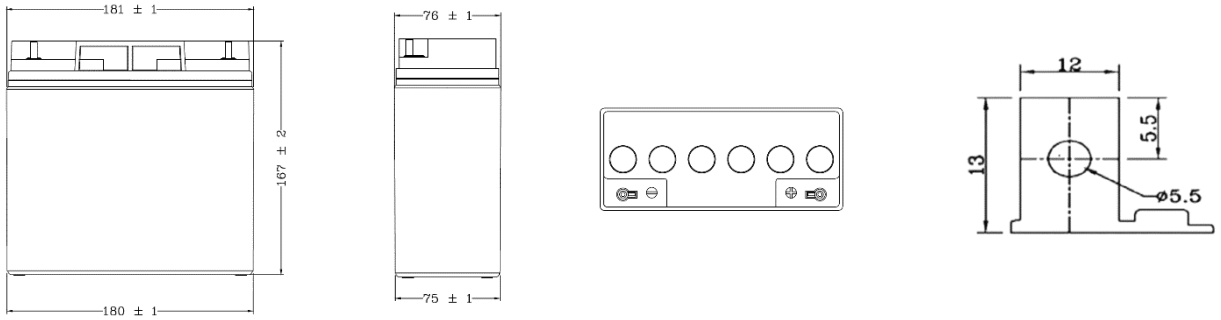
DYNEX

TECHNICAL DATA SHEET FOR EP 18-12 (12V 18AH) VRLA BATTERY

BATTERY OUTLINE



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: -

► 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.

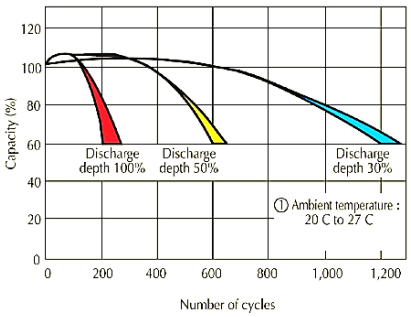
Performance Characteristics confirming to JISC8702

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	
EP18-12	12	18	16.9	13.7	13.0	10.8	9.0	167.0	167.0	181.0	76.0	5.0

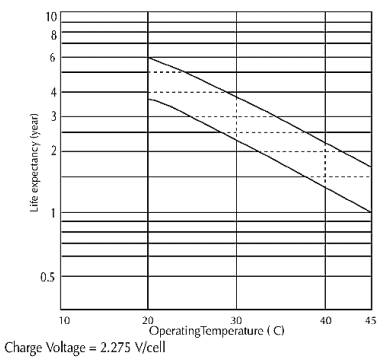
Charging Parameters

Recharge Voltage	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	
CYCLIC	14.7V ± 0.1V	

