

Gel Battery

NPG100-12 [12V 100AH@C10HR/12V110AH@C20HR]

Koyosonic
for **POWERTEK**

Specifications

Nominal Voltage	12V	
Nominal Capacity(10HR)	100AH	
Dimensions	Length	331 ±2mm (13.0 inches)
	Width	174 ±2mm (6.81 inches)
	Container Height	214 ±2mm (8.35 inches)
	Total Height (with Terminal)	219 ±2mm (8.66 inches)
Approx Weight	Approx 29.00 kg (66.8lbs)	
Terminal	T4 (M8X16) / Torque: 6.6 ~ 8.3Nm	
Container Material	ABS	
Rated Capacity	120.0 AH/1.20A	(100hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	80.0 AH/16.0A	(5hr, 1.75V/cell, 25°C/77°F)
	93.6 AH/31.2A	(3hr, 1.75V/cell, 25°C/77°F)
	73.2 AH/73.2A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1300A (5s)	
Internal Resistance	Approx 4.0mΩ	
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 36.0A. 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	NP series of batteries 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.	



Applications

- ◆ Telecommunications
- ◆ Solar Power System
- ◆ Wind power system
- ◆ Wheelchairs
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats



ISO9001 ISO14001

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	205.4	161.5	137.3	114.9	91.3	69.1	56.6	36.0	28.5	23.3	18.8	16.3	13.3	11.3	6.18
1.80V/cell	275.7	206.3	165.9	135.8	107.7	80.4	63.4	39.3	30.7	24.8	20.1	17.5	14.1	12.0	6.24
1.75V/cell	310.8	226.7	181.2	146.1	111.8	83.4	66.3	40.8	31.2	25.4	20.6	18.0	14.3	12.1	6.30
1.70V/cell	342.3	247.1	193.5	153.5	116.4	86.7	68.4	42.4	32.1	26.1	21.2	18.4	14.5	12.2	6.42
1.65V/cell	377.4	266.7	205.7	163.1	122.8	88.9	70.7	43.6	33.5	27.0	21.8	18.8	14.7	12.5	6.50
1.60V/cell	416.3	289.5	220.0	173.7	129.6	92.6	73.2	45.1	34.5	27.8	22.5	19.2	14.9	12.6	6.54

Constant Power Discharge (Watts/cell) 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	375.5	298.3	256.2	216.5	174.0	132.8	109.1	70.0	55.5	45.5	36.8	32.1	26.2	22.4	12.2
1.80V/cell	498.7	376.6	305.4	252.2	202.2	153.2	121.6	75.9	59.4	48.3	39.3	34.3	27.7	23.7	12.3
1.75V/cell	550.3	407.2	329.5	268.7	208.1	157.5	126.6	78.4	60.3	49.2	40.2	35.1	28.1	23.9	12.4
1.70V/cell	589.2	433.8	346.9	280.2	215.4	163.2	130.2	81.3	61.9	50.4	41.1	35.8	28.5	24.1	12.7
1.65V/cell	640.5	463.8	366.0	295.5	225.4	165.8	133.6	83.1	64.2	52.0	42.1	36.5	28.8	24.6	12.8
1.60V/cell	690.1	492.1	385.0	311.3	236.3	171.8	137.6	85.5	65.9	53.4	43.4	37.2	29.1	24.8	12.9

Gel Battery

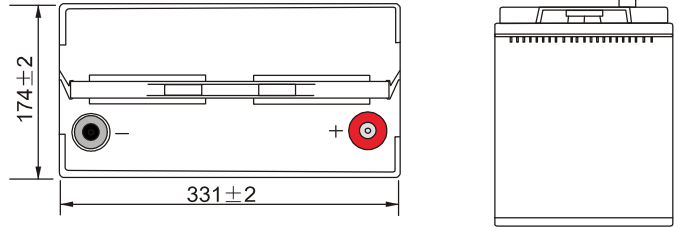
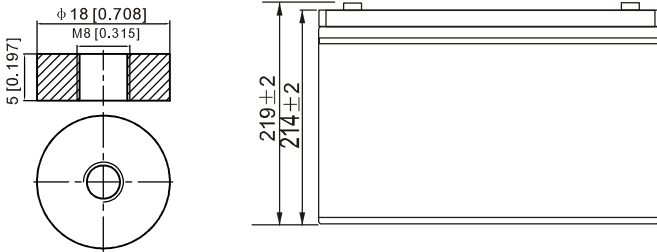
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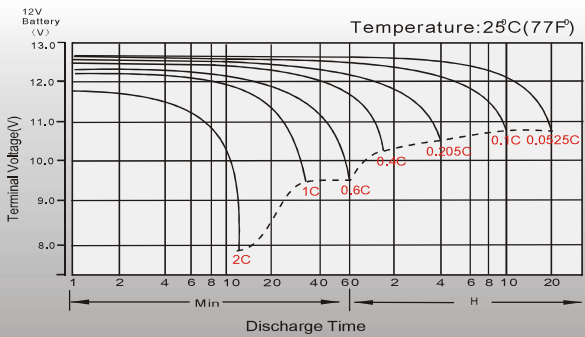
for **POWERTEK**

