EverExceed®
power your applications

FRONT ACCESS FT RANGE VRLA

BATTERY SOLUTIONS

Excellent Modular
Energy Storage System

12 Volt Front Access Terminal Battery EverExceed FT Range Sealed Lead Acid VRLA Sealed VRLA Monobloc AGM Batteries Capacities: 65Ah to 300Ah C/10 at 25°C

EverExceed FT Range front access sealed maintenance free valve regulated lead acid (VRLA) rechargeable batteries which combine remarkable high current characteristics and a long service life are designed for Telecom, Standby Power, Uninterruptible Power Supplies (UPS), Power Plant, Microwave Relay Station and Solar / Wind renewable energy. EverExceed FT Range advanced AGM absorbed electrolyte technology ensures reliable performance, safety, outstanding battery life and value. Batteries have a design life of 12 years in float service at 20°C (68°F) and comply with BS 6290 Part 4, EUROBAT (IEC 896-2).

Applicable Operating temperature range:	-40ºC (-40ºF) to +60ºC (+140ºF)
Ideal Operating temperature range:	+20ºC (+68ºF) to +25ºC (+77ºF)
Storage time from a fully charged condition:	12 months at 20ºC / 68ºF. For each 9ºC / 15ºF rise, reduce the storage time by half.

Designed in Quality Manufacturing

Quality manufacturing processes for EverExceed front access FT Range batteries incorporate the industry's most advanced technologies including: an automated sealing detection system, a computer controlled "fill by weight" acid filler, and a temperature controlled water bath formation process. Each and every unit is capacity tested.

Features and Benefits

- Thick positive plate design for maximum service float life – 12 year design life at 20°C (68˚F). (80% remaining capacity)
- Valve regulated lead acid battery (VRLA).
- High-Compression Absorbent Glass Mat (AGM) technology for efficient gas recombination 99% plus.
- Front accessible threaded copper alloy terminals for ease of assembly and reduced maintenance.
- Advanced lead tin silver calcium alloy, reduces grid corrosion and promotes longer battery life, excellent cycling ability and discharge performance.
- Flame-retardant reinforced Acrylonitrile Butadiene Styrene (ABS) case and cover compliant with U.L. 94 V-0 with an Oxygen Limiting Index of greater than 28%.
- Thermally welded case-to-cover bond to ensure a leak-proof seal.
- Over-sized, through the partition inter-cell welds provide low resistance connections, with minimal power loss.
- Flame-arresting one-way pressure-relief vent for safety and long life.
- Complies with UL1778, 924, 1989 and 94 V-0. UL-recognized component.
- Multicell design for ease of installation and maintenance.
- Can be used in any orientation. Upright, side or end mounting recommended.

Applications

EverExceed Front access terminal FT range batteries Incorporate EverExceed's advanced VRLA technology designed for long life and high performance in:

- Telecommunication
- UPSs
- Power plant
- Microwave
- Cellular
- Switchgear Control Power
- Solar / Photovoltaic
- Wind energy
- Electric Utility
- Broadband

Standards and Compliances

- UL Compliant
- NEBS Compliant
- EUROBAT, 10 year plus classification

Tested in accordance with

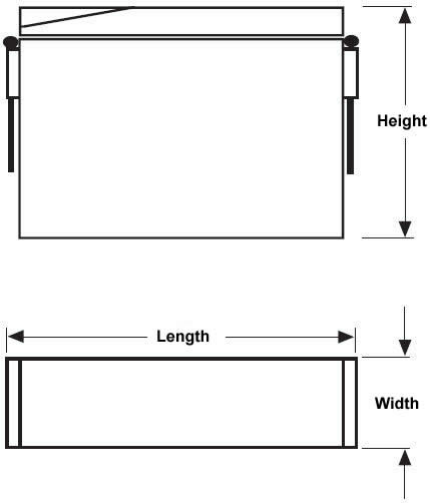
- BS 6290 PART 4
- Bellcore, TR-NWT-000766
- ANSI, TI: 330

No transport restrictions

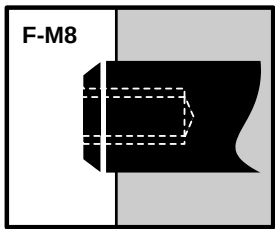
- Surface transport. Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.
- Marine transport. Classified as non-hazardous material as per IMDG amendment 27.
- Air transport. Complies with IATA/ICAO, Special provision A67.

