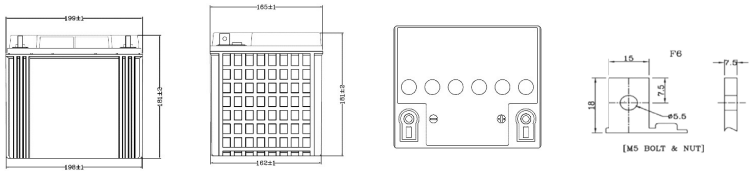
LEAD ACID (AGM) BATTERY

MD-42 Premium

by EXIDE

TECHNICAL DATA SHEET FOR MD- 42 Premium (12V 42AH) VRLA BATTERY



CONSTRUCTION:
► Positive and negative plates in lead-tin-calcium alloy. ► Separator - low resistance micro porous glass fiber. ► The electrolyte is absorbed within this material, preventing acid leakage in case of accidental damage. ► Terminals with a large surface area provide maximum conductivity. ► Self-regulating pressure relief valve. ► 100% ensured capacity (through Data-logger) during manufacturing. ► Stronger, sturdier & attractive packaging. ► Especially suited for UPS & Power Application

FEATURES: -
► International Size. ► Free from Orientation Constraints. ► Eco-Friendly. ► Easy Handling. ► Ready to Use. ► Long Service Life. ► Low Self-discharge. ► Excellent Charge retention & recovering ability. ► Superior High Rate Discharge. ► High Reliability.

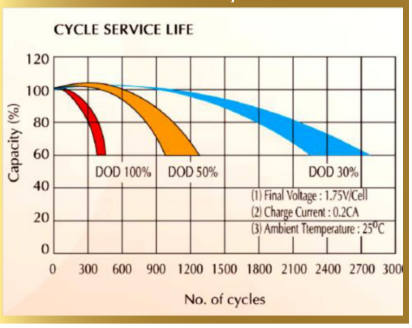
Performance Characteristics confirming to JISC8702

Battery Type	Nominal Voltage (V)	Rated Capacity (Ah) at 27°C						Dimensions (mm)				Weight (Kg) (+/-5%)
		20 hr 1.75V/ cell	10 hr 1.75V/ cell	3 hr 1.7 V/ cell	1.5 hr 1.7V/ cell	1 hr 1.6V/ cell	30min 1.6V/ cell	Overall Height ±2	Height up to lid top ±2	Length ±1	Width ±1	
MD-42	12	42	38.5	31.5	30.2	25.2	21.0	181.0	181.0	199.0	165.0	13.9

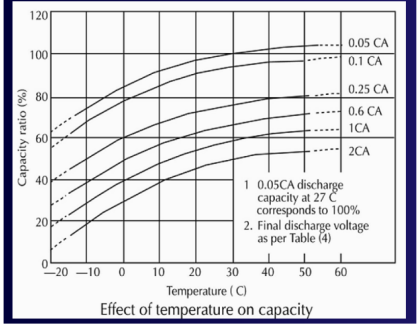
NOTES ON OPERATION

Mode of Operation	Voltage setting per 12V unit for ambience Temp. 20 -30 ®C	Current setting
FLOAT	13.7V ± 0.1V	Maximum :0.3CA Minimum: 0.1CA
BOOST	14.1V ± 0.1V	
CYCLE	14.7V ± 0.1V	

