

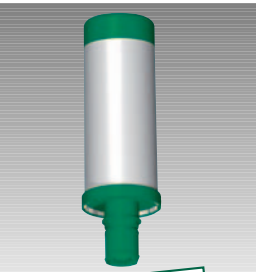
**Type range - vented products**

**Short description**

	<b>GroE</b>	<b>OSP.HC</b>	<b>OSP.XC</b>	<b>OPzS</b>	<b>max.power</b>	<b>solar.power</b>	<b>OGi bloc</b>	<b>USV bloc</b>	<b>power.bloc OPzS</b>	<b>FNC®</b>
Standards	DIN 40738, IEC 896-11	IEC 896-11	IEC 896-11	DIN 40736 P1, IEC 896-11	DIN 40736 P2, IEC 896-11	IEC 896-11	DIN 40739, IEC 896-11	IEC 896-11	DIN 40737-3, IEC 896-11	DIN 40763
Capacity range in Ah	75 - 2.600	105 - 3.780	120 - 4.140	200 - 3.000	3.500 - 12.000	375 - 1.500	18 - 256	21 - 336	50 - 300	10 - 1100
Nominal voltage range	2 V	2 V	2 V	2 V	2 V	2 V	4 V, 6 V	4 V, 6 V	6 V, 12 V	1.2 V
Container material Steel	SAN, clear	SAN, clear	SAN, clear	SAN, clear	PP	PP, high translucent	PP, high translucent	PP, high translucent	PP, high translucent	PP translucent, PP-VO, Grilon,
Grid alloy Positive Negative	pure lead Pb + <2% Sb	Pb + <2% Sb Pb + <2% Sb	Pb + <2% Sb Pb + <2% Sb	Pb + <2% Sb Pb + <2% Sb	Pb + <3% Sb Pb + <2% Sb	Pb + <2% Sb Pb + <2% Sb	Pb + <2% Sb Pb + <1% Ca	Pb + <2% Sb Pb + <1% Ca	Pb + <2% Sb Pb + <2% Sb	
Positive plate Negative plate	Planté Grid	Grid Grid	Grid Grid	Tubular Grid	Tubular Grid	Tubular Grid	Grid Grid	Grid Grid	Tubular Grid	metallized fibre electrode (Ni) metallized fibre electrode (Ni)
Electrolyte	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	H <sub>2</sub> SO <sub>4</sub> , liquid	KOH, liquid
Applications										
Connector design	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	welded connector	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	
Current behaviour										
Design life up to (in years)	25	20	18	20	20	15	15	12	18	25
Cycles up to				1.500	1.600	1.400			1.400	>2.000
Charging voltage in V/cell Float charge Boost charge	2.23 2.40	2.23 2.40	2.25 2.40	2.23 2.40	2.23 2.40	2.23 2.40	2.23 2.40	2.25 2.40	2.23 2.40	1.40 - 1.50 (type depending) 1.55 - 1.60 (type depending)
Float charging current/100 Ah nominal capacity (20°C, U <sub>float</sub> = 2.23 / 2.25 V/cell)	20 - 40 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	20 - 50 mA	30 - 180 mA (type depending) at 1.45 V/C, 20°C
Position independent operation possible	No	No	No	No	No	No	No	No	No	No
Water-refilling intervals in years at permanent float-charging/with AquaGen®	> 5/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	> 3/not necessary	>3 (type depending) >10 with AquaGen®
Self discharge of nominal capacity at 20°C ambient temperature/per month	~ 3%	~ 3%	~ 3%	~ 3%	~ 3%	~ 3%	~ 3%	~ 3%	~ 3%	<7%
Operating temperature range in °C	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-40 - +50
Ventilation requirement	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA	with AquaGen® similar to VRLA
Storage time at 20°C before refreshing charge	3 months	3 months	3 months	3 months	3 months	3 months	3 months	3 months	3 months	>3 years, see operating instructions

Type of thread for all types M8 (exception solar.power M10)

