

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



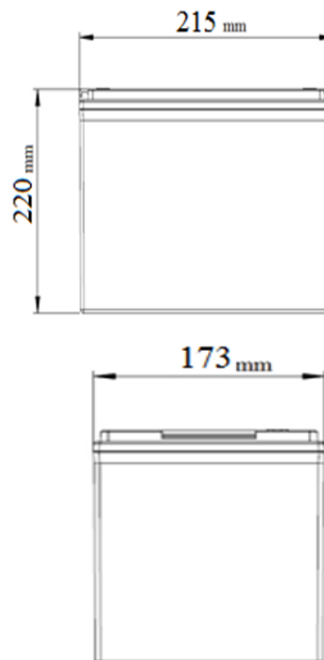
TECHNICAL SPECIFICATIONS:

Electrical specifications:	
Nominal voltage:	12V
Number of cells:	6
Rated capacity:	55 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal resistance:	8.1 mOhm (IEC 60 896 -21/22)
Short circuit current:	1 572 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:	
	ISO 9001; ISO 14001; OHSAS 18001; AQAP 2110

PHYSICAL CHARACTERISTICS:

	SI Units	US Units
Length	215 mm	8.5 inches
Width	173 mm	6.8 inches
Height	220 mm	8.7 inches
Weight	22 kg	48.5 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	209	153	114	70	46	39.2	21.5	15.5	12.1	10.1	8.7	6.6	5.67
1.65	193	147	113	69	45	38.3	21.3	15.3	12.1	10	8.6	6.59	5.64
1.7	179	138	111	66	44	38	21.1	15.2	12	10	8.5	6.58	5.61
1.75	169	130	105	65	44	37.9	20.8	15.1	11.8	9.9	8.5	6.51	5.56
1.8	156	121	96	63	43	36.1	20.5	15	11.7	9.8	8.4	6.5	5.5
1.85	138	111	86	59	40	34.6	19.5	13.6	11.1	9.4	8.2	6.33	5.36

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	406	306	233	147	97	84.3	46.4	33.6	26.5	22.1	19	14.49	12.11
1.65	378	298	231	146	97	82.5	46.1	33.4	26.4	22	18.9	14.49	12.11
1.7	355	283	227	139	94	81.9	45.8	33.3	26.2	21.9	18.8	14.49	12.11
1.75	339	269	217	138	94	81.8	45.4	33	26	21.7	18.6	14.37	11.99
1.8	317	250	200	135	93	78.1	44.8	32.9	25.8	21.6	18.5	14.37	11.88
1.85	283	230	181	128	87	75.1	42.6	29.8	24.5	20.8	18.1	14.01	11.52

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	2438	1841	1401	886	585	506.7	279.1	202	159.2	132.7	114.2	87.07	72.8
1.65	2272	1791	1390	875	580	496	276.9	200.5	158.4	132	113.5	87.07	72.8
1.7	2133	1701	1363	838	567	492.5	275.5	199.8	157.7	131.3	112.8	87.07	72.8
1.75	2036	1615	1303	830	565	491.7	272.6	198.4	156.3	130.6	112.1	86.36	72.08
1.8	1904	1502	1202	811	558	469.6	269.1	197.7	154.9	129.9	111.3	86.36	71.37
1.85	1698	1382	1089	770	522	451.1	256.2	179.1	147	124.9	108.5	84.22	69.23

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

