Sealed lead-acid cell

EUROPOWER®

Model: EXL 500N

EXL-N Series

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 engeneering (the battery system **capacity even up to 12000 Ah**). They have a very high repeatibility of parameters and long designed life. EXL-N cells can withstand **1200 discharge/charge cycles at 80% DOD.**

TECHNICAL DATA

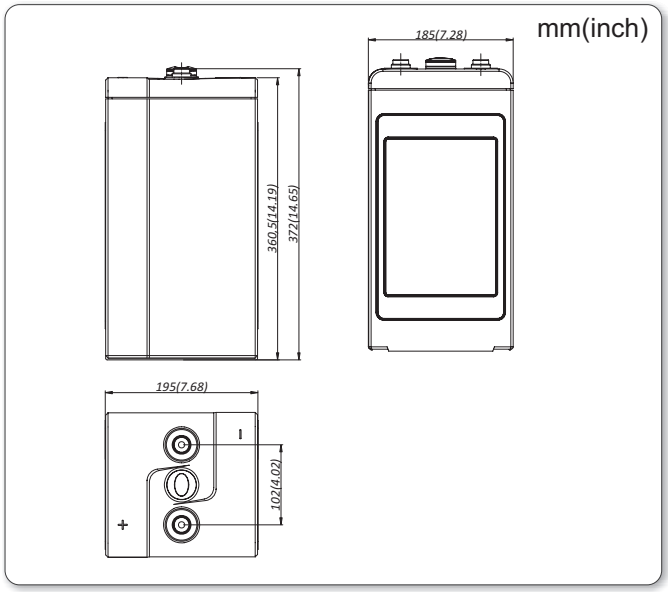
Nominal voltage			2 V
Nominal capacity			500 Ah / C_{10}
Cell per unit			1
Technology			AGM
Design life			over 17 years @ 20°C* over 15 years @ 25°C
Dimensions	height		372,0 mm
	length		195,0 mm
	width		185,0 mm
Weight			~29,5 kg
Capacity @ 25°C	10h	51,4A @1,80V/cell.	514,0 Ah
	3h	126A @1,80V/cell.	378,0 Ah
	1h	282A @1,75V/cell.	282,0 Ah
	30 min	423A @1,75V/cell.	211,5 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		≤0,33 mΩ
Charging voltage @ 20°C	standby use		2,25 V (-3 mV/°C)
	cycle use		2,35 V (-4 mV/°C)
Charging current	recommended		50 A
	maximum		125 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

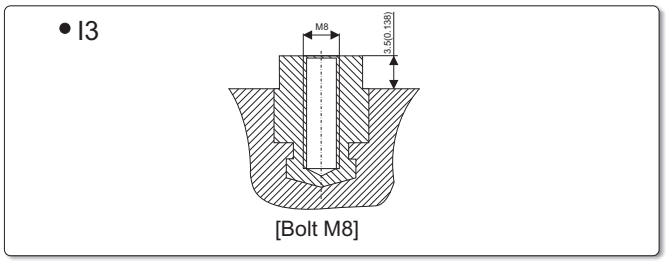
APPLICATIONS

- 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	502	408	303	248	212	112	81,9	72,0	57,8	48,3	22,5
1,85	584	483	353	287	239	119	85,0	74,7	60,1	50,0	23,0
1,83	613	511	377	301	248	122	85,9	75,8	60,8	50,3	23,3
1,80	660	545	396	317	264	126	88,0	77,2	61,9	51,4	23,8
1,75	686	578	423	341	282	130	90,1	79,2	63,1	52,6	24,2
1,70	720	610	455	357	296	134	92,7	80,5	63,9	53,4	24,5

