

# Marathon M FT / M12V90FT V0

## INDUSTRIAL BATTERIES / NETWORK POWER

Designed for durability in telecommunications and electric utility applications, the Marathon M-FT series provides high performance and reliability in medium and long duration discharge applications. The location of the terminals on the front (vs. the top) of the battery greatly facilitates the installation and maintenance of the product when placed in a cabinet enclosure or on a standard relay rack tray.

**Part Number: NAMF120090VM0FB**

### APPLICATIONS



### SPECIFICATIONS

- Maintenance-free (no topping up) during the whole service life
- High-Compression Absorbent Glass Mat (AGM) technology
- Design life: 15 years (until 80% C<sub>10</sub> at 20°C and 1.80Vpc)
- EUROBAT 2015 Classification »>12 years – Very Long Life«
- Available as standard or flame retardant version (UL 94-V0)
- Grid plates with superior lead low calcium high tin alloy for excellent corrosion resistance
- Very low gassing due to internal gas recombination (99 % efficiency)
- Low self discharge rate, enabling extended storage capability
- Designed in accordance with IEC 60896-21/-22
- Approval: UL (Underwriters Laboratories)
- Trouble-free transportation of operational blocks and cells. no restriction for most rail, road, sea and air transportation (IATA, DGR clause A67)
- Manufactured in Europe in our ISO 9001 certified production plants
- Central degassing



Design life  
15 years



Block battery



Grid plate



Recyclable



Valve  
regulated  
lead-acid  
batteries



Maintenance  
free (no  
topping up)

### RECYCLE WITH EXIDE.



Exide Technologies takes pride in its commitment to a better environment. An integrated approach to manufacturing, distributing and recycling of lead-acid batteries has been developed to ensure a safe and responsible life cycle for all of its products.



For more information please  
[contact your local dealer](#)

## TECHNICAL CHARACTERISTICS AND DATA

<b>Nominal voltage</b>	12 V
<b>Float charge</b>	2,29 V/C @ 20 °C
<b>Capacity</b>	CP 10min 1,6V/C 20°C 2300W/Bloc CC 10h 1,8V/C 20°C 86Ah
<b>Short circuit current</b>	2440 A (IEC60896-21/22)
<b>Internal resistance</b>	5,1 mΩ (IEC60896-21/22)

<b>Terminal</b>	F-M6-90°
<b>Terminal Torque</b>	11 Nm
<b>Temperature range</b>	-40°C to 55°C
<b>Dimensions (l x b/w x h)</b>	105 x 395 x 270 mm
<b>Weight</b>	31 kg
<b>Origin</b>	Castanheira, Portugal

