

EPS type batteries are made in AGM technology and are constructed by plates, separators, safety valves and a container. Since the electrolyte is held by a glass-mat separator and plates, the batteries can be used in any chosen position without the risk of leakage. EPS type batteries have a pressure relief valves that allows safe dispersal of any excess pressure inside the cell (VRLA). Due to advantages as sealed construction, maintenance free, low internal resistance and long term storage, EPS batteries are the base of the emergency power supplying.

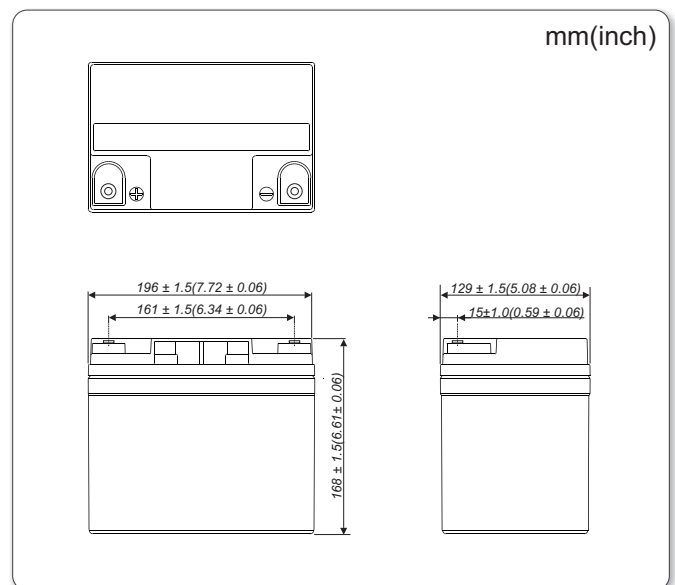


TECHNICAL DATA

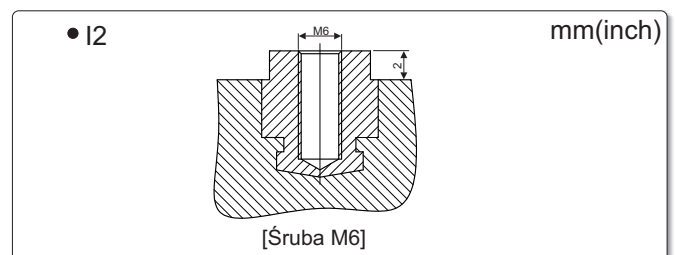
Nominal voltage	12 V		
Nominal capacity	33 Ah / C ₂₀		
Cell per unit	6		
Technology	AGM		
Design life	10~12 years @ 20°C*		
	8 years @ 25°C		
Dimensions	height	168,0 mm	
	length	196,0 mm	
	width	129,0 mm	
Weight	~11,25 kg		
Capacity @ 25°C	20h	1,65A @1,75V/cell	33,0 Ah
	10h	3,14A @1,75V/cell	31,4 Ah
	5h	5,61A @1,75V/cell	28,1 Ah
	1h	21,80A @1,50V/cell	21,8 Ah
Ambient nominal temperature range	charge	0°C ~ 40°C	
	discharge	-20°C ~ 50°C	
	storage	-20°C ~ 40°C	
Internal resistance	@ fully charge battery	≤9 mΩ	
Charging voltage @ 20°C	standby use	13,5V to 13,8V (-18 mV/°C)	
	cycle use	14,4 V to 15,0V (-24 mV/°C)	
Charging current	recommended	3.3 A	
	maximum	9.9 A	
Maximum discharge current (for 5 sec)	495 A		
Capacity retention during storage @ 20°C (self discharge)	after 1 month	97 %	
	after 6 months	80 %	
	after 12 months	63 %	
Container material	standard	ABS UL 94-HB	
	optional	ABS UL 94-V0**	
Terminal	insert terminal	I2	
Terminal hardware initial torque	5,5 Nm		

- uninterruptible power supplies (UPS)
- emergency lighting systems
- telecommunication PABX
- power station
- cable TV
- fire and security systems
- solar powered systems
- solar powered systems
- golf-carts, wheelchairs
- marine
- medical equipment
- mobile and portable equipment – cycle use
- measuring devices

DIMENSIONS



TERMINALS



*) - According to Eurobat (Long Life group)

***) - Flame-retardant

NO TRANSPORT RESTRICTED

Not restricted for air, surface and water transport. Classified as non-hazardous material (IATA/ICAO Special Provision A67, DOT-CFR Title 49 parts 171-189, IMDG amendment 27)

DISCHARGE CHARACTERISTICS

• Constant current (Current [A], 25°C / 77°F)

