



H-TEC Series-S: S 30/30

## THE EVOLUTION OF ENERGY.

PEM Electrolyser Stacks - Designed for ideal integration in systems.

MADE IN GERMANY (

A GP JOULE COMPANY

## EFFICIENT STACKS FOR YOUR SYSTEM.

Hydrogen is becoming economical.

From the the S30 series of PEM Electrolyser Stacks particularly OEM customers can find just the right products in the power range up to 10 kW to integrate into their hydrogen application. These stacks impress through their quality, low conversion costs and very easy integration into overall solutions. The differential pressure electrolysis used permits an efficient supply of gas at the storage pressure level of the pressure tank. Their modular structure enables their technical specifications to be adjusted for a wide range of applications.

	H-TEC Series-S		
Parameter	S 30/10	S 30/30	S 30/50
Nominal load	1,00 kW	3,00 kW	5,00 kW
Load range	0,26-1,88 kW	0,77-5,63 kW	1,28-9,38 kW
Load change	26-100 % Nominal load = 5 s 100-188 % Nominal load = 5 s		
Voltage max.	25 VDC	75 VDC	125 VDC
Power	15-75 A		
Nominal efficiency	75%		
H <sub>2</sub> nominal production	0,47 kg d <sup>-1</sup> 0,22 m <sup>3</sup> h <sup>-1</sup> @ STP	1,42 kg d <sup>-1</sup> 0,66 m <sup>3</sup> h <sup>-1</sup> @ STP	2,37 kg d <sup>-1</sup> 1,10 m <sup>3</sup> h <sup>-1</sup> @ STP
H <sub>2</sub> production range	0,14-0,68 kg d <sup>-1</sup> 0,06-0,31 m <sup>3</sup> h <sup>-1</sup> @ STP	0,41–2,03 kg d <sup>-1</sup> 0,19–0,94 m <sup>3</sup> h <sup>-1</sup> @ STP	0,68–3,38 kg d <sup>-1</sup> 0,31–1,57 m <sup>3</sup> h <sup>-1</sup> @ STP
H <sub>2</sub> purity	Degree 5.0 or 99,999 % moist, saturated		
Operating pressure H <sub>2</sub>	unpressurised – 20 bar		
Operating pressure O2	unpressurised		
Water consumption	0,05-0,27 kg h <sup>-1</sup>	0,16-0,80 kg h <sup>-1</sup>	0,27-1,33 kg h <sup>-1</sup>
Cooling water flow rate	at $\Delta T$ 5 K at 1,9 V and 1,75 A cm $^{-2}$ per cell		
Cooning water now rate	6-132 kg h <sup>-1</sup>	17-397 kg h <sup>-1</sup>	29-662 kg h <sup>-1</sup>
Operating temperature	30-70 °C		
H <sub>2</sub> O purity	DIN ISO 3696 type 1		
MTTF	35 000 h		
Connection power +/-	M8		
H <sub>2</sub> 0 connection	G 1/4"		
H <sub>2</sub> connection	G 1/4"		
Dimensions L x W x H	174 x 107 x 110 mm	224 x 107 x 110 mm	279 x 107 x 110 mm
Weight	3,8 kg	5,0 kg	6,2 kg
Installation position	horizontal		
Ambient temperature	+5 to +45 °C		
Rel. air humidity during operation	5% to 90% not condensing		

## ABOUT US

H-TEC SYSTEMS was founded in 1997 and has more than 20 years of experience in the research and development of hydrogen technology. At sites in Schleswig-Holstein and Bavaria in Germany, PEM Stacks and electrolysers are produced in the megawatt class for use in industry where hydrogen is required as well as when the quality of an electrical supply has to be refined. Since 2010, H-TEC SYSTEMS has been a member of the GP JOULE group, which integrates hydrogen-based energy storage equipment into intelligent operating and usage concepts for renewable energies. Using H-TEC Electrolysers it is already possible today to couple the electrical power, heating & mobility sectors.