

GEL-12-55

Valve-regulated lead-acid battery



GEL SERIES

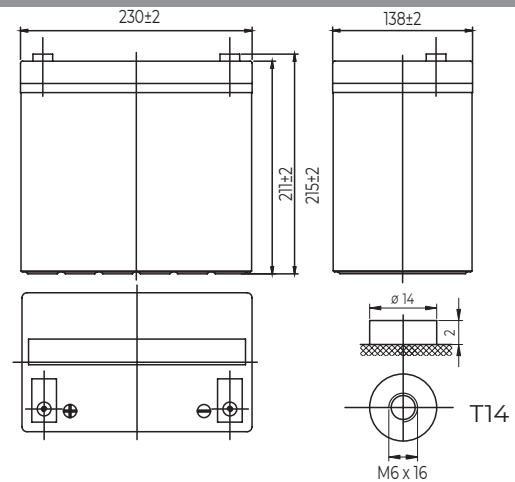
Characteristics

Nominal voltage	12V (6 cell per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	55Ah	
Capacity (25°C)	20 Hours rate/10.8V	58.4Ah
	5 Hours rate/10.8V	45.35Ah
Terminal type	T14	
Torque	5.1±0.6N.m	
Approx. internal resistance (25°C)	7.0 mΩ	
Dimensions	Length	230±2mm (9.06inch)
	Width	138±2mm (5.43inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	16.5kg (38.14lbs)±3%	
Nominal operating temperature	25±3°C (77°F±5)	
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)	11A	
Max. discharge current for 5 seconds	550A	
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	108	85.9	52.5	32.6	20.1	14.5	11.6	9.87	6.79	5.60	2.97
9.90V	104	83.9	51.5	32.2	20.0	14.4	11.5	9.82	6.75	5.59	2.96
10.2V	100	80.8	49.9	31.3	19.8	14.3	11.4	9.75	6.70	5.57	2.95
10.5V	99	78.0	48.6	30.3	19.5	14.2	11.3	9.68	6.60	5.54	2.94
10.8V	91	73.9	46.9	29.4	19.0	13.8	11.0	9.39	6.46	5.50	2.92

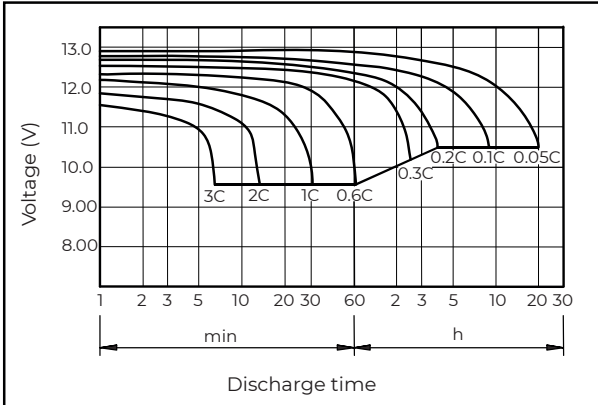
Constant power discharge characteristics at 25°C

(Watts/battery)

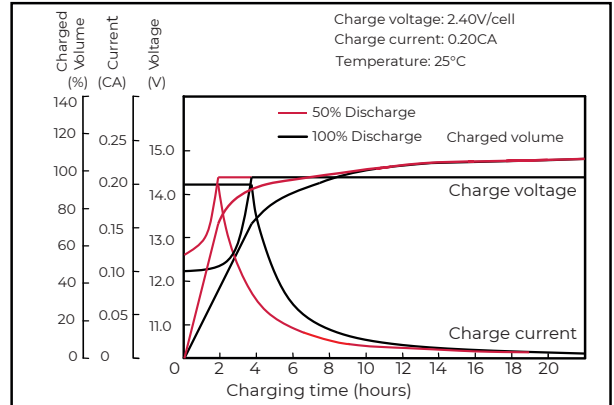
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1160	944	589	372	233	170	136	117	80.6	66.9	35.6
9.90V	1130	921	578	367	231	169	135	116	80.2	66.7	35.5
10.2V	1084	887	560	357	229	168	134	115	79.6	66.5	35.4
10.5V	1037	857	546	346	226	167	133	114	79.1	66.1	35.2
10.8V	979	812	526	335	220	162	129	111	76.7	65.7	35.0

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.

