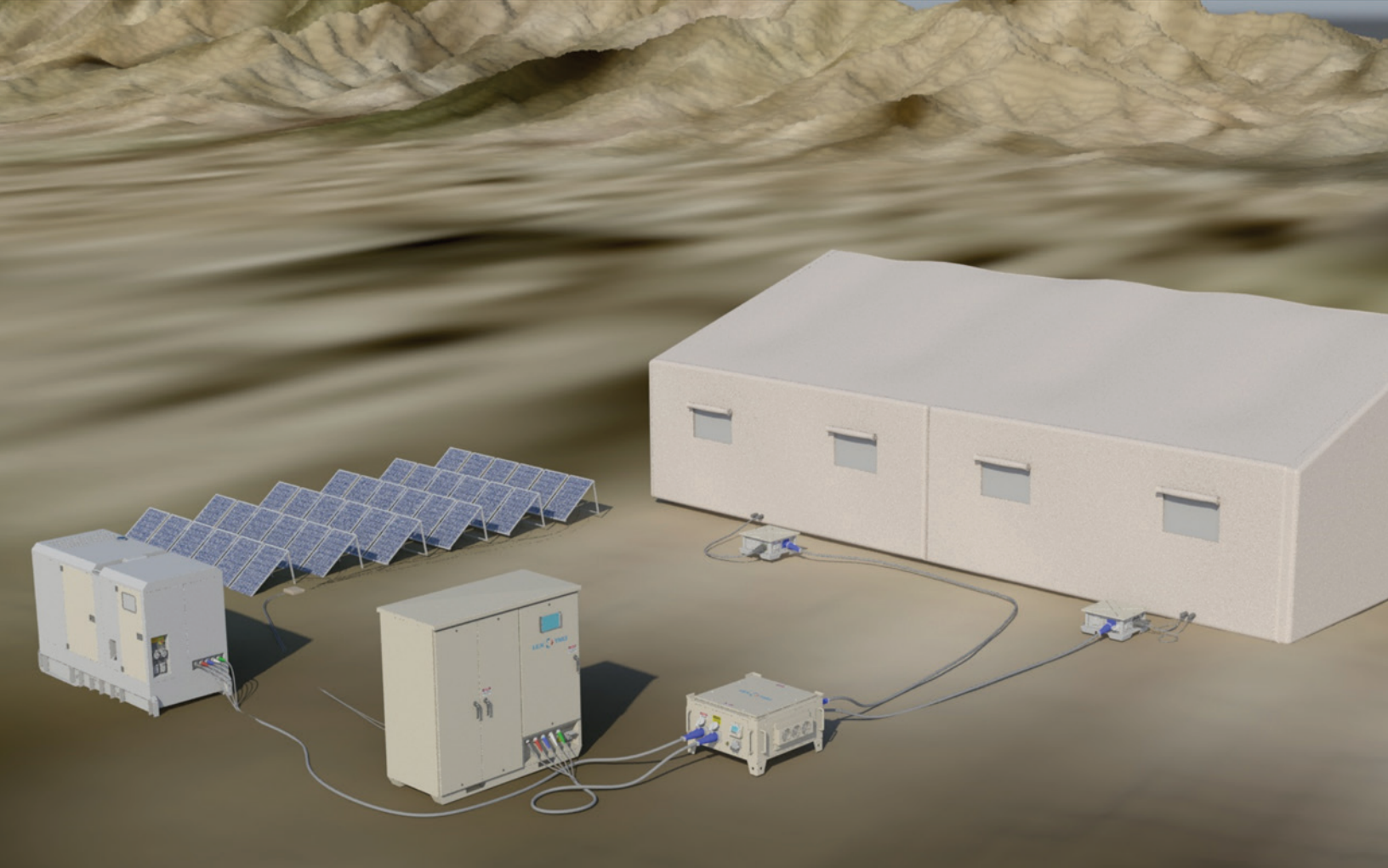


# Smart & Hybrid Power Solutions



# Energy Storage Module (ESM)



# LEX



## Application:

Tactical generators are sized for peak loads, but average loads are often a fraction of the generator's rated capacity. This leads to excess fuel consumption and increased generator maintenance. Hybridizing a generator with LexTM3's ESM allows a battery to efficiently serve low loads. When the battery charge is depleted, the ESM's smart controls operate the generator at its optimal output to serve the load while re-charging the battery. This reduces fuel consumption and maintenance on the generator, allowing the warfighter to get more fight out of every gallon of fuel.

