

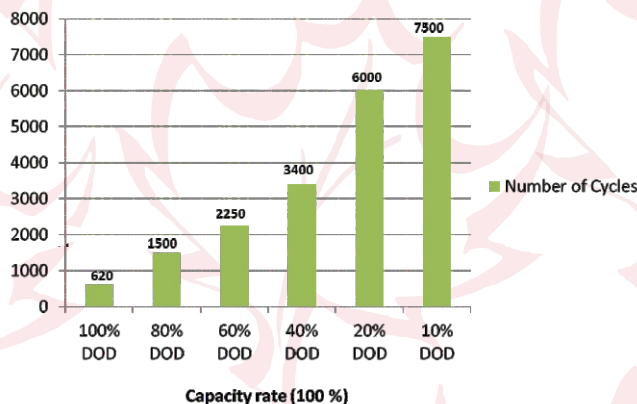
ADVANCE TECHNOLOGY BATTERY



Longer Life - Environmentally Friendly
Extreme Operating Temperature - Higher Performance



Cycle life graph (25°C/77°F) 12V



ADVANCE TECHNOLOGY BATTERY- PERFORMANCE

ITEM	ACID	GEL	ADVANCE TECHNOLOGY BATTERY	LITHIUM	NiCad
Temperature	+18°C to +45°C	-18°C to +50°C	-40°C to +65°C	-20°C to +65°C	-20°C to +65°C
Usage Life	2-3 Years	3-4 Years	8-12 Years	5-6 Years	4-5 Years
Transportation Safety	Average	Good	Very good	Very Poor	Average
Discharge Cycle at 80%	450	500	1500	1000	1100
Performance	Average	Average	Very good	Good	Average
Recyclability	Good	Good	Very good	Poor	Good
Discharge Ability at High Current	Poor	Poor	Very Good	Average	Good
Cost	Low	Low	Medium	Very High(5XLead Acid)	High

Advantages:

- 1.Environment friendly
- 2.Recyclable
3. Works at extreme temperatures: -40°C to 65°C (-40°F to 149°F)
4. Easy to transport
5. Higher cycle life
6. Long Battery Life
7. Longer shelf life



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Applications

- Electric Vehicles & Golf Carts
- Material Handling & Cleaning Machines
- Marine & RV Applications
- Medical Applications
- Telecommunication
- Renewable Energy

Environment friendly Advance Technology Battery (ATB) has been developed using a new patented chemistry which makes it the ideal replacement for Lead-Acid and VRLA batteries(GEL &AGM). It blends into the consumer lifestyles of many industries such as transportation, telecommunications, electric power, military, marine, aviation, and commercial facilities etc., and is widely accepted by institutions and individuals. In fact, in performance they match with the lithium packs in the sense that these batteries can be discharged to zero volt every time and they can recover to full capacity. You do not have to refresh them, as the battery shelf life can go upto one year & once charged it can come back to full capacity. Hence, these batteries have comparable performance characteristics than Lithium batteries at a lower price.

To overcome the fundamental shortcomings of lead-acid and gel batteries, we developed a new chemistry based on five proprietary technologies: Translucent Silica electrolyte and its preparation method, the irrigation fluid device and its battery plus liquid method, battery terminals connected protective devices, battery boxes and condensate liquid.

Conventional sulfuric acid solution is replaced by Self-designed SiO₂ cleaning composite electrolyte in Advance Technology Batteries. ATB has many advantages over the conventional Lead Acid or Gel Batteries like **long use life, extreme operating temperature , low gassing, environmental safety, and high rate discharge**. Traditional lead-acid batteries have many short comings like plate sulfate, active material loss, dehydration, serious acid pollution, short cycle life, poor low/high temperature characteristics and poor transport safety.

When the composite electrolyte reacts with the plate during the charging process translucent electrolyte salts are formed and the electrolyte is absorbed onto the electrolytic salt. Electrolyte is distributed evenly in a non-hierarchical manner and there is no gradient concentration in the upper and lower electrode.

The Advance Technology Batteries serve various industries and are available in three different range

- 1.The EFSN Range** - This is our standard range and is used for multiple applications like solar & wind energy, energy storage, UPS or back-up power, stand-alone power for military and medical applications, rail solutions.
- 2.The EFSL Range** - These are specifically designed to meet the high current and high cyclic needs for electric vehicles and industrial grade machinery like cleaning machines, floor washers and scrubbers. These batteries are also widely used in golf carts and similar devices. They are built to meet a high cycle life and withstand high current discharges.
- 3.The EFSM Range**- This range is specifically designed to meet the telecom standards with standard telecom racking dimensions and front terminals therefore they are easy to connect in series and easy to perform maintenance and checks.

