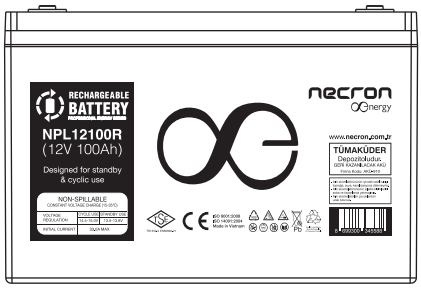
NPL12100R

Black Line **12V 100Ah**

necron energy

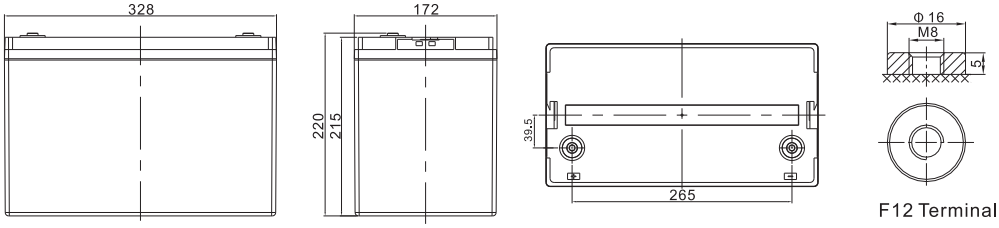
Specifications

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	100Ah / 420W @15min-rate to 1.67 per cell @25ºC
Weight	Approx. 33.5kg (Tolerance ± 5%)
Internal Resistance	≤ 4.8 mΩ (Full Charge Condition @25ºC
Terminal	Default F12 (M8)
Max. Discharge Current	1100A (5 sec)
Short Circuit Current	2700A
Design Life	15 Years
Max. Charging Current	33.0A
Reference Capacity	C_{10} 104.0Ah C_{20} 110.0Ah
Float Charging Voltage	13.50V ~ 13.62V @ 25°C Temperature Compensation: -3mV/ºC/ Cell
Cycle Charging Voltage	14.10 ~ 14.40V @25°C Temperature Compensation: -4mV/ºC/ Cell
Operating Temperature Range	Discharge: -20ºC ~ 60ºC Charge: 0ºC ~ 50ºC Storage: -20ºC ~ 60ºC
Normal Operating Temperature Range	25ºC ± 5ºC
Self Discharge	NECRON Valve Regulated Lead Acid (VRLA) batteries can be stored for up 6 months at 25ºC and then recharging is recommended. Months Self-discharge ratio is less than 3% at 25ºC. Please charge batteries before using.
Container Material	A.B.S UL94-HB, UL94-V0 Optional



NPL12100R series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 15 years design life in float service. By using strong grids, thick plate and specially designed active material, it is with lower I.R, lower self discharge rate, high power, and longer service life. The NPL12100R series battery offers 30% more power output than the standard series. It is suitable for high power standby used, such as datacenter, UPS, etc.

Dimensions



Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

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

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	377.7	330.0	298.3	232.2	189.1	139.4	80.66	57.89
1.67V	342.7	302.6	275.7	216.6	177.7	131.9	76.95	55.53
1.70V	328.2	290.9	265.8	210.0	172.8	128.7	75.42	54.46
1.75V	303.0	271.0	249.2	198.6	164.1	123.3	72.79	52.74
1.80V	277.6	251.0	232.6	188.0	156.4	118.0	70.17	51.03
1.85V	238.3	213.8	197.0	161.6	135.8	104.4	63.39	46.52

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

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	694.0	614.6	561.1	442.7	363.4	270.8	151.5	109.6
1.67V	645.9	576.6	529.5	420.0	346.9	259.7	145.8	105.9
1.70V	624.7	559.3	514.7	410.2	339.4	254.5	143.4	104.4
1.75V	586.2	528.5	488.9	392.5	325.8	246.1	139.5	101.6
1.80V	545.6	496.1	461.7	375.0	313.5	237.5	135.3	98.84
1.85V	475.3	428.5	396.4	326.0	274.7	211.8	123.1	90.91

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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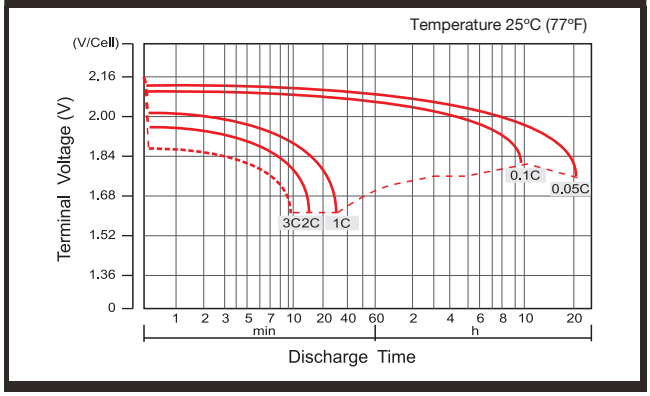
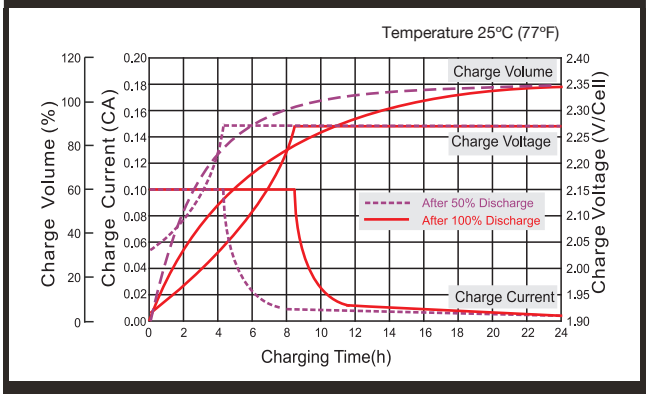
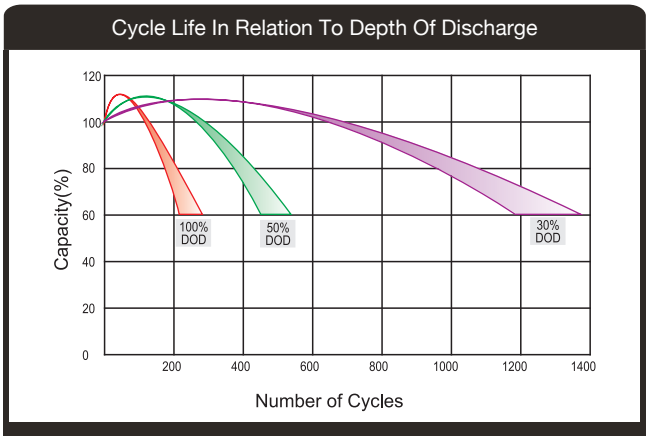
Discharge Characteristics Curve



