

## 12V 80Ah Front Terminal AGM VRLA Battery

### Product characteristics:

- Valve-regulated lead-acid battery
- Stationary and reserve power applications
- EUROBAT design life definition: Very Long Life 12+ years
- Extremely long float life performance
- Superior cycling endurance
- Compact design with high energy density
- ETSI Rack integration
- Low installation cost, maintenance free product
- Sealed for leak-proof operation
- Delivered ready for use
- Non-hazardous cargo for ground, sea and air transport
- Fully recyclable product



### Technical specifications:

#### **Electrical specifications:**

- Nominal voltage: 12V
- Number of cells: 6
- Rated capacity: 80 Ah (10 h rate to 1.80 Vpc at 20 °C)

- Internal resistance: 6.8 mOhm (IEC 60 896 -21/22)
- Short circuit current: 1 820 A (IEC 60 896 -21/22)
- Float charge voltage: 2.27 V per cell (Vpc) at 20 °C

#### **Design features:**

- Design life at 20 °C: Very Long Life 12+ years
- Plates: Tick Flat Pasted
- Active material: Very high purity virgin lead
- Grid alloy: Lead-Calcium-Tin alloy
- Electrolyte: Sulphuric acid, Analytical grade
- Separator: Absorbing Glass Mat (AGM)
- Operating temperature: -20 °C to +60 °C (maximum)  
+15 °C to +25 °C (recommended)
- Venting valve: Rubber, one way, self resealing  
- Opening pressure: 1.7 PSI  
- Resealing pressure: 1.5 PSI
- Internal gas recombination efficiency: more than 99%
- Central degassing system: Available
- Flame arrestor: Available
- Storage temperatures: -20 °C to +40 °C
- Self discharge: Less than 2.0% per month at 20°C
- Storability without recharging: Up to 6 months at 20°C
- Shelf life: Up to 1 year
- Container / lid material: Shock resistant ABS FR;  
flammability class UL94 V0
- Terminal position: Front
- Terminal sealing: Mechanical + epoxy double sealing
- Terminal type: Brass; Female; M8 thread
- Terminal torque: 7 Nm
- Terminal cover: Available
- Carrying Handles: Available (2)
- Connectors and bolts: Supplied as standard

#### **Applicable standards:**

- IEC 60896 - 21/22 • IEC 61427 - 1/2 • IEEE 1184
- EN 50272 - 2 • IEC 61056 - 1 • IEEE 1187 / 1188

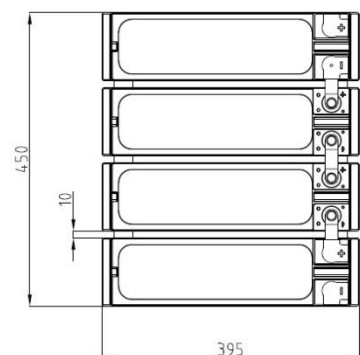
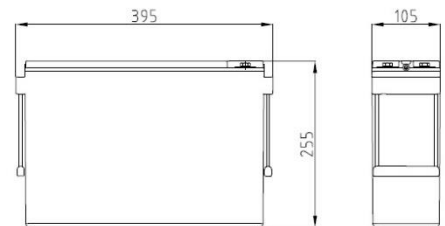
#### **Manufacture standards:**

- ISO 9001, ISO 14001, OHSAS 18001, AQAP 2110

### Physical characteristics:

	SI Units	US Units
Length	395 mm	15.5 inches
Width	105 mm	4.1 inches
Height	255 mm	10.4 inches
Weight	26.9 kg	59.3 lbs

### Drawings:



Performance characteristics:

BATTERY DISCHARGE PERFORMANCE AT 20 °C												
Battery capacity at constant current discharge (Ah) for battery 12MVR80TA at 20 °C												
Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	17	29	41	50.2	58.5	64.2	68.4	71.7	74.2	79.1	82.4	88.2
1.65	17	29	41	50.0	58.2	64.0	68.1	71.4	73.8	78.7	82.0	87.7
1.70	16	29	41	49.8	57.9	63.7	67.8	71.0	73.4	78.3	81.6	87.3
1.75	16	28	40	49.3	57.4	63.0	67.0	70.3	72.7	77.6	80.8	86.4
1.80	16	28	40	48.8	56.8	62.4	66.4	69.6	72.0	76.8	80.0	85.6
1.85	16	27	39	47.6	55.4	60.8	64.8	67.8	70.2	74.9	78.0	83.4

Discharge performance at constant current discharge (A) for battery 12MVR80TA at 20 °C												
Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	203	115	82	50.2	29.2	21.4	17.1	14.3	12.4	9.9	8.2	4.41
1.65	199	115	82	50.0	29.1	21.3	17.0	14.3	12.3	9.8	8.2	4.38
1.70	196	114	82	49.8	29.0	21.2	16.9	14.2	12.2	9.8	8.2	4.36
1.75	194	113	81	49.3	28.7	21.0	16.8	14.1	12.1	9.7	8.1	4.32
1.80	192	112	80	48.8	28.4	20.8	16.6	13.9	12.0	9.6	8.0	4.28
1.85	187	109	78	47.6	27.7	20.3	16.2	13.6	11.7	9.4	7.8	4.17

Discharge performance at constant power discharge (W per cell) for battery 12MVR80TA at 20 °C												
Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	405	230	165	100.5	58.5	42.8	34.2	28.7	24.7	19.8	16.5	8.82
1.65	394	230	164	100.0	58.2	42.7	34.0	28.5	24.6	19.7	16.4	8.77
1.70	391	228	163	99.5	57.9	42.2	33.9	28.4	24.5	19.6	16.3	8.73
1.75	388	227	162	98.6	57.4	41.8	33.5	28.1	24.2	19.3	16.2	8.64
1.80	384	224	160	97.6	56.8	41.6	33.2	27.8	24.0	19.2	16.0	8.56
1.85	374	218	156	95.2	55.4	40.5	32.4	27.1	23.4	18.7	15.60	8.34

Temperature correction factor of capacity at constant current discharge											
Discharge time	-10 °C	0 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C	
From 5 to 59 minutes	0.70	0.80	0.90	0.95	1	1.05	1.10	1.13	1.15	1.16	
From 1 to 20 hours	0.82	0.88	0.94	0.97	1	1.03	1.05	1.08	1.09	1.10	

BATTERY CHARGE CONDITIONS AT 20 °C			
Charge regime: constant voltage and limited current (IU)			
Charge current limit	Float charge voltage	Equalization charge voltage	Boost charge voltage
0.1 – 0.25C <sub>10</sub> A Recommended: 0.20C <sub>10</sub> A	2.27 V per cell at 20 °C; Temperature correction: -3 mV / cell / °C	2.32 V per cell at 20 °C Recommended: every 3 months for 24h during long time float operation	2.40 V per cell at 20 °C Temperature correction: -4 mV / cell / °C
<b>Float application:</b> 0.20C <sub>10</sub> A / 2.27 V per cell at 20 °C		<b>Cycling applications:</b> 0.20C <sub>10</sub> A / 2.40 V per cell at 20 °C; Recharge Ah input at least 105% from previous discharge Ah	

