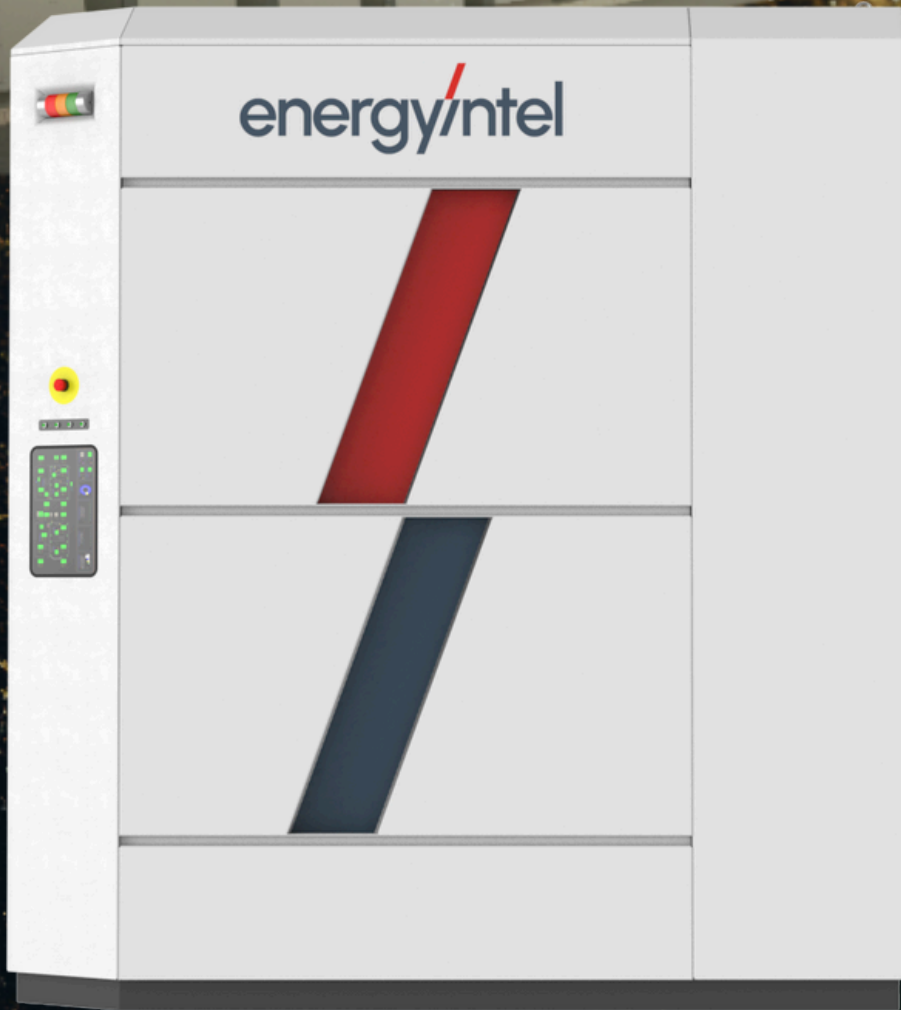


CLEAN POWER, ON DEMAND:

Technical Guide to EnergyIntel's
Storage Innovation



energy/intel

LDES THROUGH THERMAL INNOVATION

Who We Are

Integrated Solar & Thermal Solutions. Licensed for 50MW Helios CSP

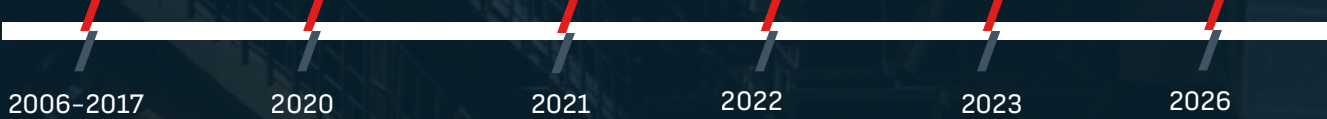
Our TES Solution Awarded €1M EU Innovation Grant | Top-Ranked 'A: Excellence'

