



Gel Batteries

The Sealed Battery Specialists



Advanced design/manufacturing including IPF™ technology combine to make MK Battery's Sealed Gel Batteries the standard by which all other gel batteries are measured.

## GENERAL APPLICATIONS

Specifications							Minutes Discharged @ 1.75VPC @ 77°F (25°C)*						Discharge Amps						
Model	Voltage	Foot Notes	Terminal	CCA @ 0° F	CA @ 32° F	RC @ 80° F	75 Amps	50 Amps	25 Amps	15 Amps	8 Amps	5 Amps	5 Min.	10 Min.	15 Min.	20 Min.	30 Min.	60 Min.	90 Min.
8GU1	12	1	Y	175	250	44	5	12	47	90	190	325	74.7	54.3	44.6	38.8	31.9	21.0	15.0
8GU1H	12	H/1	Y	175	250	44	5	12	47	90	190	325	74.7	54.3	44.6	38.8	31.9	21.0	15.0
8G40	12	2	C	225	325	59	11	21	63	120	250	430	110	79.0	61.0	51.0	39.0	25.8	19.0
8G22NF	12	2	G	210	300	77	13	27	82	157	330	557	120	86.7	69.1	60.0	47.0	31.8	23.2
8G34	12	2	C	300	420	90	21	39	96	172	368	640	155	115	92.0	77.0	59.0	36.0	26.0
8G24	12	1	U	410	575	132	33	57	140	245	500	845	204	152	119	100	78.0	48.5	35.0
8G24 FT	12	1	C	335	470	132	33	57	140	245	500	845	204	152	119	100	78.0	48.5	35.0
8G24 UT	12	1	G	335	470	132	33	57	140	245	500	845	204	152	119	100	78.0	48.5	35.0
8G27	12	H/1	U	505	700	160	40	70	170	300	605	1000	242	185	143	119	90.3	57.0	41.5
8G27-T876	12	H/1	B	400	550	160	40	70	170	300	605	1000	242	185	143	119	90.3	57.0	41.5
8G27-T881	12	1	G	400	550	160	40	70	170	300	605	1000	242	185	143	119	90.3	57.0	41.5
8G30H	12	H/1	B	450	640	180	51	84	190	335	690	1160	266	200	162	138	105	64.5	47.0
8G31DT	12	H/1	U	550	780	180	51	84	190	335	690	1160	266	200	162	138	105	64.5	47.0
8G31	12	H/1	X	450	640	180	51	84	190	335	690	1160	266	200	162	138	105	64.5	47.0
8GGC2	6	4	G	585	850	345	92	155	375	680	1360	2200	325	250	210	180	150	99.0	76.0
8G4D	12	H/3	S	970	1245	375	105	175	395	685	1385	2300	485	375	300	255	195	122	88.0
8G4D LTP	12	H/3	T	970	1245	375	105	175	395	685	1385	2300	485	375	300	255	195	122	88.0
8G8D	12	H/3	S	1150	1470	475	135	220	500	890	1750	3000	600	460	370	315	245	150	105
8G8D LTP	12	H/3	T	1150	1470	475	135	220	500	890	1750	3000	600	460	370	315	245	150	105

## Charging Information

\*AMPERE HOUR CAPACITY IS A NOMINAL RATING. ALL RATINGS ARE AFTER 15 CYCLES AND CONFORM TO B.C.I. SPECIFICATIONS.

**IMPORTANT CHARGING INSTRUCTIONS:** WARRANTY VOID IF OPENED OR IMPROPERLY CHARGED. Constant under or overcharging will damage any battery and shorten its life! Use a good constant potential, voltage-regulated charger. **For 12-volt batteries, charge to at least 13.8 volts but no more than 14.1 volts at 68°F (20°C). For 6-volt batteries, charge to at least 6.9 volts but no more than 7.05 volts at 68°F (20°C).** Do not charge in a sealed container.

### BENEFITS

- Sealed construction eliminates periodic watering, corrosive acid fumes and spills.
- Electrolyte will not stratify, no equalization charging required. Allows faster recharge.
- Increases durability and deep cycle ability for heavy demand applications.
- Less than 2% per month stand loss means little deterioration during transport and storage.
- Individual plate formation (IPF™) ensures voltage matching between cells.
- Transports easily and safely by air.
- Quality construction ensures reliable performance.

