Product Sheet

Item Code:999-280-105060 B01

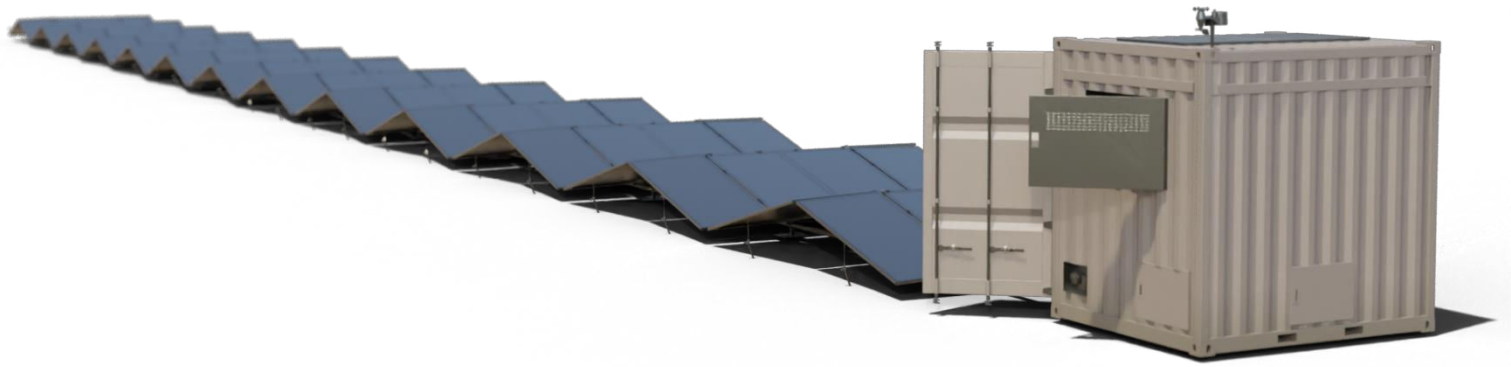
10´ Solar PV Container 60 kWp, AC connected solution

Flexible Solar Energy deployment in the field.

The ATE high mobility solar PV container allows for quick deployment and re-deployment.

The mobility and quick deployment makes it an ideal choice for utilizing renewable energy in a lot of scenarios:

- **Farming**
- **Mining and exploration**
- **Construction sites**
- **Water pumping, permanent or seasonal**
- **Disaster relief**
- **Military, refugee and other temporary camps**
- **Rural electrification**
- **General equipment lease businesses**



Additional benefits

Direct Solar PV Operation with OPTIONS – The Solar PV container can be direct coupled to an AC grid with export control options or it can be coupled to a Battery Energy Storage System (BESS) for day to night supply or off grid operation.

The Solar PV container can also be equipped with a Fuel Saver control system which allows it to operate directly with a diesel generator system to save fuel in daytime operations.

Quick Return of Investment – This system is typically deployed to replace diesel generated electricity in the field at a fraction of the cost, under most scenarios 25% fuel savings, with BESS much higher savings can be achieved and the typical ROI on such a system is within 1-5 years depending on local circumstances.

A further value is the CO2 savings achieved by replacing often diesel generated electricity in the field with clean solar energy. CO2 savings in near future could hold higher monetary value than fuel savings themselves and as such the container offers dual savings in areas where it was not possible before.

Manufacturer
ATE-Energy ApS •CVR 39294516
Nordvej 7-9, 4200 Slagelse, Denmark
Tel: +45 5031 2583
Email: cnn@ate-adm.com
www.ate-energy.dk

Exclusive Distributor:

