



# NPG12-40 (12V40Ah)

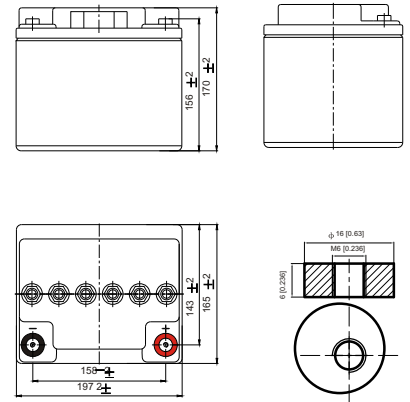
## Rechargeable Deep Cycle Gel Battery

### Specifications

Rated Voltage	12V	
Nominal Capacity	38Ah (C <sub>20</sub> , 1.80V/cell)	
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Approx Weight	12.8 Kg (28.2 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25 °C)	38.0 Ah	(20hr, 1.90A, 1.80V/cell)
	35.0 Ah	(10hr, 3.50A, 1.80V/cell)
	31.0Ah	(5hr, 6.20A, 1.75V/cell)
	27.7 Ah	(3hr, 9.22A, 1.75V/cell)
	21.5 Ah	(1hr, 21.5A, 1.67V/cell)
Max. Discharge Current	380A (5s)	
Internal Resistance (25 °C)	Approx 13.3mΩ	
Operating Temp. Range	Discharge:	-20 ~ 55°C (-4 ~ 131°F)
	Charge:	-20 ~ 40°C (-4 ~ 104°F)
	Storage:	-20 ~ 50°C (-4 ~ 122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 8,75A. Voltage 14.4V~14,7V at 25° C(77° F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 8,75A. Voltage 13.5V~13.8V at 25° C(77° F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40° C (104° F)	103%
	25° C (77° F)	100%
	0° C (32° F)	86%
Self Discharge	LPCG series batteries may be stored for up to 9 months at 25° C(77° F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Layout



### Constant Current Discharge (Amperes) at 25 °C (77° F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	16.5	10.2	8.08	6.56	5.71	4.99	4.05	3.43	1.77
1.80V/cell	18.2	11.2	8.87	7.13	6.01	5.28	4.22	3.50	1.90
1.75V/cell	20.4	12.0	9.22	7.35	6.20	5.45	4.29	3.61	1.91
1.67V/cell	21.5	12.5	9.51	7.48	6.37	5.54	4.36	3.64	1.95
1.60V/cell	22.2	12.8	9.63	7.61	6.51	5.63	4.40	3.68	1.98

### Constant Power Discharge (Watts/cell) at 25 °C (77° F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.0	19.9	15.8	12.9	11.2	9.85	8.00	6.79	3.52
1.80V/cell	35.1	21.8	17.3	14.0	11.8	10.4	8.32	6.92	3.77
1.75V/cell	39.1	23.2	17.9	14.3	12.1	10.7	8.44	7.11	3.79
1.67V/cell	40.7	24.0	18.4	14.5	12.4	10.8	8.56	7.16	3.87
1.60V/cell	41.6	24.3	18.5	14.7	12.6	10.9	8.60	7.21	3.92

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and Battery designs/specification are subject to modification without notice. Contact YHI Power for latest information.



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## Rechargeable Deep Cycle Gel Battery

### Applications

- Electrically powered wheelchair
- Vehicle in place of walking
- Lawn-mower
- Golf trolleys and golf cart
- Railway and marine systems

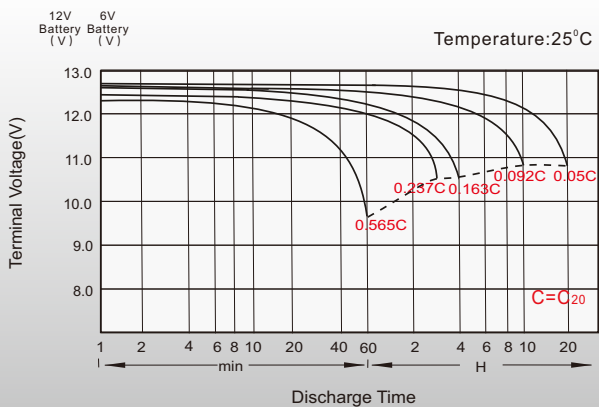
### General Features

- Special plate design, long cycle life
- $\geq 600$  Cycles @ 80%DOD
- Operation temperature  $-20 \sim 55^{\circ}\text{C}$
- $\leq 2\%$  Self discharge per month
- Good deep discharge resilience performance

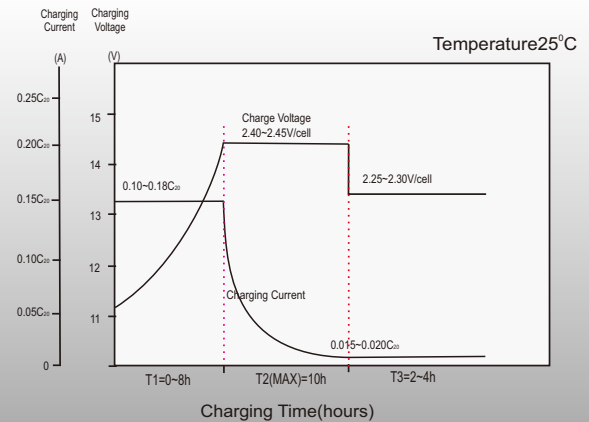
### Standards

- IEC 60896 Certified
- Classified as "Long Life" according to Eurobat
- UL Certified
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

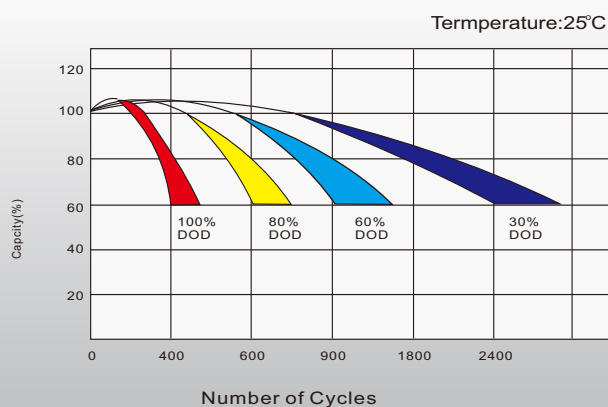
### Discharge Characteristics



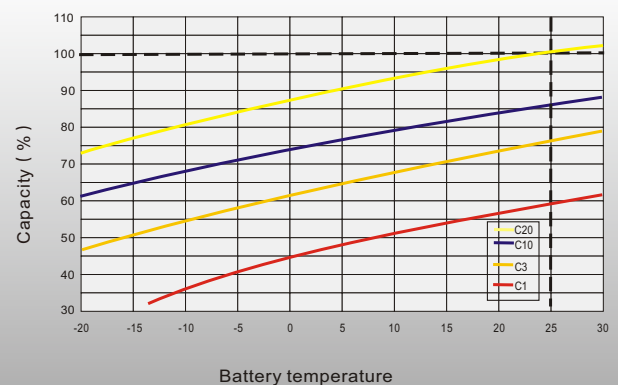
### Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Temperature Effects in Relation to Battery Capacity



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