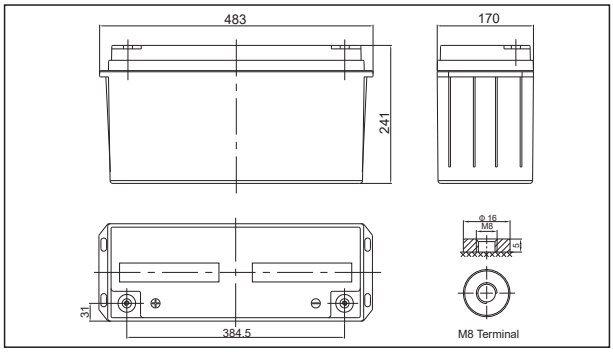
GEL MKC12-150LL

491460325 (12V 150A Long Life)

MKC GEL series is pure GEL battery with 10-15 Years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented GEL electrolyte, the MKC GEL series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and it can offers 2 times cyclic life than the standard series. It is suitable for solar & wind system, marine, deep discharge UPS etc.

Use allowed exclusively in industrial environments and for professional applications (EU Reg. 2023/1542).

Outer dimensions (mm) Terminal Type (mm)



Specifications

Nominal Voltage		12V
Rated capacity (20 hr to1.75V per cell @ 25°C)		150Ah
Dimensions	Length	483±1mm(19.0 inch)
	Width	170±1mm(6.69 inch)
	Height	241±1mm(9.49 inch)
	Total Height	241±1mm(9.49 inch)
Weight Approx.		45 kg(99.21 lbs)±3%

Characteristics

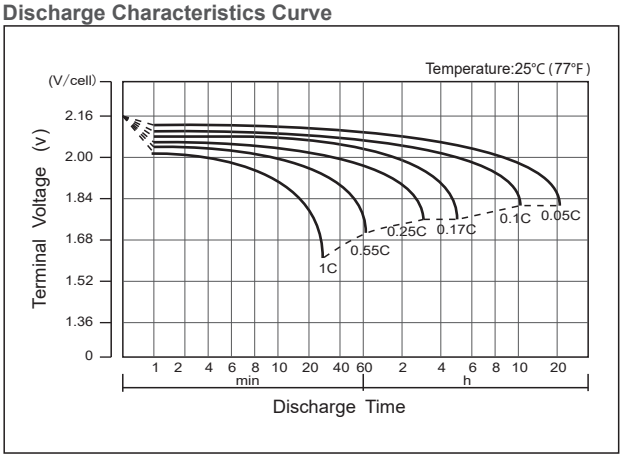
capacity(25°C)	20HR	150.0AH
	10HR	140.0AH
	3HR	102.3AH
Terminal type		M8
Inner resistance (fully charged,25°C)		Approx.6.0mΩ
Capacity affected by temperature	40°C	102%
	25°C	100%
	0°C	85%
	15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity:91%
	6 months	Remaining Capacity:82%
	12 months	Remaining Capacity:65%
Nominal operating temperature		25°C±3°C(77°F±5°F)
Operating temperature range	Discharge	-15°C~50°C(5°F~122°F)
	Charge	-10°C~50°C(14°F~122°F)
	Storage	-20°C~50°C(-4°F~122°F)
Maximum charge current		30A
Maximum discharge current		1500A(5 sec.)
Designed life		10~15 years

Construction

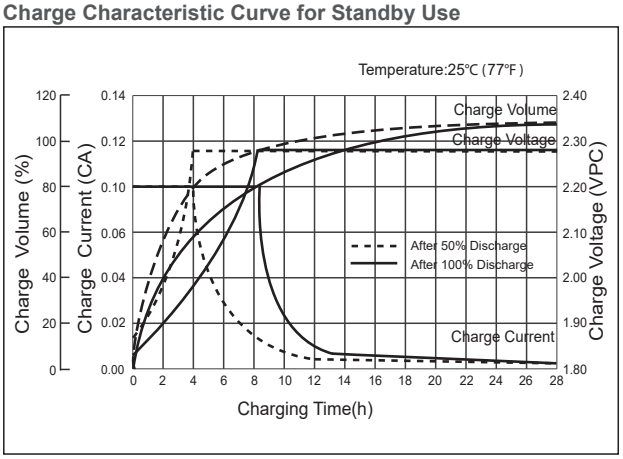
Component	Positive plate	Negative plate	Container&Cover	Separator	Electrolyte	Safety value	Terminal
Raw materail	Lead dioxide	Lead	ABS UL94-HB,UL94-V0 Optional.	AGM	Gel Sulfuric acid	Rubber	Copper

Constant Current Discharge (Amperes/cell) at 25°C (77°F)											
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	245.6	199.2	130.7	81.5	49.8	37.3	29.8	25	16.9	13.9	7.81
1.65V	232.1	190.4	125.5	78.7	48.2	36.2	29	24.3	16.7	13.8	7.68
1.70V	213.6	178.3	119.9	76.1	46.6	35.2	28.2	23.7	16.4	13.5	7.59
1.75V	195.6	166	114.6	73.3	45	34.1	27.5	23.1	16.2	13.4	7.5
1.80V	177	153.2	109.5	70.5	43.4	33.1	26.7	22.5	15.9	13.2	7.42
1.85V	144.7	127.2	94.3	63.2	39.7	30.6	24.8	21	15	12.4	7.05
Constant Power Discharge (watts/cell) at 25°C (77°F)											
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	474.4	395.7	269.7	173.9	107.2	81	65	54.7	37.5	31.1	17.5
1.65V	451.4	380.3	261.2	169.2	104.3	79	63.4	53.5	37.1	30.7	17.2
1.70V	428.4	364.9	252.6	164.5	101.4	77	61.9	52.3	36.6	30.3	17
1.75V	399.2	344.5	243.9	159.4	98.3	75	60.6	51.1	36.2	30	16.8
1.80V	367.6	322.6	235.5	154.2	95.3	73	59.1	50	35.7	29.6	16.7
1.85V	305.8	271.5	204.8	139.2	87.8	67.8	55.1	46.8	33.6	27.9	15.9

