

## HENSOLDT SURHYCATE

Energy Storage and Complete Autonomy of Remote Sites and Microgrids



# SURHYCATE

### **Applications**

- Camps: military, humanitarian, scientific, telecom
- Antennas
- Air surveillance radars
- Islands
- Off-grid villages
- Rural hospitals
- National parks
- Mining
- ...

#### Features and Benefits

- Standalone and complete installation for production, storage and energy consumption
- Very large storage capacity over several months
- Continuous and reliable power flow during energy recovery
- Meets the constraints of field installations (reduced space, transport by helicopter, remote control...)
- No environmental impact compared to batteries or gensets (no CO2 emissions and no noise pollution)
- Long lifetime
- Low maintenance
- Remote expertise possible



Input power		
Energy generation	Compatible with all sources of electricity (not included): photovoltaïc panels, windturbine, hydroelectric	
Battery energy storage and restored		
Technology	Li-NMC	
Maximal Power	50 kW	
Energy capacity	Up to 96 kWh	
Reactivity	Immediate	
Hydrogen production		
Electrolyser Technology	PEM or Alkaline	
Nominal Input power	5 to 20 kW	
Nominal production flow	1 to 4 Nm3/h	
Hydrogen production starting time	< 5min	
Water consumption	1000 L / year	
Hydrogen storage		
Pressure	500 bars	
Number of tanks	1 to 4	
Hydrogen quantity	8 to 34 kg	
Hydrogen consumption		
Fuel cells technology	PEMFC	
Fuel cell output power	15 kW, 30 kW or 60 kW	
Start time	< 5 min	

Global performance		
Autonomy	$>95\%^{\star}$ for a power demand of 15 to 30 k	
Energy Stored	150 kWh to 500 kWh	
Maximum power (with bat- teries)	Up to 70 kW (three phase)	
Different modes		
Supply of energy for priority ne	eds	
Emergency function: backup po	ower	
Peak shaving		
Energy Management System (E	MS):	
Priority management		
Collection and storing of data		
Forecasting algorithms: weather sumption	er forecast, historical, solar productior	
Real Time management strateg	у	
Remote access to data / Mainte	enance	
Installation & environment		
Operating temperature	- 10 °C to + 40 °C Option : - 20 °C to + 50 °C	
Container (tanks included)	6058 x 2438 x 2896 mm <6 000 Kg High Cube container	
Tanks (MAHYTEC®)	Internal volume: 200 L External side: Ø48cm x 263 cm (without Weight empty: 200 kg Life time: 5000 cycles or 10 years	
Aditional functionality / capability		
Hydrogen storage extension	Option: external hydrogen supply interfac	

kW	
n, historical con-	
support)	
-1	
се	
tion for mobility	

#### Installations

- Can be located almost anywhere
- Perfectly adapted to harsh conditions:
- Tropical regions
- Saline environments
- Cold climates
- Windy areas
- ...
- Everything in one place no more fuel



Detect and Protect

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