

stored energy solutions for a demanding world

**Narada**

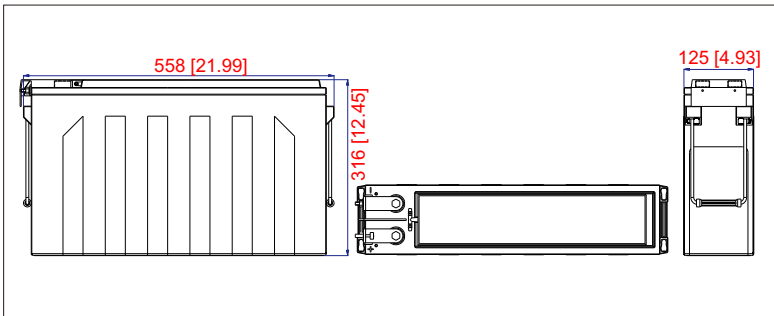
Model: **12NDT200**

**Acme**

The Acme T range of front access VRLA batteries has been specifically designed for applications using 19" and 23" cabinets, especially telecoms. Reliability is assured with the patented post seal and a state-of-the-art design developed to comply with the latest IEC, British and Telcordia standards. A 12+ years design life and centralised venting system add to the suitability and flexibility of this superior range.



**Dimensions-mm [inch]**



**Specifications**

Battery Model	12NDT200
Nominal Voltage	12V
Rated Capacity	200Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	61.0 kg
Internal Resistance	Approx 3.50 mΩ
Temperature Ranges	Operation (maximum): -40°C to 50°C(-40°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	50 A
Equalize and Cycle Service	2.35V~2.40V/cell@25°C(77°F)
Self Discharge	The residual capacity is above 90% after 90 days storage(25°C/77°F)
Terminal	M6 Female
Terminal Hardware Torque	8 ± 1. 0Nm
Container Material	ABS (V0 optional)

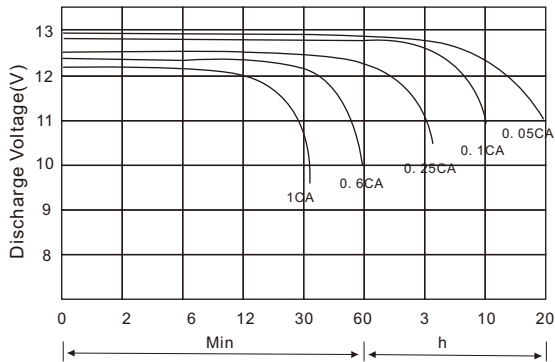
**Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)**

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	554.4	347.6	228.8	168.3	137.5	78.8	55.9	44.1	37.5	32.0	25.3	20.4	17.5	10.9	9.13
1.67V	519.2	342.1	225.5	168.3	136.4	78.1	55.6	44.1	37.2	31.7	25.1	20.3	17.4	10.8	9.05
1.70V	500.5	335.5	222.2	167.2	135.3	77.7	55.4	44.0	37.1	31.6	25.0	20.2	17.3	10.7	9.01
1.75V	475.2	321.2	213.4	163.9	134.2	77.1	55.1	43.8	36.9	31.2	24.8	20.1	17.2	10.6	8.93
1.80V	426.8	294.8	201.3	156.2	129.8	75.5	54.2	43.3	36.3	30.7	24.6	20.0	17.1	10.6	8.89
1.83V	389.4	276.1	191.4	149.6	127.6	73.5	53.2	42.8	35.5	29.9	24.3	19.8	16.9	10.5	8.84
1.85V	369.6	262.9	187.0	144.1	124.3	71.5	52.3	42.2	35.0	29.6	24.0	19.6	16.8	10.5	8.79

