600	1.62	1.68	1.71	1.75	1.77	1.78	1.8
1200	0.853	0.882	0.902	0.907	0.91	0.913	0.918

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	30.4	32.6	35	36.7	37.4	38.5	40.3
10	19.1	20.4	21.9	22.9	23.4	24.1	25.2
15	14.3	14.9	15.8	16.5	16.8	17.3	18
30	8.09	8.45	8.93	9.35	9.54	9.77	10.2
60	5.17	5.29	5.37	5.45	5.48	5.52	5.57
120	2.63	2.72	2.78	2.84	2.86	2.98	2.93
180	2.12	2.18	2.23	2.27	2.29	2.31	2.34
240	1.69	1.74	1.77	1.8	1.81	1.82	1.83
300	1.46	1.51	1.53	1.55	1.56	1.57	1.58
600	0.827	0.841	0.855	0.866	0.871	0.877	0.884
1200	0.427	0.442	0.451	0.456	0.459	0.462	0.466

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%)

Lithium **Battery**

PQLI48100C
51.20v 100A

Product Introduction

The PQLI48100C lithium battery by Guanglong is a compact, lightweight unit designed for 19-inch rack mounting. It supports fast charging, offers long service life, and features an intelligent BMS with protections against overcharge, over-discharge, overcurrent, and temperature, along with data storage and charge limiting ideal for telecommunications backup power.

Product Features

- Excellent temperature performance
- Voltage, current, and temperature protection functions
- Long life (70% of the initial capacity after 2000 cycles at 40°C)
- Easy operation and maintenance, integrated BMS design, and self-management support

SPECIFICATIONS AND PARAMETERS

Parameter	Specification
Battery Type	LFP
Battery Module	16S1P
Rated Capacity	100Ah
Normal Voltage	51.20V
Weight	53kg ± 1Kg
Battery Dimensions (W × D × H)	441mm × 480mm × 176mm
Fast Charge Voltage	55.0V ± 0.3V
Float Charge Voltage	54.0V ± 0.3V
Maximum Load Current	100A
Discharge Limit Voltage	46.4V
Cycle Life	After 2000 cycles, capacity ≥70% @ 40°C
Design Life	10 Years
Operating Temperature	Charging: 0–50°C (15A–30A) Discharging: –20–60°C (100A) Storage: –10–35°C (–10°C–35°C)
Battery Management System (BMS)	SOC / SOH / short circuit alarm / short circuit protection / reverse polarity protection / battery overvoltage, overdischarge, overtemperature protection
Communication Interface	RS485
Self-discharge rate @ 25°C	<3% (30 days storage)
Safety Certification	UN38.3

CHARACTERISTICS

High Energy Density

Long Cycle Life

Low Self-Discharge

POWERQ
never will be dark

For inquiries, orders, or technical support, we are available 24/7 to assist you with your battery solutions.

Phone: +44 776 981 1995
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