



AGM-12-45

Valve-regulated lead-acid battery



GENERAL PURPOSE SERIES

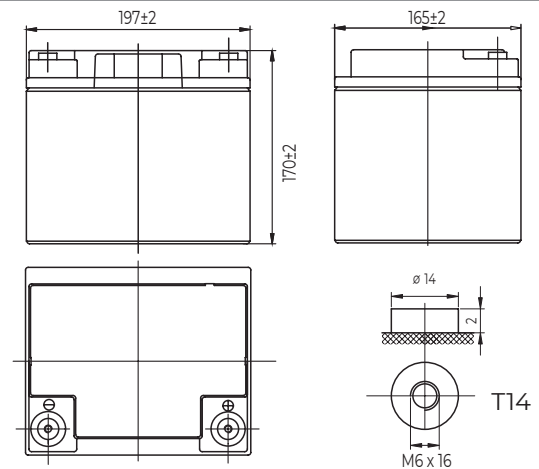
Characteristics

Nominal voltage	12V (6 cells per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	45Ah	
Capacity (25°C)	20 Hours rate/10.8V	47.8Ah
	5 Hours rate/10.8V	38.4Ah
Terminal type	T14	
Torque	5.1±0.6N.m	
Approx. internal resistance (25°C)	7.5mΩ	
Dimensions	Length	197±2mm (7.76inch)
	Width	165±2mm (6.50inch)
	Height	170±2mm (6.69inch)
	Total height	170±2mm (6.69inch)
Design Life (stand-by)	JIS at 25°C	10 years
	Eurobat at 20°C	10/12 years
Weight	13.80kg (30.40lbs)±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~15.0V	
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)	13.5A	
Max. discharge current for 5 seconds	400A	
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)



Construction

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	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	98.1	75.6	45.2	27.8	16.4	11.8	9.46	8.08	5.55	4.58	2.43
9.90V	95.2	73.8	44.3	27.4	16.3	11.8	9.40	8.03	5.52	4.57	2.42
10.2V	91.2	71.1	43.0	26.7	16.2	11.7	9.33	7.98	5.48	4.56	2.42
10.5V	87.3	68.6	41.9	25.9	16.0	11.6	9.27	7.92	5.45	4.53	2.40
10.8V	82.4	65.0	40.4	25.0	15.6	11.3	8.99	7.68	5.28	4.50	2.39

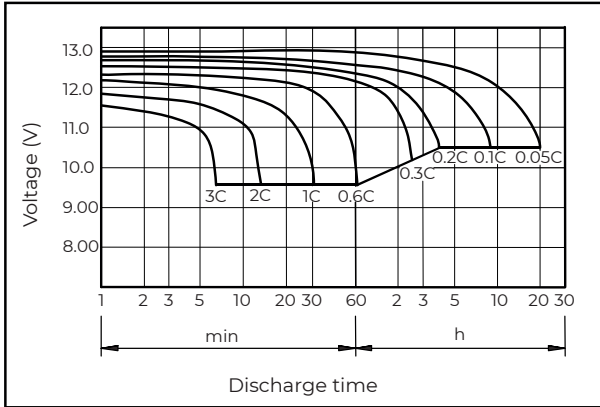
Constant power discharge characteristics at 25°C

(Watts/battery)

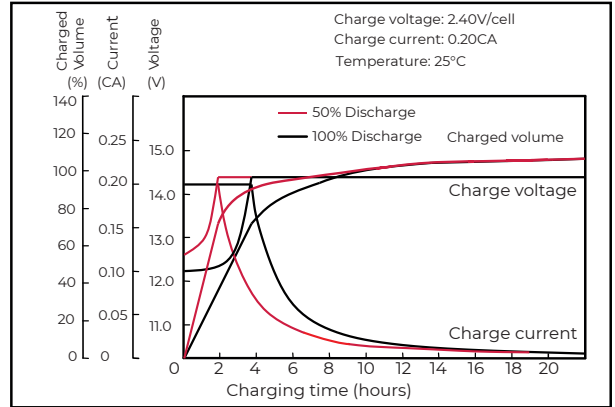
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1059	830	507	317	190	139	111	95.5	66.0	54.7	29.1
9.90V	1028	810	497	312	189	138	111	94.9	65.6	54.6	29.1
10.2V	985	780	482	304	188	137	110	94.3	65.1	54.4	29.0
10.5V	943	754	470	295	185	137	109	93.6	64.7	54.1	28.8
10.8V	890	714	453	285	180	132	106	90.8	62.7	53.7	28.6

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.