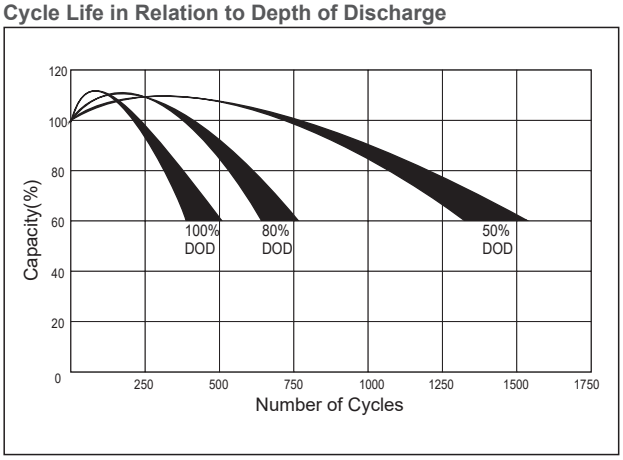
Discharge Characteristics Curve



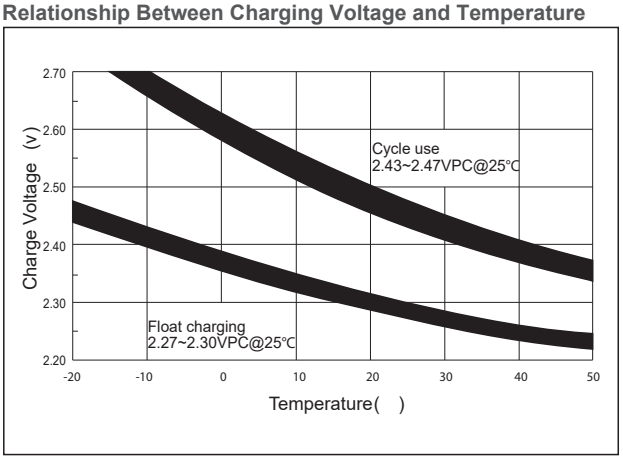
Charge Characteristic Curve for Standby Use



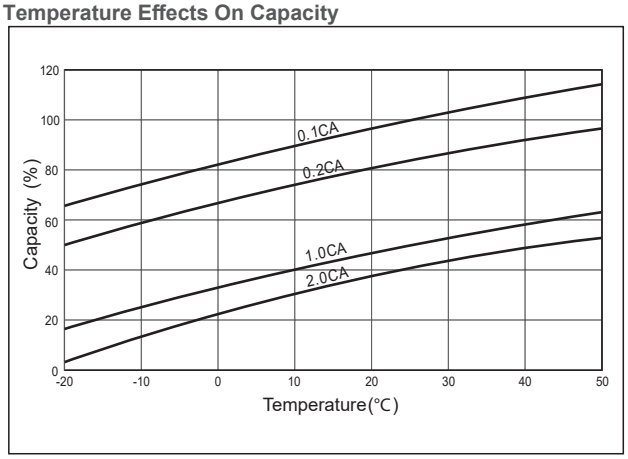
Cycle Life in Relation to Depth of Discharge



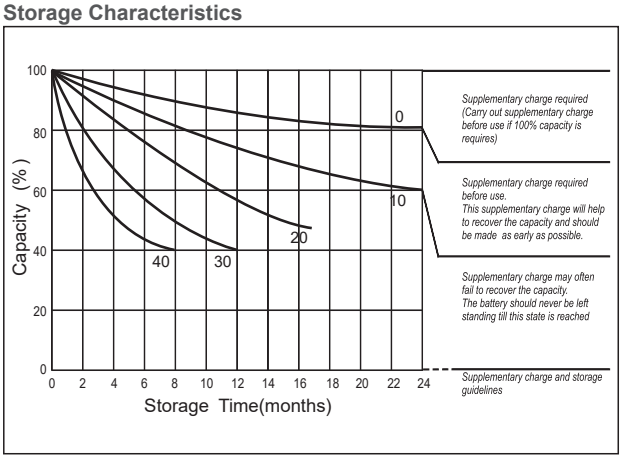
Relationship Between Charging Voltage and Temperature



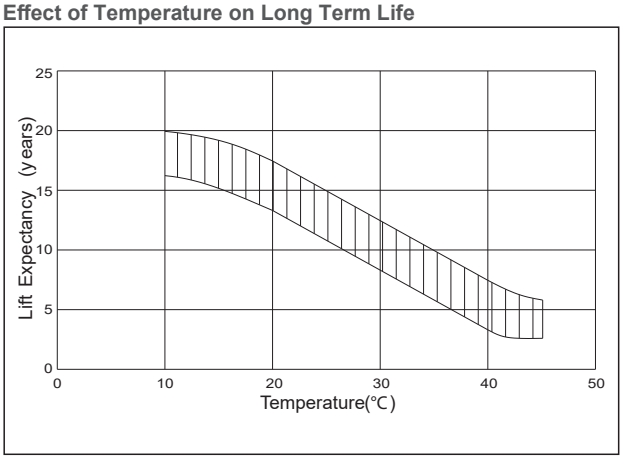
Temperature Effects On Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge