



The world's leading battery brand



HRL SERIES-LONG LIFE BATTERIES

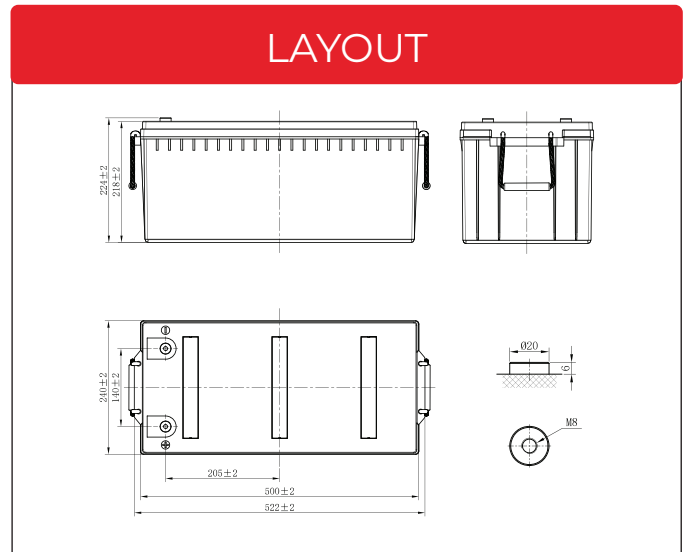
HRL 12800W



www.starmaxbatteries.com

HRL Series

HRL 12800W



General Features

- ✓ **High quality AGM separator:** Extend cycle life and prevent micro short circuit
- ✓ **PbCaSn alloy for plate grids:** Less gassing, less self-discharging
- ✓ **Unique vent valve design:** Reduce water losing and prevent air/spark going inside

Applications

- ✓ UPS
- ✓ Hospitals & Testing Laboratories
- ✓ Emergency Power Supply
- ✓ Industrial Process Control Facilities
- ✓ Banks & Financial Markets
- ✓ Data & Network Operation Centers

Standards

- ✓ Compliance with IEC 60896 and YD/T 3427 standards
- ✓ Manufactured in Starmax, ISO 45001, ISO 9001 and ISO 14001 certified production facilities



SPECIFICATIONS

Rated Voltage	12V		
Nominal Rate	(W ₁₅ ,1.67V/cell)	800W/cell	
Nominal Capacity	(C ₁₀ ,1.80V/cell)	205Ah	
Dimensions	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	68.7kg (151.5 lbs)		
Terminal	M8		
Container material	ABS: UL 94 HB or V-0 optional		
Rated capacity (25°C)	205.0 Ah	C10(20.5A,1.80V/cell)	
	190.4 Ah	C8(23.8A,1.80V/cell)	
	180.5 Ah	C5(36.1A,1.75V/cell)	
	159.6 Ah	C3(53.2A,1.75V/cell)	
	130.5 Ah	C1(130.5A,1.60V/cell)	
Max. discharge current	2050A (5s)		
Internal resistance (25°C)	Approx 2.6mΩ		
Operating temp. range	Discharge	-20~55°C (4~131°F)	
	Charge	-20~40°C (-4~104°F)	
	Storage	-15~50°C (5~122°F)	
Nominal operating temp. range	25±3°C (77±5°F)		
Max.Charging Current(25°C)	51.25A		
Charge voltage(25°C)	Charge voltage		Temp. Coefficient
	Float	2.25~2.30V/cell	-3mV/cell/°C
	Equalization	2.30~2.40V/cell	-4mV/cell/°C
Effect of temp. to Capacity	40°C (104°F)		106%
	25°C (77°F)		100%
	0°C (32°F)		86%
Self discharge	≤3%/month @ 25°C		

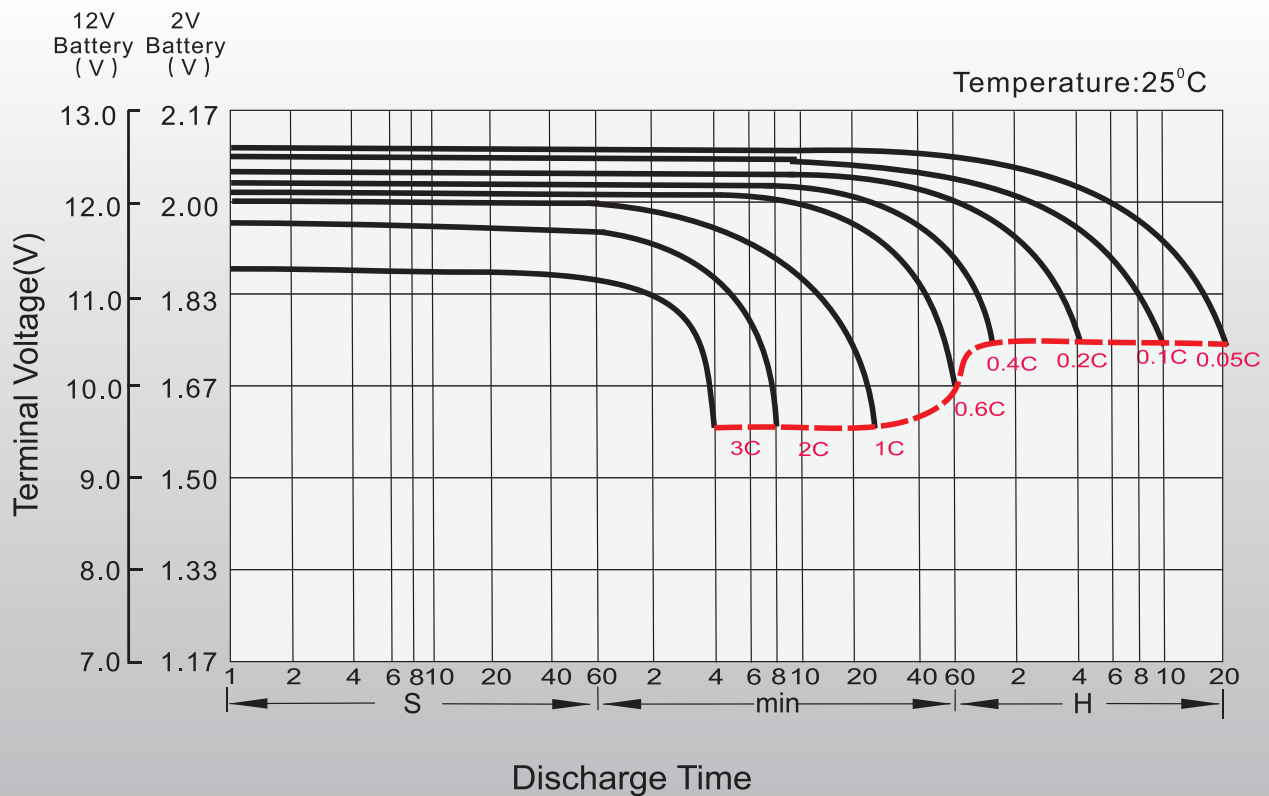
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	478.6	382.1	331.3	260.5	180.5	139.2	112.8	82.9	67.8	50.4	39.9	33.7	23.3	19.9
1.80V/cell	544.2	433.7	375.4	294.5	203.6	147.8	116.6	85.4	71.7	52.1	41.4	35.1	23.8	20.5
1.75V/cell	593.7	472.3	408.1	319.3	219.8	156.7	121.4	88.9	74.5	53.2	42.8	36.1	24.0	20.6
1.70V/cell	632.0	501.5	431.6	337.1	232.1	164.5	126.7	92.6	76.3	54.4	43.8	36.9	24.4	20.7
1.67V/cell	654.0	517.3	444.2	346.3	237.6	169.0	128.1	95.0	78.1	55.6	44.4	37.4	24.7	21.0
1.60V/cell	677.2	535.0	458.0	355.2	243.4	173.2	130.5	98.2	79.6	57.0	45.4	38.1	24.8	21.2

