



OBS12189HRF (12V 189W)

High Rate VRLA Battery

Osonix HRF Serie Front Terminal Pure Lead Acid Batteries are designed with advanced technology to optimize performance and improve energy density. Utilize a special fine-mesh grid technology and specially formulated paste plates, which enhance the adhesion of the active material.

Features

- Absorbent Glass Mat (AGM) technology, maintenance-free.
- Front terminals for easy installation, maintenance, and monitoring.
- Pure lead technology ensuring extended service life, 12+ years.
- Advanced welding technology ensures excellent high-current charge/discharge capacity.
- Oxygen recombination efficiency $\geq 98\%$.
- PbCaSn alloy grids - reduced gassing and lower self-discharge.
- Full compliance with IATA/ICAO regulations - A67 approved (unrestricted transport by rail, road, sea and air).

Applications

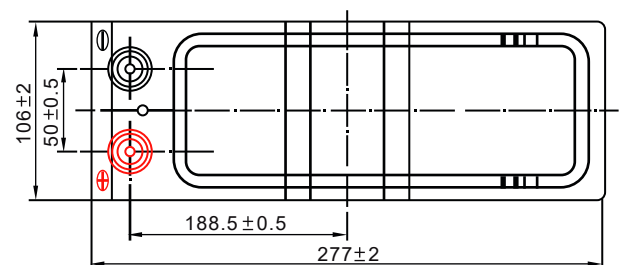
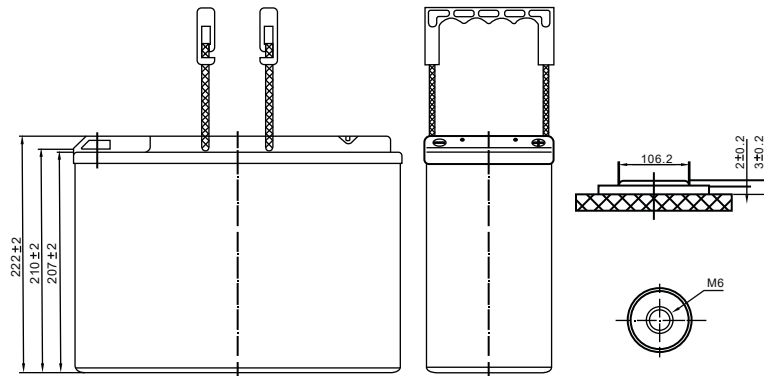
- Uninterruptible Power Supplies (UPS).
- Telecommunications Backup Power System.
- Emergency and Backup Power Sources.
- Power Plant Energy Storage Systems.
- Emergency Lighting.

PHYSICAL SPECIFICATION

Dimension	Length Width Height Total Height	277 $\pm$ 2 mm (10.9 in) 106 $\pm$ 2 mm (4.17 in) 222 $\pm$ 2 mm (8.74 in) 222 $\pm$ 2 mm (8.74 in)
Weight	17.3 Kg (38.2 lb)	
Terminal	M6	
Container Mat. (Flame retardant)	ABS UL94 HB or V0	
Recommended Torque	(3.9 ~ 5.4) N·m (34.5 ~ 47.7) in·lbs	

SPECIFICATIONS Standard @ 25°C (77°F)

Rated Voltage		12 V
Nominal Capacity (W) (15 min to 1.67 V/cell)		188.8 W
Nominal Capacity (Ah) (10 h to 1.80 V/cell)		55 Ah
Rated Capacity	58.2 Ah	(20hrs, 2.91A, 1.80V/cell)
	53.6 Ah	(8hrs, 6.70A, 1.75V/cell)
	43.5 Ah	(3hrs, 14.5A, 1.75V/cell)
	36.4 Ah	(1hr, 36.4A, 1.60V/cell)
Max. Discharge Current	550 A (5 s)	
Internal Resistance	7.6 mΩ	
Operating Temp. Range	Discharge	-20~55 °C (-4~131 °F)
	Charge	-20~40 °C (-4~104 °F)
	Storage	-15~50 °C (5~122 °F)
Max. charge Current	15 A	
Cyclic Use	14.1~14.4V	
	Temp. Coefficient	-30mV/°C
Standby Use	13.5~13.8V	
	Temp. Coefficient	-20mV/°C
Design Life	≥ 12 years	



Unit: mm

Compliance:

