

Battery

Small Size Valve Regulated Lead Acid Battery



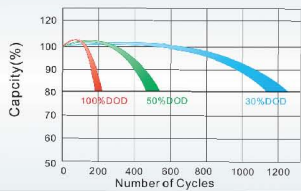
Key Features :

- Maintenance-Free, Absorbent Glass Mat Technology
- Low Self Discharge
- Long Designed service Life
- Excellent Discharge Performance
- Environment Friendliness
- Wide suitability of ambient temperature range

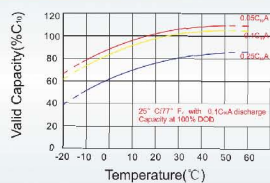
Applications :

- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system, emergency lighting system, security system
- Telecommunication Equipment
- Power source for portable devices or tools

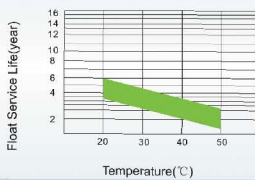
Cycle Life in Relation to Depth of Discharge



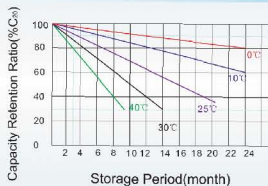
Temperature and Valid Capacity



Float Service Life



Self Discharge Characteristics



Model	Rated Voltage(V)	Rated Capacity(Ah)	Dimension (mm/in) Approx				Approx Weight (+/-3%)
			Length mm (inches)	Width mm (inches)	Height mm (inches)	Total Height mm (inches)	Kg (lbs)
6-FM-4	12	4	90 (3.54)	70 (2.76)	101 (3.98)	107 (4.21)	1.4 (3.09)
6-FM-4.5	12	4.5	90 (3.54)	70 (2.76)	101 (3.98)	107 (4.21)	1.45 (3.2)
6-FM-5	12	5	90 (3.54)	70 (2.76)	101 (3.98)	107 (4.21)	1.5 (3.3)
6-FM-5.5	12	5.5	90 (3.54)	70 (2.76)	101 (3.98)	107 (4.21)	1.6 (3.53)
6-FM-6.8	12	6.8	151 (5.94)	65 (2.56)	94 (3.7)	100 (3.94)	1.95 (4.3)
6-FM-7	12	7	151 (5.94)	65 (2.56)	94 (3.7)	100 (3.94)	2.2 (4.85)
6-FM-7.5	12	7.5	151 (5.94)	65 (2.56)	94 (3.7)	100 (3.94)	2.4 (5.29)
6-FM-9	12	9	151 (5.94)	65 (2.56)	94 (3.7)	100 (3.94)	2.55 (5.62)
6-FM-10	12	10	151 (5.94)	98 (3.86)	94 (3.7)	100 (3.94)	3.3 (7.28)
6-FM-12	12	12	151 (5.94)	98 (3.86)	94 (3.7)	100 (3.94)	3.6 (7.94)
6-FM-14	12	14	151 (5.94)	98 (3.86)	95 (3.74)	101 (3.98)	3.9 (8.6)
6-FM-15	12	15	181 (7.13)	77 (3.03)	167 (6.57)	167 (6.57)	4.5 (9.92)
6-FM-17	12	17	181 (7.13)	77 (3.03)	167 (6.57)	167 (6.57)	5 (11.02)
6-FM-18	12	18	181 (7.13)	77 (3.03)	167 (6.57)	167 (6.57)	5.3 (11.68)
6-FM-20	12	20	181 (7.13)	77 (3.03)	167 (6.57)	167 (6.57)	5.5 (12.12)
6-FM-22	12	22	181 (7.13)	77 (3.03)	167 (6.57)	167 (6.57)	6.1 (13.44)
6-FM-24	12	24	166 (6.54)	175 (6.89)	125 (4.92)	125 (4.92)	7.2 (15.87)
6-FM-26	12	26	166 (6.54)	175 (6.89)	125 (4.92)	125 (4.92)	8.2 (18.07)
6-FM-28	12	28	166 (6.54)	175 (6.89)	125 (4.92)	125 (4.92)	8.7 (19.17)
6-FM-33	12	33	195 (7.68)	131 (5.12)	155 (6.1)	170 (6.69)	10.5 (23.1)
6-FM-35	12	35	195 (7.68)	131 (5.12)	155 (6.1)	170 (6.69)	11.2 (24.7)
6-FM-36	12	36	194 (7.64)	133 (5.24)	169 (6.65)	169 (6.65)	11.5 (25.3)
6-FM-38	12	38	197 (7.64)	165 (6.5)	170 (6.69)	170 (6.69)	12.8 (28.2)
6-FM-40	12	40	197 (7.64)	165 (6.5)	170 (6.69)	170 (6.69)	13.1 (28.9)
6-FM-48	12	48	197 (7.64)	165 (6.5)	170 (6.69)	170 (6.69)	14.2 (31.3)