FT Range Electrical Specifications & Dimensions

Battery Model	Capacity(Ah)@25° C			Internal Resistance Milli-ohms	Female Terminal Type	Battery Weight		Outline Dimensions					
	10h	8h	1h					Length		Width		Height	
	1.80VPC	1.75VPC	1.65VPC			Kg	Lbs	mm	inch	mm	inch	mm	inch
12V65FT	65.0	64.7	43.1	4.2	F-M8	25.0	55.1	531	20.9	125	4.92	210	8.27
12V85FT	85.0	82.4	55.6	3.5	F-M8	32.0	70.6	531	20.9	125	4.92	240	9.45
12V100FT	100	98.4	66.1	3.2	F-M8	42.0	92.6	531	20.9	125	4.92	275	10.8
12V120FT	120	117	78.1	3.0	F-M8	48.0	106	531	20.9	125	4.92	320	12.6
12V150FT	150	148	98.1	2.6	F-M8	60.0	132	531	20.9	125	4.92	361	14.2
12V200FT	200	194	133	2.2	F-M8	84.0	185	642	25.3	193	7.60	291	11.5
12V300FT	300	291	198	2.0	F-M8	125	276	642	25.3	193	7.60	388	15.3



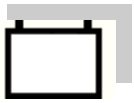
Terminal and torque



20NM

12 year design life

Grid plate



Monobloc battery

Nominal capacity 65 - 300Ah

Deep discharge recovery acc. to DIN 43 539 T5

Maintenance free

Recyclable

Valve regulated lead - acid

Float Voltage & charging

Constant Voltage charging is recommended

Recommended float voltage: 2.25VPC @ 25ºC(77ºF)

Float Voltage Range: 2.25VPC to 2.30 VPC @ 25ºC(77ºF)

Equalize voltage: 2.35VPC for 12 Hours

EverExceed AGM Front Access FT Range VRLA
Discharge Ampere Hour Data @ 25ºC (77ºF)

