

stored energy solutions for a demanding world

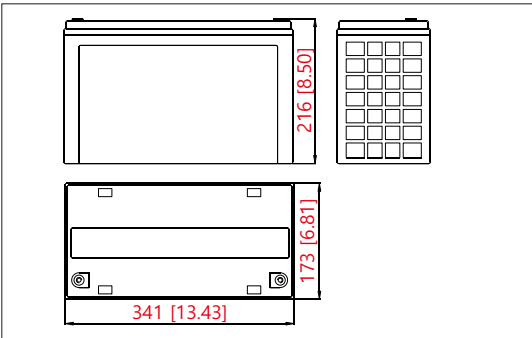
Narada

Model: 12HRL400

HRL Series

The HRL range of VRLA batteries with 12+ years design life is perfectly suited to any application which requires a high rate current over a short period. In particular they are ideal for IDC and UPS systems thanks to their optimized performance and a patented post seal design. Meanwhile with excellent uniform battery performance, long design life wide usage temperature range, HRL series are suit for high ambient temperature.

Dimensions-mm[inch]



Specifications

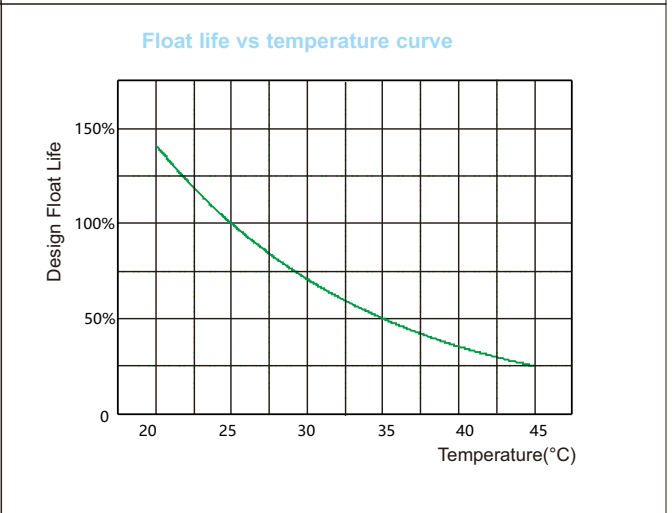
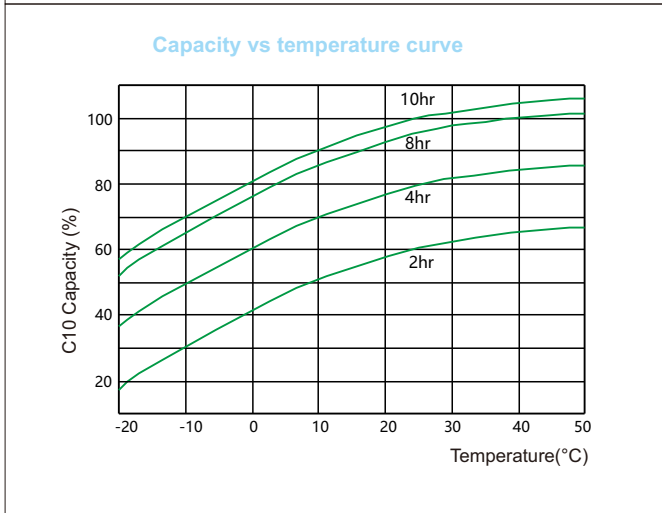
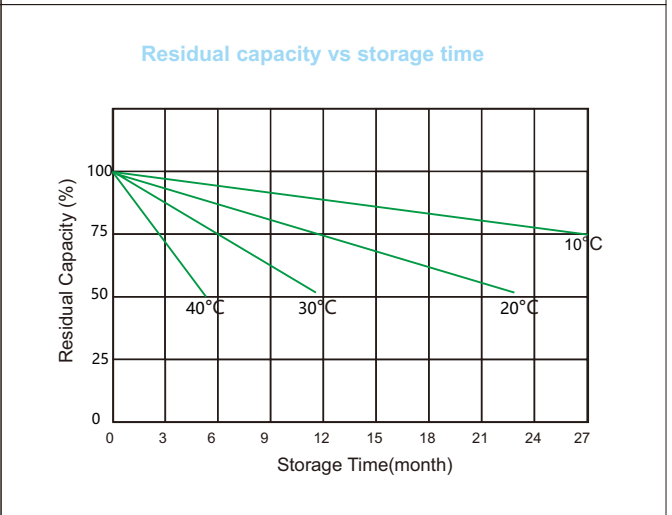
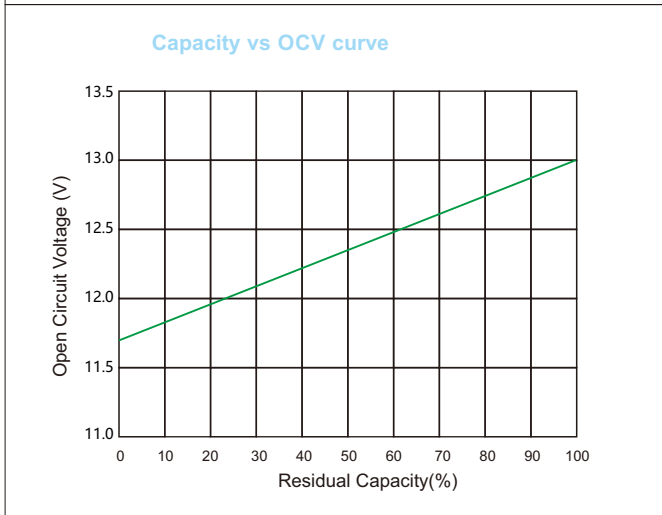
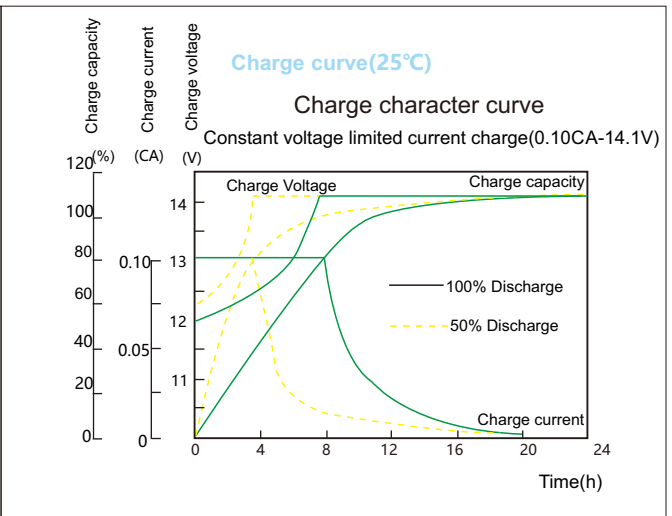
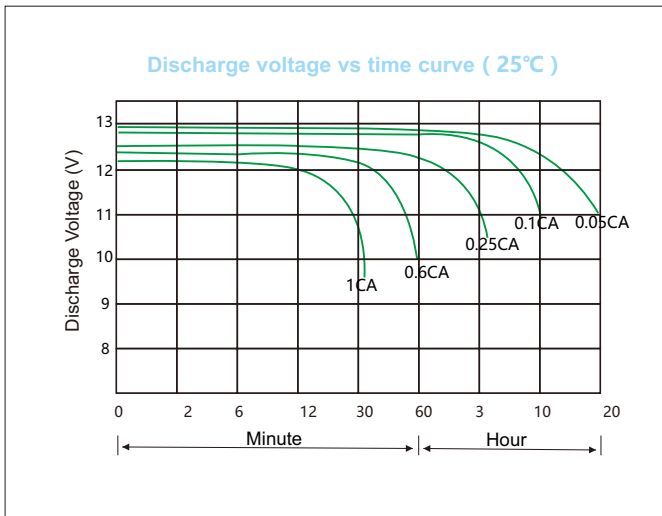
Battery Model	12HRL400
Nominal Voltage	12V
Rated Capacity	400 W/cell(15 minute rate, 1.67 V/cell) and 100Ah(10 hr to 1.80V/cell) @25°C(77°F)
Typical Weight	34kg
Internal Resistance	Approx 3.90mΩ
Temperature Ranges	Operation (maximum) : -40°C to 55°C(-40°F to 131°F)
	Operation (recommended) : 15°C to 25°C(59°F to 77°F)
	Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.27V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	25A
Equalize and Cycle Service	2.35V~2.40V@25°C(77°F)
Self Discharge	The residual capacity is above 94% after 90 days storage(25°C/77°F)
Terminal	M6 Female
Terminal Hardware Torque	8 ± 1.0Nm
Container Material	ABS (V0 optional)

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

End voltage per cell	5min	10min	15min	20min	30min	40min	50min	1h	2h
1.60V	746	528	412	339	252	202	170	146	82.7
1.67V	706	508	400	332	249	201	169	146	82.6
1.70V	683	495	392	327	248	200	167	146	82.5
1.75V	632	466	375	316	243	198	166	145	82.4
1.80V	562	428	352	302	237	196	165	145	81.3
1.83V	522	405	337	291	230	191	163	143	79.5
1.85V	490	388	326	283	225	187	160	140	77.7

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

End voltage per cell	5min	15min	30min	1h	2h	3h	4h	6h	10h
1.60V	500	232	137	78.6	43.8	30.8	23.9	16.6	10.3
1.67V	463	225	135	77.8	43.5	30.5	23.6	16.4	10.3
1.70V	435	221	134	77.6	43.4	30.3	23.5	16.3	10.3
1.75V	377	209	131	76.6	43.0	30.2	23.4	16.2	10.2
1.80V	320	194	124	74.3	42.0	29.5	22.9	15.9	10.0
1.83V	290	182	119	71.9	41.0	28.9	22.4	15.6	9.83
1.85V	272	173	114	69.6	39.9	28.3	22.0	15.3	9.64



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