

## Gel batteries

### 12 volt range

The pbq gel batteries are VRLA batteries with a gelled electrolyte; the sulphuric acid is mixed with silica fume, which makes the resulting mass gel-like and immobile. This process decreases significantly the evaporation of hydrogen and the gelled electrolyte will also not stratify, which makes equalization charging redundant.

Gel batteries are best used in VERY DEEP cycle application and may last a bit longer under hot weather circumstances. The recharge voltage on this type of battery is lower than the other styles of lead acid battery.

### Typical applications:

- Wind generators
- Wheel chairs
- Cathodic protection
- Water pumps
- Golf caddies and trolleys
- Telecommunication equipment
- Solar systems
- EVs

### Models available

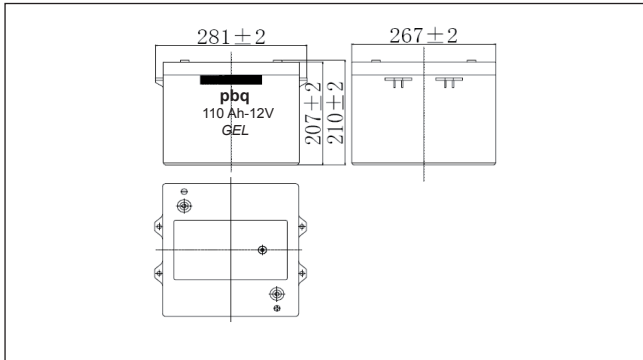
Model pbq...	Capacity in Ah	Dimensions (±2mm) (LxWxH1/H2)	Weight (approx.)
pbq 33-12 Gel	33	195x130x155/180mm	10.5kg
pbq 40-12 Gel	40	197x165x170mm	13.8kg
pbq 60-12 Gel	60	250x160x178/200	19.8kg
pbq 95-12 Gel	95	306x169x211/233	28kg
pbq 100-12 Gel	100	330x171x214/224	30.5kg
bbq 110-12 Gel	110	281x267x207/210	33.5kg

### Quality Control

All pbq batteries are being produced against ISO 9001 and UL quality control standards. Furthermore, batteries are inspected again using a method of statistical analyses upon arrival in the central warehouses. At pbq we understand that a defective battery can mean loss of information, productivity, customers and increased service cost, all 'features' you can do without!



pbq GEL family



Voltage : 12 Volt  
 Capacity : 110Ah  
 Appr. dimensions : 281x267x207/210mm (LxWxH) (±2mm)  
 Terminal : M8 Nut & Bolt (*supplied*)  
 Approximate weight : 33.5kg (± 4%)  
 Certificate(s) : CE, UL  
 RoHS Compliant : Yes

**Typical Applications:**

- Wind generators
- Cathodic protection
- Water pumps
- Golf caddies and trolleys
- Telecommunication equipment
- Solar systems
- EVs

**Capacity**

10 hour rate (11A) : 110Ah  
 5 hour rate (18.2A) : 91Ah  
 1 hour rate (66A) : 66Ah

Internal Resistance (*fully charged*) : 4.5mOhm

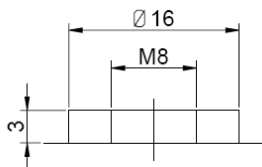
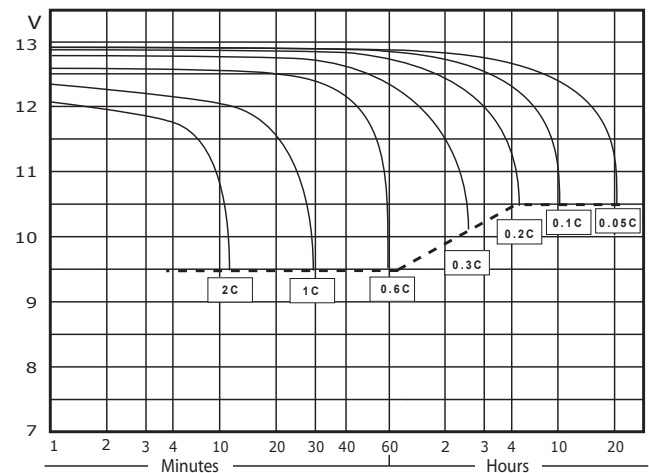
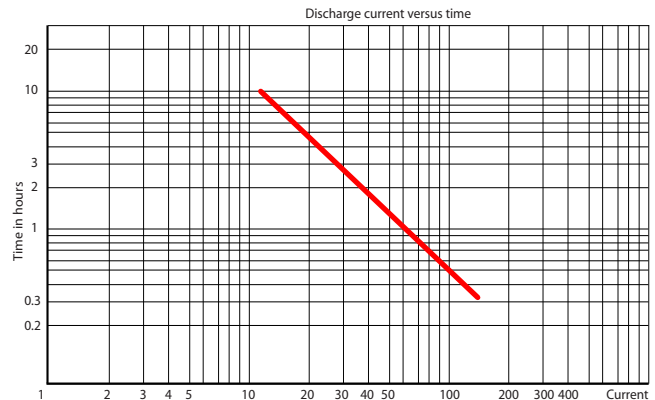
**Capacity versus temperature**

40°C : 102%  
 25°C : 100%  
 0°C : 85%  
 -15°C : 65%

Max. discharge current : 800A (5 sec)

**Charge (*constant voltage*)**

Maximum charge current 27.5A  
 Float use: 13.5 - 13.8 Volt. -18mV/°C  
 Cyclic use: 14.4 - 14.7 Volt. -30mV/°C



Discharge data watt/battery

	Discharge time	15 min	30 min	1 hr	3 hr	5 hr	10 hr	20 hr
End Voltage	10.8	1579	1058	686	301	209	131	68.0
	10.5	1667	1098	708	310	216	132	68.5
	10.2	1726	1126	722	313	217	133	68.9
	9.9	1792	1161	741	315	219	133	69.1
	9.6	1836	1185	752	317	220	134	69.2