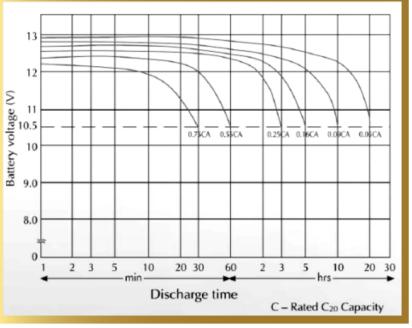
Number of Cycle



Effect of Temp on Capacity



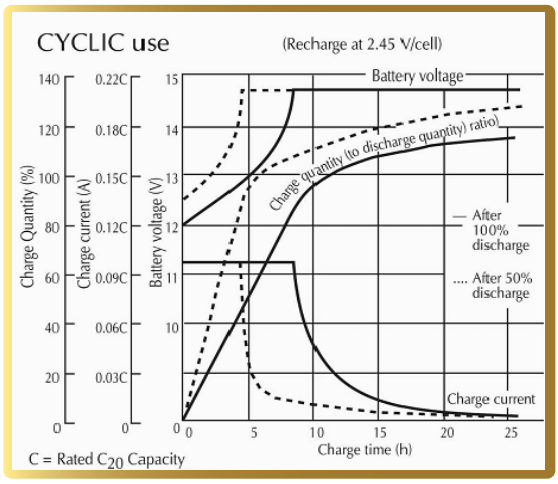
Discharge Characteristics

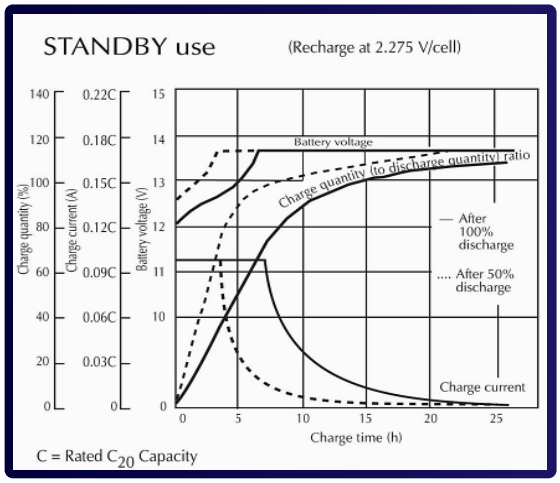


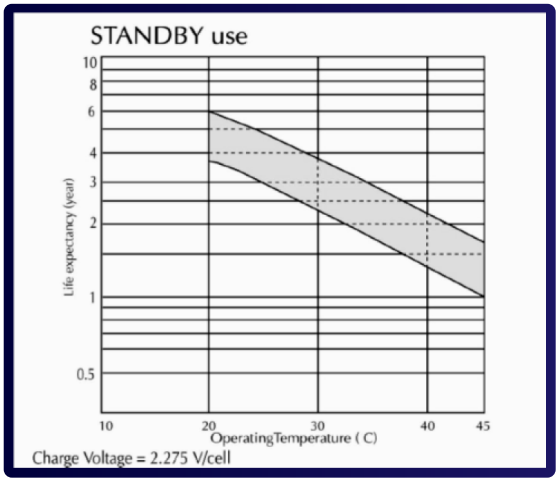
	AH	5Min	10Min	15Min	20Min	30Min	60Min
Watt/Battery @ 1.6V	42AH	1630	1084	857	690	517	316
Watt/Battery @ 1.7V		1548	1022	825	671	507	305
Watt/Battery @ 1.80V		1393	980	763	629	475	293

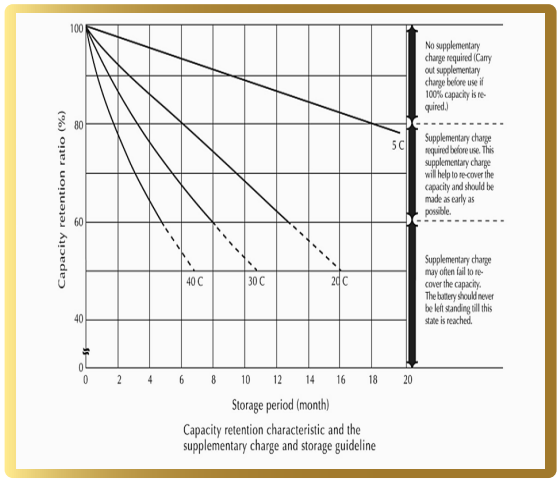
Discharge Current & Recommended Final Discharge Voltage

Discharge Current (A)	Final Discharge Voltage(V/Cell)
0.2 C > (A) or intermittent discharge	1.75
0.2 C< or = (A) < 0.5 C	1.70
0.5 C< or = (A) < 1.0 C	1.55
1.0 C< or = (A)	1.30









Product Details	
AH Efficiency	>90%
WH Efficiency	>80%
Internal Resistance	8 mΩ max @ full charge 27°C
Operating Temperature Range	0°C to 45°C
Self-Discharge/Month @ 27deg C	<3% of Rated Capacity
Recommended period of storage	3 months from the date of manufacturing and to be stored in a covered place at 27 °C
Material of container	PPCP (FR Grade Optional)
Type of +ve & -ve plate	Flat Pasted
Recommended Terminal Torque	4.9 N-m

END VOLTAGE/ CELL	TEMP(C)	DISCHARGE TIME												
		10 min	15 min	20 min	30 min	1 hrs	1.5 hrs	2 hrs	3 hrs	4 hrs	5 hrs	6 hrs	8 hrs	10 hrs
1.80	25	2.0C	1.65C	1.4C	1.1C	0.64C	0.42C	0.36C	0.27C	0.210C	0.17C	0.145C	0.11C	0.090C
	5	1.65C	1.3C	1.1C	0.95C	0.59C	0.34C	0.29C	0.230C	0.182C	0.147C	0.129C	0.098C	0.080C
	-5	1.3C	1.0C	0.86C	0.76C	0.48C	0.28C	0.24C	0.198C	0.154C	0.125C	0.115C	0.087C	0.071C
1.75	25	2.15C	1.72C	1.45C	1.12C	0.65C	0.45C	0.38C	0.28C	0.220C	0.180C	0.15C	0.12C	0.099C
	5	1.72C	1.40C	1.15C	0.97C	0.60C	0.36C	0.30C	0.24C	0.190C	0.180C	0.150C	0.100C	0.088C
	-5	1.45C	1.10C	0.93C	0.81C	0.50C	0.30C	0.25C	0.20C	0.160C	0.150C	0.130C	0.009C	0.078C
1.70	25	2.3C	1.8C	1.5C	1.15C	0.67C	0.48C	0.40C	0.29C	0.230C	0.19C	0.165C	0.13C	0.108C
	5	1.8C	1.5C	1.2C	1.0C	0.62C	0.39C	0.32C	0.250C	0.199C	0.164C	0.143C	0.116C	0.096C
	-5	1.6C	1.2C	1.0C	0.86C	0.53C	0.32C	0.27C	0.213C	0.168C	0.139C	0.123C	0.103C	0.086C
1.65	25	2.35C	1.85C	1.55C	1.2C	0.69C	0.50C	0.41C	0.300C	0.240C	0.200C	0.170C	0.135C	0.110C
	5	1.9C	1.6C	1.3C	1.05C	0.64C	0.40C	0.33C	0.260C	0.208C	0.173C	0.147C	0.120C	0.098C
	-5	1.6C	1.25C	1.05C	1.88C	0.54C	0.34C	0.27C	0.220C	0.176C	0.147C	0.125C	0.107C	0.087C
1.60	25	2.4C	1.9C	1.6C	1.25C	0.7C	0.51C	0.42C	0.310C	0.250C	0.210C	0.180C	0.140C	0.115C
	5	2.0C	1.7C	1.4C	1.10C	0.66C	0.41C	0.34C	0.270C	0.216C	0.182C	0.156C	0.125C	0.102C
	-5	1.65C	1.3C	1.1C	0.9C	0.55C	0.34C	0.28C	0.227C	0.183C	0.154C	0.132C	0.111C	0.091C

Note: C represents the C20 rated capacity