Certified for Innovation & Quality | EU Innovation Certificate & ISO 9001:2015

Solution's Prototype Complete | Real-World Testing Underway

Azelio Asset Acquisition | 80+ Patents Integrated into our Portfolio

Manufacturing Line Under Construction. 5,000 Units/Year Capacity



The Technology

A breakthrough long duration thermal energy storage (LDES) technology



CHARGED



STORED



DISPATCHED



AVAILABLE ON DEMAND



Delivers

Electricity & Low Temperature Heat (55-65° Celsius)

IDEAL FOR



Hospitality Sector



Agriculture



Micro-grids/Communities

AND/OR

Medium to High Temperature Heat (up to 600° Celsius)

IDEAL FOR



Breweries



Dairy production



Commercial laundries

CHP TECHNICAL SPECIFICATIONS

Output & Efficiency¹

FEATURE	VALUE
Rated Energy Capacity	550 kW(th)
Nominal Power – Output ²	13.0kWe 25kWth
Output per cycle	165 kWh(e), 330 kW(th)
RTE(e)	32%(e), 83%(e+th)
Voltage – Output	400Vac – 3 phase+N+PE
Voltage Tolerance – Output	+/-10%
Frequency	50 Hz / 60 Hz
AC Current at nominal power – Output	20 A
Maximum AC Current – Output	42.5 A
Delivery temperatures	50–65°C
Discharge duration	13–24h

Electrical Input¹

FEATURE	VALUE
Voltage – Input	400Vac – 3 phase+N+PE
Voltage Tolerance – Input	+/-10%
Frequency	50Hz / 60 Hz
Maximum AC Current – Input	145A
Maximum Charging Power ³	100kW
Charging duration (at Maximum Charging Power)	6h–0+1h

¹ Parameters are specified at ambient temperature of 25°C and Pressure of 1 atm.

² Measured at the output

³ The Maximum Charging Power presents also the Continuous Charging Power

Disclaimer

E247-V1 technical specification are updated and reviews on a regular and continuous basis, meaning our technical specifications and thus our products, are continuously developed.

EnergyIntel reserves its right to make changes and modifications to the specifications, configurations, design, features, and other dimensions of the products.

Environmental Specifications

FEATURE	VALUE
Operating Ambient Temperature	-10°Cto +50°C, 14°F to 122°F
Storage Ambient Temperature	-30°Cto +70°C, -22°F to 158°F
Relative humidity	100%
Operating altitude	<2000m (6562 ft) above sea level
Maximum Snow load	1kN/m2
Noise	<70dB

Communication Specifications

FEATURE	VALUE
Communication	Modbus TCP/IP
Remote Monitoring Support	Yes
Local Data Recording	Data logger

