

# FIAMM



FIAMM's **MONOLITE UMTX** family of valve regulated lead-acid batteries is specifically designed to meet and exceed various industry specifications, including Telecommunications, Electrical Utilities, and high reliability UPS systems. This "purpose built" design philosophy, coupled with industry-leading manufacturing technology ensures product consistency and reliable performance in a battery ideally suited to:

- 10 + years design life
- Very Good Energy Density
- Good Low-Rate Performance
- Easy Handling and Installation
- Safe Operation and Ease of Testing
- No Water Addition Needed

Starting with proven technology and manufacturing methodology, the **UMTX** family is optimized to provide more capacity in the same space. The front terminal design of the **UMTX FT** guarantees easy access for installation and ordinary maintenance of your equipment allowing at the same time for the highest energy density configuration. The top terminal design of the **UMTX TT** is well suited for traditional vertical racks, cabinets with ample head space or pull-out drawers. FIAMM has a program of continuous improvement investing in manufacturing processes, equipment and technology. FIAMM's Standby Battery manufacture conforms to ISO 9001 quality system and ISO 14001 environmental system. Our continuous investment in battery technology is reflected by means of premium products that are of the highest quality and reliability. **MONOLITE** valve regulated lead acid batteries are the ideal energy source for many different standby applications.

## MONOLITE

### UMTX VRLA range

#### TECHNICAL FEATURES

- ▶ **Plates and grids:** extra-thick plates with grids cast from high purity lead calcium tin alloy to ensure long and reliable life and low gas emission.
- ▶ **Separators:** micro porous glass mat facilitates recombination and immobilizes the electrolyte.
- ▶ **Internal Connections:** heavy-duty internal straps and through-the-partition cell connections minimize internal resistance for increased energy density.
- ▶ **Terminals:** threaded female post terminals with brass inserts provide for high conductivity 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 valve that opens at 5 psi and closes at 3 psi to allow excess gas to escape in case of 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 flame retardant ABS plastic and designed for unsurpassed mechanical strength, the cases and covers have an LOI greater than 28% and meet the flame retardancy standards of UL 94 V-0.
- ▶ **Handles:** either tough rope handles or handles integrated into the battery cover, to aid in handling, installing and removing the batteries.
- ▶ **Remote Venting System:** an optional Remote Venting System (RVS) is available for front terminal batteries in those applications requiring that the small amount of gasses generated during normal operation be vented to an external location.
- ▶ **Design Life:** 10 + years.

#### APPLICABLE STANDARDS

- ▶ Telcordia (Bellcore) SR-4228
- ▶ Telcordia (Bellcore) TR-NWT-001200
- ▶ Telcordia (Bellcore) TR-NWT-000909
- ▶ UL Recognized
- ▶ UL 94 Class V-0
- ▶ UL 1778



#### PRODUCT FEATURES

- ▶ Safe
- ▶ Versatile
- ▶ Reliable

Standby Batteries





# MONOLITE

## UMTX range



# FIAMM

### FIAMM UMTX VRLA Range (TT Top Terminals, FT Front Terminals)

Battery Type	Capacity Ah 8 hrs to 1.75 Vpc at 77°F	Nominal Voltage (v)	Dimensions						Weight lbs.
			Length		Width		Height		
			in	mm	in	mm	in	mm	
12 UMTX 28 TT	28	12	8.58	218	5.08	129	6.54	166	24.2
12 UMTX 40 TT	35	12	7.91	201	5.43	138	7.48	190	30.8
12 UMTX 80 TT	80	12	14.17	360	6.46	164	8.97	228	70.4
12 UMTX 90 TT	90	12	11.89	302	6.85	174	8.62	219	68.2
12 UMTX 100 FT	100	12	21.97	558	4.96	126	9.06	230	83.6
12 UMTX 100/19 FT	100	12	15.55	395	4.25	108	10.83	275	74.8
12 UMTX 110 FT	110	12	21.97	558	4.96	126	9.06	230	90.39
12 UMTX 125 FT	125	12	21.97	558	4.96	126	10.67	271	101.2
12 UMTX 125 W FT	125	12	16.55	420.5	6.81	173	10.03	255	101.2
12 UMTX 140 FT	140	12	21.97	558	4.96	126	10.67	271	110
12 UMTX 145 FT	145	12	16.55	420.5	6.81	173	10.03	255	114.4
12 UMTX 155 FT	155	12	21.97	558	4.96	126	12.64	321	129.8
12 UMTX 170 FT	170	12	21.97	558	4.96	126	12.64	321	132
12 UMTX 180 FT	180	12	21.97	558	4.96	126	12.64	321	134

### ELECTRICAL CHARACTERISTICS

- Float Voltage at 77°F : 2.26 Vpc
- Float Voltage temperature compensation: -1.38 mV/°F per cell
- Self Discharge : <2% per month at 77°F

