

# Marathon M FT / M12V190FT

## 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: **NAMF120190HM0FA**

### APPLICATIONS



### SPECIFICATIONS

- Maintenance-free (no topping up) during the whole service life
- High-Compression Absorbent Glass Mat (AGM) technology
- Design life: »> 12 years– Very Long Life« according to EUROBAT 2015 Classification
- Available as standard or flame retardant version (UL 94-V0)
- Grid plates with superior lead calcium 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 (Underwriter 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  
> 12 years -  
Very Long Life



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 leadacid batteries has been developed to ensure a safe and responsible life cycle for all ofits 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 4600W/Bloc CC 10h 1,8V/C 20°C 190Ah
<b>Short circuit current</b>	3653 A (IEC60896-21/22)
<b>Internal resistance</b>	3,4 mΩ (IEC60896-21/22)

<b>Terminal</b>	F-M6-90°
<b>Terminal Torque</b>	11 Nm
<b>Container</b>	UL 94-HB (Polypropylene)
<b>Temperature range</b>	-40°C to 55°C
<b>Dimensions (l x b/w x h)</b>	125 x 559 x 318 mm
<b>Weight</b>	62 kg
<b>Origin</b>	Castanheira, Portugal

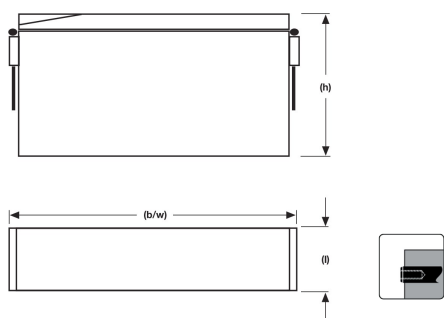
## CONSTANT POWER DISCHARGE

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	1631	1631	1631	1631	1571	1077	805	680	585	520	410	335	288	250	222	202	183	155	89
1,920 V/C	1984	1984	1984	1984	1679	1170	870	765	650	565	450	370	315	275	245	221	200	169	92,9
1,900 V/C	2337	2337	2337	2337	1780	1243	950	785	670	585	465	385	330	290	256	230	208	177	97,4
1,870 V/C	2684	2684	2684	2684	1907	1270	980	810	690	600	475	394	339	295	263	235	214	181	99,5
1,850 V/C	4065	3900	3275	2835	1979	1292	1000	830	710	610	484	400	343	300	266	240	217	185	102
1,830 V/C	4380	4100	3460	2960	2041	1380	1020	845	725	615	487	404	346	304	270	243	221	187	103
1,800 V/C	4730	4350	3630	3089	2093	1450	1080	850	730	620	490	408	350	306	272	245	223	189	105
1,780 V/C	5046	4641	3720	3138	2115	1480	1100	875	735	625	495	411	352	308	274	247	225	190	105
1,750 V/C	5278	4900	3900	3227	2154	1500	1120	885	740	630	498	414	354	310	276	249	227	192	106
1,730 V/C	5626	5275	4144	3340	2196	1525	1140	900	745	635	503	416	355	311	278	251	228	193	106
1,700 V/C	5900	5454	4240	3401	2216	1550	1160	906	750	640	507	418	356	313	279	252	229	194	107
1,670 V/C	6148	5696	4367	3470	2234	1580	1180	912	755	645	510	420	358	315	281	254	231	195	107
1,650 V/C	6380	5938	4480	3519	2244	1600	1200	920	760	650	513	423	360	316	283	255	232	196	108
1,600 V/C	6600	6200	4600	3650	2300	1620	1220	932	765	655	516	425	362	318	284	256	233	197	108

## 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	152	149	142	135	115	90	67,5	55,8	46,5	40,2	31,9	26,6	22,9	20,1	18	16,2	14,8	12,7	6,9
1,920 V/C	180	176	166	156	131	100	75	61	51	44,5	35	29	24,7	21,5	19,3	17,4	15,9	13,6	7,4
1,900 V/C	210	205	191	178	145	112	84	65	53,5	46,5	36,8	30,5	26	22,8	20,3	18,3	16,8	14,4	7,8
1,870 V/C	270	260	237	216	165	118	88,5	68	56	47,9	37,9	31,6	27,1	23,9	21,4	19,4	17,8	15,2	8,2
1,850 V/C	382	350	293	253	178	122	91,5	70	58	49,3	39	32,4	27,7	24,5	22	19,9	18,3	15,6	8,4
1,830 V/C	420	381	312	266	186	123	92,3	71,5	59,5	50,7	40	33,2	28,4	25	22,5	20,3	18,6	15,9	8,5
1,800 V/C	458	410	330	278	193	125	93	73	60,8	52	40,8	33,9	29	25,6	22,9	20,8	19	16,3	8,7
1,780 V/C	489	433	346	291	197	128	93,4	74	62	53	41,6	34,5	29,4	25,9	23,2	21	19,2	16,4	8,8
1,750 V/C	524	460	363	303	205	130	94,9	76	64	54,5	42,8	35,5	29,6	26,1	23,4	21,1	19,3	16,5	8,8
1,730 V/C	563	490	375	312	209	132	96,4	77	65,5	55,2	43	35,6	29,8	26,3	23,5	21,3	19,4	16,6	8,9
1,700 V/C	611	520	387	321	213	134	97,8	78	66	56	43,2	35,7	30	26,4	23,6	21,4	19,5	16,7	8,9
1,670 V/C	641	545	399	327	216	136	99,3	78,6	66,4	56,2	43,5	35,8	30,1	26,5	23,7	21,4	19,6	16,8	9
1,650 V/C	672	569	411	332	217	138	101	79,2	66,8	56,4	43,7	36	30,3	26,6	23,8	21,6	19,7	16,9	9
1,600 V/C	725	598	423	335	219	140	102	80	67	56,5	44	36,2	30,4	26,7	23,9	21,6	19,8	16,9	9

## Technical drawing



## Float Voltage vs Temperature