Lifetime & Durability

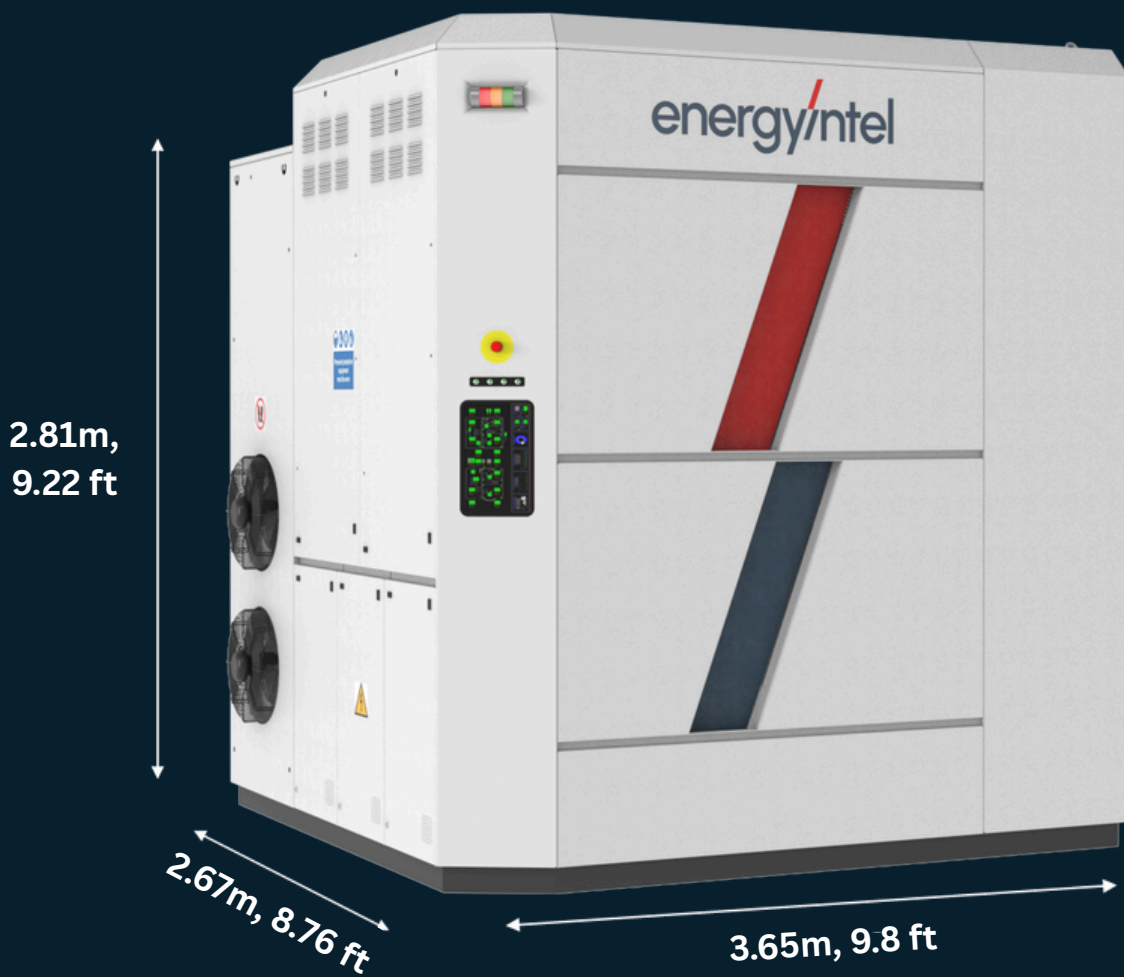
FEATURE	VALUE
Number of full Cycle	>43,000
Depth of Discharge	100%
System degradation	0% over lifetime
Life Span	30 years

Mechanical Specifications

FEATURE	VALUE
Dimensions E247-V1 (LxWxH m) (LxWxH ft)	L3,65xW2,67xH2,81 L11,98xW8,76xH9,22
Total E247-V1 weight	8025 kg, 17692 lb
Cooling Principle (Engines)	Dry cooling

STANDARDS COMPLIANCE

- 2006/42/EC
- PED 2014/68/EU
- ATEX 2014/34/EU
- LVD 2014/35/EU
- EMC 2014/30/EU
- RoHS 2011/65/EU
- REACH 1907/2006
- CLP 1272/2008
- EN 12100
- ISO 19353
- EN 62061
- EN 13445-2
- EN 13445-3
- EN 13445-4
- EN 13445-5
- EN 60079-10-1
- EN 60204-1
- IEC 61000-6-2
- IEC 61000-6-4

