



Physical Specifications

Brand	Virtec
Weight	2.55 kg
Length	151±2mm
Width	65±1.5 mm
Height	94±1.5 mm
Technology	AGM
Warranty	1 Year
Terminals	



12V 9Ah virtec Battery VT1290

Specifications

Model	VT1290	
Normal Voltage	12 Volts (6cells in series)	
Normal Capacity (C20)	9 Ah (C ₂₀ 1.75V/cell)	
Terminal Type	Standard Terminal	T1/T2
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	9.00 AH/0.425A	(20hr, 1.80V/cell, 25°C / 77°F)
	8.37 AH/0.791A	(10hr, 1.80V/cell, 25°C / 77°F)
	7.22 AH/1.45A	(5hr, 1.75V/cell, 25°C / 77°F)
	5.34 AH/5.34A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	127.5A (5s)	
Internal Resistance	Approx 18mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp.Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 2.55A.Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Design Floating Life at 20°C	3-5 Years	
Self Discharge	Virtec batteries may be stored for up to 6 months at 25°C(°77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

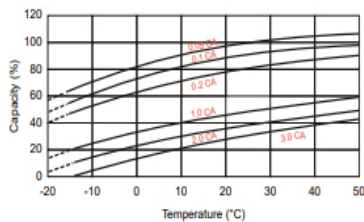
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	19.6	13.9	11.7	9.92	7.41	5.50	4.40	2.62	1.95	1.58	1.33	1.15	0.911	0.753	0.415
1.80V/cell	23.4	16.0	13.1	10.9	8.11	5.93	4.73	2.80	2.07	1.67	1.40	1.21	0.961	0.793	0.425
1.75V/cell	26.1	17.4	14.1	11.6	8.45	6.15	4.90	2.88	2.12	1.70	1.43	1.23	0.978	0.806	0.434
1.70V/cell	28.5	18.8	14.8	12.1	8.77	6.36	5.04	2.96	2.17	1.74	1.45	1.25	0.992	0.816	0.439
1.65V/cell	30.9	19.8	15.4	12.5	9.06	6.56	5.20	3.01	2.22	1.76	1.48	1.27	1.003	0.825	0.443
1.60V/cell	32.6	20.6	15.9	12.8	9.32	6.72	5.31	3.08	2.25	1.80	1.50	1.29	1.013	0.832	0.446

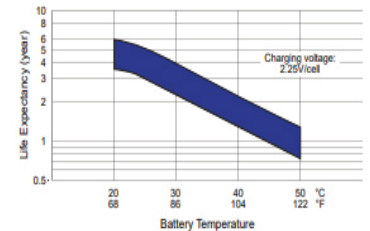
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	29.6	23.0	19.2	16.8	13.1	9.75	8.25	4.91	3.86	3.14	2.57	2.24	1.81	1.52	0.834
1.80V/cell	39.3	29.0	22.9	19.5	15.2	11.2	9.19	5.32	4.13	3.34	2.75	2.39	1.92	1.56	0.841
1.75V/cell	43.4	31.3	24.7	20.8	15.7	11.6	9.57	5.50	4.18	3.40	2.81	2.45	1.94	1.60	0.848
1.70V/cell	46.4	33.4	26.0	21.7	16.2	12.0	9.84	5.62	4.29	3.49	2.88	2.49	1.97	1.63	0.863
1.65V/cell	50.5	35.7	27.4	22.9	17.0	12.2	9.99	5.67	4.46	3.59	2.95	2.54	2.00	1.66	0.873
1.60V/cell	54.4	37.9	28.9	24.1	17.8	12.6	10.0	5.89	4.57	3.69	3.03	2.59	2.01	1.68	0.877

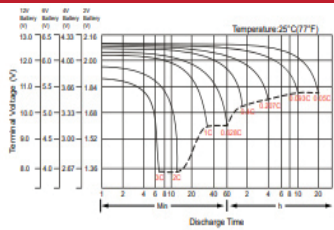
Temperature Effects in Relation to Battery Capacity



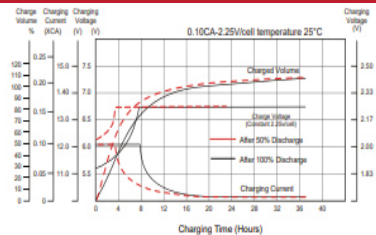
Effect of Temperature on Long Term Float Life



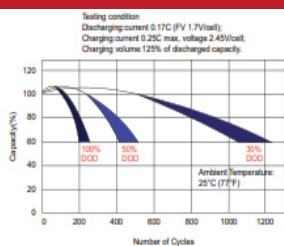
Discharge Characteristics



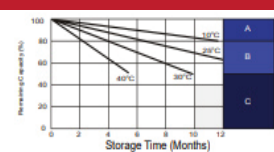
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



- A** No supplementary charge required. Clarified supplementary charge before use if 100% capacity is required.
- Supplementary charge required before use. Optimal charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.
 3. Charged for 8-10 hours at limited current 0.05 CA.
- B** Supplementary charge may also be used to recover the capacity. The battery should never be left standing off this in storage.