

EUROPOWER cells are made in **AGM technology**. Owing their excellent power and current capability these batteries are designed for both large and important central battery UPS systems as well as for applications in telecommunications and renewable energy engineering (the battery system **capacity even up to 12000 Ah**). They have a very high repeatability of parameters and long designed life. EXL-N cells can withstand **1200 discharge/charge cycles at 80% DOD**.



### TECHNICAL DATA

Nominal voltage	2 V		
Nominal capacity	200 Ah / C <sub>10</sub>		
Cell per unit	1		
Technology	AGM		
Design life	over 12 years @ 20°C* 15 years @ 25°C		
Dimensions	height	372,0 mm	
	length	95,0 mm	
	width	185,0 mm	
Weight	~13,5 kg		
Capacity @ 25°C	10h	20,6A @1,80V/cell.	206,0 Ah
	3h	50,3A @1,80V/cell.	150,9 Ah
	1h	106A @1,75V/cell.	106,0 Ah
	30 min	158A @1,75V/cell.	79,0 Ah
Ambient nominal temperature range	charge	0°C ~ 40°C	
	discharge	-40°C ~ 55°C	
	storage	-20°C ~ 40°C	
Internal resistance	@ fully charge battery	≤0,67 mΩ	
Charging voltage @ 20°C	standby use	2,25 V (-3 mV/°C)	
	cycle use	2,35 V (-4 mV/°C)	
Charging current	recommended	20 A	
	maximum	50 A	
Capacity retention during storage @ 20°C (self discharge)	after 1 month	98 %	
	after 6 months	86 %	
	after 12 months	73 %	
Container material	standard	ABS UL 94-HB	
	optional	ABS UL 94-V0**	
Terminal	insert terminal	I3	
Terminal hardware	initial torque	10,0 Nm	

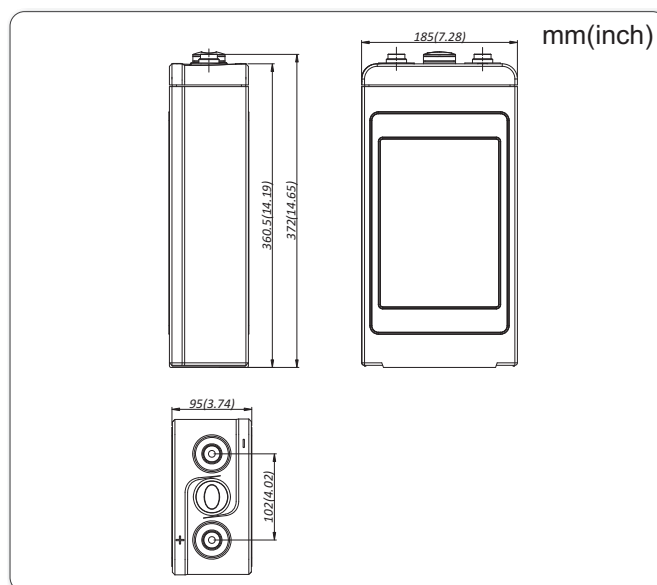
\* ) - According to Eurobat (Long Life group)

\*\* ) - Flame-retardant

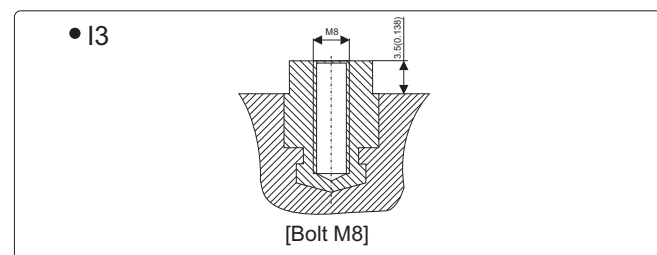
### APPLICATIONS

- high power Uninterruptible Power Supplies (UPS)
- substations
- emergency lighting systems
- telecommunication power plants
- renewable power sources
- GSM base stations

