



PHOS KRONOS 1020 HPMS - 1.55MWH

TECHNICAL DATA SHEETS (rev3)

SPECIFICATIONS	DETAILS
Design	
Life Expectancy	> 35 Years With 3 Year Maintenance & System Monitoring
Cycle Capacity	15,000 Cycles - Full Depth Of Discharge(70% - End Of Life)
Warranty	Renewable 3 Year Intervals With A Maintenance Schedule
Maintenance Contract	Optional - Renewable 3 Year Intervals With Maintenance Schedule
Unit Rating	
Charging - Discharging Schedule	Simultaneous Charging & Discharging - Continuously
Storage Capacity	1548 kWh
Rated Power Capacity	240 kW
Input	
Input Voltage	480 VAC, 3 Phase
Voltage Range	±5% of nominal
Input Frequency	60 Hz or 50 Hz
Harmonic current distortion	<5%
Generator Input	240 KW, 480 VAC, 3 Phase
Solar Input	360 KW, (180 - 1000 VDC) 36 amp/string x 24 strings
Output	
Output Voltage	480 VAC, 3 Phase
Voltage Range	1% Constant 480 V
Output Frequency	60 Hz or 50Hz
Harmonic current distortion	<3%
Nominal Output Rating	540 kVA Continuous Power
Power Filtering	100% AC Pure Sine Wave - Grid Isolated
Stand By Loss	1.1 KW
Response Time During Cycles	0 Seconds
Power Control	Switch - Circuit Breaker (Fused)
Energy Storage	
Charging Duration	2 Hour Or longer (Load Dependent)
Discharging	2 Hour Or longer (Load Dependent)
Flywheel Round Trip Efficiency (Un-stored)	> 87 % @ 200 kW
S-cap Round Trip Efficiency (Stored Energy)	> 92 %
System Management Pass Through Efficiency	> 98%
Mechanical	
Materials	Steel Container Steel Flywheel 99% Recyclable
Drive Motor	Permanent Magnet
Generator Motor	Permanent Magnet
Magnetic Lift System	High Strength Permanent Magnets
Magnetic Bearing System	High Strength Permanent Magnets
Vacuum Level	99%
Operating Speeds	3,000 - 5,500 RPM
Safety	Passive Mechanical Bearings - Vertically & Horizontally Real Time Integrated Computer Sensor Monitoring System 3 Step Password Protection - 2 Online Offsite & 1 Offline Onsite

SPECIFICATIONS	DETAILS
Physical Data	
Housing	ISO Container
Height	96 Inches - (8 Feet)
Width	96 Inches - (8 Feet)
Length	240 Inches - (20 Feet)
Gross Weight	47,000 lbs.
Cable Entry & Exit points	Side
Cable Entry & Exit Connections	Nema Minimum IP65 Rated - Pin & Sleeve Receptacle - (Plug & Play) / Disconnect Switch / Junction Box
Service Access Points	Side - Environmentally Sealed Doors
Internal Insulation	Yes
Environmental	
Operating Temperature Range	(-40 to 50 deg. C) - (-40 to 122 deg. F)
Storage Temperature	(-20 To 45 deg C) - (-4 To 113 deg F)
Humidity	Up To 95% Non Condensing
Instillation	Above Or Below Grade In Adequate Container
Seismic Capability	Real Time Integrated Computer Health Sensor Monitoring System
Noise Level	59 dBA @ 3 Feet
Altitude	Up to 3000 Feet (914m) - 1 Deg C Derating per 1000 Feet Above 3000 Feet
Running Emissions	None
Communications & Monitoring	
Operation	Limited Remote Operation from Offsite Operator Limited Local Operation from Onsite Technician Self Managed Based On Frequency & RPM
Monitoring	Industrial Ethernet (TCP/IP), Cellular (4G/5G LTE - WWAN), and Satellite Connectivity for remote and off-grid applications
Data Storage	Full Trending & Analysis Available - Data Stored Locally & Offsite
Control System Interface	Modbus & CAN bus Protocol

FOR MORE INFORMATION
CALL 929-998-0090

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