

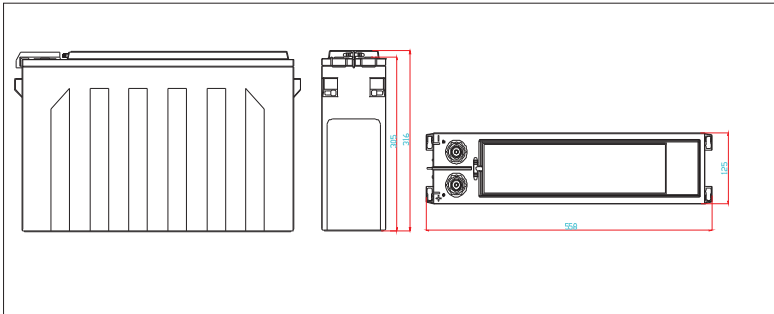
Model: 12NDT190S



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 10+ years design life and centralised venting system add to the suitability and flexibility of this superior range.



Dimensions—mm



Specifications

Battery Model	12NDT190S
Nominal Voltage	12V
Rated Capacity	190Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	59.0 kg
Internal Resistance	Approx 4.28mΩ
Temperature Ranges	Operation (maximum): -40°C to 55°C(-40°F to 131°F)
	Operation (recommended): 15°C to 35°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	47.5 A
Equalize and Cycle Service	2.35V/cell@25°C(77°F)
Self Discharge	The residual capacity is above 91% after 90 days storage(25°C/77°F)
Terminal	M6 Female
Terminal Hardware Torque	8~10Nm
Container Material	ABS (V0 optional)

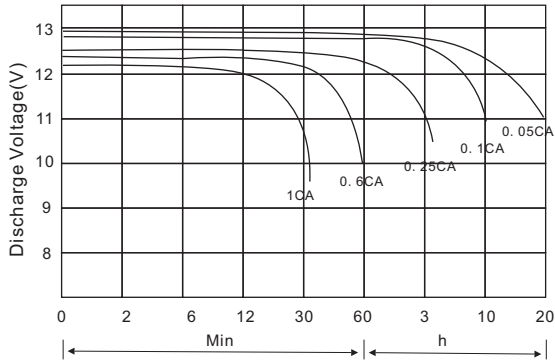
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	560	301	194	154	131	79.4	57.3	44.0	37.6	31.5	24.5	20.1	16.6	10.5	8.80
1.67V	525	291	190	153	131	79.0	56.3	43.8	37.2	31.5	24.3	20.0	16.6	10.4	8.72
1.70V	520	286	188	152	130	78.3	55.9	43.4	36.8	31.3	24.3	20.0	16.5	10.4	8.72
1.75V	479	276	187	151	128	76.3	55.3	42.9	36.4	31.1	23.7	19.8	16.5	10.4	8.72
1.80V	429	258	178	145	124	75.6	54.9	42.7	35.4	30.5	23.5	19.4	16.4	10.3	8.70
1.83V	410	236	175	140	119	74.7	53.0	40.9	34.2	29.6	23.3	18.8	16.4	10.3	8.57
1.85V	384	229	162	134	115	71.8	51.6	40.3	33.5	28.8	22.5	18.5	16.3	10.1	8.49

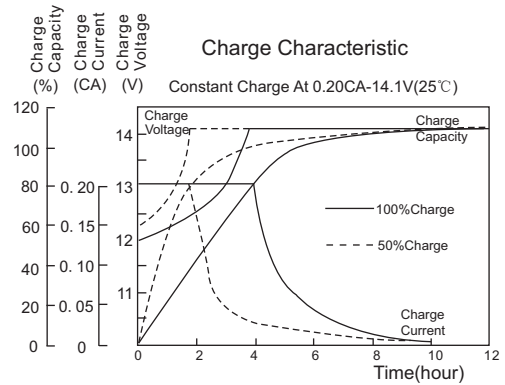
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	935	529	365	292	250	151	114	88.3	73.5	61.9	48.5	39.1	32.8	20.9	17.5
1.67V	901	518	363	290	248	151	113	88.3	73.1	61.9	47.9	39.0	32.6	20.7	17.5
1.70V	896	513	363	290	248	150	113	87.8	72.5	61.9	47.9	38.2	32.4	20.7	17.4
1.75V	835	510	362	290	244	149	111	87.8	72.1	61.7	46.9	38.0	32.2	20.7	17.4
1.80V	780	482	354	282	244	149	111	87.4	70.5	61.1	46.7	38.0	32.2	20.7	17.4
1.83V	753	441	348	273	233	147	108	84.4	68.9	59.3	46.9	37.0	31.6	20.7	17.3
1.85V	713	431	323	263	227	142	105	83.1	67.3	58.1	45.5	36.6	31.4	20.3	17.2

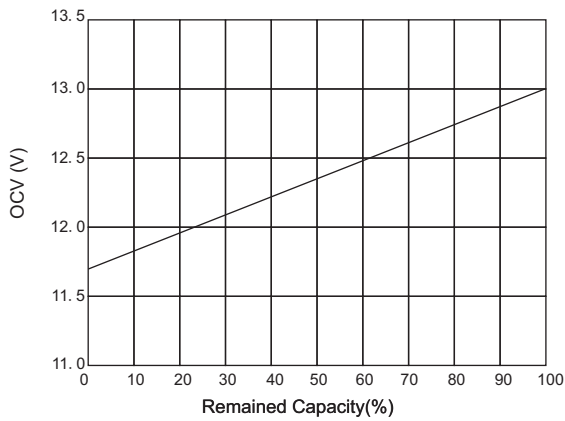
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



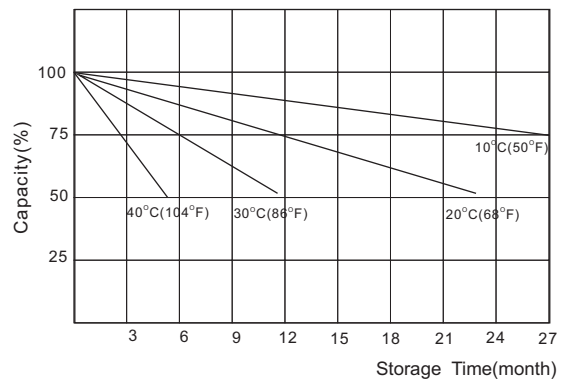
Battery Voltage Vs. Charge Time



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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