### DIMENSIONS



### TERMINALS



### 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)

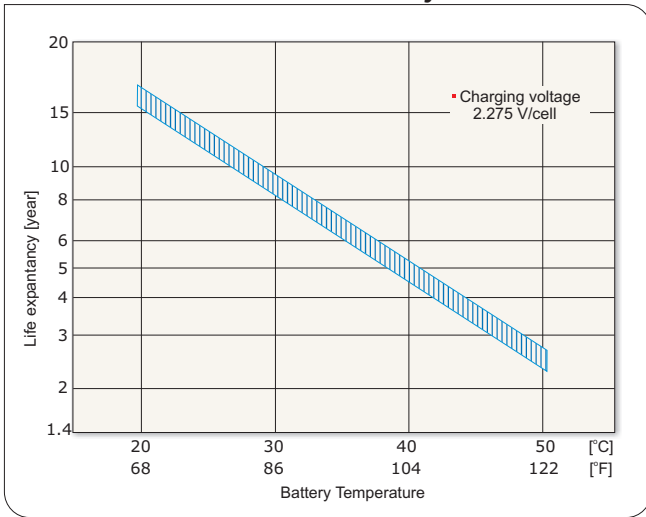
F.V. V/cell	Discharge time										
	5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	24h
1,90	201	163	121	99,1	84,7	44,7	32,7	28,8	23,1	19,3	8,83
1,85	234	193	141	115	95,4	47,7	34,0	29,9	24,0	20,0	9,05
1,83	245	204	151	121	99,0	48,7	34,4	30,3	24,3	20,1	9,15
1,80	264	218	158	127	106	50,3	35,2	30,9	24,8	20,6	9,33
1,75	274	231	169	136	113	51,9	36,0	31,7	25,2	21,0	9,51
1,70	288	244	182	143	118	53,5	37,1	32,2	25,5	21,3	9,63

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

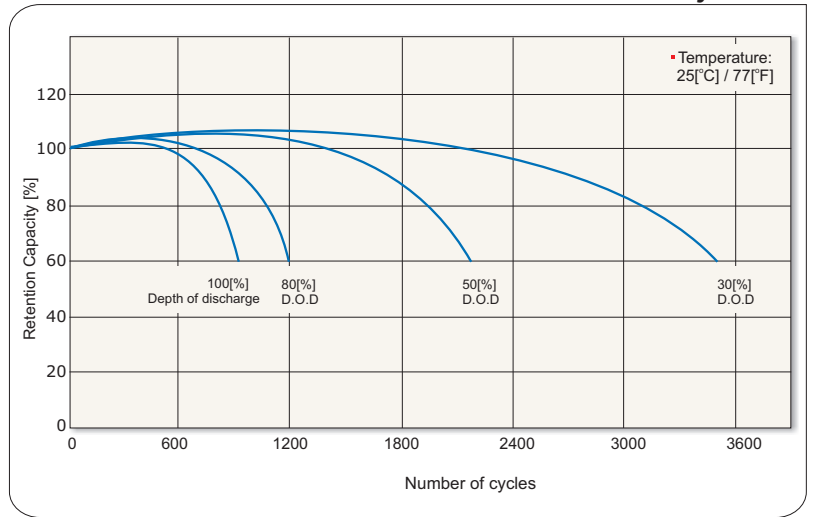
F.V. V/cell	Discharge time										
	5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	24h
1,90	392	318	244	200	174	95,0	67,7	57,8	45,4	38,0	18,0
1,85	444	367	289	238	202	102	72,5	61,9	48,5	40,9	18,8
1,83	461	384	306	251	215	106	74,4	63,4	49,2	41,7	19,1
1,80	488	403	325	262	222	108	76,0	65,3	50,2	42,6	19,5
1,75	502	423	337	270	228	112	78,2	67,3	51,5	43,2	19,8
1,70	518	439	348	280	237	116	80,2	68,9	53,5	43,9	20,1

F.V. - Final voltage

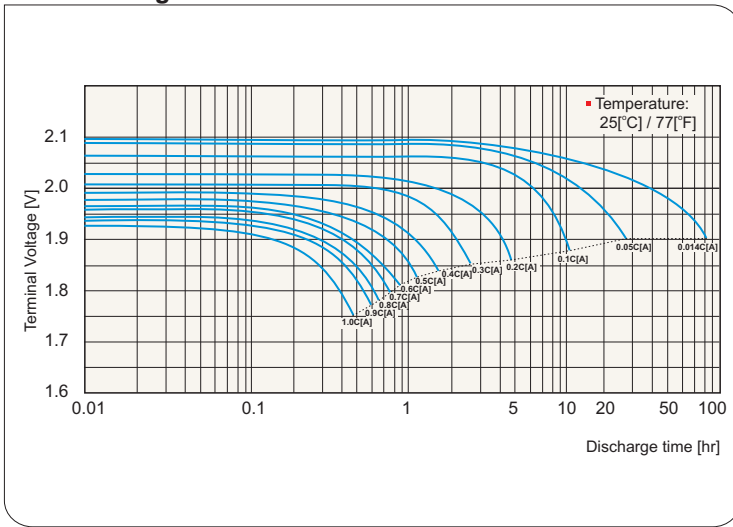
## Cell life characteristics of standby use