Battery Model	End VPC	Discharge Data Ampere Hour @ 25° C Discharge Time In Hours								
		0.5	1	2	3	4	5	8	10	20
	1.90	27.1	36.0	44.0	48.6	50.4	55.0	60.1	62.3	66.0
	1.85	31.2	39.1	46.4	50.7	52.8	56.0	61.8	63.5	70.4
	1.80	34.4	41.0	48.0	52.5	54.8	58.0	63.2	65.0	72.0
12V65FT	1.75	35.9	42.0	49.0	53.1	55.2	58.5	64.7	66.4	74.0
	1.70	36.2	42.8	49.2	53.4	55.6	59.0	65.2	67.6	74.6
	1.65	36.7	43.1	49.6	53.7	56.0	59.5	65.8	68.5	76.0
	1.60	36.8	43.3	49.8	54.3	56.4	59.5	66.3	68.6	76.4
	1.90	37.7	47.8	57.0	61.5	64.0	65.0	70.6	76.5	93.6
	1.85	40.4	51.0	60.8	65.4	68.0	72.5	79.0	82.9	99.8
	1.80	44	53.1	62.6	67.8	72.0	75.0	81.6	85.0	102
12V85FT	1.75	45	55.3	64.0	69.0	72.8	76.0	82.4	86.1	104
	1.70	46	55.4	64.2	69.3	73.2	76.5	83.2	86.1	104
	1.65	46	55.6	64.4	69.9	73.6	77.0	84.0	87.1	106
	1.60	46	55.8	64.6	70.2	74.0	78.0	84.8	87.3	106
	1.90	44	56.3	66.8	72.6	75.6	80.0	87.2	93.0	102
	1.85	48	60.5	71.6	76.8	81.2	85.0	92.8	97.0	109
	1.80	51	63.6	74.0	80.1	84.8	88.5	97.6	100	111
12V100FT	1.75	53	65.4	75.0	81.3	85.6	89.5	98.4	101	112
	1.70	54	65.8	75.4	81.6	86.0	90.0	99.2	102	114
	1.65	54	66.1	75.6	81.9	86.8	90.5	100	103	117
	1.60	55	66.2	75.8	82.5	87.2	91.0	102	105	117
	1.90	53	67.0	77.0	87.0	90.4	96.0	105	112	123
	1.85	57	72.0	81.2	92.1	95.6	102	112	116	131
	1.80	61	75.6	88.8	96.0	100	106	116	120	132
12V120FT	1.75	64	78.0	90.0	97.2	101	108	117	120	137
	1.70	65	78.0	90.2	97.8	102	108	118	122	139
	1.65	65	78.1	90.4	98.1	102	109	118	125	141
	1.60	66	78.2	91.0	98.7	103	110	119	127	141
	1.90	59	77.8	93.6	102	106	117	128	138	152
	1.85	65	84.6	102	111	115	128	139	146	162
	1.80	77	94.5	111	120	125	133	146	150	167
12V150FT	1.75	80	97.5	113	122	126	135	148	151	170
	1.70	81	97.7	113	122	127	136	149	153	172
	1.65	81	98.1	113	123	129	136	150	155	174
	1.60	82	98.5	114	123	130	138	151	155	174
	1.90	64	91.8	117	130	135	143	154	164	202
	1.85	76	102	132	144	150	156	170	186	216
	1.80	102	126	147	158	164	170	186	194	222
12V200FT	1.75	106	130	149	161	167	177	194	200	226
	1.70	107	132	149	162	168	178	194	202	228
	1.65	108	133	150	162	169	179	196	205	232
	1.60	109	135	152	162	170	181	199	209	236
	1.90	85	128	164	183	190	217	231	276	308
	1.85	103	144	188	208	216	249	255	292	326
	1.80	153	189	220	237	246	266	279	300	336
12V300FT	1.75	159	195	224	241	250	270	291	305	340
	1.70	161	196	230	243	252	271	291	309	344
	1.65	163	198	236	244	256	273	294	313	350
	1.60	164	201	240	247	260	274	299	317	356

Actual battery performance data may be±5% of figures shown above

EverExceed AGM Front Access FT Range VRLA
Discharge Amperes Data @ 25ºC (77ºF)

