

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	400 Ah / C ₁₀	
Cell per unit	1	
Technology	GEL	
Design life	over 20 years @ 20°C* over 18 years @ 25°C	
Dimensions	height	505,0 mm
	length	145,0 mm
	width	206,0 mm
Weight	~35 kg	
Capacity @ 25°C	24h 18,5A @1,80V/cell	444,0 Ah
	10h 40,2A @1,80V/cell	402,0 Ah
	3h 104A @1,75V/cell	312,0 Ah
	1h 233A @1,70V/cell	233,0 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	≤0,512 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	40 A
	maximum	100 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	210	160	88	74	63,1	54,5	43,9	36,5	16,4	9,1	4,9
1,85	247	200	99	79	67,9	59,0	48,4	39,6	17,9	9,7	5,3
1,80	293	215	102	82	70,1	61,1	49,8	40,2	18,5	10,2	5,5
1,75	320	226	104	84	71,8	62,7	51,0	42,4	18,9	10,4	5,7
1,70	333	233	107	85	73,0	64,0	52,0	43,1	19,3	10,5	5,8

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

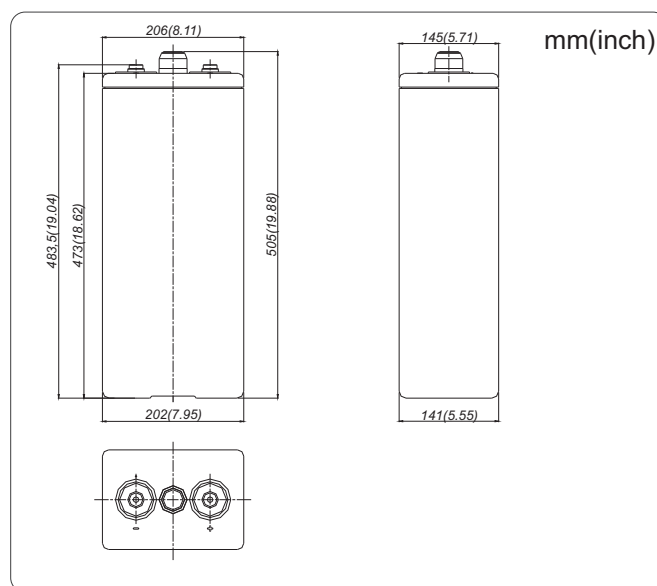
F.V. V/cell	Discharge time										
	30 min	1h	2h	3h	4h	5h	6h	8h	10h	16h	24h
1,90	520	349	240	194	151	130,0	104,3	86,3	72,7	46,9	31,9
1,85	570	392	264	201	158	133,3	115,0	95,2	80,2	51,8	35,2
1,80	593	422	275	211	166	136,9	120,0	100,2	83,6	54,0	36,7
1,75	618	447	285	217	170	143,5	126,4	105,2	88,2	56,9	38,7
1,70	644	475	293	223	177	148,8	128,7	106,9	89,8	57,9	39,3