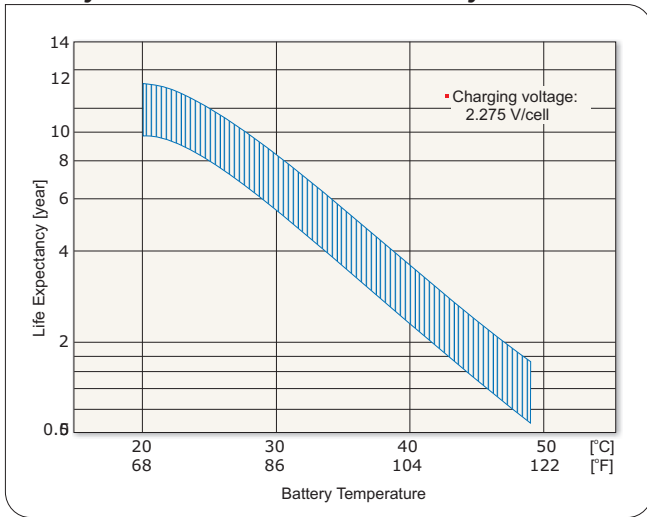
F.V. V/cell	Discharge time										
	5 min	10 min	15 min	30 min	50 min	1hr	2hr	4hr	6hr	8hr	10hr
1,80	107,5	77,32	61,21	35,49	23,41	20,18	11,00	6,455	4,773	3,772	3,089
1,75	126,7	83,76	64,02	36,84	24,17	20,79	11,28	6,569	4,841	3,777	3,135
1,70	134,6	86,77	66,00	37,68	24,65	21,16	11,43	6,622	4,871	3,798	3,150
1,65	140,7	88,86	67,52	38,21	24,95	21,42	11,54	6,656	4,885	3,808	3,160
1,60	145,3	90,63	68,87	38,59	25,20	21,63	11,63	6,683	4,895	3,812	3,160
1,50	151,1	92,45	70,25	38,98	25,45	21,85	11,73	6,703	4,895	3,812	3,160

• Constant power (Power [W/cell], 25°C / 77°F)

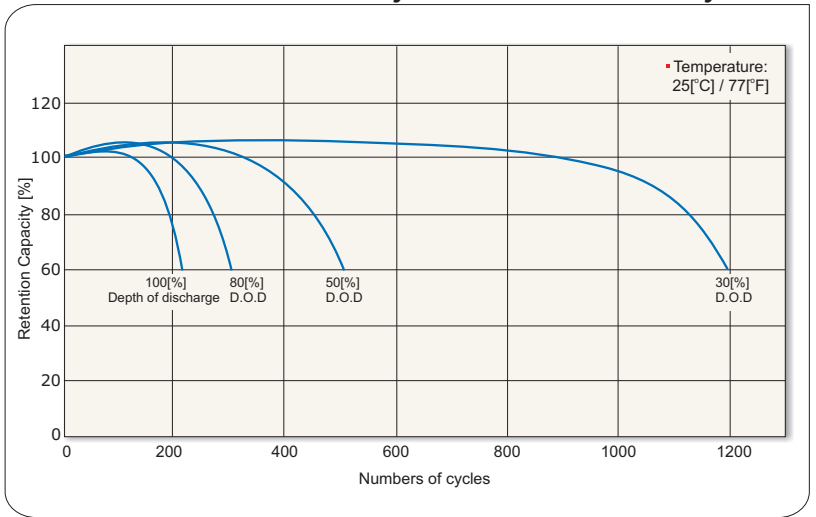
F.V. V/cell	Discharge time										
	5 min	10 min	15 min	30 min	50 min	1hr	2hr	4hr	6hr	8hr	10hr
1,80	198,8	146,3	117,3	69,8	46,3	40,0	22,0	12,9	9,5	7,4	6,1
1,75	230,1	158,6	122,7	72,4	47,8	41,2	22,5	13,1	9,6	7,5	6,2
1,70	244,5	164,3	126,5	74,1	48,8	41,9	22,8	13,2	9,7	7,5	6,3
1,65	255,5	168,2	129,4	75,1	49,4	42,4	23,0	13,3	9,7	7,6	6,3
1,60	264,0	171,6	132,0	75,9	49,9	42,9	23,2	13,3	9,7	7,6	6,3
1,50	274,5	175,0	134,6	76,6	50,4	43,3	23,4	13,4	9,7	7,6	6,3

