

NPD12-110Ah 12V110Ah

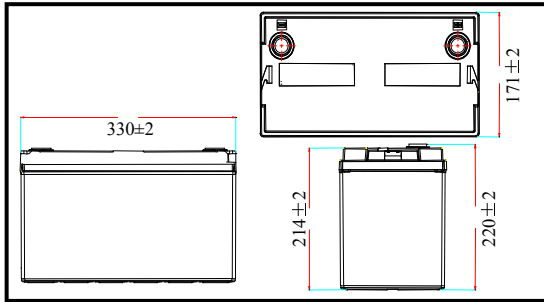
Valve Regulated Lead Acid Battery



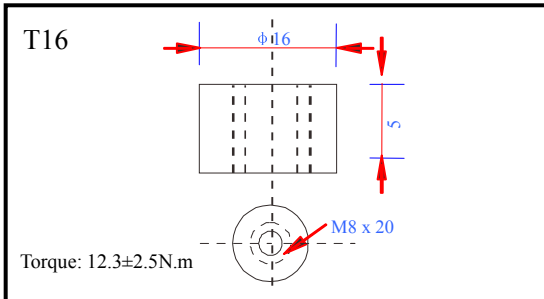
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (10HR)	110Ah/10.8V	
Dimensions	Length	330±2mm (12.99inch)
	Width	171±2mm (6.73inch)
	Height	214±2mm (8.43inch)
	Total height	220±2mm (8.66inch)
Approx. weight	32.50kg (71.60lbs)±3%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	10HR (10.8V)	110Ah
	3HR (10.8V)	82.5Ah
	1HR (10.5V)	62Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4.3mΩ
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining capacity: 91%
	6 months	Remaining capacity: 82%
	12 months	Remaining capacity: 65%
Nominal operating temperature		25°C±3°C (77°F±5°F)
Operating temperature range	Discharge	-15°C~50°C (5°F~122°F)
	Charge	-10°C~50°C (14°F~122°F)
	Storage	-20°C~50°C (-4°F~122°F)
Float charging voltage (25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C/Block
Cyclic charging voltage (25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C/Block
Maximum charging current		33A
Maximum discharge current		800A (5 sec.)
Design life	10 years for floating (25°C)	
	Eurobat (20°C): 10/12 years, long life.	

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

Constant current discharge characteristics unit: Ampere/Block (at 25°C, 77°F)

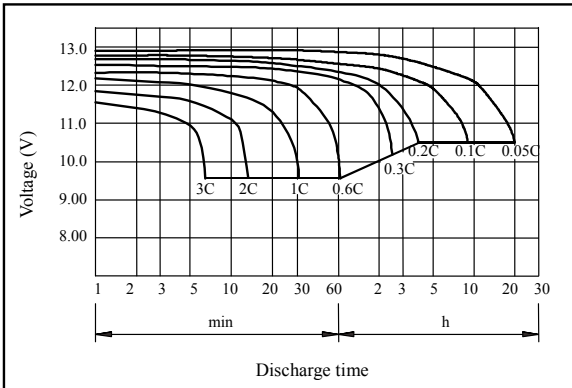
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	242	187	112	68.7	40.2	28.9	23.1	19.7	13.6	11.2	5.83
9.90V	235	182	109	67.6	40.0	28.8	23.0	19.6	13.5	11.2	5.82
10.2V	225	175	106	65.9	39.6	28.6	22.8	19.5	13.4	11.1	5.80
10.5V	216	169	104	63.9	39.0	28.4	22.7	19.4	13.3	11.1	5.76
10.8V	203	161	100	61.8	38.0	27.5	22.0	18.8	12.9	11.0	5.72

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

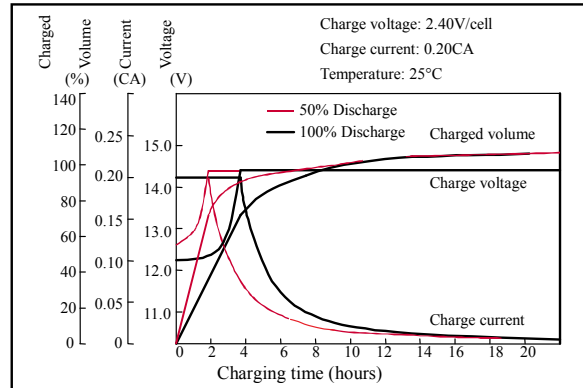
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2616	2049	1253	783	465	340	272	233	161	134	69.9
9.90V	2537	2000	1228	771	463	338	270	232	160	133	69.8
10.2V	2433	1926	1190	751	459	336	268	230	159	133	69.6
10.5V	2328	1861	1161	728	452	334	266	229	158	132	69.2
10.8V	2197	1762	1119	704	440	324	258	222	153	131	68.7

