

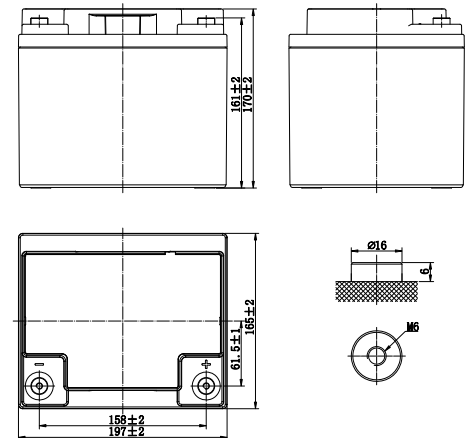
# VRLA AGM DEEP CYCLE RM12-40DC

## Specifications

Rated Voltage	12V	
Nominal Capacity	38.0Ah	(C <sub>10</sub> , 1.80V/cell)
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Approx Weight	12.0 Kg (26.9 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	40.0 Ah	(20hr, 2.00A, 1.80V/cell)
	38.0 Ah	(10hr, 3.80A, 1.80V/cell)
	32.6 Ah	(5hr, 6.52A, 1.75V/cell)
	29.2 Ah	(3hr, 9.74A, 1.75V/cell)
	24.0 Ah	(1hr, 24.0A, 1.60V/cell)
Max. Discharge Current	380A (5s)	
Internal Resistance (25°C)	Approx 10mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 11.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 11.4A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	87.0	61.8	57.7	45.6	34.6	25.1	18.9	14.7	11.8	8.66	7.08	5.92	5.47	4.17	3.49	1.83
1.80V/cell	98.9	70.2	64.5	51.0	38.7	26.6	20.9	16.1	12.8	9.50	7.63	6.37	5.87	4.47	3.80	2.00
1.75V/cell	107.4	76.1	68.9	54.4	41.3	27.5	21.6	16.6	13.2	9.74	7.82	6.52	5.92	4.55	3.84	2.02
1.70V/cell	114.9	81.2	72.4	57.2	43.5	28.1	22.4	17.2	13.7	9.92	8.02	6.66	5.95	4.63	3.88	2.04
1.67V/cell	118.9	83.7	73.6	58.1	44.1	28.5	22.9	17.5	13.8	10.1	8.13	6.74	5.98	4.68	3.91	2.05
1.60V/cell	123.1	86.6	74.6	59.0	44.8	28.9	24.0	18.3	14.4	10.4	8.36	6.95	6.02	4.79	3.96	2.08

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	159.5	114.2	102.7	81.2	61.7	45.3	40.0	28.4	22.7	17.4	13.8	11.5	10.4	8.16	6.86	3.60
1.80V/cell	178.4	127.8	114.9	90.8	69.0	47.7	43.8	30.9	24.6	18.6	14.7	12.4	11.1	8.71	7.28	3.82
1.75V/cell	190.4	136.4	122.6	96.8	73.5	49.1	45.1	31.7	25.3	19.0	15.1	12.6	11.1	8.88	7.39	3.88
1.70V/cell	200.2	143.4	128.9	101.9	77.4	49.7	46.4	32.6	26.0	19.6	15.4	12.8	11.2	8.98	7.49	3.93
1.67V/cell	203.4	145.7	131.0	103.5	78.6	50.2	47.1	33.1	26.2	19.9	15.6	13.0	11.2	9.09	7.54	3.96
1.60V/cell	206.3	147.7	132.9	105.0	79.7	50.4	48.9	34.2	27.2	20.4	15.9	13.3	11.2	9.28	7.66	4.03

## 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

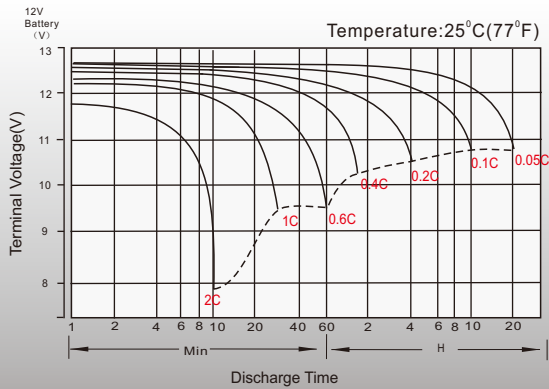
## General Features

- 8 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

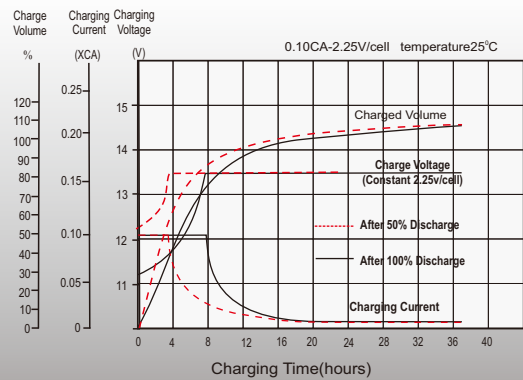
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch® IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

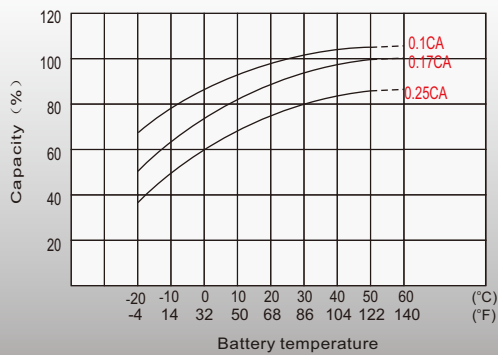
## Discharge Characteristics



## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Float Service Life