### APPLICATIONS

- Water Pumping
- Residential
- Communications
- Cathodic Protection
- Remote Monitoring
- Refrigeration
- Lighting
- Aids to Navigation
- Wind Generation
- Power Wheelchairs
- RV
- Golf Cart
- Solar
- Many Other Applications

### SPECIFICATIONS

Plate Alloy	Lead calcium
Posts	Forged terminals & bushings
Container/Cover	Polypropylene
Charge Voltage @ 68°F (20°C)	Cycle 2.30 to 2.35; Float 2.25 to 2.30 v.p.c.
Electrolyte	Sulfuric acid thixotropic gel
Vent	Self sealing
Operating Temperature	Fully charged range: -76°F (-60°C) to 140°F (60°C)
Non-Spillable Rating	by DOT (Department of Transportation), ICAO (International Commercial Airline Organization), and IATA (International Airline Transport Association) definitions.

# GEL SPECIFICATIONS

to 1.75VPC @ 77°F (25°C)*							Ampere Hour Capacity*						Weight	Dimensions – Inches (mm)		
3 Hr	5 Hr	10 Hr	20 Hr	24 Hr	48 Hr	100 Hr	100 Hr Rate	20 Hr Rate	10 Hr Rate	5 Hr Rate	3 Hr Rate	1 Hr Rate	Approx. Lbs. (kg)	L	W	H <sup>■</sup>
8.5	5.4	3.1	1.6	1.3	0.73	0.36	36.0	31.6	30.5	26.8	25.5	21.0	23 (10.5)	7.71 (196)	5.18 (132)	7.22 (183)
8.5	5.4	3.1	1.6	1.3	0.73	0.36	36.0	31.6	30.5	26.8	25.5	21.0	23 (10.5)	8.31 (211)	5.18 (132)	7.22 (183)
10.6	6.8	3.7	2.0	1.7	0.92	0.48	48.0	40.0	37.0	34.0	31.9	25.8	32 (14.5)	7.76 (197)	6.62 (168)	6.87 (174)
13.3	8.6	4.8	2.6	2.2	1.2	0.58	58.0	51.0	47.5	43.2	39.9	31.8	37 (16.8)	8.99 (228)	5.47 (139)	9.24 (235)
14.5	9.5	5.3	3.0	2.6	1.4	0.70	70.0	60.0	53.0	47.5	43.5	36.0	42 (19.1)	10.20 (259)	6.65 (169)	7.05 (179)
19.8	12.6	6.8	3.7	3.1	1.7	0.85	84.5	73.6	68.0	63.0	59.3	48.5	52.5 (23.8)	10.90 (277)	6.80 (173)	9.88 (251)
19.8	12.6	6.8	3.7	3.1	1.7	0.85	84.5	73.6	68.0	63.0	59.3	48.5	52 (23.6)	10.20 (259)	6.80 (173)	8.24 (209)
19.8	12.6	6.8	3.7	3.1	1.7	0.85	84.5	73.6	68.0	63.0	59.3	48.5	52 (23.6)	10.20 (259)	6.80 (173)	9.24 (235)
23.3	14.4	8.0	4.4	3.7	2.0	0.99	99.0	88.0	80.3	72.0	69.9	57.0	63.2 (28.7)	12.83 (326)	6.80 (173)	9.88 (251)
23.3	14.4	8.0	4.4	3.7	2.0	0.99	99.0	88.0	80.3	72.0	69.9	57.0	63 (28.6)	12.83 (326)	6.56 (167)	9.30 (236)
23.3	14.4	8.0	4.4	3.7	2.0	0.99	99.0	88.0	80.3	72.0	69.9	57.0	63 (28.6)	12.83 (326)	6.56 (167)	9.24 (235)
26.2	16.1	9.0	4.9	4.1	2.2	1.1	108	97.6	90.0	80.5	78.6	64.5	70 (31.8)	12.93 (329)	6.75 (171)	9.76 (248)
26.2	16.1	9.0	4.9	4.1	2.2	1.1	108	97.6	90.0	80.5	78.6	64.5	70 (31.8)	12.93 (329)	6.75 (171)	9.34 (237)
26.2	16.1	9.0	4.9	4.1	2.2	1.1	108	97.6	90.0	80.5	78.6	64.5	70 (31.8)	12.93 (329)	6.75 (171)	9.34 (237)
45.3	29.4	16.8	9.0	7.6	3.9	2.0	198	180	168	147	136	99.0	68 (30.8)	10.26 (261)	7.09 (180)	11.06 (281)
49.2	30.5	16.9	9.2	7.8	4.2	2.1	210	183	169	153	148	122	127 (57.6)	20.73 (527)	8.44 (214)	10.00 (254)
49.2	30.5	16.9	9.2	7.8	4.2	2.1	210	183	169	153	148	122	127 (57.6)	20.73 (527)	8.44 (214)	10.82 (275)
60.6	37.6	21.0	11.3	9.5	5.2	2.7	265	225	210	188	182	150	157 (71.2)	20.75 (527)	11.00 (279)	10.00 (254)
60.6	37.6	21.0	11.3	9.5	5.2	2.7	265	225	210	188	182	150	157 (71.2)	21.03 (534)	11.00 (279)	10.82 (275)

■ Total height includes terminals.



