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HR SERIES-HIGH RATE **BATTERIES**

HR 12280W



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HR 12280W



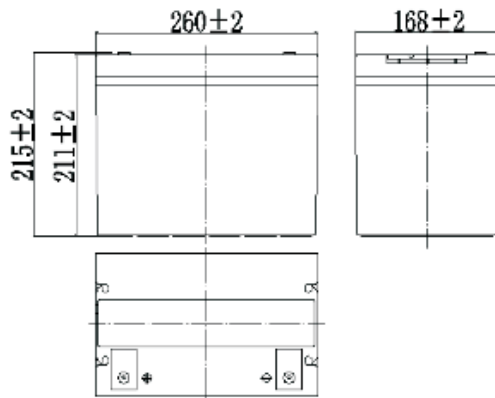
SPECIFICATIONS

Nominal Voltage	12V	
Number of Cell	6 cells	
Rated Capacity (15min. rat)	280 Watts/cell	
Dimensions	Length	260±2mm(10.24inch)
	Width	168±2mm(6.61inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight	25.3kg (55.8lbs)±3%	

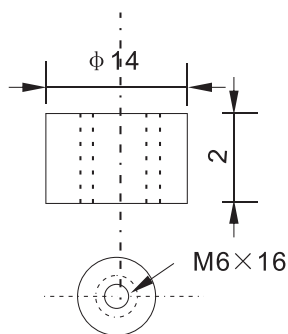
CHARACTERISTICS

Capacity (20HR, 25°C)	80Ah	
Capacity (15min.rate, 25°C)	280 Watts/cell	
Terminal Type	T14	
Internal Resistance (Fully Charged, 25°C)	Approx. 5mΩ	
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%
	12months	Remaining Capacity: 65%
Nominal Operating Temperature	25±3°C (77±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	
Cyclic Charging Voltage (25°C)	14.50 to 15.00V Temperature Compensation: -30mV/°C	
Maximum Charging Current	24A	
Terminal Material	Copper	
Maximum Discharge Current	700A(5 sec)	
Design Floating Life(20°C)	10 Years	

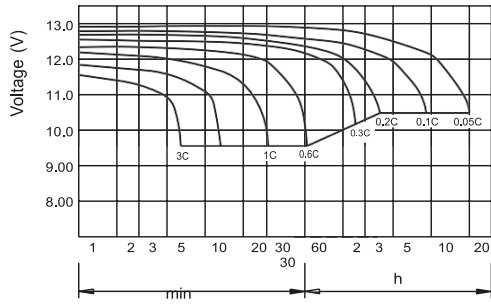
Outer Dimensions (mm)



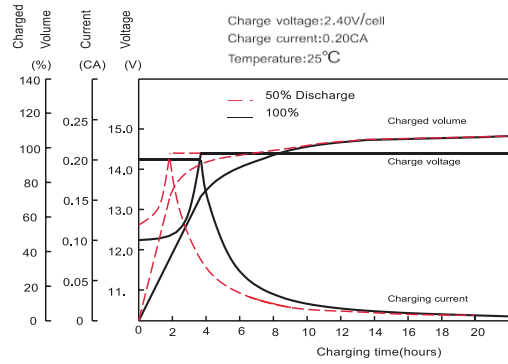
Terminal Type (mm)



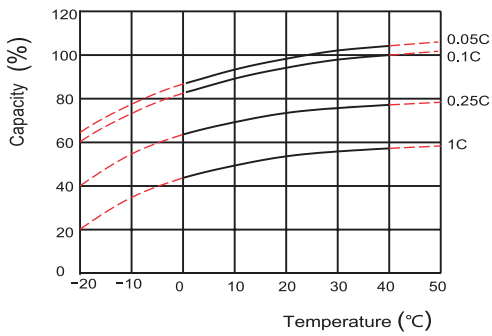
Discharge Characteristics



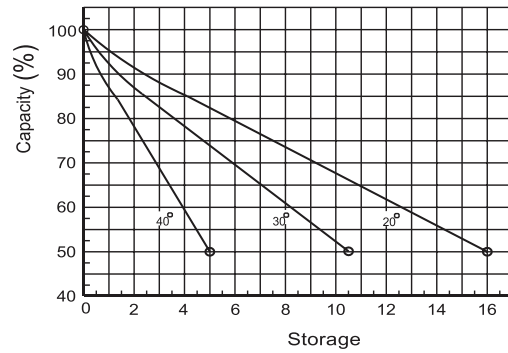
Charging Characteristics (25°C)



