



SGP24-12

Valve-regulated lead-acid battery

GENERAL PURPOSE SERIES

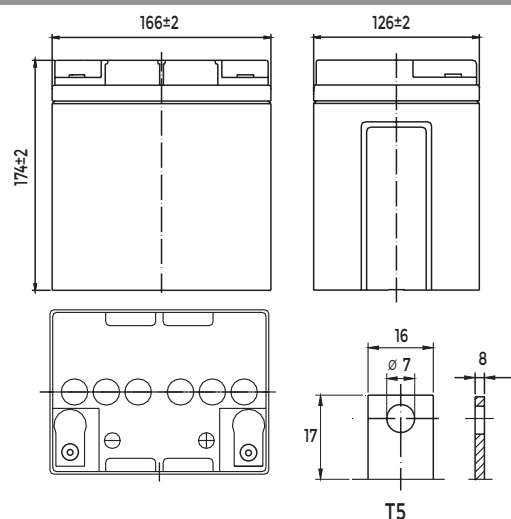
Characteristics

Nominal voltage		12V (6 cells per unit)
Nominal capacity at 20 hours rate/10.5V (25°C)		24Ah
Capacity (25°C)	10 Hours rate/10.5V	22Ah
	5 Hours rate/10.5V	20.5Ah
Terminal type		T5
Torque		3.0±0.6N.m
Approx. internal resistance (25°C)		13 mΩ
Dimensions	Length	166±2mm (6.54inch)
	Width	175±2mm (6.89inch)
	Height	125±2mm (4.92inch)
	Total height	125±2mm (4.92inch)
Design Life (stand-by)	JIS at 25°C	5 years
	Eurobat at 20°C	3-5 years
Weight		7.50kg (16.50lbs)±4%
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		13.6V~13.8V
Cyclic charging voltage at 25°C		14.5V~15.0V
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)		7.2A
Max. discharge current for 5 seconds		306A
Self discharge rate (25°C)		≤3%/month
Battery container ABS UL94-HB		V-0 optional

Overview

General Purpose series batteries are de-signed with state-of-the-art AGM (absorbent glass mat) technology, high-performance plates and electrolyte. With excellent value and characteristics, this range is suitable for all general purpose applications.

Dimensions & Terminal Type (mm)



Construc tion

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

Constant current discharge characteristics at 25°C

(Ampere/battery)

F.V/Time	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9.60V	89.8	56.9	44.5	25.0	15.4	8.60	5.95	4.92	4.19	2.27	1.22
9.90V	87.2	55.2	43.4	24.5	15.2	8.55	5.91	4.89	4.16	2.26	1.21
10.2V	83.6	52.9	41.8	23.8	14.8	8.47	5.87	4.86	4.13	2.25	1.21
10.5V	80.0	50.7	40.4	23.2	14.5	8.34	5.83	4.82	4.10	2.24	1.20
10.8V	75.5	47.8	38.2	22.4	14.0	8.13	5.66	4.68	3.98	2.19	1.18

Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9.60V	1003	642	507	287	178	101	70.7	58.6	50.0	27.3	14.6
9.90V	973	623	495	281	176	100	70.3	58.3	49.7	27.2	14.6
10.2V	932	597	476	273	171	99.1	69.8	57.9	49.3	27.0	14.5
10.5V	892	571	460	266	168	97.6	69.3	57.5	49.0	26.9	14.4
10.8V	842	539	436	256	163	95.2	67.2	55.7	47.5	26.3	14.1

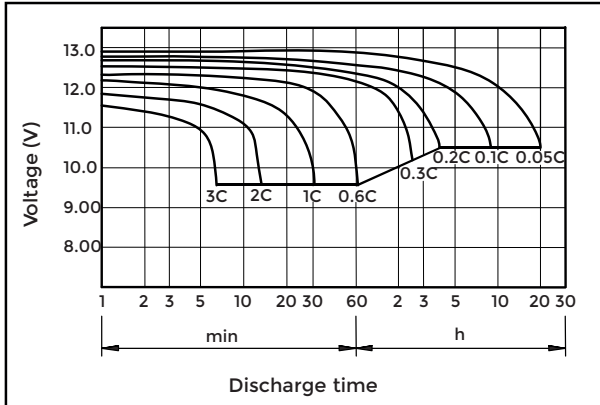
The above characteristics represent average values and can be obtained within three charge and discharge cycles. The batteries must be fully charged before testing. The data in this document is subject to change without notice and become contractual only after written confirmation. Please contact SICBAT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