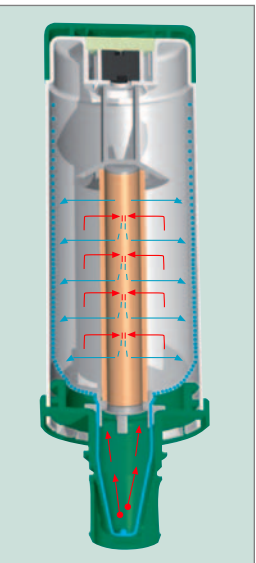
**AquaGen® Premium Top**



New patented technology

**Advantages of AquaGen® Recombination Plug**

- Extends maintenance intervals up to the level of maintenance free
- No damage due to topping-up with polluted water
- Reduction of ventilation requirements
- Reduced explosion risk through integrated arc-back protection
- No significant escape of gas or of electrolyte fumes



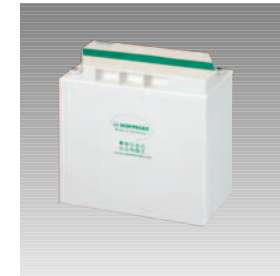
Recombination principle in the AquaGen® Premium Top.

**Type range - valve regulated products**

**OPzV**



**power.bloc OPzV**



**power.com SB**



**power.com HC**



**net.power**



**solar.bloc**



**dry.power**



**Short description**

Standards	DIN 40742, IEC 896-21/22	DIN 40744, IEC 896-21/22	IEC 896-21/22	IEC 896-21/22	IEC 896-21/22, BS 6290-4	IEC 896-21/22	IEC 896-21/22, BS 6290-4
Capacity range in Ah	200 - 3.000	50 - 300	50 - 140	35 - 151	80 - 150	58 - 200 Ah	7.2 - 200
Nominal voltage range	2 V	6 V, 12 V	12 V	12 V	12 V	6 V, 12 V	12 V
Container material (UL 94-V0 on request)	SAN	PP, talcum	PP, talcum	PP, talcum	ABS, UL 94-V0	PP	ABS
Grid alloy							
Positive	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca
Negative	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca	Pb + <1% Ca
Positive plate	Tubular	Tubular	Grid	Grid	Grid	Grid	Grid
Negative plate	Grid	Grid	Grid	Grid	Grid	Grid	Grid
Electrolyte	H <sub>2</sub> SO <sub>4</sub> -Gel	H <sub>2</sub> SO <sub>4</sub> -Gel	H <sub>2</sub> SO <sub>4</sub> , fixed in AGM	H <sub>2</sub> SO <sub>4</sub> , fixed in AGM	H <sub>2</sub> SO <sub>4</sub> , fixed in AGM	H <sub>2</sub> SO <sub>4</sub> , fixed in AGM	H <sub>2</sub> SO <sub>4</sub> , fixed in AGM
Applications							
Connector design	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	Fully insulated bolted connector	cramp connector, bolted connector	bolted connector / Faston
Current behaviour							
Design life up to (in years)	18	15	12	10 - 12	12	6 - 9	3 - 5
Cycles up to	1.200	1.000				700	
Charging voltage in V/cell							
Float charge	2.25	2.25	2.25	2.25	2.25	2.25	2.25
Boost charge	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Float charging current / 100 Ah nominal capacity (20°C, U <sub>float</sub> = 2.23 / 2.25 V/cell)	20 - 50 mA	20 - 50 mA	10 - 40 mA	10 - 40 mA	10 - 40 mA	10 - 40 mA	10 - 40 mA
Position independent operation possible	Yes, ≤ 1500 Ah	Yes	Yes	Yes	Yes	Yes	Yes
Water-refilling intervals in years at permanent float-charging/with AquaGen®	-	-	-	-	-	-	-
Self discharge of nominal capacity at 20°C ambient temperature/per month	2 - 3%	2 - 3%	2 - 3%	2 - 3%	2 - 3%	2 - 3%	2 - 3%
Operating temperature range in °C	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40	-20 - +40
Ventilation requirement 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2	VRLA regulation; EN 50272-2
Storage time at 20°C before refreshing charge	6 months	6 months	6 months	6 months	6 months	6 months	6 months
Type of thread for all types	M8 (exception dry.power)						

Standby Batteries product overview EN07.2006/3 K Printed in Germany All details in this brochure are based on state-of-the-art technology. Our products are subject to constant development. We therefore reserve the right to make changes.

# Standby Batteries

## Product overview