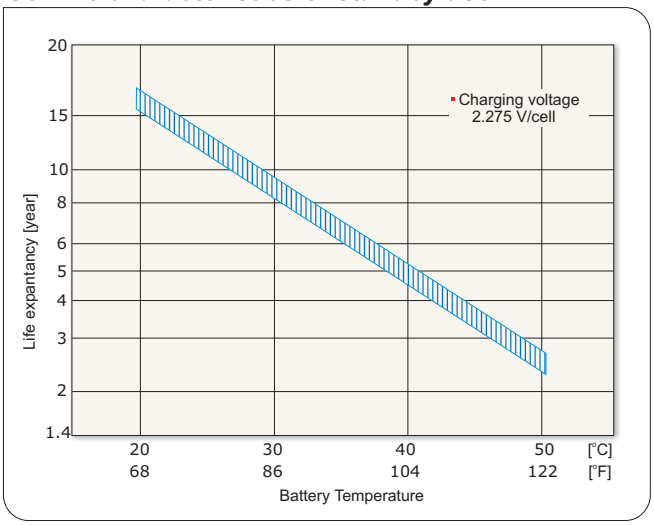
• Constant power (Power [W/cell], 25[°C] / 77[°F])

F.V. V/cell	Discharge time 5 min	15 min	30 min	45 min	1h	3h	5h	6h	8h	10h	24h
1,90	979	796	609	499	436	238	169	145	113	94,9	44,1
1,85	1110	917	722	595	506	256	181	155	121	102	47,0
1,83	1153	961	766	628	536	264	186	158	123	104	47,8
1,80	1220	1007	812	655	556	271	190	163	125	106	49,0
1,75	1255	1057	842	675	569	281	196	168	129	108	49,9
1,70	1295	1098	871	700	592	291	200	172	134	110	50,2

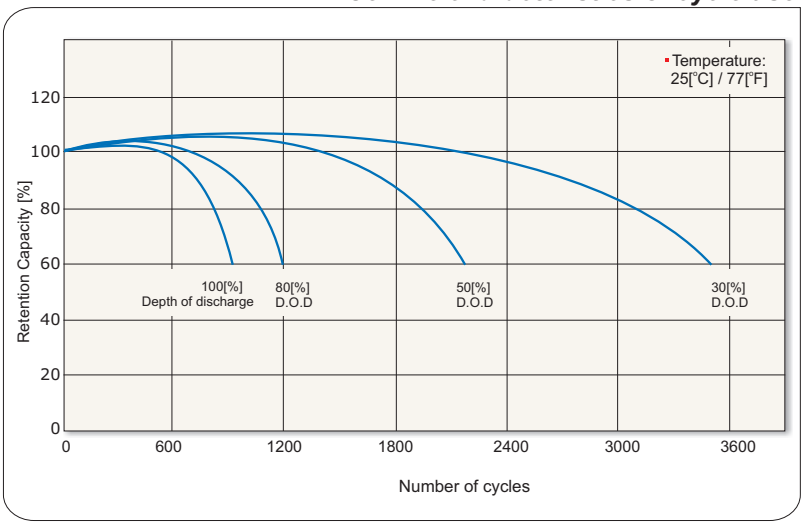
F.V. - Final voltage

EXL 500N

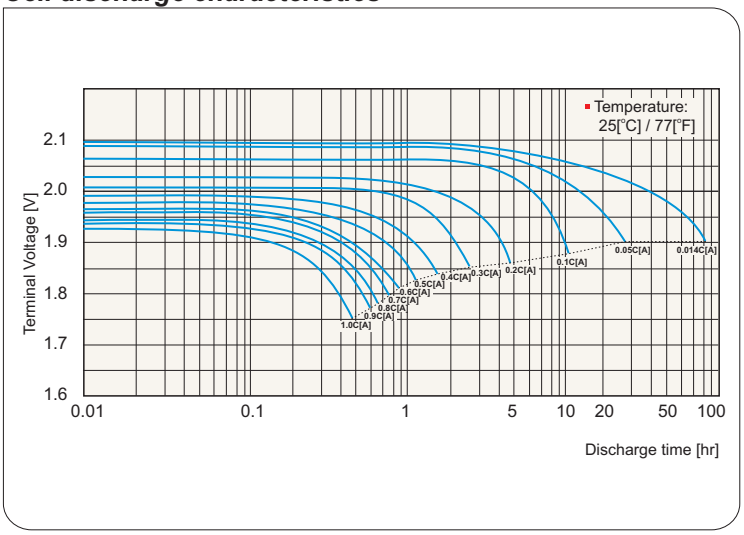
Cell life characteristics of standby use