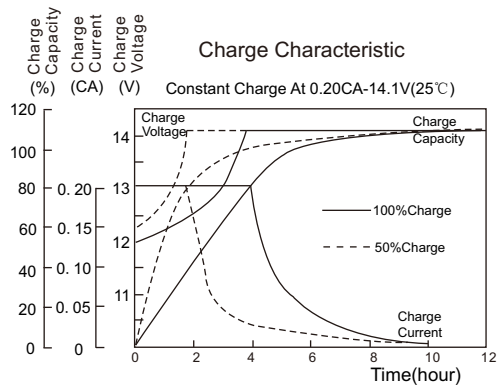
**Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)**

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	967	642	411	330	281	166	118	91.9	77.3	65.8	50.5	43.3	37.5	22.9	19.1
1.67V	914	625	408	328	279	166	118	91.5	77.0	65.6	50.4	43.2	37.4	22.8	19.0
1.70V	881	613	406	327	278	165	117	91.3	76.7	65.5	50.3	43.2	37.3	22.7	19.0
1.75V	814	590	398	322	274	164	117	90.8	76.2	65.1	49.9	43.1	37.2	22.4	18.9
1.80V	748	558	386	312	267	161	114	89.7	75.1	64.6	49.6	42.9	37.0	22.1	18.9
1.83V	726	528	374	304	260	156	112	88.6	74.0	63.9	49.4	42.6	36.7	21.9	18.8
1.85V	712	504	366	297	254	153	109	87.5	72.7	63.1	49.1	42.5	36.5	21.6	18.8

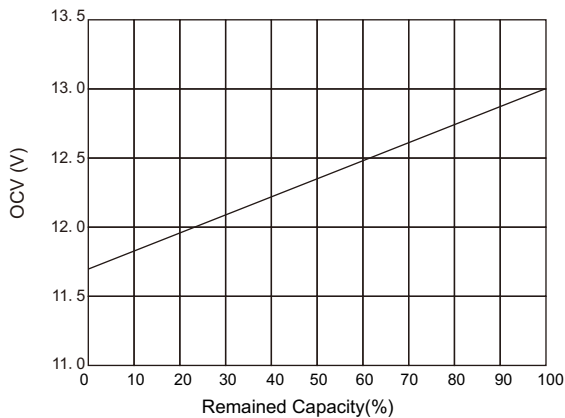
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



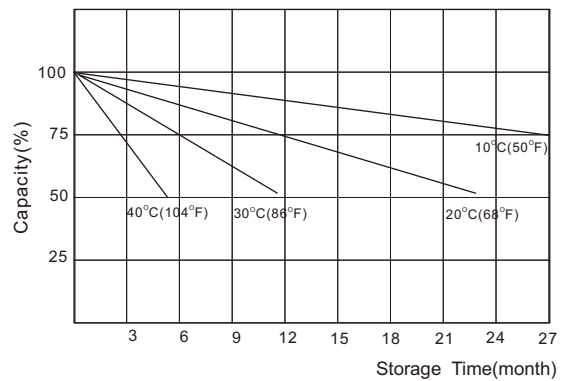
Battery Voltage Vs. Charge Time



Relationship of OCV Vs. State of Charge



Capacity Retention Characteristic



**Charging Procedures**

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle	25°C	2.40	2.35~2.40	0.25C
Standby	25°C	2.25	2.23~2.27	

**Discharge Current VS. Discharge Voltage**

Final Discharge Voltage V/Cell	1.80	1.70	1.55	1.30
Discharge Current (A)	0.2C ≥ (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

**NARADA POWER SOURCE CO.,LTD.**  
 9F, Building A, No. 50 Zijinghua Road, Hangzhou, China  
 Tel:+86-571-28827013 Fax:+86-571-28828290  
 Website:www.naradabattery.com E-mail:intl@narada.biz

**NARADA ASIA PACIFIC PTE.LTD.**  
 65 Ubi Crescent #07-05 HOLA centre, Singapore  
 Tel: +65-6848 1191 Fax: +65-6749 3498  
 E-mail: sales@narada.com.sg

**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