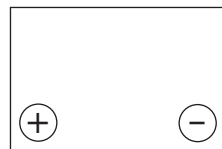
UL Recognized Component  
MH17218

East Penn Manufacturing  
QUALITY SYSTEM  
CERTIFIED TO  
ISO 9001  
ISO/TS 16949  
ISO 14001



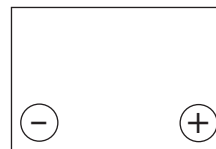
## FOOTNOTES

### TERMINAL POLARITY



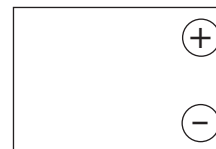
1

8GU1, 8GU1H, 8G24, 8G24FT,  
8G24UT, 8G27, 8G27T876,  
8G27T881, 8G30H, 8G31DT, 8G31



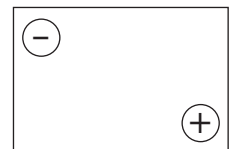
2

8G22NF, 8G34, 8G40



3

8G4D, 8G4DLTP,  
8G8D, 8G8DLTP



4

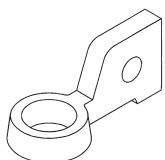
8GGC2

### CASE OPTIONS

H

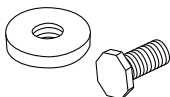
Includes handles

## TERMINAL TYPE



B

Flag terminal with 3/8"  
diameter hole  
(T876)



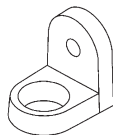
C

Insert  
with 1/4" - 20  
round hole



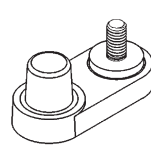
S

SAE "Automotive Post"  
(TSAE)



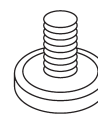
T

Heavy Duty "L"  
terminal with 3/8"  
diameter hole  
(T975)



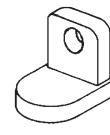
U

Molded-in offset  
SAE post & vert  
5/16" NEG. & 3/8"  
POS. stainless steel  
studs & wing nuts



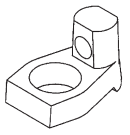
X

3/8" - 16 stainless  
steel stud posts  
(STUD)



Y

Small "L" terminal  
with 1/4" - 20  
round hole  
(T873)

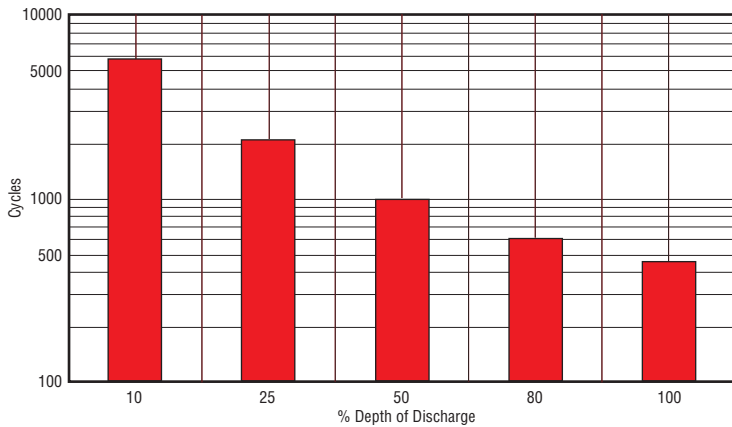


G

Offset post with  
horizontal hole,  
stainless steel 5/16"  
bolt & hex nut  
(T881)