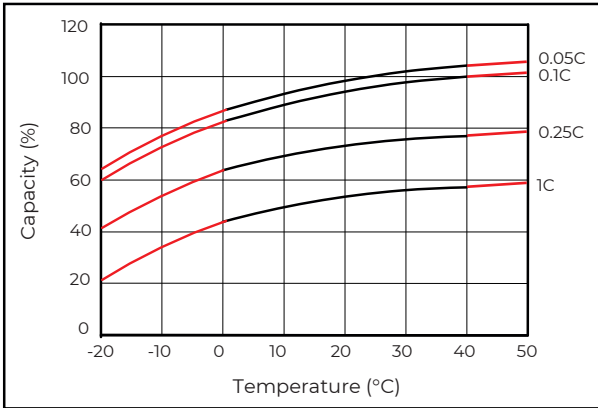
Discharge characteristics (25°C)



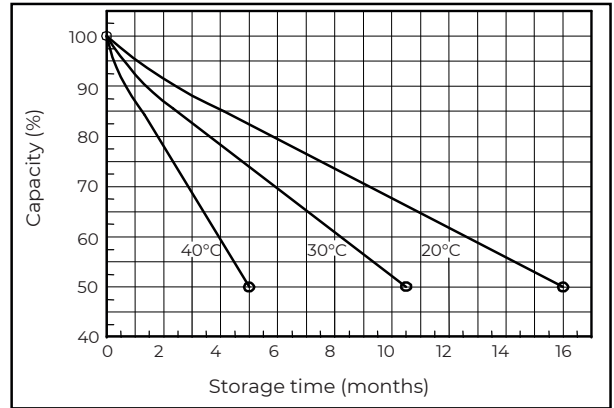
Charging characteristics (25°C)



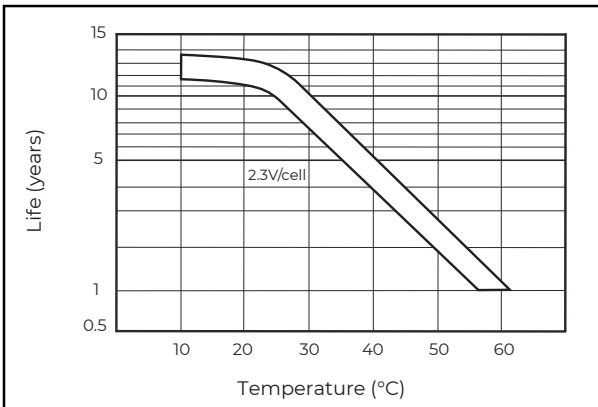
Temperature effects on capacity



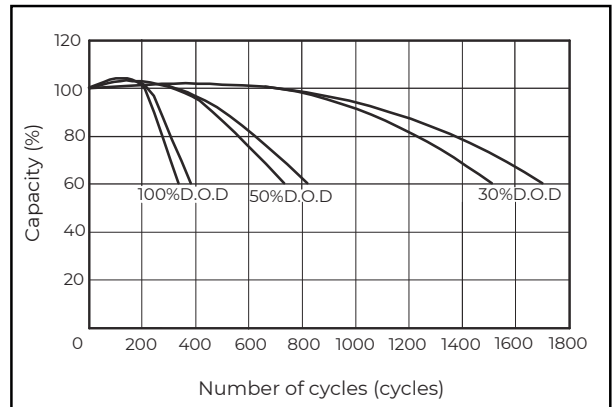
Self-discharge characteristics



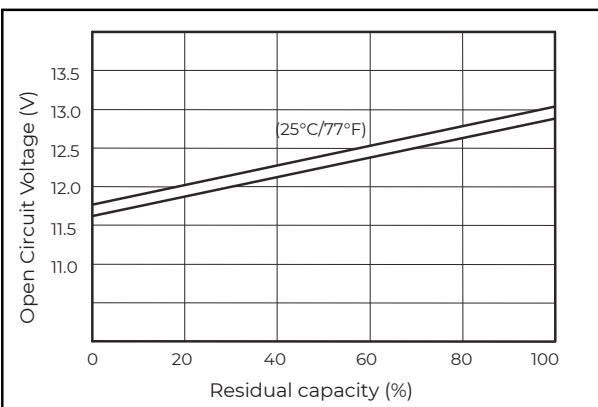
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

