

12UPM1800 TOP TERMINAL AGM VRLA

PRODUCT CHARACTERISTICS:

- Valve-regulated lead-acid battery
- UPS and reserve power applications
- EUROBAT design life definition: Long Life 10 - 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



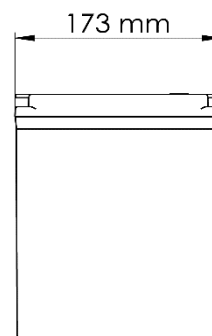
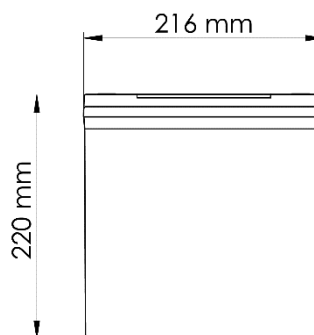
TECHNICAL SPECIFICATIONS:

Electrical specifications:	
Nominal voltage:	12V
Number of cells:	6
Rated capacity:	57 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal resistance:	8 mOhm (IEC 60 896 -21/22)
Short circuit current:	1 580 A (IEC 60 896 -21/22)
Float charge voltage:	2.27 V per cell (Vpc) at 25 °C
Design features:	
Design life at 20 °C:	Long Life 10 - 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:	-10 °C to +50 °C +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%
Flame arrestor:	Available
Storage temperatures:	-10 °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:	Top
Terminal sealing:	Mechanical + epoxy double sealing
Terminal type:	Brass; Female; M6 thread
Terminal torque:	7 Nm
Transport terminal cover:	Available
Carrying Handles:	Available
Connectors and bolts:	Supplied as standard
Applicable standards and recommendations:	
IEC 60896 - 21/22; EN 50272 - 2; IEC 61427 - 1/2; IEC 61056 - 1; BS 6290 - 4 IEEE 1184; IEEE 1187; IEEE 1188	
Manufacture standards:	

PHYSICAL CHARACTERISTICS:

	SI Units	US Units
Length	216 mm	8.5 inches
Width	173 mm	6.8 inches
Height	220 mm	8.7 inches
Weight	23 kg	50.7 lbs

DRAWINGS:



PERFORMANCE CHARACTERISTICS

DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A) FOR BATTERY 12UPM1800 AT 25°C

Uf, Vpc	5 min	10 min	15 min	30 min	45 min	1 h	2h	3 h	4 h	5 h	6 h	8 h	10 h
1.6	238.8	168.8	126.9	74.4	51.3	41.8	22.8	15.7	12.4	10.5	8.9	7.0	6.1
1.65	222.6	162.2	125.8	73.5	48.3	40.9	22.6	15.6	12.3	10.4	8.8	6.9	6.0
1.7	209.0	154.1	123.5	70.3	47.2	40.6	22.5	15.5	12.2	10.3	8.7	6.8	5.9
1.75	199.4	146.3	118.0	69.7	47.0	40.5	22.3	15.4	12.1	10.2	8.6	6.7	5.8
1.8	186.5	136.1	108.8	68.1	46.4	38.7	22.0	15.3	12.0	10.1	8.5	6.6	5.7
1.85	166.3	125.2	98.6	64.7	43.4	37.2	20.9	13.9	11.4	9.7	8.4	6.5	5.6

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER CELL) FOR BATTERY 12UPM1800 AT 25°C

Uf, Vpc	5 min	10 min	15 min	30 min	45 min	1 h	2h	3 h	4 h	5 h	6 h	8 h	10 h
1.6	477.6	337.7	253.8	148.8	102.6	83.5	45.6	31.4	24.7	20.6	17.8	13.6	11.8
1.65	445.2	324.5	251.7	146.9	96.5	81.7	45.2	31.2	24.6	20.5	17.6	13.5	11.7
1.7	417.9	308.2	246.9	140.7	94.4	81.2	45.0	31.1	24.5	20.4	17.5	13.4	11.6
1.75	398.9	292.5	236.1	139.4	93.9	81.0	44.5	30.8	24.3	20.3	17.4	13.3	11.5
1.8	373.0	272.1	217.7	136.3	92.8	77.4	43.9	30.7	24.1	20.2	17.3	13.2	11.4
1.85	332.6	250.4	197.3	129.3	86.8	74.3	41.8	27.9	22.9	19.4	16.9	13.1	11.1

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER BLOCK) FOR BATTERY 12UPM1800 AT 25°C

Uf, Vpc	5 min	10 min	15 min	30 min	45 min	1 h	2h	3 h	4 h	5 h	6 h	8 h	10 h
1.6	2870.4	2029.5	1525.1	894.6	616.9	501.9	273.8	188.7	148.7	124.0	106.7	81.4	69.4
1.65	2675.5	1950.1	1512.7	883.0	580.1	491.3	271.7	187.4	148.1	123.4	106.0	81.3	68.7
1.7	2511.6	1852.2	1484.0	845.6	567.3	487.8	270.3	186.7	147.4	122.7	105.4	81.2	68.0
1.75	2397.4	1758.2	1418.7	837.7	564.4	487.1	267.5	185.4	146.1	122.0	104.7	81.0	67.4
1.8	2241.9	1635.5	1308.4	818.9	558.0	465.1	264.0	184.7	144.7	121.4	104.0	80.7	66.7
1.85	1999.1	1504.9	1185.6	777.2	521.6	446.8	251.4	167.4	137.4	116.7	101.4	78.7	64.7

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	50 °C
From 5 to 59 minutes	0.70	0.80	0.90	0.95	0.97	1.00	1.05	1.10	1.13	1.15
From 1 to 20 hours	0.82	0.88	0.94	0.97	0.98	1.00	1.03	1.05	1.07	1.08

BATTERY CHARGE CONDITIONS AT 25° CONSTANT VOLTAGE AND LIMITED CURRENT (IU)

Charge current limit	Float charge voltage	Equalization charge voltage	Boost charge voltage
0.1 – 0.25C ₁₀ A Recommended: 0.20C ₁₀ A	2.27 V per cell at 25 °C; Temperature correction: -3 mV / cell / oC	2.32 V per cell at 25 °C Recommended: every 3 months for 24h during long time float operation	2.40 V per cell at 25°C Temperature correction: -4 mV / cell / oC

Float application: 0.20C₁₀ A / 2.27 V per cell at 25 °C

Cycling applications: 0.20C₁₀ A / 2.40 V per cell at 25 °C; Recharge Ah input at least 105% from previous discharge Ah

