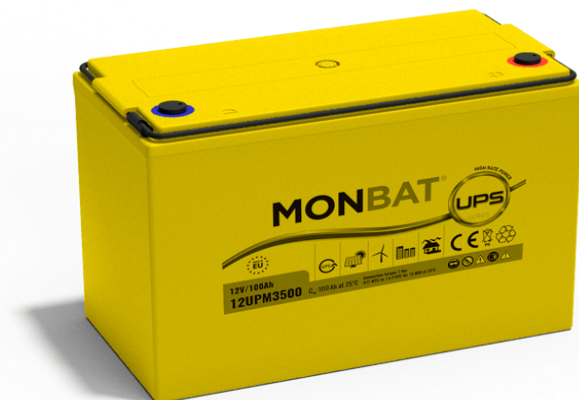


12UPM3500 TOP TERMINAL AGM VRLA

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:

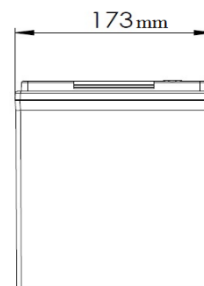
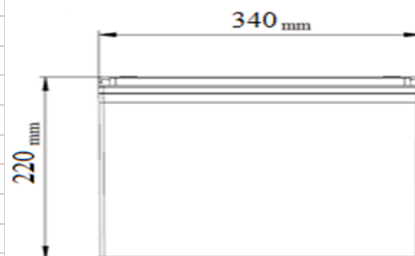
PHYSICAL CHARACTERISTICS:

Electrical specifications:	
Nominal voltage:	12V
Number of cells:	6
Rated capacity:	100 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal resistance:	5 mOhm (IEC 60 896 -21/22)
Short circuit current:	2 550 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	220 mm	8.7 inches
Weight	35.5 kg	78 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; M6 thread
Terminal torque:	6 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 12UPM3500 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	381	278	208	127	83	71.2	39.1	28.2	22.1	18.4	15.8	12	10.3
1.65	351	267	206	125	82	69.7	38.7	27.9	21.9	18.2	15.6	11.98	10.25
1.7	326	251	202	119	80	69.1	38.4	27.7	21.8	18.1	15.5	11.97	10.2
1.75	307	237	191	118	80	68.9	37.9	27.4	21.5	18	15.4	11.84	10.1
1.8	284	220	175	114	78	65.6	37.3	27.3	21.3	17.8	15.3	11.83	10
1.85	251	201	157	108	73	62.9	35.5	24.7	20.2	17.1	14.9	11.52	9.75

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER CELL) FOR BATTERY 12UPM3500 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	672	502	386	239	160	138.2	76.1	55.1	43.4	36.2	31.1	23.75	19.86
1.65	626	489	383	236	158	135.3	75.5	54.7	43.2	36	31	23.75	19.86
1.7	588	464	376	226	155	134.3	75.1	54.5	43	35.8	30.8	23.75	19.86
1.75	561	441	359	224	154	134.1	74.4	54.1	42.6	35.6	30.6	23.56	19.66
1.8	525	410	331	219	152	128.1	73.4	53.9	42.2	35.4	30.4	23.56	19.47
1.85	468	377	300	208	142	123	69.9	48.9	40.1	34.1	29.6	22.97	18.88

DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE W (PER BLOCK) FOR BATTERY 12UPM3500 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	4037	3017	2320	1439	959	830.7	457.5	331.1	260.9	217.6	187.2	142.74	119.34
1.65	3763	2937	2301	1420	951	813.2	454	328.8	259.7	216.5	186	142.74	119.34
1.7	3532	2789	2257	1360	930	807.3	451.6	327.6	258.6	215.3	184.9	142.74	119.34
1.75	3371	2648	2158	1347	925	806.1	446.9	325.3	256.2	214.1	183.7	141.57	118.17
1.8	3153	2463	1990	1317	915	769.9	441.1	324.1	253.9	212.9	182.5	141.57	117
1.85	2811	2266	1803	1250	855	739.4	420	293.7	241	204.8	177.8	138.06	113.49

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	0.7	0.8	0.9	0.95	0.97	1	1.05	1.1	1.13	1.15
From 1 to 20 hours	0.82	0.88	0.94	0.97	0.98	1	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

