



Specification

Nominal voltage	12 Volts	
Rated capacity (C ₂₀ Hour rate at 27°C)	42 Ampere Hour	
Dimensions (±2 mm)	Length	199 mm
	Width	167 mm
	Height	175 mm
Weight ± 1.0 Kgs (approx.)	14.0 Kgs	

Characteristics *

Capacity@ 80.6°F (27°C)	20 hour rate (2.10A) upto 10.5V	42.0 Ah
	10 hour rate (3.91A) upto 10.5V	39.10 Ah
	5 hour rate (7.20A) upto 10.2V	36.0 Ah
	1 hour rate (27.27A) upto 9.6V	27.27 Ah
	15 minute rate (75.81A) upto 9.6V	18.95 Ah
Internal resistance	Fully charged battery 80.6°F (27°C)	7.60 mΩ
Capacity affected (Temperature at C ₂₀ hour rate)	104°F (40°C)	110%
	80.6°F (27°C)	100%
	32°F (0°C)	80%
	5°F (-15°C)	60%
Self discharge 80.6°F (27°C)	Capacity after 3 month storage	90%
	Capacity after 6 month storage	80%
Terminal Type	M6 x 20 mm Bolted	
Short circuit current	1645 A	

Constant power discharge rating watts per battery @ 27°C *

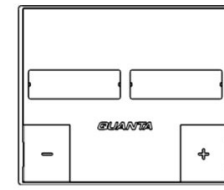
ECV	DURATION										
	10 min	15 min	20 min	30 min	60 min	2 hr	3 hr	5 hr	8 hr	10 hr	20 hr
1.60	1136	882	715	565	330	192	134.0	91.0	60.0	52.0	25.0
1.65	1114	862	704	543	325	189	133.0	90.5	59.5	51.5	24.5
1.70	1092	842	693	520	320	185	132.0	90.0	59.0	51.0	24.0
1.75	1051	821	683	513	313	183	131.0	89.5	58.5	50.5	23.5
1.80	1010	800	672	505	305	180	130.0	89.0	58.0	50.0	23.0

Constant current discharge rating amperes @ 27°C *

ECV	DURATION										
	10 min	15 min	20 min	30 min	60 min	2 hr	3 hr	5 hr	8 hr	10 hr	20 hr
1.60	94.85	75.81	60.17	45.65	27.27	16.54	11.31	7.78	4.83	4.08	2.25
1.65	91.97	72.56	57.98	43.83	26.93	15.87	10.97	7.49	4.73	4.03	2.20
1.70	89.08	69.31	55.78	42.00	26.58	15.20	10.62	7.20	4.62	3.98	2.14
1.75	85.71	67.74	55.26	41.58	26.25	15.00	10.61	7.18	4.59	3.91	2.10
1.80	84.00	66.67	53.85	41.18	25.12	14.89	10.55	7.12	4.57	3.89	2.09

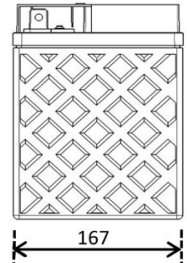
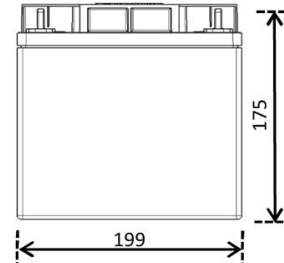
*Note: The above data are average values and can be obtained within three charge/discharge cycles

A tolerance of ±5% is applicable for the above constant power discharge and constant current discharge values

