

MAGNUM
E N E R G Y



+




Sensata
Technologies

PV + STORAGE
SOLUTIONS THAT MAKE SENSE

STORAGE-READY MICROINVERTER SYSTEM
FROM MAGNUM ENERGY

GRID-TIE PV

During the day, produce power in a grid-tie PV installation with the dual module, MPPT Magnum Energy MicroGT 500 Microinverter.

SIMPLE PARTS LIST

MicroGT 500 Microinverter
ME-MGT500

Connection

End cap: ME-MGT-ENDCAP-F
Pigtail: ME-MGT-AC-F

MagWeb GT Monitoring
ME-MGT-MW

MagWeb GT to MS-PAE Comm
ME-MGT-Adapter



Magnum Energy's storage-ready microinverter system provides a solar + storage solution, ready to install today. PV and battery storage can be installed independently or combined at any time for grid-tied battery backup in residential applications. The systems are engineered and optimized to work together seamlessly.



BATTERY STORAGE

Charge batteries and use power at night or when the power goes out with a Magnum Energy MS-PAE Inverter/Charger.

SIMPLE PARTS LIST

MS-PAE Inverter/Charger
MS4448PAE, MS4024PAE

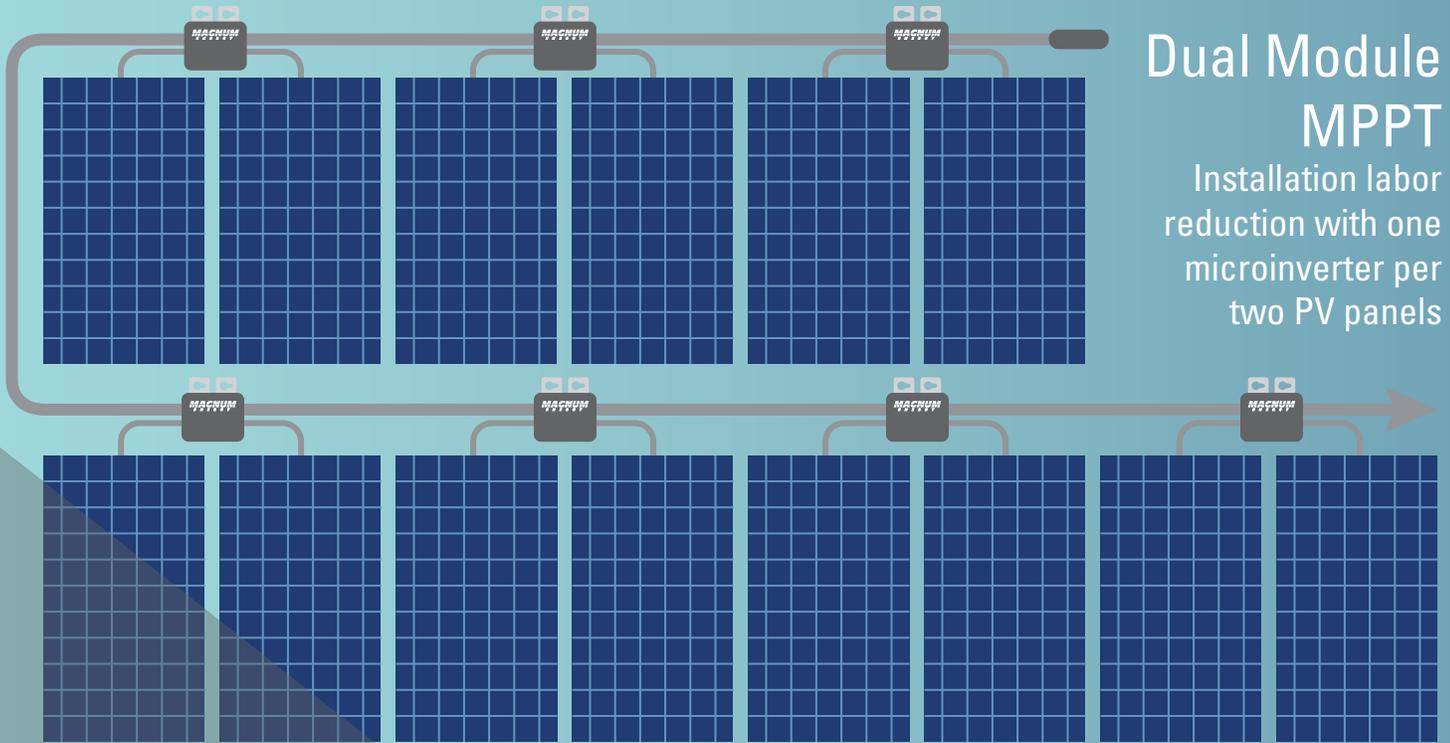
ME-ARC Remote
ME-ARC50

Battery Monitoring Kit
ME-BMK-NS

MMP Mini Magnum Panel with Mounting Backplate
MMP175-30D, MMP250-30D with BP-MMP



GRID-TIE PV



Dual Module MPPT

Installation labor reduction with one microinverter per two PV panels

Mitigates Shading

Module Level Power Electronics (MLPE) means power harvest even in partial shading or cloudy conditions

Storage Ready

Magnum enabled for future storage upgrade

Daisy Chain

Simple and fast installation without costly trunk cable

NEC 2017

Compliant by design

Warranty

25-year warranty standard

An Excellent Microinverter +
An Excellent Battery-based Inverter/Charger
= A Better PV+Storage Solution

BATTERY STORAGE

Multiple Battery Profiles

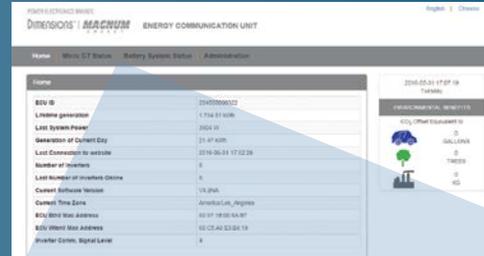
Flexibility in charging multiple chemistries, including Lithium Ion, Flooded, Lead Acid, or VRLA in 24 or 48 VDC commonly available on the market

Significant Storage Capacity

A single MS-PAE inverter/charger can support and charge battery banks from 400 - 800 Amp hours, or 19.6 kWh - 38.4 kWh

Proven and Reliable