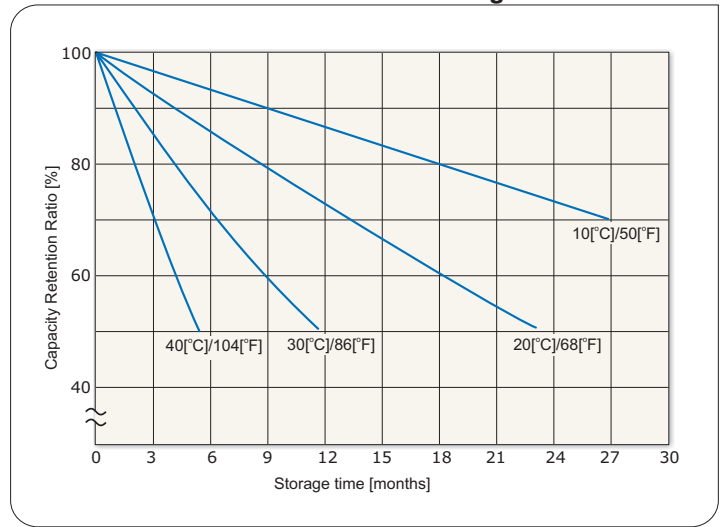
## Cell life characteristics of cycle use



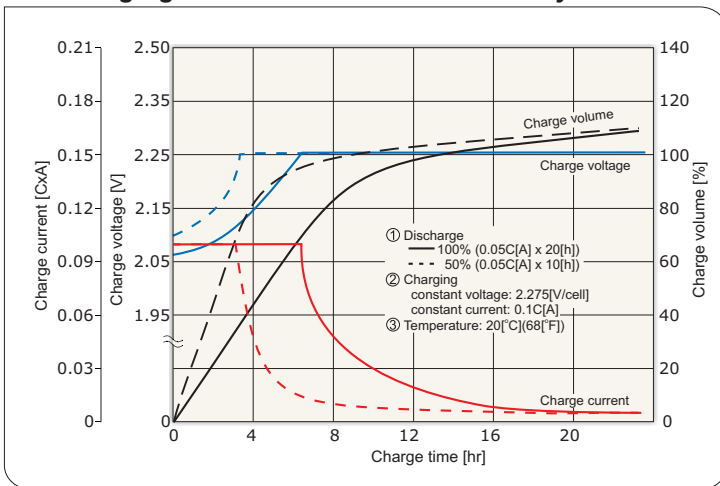
## Cell discharge characteristics



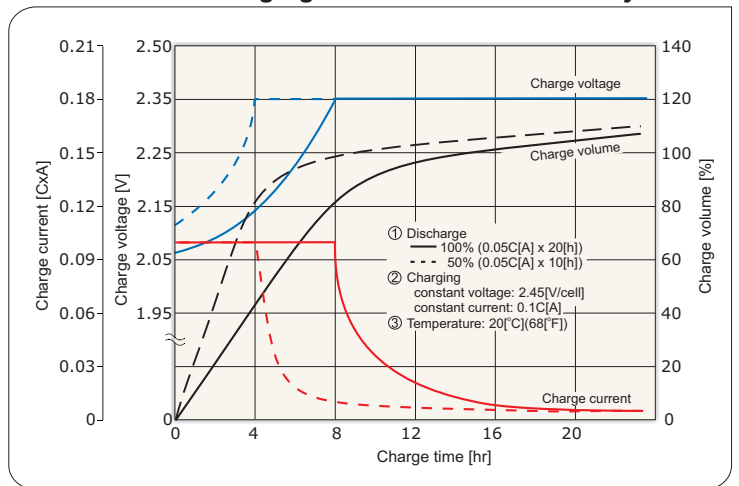
## Cell self discharge characteristics



## Cell charging characteristics for the standby use



## Cell charging characteristics for the cycle use



## Cell discharge current and final discharge voltage

Discharge current [A]	0.2C > I	0.2C ≤ I < 0.5C	0.5C ≤ I < 1.0C	1.0C ≤ I
Final discharge voltage [V/cell]	1.85	1.83	1.75	1.70



\*) C - Capacity