



## 12UPM2000 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



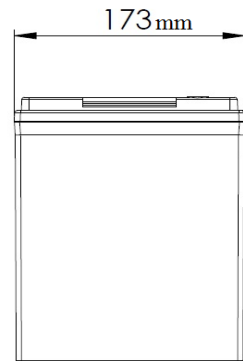
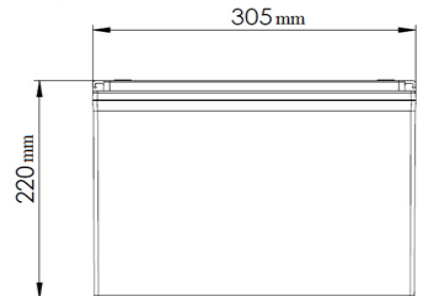
### TECHNICAL SPECIFICATIONS:

### PHYSICAL CHARACTERISTICS:

Electrical specifications:	
Nominal voltage:	12V
Number of cells:	6
Rated capacity:	75 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal resistance:	6.3 mOhm (IEC 60 896 -21/22)
Short circuit current:	1 730 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
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:	
ISO 9001; ISO 14001; OHSAS 18001; AQAP 2110	

	SI Units	US Units
Length	305 mm	12 inches
Width	173 mm	6.8 inches
Height	220 mm	8.7 inches
Weight	25 kg	53.2 lbs

### DRAWINGS:





# ALPHA HOUSE powered by MONBAT®

## PERFORMANCE CHARACTERISTICS

### DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A) FOR BATTERY 12UPM2000 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	288.0	208.0	158.0	95.0	62.0	53.4	29.3	21.1	16.6	13.8	11.8	9.0	7.7
1.65	266.0	201.0	156.0	93.0	62.0	52.3	29.0	20.9	16.4	13.7	11.7	9.0	7.7
1.7	247.0	188.0	153.0	89.0	60.0	51.9	28.8	20.8	16.3	13.6	11.6	9.0	7.7
1.75	233.0	178.0	145.0	87.0	60.0	51.7	28.4	20.6	16.1	13.5	11.5	8.9	7.6
1.8	215.0	165.0	132.0	85.0	59.0	49.2	28.0	20.5	16.0	13.4	11.5	8.9	7.5
1.85	190.0	151.0	119.0	80.0	55.0	47.2	26.6	18.5	15.1	12.8	11.1	8.6	7.3

### DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER CELL) FOR BATTERY 12UPM2000 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	504.0	377.0	289.0	180.0	120.0	103.7	57.1	41.3	32.6	27.2	23.4	17.8	14.9
1.65	470.0	366.0	287.0	177.0	119.0	101.5	56.7	41.0	32.4	27.0	23.2	17.8	14.9
1.7	441.0	348.0	282.0	170.0	116.0	100.7	56.4	40.9	32.3	26.9	23.1	17.8	14.9
1.75	421.0	330.0	269.0	168.0	115.0	100.6	55.8	40.6	32.0	26.7	22.9	17.7	14.8
1.8	393.0	307.0	248.0	164.0	114.0	96.1	55.0	40.4	31.7	26.6	22.8	17.7	14.6
1.85	351.0	283.0	225.0	156.0	107.0	92.3	52.4	36.6	30.1	25.6	22.2	17.2	14.2

### DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER BLOCK) FOR BATTERY 12UPM2000 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	3028.0	2263.0	1740.0	1079.0	720.0	623.0	343.1	248.3	195.7	163.2	140.4	107.1	89.5
1.65	2822.0	2203.0	1726.0	1065.0	713.0	609.9	340.5	246.6	194.8	162.3	139.5	107.1	89.5
1.7	2649.0	2092.0	1693.0	1020.0	698.0	605.5	338.7	245.7	193.9	161.5	138.6	107.1	89.5
1.75	2529.0	1986.0	1618.0	1010.0	694.0	604.6	335.2	243.9	192.2	160.6	137.8	106.2	88.6
1.8	2365.0	1847.0	1492.0	988.0	686.0	577.4	330.8	243.1	190.4	159.7	136.9	106.2	87.8
1.85	2108.0	1700.0	1352.0	937.0	641.0	554.6	315.0	220.3	180.8	153.6	133.4	103.6	85.1

### 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 – 0.25C10 A Recommended: 0.20C10 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