### Constant Current discharge rates Amperes to 1.67Vpc at 77°F (25°C)

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	64.07	50.10	31.34	18.03	10.10	7.20	4.90	3.52	3.07	1.82
12 UMTX 40 TT	78.40	60.70	37.30	22.10	12.40	8.90	6.10	4.42	3.74	2.00
12 UMTX 80 TT	189.63	146.00	85.38	48.07	29.42	21.83	14.76	10.35	8.71	4.61
12 UMTX 90 TT	236.00	183.40	112.00	67.70	37.40	26.10	16.80	11.30	9.40	5.10
12 UMTX 100 FT	234.00	183.10	111.00	64.86	37.84	27.40	18.30	12.70	10.60	5.80
12 UMTX 100/19 FT	236.00	183.80	112.00	65.50	37.10	26.90	17.70	12.20	10.10	5.60
12 UMTX 110 FT	278.00	216.70	128.00	72.30	43.90	31.90	21.00	14.20	11.90	6.70
12 UMTX 125 FT	295.33	230.00	140.20	81.55	48.50	35.20	23.20	15.96	13.25	6.98
12 UMTX 125 W FT	295.00	232.00	140.00	80.70	47.30	34.40	22.70	15.80	13.10	11.20
12 UMTX 140 FT	318.00	244.30	151.55	88.71	52.31	38.37	25.69	17.70	14.90	8.45
12 UMTX 145 FT	283.70	234.40	156.80	98.00	57.88	41.54	27.23	18.47	15.34	8.53
12 UMTX 155 FT	292.00	242.00	161.44	100.60	58.70	42.80	28.80	19.80	16.40	8.75
12 UMTX 170 FT	402.00	325.00	209.00	123.00	72.00	51.70	33.20	22.00	18.20	9.80
12 UMTX 180 FT	436.00	340.54	212.15	127.28	73.94	53.03	34.35	22.76	18.82	10.14



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Standby Batteries


**Constant Current discharge rates Amperes to 1.75 Vpc at 77°F (25°C)**

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	58.80	46.50	29.70	17.51	9.90	7.14	4.84	3.50	3.04	1.80
12 UMTX 40 TT	71.90	57.00	35.90	21.50	12.23	8.80	6.00	4.40	3.72	2.00
12 UMTX 80 TT	173.23	134.80	81.18	47.77	29.32	21.63	14.56	10.25	8.51	4.51
12 UMTX 90 TT	216.00	169.60	107.00	65.60	36.50	25.70	16.70	11.20	9.30	5.00
12 UMTX 100 FT	212.00	182.25	105.00	62.50	37.10	26.90	18.00	12.50	10.40	5.70
12 UMTX 100/19 FT	215.00	170.30	107.20	63.30	36.50	26.30	17.50	12.00	10.00	5.50
12 UMTX 110 FT	250.00	199.30	123.00	71.60	43.30	31.50	20.80	14.00	11.70	6.50
12 UMTX 125 FT	268.40	213.00	132.60	79.10	47.40	34.30	22.90	15.70	13.00	6.90
12 UMTX 125 W FT	269.00	215.00	133.00	77.71	46.16	33.71	22.44	15.62	12.90	6.90
12 UMTX 140 FT	290.45	229.30	144.10	85.78	51.42	37.91	25.38	17.50	14.70	8.28
12 UMTX 145 FT	267.60	222.90	148.80	94.00	56.46	40.70	26.70	18.13	15.06	8.45
12 UMTX 155 FT	276.30	229.40	153.60	96.90	57.50	42.00	28.20	19.40	16.00	8.55
12 UMTX 170 FT	355.00	296.80	199.00	119.00	70.30	50.30	32.40	21.50	17.70	9.50
12 UMTX 180 FT	394.00	311.00	202.00	123.15	72.20	51.60	33.53	22.25	18.31	9.83

