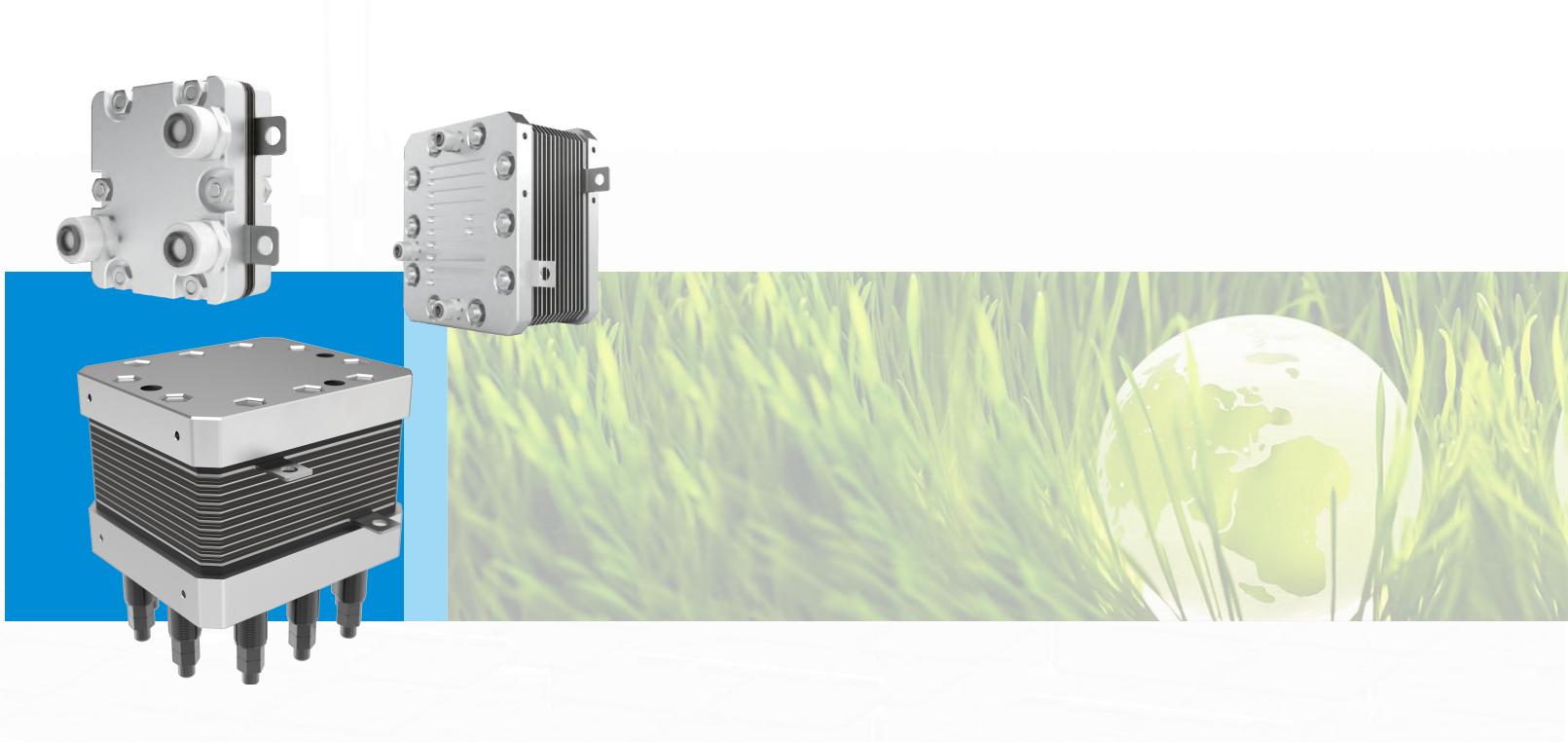


# **EMPOWER A GREENER FUTURE**

Cutting-edge hydrogen generators and electrolysers for unparalleled efficiency and sustainability



### small and medium-size

### PEME 7000mL/min

Can be customized according to application requirement





- Independent R & D and production
- Excellent material and fine workmanship
- High purity of hydrogen production Long service life

- High pressure resistance High pressure hydrogen can be produced
- High current density
- Low power consumption, voltage stability