Magnum Energy has been leading the way in design and manufacturing inverter/charger solutions for 15 years.



Micro GT Status | Battery System Status



One Web Portal

Monitor both systems with one web portal

Battery Storage Applications

- Emergency backup from hours to days
- Rate offset by avoiding time-of-use rates or demand charges
- Mission critical uptime of important electrical equipment

MAGNUM PV + STORAGE SOLUTION

- Storage-ready microinverter system is designed for solar + storage needs, ready to install today
- System components can be installed independently or combined at any time for grid-tied, battery backup for residential applications
- Systems are engineered and optimized to work together seamlessly for simpler AC coupled installation and better care and maintenance of the battery
- NEC 2017 compliant

GRID-TIE PV



Storage-ready:
Optimized to regulate AC coupled Magnum battery-based inverters, increasing battery life.

MICROGT 500 INVERTER

- Supports two modules per inverter.
- Daisy chain up to seven inverters, no trunk cable required.
- Handles up to 310W modules with negligible clipping, delivering 250W AC per module.
- Individual MPPT for each module.
- Module-level electronics mitigates shading issues and increases system output and reliability.
- UL1741 and NEC690.12 compliant.

OVERVIEW

PV Module Power Range	180-310W
MPPT Voltage Range	22-45V
Maximum Input Voltage	55V
Maximum Input Current	12A X 2
Rated Output Power	500W
Maximum Output Current	2.08A @ 240V
Output Voltage Range	240V/211V-264V
Output Frequency Range	60Hz/ 59.3-60.5Hz programmable
Power Factor	>0.99
Total Harmonic Distortion	<3%
Maximum Units Per Branch	7 per 20A @ 240V
Peak Efficiency	95.5%
Warranty	25 years

AVAILABLE ACCESSORIES

MagWeb GT:

Integrated dash board of the MicroGT output and MS-PAE Inverter/Charger output, ME-BMK, and Magnum remote output of the battery state-of-charge

AC termination cable

AC extension connection cable

Interconnection cable and adapter between inverter and MagWeb GT

BATTERY STORAGE



The split phase MS-PAE provides up to 4400W output at 120/240 VAC in a single box.