IEC 60896

CE, UL 1989, UL94 HB o V-0

Certified Production IATF16949, ISO 9001, ISO 14001



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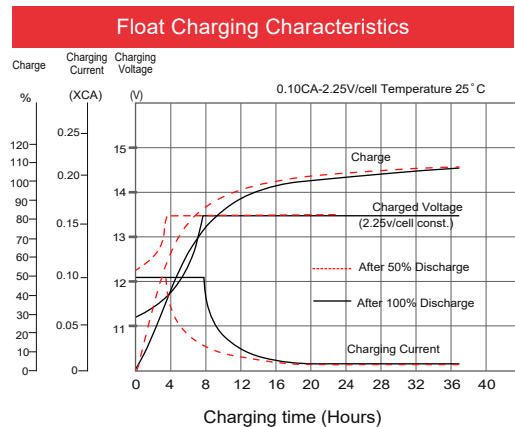
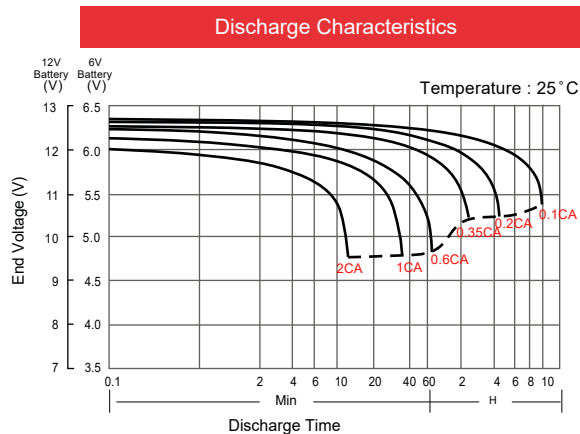


Constant Current Discharge (Amperes) at 25°C (77°F)

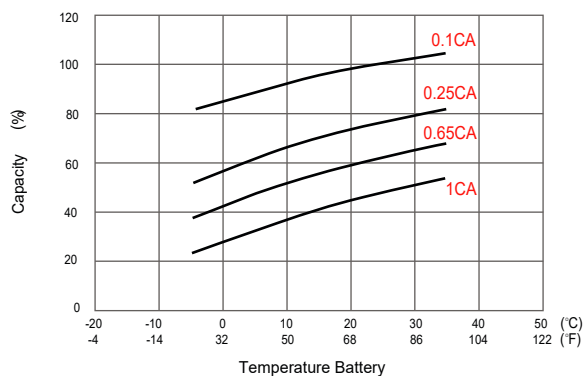
F.V / Time	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.85V/cell	99.08	87.8	76.2	65.9	51.7	39.4	31.7	18.3	13.3	10.7	8.97	6.3	5.26	2.79
1.80V/cell	111.8	101.3	86	73	56.6	42.5	33.9	19.7	14.3	11.3	9.52	6.62	5.5	2.91
1.75V/cell	121.3	111.9	93.1	78.9	59.5	43.9	34.9	20.1	14.5	11.5	9.64	6.7	5.56	2.93
1.70V/cell	127.79	118.1	98.3	82	61.2	44.9	35.5	20.4	14.7	11.6	9.73	6.75	5.6	2.95
1.67V/cell	132.73	123.4	102.1	84.5	62.2	45.5	35.9	20.5	14.8	11.7	9.82	6.81	5.64	2.97
1.60V/cell	136.37	128.7	104.9	86.3	63.5	46.1	36.4	20.7	14.9	11.8	9.9	6.86	5.68	2.99

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

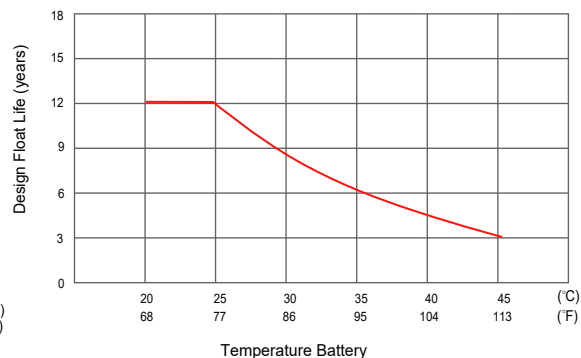
F.V / Time	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.85V/cell	190.45	167.2	146.5	127.8	100.9	77.2	62.4	36.3	26.5	21.3	17.9	12.7	10.6	5.63
1.80V/cell	213.72	191.6	164.4	140.6	109.9	82.9	66.5	38.9	28.3	22.6	19	13.3	11.1	5.87
1.75V/cell	229.45	210	176.5	151.1	114.9	85.5	68.3	39.6	28.8	22.9	19.2	13.4	11.2	5.9
1.70V/cell	239.98	218.8	184.6	155.6	117.3	86.7	69.2	39.9	28.9	23	19.3	13.5	11.2	5.93
1.67V/cell	245.44	225.1	188.8	158.3	117.8	87.2	69.3	40	29	23.1	19.4	13.6	11.3	5.95
1.60V/cell	248.17	229.8	190.9	159.6	119	87.5	69.8	40.2	29.1	23.2	19.5	13.7	11.3	5.98



Temperature Effects in Relation to Battery Capacity



Effect of temperature on long-term shelf life



* Product specifications are subject to change without notice.

* US-V2510-REV1.03

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