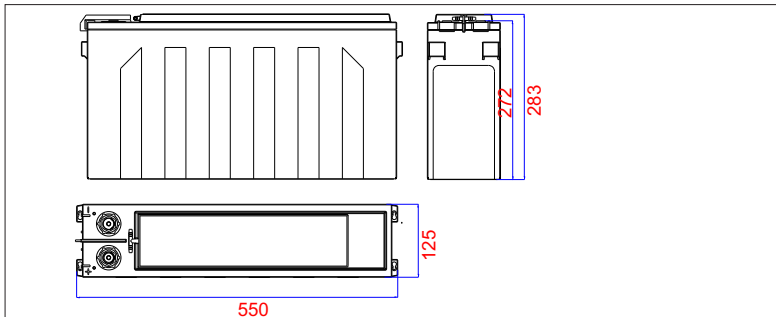


Narada's HTB-F series battery special designed for high temperature floating application, idea for telecom service where the temperature is higher. With CCPP thin plate technique, innovative structure design, high quality manufacturing and high quality high-temperature-resistant material, HTB-F batteries have 10 years design life at 35°C. HTB-F series also meet the standard <YD/T2657-2013 High temperature valve-regulated lead acid batteries for telecommunications>.

Dimensions-mm



Specifications

Battery Model	12HTB150F
Nominal Voltage	12V
Rated Capacity	150Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	Approx 48.0 kg
Internal Resistance	Approx 4.63mΩ
Temperature Ranges	Operation (maximum): -40°C to 65°C(-40°F to 149°F)
	Operation (recommended): 15°C to 35°C(59°F to 95°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	37.5 A
Equalize and Cycle Service	2.35V/cell@25°C(77°F)
Self Discharge	The residual capacity is above 96% after 28 days storage(35°C/95°F)
Terminal	M6 Female
Terminal Hardware Torque	8~10Nm
Container Material	PPO

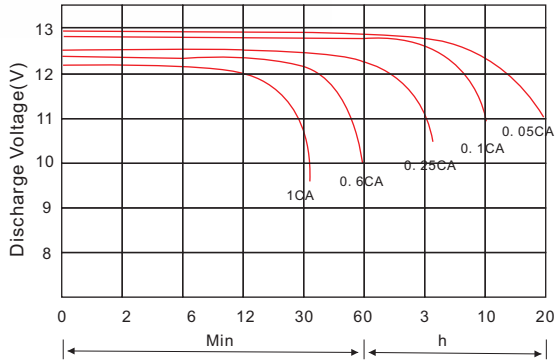
Constant Current Discharge Characteristics Units: Amperes (35°C, 95°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	428	236	151	116	93.2	56.2	41.3	34.0	28.5	24.5	19.4	16.0	13.7	9.14	7.91
1.67V	394	231	149	114	93.0	55.8	40.8	33.6	28.1	24.2	19.1	15.8	13.4	8.95	7.68
1.70V	376	227	148	113	92.9	55.7	40.7	33.4	27.9	24.1	18.9	15.6	13.4	8.87	7.58
1.75V	347	220	147	112	92.0	55.6	40.6	33.3	27.7	23.8	18.8	15.4	13.3	8.76	7.44
1.80V	312	196	137	107	89.6	54.9	40.5	32.9	27.5	23.7	18.6	15.3	13.3	7.87	6.55
1.83V	279	186	132	104	87.5	54.8	40.0	32.8	27.4	23.6	18.5	15.1	13.2	7.76	6.46
1.85V	272	179	126	101	84.9	53.4	39.7	32.7	27.3	23.5	18.3	14.9	13.2	7.64	6.34

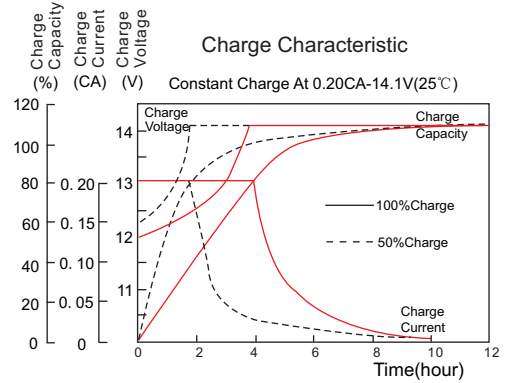
Discharge Data with Constant Power Units: Watts per cell (35°C, 95°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	756	435	292	227	188	117	84.5	69.4	57.7	49.6	38.7	31.7	26.9	17.0	14.5
1.67V	702	427	290	225	186	115	83.7	68.7	57.2	49.2	38.4	31.5	26.7	16.7	14.1
1.70V	669	422	289	224	185	114	83.1	68.3	56.8	48.8	38.1	31.4	26.6	16.5	13.9
1.75V	616	410	285	222	184	113	82.8	68.2	56.6	48.7	37.8	31.2	26.5	16.4	13.8
1.80V	574	376	267	212	179	112	82.2	68.1	56.2	48.3	37.7	30.7	25.8	15.7	13.2
1.83V	517	354	257	207	175	111	81.8	67.4	55.7	48.2	37.2	30.1	25.4	15.5	12.8
1.85V	516	353	254	203	170	107	79.4	65.4	54.6	46.9	36.6	30.0	25.2	14.7	12.0

