

OPzV series are 2V cells made in gel technology, with a tubular (armoured) positive plate. Thanks to this, their design life can reach in the standby use **over 18 years at 25°C**. EUROPOWER OPzV cells are also suitable for deep discharges and their cyclic life amounts to 1700 cycles for 80% discharge depth.

TECHNICAL DATA

Nominal voltage	2 V		
Nominal capacity	1000 Ah / C ₁₀		
Cell per unit	1		
Technology	GEL		
Design life	over 20 years @ 20°C* over 18 years @ 25°C		
Dimensions	height	678,0 mm	
	length	233,0 mm	
	width	210,0 mm	
Weight	~80 kg		
Capacity @ 25°C	24h	44,7A @ 1,80V/cell	1072,0 Ah
	10h	100A @ 1,80V/cell	1000,0 Ah
	3h	252A @ 1,75V/cell	756,0 Ah
	1h	564A @ 1,70V/cell	564,0 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	≤0,238 mΩ	
Charging voltage @ 20°C	standby use	2,25V (-3 mV/°C)	
	cycle use	2,35 V do 2,40V (-4 mV/°C)	
Charging current	recommended	100 A	
	maximum	250 A	
Capacity retention during storage @ 20°C (self discharge)	after 1 month	99 %	
	after 6 months	92 %	
	after 12 months	84 %	
Container material	standard	ABS UL 94-HB	
	optional	ABS UL 94-V0**	
Terminal	faston F1	M8	
Terminal hardware initial torque		15,0 Nm	

*) - 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										
	30 min	1h	3h	4h	5h	6h	8h	10h	24h	48h	100h
1,90	509	387	213	179	152,8	131,9	106,1	88,3	39,7	22,0	11,8
1,85	597	484	239	192	164,2	142,8	117,1	98,2	43,2	23,5	12,8
1,80	709	521	247	198	169,6	147,8	120,5	100,0	44,7	24,7	13,3
1,75	775	547	252	202	173,6	151,8	123,5	102,7	45,7	25,2	13,7
1,70	805	564	258	206	176,6	154,8	125,9	104,2	46,6	25,5	14,1

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

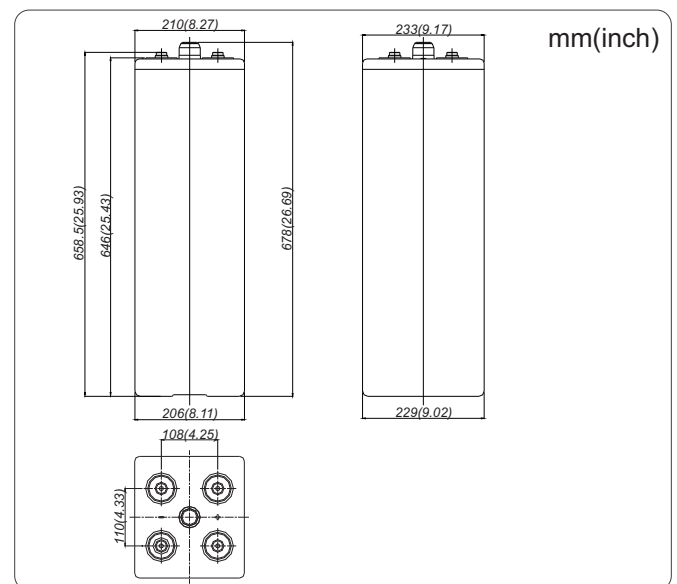
F.V. V/cell	Discharge time										
	30 min	1h	2h	3h	4h	5h	6h	8h	10h	16h	24h
1,90	1258	845	580	470	363	311,0	252,0	209,0	175,9	113,5	77,2
1,85	1379	949	640	486	382	322,4	278,0	230,3	193,4	125,2	85,1
1,80	1435	1020	665	511	402	331,3	290,0	242,5	202,4	130,7	88,8
1,75	1495	1081	689	526	412	347,2	306,0	254,4	213,3	137,7	93,7
1,70	1557	1149	709	539	429	360,0	311,5	258,7	217,3	140,3	95,1