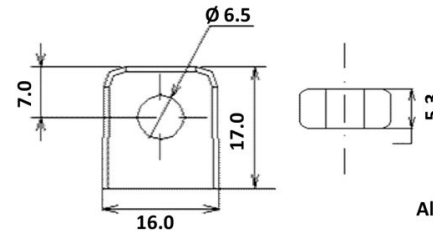


12AL042

12V-42Ah

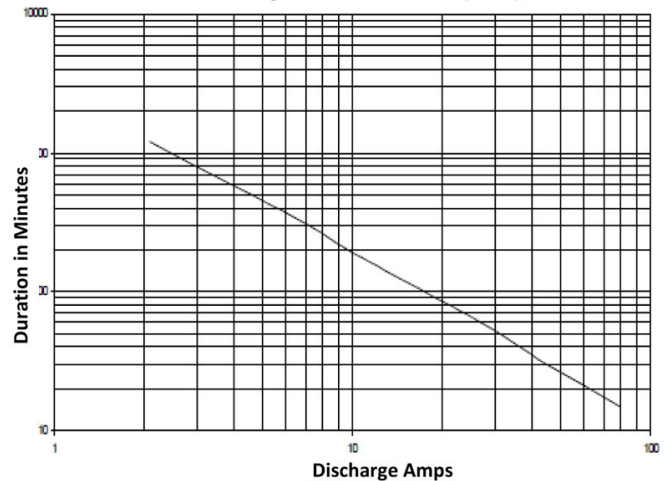


TERMINAL

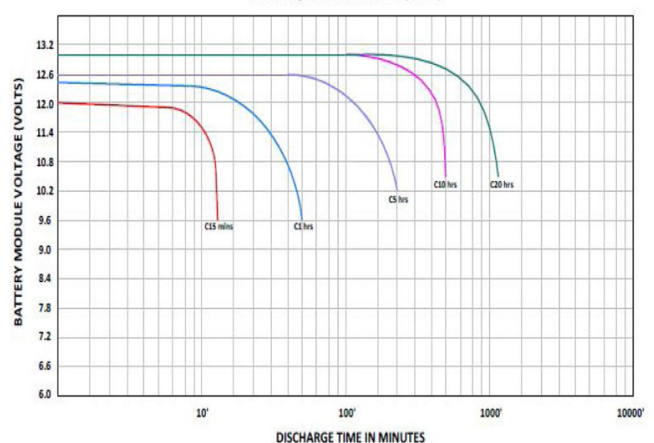


All dimensions are in mm

Discharge Current Vs Time (27°C)

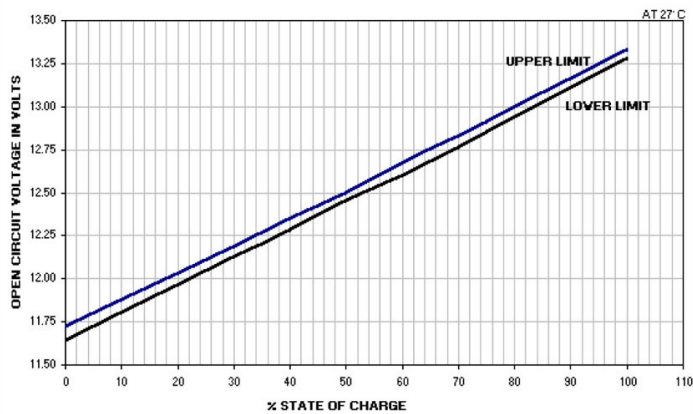


Discharge characteristics (27°C)