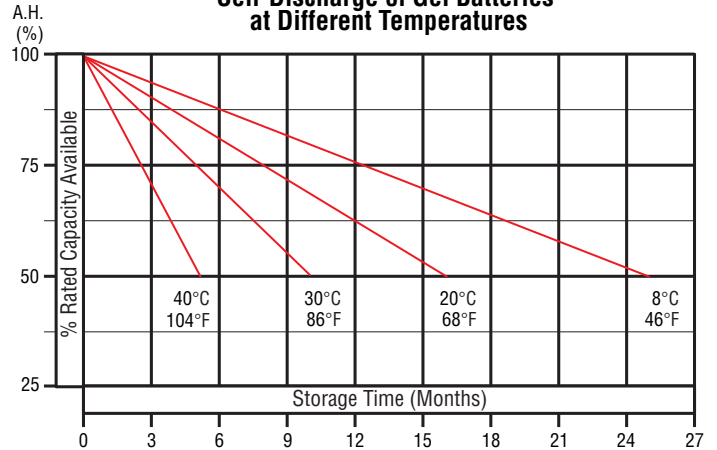
# CHARACTERISTICS OF MK GEL BATTERIES

**Gel Cycle Life vs Depth of Discharge at +25°C (77°F)  
Based on BCI 2-hour Capacity**

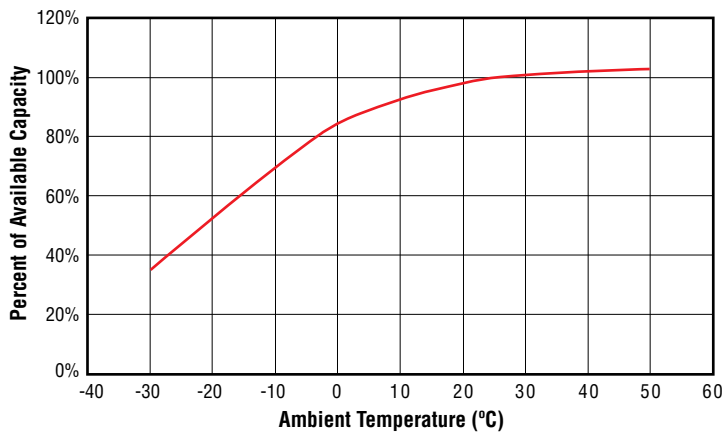


Cycle Chart applies to all MK Gel batteries (except 8GGC2 cycle chart x 2, 8G24/8G27 with a U terminal and 8G31DT cycle chart x .67).

**Self-Discharge of Gel Batteries  
at Different Temperatures**



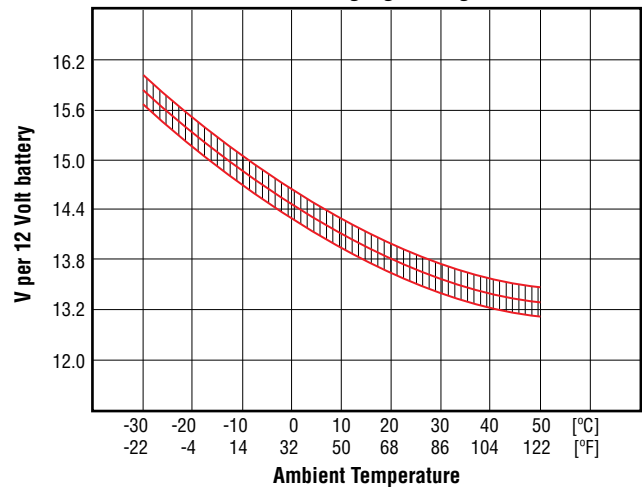
**Capacity vs Operating Temperature**



**Capacity vs Operating Temperatures**

Shown are the changes in capacity for wider ambient temperature range, giving the available capacity, as a percentage of the rated capacity, at different ambient temperatures.

**Constant Charging Voltage**



**Constant Charging Voltage**

Shown is the constant charging voltage in relation to the ambient temperature. The bandwidth shows a tolerance of  $\pm 30\text{mV/cell}$ . This constant voltage is suitable for continuous charging and cyclic operation. In a parallel stand-by mode it always keeps the battery in a fully charged state; in a cyclic mode, it provides for rapid recharging and high cyclic performance.

## YOUR PARTNER IN POWER

Products

Service

Customer Care

MK Battery is one of the largest sealed lead acid battery suppliers worldwide due to our total commitment to the following core principles:

MK Battery supplies only the highest quality batteries (gel, AGM and flooded deep cycle) that are specifically designed for our customers' many, varied applications including broadband communications, UPS (uninterruptible power supplies), power wheelchairs, telephony (valve-regulated stationary), solar, marine and electronics.

MK Battery ships fresh inventory fast, often within 24 hours, from a stock of more than 100,000 batteries in multiple distribution centers throughout the world and assists our customers with proper spent battery disposal through EPA permitted smelters. (Please note that violation of hazardous waste disposal laws can place heavy penalties on offenders).

MK Battery is genuinely concerned for our customers' well-being as a long-term partner... not just a supplier. MK Battery listens to our customers and delivers what you want, when you need it.



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