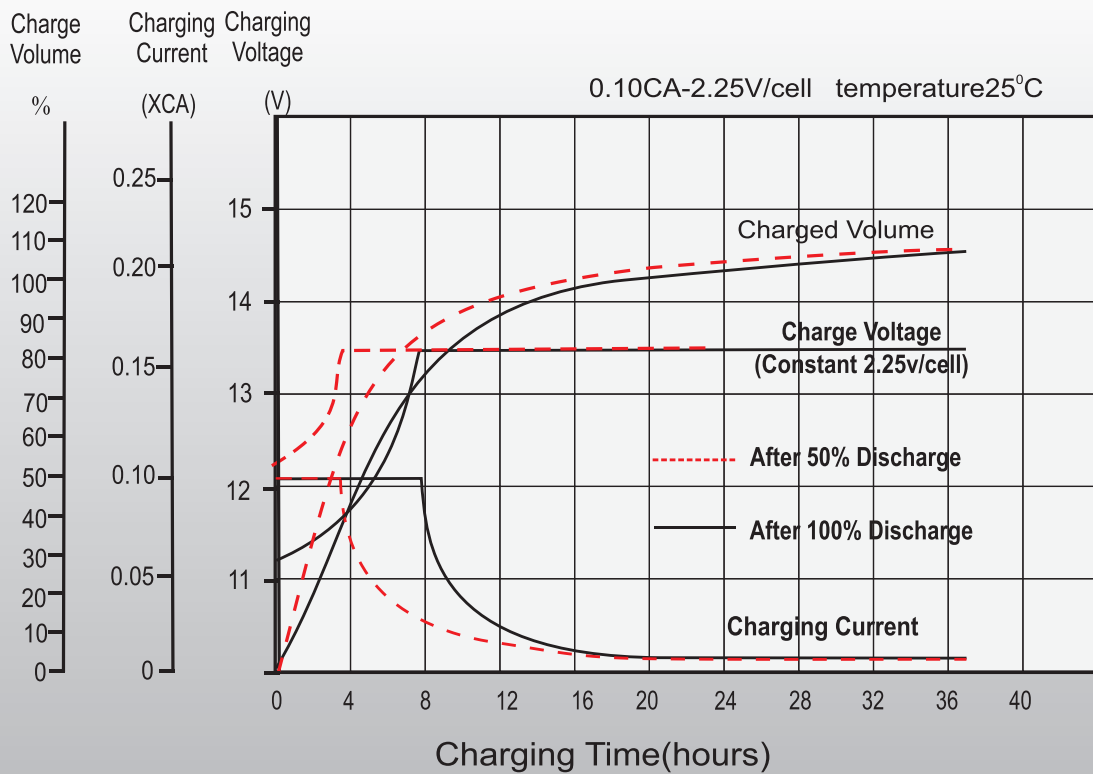
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	893.8	718.8	627.2	495.5	345.0	267.7	218.2	160.6	131.8	98.6	78.2	66.5	46.3	39.7
1.80V/cell	999.8	804.0	701.6	554.3	385.9	282.4	224.3	164.6	138.9	101.4	80.9	68.8	47.1	40.7
1.75V/cell	1071.6	861.8	752.0	594.1	413.6	297.6	232.5	170.6	143.6	103.3	83.3	70.5	47.4	40.8
1.70V/cell	1121.8	902.1	787.2	621.9	433.0	310.2	241.4	176.9	146.4	105.2	84.9	71.9	48.1	41.1
1.67V/cell	1140.0	916.8	800.0	632.0	440.0	316.9	242.7	180.6	149.3	107.0	85.8	72.6	48.6	41.7
1.60V/cell	1156.0	929.6	811.2	640.8	446.2	321.6	245.4	185.4	151.3	109.1	87.3	73.7	48.7	41.8

