

# GEL-12-100

Valve-regulated lead-acid battery



## GEL SERIES

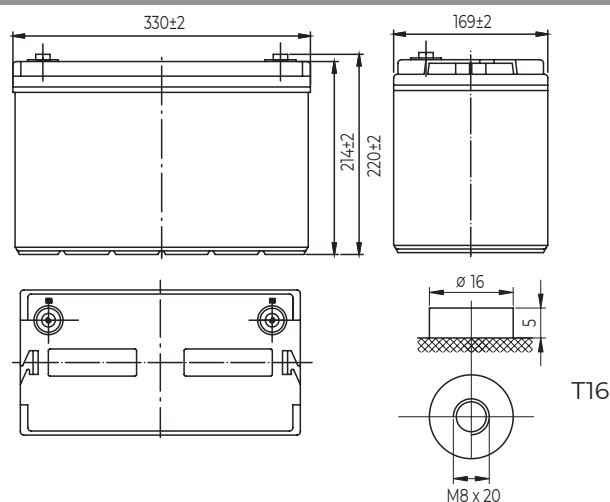
### Characteristics

Nominal voltage	12V (6 cell per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	95Ah	
Capacity (25°C)	20 Hours rate/10.8V	100Ah
	5 Hours rate/10.8V	78.5Ah
Terminal type	T16	
Torque	12.3±2.5N.m	
Approx. internal resistance (25°C)	5.3 mΩ	
Dimensions	Length	330±2mm (12.99inch)
	Width	171±2mm (6.73inch)
	Height	214±2mm (8.43inch)
	Total height	220±2mm (8.66inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	28.5kg (67.20lbs)±3%	
Nominal operating temperature	25°C±3 (77±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)
Float charging voltage at 25°C	13.5V~13.8V	
Cyclic charging voltage at 25°C	14.5V~14.7V	
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)	20A	
Max. discharge current for 5 seconds	800A	
Self discharge rate (25°C)	≤3%/month	
Battery container ABS UL94-HB	V-0 optional	

### Overview

GEL Series are manufactured following the highest demands in the deep cycle and renew-able energy applications. The batteries use colloidal or foamed silica gel to immobilize the electrolyte, which further enhances the cycling stability. Available in top and front terminal types.

### Dimensions & Terminal Type (mm)



### Construction

Component	Positive Plate	Negative plate	Container	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS (V-0 opt.)	AGM	Sulfuric Acid Gel	Rubber	Copper

### Constant current discharge characteristics at 25°C

(Ampere/battery)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	185	152	92.2	57.0	34.7	24.7	19.4	16.5	11.6	9.67	5.13
9.90V	180	148	90.3	56.1	34.5	24.6	19.3	16.4	11.6	9.65	5.12
10.2V	172	143	87.5	54.7	34.2	24.4	19.1	16.3	11.5	9.62	5.10
10.5V	165	138	85.4	53.0	33.7	24.2	19.0	16.2	11.4	9.57	5.07
10.8V	156	131	82.3	51.3	32.8	23.7	18.4	15.7	11.1	9.50	5.04

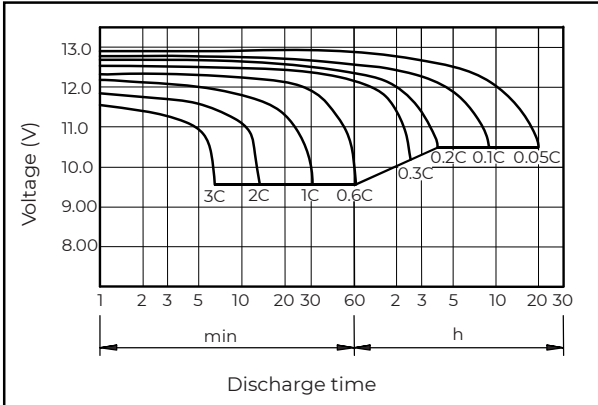
### Constant power discharge characteristics at 25°C

(Watts/battery)

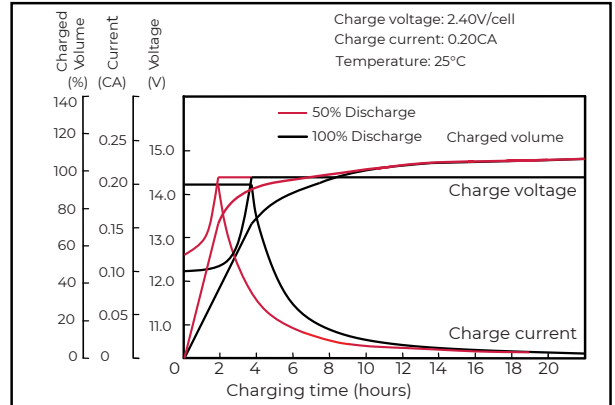
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2001	1669	1034	650	402	291	228	195	138	115	61.5
9.90V	1941	1629	1013	640	400	289	227	194	137	115	61.4
10.2V	1861	1569	982	624	396	287	225	192	136	115	61.2
10.5V	1781	1515	958	604	390	285	223	191	135	114	60.8
10.8V	1681	1435	923	585	380	279	217	185	131	113	60.4

The above characteristics represent average values and can be obtained within three charge and discharge cycles. The batteries must be fully charged before testing. The data in this document is subject to change without notice and become contractual only after written confirmation. Please contact **Conexpro** for the latest available version.