Middle Size Valve Regulated Lead Acid Battery



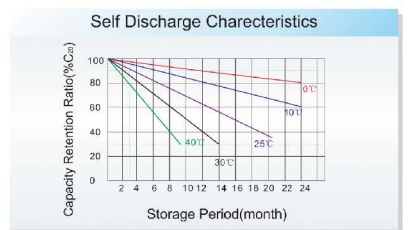
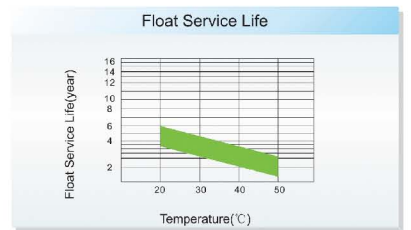
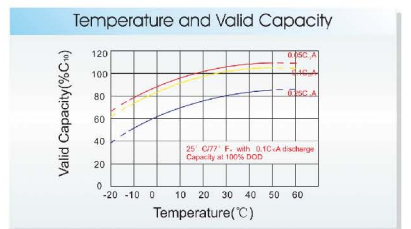
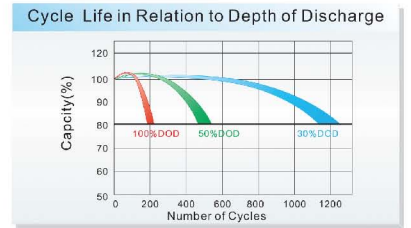
Key Features :

- Maintenance-Free ,Absorbent Glass Mat Technology
- Low Self Discharge
- Long Designed service Life
- Excellent Discharge Performance
- Environment Friendliness
- Wide suitability of ambient temperature range

Applications :

- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system , emergency lighting system , security system
- Telecommunication Equipment
- Power source for portable devices or tools

Model	Rated Voltage(V)	Rated Capacity(Ah)	Dimension (mm/in) Approx				Approx Weight (+/-3%)
			Length	Width	Height	Total Height	
			mm (inches)	mm (inches)	mm (inches)	mm (inches)	Kg (lbs)
6-GF-50	12	50	230 (9.05)	137 (5.39)	210 (8.27)	215 (8.46)	16.2 (35.7)
6-GFM-55A	12	55	229 (9.04)	137 (5.39)	210 (8.27)	215 (8.46)	17.5 (38.6)
6-GFM-55B	12	55	350 (13.8)	167 (6.57)	174 (6.65)	174 (6.85)	18 (39.7)
6-GFM-65A	12	65	330 (12.99)	173 (6.81)	169 (6.65)	174 (6.85)	20 (44.1)
6-GFM-65B	12	65	350 (13.8)	167 (6.57)	174 (6.85)	174 (6.85)	21 (46.3)
6-GFM-70	12	70	260 (10.24)	167 (6.57)	213 (8.39)	216 (8.50)	20.6 (45.4)
6-GFM-75	12	75	260 (10.24)	167 (6.57)	213 (8.39)	216 (8.50)	21.8 (48.0)
6-GFM-80	12	80	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	25.5 (56.2)
6-GFM-85	12	85	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	26.5 (58.4)
6-GFM-90	12	90	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	27.5 (60.6)
6-GFM-100A	12	100	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	28.3 (62.4)
6-GFM-100B	12	100	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	30.8 (67.9)
6-GFM-110	12	110	405 (15.94)	173 (6.81)	210 (8.27)	239 (9.41)	32.8 (72.3)
6-GFM-120	12	120	405 (15.94)	173 (6.81)	210 (8.27)	239 (9.41)	34.6 (76.3)
6-GFM-135	12	135	486 (19.13)	170 (6.69)	244 (9.61)	244 (9.61)	38.8 (85.5)
6-GFM-150	12	150	486 (19.13)	170 (6.69)	244 (9.61)	244 (9.61)	43 (94.8)
6-GFM-160	12	160	522 (20.55)	207 (8.15)	215 (8.46)	220 (8.66)	49.2 (108.4)
6-GFM-180	12	180	522 (20.55)	240 (9.45)	218 (8.58)	223 (8.78)	53 (116.8)
6-GFM-200A	12	200	522 (20.55)	240 (9.45)	218 (8.58)	223 (8.78)	58 (127.8)
6-GFM-200B	12	200	522 (20.55)	240 (9.45)	218 (8.58)	223 (8.78)	60 (132.3)
6-GFM-220	12	220	522 (20.55)	209 (8.23)	203 (7.99)	206 (8.11)	63.4 (139.7)
6-GFM-250	12	250	522 (20.55)	268 (10.55)	220 (8.66)	225 (8.86)	67 (147.7)