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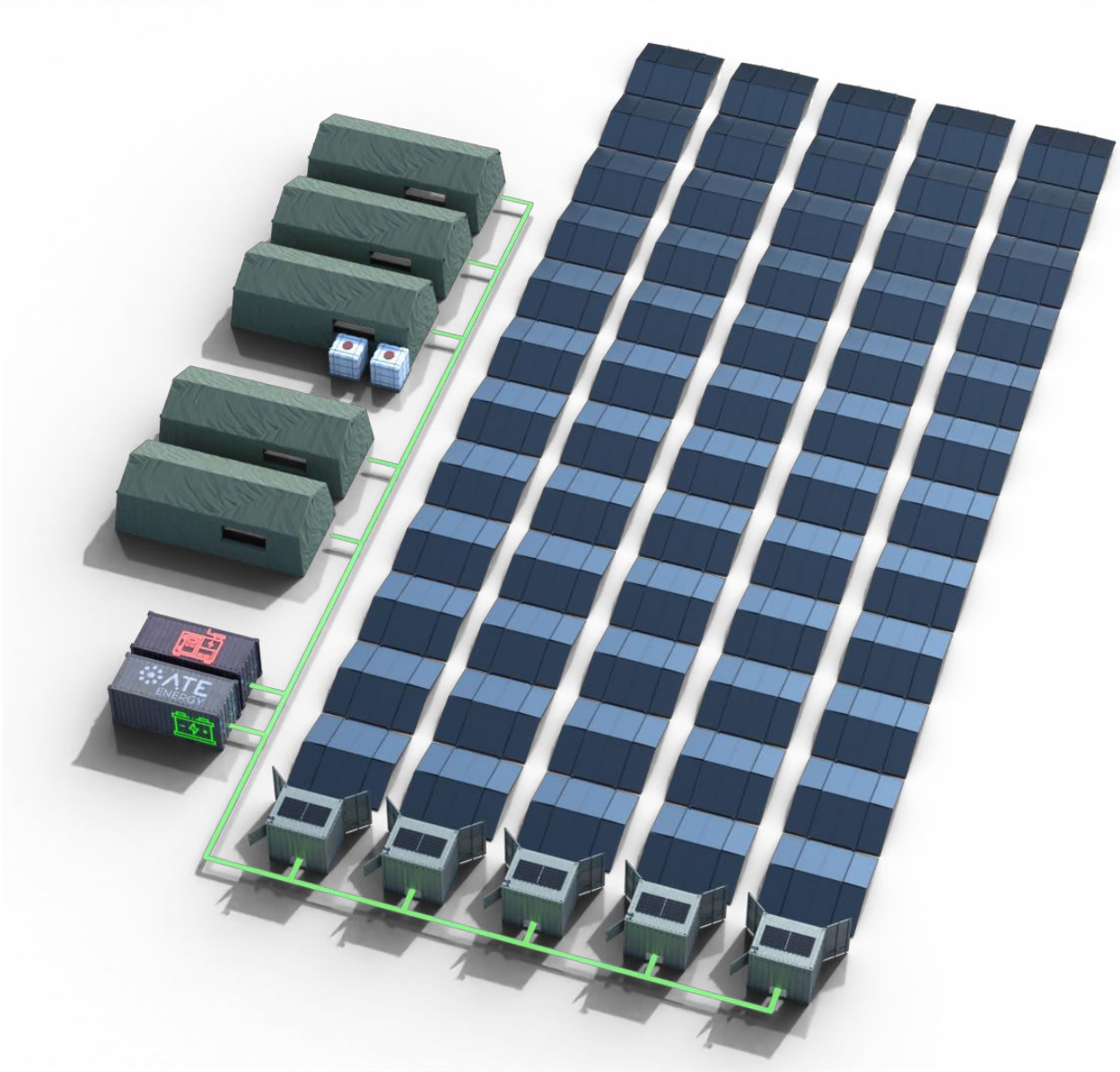
Flexible and mobile power plant in the field

The solar PV container is modular product in a series of products enabling full distributed energy plant deployments anywhere with enough open space to support solar PV. Building an entire system with other ATE modules makes full renewable energy supply possible – anywhere in the field.



Off Grid Operation

This system can operate completely independently and supply energy direct from the sun at daytime and from the energy storage at night time.

In a location where there ALWAYS MUST be power the system can work with back up power, like 2 units of diesel generators OR 2 units of Fuelcells OR 1 diesel generator and 1 Fuelcell depending on the need for redundancy and green policies

Distributed Energy Resource (D.E.R.) Operation and MESH Grid Capability

The systems Artificial Intelligence opens the opportunity to have multiple units scattered over a larger area to power an entire village, city region, island or even a whole country.

The basic principle is to produce energy right where it is needed, while maintaining the safety of supply by having all systems connected to each other and operate as complete energy grid.

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MODEL		MES PV100110
Rated Power	DC power	60.32kWp (104x580Wp)
	AC Output	50kW (2x25kW)
System	Topology	Transformerless, On-grid
DC Input	Nominal DC voltage	600 Vdc
	MPPT voltage range (Vmp)	200-1000 Vdc
	Full load voltage range	400 - 900 Vdc
	Maximum DC voltage (V_{oc})	1,100 Vdc
	Minimum / Start-up voltage	250 Vdc
	Number of MPPT	6 (2x3)
	Maximum DC current per MPPT	40A
AC OUTPUT	Voltage	220/380V,230V/400V340-440V
	Frequency	50 / 60 ± 5 Hz.
	Phase	Three phase WYE
	Connections	3W+N+PE 25mm2 – Optional 125A CEE Quick Connect
	Maximum output current	75,8A
	Power factor	0.8 leading ~ 0.8 lagging
	Total harmonic distortion	THDi < 3%
	Power consumption	1400 W
Protection	DC Reverse polarity protection	Yes
	DC Switch	Yes
	DC Surge protection	Type II
	Insulation resistance monitoring	Yes
	AC Surge protection	Type II
	AC short circuit protection	Yes
	Ground fault monitoring	Yes
	Grid monitoring	Yes
	Anti island protection	Yes
	Residual current monitoring unit	Yes
	String monitoring	Optional
	AFCI protection	Optional
EFFICIENCY	Peak efficiency	98,75%
	MPPT efficiency	99.9 %
INDICATOR	LED	Operation Status
	LCD display	PV input (Voltage, Current, Power), Bus voltage, AC (Voltage, Frequency, Current, Power), historical production and event data
COMMUNICATION	Communication port	RS-485/RJ45 (Internet) + USB (Local)
INTERFACE	Protocol	MODBUS
ENVIRONMENT	Temperature	0 to 60˚C (Power draining above 50˚C)
	Relative humidity	0 - 90 % (non - condensing)
	Maximum operating altitude	2,000 m
DESIGN	Standard	IEC 61727, IEC 62116, IEC 61683
SYSTEM DIMENSION	Container type	10 'HQ Shipping container
	Container dimension (W x L x H) in cm	244x299x292
	System weight in kgs	Approx. 9.900 kgs
	Deployed system footprint (W x L) in meters	5x56 meters

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