

The EnerSys® range of VARTA® OPzS single cells has been designed for use in all standby power applications that demand the highest levels of reliability and security.

VARTA OPzS cells benefit from an optimised plate design that results in increased capacity compared to the requirements of the internationally recognised DIN standard. In addition, the tubular plate technology offers excellent cycling performance together with a proven long life under float voltage conditions, for a truly flexible solution.

The specification of the VARTA OPzS cells make it ideal for a wide range of applications such as telecommunications, telephony, power generation and distribution, railway, airport and seaport signalling, computing, emergency lighting, automation and measuring systems.

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## RANGE SUMMARY

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### Features & Benefits

- Capacity range: 216Ah – 3360Ah (C<sub>10</sub>/1.80Vpc/20°C)
- C<sub>10</sub> capacities exceed the DIN standard values
- Excellent cyclability
- 18 year design life (20°C)
- High operational reliability
- Low maintenance
- 3 year topping-up interval
- DIN 40736-1 compliant

The logo consists of the word "EnerSys" in a bold, black, sans-serif font. A red swoosh underline starts under the 'E' and curves under the 'S'. A registered trademark symbol (®) is at the end.

Power/Full Solutions

RESERVE  
POWER

## Construction

- Positive electrodes – die-cast tubular plates with low antimony lead alloy for longer life
- Negative electrodes – pasted flat plates provide perfect balance with the positive plates to give maximum performance
- Separators – special microporous material
- Containers – moulded from durable, transparent styrene acrylonitrile (SAN) to allow electrolyte level and cell condition to be monitored visually
- Cell lids – made of opaque ABS sealed to container to ensure no electrolyte leakage
- Electrolyte – diluted sulphuric acid with a specific gravity of 1.240 (maximum level) at 20°C for a fully charged cell

- Terminals – lead alloy leakproof pole with brass insert designed to give minimum resistance and maximum current flow
- Vent plugs – safety plugs equipped with flame arrestors. Special vent plugs allowing topping-up and S.G. reading without the need to remove them, are available on request
- Connectors – fully insulated, solid copper inter-cell connectors allow voltage measurements

- Topping-up intervals of about 3 years in standby operation mode thanks to large electrolyte reserve
- Can be installed on steel or wooden racks

## Standards

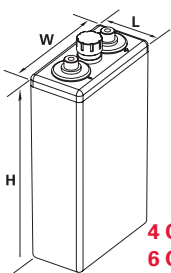
- Compliant with both the international standard IEC 60896-11 and the DIN standard 40736-1
- Batteries must be installed in accordance with safety standard EN 50272-2 and national regulations
- Manufactured in EnerSys® ISO 9001:2000 and ISO 14001:2004 certified production facilities

## Installation & Operation

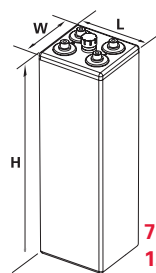
- Recommended float charge voltage: 2.23Vpc (20°C - 25°C)
- Recommended temperature range: 0°C to +55°C (preferred value 20°C)

## General Specifications

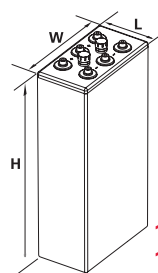
VARTA® OPzS Cell Types	Nominal Voltage (V)	Number of Terminals	Nominal Capacity (Ah)		Nominal Dimensions			Typical Weight		Electrolyte Volume Litres	Short Circuit Current (A)	Internal Resistance (mΩ)
			10 hr rate to 1.80Vpc @ 20°C	8 hr rate to 1.75Vpc @ 25°C	Length mm	Width mm	Height Over Vent Plug mm	Dry kg	Acid Filled kg			
4 OPzS 200	2	2	216	217	103	206	394	12.4	17.2	3.9	2400	0.85
5 OPzS 250	2	2	270	266	124	206	394	14.8	20.8	4.9	3000	0.68
6 OPzS 300	2	2	324	319	145	206	394	17.1	24.3	5.8	3600	0.57
5 OPzS 350	2	2	390	388	124	206	510	19.0	26.9	6.7	3400	0.60
6 OPzS 420	2	2	468	466	145	206	510	22.1	31.5	8.0	4075	0.50
7 OPzS 490	2	2	546	543	166	206	510	25.2	36.1	9.3	4750	0.43
6 OPzS 600	2	2	660	648	145	206	685	31.9	44.8	11.1	5000	0.40
7 OPzS 700	2	4	817	798	210	191	685	40.4	57.6	14.8	5800	0.34
8 OPzS 800	2	4	880	856	210	191	685	44.4	61.3	14.5	6650	0.30
9 OPzS 900	2	4	1040	1013	210	233	685	49.6	70.9	18.4	7475	0.27
10 OPzS 1000	2	4	1100	1071	210	233	685	53.5	74.6	18.1	8300	0.24
11 OPzS 1100	2	4	1260	1227	210	275	685	58.9	84.4	20.8	9150	0.22
12 OPzS 1200	2	4	1320	1293	210	275	685	62.8	88.0	20.6	9950	0.20
11 OPzS 1375	2	4	1590	1631	210	275	835	74.0	109.0	27.6	8800	0.22
12 OPzS 1500	2	4	1680	1730	210	275	835	80.0	114.0	27.3	9600	0.21
14 OPzS 1750	2	6	2040	2092	214	399	811	94.0	144.0	39.6	11200	0.18
15 OPzS 1875	2	6	2150	2208	214	399	811	99.0	149.0	38.9	12000	0.16
16 OPzS 2000	2	6	2240	2307	214	399	811	104.0	153.0	39.0	12800	0.15
18 OPzS 2250	2	8	2600	2669	212	487	811	125.0	185.0	47.8	14400	0.14
20 OPzS 2500	2	8	2800	2884	212	487	811	134.0	193.0	47.6	16000	0.12
22 OPzS 2750	2	8	3150	3238	212	576	811	153.0	225.0	57.8	17600	0.11
24 OPzS 3000	2	8	3360	3543	212	576	811	163.0	234.0	56.4	19200	0.10



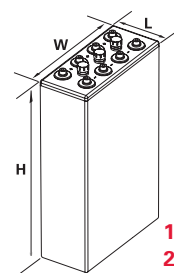
4 OPzS 200 -  
6 OPzS 600



7 OPzS 700 -  
12 OPzS 1500



13 OPzS 1750 -  
16 OPzS 2000



17 OPzS 2250 -  
24 OPzS 3000



www.enersys-emea.com

**EnerSys**  
P.O. Box 14145  
Reading, PA 19612-4145  
USA  
Tel: +1-610-208-1991  
+1-800-538-3627  
Fax: +1-610-372-8613

**EnerSys Europe**  
Zurich, Switzerland

**EnerSys Asia**  
Guangdong, China  
Tel: +86-755-2689 3639

**Hawker GmbH**  
Dieckstraße 42  
58089 Hagen  
Germany  
Tel: +49 (0)23 31 372-901  
Fax: +49 (0)23 31 372-869  
info.reserve@de.enersys.com

Contact:

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