

stored energy solutions for a demanding world

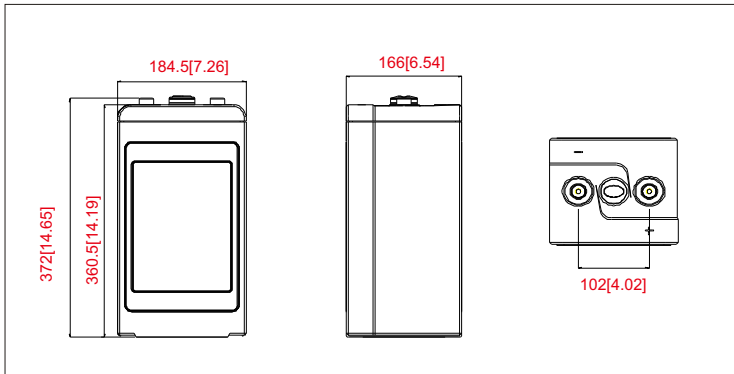
Narada

Model: **HRL1100**

HRL Series

HRL series, name of High Rate Long life, is high rate VRLA battery. It is special designed for large data centers and UPS. With excellent high-power discharge performance, high reliability, 15 years long life design, wide operating temperature range, HRL series is ideal for high performance UPS batteries.

Dimensions—mm [inch]