12V Valve Regulated Gel Battery

Key Features :

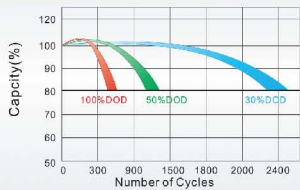
- Gelled electrolyte made by mixing sulfuric acid with silica fume.
- The electrolyte is gel like ,immobile and does not leak ,enabling uniform reaction of each part of the plate .
- High rate discharge performance due to tight assembly technology
- Strong heat dissipation and wide operating temperature range
- Avoid acid mist being separated out , environment friendliness
- Efficient venting system release excessive gas automatically

Applications :

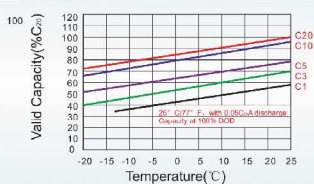
- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system , emergency lighting system , security system
- Telecommunication Equipment
- Power plant and transmission system



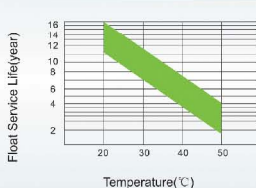
Cycle Life in Relation to Depth of Discharge



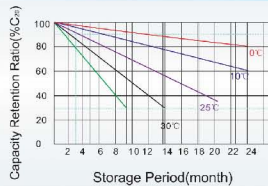
Temperature and Valid Capacity



Float Service Life



Self Discharge Characteristics



Model	Rated Voltage(V)	Rated Capacity(Ah)	Dimension (mm/in) Approx				Approx Weight (+/-3%)
			Length	Width	Height	Total Height	
			mm (inches)	mm (inches)	mm (inches)	mm (inches)	Kg (lbs)
6-FM(G)-33	12	33	195 (7.68)	131 (5.12)	155 (6.1)	180 (7.09)	10.92 (24.1)
6-FM(G)-35	12	35	195 (7.68)	131 (5.12)	155 (6.1)	180 (7.09)	11.65 (25.7)
6-FM(G)-38	12	38	197 (7.64)	165 (6.5)	170 (6.69)	170 (6.69)	13.31 (29.3)
6-FM(G)-40	12	40	197 (7.64)	165 (6.5)	170 (6.69)	170 (6.69)	13.62 (30)
6-FM(G)-50	12	50	260 (9.05)	134 (5.28)	200 (7.87)	200 (7.87)	16.85 (37.1)
6-GFM(G)-55	12	55	260 (9.05)	134 (5.28)	200 (7.87)	200 (7.87)	18.7 (41.3)
6-GFM(G)-65	12	65	330 (12.99)	173 (6.81)	169 (6.65)	174 (6.85)	21.32 (47)
6-GFM(G)-70	12	70	348 (13.7)	167 (6.57)	178 (7.01)	178 (7.01)	22.88 (50.4)
6-GFM(G)-75	12	75	260 (10.24)	167 (6.57)	213 (8.39)	216 (8.50)	21.8 (48.0)
6-GFM(G)-80	12	80	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	25.5 (56.2)
6-GFM(G)-85	12	85	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	27.56 (60.8)
6-GFM(G)-90	12	90	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	28.5 (60.6)
6-GFM(G)-100	12	100	330 (12.99)	173 (6.81)	217 (8.54)	222 (8.74)	30 (66.67)
6-GFM(G)-110	12	110	405 (15.94)	173 (6.81)	210 (8.27)	239 (9.41)	32.8 (72.3)
6-GFM(G)-120	12	120	405 (15.94)	173 (6.81)	210 (8.27)	239 (9.41)	35 (77.78)
6-GFM(G)-135	12	135	486 (19.13)	170 (6.69)	244 (9.61)	244 (9.61)	38.8 (85.5)
6-GFM(G)-150	12	150	486 (19.13)	170 (6.69)	244 (9.61)	244 (9.61)	44.72 (98.6)
6-GFM(G)-160	12	160	522 (20.55)	207 (8.15)	215 (8.46)	220 (8.66)	49.2 (108.4)
6-GFM(G)-180	12	180	522 (20.55)	240 (9.45)	218 (8.58)	223 (8.78)	53 (116.8)
6-GFM(G)-200	12	200	522 (20.55)	240 (9.45)	218 (8.58)	223 (8.78)	60 (132.3)
6-GFM(G)-220	12	220	522 (20.55)	209 (8.23)	203 (7.99)	206 (8.11)	63.4 (139.7)
6-GFM(G)-250	12	250	522 (20.55)	268 (10.55)	220 (8.66)	225 (8.86)	67 (147.7)