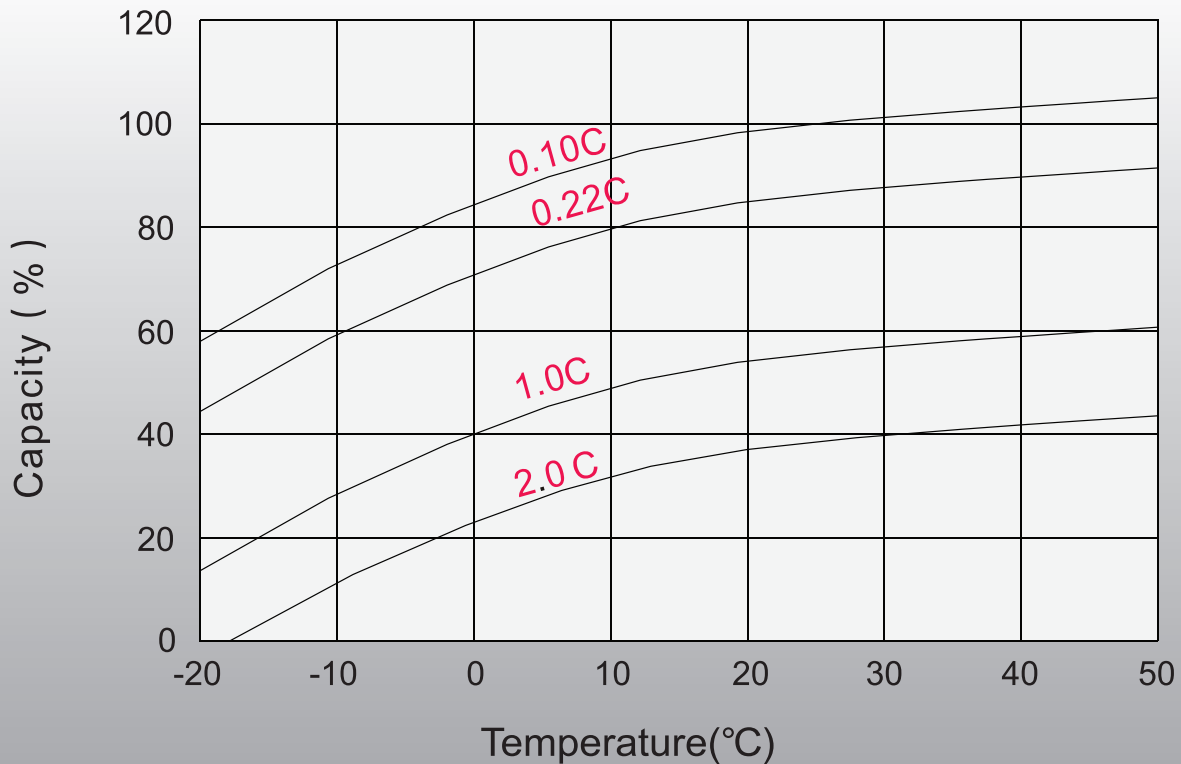
Discharge Characteristics



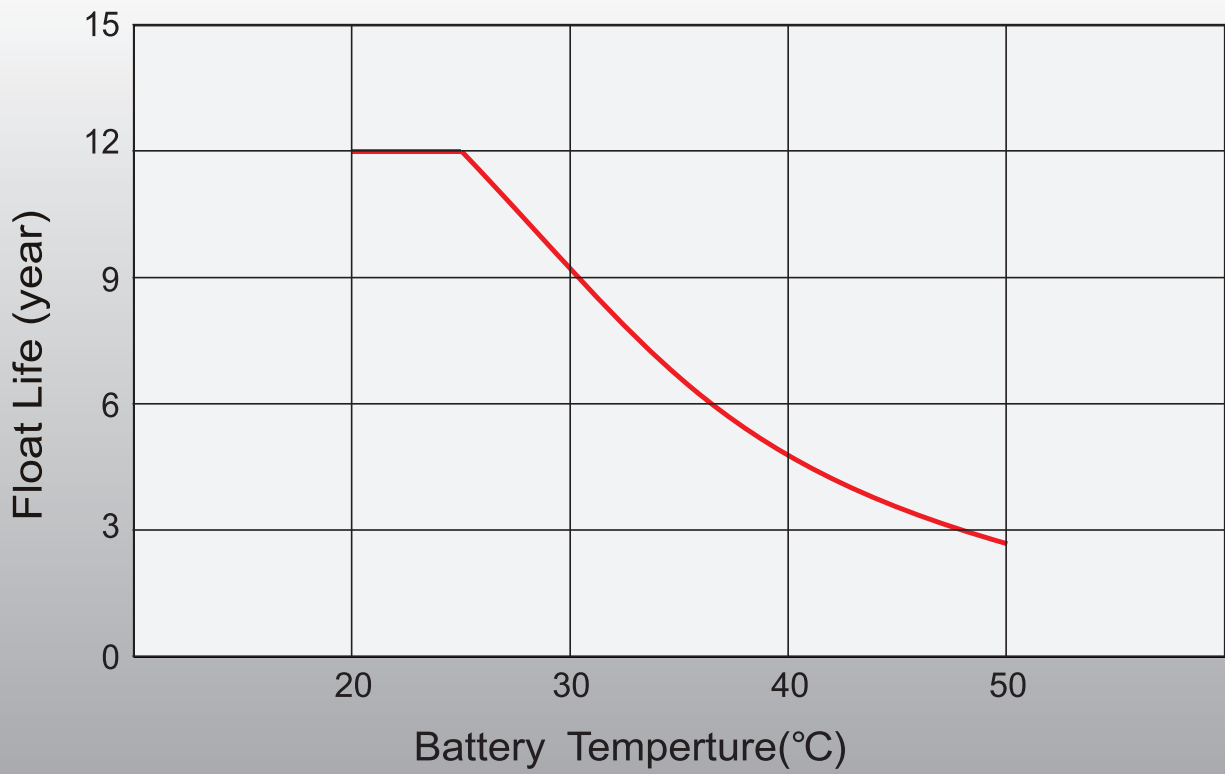
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Time Float Life





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