F.V. - Final voltage

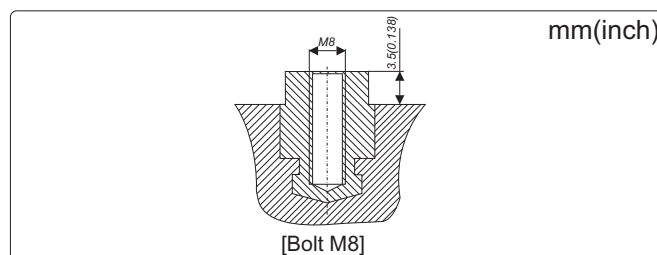
APPLICATIONS

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

DIMENSIONS

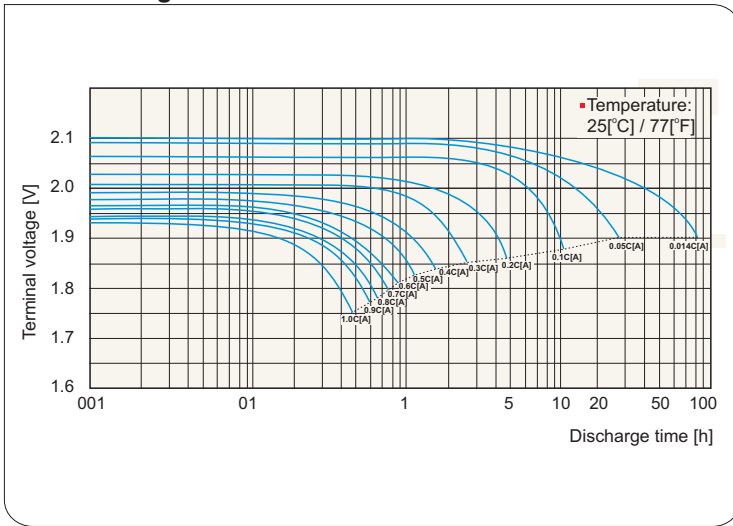


TERMINALS

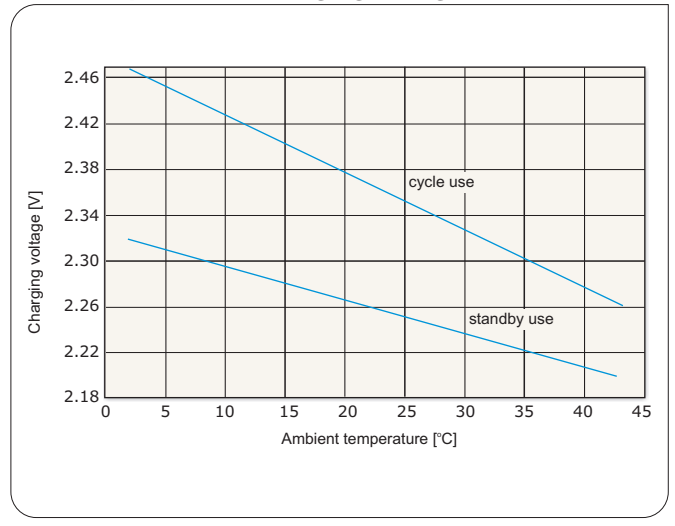


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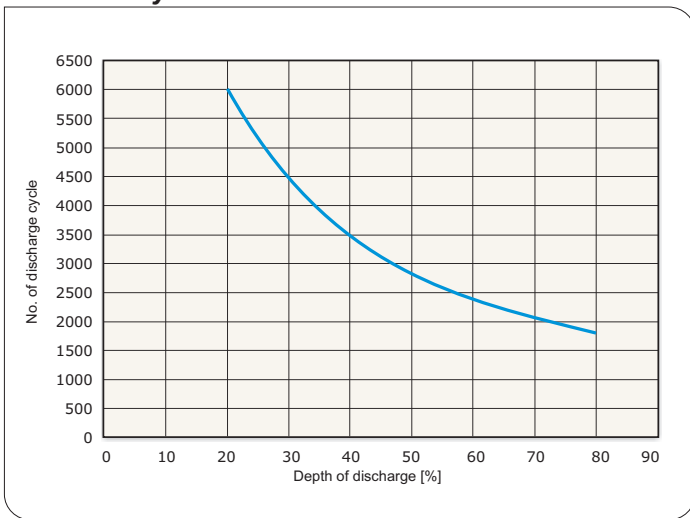
Cell discharge characteristics



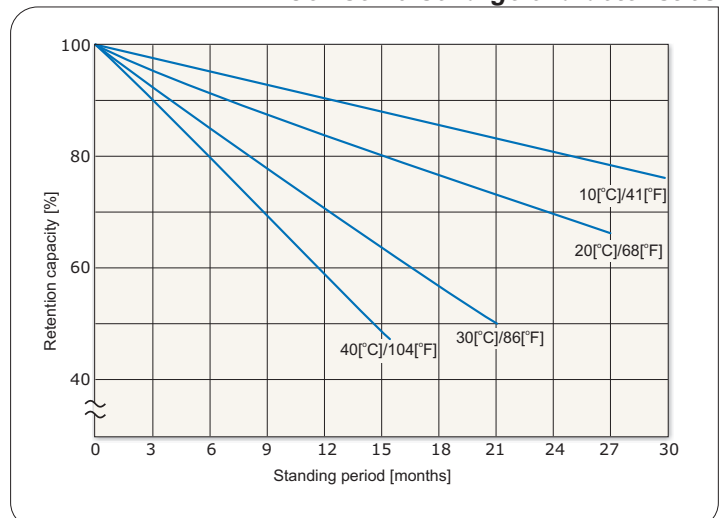
Relationship between charging voltage and temperature



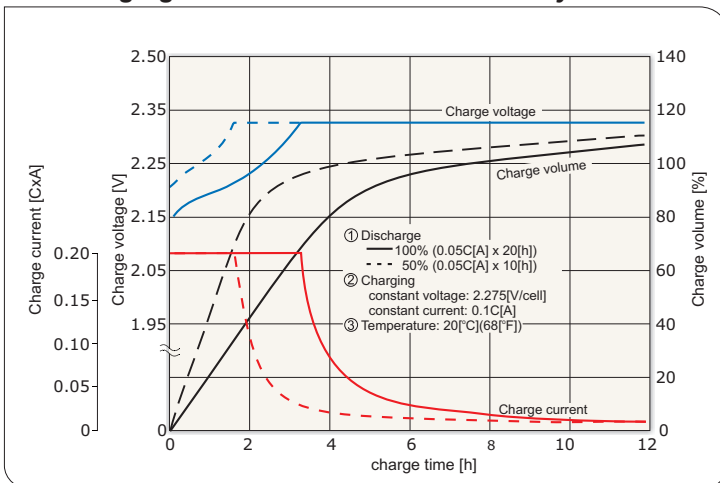
Cell life in cyclic use



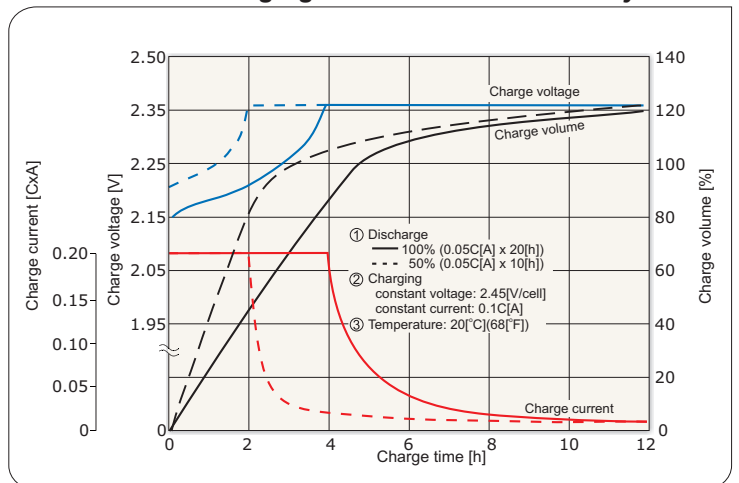
Cell self discharge characteristics



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

