



EM Series

EM12-200(12V200Ah)

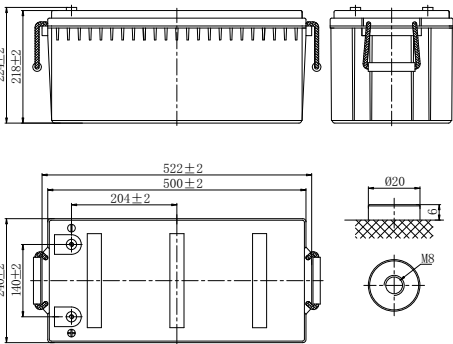


Specifications

Rated Voltage	12V	
Nominal Capacity	C ₂₀ , 1.75V/cell	200Ah
Dimension	Length	522±2mm (20.6 inches)
	Width	240±2mm (9.45 inches)
	Container Height	218±2mm (8.58 inches)
	Total Height	224±2mm (8.82 inches)
Approx Weight	55.9kg (123.2 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity(25°C)	200.0 Ah	C20(10.0A, 1.75V/cell)
	184.0 Ah	C10(18.4A, 1.75V/cell)
	163.0 Ah	C5(32.6A, 1.75V/cell)
	147.0 Ah	C3(49.0A, 1.75V/cell)
	122.7 Ah	C1(122.7A, 1.60V/cell)
Max. Discharge Current	2000A (5s)	
Internal Resistance(25°C)	Approx 3.2mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 50A. Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Cycle Use	Initial Charging Current less than 50A. Voltage	
	14.1V~14.4V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	EM series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Layout



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

F.V/Time	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	146.7	111.7	96.3	72.9	58.6	44.1	35.3	29.6	25.8	20.4	17.0	9.36
1.80V/cell	165.8	124.8	106.6	79.7	63.8	47.7	38.0	31.9	27.6	21.8	18.1	9.87
1.75V/cell	173.3	129.9	110.5	82.4	65.7	49.0	39.0	32.6	28.2	22.2	18.4	10.0
1.70V/cell	180.9	134.9	114.6	85.2	67.8	50.4	40.0	33.3	28.8	22.6	18.7	10.1
1.67V/cell	185.5	137.9	117.0	86.7	68.9	51.2	40.5	33.8	29.2	22.8	18.9	10.2
1.60V/cell	196.0	145.0	122.7	90.6	71.8	53.1	41.9	34.8	30.0	23.4	19.3	10.4

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

F.V/Time	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	283.5	216.5	187.2	142.1	114.5	86.5	69.4	58.3	50.8	40.2	33.6	18.6
1.80V/cell	317.8	240.3	205.8	154.6	124.0	93.2	74.5	62.6	54.3	43.0	35.8	19.6
1.75V/cell	329.3	248.1	211.9	158.8	127.1	95.3	76.1	63.8	55.3	43.7	36.3	19.9
1.70V/cell	340.7	255.5	218.2	163.2	130.4	97.6	77.7	65.0	56.4	44.4	36.8	20.1
1.67V/cell	347.5	260.0	221.7	165.5	132.2	98.8	78.6	65.7	56.9	44.8	37.1	20.2
1.60V/cell	362.4	270.5	230.3	171.5	136.7	101.8	80.8	67.4	58.3	45.7	37.8	20.6



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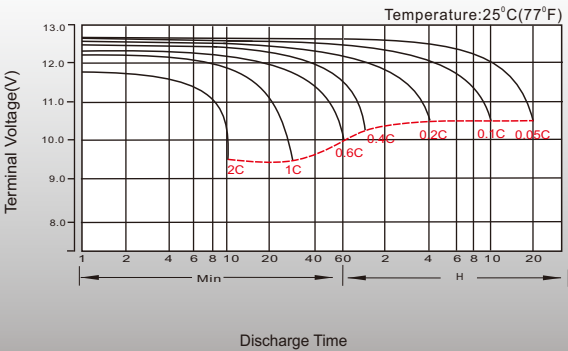
Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

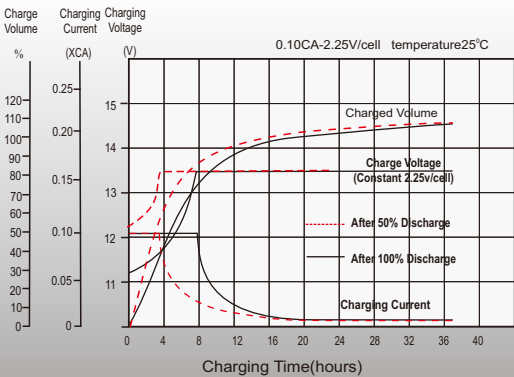
General Features

- 10 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

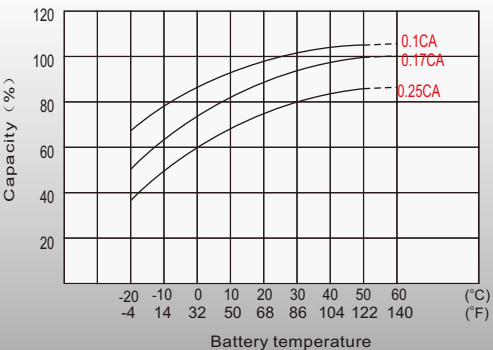
Discharge Characteristics



Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life

