

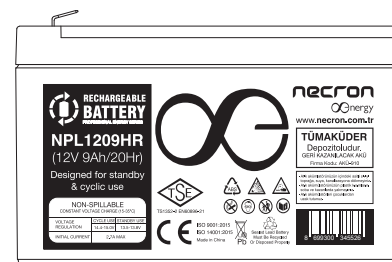
NPL 1209HR

Black Line 12V 9Ah

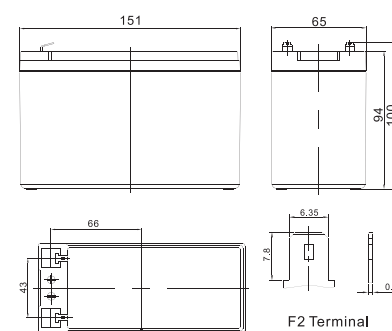
NECRON
energy

Specifications

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	580W@5min-rate to 9.60V per PCS @25°C
Weight	Approx. 2.75Kg (Tolerance ± 5%)
Internal Resistance	≤ 18.0 mΩ (Full Charge Condition @25°C)
Terminal	Default F2
Max. Discharge Current	90A (5 Sec)
Short Circuit Current	460A
Design Life	10 Years
Max. Charging Current	2.7A
Reference Capacity	C_{10} 8.5Ah C_{20} 9.0Ah
Float Charging Voltage	13.5V ~ 13.8V @25°C Temperature Compensation: -3mV/°C/ Cell
Cycle Charging Voltage	14.1V ~ 14.4V @25°C Temperature Compensation: -4mV/°C/ Cell
Operating Temperature Range	Discharge: -20°C ~ 60°C Charge: 0°C ~ 50°C Storage: -20°C ~ 60°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	NECRON Valve Regulated Lead Acid (VRLA) AGM (Absorbent Glass Mat) maintenance-free, dry type, and non-gas-emitting. batteries can be stored for up 6 months at 25°C and then recharging is recommended. Months Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S UL94-HB, UL94-V0 Optional



Layout



Length	151±1mm (5.94 inches)
Width	65±1mm (2.56 inches)
Height	94±1mm (3.70 inches)
Total Height	100±1mm (3.94 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)

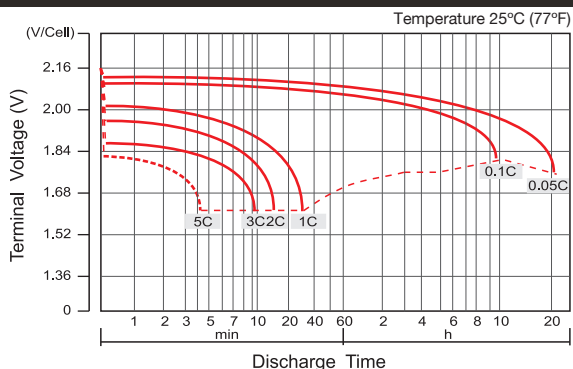
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	52.11	49.93	34.29	28.26	20.85	16.39	11.68	6.548	4.642
1.67V	42.60	44.93	31.21	26.05	19.50	15.47	11.06	6.241	4.443
1.70V	40.76	42.64	29.96	25.11	18.90	15.06	10.79	6.105	4.360
1.75V	37.75	39.16	27.78	23.53	17.85	14.30	10.34	5.900	4.228
1.80V	34.58	35.56	25.55	21.95	16.95	13.63	9.889	5.679	4.078
1.85V	29.57	30.41	21.66	18.63	14.54	11.84	8.745	5.133	3.730

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

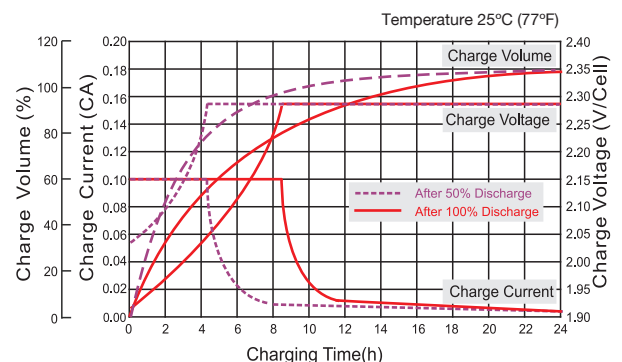
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	561.8	580.0	374.6	306.9	228.6	181.0	129.5	73.67	52.72
1.67V	465.1	525.3	345.5	287.1	216.0	172.8	124.7	70.90	50.93
1.70V	449.0	505.2	332.8	278.5	211.5	169.1	121.8	69.78	50.13
1.75V	420.0	470.7	312.1	264.3	201.6	162.7	117.9	67.84	48.84
1.80V	389.9	437.0	290.5	249.2	192.6	156.2	114.0	65.89	47.55
1.85V	338.8	378.2	249.8	214.1	167.4	136.9	101.5	59.96	43.67