**Constant Current discharge rates Amperes to 1.80 Vpc at 77°F (25°C)**

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	54.50	44.30	28.51	17.08	9.70	7.06	4.80	3.46	3.01	1.79
12 UMTX 40 TT	66.70	53.60	34.70	20.95	12.01	8.70	5.95	4.36	3.68	1.97
12 UMTX 80 TT	160.72	127.50	78.62	46.59	28.60	21.27	14.45	10.15	8.51	4.49
12 UMTX 90 TT	199.40	161.80	103.20	64.20	35.60	25.20	16.50	11.10	9.20	5.00
12 UMTX 100 FT	196.00	158.40	101.00	60.90	36.40	26.70	17.80	12.30	10.30	5.60
12 UMTX 100/19 FT	197.24	159.50	101.57	61.10	35.40	25.70	17.20	11.80	9.90	5.45
12 UMTX 110 FT	230.00	185.30	119.00	70.80	43.00	31.20	20.60	13.90	11.60	6.40
12 UMTX 125 FT	249.15	203.00	128.30	77.17	46.37	33.79	22.69	15.55	12.90	6.82
12 UMTX 125 W FT	253.90	206.00	129.00	76.14	45.10	33.00	22.00	15.30	12.70	6.75
12 UMTX 140 FT	268.27	215.20	138.60	83.58	50.46	37.45	25.12	17.32	14.59	8.17
12 UMTX 145 FT	259.80	217.60	145.90	91.50	55.25	39.98	26.50	18.00	14.95	8.40
12 UMTX 155 FT	268.20	224.10	150.60	94.40	56.40	41.10	27.50	19.10	15.80	8.45
12 UMTX 170 FT	330.00	277.60	187.00	116.00	67.90	48.90	31.70	21.10	17.40	9.40
12 UMTX 180 FT	368.00	290.88	189.81	118.00	69.73	50.16	32.80	21.83	18.00	9.72



FIAMM Technologies LLC, One FIAMM Way, Waynesboro, GA 30830 Tel. 888-77-FIAMM (888-773-4266)

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Standby Batteries



# MONOLITE

## UMTX range



Constant Power discharge rates Watt per cell to 1.67 Vpc at 77°F (25°C)

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	115.39	91.21	57.91	33.73	19.08	13.71	9.35	6.78	5.89	3.44
12 UMTX 40 TT	141.20	110.50	69.20	41.42	23.44	16.90	11.65	8.52	7.20	3.80
12 UMTX 80 TT	341.52	265.79	157.77	90.71	56.50	41.40	28.18	19.84	16.72	8.67
12 UMTX 90 TT	425.03	333.90	206.20	126.60	70.69	49.56	32.30	21.66	18.10	9.60
12 UMTX 100 FT	421.43	333.33	205.11	121.32	71.52	52.03	34.94	24.34	20.34	10.90
12 UMTX 100/19 FT	425.03	334.61	206.95	122.52	70.20	51.08	33.79	23.38	19.38	10.53
12 UMTX 110 FT	500.67	394.50	236.52	136.00	82.98	60.70	40.20	27.21	22.83	12.93
12 UMTX 125 FT	531.88	418.72	259.06	152.80	91.67	66.84	44.29	30.59	25.42	13.12
12 UMTX 125 W FT	531.88	422.36	258.69	150.90	89.20	65.36	43.38	30.40	25.20	13.12
12 UMTX 140 FT	572.70	444.70	280.00	165.90	98.90	72.90	49.00	33.90	28.60	15.90
12 UMTX 145 FT	510.93	426.73	289.74	183.31	109.40	78.88	51.99	35.40	29.43	16.04
12 UMTX 155 FT	525.88	440.56	298.31	187.17	110.95	81.28	54.98	37.94	31.47	16.45
12 UMTX 170 FT	723.99	591.66	386.19	230.07	136.09	98.18	63.38	42.16	34.92	18.42
12 UMTX 180 FT	785.22	619.95	392.01	238.08	139.76	100.70	65.58	43.62	36.11	19.57

Constant Power discharge rates Watt per cell to 1.75 Vpc at 77°F (25°C)

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	108.52	86.54	55.90	33.25	18.94	13.71	9.32	6.77	5.88	3.43
12 UMTX 40 TT	132.70	106.08	67.56	40.83	23.40	16.90	11.58	8.51	7.19	3.79
12 UMTX 80 TT	319.70	250.86	152.78	90.71	56.50	41.40	28.03	19.83	16.44	8.55
12 UMTX 90 TT	398.65	315.60	201.37	124.57	69.82	49.34	32.20	21.70	18.00	9.60
12 UMTX 100 FT	391.26	344.75	197.61	118.69	70.97	51.65	34.67	24.19	20.15	10.80
12 UMTX 100/19 FT	396.80	316.93	201.75	120.21	69.82	50.50	33.65	23.22	19.32	10.44
12 UMTX 110 FT	461.40	370.90	231.49	135.97	82.83	60.62	40.11	27.14	22.65	12.62
12 UMTX 125 FT	495.36	396.39	249.55	150.21	90.68	65.86	44.20	30.38	25.20	13.08
12 UMTX 125 W FT	496.46	400.12	250.31	147.57	88.30	64.72	43.22	30.22	24.92	13.08
12 UMTX 140 FT	536.10	426.70	271.20	162.90	98.40	72.80	48.90	33.80	28.40	15.70
12 UMTX 145 FT	493.88	414.82	280.04	178.51	108.01	78.14	51.42	35.08	29.10	16.01
12 UMTX 155 FT	509.94	426.91	289.08	184.01	110.00	80.64	54.31	37.54	30.91	16.20
12 UMTX 170 FT	655.18	552.34	374.52	225.98	134.48	96.58	62.40	41.60	34.20	18.00
12 UMTX180 FT	727.16	578.77	380.16	233.86	138.12	99.07	64.58	43.05	35.45	19.08



