

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	400 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	166,0 mm
	width	185,0 mm
Weight	~24,5 kg	
	Capacity @ 25°C	
Capacity @ 25°C	10h 41,1A @1,80V/cell.	411,0 Ah
	3h 101A @1,80V/cell.	303,0 Ah
	1h 226A @1,75V/cell.	226,0 Ah
	30 min 339A @1,75V/cell.	169,5 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	≤0,35 mΩ
Charging voltage @ 20°C	standby use	2,25 V (-3 mV/°C)
	cycle use	2,35 V (-4 mV/°C)
Charging current	recommended	40 A
	maximum	100 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

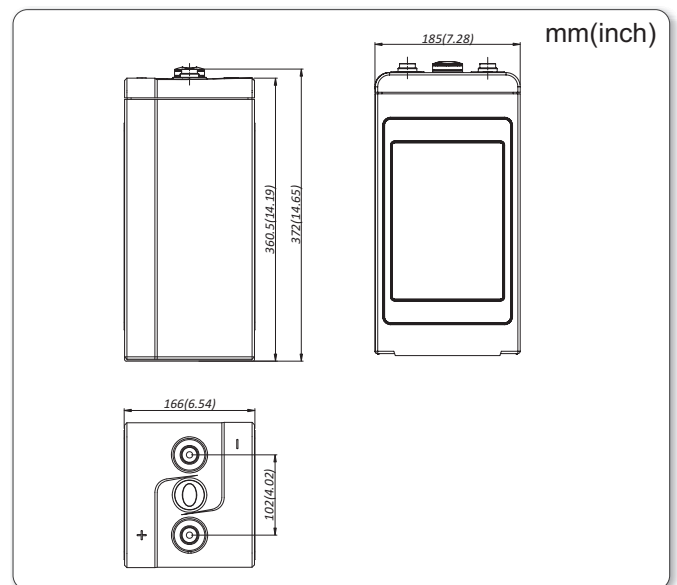
\* ) - According to Eurobat (Long Life group)

\*\* ) - Flame-retardant

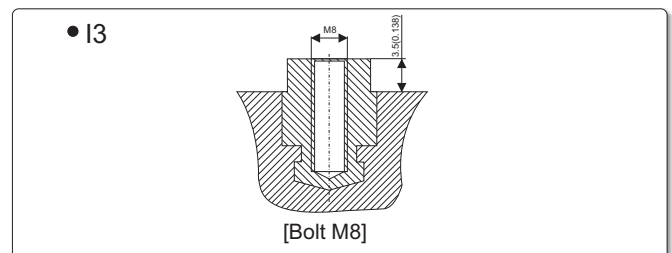
### APPLICATIONS

- 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)

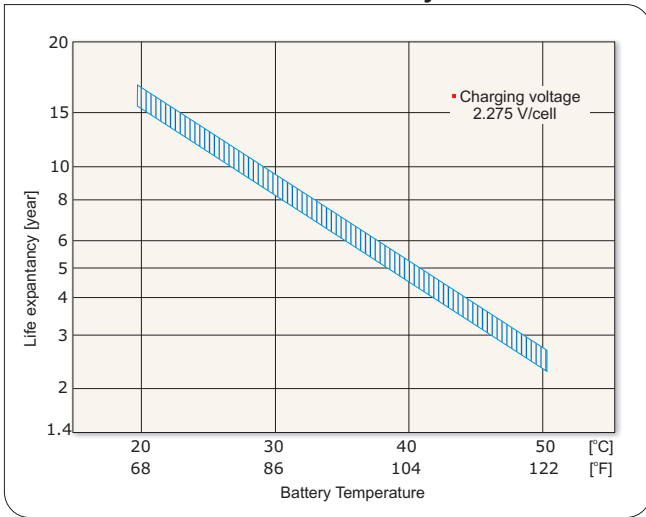
F.V. V/cell	Discharge time										
	5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	24h
1,90	402	327	242	198	169	89,5	65,5	57,6	46,3	38,6	17,7
1,85	467	386	282	230	191	95,4	68,0	59,8	48,1	40,0	18,1
1,83	491	409	302	241	198	97,3	68,7	60,7	48,6	40,2	18,3
1,80	528	436	317	253	211	101	70,4	61,8	49,5	41,1	18,7
1,75	549	462	339	273	226	104	72,1	63,4	50,5	42,1	19,0
1,70	576	488	364	285	237	107	74,1	64,4	51,1	42,7	19,3

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

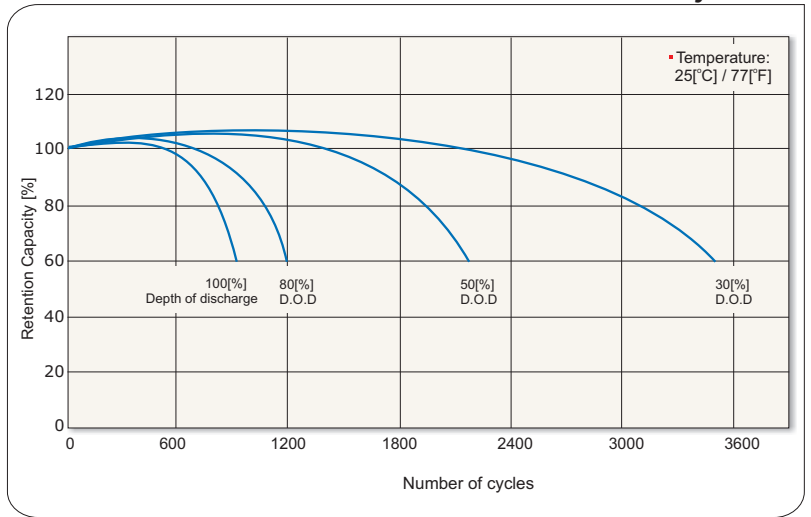
F.V. V/cell	Discharge time										
	5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	24h
1,90	783	637	487	399	348	190	135	116	90,8	75,9	36,0
1,85	888	734	578	476	405	205	145	124	97,0	81,8	37,5
1,83	923	769	612	503	429	211	149	127	98,3	83,5	38,3
1,80	976	806	649	524	445	216	152	131	100	85,1	39,0
1,75	1004	845	673	540	455	224	156	135	103	86,5	39,6
1,70	1036	878	697	560	474	233	160	138	107	87,8	40,2