		CHL7-7000mL	/min type PEME	
Oxygen p	oroduction	ml/min	10500	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	7000	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-70	
Water cor	nsumption	ml/min	≮2300	Pure Water, deionized water
Circular	manner	/	Natural circulation	
Hydrog	en purity	%	99.99	After drying
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis
Maximu	m stress	Мра	3.5	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Device events	Constant current	А	80	
Power supply	Constant current voltage	V	40	
Dimensions	(without lugs)	mm	136×135×150	
	nsions gs and Þttings)	mm	156×149×220	
We	eight	kg	/	
Application area		supply, semiconductor	, electron/photoelectro	machine, fuel cell backup powe on, multi-energy Complementar cal and other industries on-sit

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Laser-focused on technical quality, Hovogen elevates its PEM water electrolysis equipment to new heights of unparalleled efficiency and reliability. Leveraging innovations, the company empowers large-scale clean hydrogen supply, a cornerstone in the global transition to sustainability.

Driven by green "Carbon Neutral" commitments and a client-centric approach, Hovogen delivers exceptional service and customized solutions that unlock unparalleled value for customers. Redefining corporate responsibility, they power a cleaner, more sustainable future.

### **PEM water electrolyzer advantages** High pressure hydrogen production Hydrogen production pressure can reach 3.5Mpa **High Purity & High** Customisable specifications Pressure Excellent stability, conductivity, robust Adjustable hydrogen output ensuring a fully Patented product, can be customised sealed system for enhanced purity. High-

### **Produce high-purity hydrogen**

The purity of the produced hydrogen is greater than 99.999%, and the dew point is less than -74 $^{\circ}$  C.

### High performance

quality, and superior thermal stability, allow high current densities while offering minimal proton conduction resistance, leading optimised energy consumption.

pressure hydrogen, making it a versatile and efficient solution for a wide range of applications.

### **Consumer application of PEM water electrolytic cell**



Hydrogen-rich water machine

## Hydrogen health products

according to specific requirement









### PEME 5000mL/min

Can be customized according to application requirement

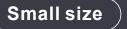


Independent R & D and production Excellent material and fine workmanship

High purity of hydrogen production Long service life

High pressure resistance High pressure hydrogen can be produced Ø

- High current density Low power consumption, voltage stability



### PEME 3200mL/min

Can be customized according to application requirement



Independent R & D and production

- Excellent material and fine workmanship
- High purity of hydrogen production Long service life

CHL13-1 type PEME								
Oxygen p	production	ml/min	> 7500	Hydrogen is mixed with oxygen				
Hydrogen	production	ml/min	> 5000	Pure hydrogen, single out				
Temper circulati water	rature of ng	°C	25-50					
Water co	nsumption	ml/min	≮2500	Pure Water, deionized water				
Circular	manner	/	The water cycle					
Hydrog	en purity	%	99.99	After drying				
Water electrolysis method		/	Water electrolysis	Proton exchange membrane electrolysis				
Maximum stress		Мра	0.55					
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water				
103	Cathode water	PPM	/					
Single ce	ell voltage	V	1.75-2.5					
Device everyty	Constant current	A	55					
Power supply	Constant current voltage	V	39					
Dimensions	(without lugs)	mm	136×87×156					
Dimensions (including lugs and fittings)		mm	157×104×156					
We	ight	kg	/					
Application area			trum detector) reaction	ctivity detector) reaction gas, gas, hydrogen-rich water				

	CHL8-1 type PEME								
Oxygen p	oroduction	ml/min	>7500	Hydrogen is mixed with oxygen					
Hydrogen	production	ml/min	>3200	Pure hydrogen, single out					
Temper circulati	ature of ng water	°C	25-50						
Water cor	nsumption	ml/min	≮1400	Pure Water, deionized water					
Circular	manner	/	The water cycle						
Hydrog	en purity	%	99.99	After drying					
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis					
Maximu	m stress	Мра	0.55						
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water					
103	Cathode water	PPM	/						
Single ce	ll voltage	V	1.75-2.5						
Power supply	Constant current	A	55						
	Constant current voltage	V	39						
Dimensions	(without lugs)	mm	136×87×156						
Dimer (including lug	nsions gs and Þttings)	mm	157×104×156						
W	eight	kg	/						
Application area		GC (gas phase) gas and Ed (atomic emission sp machine, hydrogen ab	ectrum detector) reaction	uctivity detector) reaction gas, n gas, hydrogen-rich water					