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Standby Batteries



▶ Constant Power discharge rates Watt per cell to 1.80 Vpc at 77°F (25°C)

Battery Type	Minutes									
	10	15	30	60	120	180	300	480	600	1200
12 UMTX 28 TT	102.21	83.82	54.45	32.86	18.78	13.71	9.32	6.75	5.88	3.43
12 UMTX 40 TT	125.10	101.41	66.28	40.31	23.25	16.90	11.58	8.51	7.18	3.77
12 UMTX 80 TT	301.43	241.23	150.16	89.63	55.36	41.30	28.00	19.80	16.40	8.52
12 UMTX 90 TT	373.98	306.10	197.11	123.52	68.92	48.94	32.13	21.66	17.96	9.58
12 UMTX 100 FT	367.60	299.69	192.91	117.17	70.47	51.85	34.66	24.00	20.11	10.73
12 UMTX 100/19 FT	369.92	301.77	194.00	117.56	68.53	49.91	33.49	23.02	19.32	10.44
12 UMTX 110 FT	431.37	350.59	227.29	135.22	82.40	60.59	40.11	27.12	22.64	12.52
12 UMTX 125 FT	467.28	384.08	245.05	148.48	89.77	65.62	44.18	30.34	25.18	13.07
12 UMTX 125 W FT	476.19	389.75	246.39	146.49	87.31	64.09	42.83	29.85	24.79	12.93
12 UMTX 140 FT	503.10	407.20	264.70	160.80	97.70	72.70	48.90	33.80	28.40	15.70
12 UMTX 145 FT	487.26	411.70	278.67	176.05	106.96	77.64	51.60	35.12	29.18	16.00
12 UMTX 155 FT	503.01	424.00	287.65	181.63	109.19	79.82	53.54	37.26	30.84	16.19
12 UMTX 170 FT	618.92	525.22	357.17	223.18	131.45	94.96	61.72	41.17	33.96	18.01
12 UMTX 180 FT	690.18	550.34	362.54	227.03	135.00	97.41	63.86	42.59	35.14	19.02



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Standby Batteries

# Secure Power Solutions



## HEADQUARTER

**ITALY**  
FIAMM S.P.A  
Viale Europa,63  
36075 Montecchio Maggiore (VI)  
Tel: + 39 0444 709311  
Fax : +39 0444 694178  
www.fiamm.com

## USA SALES OFFICES

FIAMM Technologies,LLC  
1 FIAMM Way  
Waynesboro,GA 30830  
  
Telecom Division  
Tel: +1 (706) 437-3220  
Fax: +1 (706) 437-3300  
telecomsales@fiammtech.com

## MANUFACTURING PLANTS (Industrial Division)

**USA:**  
FIAMM Technologies,LLC  
1 FIAMM Way  
Waynesboro, GA 30830  
Tel : +1 (706) 437-3220  
Fax: +1 (706) 437-3300  
www.fiammamerica.com

Industrial Division  
Tel: +1 (706) 437-3220  
Fax: +1 (706) 437-3300  
industrialsales@fiammtech.com

**ITALY:**  
A.I.F S.P.A  
Via Dovaro , 8  
36045 Almisano di Lonigo (VI)  
Tel: +39 0444 725511  
Fax: +39 0444725500  
info.standby.italy@fiamm.com

## USA TECHNICAL SUPPORT

FIAMM Technologies, LLC  
1 FIAMM Way  
Waynesboro ,GA 30830  
Tel: +1 (706) 437-3226  
Fax: +1 (706) 437-3300  
techsupport@fiammtech.com

**CHINA:**  
FIAMM Enertech Co., Ltd.  
Hannan Road 458  
Shamao Town, Hannan District  
430090 Wuhan City, Hubey Province, P.R. China  
Tel: +86 27 84782088  
Fax : +86 27 84782888  
www.fiammenertech.com

## USA CUSTOMER SERVICE

FIAMM Technologies,LLC  
1 FIAMM Way  
Waynesboro, GA 30830  
Tel: +1 (706) 437-3220  
Fax: +1 (706) 437-3300  
customersvc@fiammtech.com

**CZECH REPUBLIC**  
AKUMA-prumyslove baterie s.r.o  
Parizske komuny 96,Debr nad Jizerou  
293 07 Mlada Boleslav  
Tel: +420/326/748344  
Fax: +420/326/748370  
info.standby.czech@fiamm.com