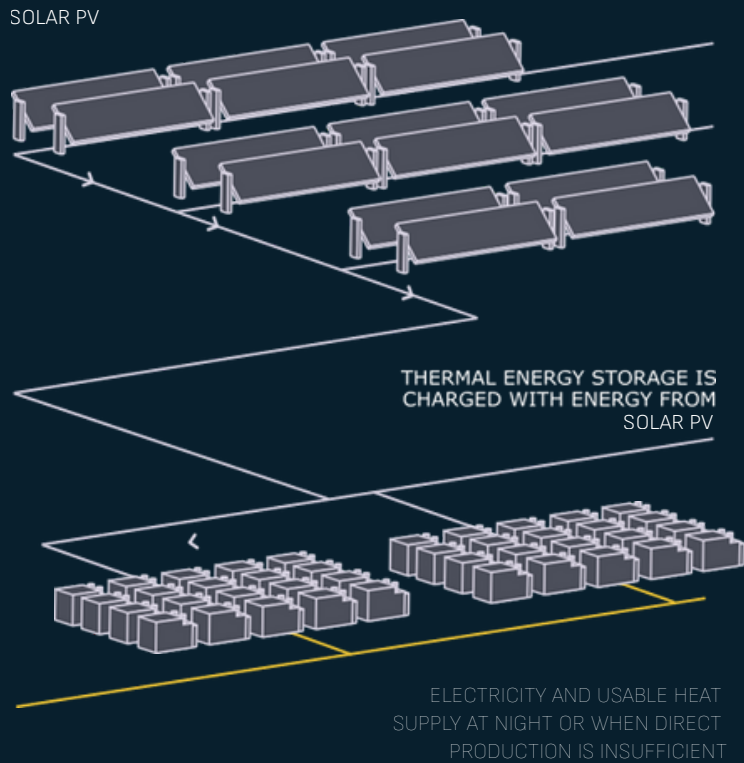


POWERING THE EVOLUTION OF A RENEWABLE SOCIETY

EnergyIntel was founded in 2006 with central focus on the renewables energy sector.

At the core of EnergyIntel's operations lies its research and development department, which has developed its innovative energy storage solution, serving as a pivotal element.

We power the evolution of a renewable society – for people, businesses, and the planet.

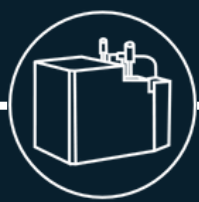


- 13 kW nominal electrical output per unit and optional combined heat at 55–65°C, 130–150°F
- 165 kWh storage capacity for electrical output and approx. 550 kWh with combined electrical and heat output.
- No degradation in storage capacity over time.
- Designed for daily cycles with charge at 100 kW for 6h and steerable production at nominal power for 13h or longer, based on demand.
- The Storage System Controller assures safe, stable and economic operation of the cluster at 0.1 to 20 MW.
- 29% lower environmental footprint compared to Li-ion batteries.
- Service during charge-mode with no system downtime and no dismantling cost of the TES-V1 units for customers.



CHARGED

Charged with electricity from renewable sources such as solar PV.



STORED

Energy is stored as heat in a recycled aluminium alloy, with phase change at 600°C, 1110°F.



DISPATCHED

The stored heat is dispatched to a Stirling engine on demand, generating electricity and usable heat (55–65°C, 130–150°F).



AVAILABLE ON DEMAND

Clean heat available on demand at all hours of the day. Emission free and at a significantly lower cost than fossil alternatives.

CHP SYSTEM INSTALLATION

The system is agnostic to energy source and weather conditions. With a combined heat and power output and scalability it matches customer demand in a variety of sectors, from small to large scale.



TES-V1 x 20
CLUSTER UNITS

260 kW nominal electrical output
with 3.3 MWh storage capacity

+ 7,8 MWh
thermal energy output at
55–65°C, 130–150°F.



TES-V1 x 80
CLUSTER UNITS

>1 MW nominal electrical output with
13.2 MWh storage capacity

+ 31.3 MWh
thermal energy output
at 55–65°C, 130–150°F.

THANK YOU

GLOBAL INQUIRIES

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