F.V. - Final voltage

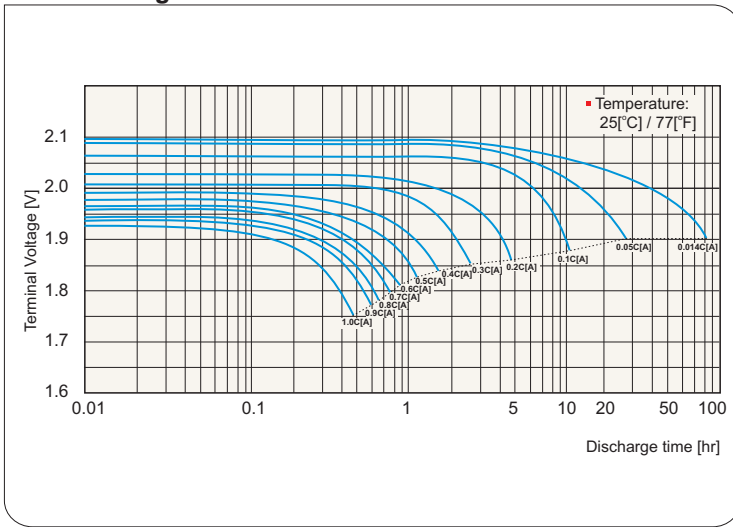
## Cell life characteristics of standby use



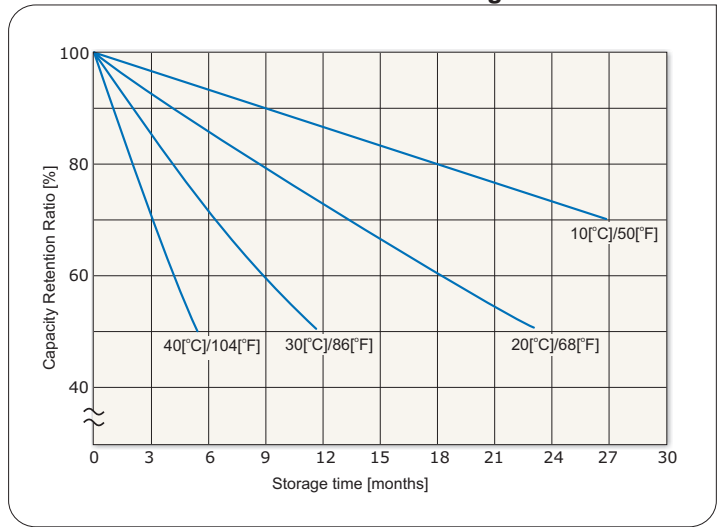
## Cell life characteristics of cycle use



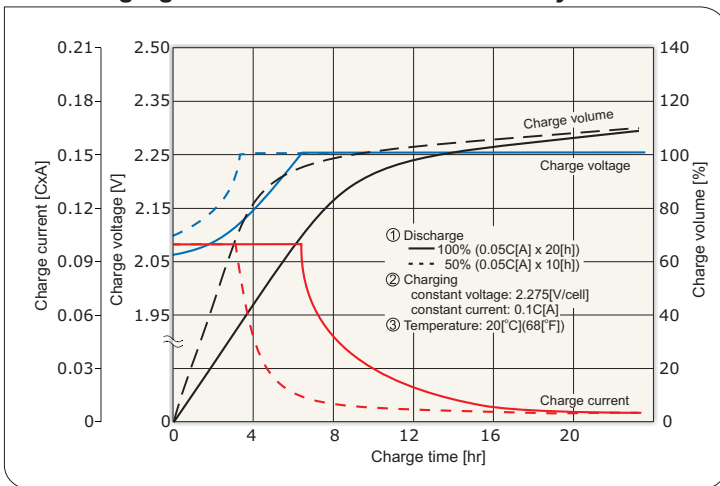
## Cell discharge characteristics



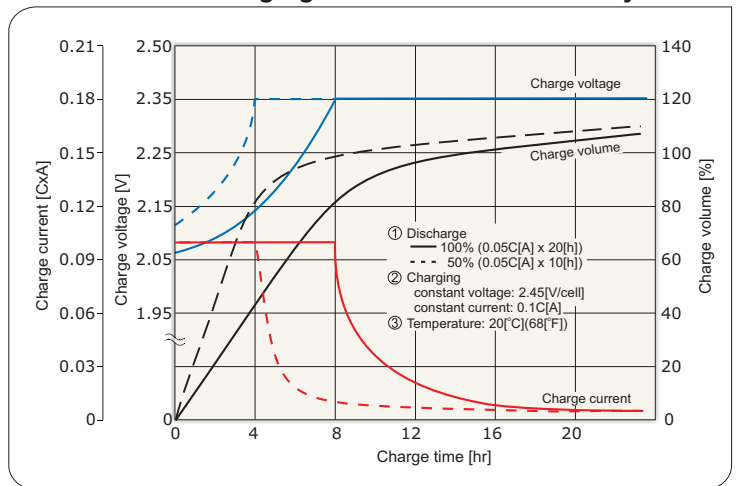
## Cell self discharge characteristics



## 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