



**MAGNUM**  
E N E R G Y



## Magnum Panel Systems

UL1741 Interconnection System Equipment



**The Powerful Difference**

# MMP – Mini Magnum Panel



The MMP Enclosure



The MMP shown with inverter (sold separately) and optional remote and backplate.

The MMP – **Mini Magnum Panel** is an inclusive, easy-to-install panel designed to work with one Magnum MS-AE, MS-PAE, MS, RD or other non-Magnum inverter/charger.

## FEATURES:

- **Small footprint:** only 12.5" wide x 18" tall x 8" deep
- **Money-saving design:** not only is the MMP less expensive, but it is pre-wired for fast installation, saving labor costs
- **Easy access:** front-mounted breakers and remote (optional)
- **Choices:** can be wired for 120 VAC or 120/240 VAC output
- **Inclusive:** works with non-Magnum inverter/chargers (stand-alone parts included)
- **Listed:** ETL listed to UL1741 and CSA C22.2 107-01
- **DC load breakers:** fits either din rail or back-mount DC load breakers.

## PART NUMBERS

- MMP250-30D
- MMP250-60S
- MMP175-30D
- MMP175-60S

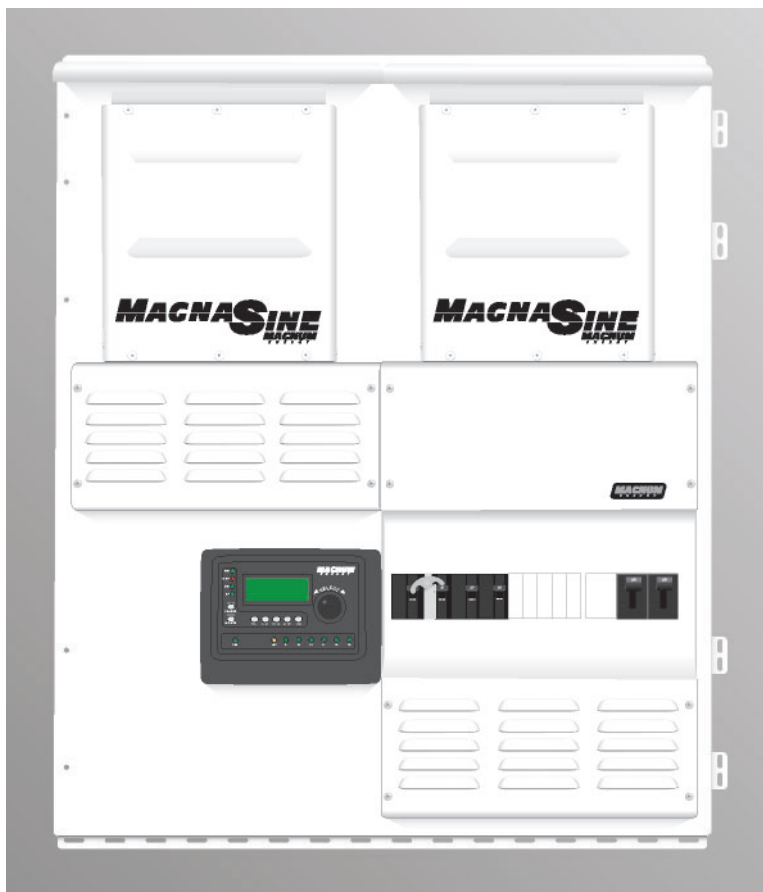
## INCLUDES:

- One DC breaker – 175A or 250A
- One AC bypass breaker – 30A dual pole or 60A single pole
- One AC input breaker – 30A dual pole or 60A single pole
- 500A/50mv DC shunt
- DC buss bars for battery positive and negative
- Din rail or back mount for optional DC mini breakers – will hold up to eight breakers

# MPSL - Magnum Panel



The MPSL shown with a single inverter (sold separately).



The MPSL shown with two inverters (sold separately), an MPX extension to accommodate a second inverter, an optional dual backplate, and an optional router.