MS-PAE 120/240V INVERTER/CHARGER

- 120/240V output, no series stacking required.
- Parallel up to four MS-PAEs for up to 17.6 kW output with an MP Panel and Router.
- NEC 2017 battery-based compliant.
- 24 and 48V options.
- Lightweight and compact.
- UL1741 and CSA C22.2 #107.1-01 listed.
- Accessible design for easy installation.
- Charges multiple battery chemistries, including lithium ion and lead acid

OVERVIEW

Input Voltage Range	18-34 and 36-64 VDC
Output Voltage Range	120/240 VAC split phase (± 5%)
Total Harmonic Distortion	< 5%
5 Sec Surge Output	5800 W and 8500 W
Continuous Power Output	4000 W and 4400 W
Continuous Charger Output	105 and 60 ADC
Power Factor	> .95
Output Frequency	60 Hz ± 0.1 Hz
Five-stage Charging	Yes
Weight	55 lb
Dimensions	13.75" x 12.65" x 8.0"
Warranty	3 years parts and labor, 5 years when installed on MMP or MP system



MMP PANEL

- Easy to install panel for 24 or 48V use.
- Pre-wired for fast installation.
- Front-mounted breakers and remote (optional).
- Fits either din rail or back-mount DC load breakers - up to eight breakers.
- 500A DC shunt
- UL1741 and CSA C22.2 #107.1-01 listed.
- Inverter hood to protect the inverter from dust and debris.
- Magnum Energy products warranty increases to five years when installed on the MMP.



ME-ARC REMOTE

- Simple, push button operation.
- Store your favorite setup menus under "Favs".
- Large, LCD screen and at-a-glance LEDs for easy-to-read status.
- Critical settings are saved even if the power is disconnected.

ABOUT SENSATA TECHNOLOGIES

The name Sensata comes from the Latin word **sensata**, meaning “those gifted with sense”. To complement our business and name, our logo is inspired by Braille, the writing system based on touch.

Our highly engineered devices satisfy the world’s growing need for safety, energy efficiency, and a clean environment. These are devices that improve safety, efficiency and comfort for millions of people every day and are used in automotive, appliance, aircraft, industrial, military, heavy vehicle, heating, air conditioning, data, telecommunications, recreational vehicle and marine applications.

Until 2006, we were called Texas Instruments Sensors & Controls. Today we are the world’s leading supplier of sensors and controls across a broad range of markets and applications. From integrated manufacturing to state-of-the-art environmental practices and a full spectrum of technical and analytical services, Sensata Technologies remains committed to helping its customers find leading-edge technology solutions to meet today’s market needs.



SENSATA POWER CONVERSION AND THE MAGNUM ENERGY BRAND

Sensata’s Power Conversion business unit began as two well-known inverter companies, Dimensions Inverters and Magnum Energy. Dimensions Inverters joined Sensata Technologies in 2007 and Magnum Energy in 2014. Under the Magnum Energy and Dimensions Power brands, Sensata Technologies continues to manufacture exceptional inverters, inverter/chargers, and accessories catering to mobile applications, including utilities, corporate fleets, RV, marine, and trucks; renewable energy applications, and the export market.

Shipped worldwide, our products use the highest quality components to respond to the extreme conditions of

variable climates. Our dedicated staff of engineering, manufacturing, and customer service professionals work closely with customers to design and build some of the industry’s most reliable, advanced, and cost effective inverters, inverter/chargers and accessories.

Offering both sine wave and modified sine wave models ranging from 500 to 17,600 watts and the ability to accommodate input ranges from 12 to 48 VDC, the Magnum Energy product line has the inverter or inverter/charger to meet your needs.



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