Versions are available that are compatible with AMMPs generators, allowing the warfighter to get more fight out of every gallon of fuel.

## EnerSTACK Installed Battery & Generator System

## Features & Benefits:

- Scalable from 50-200kWH of energy storage
- Utilizes safe and reliable LFP or Lithium NMC batteries and versatile bi-directional inverter.
- Provides hybrid power benefits to AC bus of a generator farm or through power distribution devices.
- Scalable interface with AMMPs, TQGs and Commercial Generators.
- Flexible generator operation and reduction of fuel usage
- AC and DC overcurrent protection
- Integrated Power distribution
- Generator integration (AC-coupled)
- Black start
- Extreme-duty enclosure
- Onboard HVAC
- Fire suppression system
- Toggle seamlessly between grid-parallel and grid-isolated modes for silent watch and back-up power needs.



# Mobile Electric Hybrid Power Sources (MEHPS)



## AC POWER



## DC POWER



### Description:

This small, modular hybrid power system allows for the simplest configuration of using a 3kWh battery module (2x 6T format batteries) as a 28VDC power source that can be employed to act as a silent watch energy source for small tactical vehicles, provide stand by power for a vehicle mounted weapon or surveillance system, or used as a stored energy resource for power provisioning to other small batteries in the field. If more energy is needed, each battery module can be connected in parallel (up to three, for a total of 9kWh) using the DC Power Manager (DC PM). With two DC PMs five Battery Modules are connected in parallel, for a total of 15kWh (allowance up to 18kWh) of stored energy for the system. When AC power is needed, the LexTM3 MEHPS solution can provide 208VAC/three phase power up to 12kW continuous.

### Specification:

- AC Power Manager – Inverts power from the DC Power Manager and inverts to serve the AC load
- DC Power Manager – Takes DC power from the battery modules and or solar and feeds it to the AC Power manager to serve AC loads. The DC Power Manager can also rectify (AC to DC) power from a 5kW AMMPS generator as well.
- AC Power Distribution – Interfaces with AC Power Manager, AMMPS Generator and AC loads
- Battery Module – 3kWh
- Solar Kit – 450Watts or 570Watts kits available



# Moser Energy Tactical Inverter System (METIS)



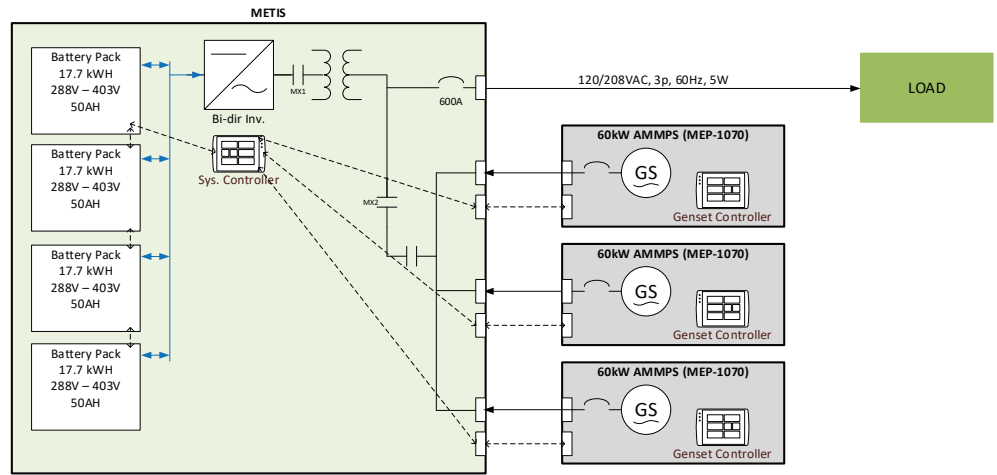
## Features & Benefits:

- **Reduce Fuel Consumption** – By taking on excess or transient load, METIS minimizes generator operation thereby saving fuel
- **Optimize Generator operation and performance** – METIS ensures the generators operate only when needed AND that they operate at their greatest efficiency. Low loads which can lead to ‘wet-stacking’ are no longer a concern as the generator(s) will either be OFF (i.e., Silent Run) or serving both the low load AND charging the batteries ensuring actual load on the generator is never low.
- **Silent Run Operation** – METIS can function as a stand-alone power source serving connected loads. Battery only operation reduces noise, heat signature, and fuel consumption. Once batteries are depleted, METIS automatically calls on one or more generators as required to re-charge the batteries and serve connected loads
- **Open Architecture** – METIS communicates using standard protocols such as CANbus or Modbus TCP/IP. NOTE: Future versions of METIS will be fully compliant with U.S. Army’s Tactical Microgrid Standard
- **Commercial Generators** – In addition to AMMPS (MEP-1070) generators, METIS is capable of working with Commercial Generators increasing versatility, reliability and resilience.
- **Scalable Battery Energy Storage** – Future versions of METIS will integrate with expanded battery energy storage to meet longer Silent Run requirements and further reduce generator operation.

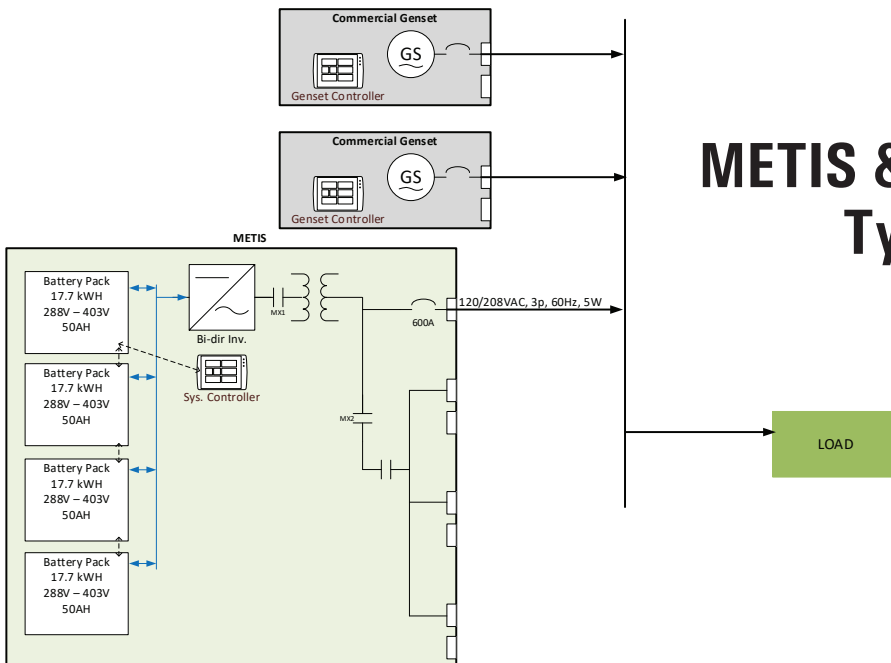
# Moser Energy Tactical Inverter System (METIS)