Battery Model	End VPC	Discharge Data Amps @ 25° C Discharge Time In Hours								
		0.5	1	2	3	4	5	8	10	20
	1.90	54.2	36.0	22.0	16.2	12.6	11.0	7.51	6.23	3.30
	1.85	62.4	39.1	23.2	16.9	13.2	11.2	7.73	6.35	3.52
	1.80	68.8	41.0	24.0	17.5	13.7	11.6	7.90	6.50	3.60
12V65FT	1.75	71.7	42.0	24.5	17.7	13.8	11.7	8.09	6.64	3.70
	1.70	72.4	42.8	24.6	17.8	13.9	11.8	8.15	6.76	3.73
	1.65	73.3	43.1	24.8	17.9	14.0	11.9	8.23	6.85	3.80
	1.60	73.5	43.3	24.9	18.1	14.1	11.9	8.29	6.86	3.82
	1.90	75.4	47.8	28.5	20.5	16.0	13.0	8.82	7.65	4.68
	1.85	80.8	51.0	30.4	21.8	17.0	14.5	9.88	8.29	4.99
	1.80	87.1	53.1	31.3	22.6	18.0	15.0	10.2	8.50	5.10
12V85FT	1.75	89.3	55.3	32.0	23.0	18.2	15.2	10.3	8.61	5.21
	1.70	91.1	55.4	32.1	23.1	18.3	15.3	10.4	8.61	5.21
	1.65	92.0	55.6	32.2	23.3	18.4	15.4	10.5	8.71	5.31
	1.60	92.1	55.8	32.3	23.4	18.5	15.6	10.6	8.73	5.32
	1.90	88.0	56.3	33.4	24.2	18.9	16.0	10.9	9.30	5.11
	1.85	95.6	60.5	35.8	25.6	20.3	17.0	11.6	9.70	5.43
	1.80	102	63.6	37.0	26.7	21.2	17.7	12.2	10.0	5.57
12V100FT	1.75	106	65.4	37.5	27.1	21.4	17.9	12.3	10.1	5.62
	1.70	107	65.8	37.7	27.2	21.5	18.0	12.4	10.2	5.70
	1.65	108	66.1	37.8	27.3	21.7	18.1	12.5	10.3	5.85
	1.60	109	66.2	37.9	27.5	21.8	18.2	12.7	10.5	5.85
	1.90	105	67.0	38.5	29.0	22.6	19.2	13.1	11.2	6.13
	1.85	114	72.0	40.6	30.7	23.9	20.4	14.0	11.6	6.54
	1.80	122	75.6	44.4	32.0	25.0	21.2	14.5	12.0	6.62
12V120FT	1.75	127	78.0	45.0	32.4	25.3	21.5	14.6	12.0	6.87
	1.70	129	78.0	45.1	32.6	25.5	21.6	14.7	12.2	6.95
	1.65	130	78.1	45.2	32.7	25.6	21.7	14.8	12.5	7.06
	1.60	131	78.2	45.5	32.9	25.8	21.9	14.9	12.7	7.06
	1.90	117	77.8	46.8	34.1	26.6	23.4	16.0	13.8	7.62
	1.85	130	84.6	50.8	36.9	28.8	25.5	17.4	14.6	8.10
	1.80	153	94.5	55.5	40.1	31.3	26.6	18.2	15.0	8.33
12V150FT	1.75	159	97.5	56.3	40.5	31.6	27.0	18.5	15.1	8.50
	1.70	161	97.7	56.3	40.8	31.8	27.1	18.6	15.3	8.61
	1.65	162	98.1	56.6	40.9	32.2	27.2	18.7	15.5	8.71
	1.60	163	98.5	56.9	41.1	32.4	27.5	18.9	15.5	8.71
	1.90	128	91.8	58.5	43.3	33.8	28.5	19.3	16.4	10.1
	1.85	151	102	66.2	48.1	37.5	31.2	21.3	18.6	10.8
	1.80	203	126	73.3	52.6	41.0	34.0	23.3	19.4	11.1
12V200FT	1.75	212	130	74.3	53.5	41.7	35.4	24.2	20.0	11.3
	1.70	214	132	74.5	53.9	42.0	35.5	24.3	20.2	11.4
	1.65	216	133	75.0	54.0	42.2	35.7	24.5	20.5	11.6
	1.60	218	135	76.0	54.1	42.5	36.2	24.9	20.9	11.8
	1.90	169	128	81.9	61.0	47.6	43.3	28.9	27.6	15.4
	1.85	205	144	94.0	69.4	54.1	49.7	31.9	29.2	16.3
	1.80	305	189	110	79.0	61.6	53.2	34.9	30.0	16.8
12V300FT	1.75	317	195	112	80.2	62.6	54.0	36.4	30.5	17.0
	1.70	321	196	115	81.0	63.0	54.2	36.4	30.9	17.2
	1.65	325	198	118	81.2	64.1	54.6	36.8	31.3	17.5
	1.60	328	201	120	82.2	64.9	54.8	37.3	31.7	17.8

Actual battery performance data may be±5% of figures shown above

EverExceed AGM Front Access FT Range VRLA
Discharge Amperes Data @ 25ºC (77ºF)