F.V. - Final voltage

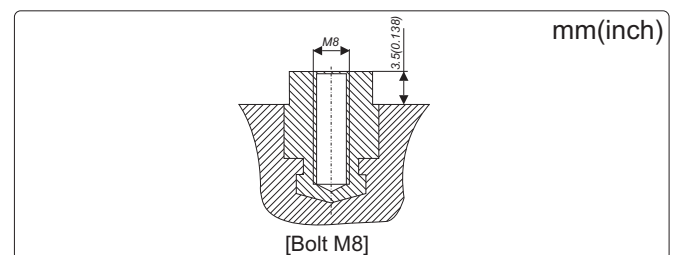
APPLICATIONS

- Uninterruptible Power Supplies (UPS)
- Telecommunication power plants
- GSM base stations
- Substations
- Cable television
- Renewable energy sources

DIMENSIONS

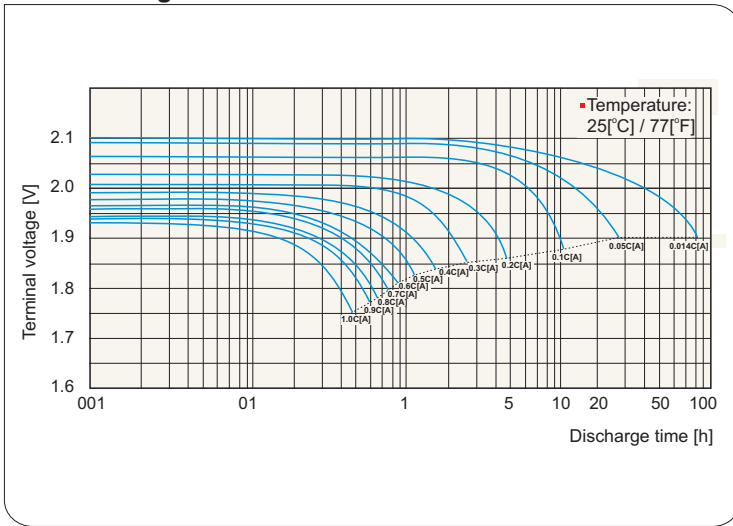


TERMINALS

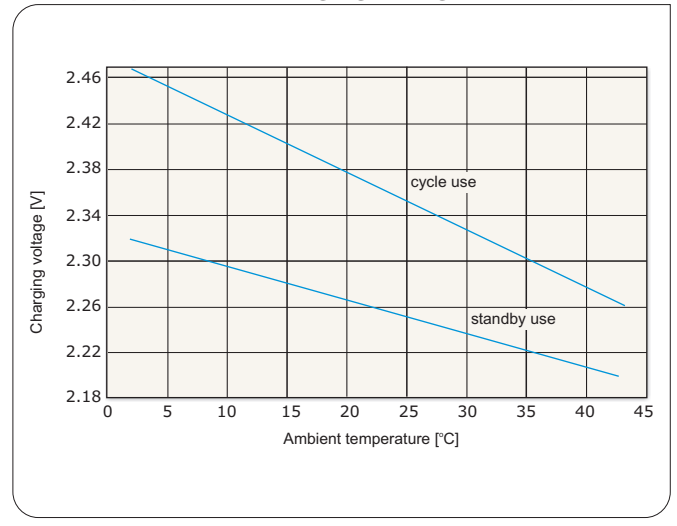


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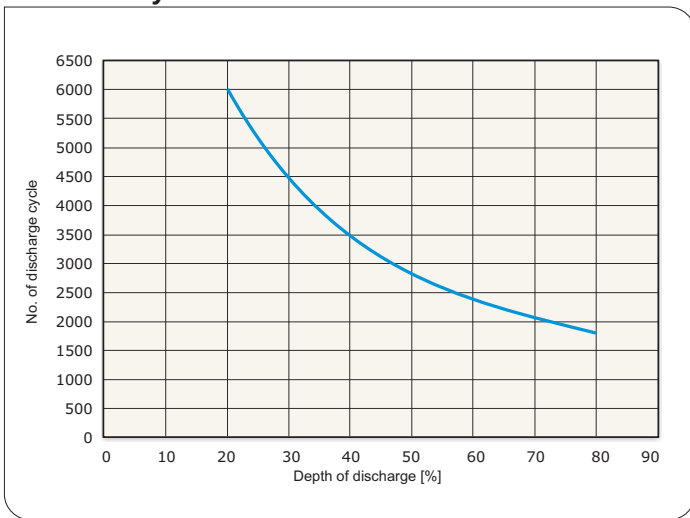
Cell discharge characteristics