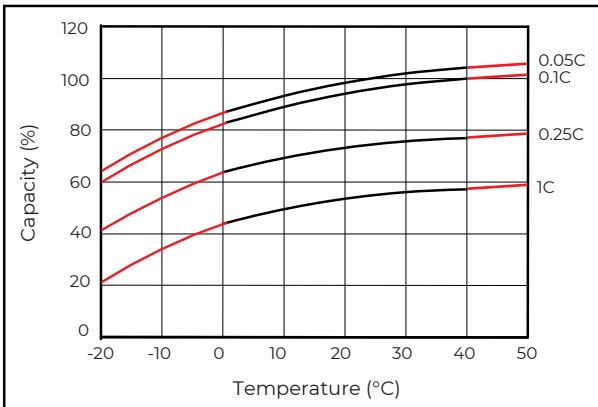
### Discharge characteristics (25°C)



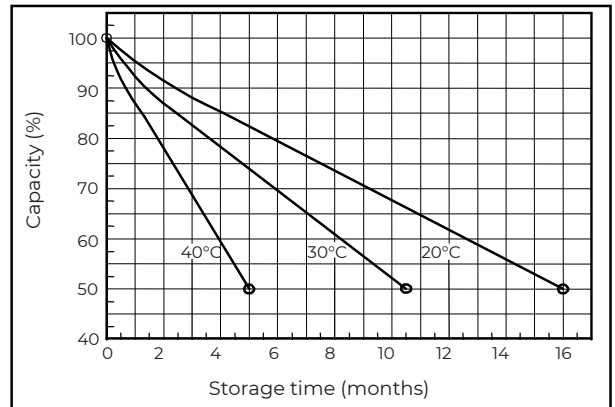
### Charging characteristics (25°C)



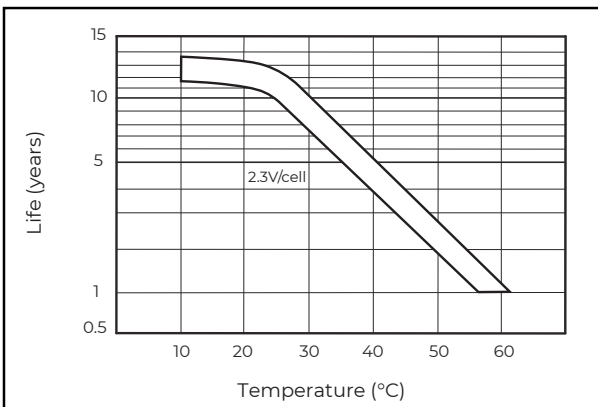
### Temperature effects on capacity



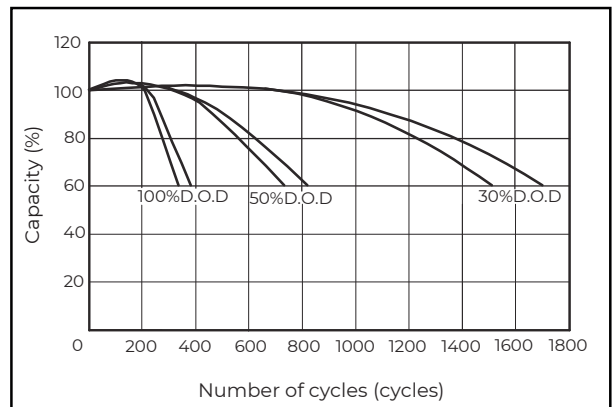
### Self-discharge characteristics



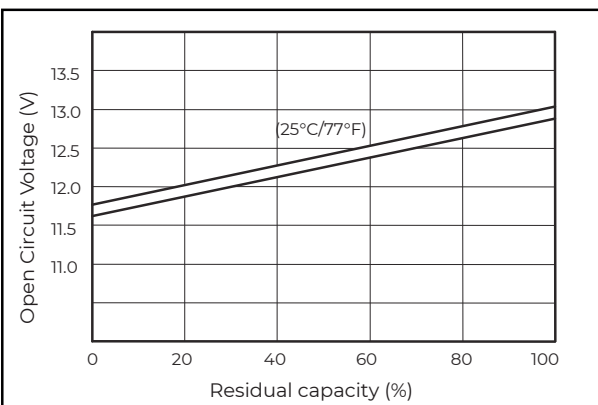
### Floating life on temperature



### Cycle life on D.O.D (25°C)



### Relationship for OCV and capacity (25°C)



### Charging voltage VS temperature

