



TITAN™ EL SERIES

On-site Hydrogen Generation System

Teledyne Energy Systems builds decades of engineering excellence into every hydrogen generator system, ensuring the most reliable and durable on-site hydrogen solutions available.

TITAN EL Advantages

Ultra Pure Gas

Ultra pure (99.9998%) gas generation with continuous purity monitoring increases equipment life, saving considerable maintenance and replacement costs.

Modular Design

The TITAN EL Series features a modular design engineered for ease of site integration and maintenance, and comes skid-mounted for trouble-free shipping and installation.

Safe, Unattended Operation

- Minimal on-board gases and no sparking components
- Uninterruptible Power Supply (UPS) ensures system control in the event of power outage
- Remote monitoring and operation option
- O₂ byproduct is safely vented outside your facility or can be optionally configured for use in your process

On Demand Gas Delivery

- Pressure up to 150 psig (10 barg)
- Maximum flow delivery of 1400 SLM

Fully Tested

Each unit is thoroughly factory-tested to meet Teledyne's exacting standards and exceed industry codes for quality and safety.



Dual module configuration.

Stainless steel process piping to maximize lifetime.

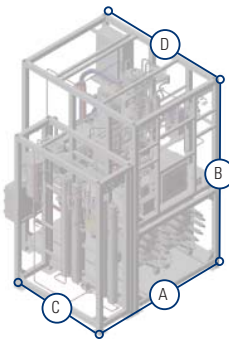


TELEDYNE TITAN™ EL SERIES

MODEL		EL-1000	EL-1400
Hydrogen Gas Production			
Max. Flow Rate	SLM	1000	1400
	Nm ³ /hr	56	78
	scfh	2119	2966
	kg/day	120	168.3
Oxygen Gas Production			
Max. Flow Rate	SLM	500	700
	Nm ³ /hr	28	39
	scfh	1059	1483
Feed Water Consumption			
	l/hr	51	72
	g/hr	14	19
Power Supply			
	Voltage	Factory Configured, 380-480 VAC, 3 Phase	
	Frequency	50 or 60 Hz	
H₂ Purity			99.9998%*
O₂ Purity			99.9993%**

*Subject to ambient and condenser water temperatures, as well as dissolved gas content in feed water. **With use of integrated purification package

SPECIFICATIONS

H₂ Delivery Pressure			Pressurization Gas					
	kg/cm ² gauge	7.0 to 10.2	N2 or other inert gas					
	psig	100 to 150	Pressure	kg/cm ² gauge	4.2 to 7.0			
O₂ Delivery Pressure				psig	60 to 100			
	kg/cm ² gauge	4.2 to 6.3	Average Consumption for Start-up	Nm ³	1.2 to 1.8			
	psig	60 to 90		scf	40 to 56			
Cooling Water			Feed Water Specification					
Max. Inlet Temp.	°C	40	ASTM D1193-99, Type II					
	°F	104	Min. Resistivity	MegOhm-cm	1.0			
Max. Flow	lpm	189 to 265	Min. Supply Pressure	kg/cm ² gauge	0.4			
	gpm	50 to 70		psig	5.7			
Max. System Pressure	kg/cm ² gauge	10.5	 <p>Power Supply Required: L 139.7 cm / 55 in x W 167.6 cm / 66 in x H 220 cm / 87 in Mass 3175 kgs / 7000 lbs H₂ Dryer Requires 3.5kW Chiller Normal Conditions: 0°C and 1 kg/cm² abs (68°F and 14.7 psia) Standard Conditions: 20°C and 1 atm System can be installed indoors or outdoors in a protected environment between 5°C and 40°C Specifications are subject to change</p>					
	psig	150						
Pressure Drop	kg/cm ² gauge	2						
	psi	28						
Main Heat Load	watts/slpm H ₂	127.7						
Condenser Cooling Water ***						A: 223 cm 88 in		
Max. Temperature	°C	up to 10				C: 161 cm 63 in		
Max. Allowable Pressure	kg/cm ² gauge	7				B: 302 cm 119 in		
Required Flow	lpm	19 to 27				D: 228 cm 90 in		
	gpm	5 to 7	Approximate Weight: 5,347 kgs / 11,790 lbs					
Pressure Drop	kg/cm ² gauge	0.2						
Condenser Heat Load	kW	9 to 13						
Instrument Gas								
Pressure	kg/cm ² gauge	6.0 to 17.0						
	psig	85 to 242						
Average Consumption	Nm ³ /hr	1.6 to 3.2						
	scfh	60 to 120						

***To achieve 99.9998% H₂ & 99.998% O₂ purity

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