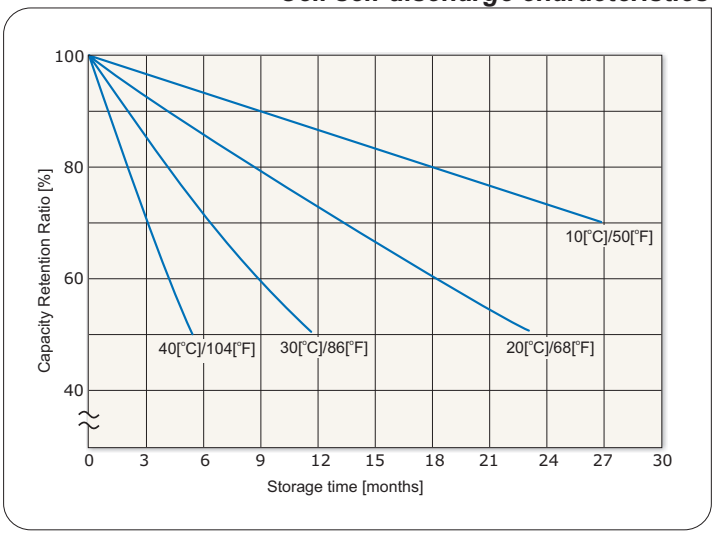
Cell life characteristics of cycle use



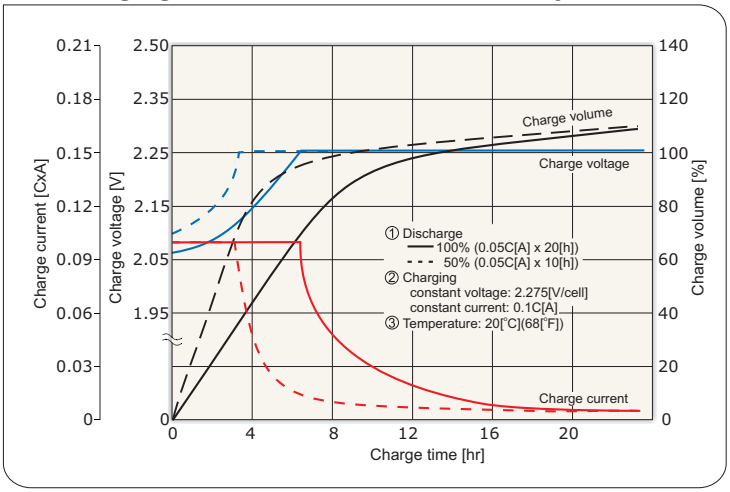
Cell discharge characteristics



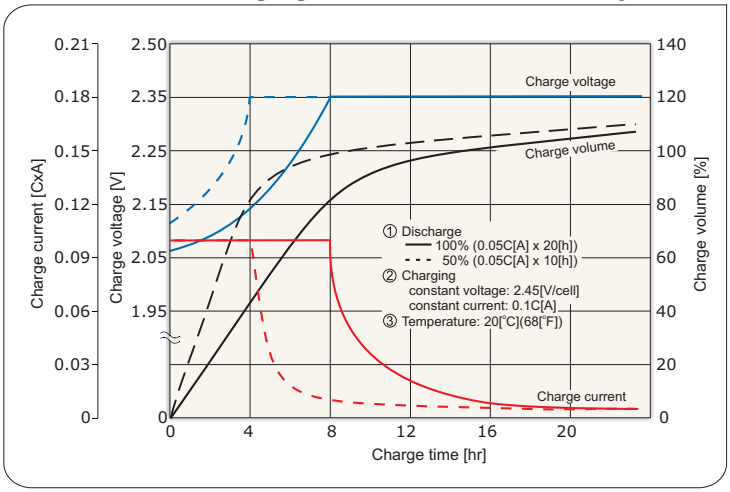
Cell self discharge characteristics



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

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