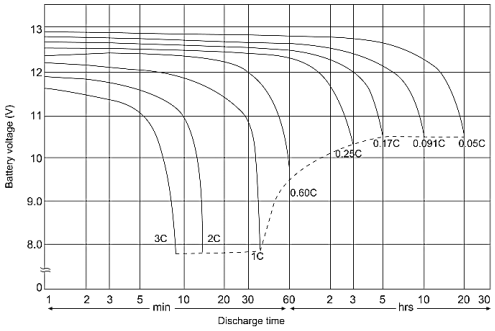
Cyclic Service Life



Float Service Life



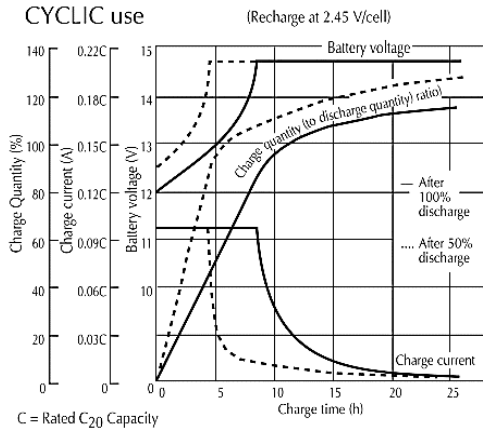
Discharge Characteristics

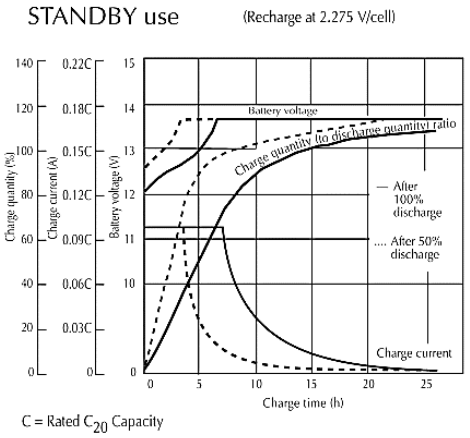


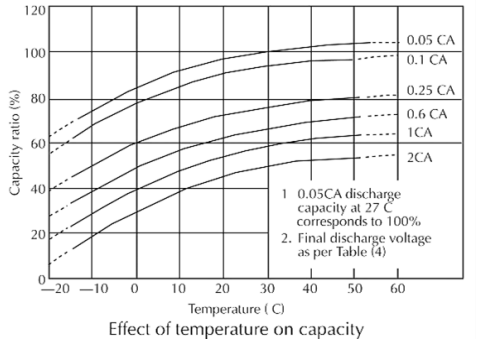
Constant Power Discharge Rating in Watts per Battery for POWERSAFE PLUS @27°C							
	Ah	5 min	10 min	15 min	20 min	30 min	60 min
Watt/Battery @ 1.60V	18Ah	632	434	334	270	200	123
Watt/Battery @ 1.70V		600	421	321	262	194	117
Watt/Battery @ 1.80V		541	376	299	248	184	111

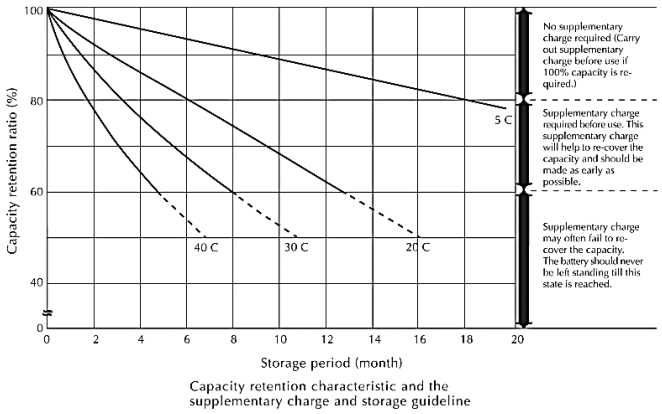
Discharge Current & Recommended Final Discharge Voltage

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 @ full charge	15 mΩ
Operating Temperature Range	0ºC to 45ºC
Self-Discharge/Month @ 27°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 27ºC
Material of container	ABS (FR Grade Optional)
Type of +ve & -ve plate	Flat Pasted
Recommended Terminal Torque	2.5 N-m

DYNEX

MAXIMUM DISCHARGE CURRENT FOR VARIOUS DURATION & CUT-OFF VOLTAGE

END VOLTAGE/ CELL	TEMP(C)	DISCHARGE TIME															
		1 min	3min	5min	7min	10min	15min	20min	30min	1 hrs	1.5 hrs	2 hrs	3 hrs	4 hrs	5 hrs	6 hrs	8 hrs	10 hrs
1.80	25	3.15C	3.0C	2.6C	2.3C	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	2.4C	2.3C	2.0C	1.8C	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	2.05C	1.95C	1.6C	1.5C	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	3.6C	3.3C	2.9C	2.5C	2.15C	1.72C	1.45C	1.12C	0.65C	0.45C	0.38C	0.28C	0.22C	0.180C	0.15C	0.12C	0.099C
	5	3.0C	2.7C	2.25C	1.95C	1.72C	1.40C	1.15C	0.97C	0.60C	0.36C	0.30C	0.24C	0.190C	0.150C	0.130C	0.100C	0.088C
	-5	2.4C	2.3C	1.8C	1.7C	1.45C	1.10C	0.93C	0.81C	0.50C	0.30C	0.25C	0.20C	0.160C	0.130C	0.119C	0.090C	0.078C
1.70	25	4.2C	3.7C	3.2C	2.75C	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	3.65C	3.15C	2.5C	2.1C	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	2.7C	2.6C	2.0C	1.85C	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	4.7C	4.05C	3.35C	2.85C	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	3.8C	3.3C	2.6C	2.2C	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	3.0C	2.7C	2.1C	1.9C	1.6C	1.25C	1.05C	0.88C	0.54C	0.34C	0.27C	0.220C	0.176C	0.147C	0.125C	0.107C	0.087C
1.60	25	5.2C	4.4C	3.5C	3.0C	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	3.9C	3.5C	2.75C	2.3C	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	3.2C	2.75C	2.2C	2.0C	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