Specifications

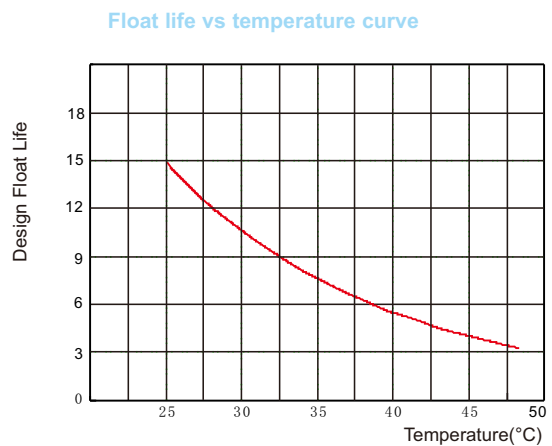
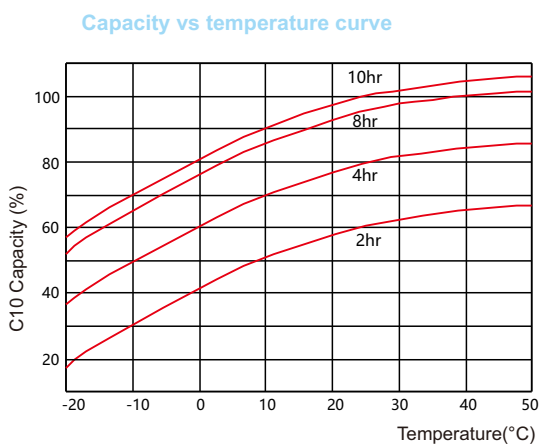
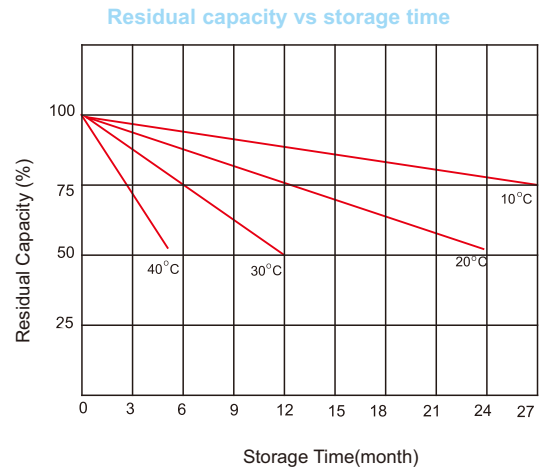
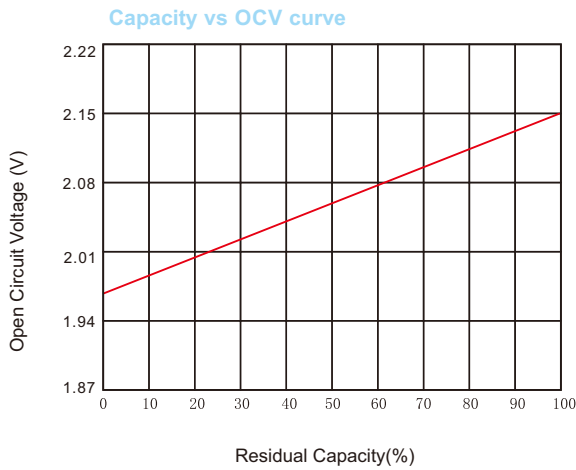
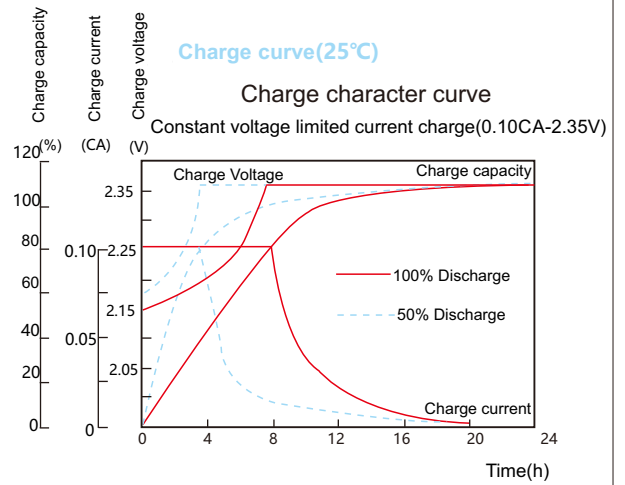
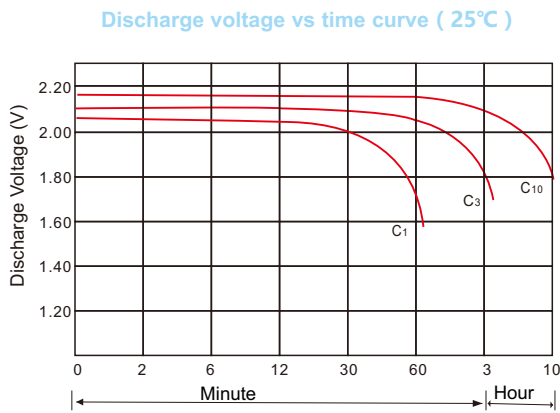
Battery Model	HRL1100
Nominal Voltage	2V
Rated Capacity	1100 W/cell(15 minute rate, 1.67 V/cell) and 440Ah(10 hr to 1.80V/cell) @25°C(77°F)
Typical Weight	25.0kg
Internal Resistance	Approx 0.33mΩ
Temperature Ranges	Operation (maximum): -20°C to 50°C(-4°F to 122°F)
	Operation (recommended): 15°C to 25°C(59°F to 77°F)
	Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.25V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	110A
Equalize and Cycle Service	2.35V@25°C(77°F)
Self Discharge	The residual capacity is above 90% after 90 days storage(25°C/77°F)
Terminal	M8 Female
Terminal Hardware Torque	12~15 N.m
Container Material	ABS (V0 Optional)

Discharge Data with Constant Current Units: Amperes (25°C, 77°F)

End voltage per cell	5min	10min	15min	20min	30min	40min	45min	50min	1h	2h	3h	5h	8h	10h
1.60V	985	815	—	—	—	—	—	—	—	—	—	—	—	—
1.65V	860	750	625	560	425	375	340	320	252	160	118	85	55	50
1.67V	840	720	600	520	400	360	335	310	248	158	116	80	53	49
1.70V	800	695	580	505	385	350	330	305	245	156	115	78	52	47
1.75V	685	590	560	485	365	330	320	295	244	150	113	75	51	46
1.80V	660	560	490	420	355	295	285	265	243	148	112	72	48	44

Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5min	10min	15min	20min	30min	40min	45min	50min	1h	2h	3h	5h	10h
1.60V	1480	1300	—	—	—	—	—	—	—	—	—	—	—
1.65V	1440	1260	1150	940	830	685	620	590	550	380	260	185	110
1.67V	1420	1240	1100	930	820	675	615	580	540	370	255	180	105
1.70V	1410	1230	1080	920	810	670	610	575	525	355	245	175	100
1.75V	1290	1120	1029	840	765	650	600	565	510	340	240	170	95
1.80V	1190	1000	950	770	710	615	590	540	495	320	235	160	90



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