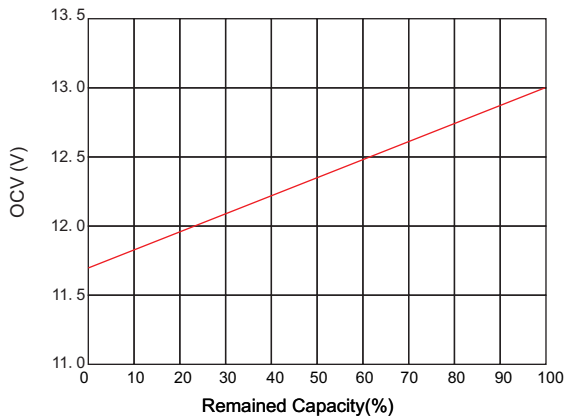
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



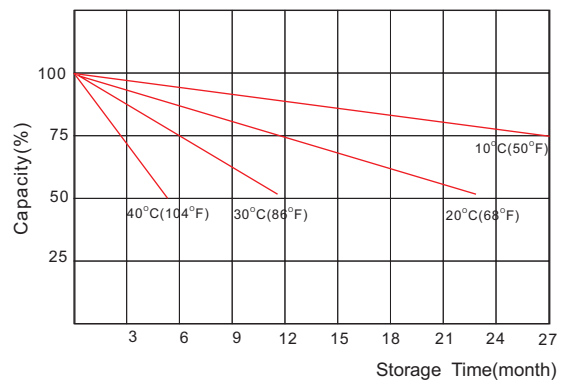
Battery Voltage Vs. Charge Time



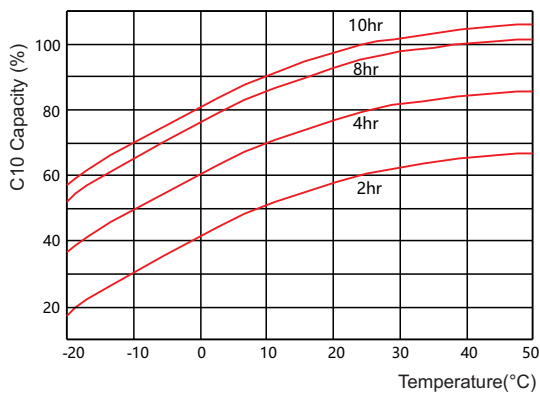
Relationship of OCV Vs. State of Charge



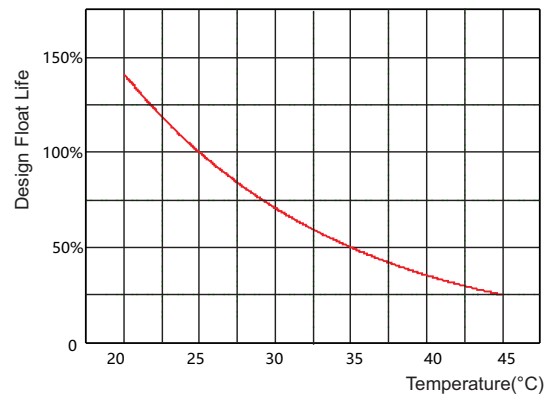
Capacity Retention Characteristic



Capacity vs temperature curve



Float life vs temperature curve



NARADA POWER SOURCE CO.,LTD.

Building A, No.822 Wen'er West Road, Hangzhou, China
 Tel:+86-571-56975980 Fax:+86-571-56975955
 E-mail: intl@narada.biz
 Website:www.naradapower.com

NARADA ASIA PACIFIC PTE.LTD.

Block 9 Khaki Bukit Road 1 #02-10 Eunos Technolink,
 Singapore 415938 Email: sales@narada-ap.com
 Tel: +65-6848 1191 Fax: +65-6749 3498
 Website: www.narada-ap.com

NARADA EUROPE (UK) LIMITED

Spectrum House, Dunstable Road, Redbourn,
 St. Albans, Herts AL3 7PR
 Tel: +44 (0)845 371 7095 Fax:+44 (0)845 612 2031
 E-mail: sales@naradaeurope.com