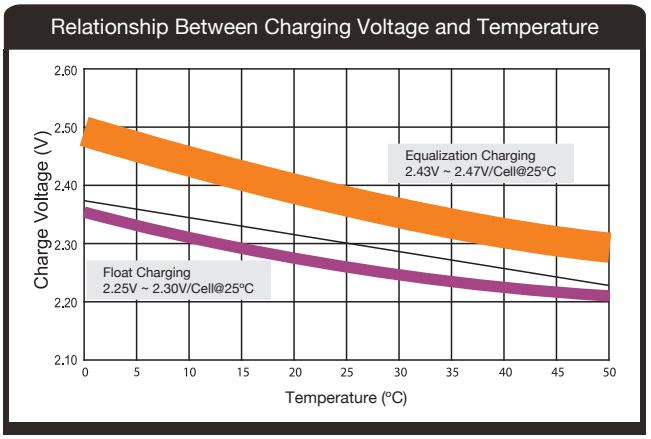
Charge Characteristic Curve For Standby Use (IU)



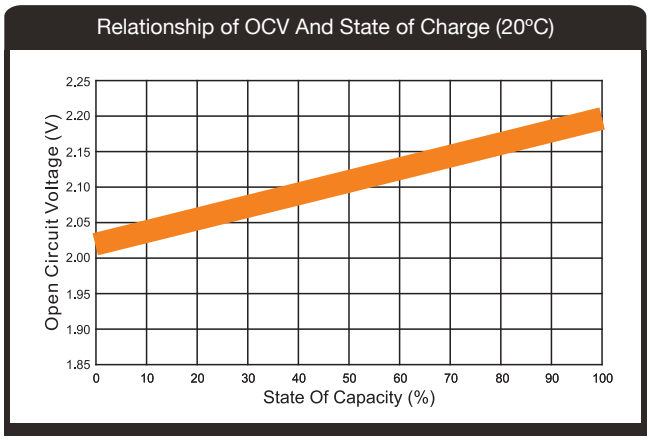
Cycle Life In Relation To Depth Of Discharge



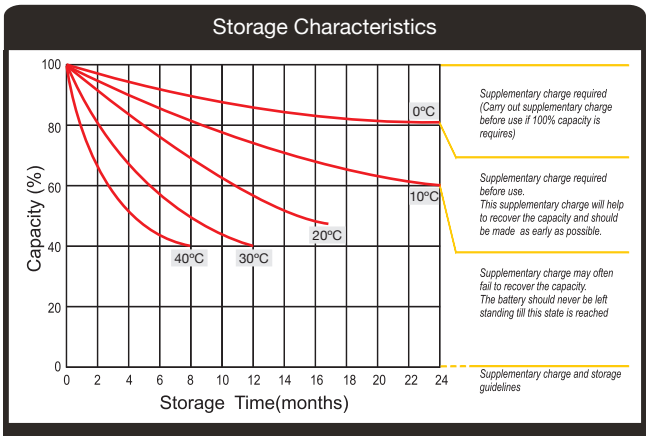
Relationship Between Charging Voltage and Temperature



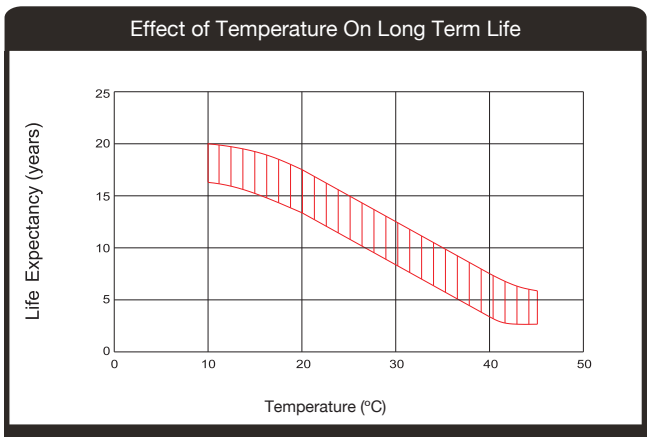
Relationship of OCV And State of Charge (20°C)



Storage Characteristics



Effect of Temperature On Long Term Life



Life Characteristics Of Standby Use