2V Valve Regulated Lead Acid Battery



Key Features :

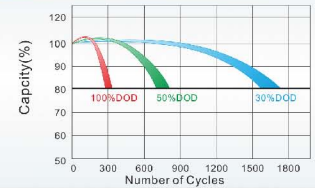
- Long service life according to EUROBAT Classification
- Up to 2000 deep discharge cycles
- High gas recombination efficiency
- Wide suitability of ambient temperature range
- Low self discharge

Applications :

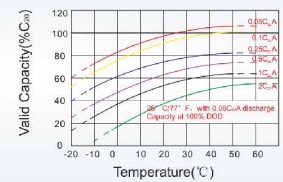
- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system , emergency lighting system , security system
- Telecommunication Equipment
- Power plant and transmission system

Model	Rated Voltage(V)	Rated Capacity(Ah)	Dimension (mm/in) Approx				Approx Weight (+/-3%) Kg (lbs)
			Length	Width	Height	Total Height	
			mm (inches)	mm (inches)	mm (inches)	mm (inches)	
GFM-100	2	100	171 (6.73)	68 (2.68)	348 (13.7)	348 (13.7)	7.5 (16.5)
GFM-150	2	150	171 (6.73)	68 (2.68)	348 (13.7)	348 (13.7)	8.5 (18.7)
GFM-200	2	200	171 (6.73)	112 (4.41)	328 (12.91)	365(14.37)	14 (30.9)
GFM-300	2	300	171 (6.73)	151 (5.94)	328 (12.91)	365(14.37)	19 (41.9)
GFM-400	2	400	211 (8.31)	175 (6.89)	328 (12.91)	365(14.37)	26 (57.3)
GFM-500	2	500	243 (9.57)	175 (6.89)	342.5 (13.48)	365(14.37)	31.5 (69.4)
GFM-600	2	600	301 (11.87)	175 (6.89)	328 (12.91)	365(14.37)	38 (83.8)
GFM-800	2	800	412 (16.22)	175 (6.89)	328 (12.91)	365(14.37)	51 (112.2)
GFM-1000	2	1000	475 (18.7)	175 (6.89)	328 (12.91)	365(14.37)	63 (138.9)
GFM-1200	2	1200	475 (18.7)	175 (6.89)	328 (12.91)	365(14.37)	75 (165.3)
GFM-1500	2	1500	405 (15.94)	353 (13.9)	343 (13.49)	369(14.52)	95.5 (210.5)
GFM-2000	2	2000	490 (19.29)	353 (13.9)	343 (13.49)	369(14.52)	127.5 (281.1)
GFM-2500	2	2500	710 (27.95)	353 (13.9)	343 (13.49)	369(14.52)	165(363)
GFM-3000	2	3000	710 (27.95)	353 (13.9)	343 (13.49)	369(14.52)	181 (398.2)

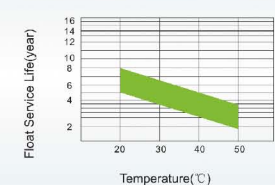
Cycle Life in Relation to Depth of Discharge



