

HR12520W (12V520 Watts/cell)

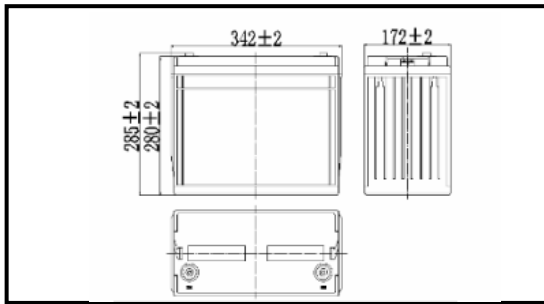
Valve Regulated Lead Acid Battery



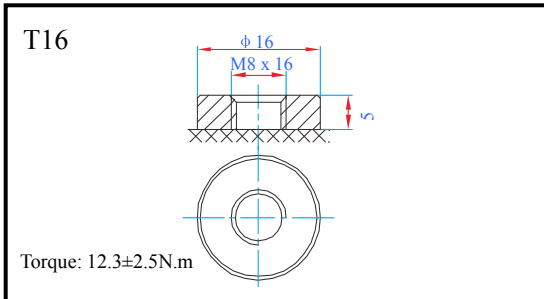
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated Power (15min. rate)	520 Watts/cell /1.67V	
Dimensions	Length	342±2mm (13.46inch)
	Width	172±2mm (6.77inch)
	Height	280±2mm (11.02inch)
	Total height	285±2mm (11.20inch)
Approx. weight	47.00kg (103.61lbs)±3%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	15min.rate	520Watts/cell /1.67V
	10HR	134Ah/10.8V
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 3.4mΩ
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		41.6A
Maximum discharge current		1200A (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/cell (at 25°C, 77°F)

F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	356	280	229	171	121	95.6	54.8	39.3	31.6	27.6	23.5
1.67V/cell	339	271	221	165	118	93.2	54.3	38.9	31.4	27.3	23.3
1.70V/cell	327	263	216	162	115	91.8	53.9	38.8	31.3	27.2	23.2
1.75V/cell	317	254	209	158	113	90.0	53.2	38.5	31.1	27.0	23.1
1.80V/cell	299	240	198	153	109	87.2	51.7	37.4	30.1	26.2	22.4

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

F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	678	535	440	324	237	185	107	77.3	62.4	54.5	46.6
1.67V/cell	647	520	422	313	229	180	106	76.7	61.8	54.1	46.2
1.70V/cell	630	503	414	308	226	177	105	76.4	61.6	53.9	46.1
1.75V/cell	603	486	399	301	220	174	103	75.9	61.2	53.4	45.8
1.80V/cell	569	461	378	289	212	168	101	73.6	59.3	51.9	44.3

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

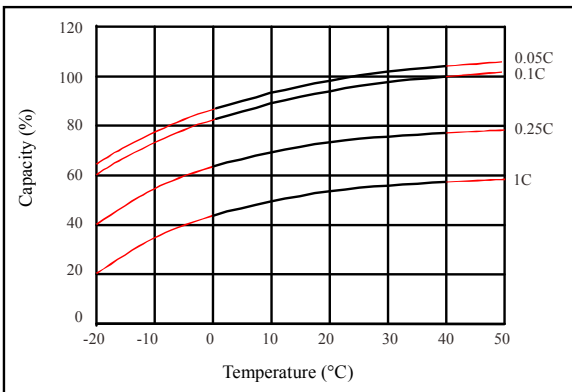
● Discharge characteristics (25°C)



● Charging characteristics (25°C)



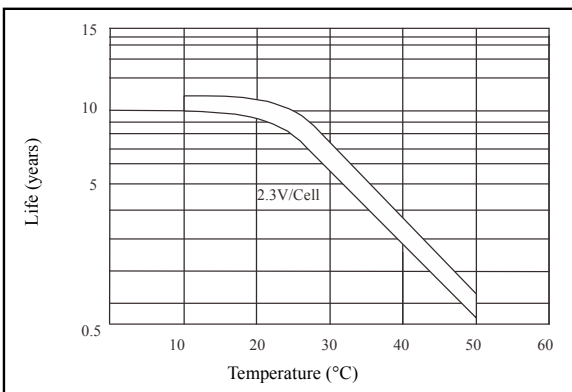
● Temperature effects on capacity



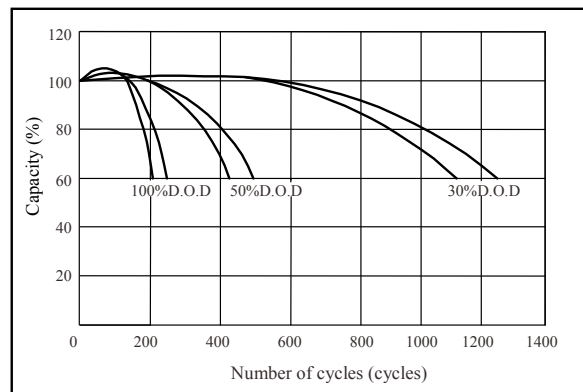
● Self-discharge characteristics



● 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

