

stored energy solutions for a demanding world

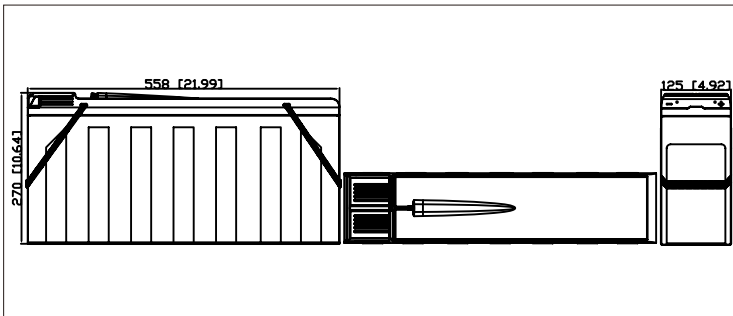
Narada

Model: **12NDF155**

Acme-F

The Acme F 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 AGM 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	12NDF155
Nominal Voltage	12V
Rated Capacity	155Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	52.5kg
Internal Resistance	Approx 4. 27mΩ
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	38.75A
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)

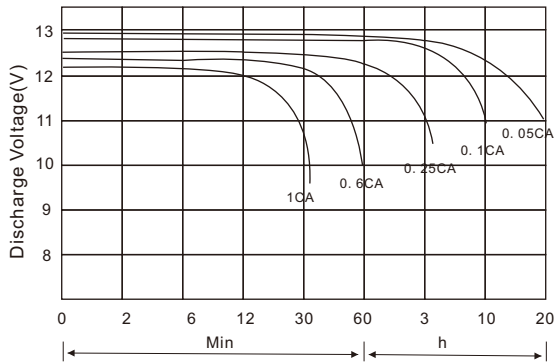
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	507	273	165	120	96.8	59.5	40.2	33.3	29.1	25.1	19.5	16.1	13.7	8.48	7.09
1.67V	476	263	162	119	96.2	59.2	39.5	33.2	28.9	25.0	19.3	15.8	13.5	8.41	7.02
1.70V	472	258	160	118	95.5	58.8	39.3	33.0	29.5	25.0	19.3	15.9	13.4	8.39	7.02
1.75V	433	250	159	117	94.1	57.4	38.8	32.6	29.0	24.8	19.1	15.8	13.4	8.37	7.02
1.80V	389	233	152	112	91.6	56.9	38.6	32.5	28.2	24.3	19.0	15.6	13.3	8.29	7.00
1.83V	371	214	149	109	87.6	56.2	37.3	31.0	27.3	23.5	18.5	15.0	12.6	8.27	6.89
1.85V	347	207	138	104	84.9	54.3	36.3	30.6	26.7	23.0	17.9	14.9	12.7	8.11	6.83

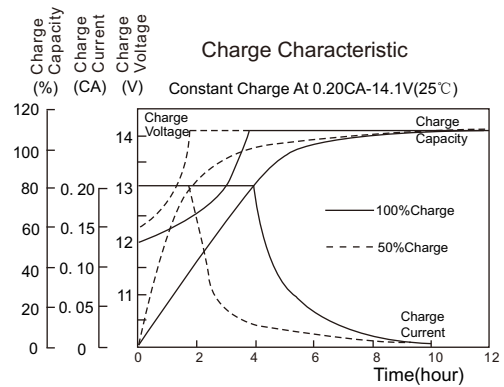
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	848	479	299	225	182	105	76.5	64.0	55.8	48.3	37.9	31.1	26.4	16.8	14.1
1.67V	816	470	296	223	181	104	75.5	63.9	55.7	48.3	37.5	30.9	26.2	16.7	14.1
1.70V	811	465	296	223	180	104	75.5	63.6	56.9	48.3	37.5	30.7	26.0	16.7	14.0
1.75V	757	461	295	222	178	104	74.7	63.6	56.3	48.2	37.1	30.6	26.0	16.7	14.0
1.80V	695	436	288	217	177	103	74.5	63.4	55.0	47.7	37.0	30.5	25.9	16.7	14.0
1.83V	663	400	284	211	170	102	72.8	61.1	53.8	46.3	36.7	29.7	25.1	16.6	13.9
1.85V	621	390	264	202	165	98.6	70.8	60.3	52.5	45.4	35.5	29.5	25.2	16.3	13.8

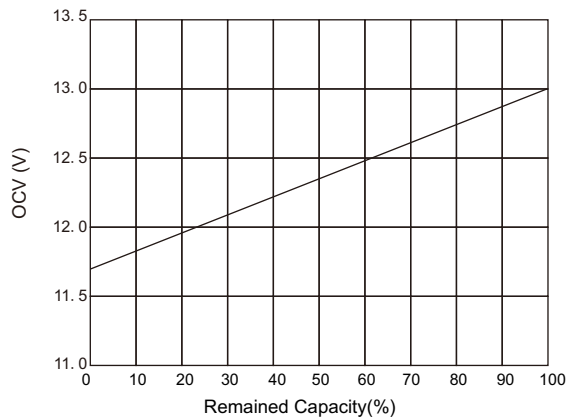
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



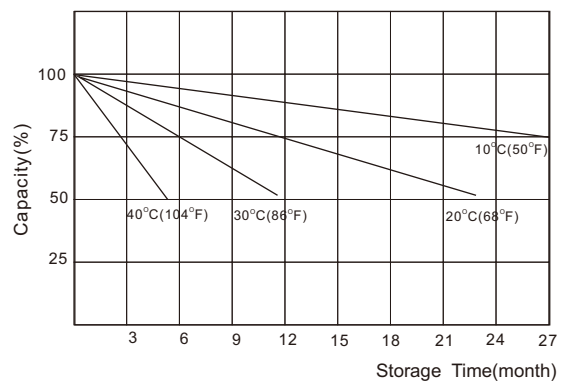
Battery Voltage Vs. Charge Time



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

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