



Physical Specifications

Brand	Virtec
Weight	28 kg
Length	328±3mm
Width	172±2mm
Height	217±3mm
Technology	AGM
Warranty	1 Year
Terminals	



12V 100Ah virtec Battery VR12100

Specifications

Model		VR12100
Normal Voltage	12 Volts	
Normal Capacity (C20)	100Ah	
Terminal Type	NB	
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	107.2 AH/1.30A	(20hr, 1.80V/cell, 25°C / 77°F)
	101.1 AH/2.43A	(10hr, 1.80V/cell, 25°C / 77°F)
	86.4AH/4.44A	(5hr, 1.75V/cell, 25°C / 77°F)
	63.3AH/16.4A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	800A (5s)	
Internal Resistance	Approx 14mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 104°F)
		Storage: -15 ~ 50°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 7.8A. Voltage
	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.	

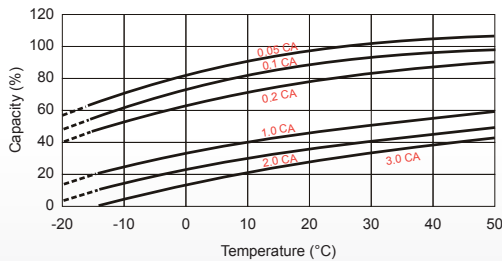
Constant Current Discharge (Amperes) at 25°C (77°F)

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	59.3	44.8	37.0	31.3	23.5	17.3	13.9	8.41	6.27	5.04	4.24	3.66	2.87	2.38	1.28
1.80V/cell	70.3	50.1	40.3	33.7	25.0	18.2	14.5	8.74	6.48	5.19	4.35	3.75	2.94	2.43	1.30
1.75V/cell	79.5	54.1	43.1	35.6	26.3	19.7	15.1	9.00	6.65	5.31	4.44	3.82	2.99	2.46	1.33
1.70V/cell	87.6	58.4	45.5	37.4	27.4	20.3	15.6	9.23	6.79	5.41	4.52	3.88	3.03	2.50	1.34
1.65V/cell	94.5	61.9	47.7	38.9	28.3	20.8	16.1	9.43	6.92	5.50	4.58	3.93	3.07	2.52	1.35
1.60V/cell	100.6	64.9	49.6	40.2	29.1	20.8	16.4	9.60	7.02	5.57	4.64	3.97	3.10	2.55	1.36

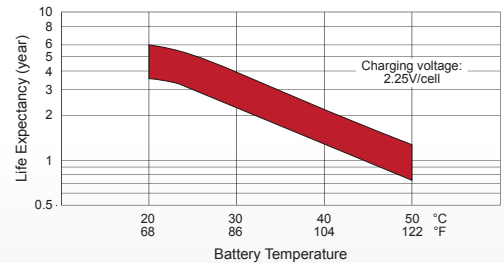
Constant Power Discharge (Watts) at 25°C (77°F)

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	112.3	85.7	71.4	61.0	46.1	34.0	27.5	16.7	12.5	10.1	8.52	7.38	5.81	4.81	2.61
1.80V/cell	132.1	95.2	77.3	65.2	48.8	35.7	28.7	17.3	12.9	10.4	8.71	7.53	5.92	4.89	2.63
1.75V/cell	148.1	102.9	82.2	68.2	51.0	37.1	29.6	17.8	13.2	10.6	8.87	7.65	6.00	4.89	2.67
1.70V/cell	161.6	109.4	86.3	71.7	53.0	38.4	30.5	18.2	13.4	10.7	8.99	7.75	6.07	4.96	2.69
1.65V/cell	172.9	115.1	89.9	74.3	54.6	39.4	31.4	18.5	13.7	10.9	9.10	7.83	6.13	5.05	2.71
1.60V/cell	182.3	119.8	92.9	76.5	56.0	40.2	32.0	18.8	13.8	11.0	9.18	7.89	6.17	5.08	2.73

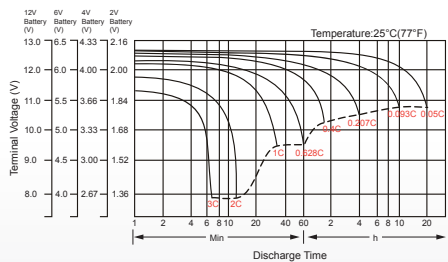
Temperature Effects in Relation to Battery Capacity



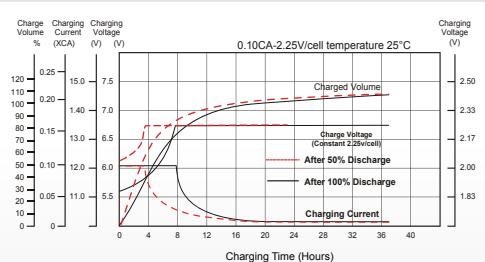
Effect of Temperature on Long Term Float Life



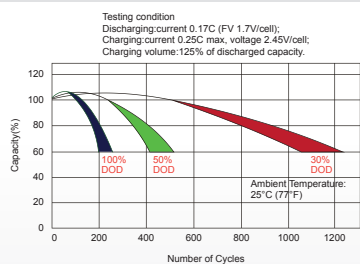
Discharge Characteristics



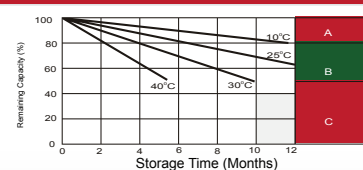
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary required (Carryout supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional 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 4-10 hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.