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A.T .Battery Models



EFSN Series (Standby & Cyclic Batteries)

Sl No	Model	Voltage (V)	Rated Capacity (Ah)			Dimension			Weight Kg(lbs)
			20 HR	10 HR	5 HR	Length mm (inch)	Width mm (inch)	Height mm (inch)	
1	12 EFSN 5	12	5	4.5	4	90(3.54)	70(2.75)	106(4.17)	1.6(3.5)
2	12 EFSN 7.8	12	7.8	7.2	6.5	151(5.94)	65(2.55)	100(3.94)	2.3(5.1)
3	12 EFSN 9	12	9	8.2	7.2	151(5.94)	65(2.55)	100(3.94)	2.55(5.6)
4	12 EFSN 13	12	13	12	11	151(5.94)	99(3.89)	100(3.94)	4(8.18)
5	12 EFSN 15	12	15	14	13	151(5.94)	99(3.89)	104(4.09)	4.35(9.5)
6	12 EFSN 20	12	20	18	16	181(7.12)	76(2.99)	176(6.92)	5.9(13)
7	12 EFSN 24	12	24	22	21.5	181(7.13)	76(2.99)	176(6.92)	7.8(17)
8	12 EFSN 26	12	26	24	22	175(6.88)	166(6.53)	125(4.92)	7.8(17)
9	12 EFSN 32	12	32	28	26	175(6.88)	166(6.53)	125(4.92)	8.5(18)
10	12 EFSN 38	12	38	35	32	194(7.63)	132(5.19)	170(6.69)	12(26)
11	12 EFSN 43	12	43	40	37	198(7.79)	166(6.53)	172(6.77)	13(28.63)
12	12 EFSN 60	12	60	55	48	229(9.00)	138(5.43)	215(8.46)	17(37)
13	12 EFSN 70	12	70	65	56	348(13.7)	167(6.57)	175(6.88)	21(46)
14	12 EFSN 75	12	75	70	60	259(10.2)	169(6.65)	215(8.46)	22.5(49.56)
15	12 EFSN 100	12	100	90	80	306(12.0)	169(6.65)	206(8.11)	27(59.5)
16	12 EFSN 108	12	108	100	90	330(13.0)	172(6.77)	220(8.66)	31.5(69.36)
17	12 EFSN 130	12	130	120	100	408(16.0)	172(6.77)	211(8.30)	36.5(80.41)
18	12 EFSN 162	12	162	150	130	486(19.1)	170(6.69)	249(9.8)	45.5(99)
19	12 EFSN 172	12	172	160	135	522(20.5)	207(8.14)	220(8.66)	50(110.41)
20	12 EFSN 183	12	183	170	145	546(21.5)	125(4.92)	328(12.91)	50(110.41)
21	12 EFSN 195	12	195	180	155	522(20.5)	240(9.44)	227(8.93)	60(132.16)
22	12 EFSN 216	12	216	200	170	522(20.5)	240(9.44)	227(8.93)	62(136.5)
23	12 EFSN 270	12	270	250	215	520(20.5)	269(10.6)	231(9.09)	70(154.5)
24	6 EFSN 4.5	6	4.5	4	3.6	70(2.75)	47.5(1.8)	104(4.09)	0.68(1.5)
25	6 EFSN 7.8	6	7.8	7.2	6.5	151(5.94)	35(1.38)	100(3.94)	1.2(5.1)
26	6 EFSN 11	6	11	10	8.8	151(5.94)	50(1.97)	100(3.94)	1.8(3.96)
27	6 EFSN 13	6	13	12	11	151(5.94)	50(1.97)	100(3.94)	2.1(4.63)
28	6 EFSN 172	6	172	160	135	298(11.7)	172(6.77)	235(9.25)	26(57.27)
29	6 EFSN 195	6	195	180	155	306(12.0)	168(6.61)	228(8.97)	28.5(62.81)
30	6 EFSN 216	6	216	200	170	323(12.7)	178(7.01)	234(9.21)	31(62.83)
31	2 EFSN 108	2	108	100	90	172(6.77)	72(2.83)	213(8.38)	5.8(12.36)
32	2 EFSN 215	2	215	200	170	175 (6.88)	110(4.33)	340(13.38)	13.5(29.73)
33	2 EFSN 320	2	320	300	255	175(6.88)	154(6.06)	338(13.30)	21.5(47.36)
34	2 EFSN 430	2	430	400	340	210(8.26)	175(6.88)	338(13.3)	27.5(60.57)
35	2 EFSN 540	2	540	500	430	244(9.60)	175(6.88)	338(13.3)	31(68.57)
36	2 EFSN 645	2	645	600	515	301(11.8)	175(6.88)	338(13.3)	38(83.57)
37	2 EFSN 860	2	860	800	685	410(16.1)	175(6.88)	338(13.3)	53.5(117.84)
38	2 EFSN 1080	2	1080	1000	860	475(18.7)	175(6.88)	340(13.38)	65.5(144.4)
39	2 EFSN 1600	2	1600	1500	1280	401(15.8)	351(13.8)	347(13.66)	98.5(216.5)
40	2 EFSN 2160	2	2160	2000	1720	491(19.3)	351(13.8)	347(13.66)	125(275.5)
41	2 EFSN 2700	2	2700	2500	2150	491(19.3)	351(13.8)	347(13.66)	141(310.5)
42	2 EFSN 3300	2	3300	3000	2700	712(28.0)	353(13.9)	348 (13.7)	190(418.5)