F.V. - Final voltage

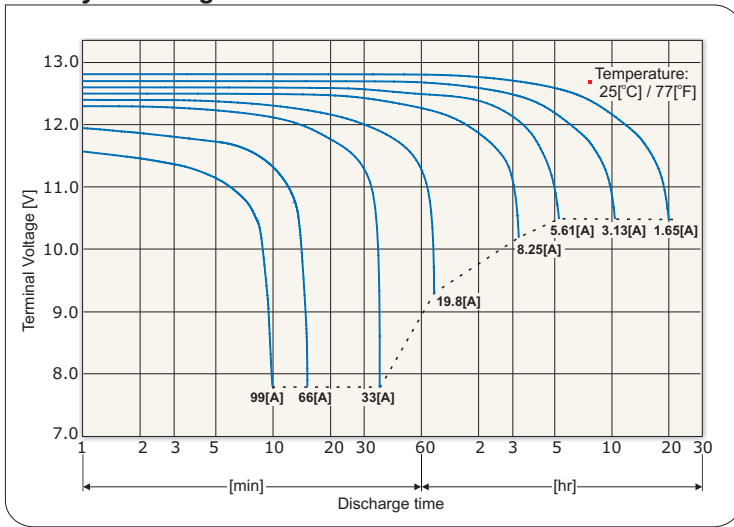
Battery life characteristics of standby use



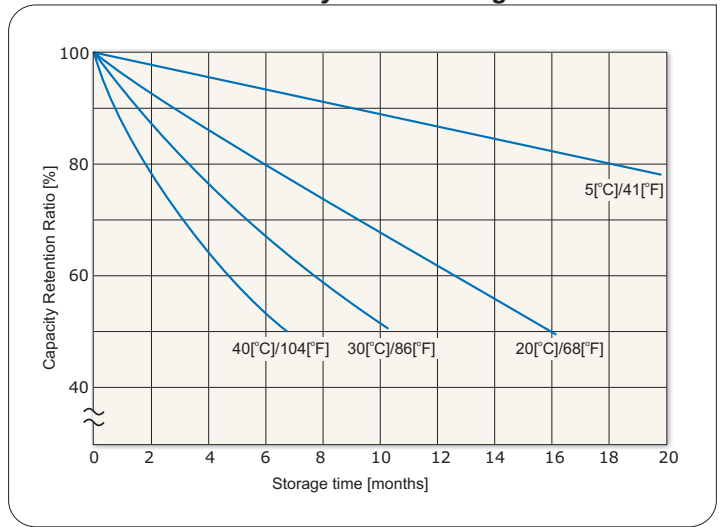
Battery life characteristics of cycle use



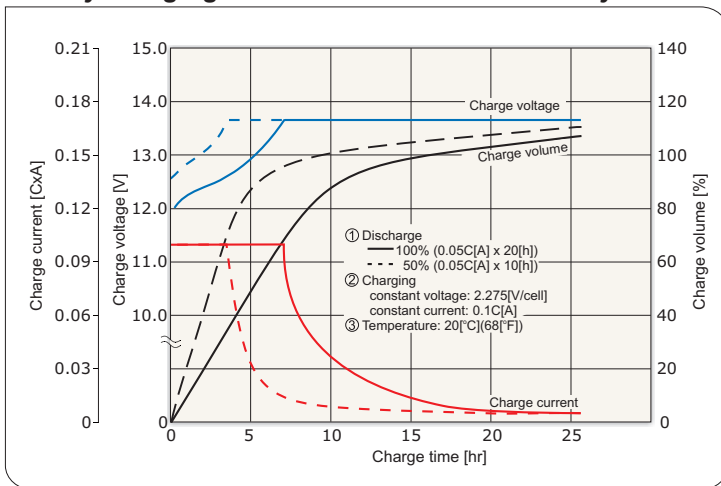
Battery discharge characteristics



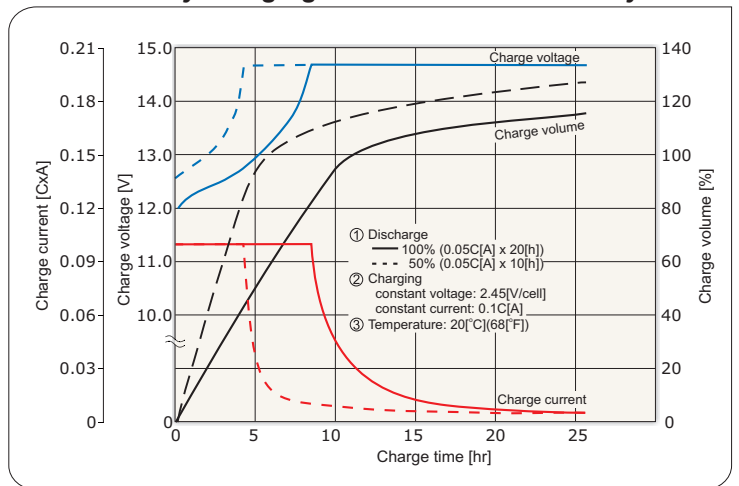
Battery self discharge characteristics



Battery charging characteristics for the standby use



Battery charging characteristics for the cycle use



Battery discharge current and final discharge voltage

Discharge current [A]	6.6 > I	6.6 ≤ I < 16.5	16.5 ≤ I < 33	33 ≤ I
Final discharge voltage [V/cell]	1.75	1.70	1.55	1.30



*) C - Capacity