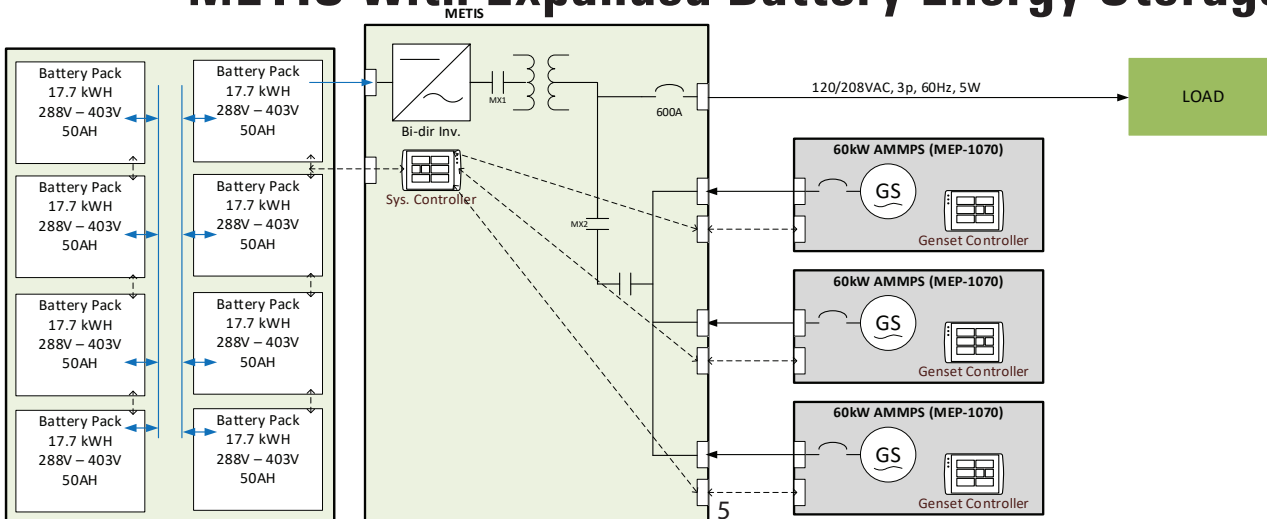
## METIS High Level Riser-Current Configuration



## METIS & Commercial Generators Typical Configuration



## METIS with Expanded Battery Energy Storage



# Power Management Module (PMM)



## Description:

The PMM can take up to three 200-Amp, 208VAC power sources and distribute them through up to eight 208VAC, 60A standard outputs. Two 300A outputs/inputs located on the back side are used for interconnecting to a second PMM unit, which expands input and output capabilities to six possible inputs distributing through up to sixteen outputs.

## Features & Benefits:

- Designed to intelligently manage, meter and control a wide variety of 208/120VAC, 3 phase, sources and loads for maximum efficiency and reliability.
- Compatible with AMMPS, TQG, and COTS generators.
- Intelligent controls automatically choose the most efficient power source to serve the loads.
- Output circuits are user-prioritized in order to provide load shedding in situations of low fuel, loss of generation capacity, or unanticipated high load scenarios.
- A Supervisory Control and Data Acquisition system (SCADA) provides real time monitoring, control and data logging for complete microgrid.

Specifications & Ordering Information	
<b>Catalog Number</b>	620-5001-0162 (Metering Only) 10533-0-002 (Source Control & Load Management)
<b>Rating</b>	180kW PMM, 120/208VAC, 3 phase, 60Hz
<b>Environmental Rating</b>	NEMA 3R
<b>Input</b>	208/120VAC, 3 phase, 60Hz, 200A Camlock Connector 208/120VAC, 3 phase, 60Hz, 200A Camlock Connector 208/120VAC, 3 phase, 60Hz, 200A Camlock Connector
<b>Output</b>	8 x 60A Pin & Sleeve Connectors 2 x 300A Camlock Connectors
<b>Dimensions</b>	48" W X 38"L X 26"H
<b>Approximate Weight</b>	400lbs

