



# UMTB

VRLA Batteries for Wireless Standby Power



FIAMM's UMTB family of valve-regulated, lead-acid batteries is specifically designed to meet the needs of the wireless communications industry. UMTB stands for "Universal Mobile Telephone Battery" and that is truly what these batteries are.

Floor space utilization and energy density are important design attributes for Power Engineers. The UMTB battery family has been engineered to optimize energy density while retaining good float life performance.

Starting with the proven technology and manufacturing methodology of the FIAMM Monolite Series, the UMTB family's design was optimized to provide up to 10% more energy for a one-hour discharge.

All UMTB models provide convenient front-access terminals and are designed to fit most relay-rack mounted trays - eliminating the need for expensive sliding tray mechanisms. And, the UMTB family includes four 16-volt models - a revolutionary idea to further reduce space requirements and minimize the number of terminations - to make it easier to install and maintain these batteries. Overall, these are the best batteries for wireless standby power:

- 10-year plus design life under normal conditions
- Good Energy Density
- Exceptional one-hour discharge performance
- Flame-retardant containers & covers
- Easy Handling and Installation
- Safe Operation and Ease of Testing
- No Water Addition Needed

## DESIGN FEATURES

- ▶ **Plates and Grids:** thick plates and grids optimized for the one-hour discharge rate.
- ▶ **Separator:** microporous glass mat facilitates recombination and immobilizes the electrolyte.
- ▶ **Internal Connections:** thick internal straps and through-the-partition cell connections minimize internal resistance for increased energy density
- ▶ **Terminals:** threaded, front-access post terminals provide for high conductivity, minimum installation time, and maximum torque retention.
- ▶ **Post Seals:** state-of-the-art post seals prevent seepage over a wide temperature range.
- ▶ **Safety Valve:** each cell has its own one-way, low pressure valve that opens to allow excess gas to escape in case of excessive over-charging.
- ▶ **Flame Arrestor:** lets excess gas out while preventing any errant spark or flame from entering the battery.
- ▶ **Container and Cover:** made from thick-walled ABS plastic and designed for exceptional mechanical strength, the cases and covers have an LOI greater than 28% and meet the flame retardancy standards of UL 94 V-0.
- ▶ **Handles:** most sizes have either tough hard plastic handles, or handles integrated into the battery cover, to aid in handling, installing, and removing the batteries.

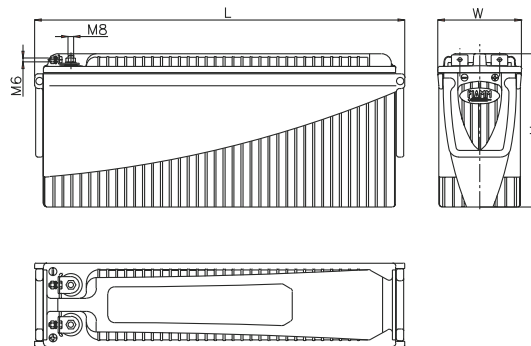
## TECHNICAL SPECIFICATIONS

**Capacities:** See tables on back of this sheet  
**Recommended Float Voltage:** 2.25-2.27 V/cell  
**Temperature Compensation:** -3mV/°C/cell  
**Recommended Charge Voltage:** 2.25-2.27 V/cell  
**Maximum Charge Current:** 1=.25xC8 Amps  
**Self-Discharge at 25°C:** <2% per month  
**Short Circuit Current:** 1=30xC8 Amps  
**Internal Resistance:** See table on back  
**Dimension & Weight:** See table on back  
**Terminals:** M8 top and/or M6 front  
**Terminal Torque:** 65-70 in. lbs (7.3-8.0 Nm)

Wireless Communications Standby Batteries

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	BATTERY TYPE	NOMINAL VOLTAGE	NOMINAL CAPACITY	INTERNAL RESISTANCE	SHORT CIRCUIT CURRENT	LENGTH		WIDTH		HEIGHT		WEIGHT	
		Volts	1.75 VPC 8 hours/77°F Ah			in.	mm	in.	mm	in.	mm	lb.	kg
Top Access Terminals	16UMTB30	16	30	26	600	11	280	5.67	144	7.3	185	39.6	18
	16UMTB50	16	50	16	1000	11	280	5.67	144	11	280	63.9	29
	16UMTB60	16	60	13	1200	15.6	395	5.67	144	9.1	230	75	34
	16UMTB90	16	90	10	1600	15.6	395	6.10	155	11.6	295	103.6	47
	12UMTB105	12	105	4.4	2800	22	558	4.96	126	9.1	230	90.4	41
	12UMTB130	12	130	4.1	3000	22	558	4.96	126	10.6	270	110.2	50
	12UMTB160	12	160	3.9	3200	22	558	4.96	126	12.6	320	132.3	60

### DISCHARGE AMPERES TO 1.75 V/CELL AT 77°F (25°C)

TYPE	HOURS									
	1	2	3	4	5	6	7	8	10	
16UMTB30	19.3	11.1	8.06	6.42	5.38	4.66	4.12	3.73	3.09	
16UMTB50	32.1	18.4	13.4	10.7	8.96	7.76	6.87	6.21	5.15	
16UMTB60	38.5	22.1	16.1	12.8	10.8	9.31	8.25	7.45	6.18	
16UMTB90	59.2	34.1	24.6	19.6	16.3	14.1	12.5	11.3	9.37	
12UMTB105	69.4	39.4	28.7	22.8	19.0	16.5	14.6	13.2	11.1	
12UMTB130	85.9	48.8	35.5	28.2	23.6	20.4	18.1	16.3	13.9	
12UMTB160	106	60.1	43.7	34.7	28.7	24.8	22.0	20.1	17.2	

### DISCHARGE WATTS TO 1.75 V/CELL AT 77°F (25°C)

TYPE	HOURS									
	1	2	3	4	5	6	7	8	10	
16UMTB30	36.6	21.2	15.5	12.4	10.4	8.98	7.96	7.20	5.97	
16UMTB50	61.0	35.3	25.8	20.6	17.3	15.0	13.3	12.0	9.95	
16UMTB60	73.2	42.4	30.9	24.7	20.7	18.0	15.9	14.4	11.9	
16UMTB90	112	65.3	47.3	37.7	31.5	27.3	24.2	21.9	18.1	
12UMTB105	132	75.4	55.0	43.9	36.7	31.8	28.2	25.5	21.5	
12UMTB130	163	93.4	68.1	54.3	45.4	39.4	34.9	31.5	26.9	
12UMTB160	201	115	83.8	66.8	55.9	47.9	42.5	38.8	33.3	



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