



# OBS12700HRF (12V 700W)

## 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).

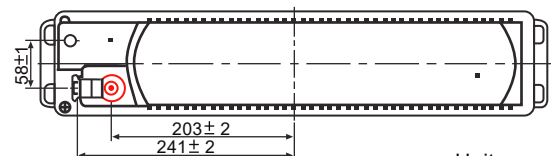
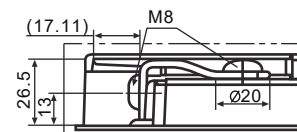
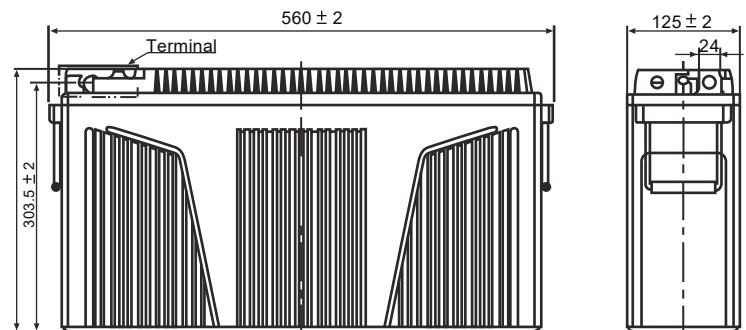
### Applications

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

#### PHYSICAL SPECIFICATION

<b>Dimension</b>	<b>Length</b> <b>Width</b> <b>Height</b> <b>Total Height</b>	560 ± 2 mm (22.01 in) 125 ± 2 mm (4.92 in) 318 ± 2 mm (12.5 in) 318 ± 2 mm (12.5 in)
<b>Weight</b>		60 Kg (132.3 lb)
<b>Terminal</b>		M8
<b>Container Mat. (Flame retardant)</b>		ABS UL94 HB o V0
<b>Recommended Torque</b>		(11 ~ 14.7) N·m (97.35 ~ 130.1) in·lbs