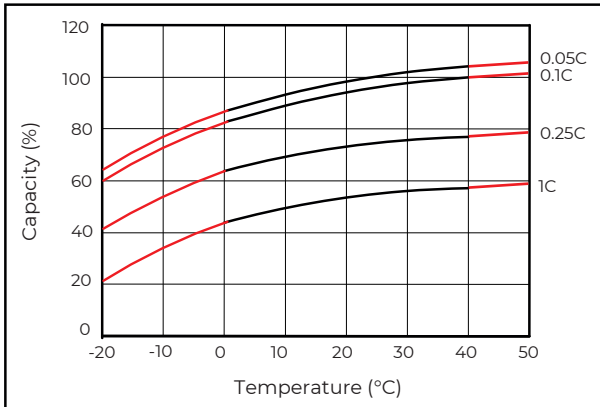
Discharge characteristics (25°C)



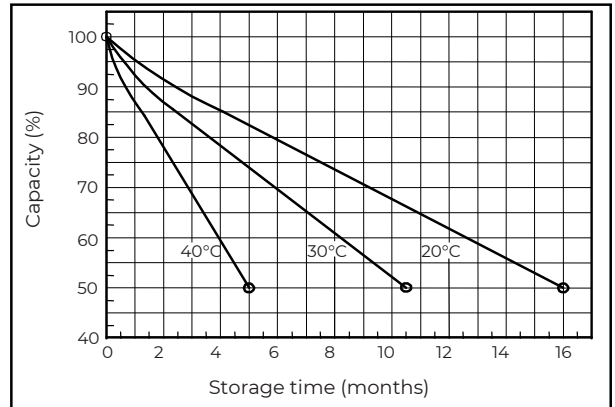
Charging characteristics (25°C)



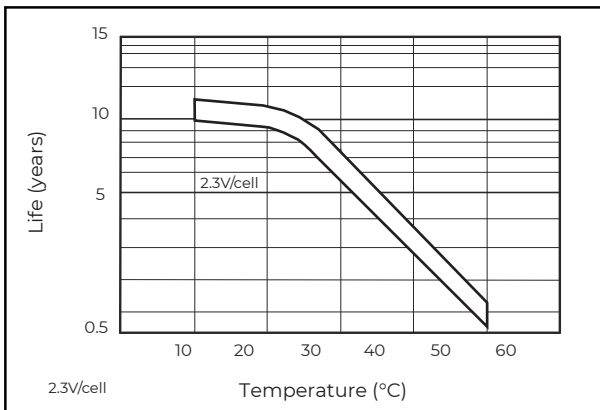
Temperature effects on capacity



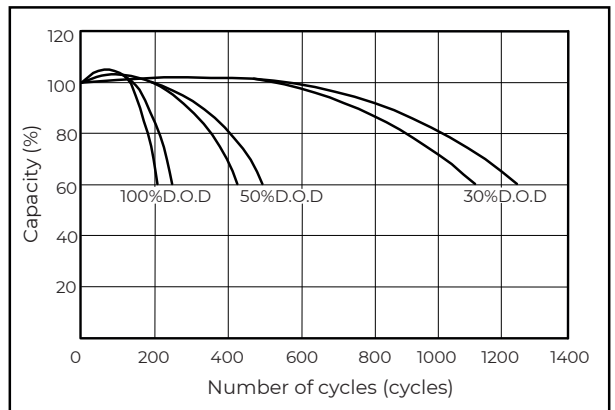
Self-discharge characteristics



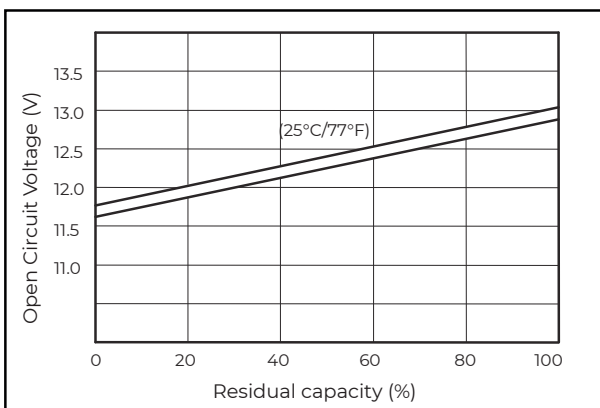
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

