

Product design features:

- 12+ years design life, EUROBAT specification Long Life
- Extremely high cyclic life and float life performance
- Wide range of operating temperature -20°C to +55°C
- One-way valve regulated system with flame-arrestor
- Internal gas recombination efficiency 98% - 99%
- Easy for installation, maintenance free product
- Delivered ready for use at 100% of its nominal capacity
- Shock resistant ABS flame retardant container and lid
- Three-layer terminal sealing for leak-free operation
- Female M6 brass terminals with no need for retightening
- Non-hazardous cargo for ground, sea and air transport
- Fully recyclable product



Electrical Characteristics

	at 20°C	at 25°C
Nominal voltage	12 Volts	
10 hour capacity to 1.80 Vpc	53.0 Ah	55.0 Ah
8 hour capacity to 1.75 Vpc	52.0 Ah	53.6 Ah
Float voltage	2.27 Vpc ± 1%	2.26 Vpc ± 1%
Accelerated charge voltage	2.40 Vpc without current limit	
Shelf life	1 year	
Short circuit current	1300 Amps	
Internal resistance	9.6 mΩ	

MONBAT is proud to be certified for ISO 9001:2000,
ISO 14001:1996, OHSAS 18001:1999, AQAP 2110

Mechanical Characteristics

	SI Units	US Units
Length	395 mm	15.55 inches
Width	105 mm	4.13 inches
Height	255 mm	10.04 inches
Weight	21.0 kg	46.3 lbs
Terminal Torque	6.0 Nm	53.1 in.lbs

All MONBAT VRLA batteries are fully compliant with IEC 60 896 - 21/22,
EN 60 896 - part 2, BS 6290 - part 4

Discharge performance at constant current discharge (A) for battery 12MVR50TA at 20°C

Uf, Vpc	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60	199.2	139.4	106.1	87.1	61.1	43.4	34.9	21.1	14.7	11.5	9.7	6.7	5.6	3.0
1.65	186.1	134.3	102.6	84.6	60.1	42.6	34.5	21.0	14.5	11.4	9.6	6.6	5.5	3.0
1.70	172.9	127.6	98.7	81.9	59.0	42.2	34.3	20.8	14.4	11.3	9.5	6.6	5.5	3.0
1.75	155.6	118.6	93.4	77.5	57.0	41.8	34.1	20.5	14.3	11.2	9.3	6.5	5.4	2.9
1.80	136.4	107.1	86.1	73.0	53.6	40.5	33.4	19.8	14.1	11.0	9.2	6.4	5.3	2.9
1.85	113.2	92.6	76.8	66.5	50.2	38.3	31.4	18.9	13.6	10.6	9.0	6.2	5.2	2.8

Discharge performance at constant current discharge (A) for battery 12MVR50TA at 25°C

Uf, Vpc	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60	205.1	143.5	109.3	89.7	63.0	44.7	35.9	21.8	15.1	11.9	10.0	6.9	5.7	3.1
1.65	191.7	138.3	105.7	87.1	61.9	43.8	35.6	21.6	15.0	11.7	9.9	6.8	5.7	3.1
1.70	178.1	131.4	101.7	84.4	60.8	43.5	35.4	21.4	14.8	11.6	9.8	6.8	5.7	3.1
1.75	160.3	122.2	96.2	79.8	58.7	43.0	35.2	21.1	14.8	11.5	9.6	6.7	5.5	3.0
1.80	140.5	110.4	88.6	75.2	55.2	41.7	34.4	20.4	14.5	11.3	9.5	6.6	5.5	2.9
1.85	116.6	95.3	79.1	68.5	51.7	39.4	32.4	19.5	14.0	10.9	9.2	6.4	5.3	2.9

Discharge performance at constant power discharge (W per cell) for battery 12MVR50TA at 20°C

Uf, Vpc	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60	307.3	240.7	185.9	149.8	106.8	84.6	68.4	39.1	28.9	23.2	19.6	13.5	11.1	6.1
1.65	295.7	235.2	182.4	147.4	106.2	84.1	68.2	38.8	28.7	23.1	19.6	13.3	11.1	6.0
1.70	280.7	226.5	176.3	143.9	105.5	83.3	67.8	38.5	28.6	22.9	19.4	13.2	10.9	6.0
1.75	260.6	213.8	167.7	139.1	104.3	82.1	67.4	38.2	28.4	22.8	19.2	13.1	10.6	6.0
1.80	236.0	195.1	156.8	133.5	101.5	78.2	65.4	37.4	28.1	22.6	19.1	12.7	10.5	5.9
1.85	204.9	170.7	141.3	121.5	94.6	73.0	61.1	35.8	27.4	22.0	18.4	12.5	10.4	5.8

Discharge performance at constant power discharge (W per cell) for battery 12MVR50TA at 25°C

Uf, Vpc	5 min	10 min	15 min	20 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60	316.5	247.9	191.5	154.3	110.0	87.1	70.4	40.2	29.8	23.9	20.2	13.9	11.5	6.3
1.65	304.6	242.3	187.9	151.8	109.4	86.7	70.3	39.9	29.6	23.8	20.1	13.7	11.4	6.2
1.70	289.1	233.3	181.6	148.3	108.7	85.8	69.9	39.7	29.5	23.6	19.9	13.6	11.3	6.2
1.75	268.4	220.2	172.7	143.3	107.4	84.5	69.4	39.3	29.2	23.5	19.8	13.5	10.9	6.2
1.80	243.1	201.0	161.5	137.5	104.6	80.6	67.4	38.5	29.0	23.3	19.7	13.1	10.8	6.1
1.85	211.0	175.8	145.5	125.2	97.4	75.2	63.0	36.9	28.2	22.7	18.9	12.9	10.7	6.0