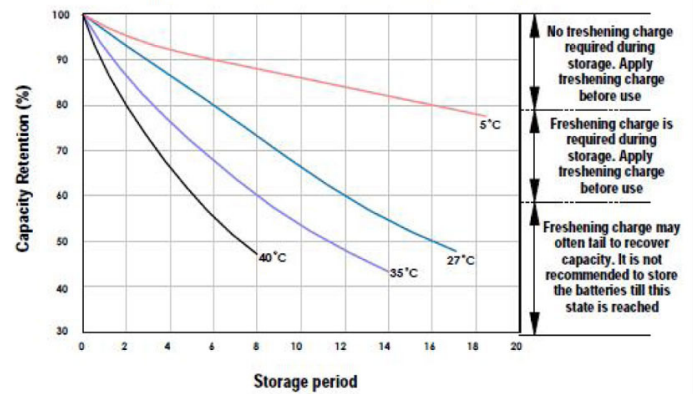


AMARA RAJA
Gotta be a better way

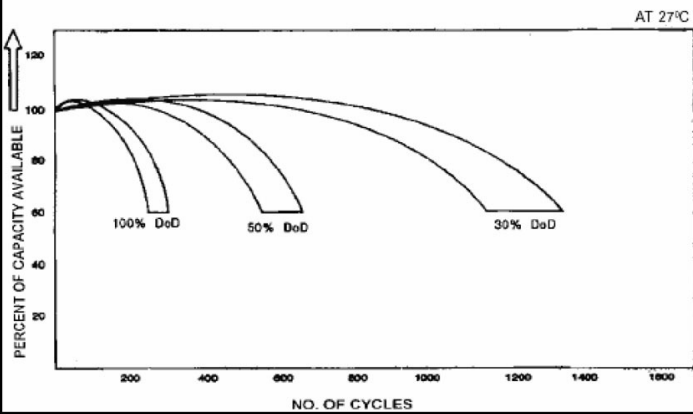
OPEN CIRCUIT VOLTAGE Vs % STATE OF CHARGE



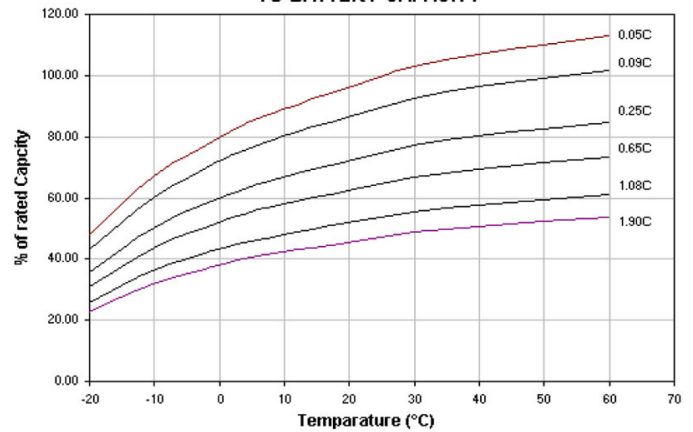
Shelf life characteristics at various Ambient Temperatures



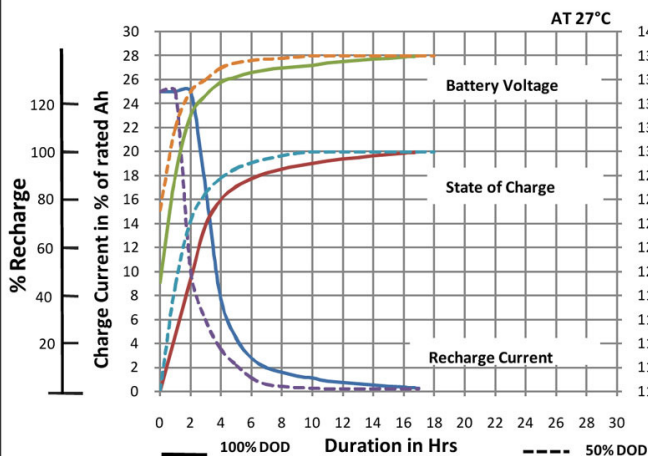
CYCLIC SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE



TEMPERATURE EFFECT IN RELATION TO BATTERY CAPACITY



CONSTANT VOLTAGE CHARGING CHARACTERISTICS

**CHARGING METHODS:**

Constant voltage charging at 27° C

Stand by use : Charging voltage 13.5V/battery
 Max. Charging current : 25 % of rated Ah capacity
 Cyclic use : Charging voltage 13.8V/Battery
 Max. Charging current : 25 % of rated Ah capacity
 Temperature compensation : 18 mV/battery/°C

CAUTION:

- ⚠ Avoid short circuit
- ⚠ Don't charge in a sealed container

Quality systems certified to

EN ISO 14001:2004
ISO/TS 16949: 2009