SPECIFICATIONS		Standard @ 25°C (77°F)	
<b>Rated Voltage</b>	12 V		
<b>Nominal Capacity (W) (15 min to 1.67 V/cell)</b>	700W		
<b>Nominal Capacity (Ah) (10 h to 1.80 V/cell)</b>	180 Ah		
<b>Rated Capacity</b>	<b>168.8 Ah</b> <b>144 Ah</b> <b>113.1 Ah</b>	<b>(8hrs, 21.1A, 1.75V/cell)</b> <b>(3hrs, 48A, 1.75V/cell)</b> <b>(1hrs, 113.1A, 1.60V/cell)</b>	
<b>Max. Discharge Current</b>	1800 A (5s)		
<b>Internal Resistance</b>	3.2 mΩ		
<b>Operating Temp. Range</b>	<b>Discharge</b> <b>Charge</b> <b>Storage</b>	<b>-20~55°C (-4~131°F)</b> <b>-20~40°C (-4~104°F)</b> <b>-15~50°C (5~122°F)</b>	
<b>Max. charge Current</b>	45 A		
<b>Charge Voltage (25°C)</b>	<b>Float</b>	13.5 ~ 13.8 V	
	<b>Temp. Coefficient</b>	-3mV/cell/°C	
	<b>Equalization</b>	13.8 ~ 14.4V	
<b>Design Life</b>	$\geq 12$ 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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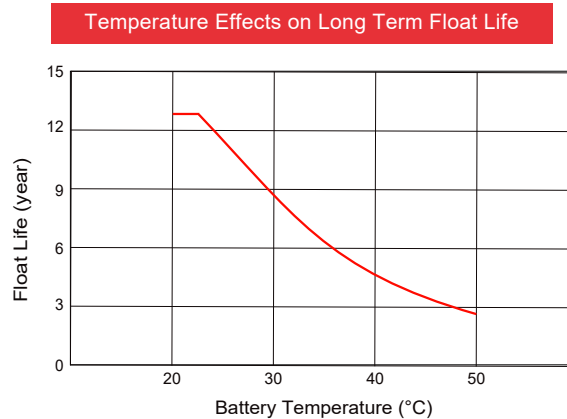
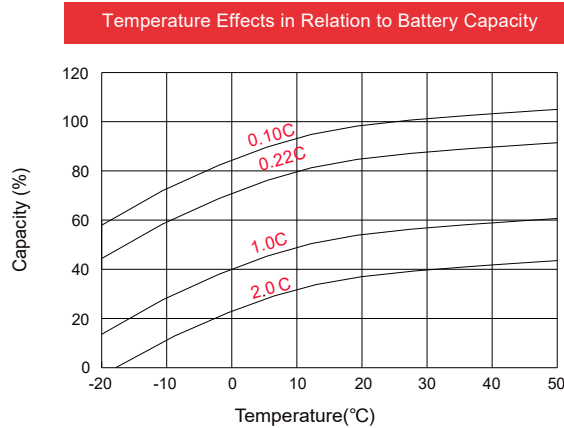
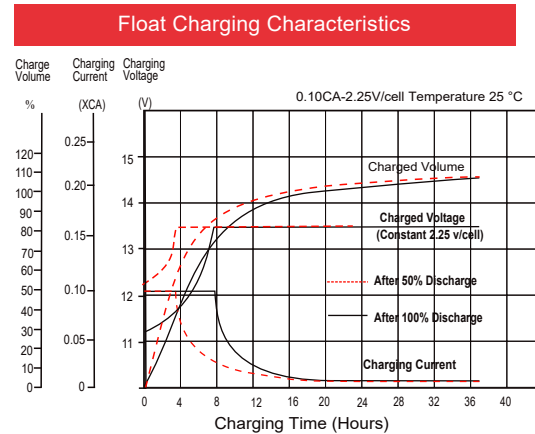
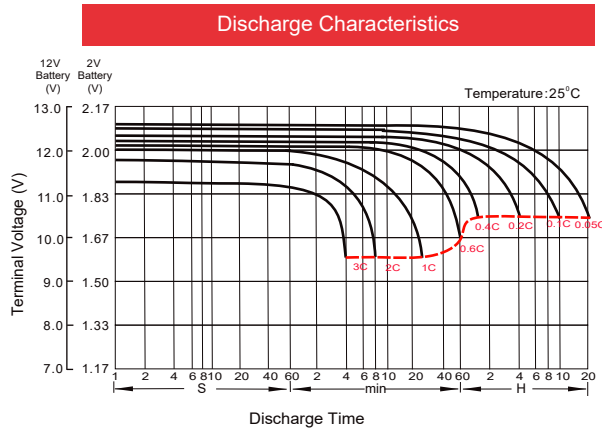


Constant Current Discharge (Amperes) at 25°C (77°F)

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
1.85V/cell	409.5	328.3	282.5	222.1	162.3	122.4	95	59.5	44.3	35	29.6	20.5	17.5
1.80V/cell	467	373.7	321	251.8	183.5	127.8	97.2	63	46.4	36.3	30.8	20.9	18
1.75V/cell	513.5	410.3	351.8	275.2	199.8	134.6	100.8	65.4	48	37.5	31.7	21.1	18.1
1.70V/cell	543.6	433.2	370	289	209.8	140	106	67	49	38.4	32.4	21.4	18.2
1.67V/cell	574.3	456.2	388.7	303	219.3	144.4	110.2	68.6	50	38.9	32.8	21.7	18.5
1.60V/cell	594.6	471.8	400.7	310.8	224.6	149.4	113.1	69.9	51.3	39.8	33.5	21.8	18.6

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
1.85V/cell	764.8	617.7	534.8	422.5	310.2	253.3	183.8	115.7	86.6	68.7	58.4	40.7	34.8
1.80V/cell	587.9	692.9	599.9	473.9	347.9	244.1	187	121.9	90.2	71	60.4	41.4	35.7
1.75V/cell	926.9	748.7	648.2	512.1	376	255.6	193	126.1	93	73.1	61.9	41.7	35.9
1.70V/cell	965	779.4	674.8	533.1	391.4	264	201.9	128.6	94.7	74.6	63.2	42.3	36.1
1.67V/cell	1001	805.5	700	553	406	270.8	208.8	131.1	96.2	75.3	63.8	42.6	36.6
1.60V/cell	1015	819.8	709.8	560.7	411.7	277.5	212.7	132.8	98.1	76.7	64.8	42.8	36.7



\* Product specifications are subject to change without notice.  
 \* US-V2509-REV1.02  
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