High pressure resistance High pressure hydrogen can be produced



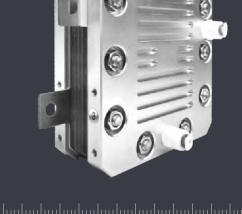


### PEME 2000mL/min

Can be customized according to application requirement



- Independent R & D and production Excellent material and fine workmanship
- High purity of hydrogen production Long service life



High pressure hydrogen can be produced

High pressure resistance High current density Low power consumption, voltage stability

		CHL5-1 t	уре РЕМЕ	
Oxygen p	production	ml/min	> 3000	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	> 2000	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-50	
Water coi	nsumption	ml/min	≮500	Pure Water, deionized water
Circular	manner	/	The water cycle	
Hydrog	en purity	%	99.99	After drying
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis
Maximu	m stress	Мра	0.55	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Power supply	Constant current	А	55	
	Constant current voltage	V	15	
Dimensions	(without lugs)	mm	136×53×156	
Dimensions (including lugs and Þttings)		mm	157×68×156	
We	eight	kg	/	
Application area			ectrum detector) reaction	uctivity detector) reaction gas, n gas, hydrogen-rich water

Small size

### PEME 2000mL/min

Can be customized according to application requirement





- Independent R & D and production Excellent material and fine workmanship  $\checkmark$
- High purity of hydrogen production Long service life

		CH11-1 t	уре РЕМЕ	
Oxygen p	production	ml/min	>3000	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	>2000	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-50	
Water cor	nsumption	ml/min	≮350	Pure Water, deionized water
Circular	manner	/	The water cycle	
Hydrog	en purity	%	99.99	After drying
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis
Maximu	m stress	Мра	0.5	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Power supply	Constant current	A	25	
Power supply	Constant current voltage	V	33	
Dimensions	(without lugs)	mm	94×75×106	
Dimer (including lug	nsions gs and Þttings)	mm	109×92×106	
We	eight	kg	1.75	
Application area		GC (gas phase) gas and Ed (atomic emission spe machine, hydrogen abs	ectrum detector) reaction	ictivity detector) reaction gas, gas, hydrogen-rich water



machine, hydrogen absorber, etc.







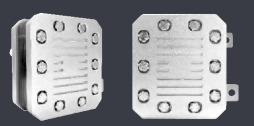


High pressure resistance High pressure hydrogen can be produced

Small size

### PEME 1200mL/min

Can be customized according to application requirement





Independent R & D and production Excellent material and fine workmanship

High purity of hydrogen production Long service life

- High pressure resistance High pressure resistance High pressure hydrogen can be produced
- High current density Low power consumption, voltage stability

Small size

### PEME 1000mL/min

Can be customized according to application requirement



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Excellent material and fine workmanship

High purity of hydrogen production Long service life

	CH7-1 type PEME							
Oxygen p	production	ml/min	> 1800	Hydrogen is mixed with oxygen				
Hydrogen	production	ml/min	> 1200	Pure hydrogen, single out				
Temper circulati	ature of ng water	°C	25-45					
Water co	nsumption	ml/min	≮350	Pure Water, deionized water				
Circular	manner	/	The water cycle					
Hydrog	en purity	%	99.99	After drying				
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis				
Maximu	m stress	Мра	0.5					
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water				
103	Cathode water	PPM	/					
Single ce	ll voltage	V	1.75-2.5					
Power supply	Constant current	A	25					
Power suppry	Constant current voltage	V	21					
Dimensions	(without lugs)	mm	94×58×106					
Dimensions (including lugs and Þttings)		mm	109×73×106					
Weight		kg	1.33					
Application area		GC (gas phase) gas and carrier gas, ELCD (conductivity detector) reaction gas, Ed (atomic emission spectrum detector) reaction gas, hydrogen-rich water machine, hydrogen absorber, etc.						