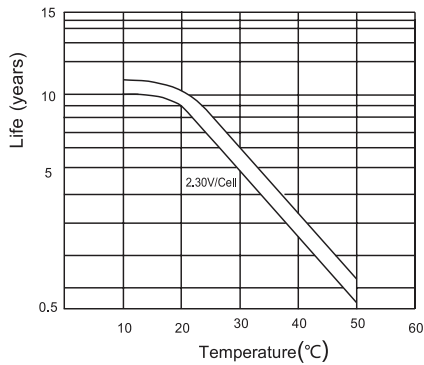
Effect of Temp on Capacity



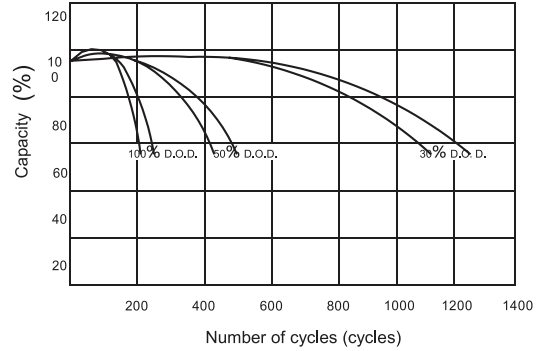
Self-Discharge Characteristics



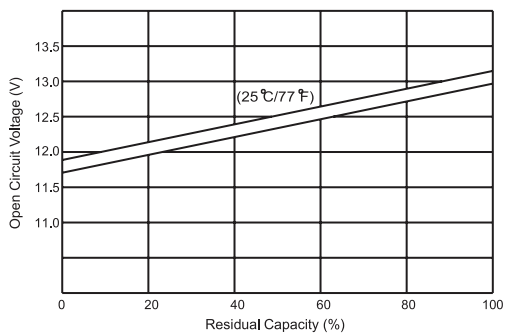
Floating Life on Temperature



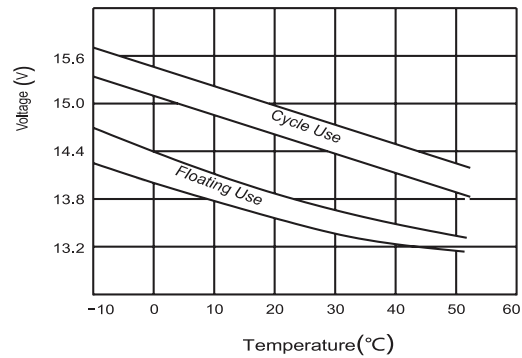
Cycle Service Life on D.O.D (25°C)



Relationship for OCV and Capacity (25°C)



Relationship for Charging Voltage and Temp



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: A(25°C, 77°F)

F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	183	150	120	84.9	63.3	51.6	27.4	19.7	15.8	13.8	11.8
1.67V/cell	175	145	115	82.2	61.2	50.3	27.2	19.5	15.7	13.6	11.7
1.70V/cell	170	141	113	80.7	60.1	49.6	27.0	19.4	15.6	13.6	11.6
1.75V/cell	163	136	109	78.7	58.7	48.6	26.6	19.3	15.5	13.5	11.6
1.80V/cell	154	129	103	75.8	56.5	47.1	25.9	18.7	15.1	13.1	11.2

Constant Power Discharge Characteristics Unit: W(25°C, 77°F)

F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	344	289	231	164	122	99.6	53.4	38.7	31.2	27.3	23.3
1.67V/cell	329	281	222	159	118	97.1	53.0	38.4	30.9	27.0	23.1
1.70V/cell	320	272	217	159	116	95.6	52.7	38.2	30.8	26.9	23.0
1.75V/cell	306	263	210	152	113	93.7	51.9	38.0	30.6	26.7	22.9
1.80V/cell	289	249	199	146	109	90.9	50.5	36.8	29.7	25.9	22.2



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