Electrolyzers

342 AutoARK with 3, 114 cell stacks

The 342 is replacing the 330 *pumped water circulation*
Cost for one $220,000.00 without cooling system
Cost for one $235,000.00 with cooling system

3 stacks *Pumped water circulation*

DESCRIPTION

10 to 12 kilogram per day Electrolyzers

MRE's 330 TT and 342 TT electrolyzer only
option to place inside MRE model 300 custom enclosure at extra cost
option to add purifier to J2719 H2 fuel quality at extra cost
With Certificate of Attestation to CSA Group IR 4-14 **Area class = Non Classified**

3 plugs each at 240 Volt AC single Phase at 50 amp

ELECTROLYTE

Alkaline = NaOH Sodium Hydroxide at less than .75% by weight Electrolyte 5.5 ounces NaOH to 5 gallons water

HYDROGEN PRODUCTION

Net Production Rate:		
scf/hr @ 70 F	211 scfm	If Continuously run at maximum voltage
Nm3/hr @ 0 C	5.9 Nm3/hr	and amperage, output will vary site to site
SLPM @ 70 F	99.5 liters/min	based on available power
kg per 24 hours	12 kg/24hr	
H2 stack Delivery Pressure-Nominal:	8.81 barG (130 PSIG) stack	
Power Consumed per kilogram of H2 Gas produced by	48 KWH per	48 Kilowatt hours of electricity to produce
Purity from Stack	99.95%	1 kilogram of hydrogen
Purity after flowing thru Honey Comb Purifier *Not included*	99.998%	Third Party Test Preformed
Twin dryers w/Silica Gel	Not Included	
Oxygen Scrubber	Not Included	
Upgradeability / storage	Not Included	

Model 330 and 342 Triple Twin Electrolyzers

WATER REQUIREMENT	
Rate at Max/ (Consumption Rate)	.719 Liters/hr or.19 gal/hr.(2.3 gallons/kg.)
de-ionized, distilled or filtered rain water	De-Ionizer and activated charcoal filter *not included* in package, optional
Tanks and stacks total capacity	90 gallons
COOLING SYSTEM	
Coolant	Water/Ethylene Glycol
Maximum Coolant Temperature	160F
Average Coolant Temperature	150F
Coolant Flow rate	14 gpm.
Pumps Radiators and fans can be purchased seperatly	
ELECTRICAL SPECIFICATIONS 3 separate 240 Volt AC single Phase breakers at 50 amperes	
	50 amp 2 pole
Electrical connection both male and female plug includ	240VAC through a DSN 60 Meltric 60 amp plug with power cut off built in
Automation:	1- TECO PLCs
Average electrolyzer power input each of 3 supplies	8,500 watts Varies Based on Site Location Line Voltage and ambient Temp.
INTERFACE CONNECTIONS	
H2 Product Port	9.525 mm (3/8")
H2 Vent Port	9.525 mm (3/8")
Water Port	12.7 mm (1/2 ")
Coolant Supply and Return Ports	12.7 mm (1/2 ")
Drain Port	12.7 mm (1/2 ")
O2 Vent Port	9.525 mm (3/8")

Model 330 and 342 Triple Twin Electrolyzers

CONTROL SYSTEMS			
Standard	342 3 Electrolyzers 114 cells each 330 6 electrolyzers 3 banks 2 per bank	Features	Fully automated 10/12kg/day Electrolyzer audible and text alarm system with Battery Backup for PLC Automatic power shutdown E stop Automatic fault detection heat and H2 leak detection systems sold seperatly
PLATFORM CHARACTERISTICS			
6.5 feet wide by 4.5 feet deep			
Model 330 and 342 Total Weight			3,200 pounds
ENVIROMENTAL CONSIDERATIONS			
Standard Sitting Location			Indoor ventilated/Sheltered/outdoor
Ambient Temperature Range // operating			electrolyzer operations 33 F to 100 F
Ventilation must add H2 leak & heat detection if place indoors			Proper ventilation must provided for indoor use at a rate in accordance with NFPA 2 10.3.2.2.1.6
SAFETY and REGULATORY CONFORMITY			
Maximum On-board H2 Inventory at Full Production			.5 kg in separate smaller enclosure
Cabinet Ventilation with Environment			no
Oxygen Flashback arrestor			Yes
200 PSIG Pressure Relief Relief Valves			yes
Temperature Control			Yes but no cooling system standard, must purchase seperatly
Equipment orientation is part of mandatory training built to codes and standards CSA IR 4-14 that include			ISO 22734-1 & 2, NFPA 2, applicable ASME,
STORAGE			
no external storage included, storage may be added at extra cost expansion port with valve provided to accommodate additional external storage available in six packs of 6 kilograms each			
OPTIONS			
Increased storage by adding external Storage in 6 kg units up to 24 kg additional			On-board H2 leak & heat detection