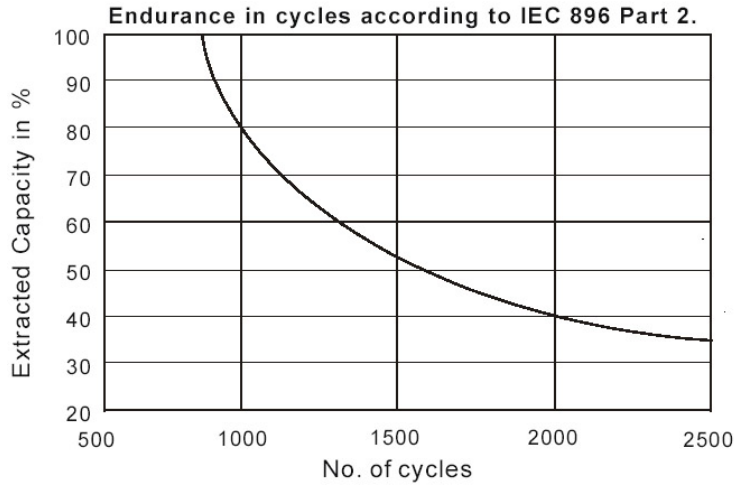
Battery Model	End VPC	Discharge Data Watts Per Cell @ 25° C									
		Discharge Time In Minutes					Discharge Time In Hours				
		1	5	10	30	60	2	3	4	5	8
12V65FT	1.80	342	294	230	127	81.8	49.8	36.8	29.8	26.0	17.9
	1.70	415	359	264	136	85.7	51.0	37.8	30.7	26.6	18.2
	1.60	434	374	277	142	87.5	52.0	38.5	31.2	26.9	18.5
12V85FT	1.80	479	408	319	172	108	62.9	45.1	35.5	29.8	20.2
	1.70	581	502	367	185	115	65.2	46.4	36.6	30.6	20.7
	1.60	608	523	385	194	119	66.2	47.0	37.0	31.1	20.9
12V100FT	1.80	524	450	357	201	125	74.0	51.0	39.1	32.0	23.0
	1.70	644	551	412	213	135	76.7	53.5	41.3	34.0	23.5
	1.60	691	586	461	232	140	78.9	54.5	42.2	34.7	24.0
12V120FT	1.80	598	517	416	240	149	86.6	61.0	47.3	39.5	26.9
	1.70	742	631	480	253	159	91.0	63.2	49.1	41.0	27.8
	1.60	810	681	562	282	164	91.9	64.3	49.9	41.8	28.4
12V150FT	1.80	642	564	464	277	180	107	79.0	62.0	52.3	35.5
	1.70	808	682	538	297	191	114	81.8	64.2	54.0	37.1
	1.60	922	755	680	344	203	116	83.6	65.4	55.0	38.3
12V200FT	1.80	720	648	553	351	231	140	105	83.5	69.5	46.6
	1.70	932	775	645	376	247	150	109	86.4	73.0	49.8
	1.60	1128	896	723	413	261	159	116	91.4	77.0	52.2
12V300FT	1.80	1080	972	830	527	347	211	157	124	104	69.9
	1.70	1399	1162	968	564	370	225	163	130	109	74.8
	1.60	1692	1344	1085	619	391	239	174	138	115	78.3

Actual battery performance data may be±5% of figures shown above

Rugged Battery Construction

The EverExceed front access FT Range batteries are constructed using heavy duty flat pasted plates and “U” fold wrapped using a non woven absorbent glass mat (AGM) separator.
This rugged construction ensures that the batteries can be used in UBC seismic zone 4 racks where the battery has to withstand the worst possible earthquake conditions and still continue to deliver reliable standby DC power.