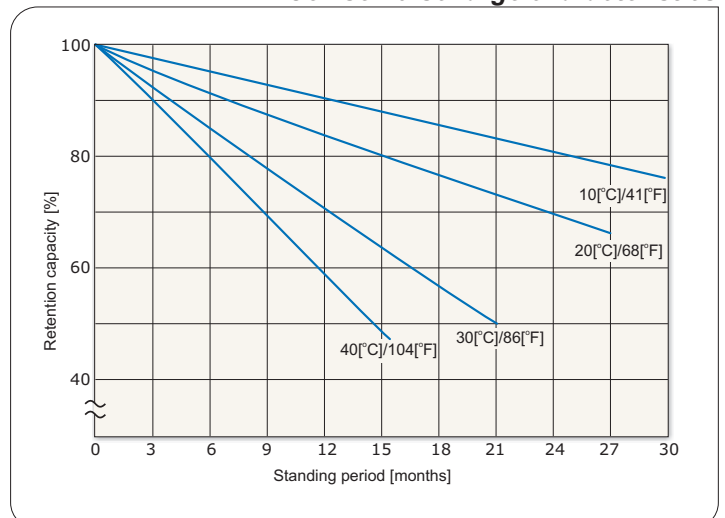
Relationship between charging voltage and temperature



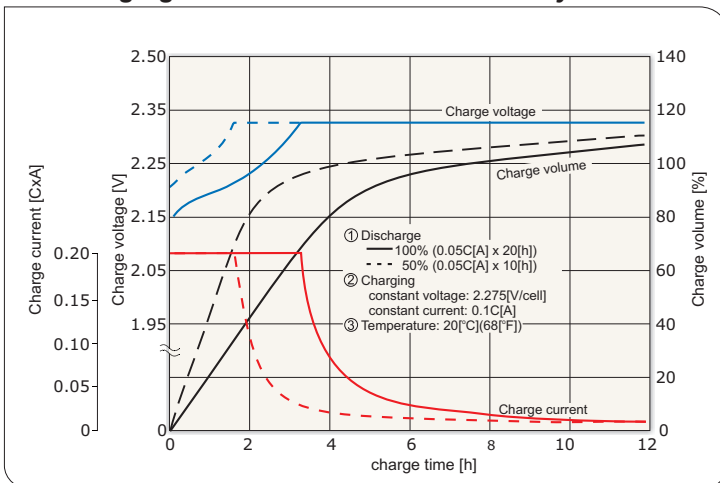
Cell life in cyclic use



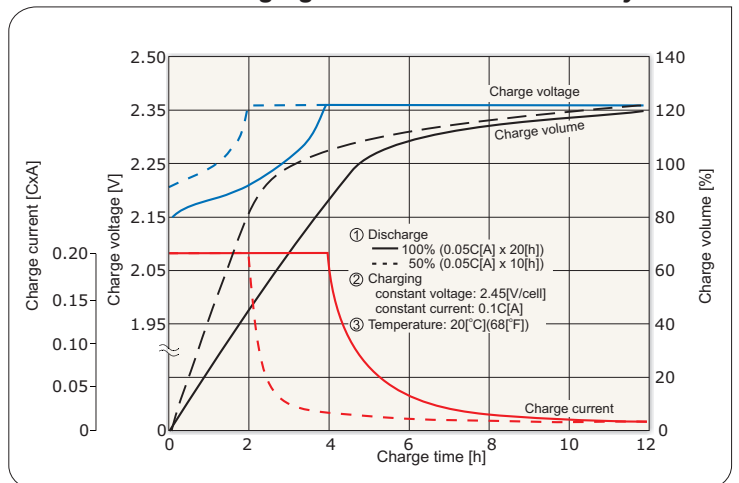
Cell self discharge characteristics



Cell charging characteristics for the standby use



Cell charging characteristics for the cycle use



Battery discharge current and final discharge voltage

Discharge current [A]	$0.2C > I$	$0.2C \leq I < 0.5C$	$0.5C \leq I < 1.0C$	$1.0C \leq I$
Final discharge voltage [V/cell]	1.90	1.85	1.80	1.75

*) C - Capacity