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A.T. Battery Models

EFSL Series (Light Traction Batteries)

Sl No	Model	Voltage (V)	Rated Capacity (Ah)			Dimension			
			20 HR	10 HR	5 HR	Length mm(inch)	Width mm(inch)	Height mm(inch)	Weight Kg(lb)
1	12 EFSL 34	12	34	31.5	30	176(6.92)	166(6.53)	125(4.92)	9.3(20.5)
2	12 EFSL 39	12	39	36	34	194(7.63)	132(5.19)	170(6.69)	11(24)
3	12 EFSL 50	12	49.1	45	42	222(8.74)	120(4.72)	178(7.00)	12.5(27.5)
4	12 EFSL 76	12	76	70	66	260(10.2)	169(6.65)	215(8.46)	23(50)
5	12 EFSL 87	12	87	80	77	260(10.2)	169(6.65)	216(8.50)	26(57)
6	12 EFSL 108	12	108	100	88	330(12.9)	172(6.77)	224(8.81)	31.5(69)
7	12 EFSL 125	12	125	115	110	330(12.9)	176(6.92)	223(8.77)	34.5(76)
8	12 EFSL 152	12	152	140	130	330(12.9)	170(6.69)	258(10.15)	41.5(91)
9	12 EFSL 185	12	185	170	165	486(19.1)	170(6.69)	241(9.48)	50(110)
10	12 EFSL 230T	12	230	210	200	545(21.5)	275(10.8)	251(9.88)	74(163)
11	8 EFSL 179	8	179	165	150	260.5(10)	180.5(7.1)	289(11.37)	33(72.69)
12	6 EFSL 260	6	260	240	200	260(10.2)	180(7.08)	278(10.94)	33(72.69)
13	6 EFSL 281	6	281	260	225	260(10.2)	180(7.08)	278(10.94)	34.8(76.65)
14	6 EFSL 325	6	325	300	285	295(11.7)	178(7.0)	353(13.89)	46.5(72.69)

EFSM Series (Front Terminal Batteries)

Sl No	Model	Voltage (V)	Rated Capacity (Ah)			Dimension			
			20 HR	10 HR	5 HR	Length mm(inch)	Width mm(inch)	Height mm(inch)	Weight Kg(lb)
1	12 EFSM 60	12	60	55	48	277(10.90)	106(4.17)	224(8.81)	16.8(37)
2	12 EFSM 100	12	100	90	80	390(15.35)	108(4.25)	286(11.25)	34.5(75.99)
3	12 EFSM 108	12	108	100	90	560(22.0)	125(4.92)	228(8.98)	34.5(75.99)
4	12 EFSM 168	12	168	155	132	558(22.0)	125(4.92)	283(11.14)	50(110.13)
5	12 EFSM 183	12	183	170	145	546(21.5)	125(4.92)	320(12.6)	50.5(111.23)
6	12 EFSM 195	12	195	180	155	546(21.5)	125(4.92)	320(12.6)	51(112.23)