		CH6-1 ty	/pe PEME	
Oxygen p	production	ml/min	> 1500	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	> 1000	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-45	
Water cor	nsumption	ml/min	≮200	Pure Water, deionized water
Circular	manner	/	The water cycle	
Hydrog	en purity	%	99.99	After drying
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis
Maximu	m stress	Мра	0.5	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Power supply	Constant current	A	25	
	Constant current voltage	V	18	
Dimensions	(without lugs)	mm	94×52×106	
Dimensions (including lugs and Þttings)		mm	109×68×106	
We	eight	kg	1.3	
Applica	tion area		ctrum detector) reaction	ctivity detector) reaction gas, gas, hydrogen-rich water







High pressure resistance High pressure hydrogen can be produced





### PEME 800mL/min

Can be customized according to application requirement



Independent R & D and production

Excellent material and fine workmanship

High purity of hydrogen production Long service life



High pressure hydrogen can be produced

High current density Low power consumption, voltage stability

Small size

## PEME 600mL/min

Can be customized according to application requirement



Independent R & D and production

 $\checkmark$ Excellent material and fine workmanship

High purity of hydrogen production Long service life

	CH5-1 type PEME							
Oxygen p	production	ml/min	> 1200	Hydrogen is mixed with oxygen				
Hydrogen	production	ml/min	> 800	Pure hydrogen, single out				
Temper circulati	ature of ng water	°C	25-45					
Water co	nsumption	ml/min	≮200	Pure Water, deionized water				
Circular	manner	/	The water cycle					
Hydrog	en purity	%	99.99	After drying				
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis				
Maximu	m stress	Мра	0.5					
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water				
103	Cathode water	PPM	/					
Single ce	ell voltage	V	1.75-2.5					
Power supply	Constant current	A	25					
	Constant current voltage	V	15					
Dimensions	(without lugs)	mm	94×48×106					
	nsions gs and Þttings)	mm	109×64×106					
We	eight	kg	1.2					
Application area		GC (gas phase) gas and carrier gas, ELCD (conductivity detector) reaction gas, Ed (atomic emission spectrum detector) reaction gas, hydrogen-rich water machine, hydrogen absorber, etc.						

		CH4-1 t	ype PEME	
Oxygen p	production	ml/min	> 900	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	> 600	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-45	
Water cor	nsumption	ml/min	≮150	Pure Water, deionized water
Circular	manner	/	Gravity cycle/pump cycle	
Hydrog	en purity	%	99.99	After drying
Water electrolysis method		/	Water electrolysis	Proton exchange membrane electrolysis
Maximum stress		Мра	0.5	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Power supply	Constant current	A	20	
rower supply	Constant current voltage	V	12	
Dimensions	(without lugs)	mm	94×43×106	
Dimensions (including lugs and Þttings)		mm	109×62×106	
We	eight	kg	1.15	
Application area		GC (gas phase) gas anc Ed (atomic emission sp machine, hydrogen ab	ectrum detector) reaction (	tivity detector) reaction gas, gas, hydrogen-rich water







High pressure resistance High pressure hydrogen can be produced



Small size

### PEME 300mL/min

Can be customized according to application requirement



- Independent R & D and production Excellent material and fine workmanship
- High purity of hydrogen production Long service life

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- High pressure resistance High pressure hydrogen can be produced

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High current density Low power consumption, voltage stability

Small size

## PEME 200mL/min

Can be customized according to application requirement

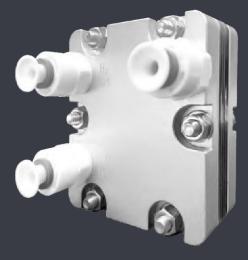


- Independent R & D and production Excellent material and fine workmanship
- High purity of hydrogen production Long service life

	CH2-1 type PEME							
Oxygen p	production	ml/min	> 450	Hydrogen is mixed with oxygen				
Hydrogen	production	ml/min	> 300	Pure hydrogen, single out				
Temper circulati	ature of ng water	°C	25-45					
Water coi	nsumption	ml/min	≮80	Pure Water, deionized water				
Circular	manner	/	Gravity cycle/pump cycle					
Hydrog	en purity	%	99.99	After drying				
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis				
Maximu	m stress	Мра	0.5					
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water				
	Cathode water	PPM	/					
Single ce	ll voltage	V	1.75-2.5					
Power supply	Constant current	A	20					
	Constant current voltage	V	6					
Dimensions	(without lugs)	mm	94×34×106					
Dimer (including lug	nsions gs and Þttings)	mm	109×53×106					
W	eight	kg	0.9					
Application area			ectrum detector) reaction	ctivity detector) reaction gas, gas, hydrogen-rich water				

