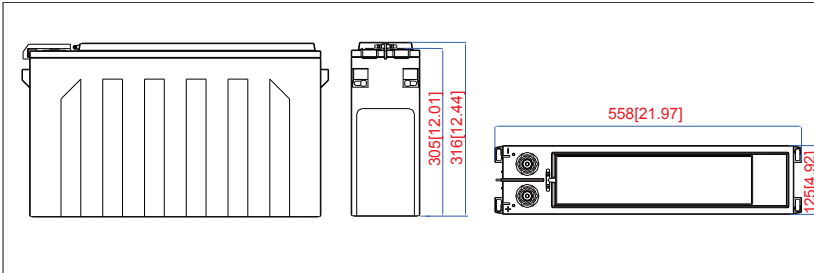


Model: 12NDT190S

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 12+ 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	57.5 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 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	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	8~10N·m
Container Material	ABS (V0 optional)

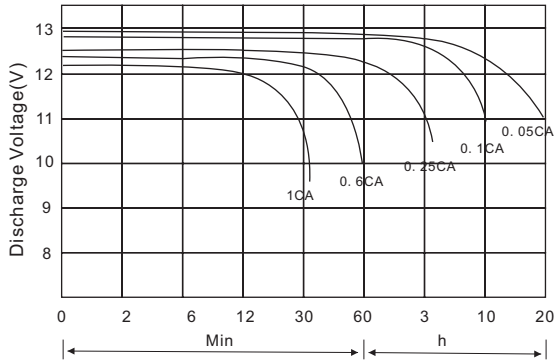
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	1h	2h	3h	4h	5h	8h	10h	12h	20h
1.67V	126	73.5	53.2	41.8	34.5	22.9	20.3	17.3	11.0
1.70V	124	73.1	52.9	41.5	34.3	22.7	20.0	17.0	10.8
1.75V	120	71.9	52.1	40.9	33.8	22.3	19.6	16.2	10.4
1.80V	114	69.2	50.7	39.7	32.8	21.2	19.0	16.0	9.85
1.83V	107	67.4	49.3	38.7	31.9	20.3	18.4	15.3	9.55
1.85V	102	64.6	47.9	37.8	31.0	19.8	18.1	14.9	9.30

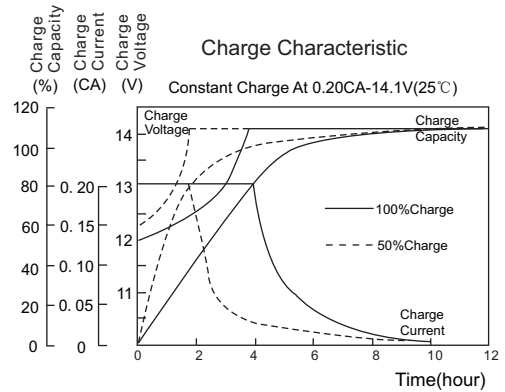
Constant Power Discharge Characteristics Units: Watts per cell (25°C, 77°F)

End voltage per cell	1h	2h	3h	4h	5h	8h	10h	12h	20h
1.67V	244	146	106	83.8	70.1	46.3	40.9	34.8	22.2
1.70V	241	145	105	83.0	69.5	46.0	40.5	34.4	21.6
1.75V	234	144	104	82.0	68.6	45.2	39.8	33.4	20.0
1.80V	222	139	102	80.1	66.9	43.3	38.8	31.9	18.6
1.83V	210	135	99.2	78.7	65.7	42.0	37.5	30.8	17.0
1.85V	200	129	96.9	76.8	63.4	40.8	36.8	30.3	15.7

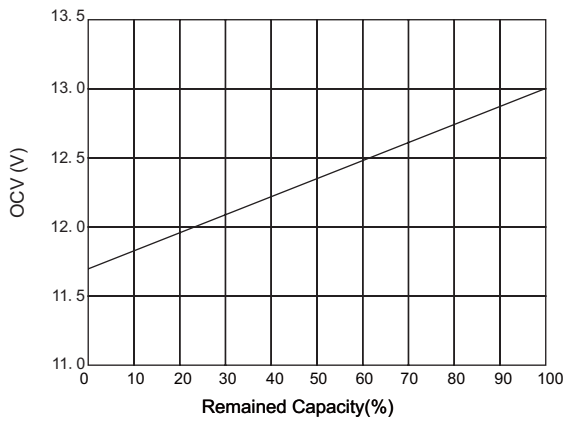
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



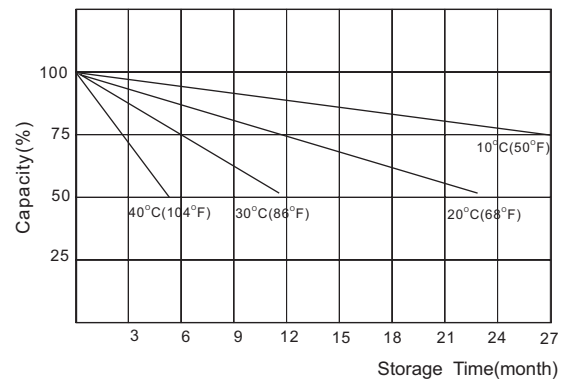
Battery Voltage Vs. Charge Time



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	2.35	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