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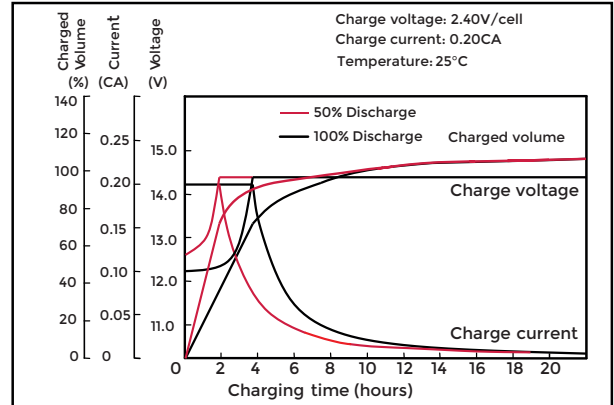
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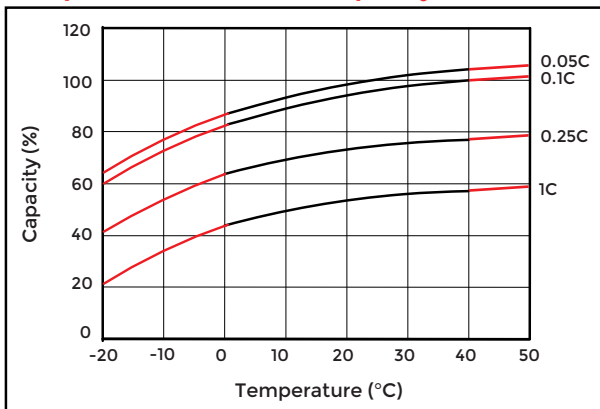
Discharge characteristics (25°C)



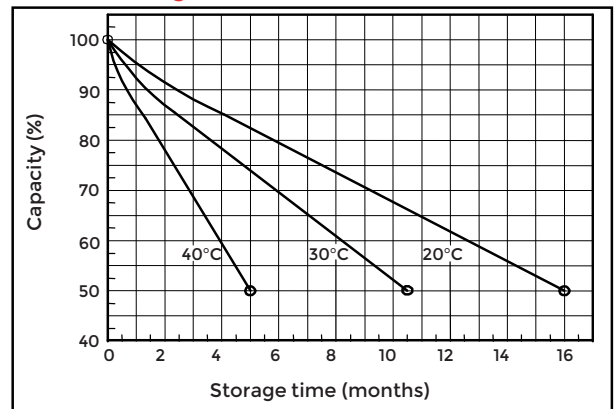
Charging characteristics (25°C)



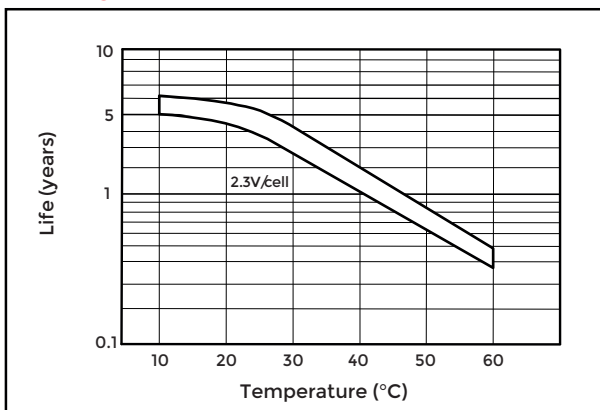
Temperature effects on capacity



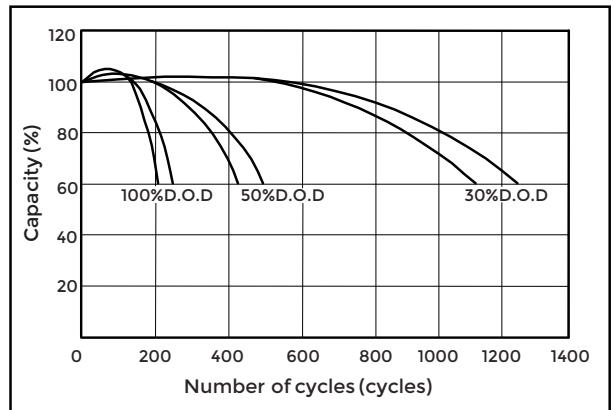
Self-discharge characteristics



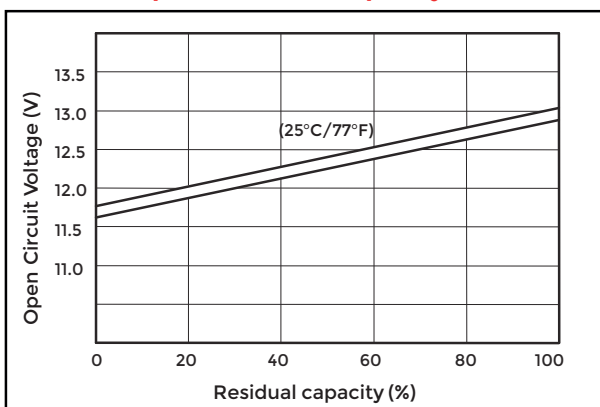
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