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

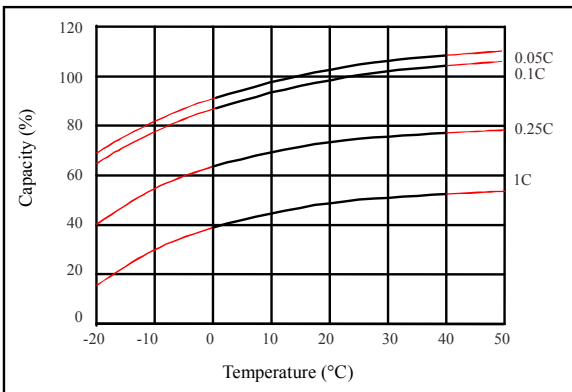
● Discharge characteristics (25°C)



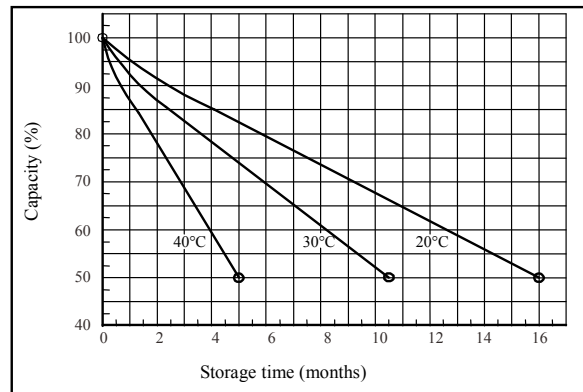
● Charging characteristics (25°C)



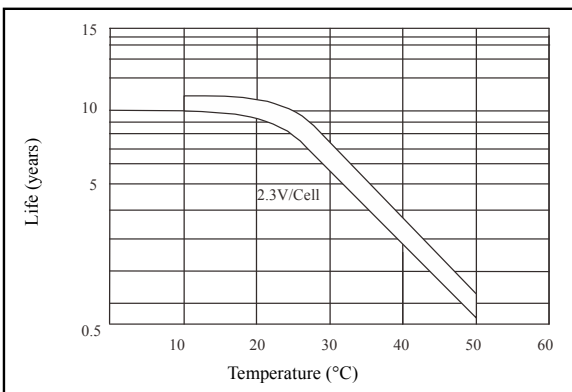
● Temperature effects on capacity



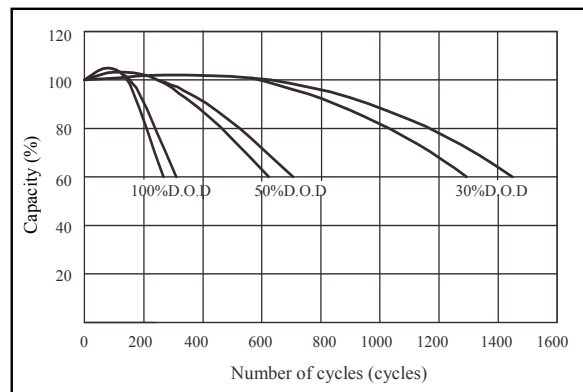
● Self-discharge characteristics



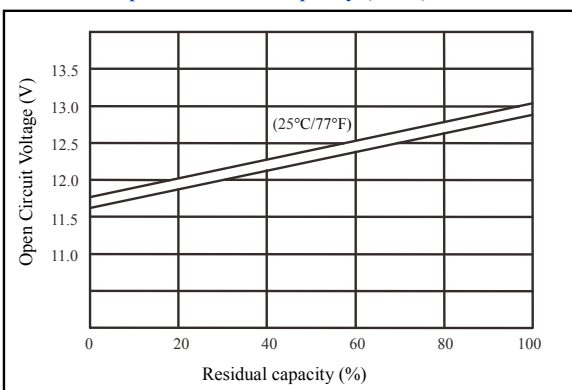
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