# Closed Transition Automatic Transfer Switch (CTATS)

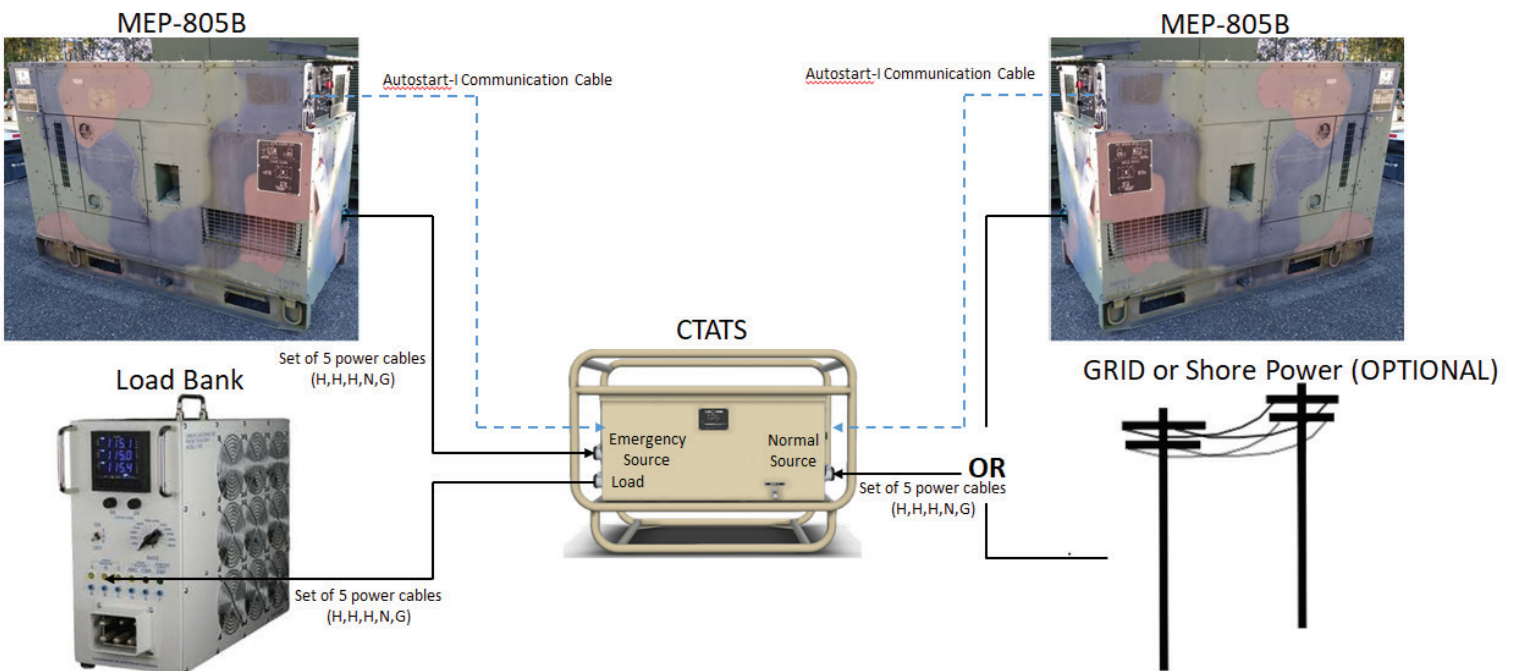


## Specification:

- Closed Transition (Open Transition upon source failure OR failure to synchronize)
- Utility to Generator & Generator to Generator transfers
- Automatic Transfer
- Manual Transfer

## Description:

The Closed Transition Automatic Transfer Switch (CTATS) is a replacement for a now obsolete Lex Products ATS2 product that incorporates the capabilities of the ATS2 within the newly designed enclosure and control scheme. Compatible with specially modified MEP-805B generators (Autostart-I), AMMPs generators, and commercial generators.



# STOCK LOCATIONS: DAVIE, FL



For over 30 years Lex Products has provided custom engineered solutions and durable products for the some of the most critical applications where portable power is needed.

Lex specializes in products designed to withstand rough use and harsh environments. This brochure displays a selection of offerings, specific to disaster relief and temporary shelter power applications.

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