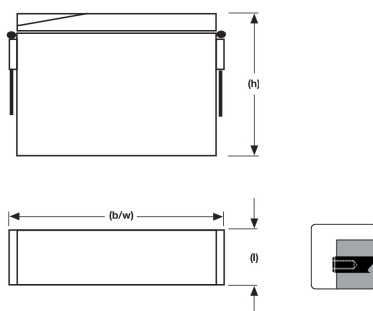
## CONSTANT POWER DISCHARGE

W @ 20 °C	3m	5m	10m	15m	30m	1h	90m	2h	150m	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1,940 V/C	1180	1180	1180	1180	870	562	407	324	272	235	187	157	135	117	104	93,1	84,5	71,5	37,9
1,920 V/C	1290	1290	1290	1290	945	596	431	342	286	247	196	164	142	123	109	98	89	75,2	39,8
1,900 V/C	1360	1360	1360	1360	990	630	454	360	300	259	205	171	148	130	115	103	93,4	79	41,7
1,870 V/C	1430	1430	1430	1430	1035	666	478	378	314	271	214	179	154	136	120	108	97,6	82,5	43,4
1,850 V/C	2280	2080	1730	1480	1060	689	494	390	325	279	220	183	158	140	123	111	100	84,8	44,6
1,830 V/C	2430	2200	1820	1550	1090	701	501	395	329	283	223	185	159	141	125	112	102	85,8	45,2
1,800 V/C	2600	2330	1890	1600	1110	717	512	404	335	288	227	189	162	144	127	114	103	87,4	46
1,780 V/C	2910	2570	2000	1650	1130	722	514	404	337	290	228	190	163	145	128	115	104	88	46,3
1,750 V/C	3200	2780	2080	1690	1150	729	517	405	337	291	230	191	164	147	129	116	105	88,9	46,8
1,730 V/C	3350	2900	2125	1720	1160	732	518	406	338	291	230	191	165	147	130	116	105	89	46,9
1,700 V/C	3500	3000	2170	1750	1170	735	520	406	339	292	231	192	166	147	130	116	106	89,2	46,9
1,670 V/C	3640	3080	2200	1780	1180	737	521	407	340	293	231	193	166	147	130	117	106	89,3	47
1,650 V/C	3800	3190	2250	1800	1190	740	523	408	340	293	232	193	166	147	130	117	106	89,4	47
1,600 V/C	3900	3290	2300	1820	1200	740	523	408	340	293	232	193	166	147	130	117	106	89,4	47

## CONSTANT CURRENT DISCHARGE

A @ 20 °C	3m	5m	10m	15m	30m	1h	90m	2h	150m	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1,940 V/C	100	100	100	100	73	47,1	33,9	26,8	22,5	19,5	15,5	12,7	10,8	9,4	8,4	7,5	6,9	5,8	3,2
1,920 V/C	110	110	110	110	80	50,5	36,2	28,6	23,8	20,5	16,2	13,5	11,5	10	8,9	8	7,3	6,2	3,3
1,900 V/C	115	115	115	115	84	54	38,5	30,3	25,2	21,7	17,2	14,2	12	10,5	9,3	8,4	7,7	6,5	3,5
1,870 V/C	120	120	120	120	87	57,4	40,8	32,1	26,8	23,2	18	14,8	12,6	11	9,8	8,8	8	6,8	3,7
1,850 V/C	207	189	150	126	90	59,5	42,3	33,2	27,5	23,6	18,4	15,1	12,9	11,3	10,1	9,1	8,3	7,1	3,9
1,830 V/C	220	200	160	133	92	61	43,3	34	28	24	18,7	15,4	13,1	11,5	10,2	9,2	8,4	7,2	3,9
1,800 V/C	237	215	171	140	94	63	44,7	35	28,8	24,6	19,1	15,7	13,4	11,7	10,4	9,4	8,6	7,3	4
1,780 V/C	265	233	179	144	96	63,6	45	35,2	29	24,7	19,2	15,8	13,5	11,8	10,5	9,5	8,6	7,4	4
1,750 V/C	285	248	185	148	98	64	45,4	35,5	29,2	24,9	19,4	15,9	13,6	11,9	10,6	9,5	8,7	7,4	4
1,730 V/C	314	265	192	151	100	64,4	45,5	35,6	29,3	25	19,4	16	13,6	11,9	10,6	9,5	8,7	7,4	4
1,700 V/C	340	280	200	155	102	64,7	45,7	35,8	29,4	25,1	19,5	16	13,7	11,9	10,6	9,6	8,7	7,5	4,1
1,670 V/C	365	300	210	160	105	64,9	45,9	35,9	29,5	25,2	19,6	16,1	13,7	12	10,7	9,6	8,8	7,5	4,1
1,650 V/C	390	315	215	165	108	65,1	46	36	29,6	25,2	19,6	16,1	13,8	12	10,7	9,6	8,8	7,5	4,1
1,600 V/C	400	330	220	170	110	65,1	46	36	29,6	25,2	19,6	16,1	13,8	12	10,7	9,6	8,8	7,5	4,1

## Technical drawing



## Float Voltage vs Temperature

