

12UPM5500 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:

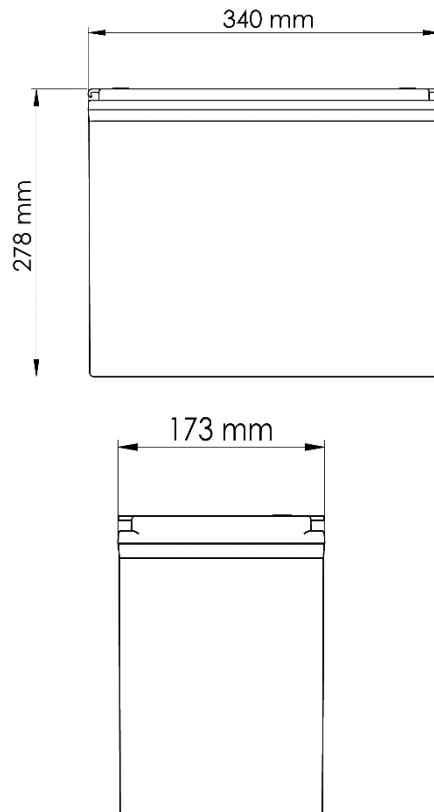
PHYSICAL CHARACTERISTICS:

Electrical specifications:	
Nominal voltage:	12V
Number of cells:	6
Rated capacity:	140 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal resistance:	3.5 mOhm (IEC 60 896 -21/22)
Short circuit current:	3500 A (IEC 60 896 -21/22)
Float charge voltage:	2.27 V per cell (Vpc) at 25 °C

	SI Units	US Units
Length	340 mm	13.4 inches
Width	173 mm	6.8 inches
Height	278 mm	10.9 inches
Weight	49.5 kg	109 lbs

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; M8 thread
Terminal torque:	7 Nm
Transport terminal cover:	Available
Carrying Handles:	Available
Connectors and bolts:	Supplied as standard

DRAWINGS:



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	

PERFORMANCE CHARACTERISTICS

DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A) FOR BATTERY 12UPM5500 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	523.7	370.3	292.0	169.3	126.0	98.2	53.3	38.6	30.4	25.3	21.8	16.6	14.5
1.65	488.1	355.8	289.0	167.1	125.0	96.1	52.9	38.3	30.3	25.2	21.7	16.5	14.4
1.7	458.2	337.9	284.0	160.0	122.2	95.4	52.6	38.2	30.1	25.1	21.5	16.4	14.3
1.75	437.4	320.8	271.0	158.5	121.6	95.3	52.1	37.9	29.8	24.9	21.4	16.3	14.1
1.8	409.0	298.4	250.0	154.9	120.2	91.0	51.4	37.7	29.6	24.8	21.3	16.2	14.0
1.85	364.7	274.6	227.0	147.0	112.4	87.4	48.9	34.2	28.1	23.8	20.7	16.1	13.7

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER CELL) FOR BATTERY 12UPM5500 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	1047.4	740.6	583.2	338.5	252.1	196.4	106.6	77.1	60.8	50.7	43.6	33.8	28.8
1.65	976.3	711.6	578.4	334.1	249.9	192.3	105.7	76.6	60.5	50.4	43.3	33.5	28.7
1.7	916.5	675.9	567.4	320.0	244.4	190.9	105.2	76.3	60.2	50.1	43.1	33.3	28.6
1.75	874.8	641.6	542.5	317.0	243.2	190.6	104.1	75.8	59.7	49.9	42.8	33.0	28.3
1.8	818.0	596.8	500.3	309.9	240.4	182.0	102.7	75.5	59.1	49.6	42.5	32.5	28.0
1.85	729.4	549.1	453.3	294.1	224.7	174.8	97.8	68.4	56.1	47.7	41.4	32.2	27.3

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER BLOCK) FOR BATTERY 12UPM5500 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	6294.8	4450.7	3504.8	2034.4	1515.1	1180.4	640.5	463.6	365.3	304.7	262.1	203.1	170.4
1.65	5867.3	4276.6	3476.2	2008.2	1502.2	1155.5	635.5	460.3	363.6	303.0	260.4	201.5	168.7
1.7	5508.0	4061.9	3410.2	1923.0	1468.9	1147.2	632.3	458.6	362.0	301.4	258.8	199.8	167.1
1.75	5257.4	3855.7	3260.2	1905.0	1461.5	1145.5	625.7	455.4	358.7	299.8	257.2	198.2	165.4
1.8	4916.5	3586.5	3006.6	1862.4	1444.9	1094.0	617.5	453.7	355.4	298.1	255.5	197.0	163.8
1.85	4383.9	3300.3	2724.6	1767.4	1350.6	1050.7	588.0	411.1	337.4	286.7	249.0	193.3	158.9

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