Cycling ability



Deep Cycle ability: 1000 cycles to 80% DoD

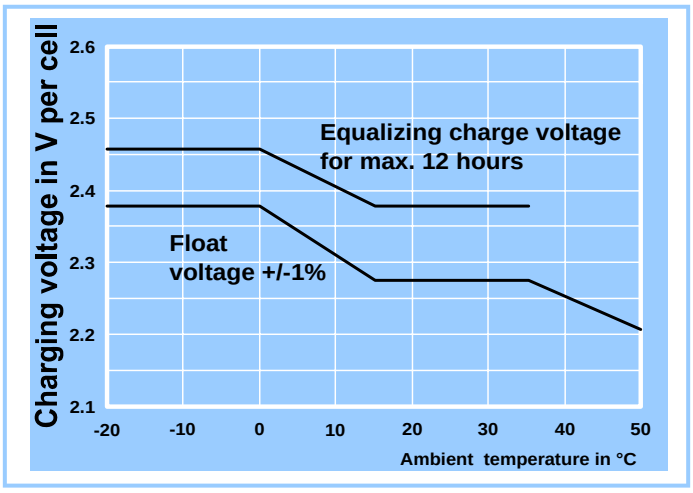
Float Voltage & charging

Constant Voltage charging is recommended

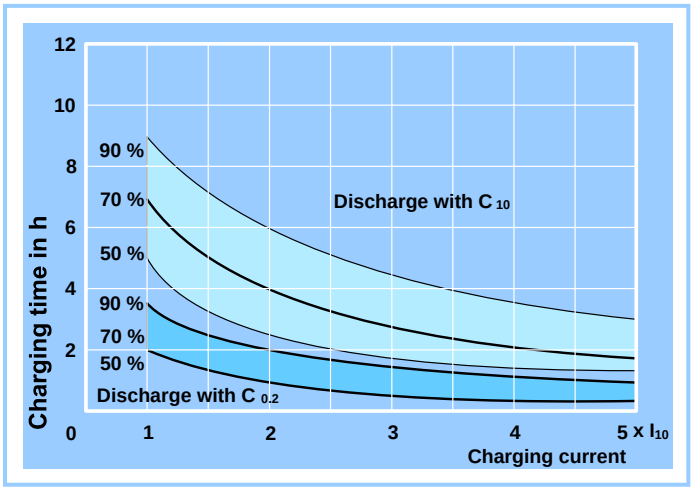
Recommended float voltage: 2.25VPC @ 25ºC(77ºF)
Float Voltage Range: 2.25VPC to 2.30 VPC @ 25ºC(77ºF)
Equalize voltage: 2.35VPC for 12 Hours

Temperature compensation:

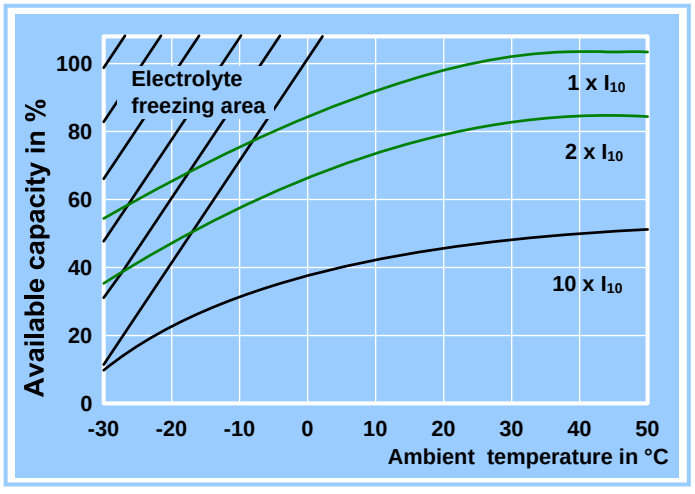
Apply for temperature range of 0ºC / 32ºF to 40ºC / 104ºF. Subtract 3 mV / ºC / cell or 1.7 mV / ºF / cell, above 25ºC / 77ºF.
Add 3mV / ºC / cell or 1.7 mV / ºF / cell, below 25ºC / 77ºF.



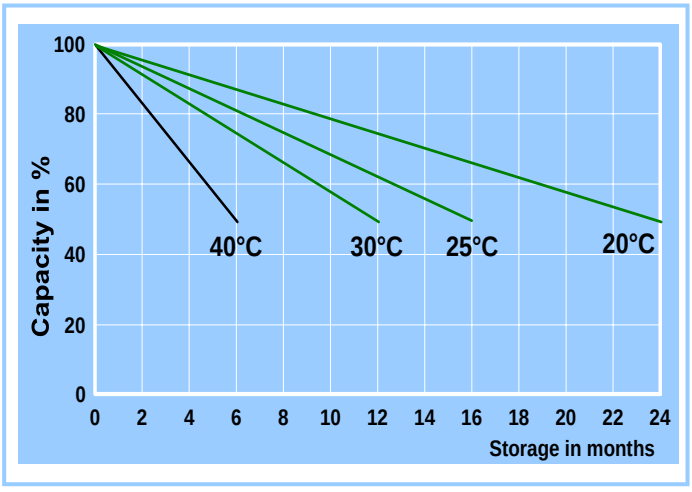
For charging 2.25 V/cell is recommended. The charging voltage must be compensated according to the curve for continuously different battery ambient temperature.



Recharging time in dependence of charging current (guide values) for up to 50, 70 and 90% of capacity at 25°C and with a charging voltage of 2.25 V/cell.



Extracted capacity in relation to the temperature.



Self-discharge in relation to the storage temperature.

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EverExceed®
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