Dimensions

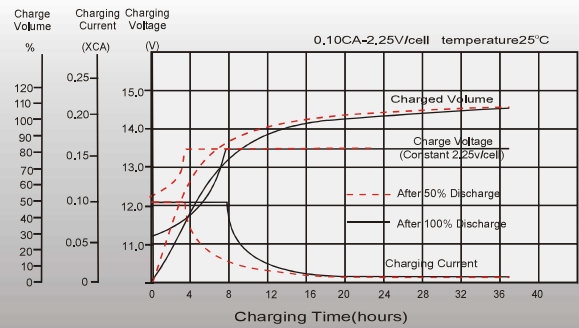
■ T4 Terminal
Unit: mm [inches]



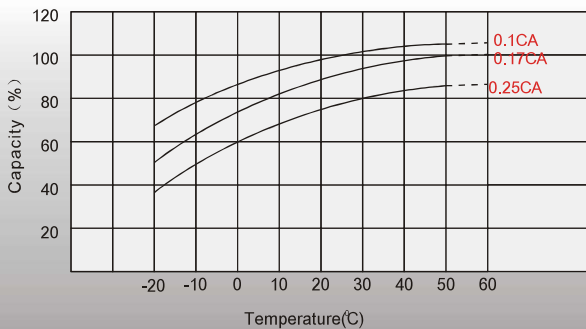
Discharge Characteristics



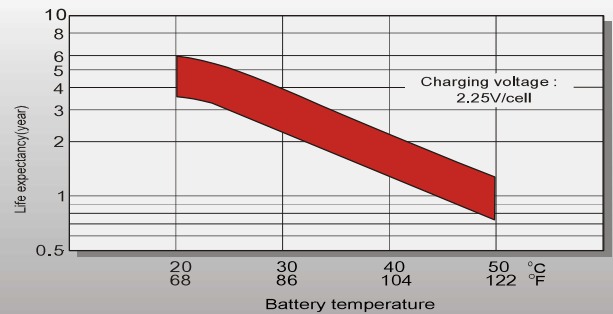
Float Charging Characteristics



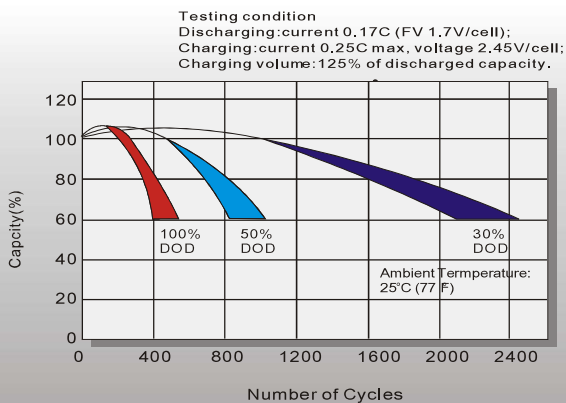
Temperature Effects in Relation to Battery Capacity



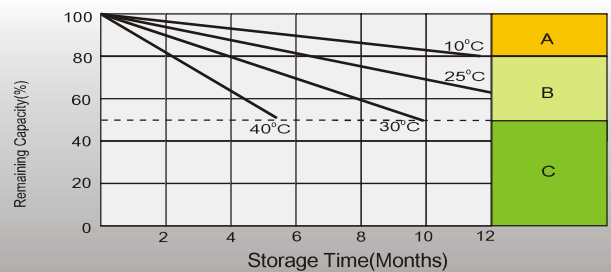
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary charge required.
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Specifications subject to change without prior notice.