		CH02-1 t	уре РЕМЕ	
Oxygen p	production	ml/min	> 300	Hydrogen is mixed with oxygen
Hydrogen	production	ml/min	> 200	Pure hydrogen, single out
Temper circulati	ature of ng water	°C	25-45	
Water cor	nsumption	ml/min	≮60	Pure Water, deionized water
Circular	manner	/	Gravity cycle/pump cycle	
Hydrog	en purity	%	99.99	After drying
Water electrolysis method		/	Water electrolysis	Proton exchange membrane electrolysis
Maximu	m stress	Мра	0.5	
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water
103	Cathode water	PPM	/	
Single ce	ll voltage	V	1.75-2.5	
Power supply	Constant current	A	15	
rowei suppiy	Constant current voltage	V	6	
Dimensions	(without lugs)	mm	60×30.8×70	
	nsions gs and Þttings)	mm	72×46.5×70	
We	eight	kg	0.7	
Applica	tion area	GC (gas phase) gas and Ed (atomic emission spe machine, hydrogen abs	ectrum detector) reaction c	tivity detector) reaction gas, gas, hydrogen-rich water







High pressure resistance High pressure hydrogen can be produced



Small size

### PEME 100mL/min

Can be customized according to application requirement



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- Independent R & D and production Excellent material and fine workmanship
- High purity of hydrogen production Long service life

- High pressure resistance High pressure hydrogen can be produced
- High current density Low power consumption, voltage stability

		CH01-1	type PEME				
Oxygen p	oroduction	ml/min	> 150	Hydrogen is mixed with oxyge			
Hydrogen	production	ml/min	> 100	Pure hydrogen, single out			
Temper circulati	ature of ng water	°C	25-45				
Water cor	nsumption	ml/min	≮60	Pure Water, deionized water			
Circular	manner	/	Gravity cycle/pump cycle				
Hydrog	en purity	%	99.99	After drying			
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis			
Maximum stress		Мра	0.5				
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water			
	Cathode water	PPM	/				
Single cell voltage		V	1.75-2.5				
Power supply	Constant current	A	15				
	Constant current voltage	V	3				
Dimensions	(without lugs)	mm	60×26×70				
Dimer (including lug	nsions gs and Þttings)	mm	72×41.9×70				
We	eight	kg	0.6				
Application area		GC (gas phase) gas and carrier gas, ELCD (conductivity detector) reaction gas, Ed (atomic emission spectrum detector) reaction gas, hydrogen-rich water machine, hydrogen absorber, etc.					



## PEME 60mL/min

Can be customized according to application requirement

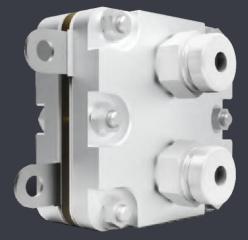


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		V	) Е	nde xce	ller	nt m	nate	ria	lan	d fi	ne v	vor	kma	ans	hip			

- Excellent material and fine workmanship
- High purity of hydrogen production Long service life

		CH60-1	type PEME				
Oxygen p	production	ml/min	> 90	Hydrogen is mixed with oxyge			
Hydrogen	production	ml/min	> 60	Pure hydrogen, single out			
Temper circulati	ature of ng water	°C	25-40				
Water co	nsumption	ml/min	≮60	Pure Water, deionized water			
Circular	manner	/	Gravity cycle/pump cycle				
Hydrog	en purity	%	99.99	After drying			
Water electro	olysis method	/	Water electrolysis	Proton exchange membrane electrolysis			
Maximu	m stress	Мра	0.3				
TDS	Anode water	PPM	≤ 1	Recommended Ion-exchange resin for circulating water			
	Cathode water	PPM	/				
Single cell voltage		V	1.75-2.5				
Power supply	Constant current	A	8				
	Constant current voltage	V	3				
Dimensions	(without lugs)	mm	50×38.8×60				
Dime (including lug	nsions gs and Þttings)	mm	65×71.6×60				
We	eight	kg	0.244				
Applica	tion area	GC (gas phase) gas and carrier gas, ELCD (conductivity detector) reaction gas, Ed (atomic emission spectrum detector) reaction gas, hydrogen-rich water machine, hydrogen absorber, etc.					







High pressure resistance High pressure hydrogen can be produced