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

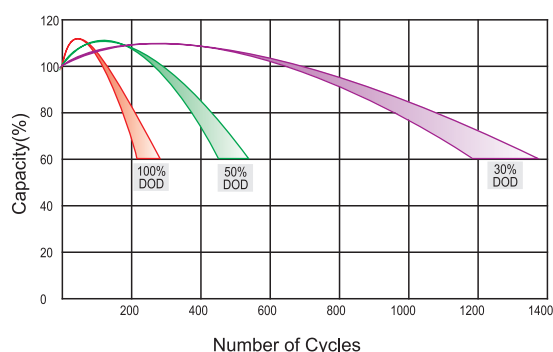
Discharge Characteristics Curve



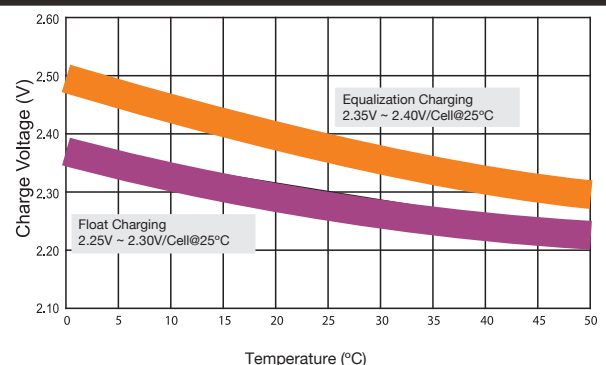
Charge Characteristic Curve For Standby Use (IU)



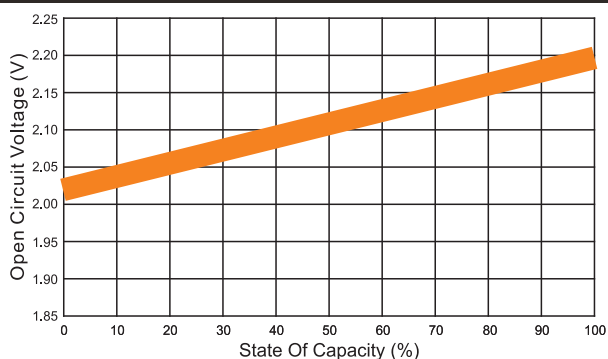
Cycle Life In Relation To Depth Of Discharge



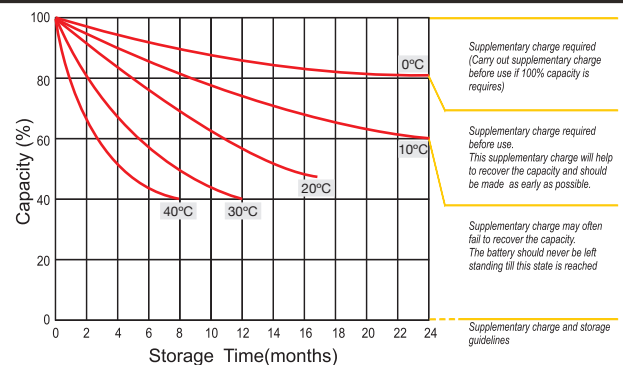
Relationship Between Charging Voltage and Temperature



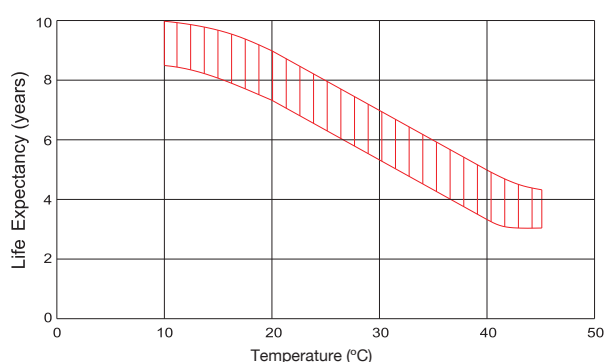
Relationship of OCV and State of Charge (20°C)



Storage Characteristics



Effect of Temperature On Long Term Life



Life Characteristics Of Standby Use