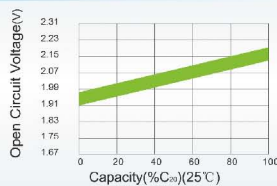
Temperature and Valid Capacity



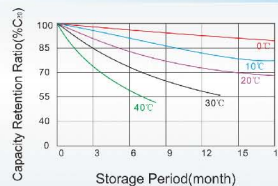
Float Service Life



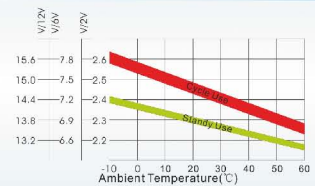
Capacity and Open Circuit Voltage



Self Discharge Characteristics



Relationship between Charging Voltage and Temperature



Battery

2V Valve Regulated Gel Battery



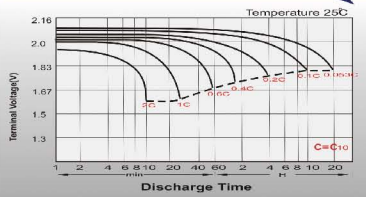
Key Features :

- Long service life according to EUROBAT Classification
- Up to 3700 deep discharge cycles
- High gas recombination efficiency
- Wide suitability of ambient temperature range
- Low self discharge

Applications :

- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system , emergency lighting system , security system
- Telecommunication Equipment
- Power plant and transmission system

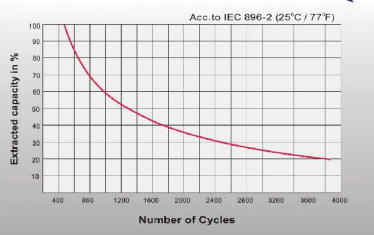
Discharge Characteristics



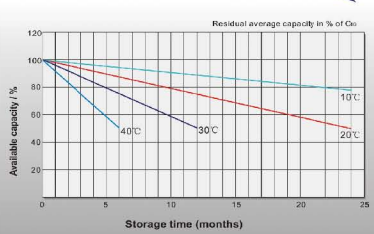
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge

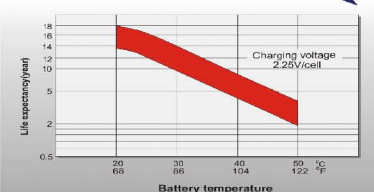


General Relation of Capacity VS. Storage Time



Model	Rated Voltage(V)	Rated Capacity(Ah)	Dimension (mm/in) Approx				Approx Weight (+/-3%)
			Length	Width	Height	Total Height	
			mm (inches)	mm (inches)	mm (inches)	mm (inches)	Kg (lbs)
GFMG-100	2	100	171 (6.73)	68 (2.68)	348 (13.7)	348 (13.7)	7.5 (16.5)
GFMG-150	2	150	171 (6.73)	68 (2.68)	348 (13.7)	348 (13.7)	8.5 (18.7)
GFMG-200	2	200	171 (6.73)	112 (4.41)	328 (12.91)	365(14.37)	14 (30.9)
GFMG-300	2	300	171 (6.73)	151 (5.94)	328 (12.91)	365(14.37)	19 (41.9)
GFMG-400	2	400	211 (8.31)	175 (6.89)	328 (12.91)	365(14.37)	26 (57.3)
GFMG-500	2	500	243 (9.57)	175 (6.89)	342.5 (13.48)	365(14.37)	31.5 (69.4)
GFMG-600	2	600	301 (11.87)	175 (6.89)	328 (12.91)	365(14.37)	38 (83.8)
GFMG-800	2	800	412 (16.22)	175 (6.89)	328 (12.91)	365(14.37)	51 (112.2)
GFMG-1000	2	1000	475 (18.7)	175 (6.89)	328 (12.91)	365(14.37)	63 (138.9)
GFMG-1200	2	1200	475 (18.7)	175 (6.89)	328 (12.91)	365(14.37)	75 (165.3)
GFMG-1500	2	1500	405 (15.94)	353 (13.9)	343 (13.49)	369(14.52)	95.5 (210.5)
GFMG-2000	2	2000	490 (19.29)	353 (13.9)	343 (13.49)	369(14.52)	127.5 (281.1)
GFMG-2500	2	2500	710 (27.95)	353 (13.9)	343 (13.49)	369(14.52)	165(363)
GFMG-3000	2	3000	710 (27.95)	353 (13.9)	343 (13.49)	369(14.52)	181 (398.2)

Effect of Temperature on Long Term Float Life



Float Charging Characteristics