The MPSL – **Magnum Panel, Single Enclosure, Low Capacity** – is designed to accommodate a maximum of two inverters.

## FEATURES:

- **Expandable:** start with the enclosure and just one inverter and in the future expand to two inverters with ease, using the MPX.
- **Easy installation:** all connections are front-mounted, including AC and DC breakers and the MPX.
- **Labor saving:** panel is pre-wired for fast installation, saving labor costs.
- **DC load breakers:** fits either din rail or back-mount DC load breakers.
- **Convenient knockouts:** knockouts on the side of the enclosure are compatible with most charge controllers.

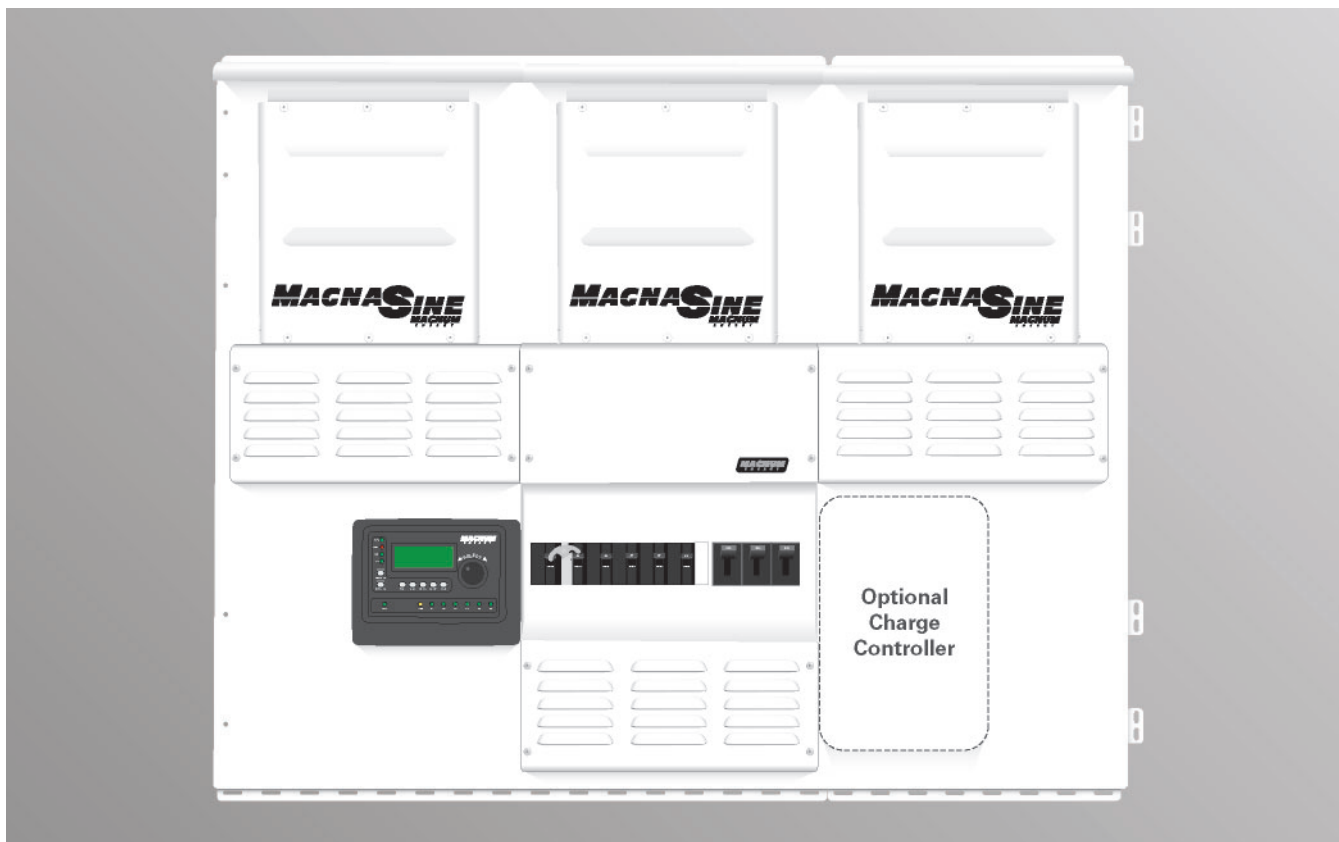
## INCLUDES:

- One DC breaker – 250A
- One 60A AC bypass breaker
- 500A/50mv DC shunt
- Inverter AC input protection
- MPX extension includes AC/DC circuit protection and wiring

## PART NUMBERS

- MPSL-30D
- MPSL-60S

# MPSH - Magnum Panel



The MPSH shown with three inverters (sold separately), two MPX extensions to accommodate the additional inverters, two backplates, and an optional router.

The MPSH – **Magnum Panel, Single Enclosure, High Capacity** – is designed to accommodate a maximum of three inverters.

## FEATURES:

- **More power capacity:** the 125A bypass breaker and the 1000A DC shunt safely handle the power from larger systems.
- **Expandable:** start with the enclosure and just one inverter and in the future expand to up to three inverters with ease, using the MPX.
- **Labor saving:** panel is pre-wired for fast installation, saving labor costs.
- **Easy installation:** all connections are front-mounted, including AC and DC breakers and the MPX.
- **DC load breakers:** fits either din rail or back-mount DC load breakers.
- **Convenient knockouts:** knockouts on the side of the enclosure are compatible with charge controllers.

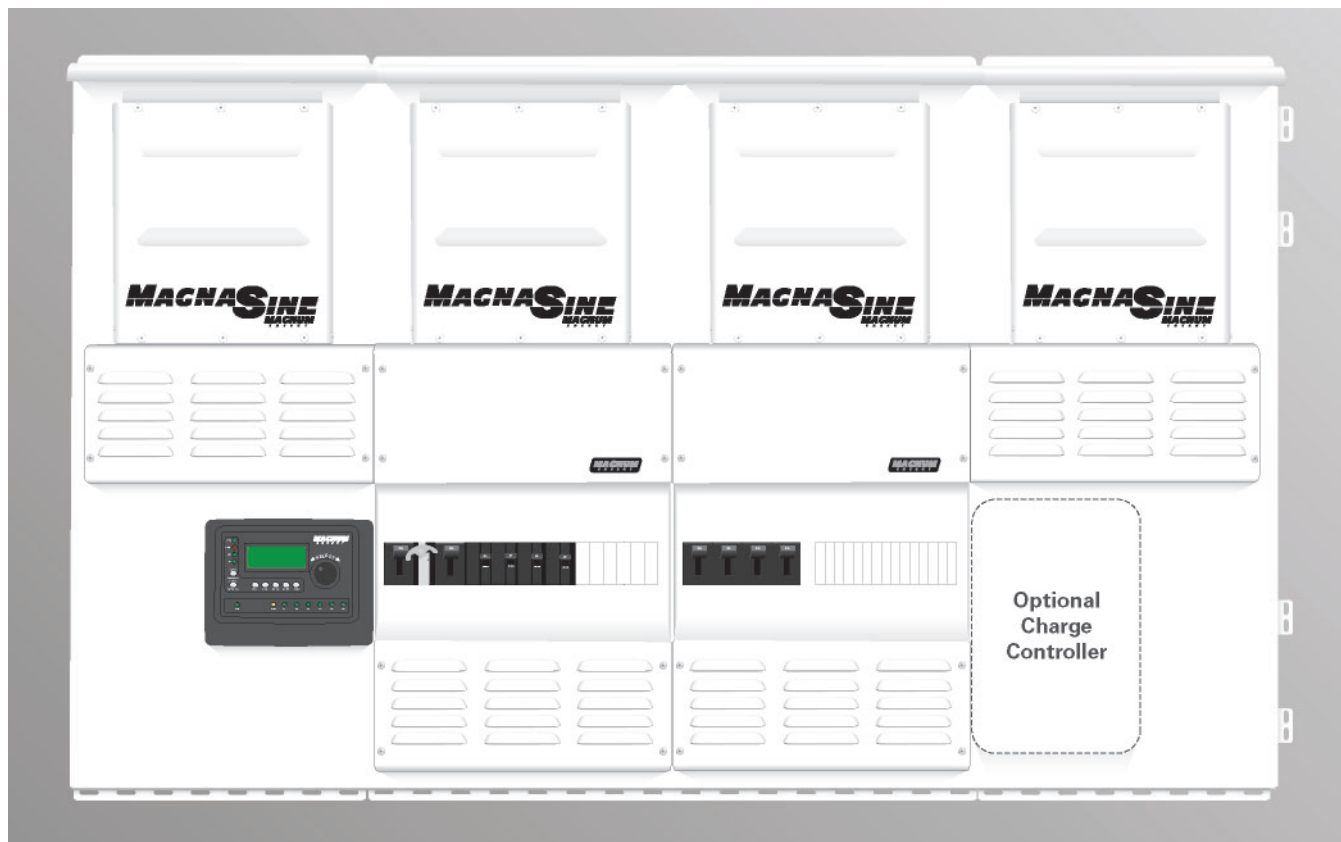
## INCLUDES:

- One DC breaker – 250A
- One 125A AC bypass breaker
- 1000A/100mv DC shunt
- Inverter AC input protection
- MPX extension includes AC/DC circuit protection and wiring

## PART NUMBERS

- MPSH-30D

# MPDH - Magnum Panel



The MPDH shown with four inverters (sold separately), two MPX extensions to accommodate the additional inverters, three backplates, and the Magnum router.

The MPDH – Magnum Panel, Dual Enclosure, High Capacity – is designed to accommodate a maximum of four inverters with two enclosures – one for AC connections and one for DC connections.

## FEATURES:

- **More power capacity:** the 125A bypass breaker and the 1000A DC shunt safely handle the power from larger systems.
- **Expandable:** start with the enclosures and just two inverters and in the future expand to up to four inverters, using the MPX.
- **Easy installation:** all connections are front-mounted, including AC and DC breakers and the MPX.
- **Labor saving:** panel is pre-wired for fast installation, saving labor costs.
- **DC load breakers:** fits either din rail or back-mount DC load breakers.
- **Convenient knockouts:** knockouts on the side of the enclosures are compatible with charge controllers.
- **Separate AC and DC enclosures:** for installers who prefer separate enclosures, the MPDH provides an easy solution.

## INCLUDES:

- Two DC breakers – 250A
- One 125A AC bypass breaker
- 1000A/100mv DC shunt
- Inverter AC input protection
- MPX extension includes AC/DC circuit protection and wiring

## PART NUMBERS

- MPDH-30D

# Magnum Panel Selection Guide

| Inverter to Panel Selection |     |                          |                         |            |                                                                 |                                  |  |
|-----------------------------|-----|--------------------------|-------------------------|------------|-----------------------------------------------------------------|----------------------------------|--|
| Inverter Model              | Qty | AC Wiring Configuration  | Required Panels         |            | Options that allow future expansion of additional PAE inverters | Continuous Power Output at 25° C |  |
| MS2012                      | 1   | SISO-60                  | MMP250-60S              | See page 1 | NA                                                              | 2.0 KVA                          |  |
|                             | 1   | DIDO                     | MMP250-30D              | See page 1 | NA                                                              | 2.0 KVA                          |  |
| MS2812                      | 1   | SISO-60                  | MMP250-60S              | See page 1 | NA                                                              | 2.8 KVA                          |  |
|                             | 1   | DIDO                     | MMP250-30D              | See page 1 | NA                                                              | 2.8 KVA                          |  |
| MS4024                      | 1   | SISO-60                  | MMP250-60S              | See page 1 | NA                                                              | 4.0 KVA                          |  |
|                             | 1   | DIDO                     | MMP250-30D              | See page 1 | NA                                                              | 4.0 KVA                          |  |
|                             | 2   | SISO-60 (series stacked) | MPSL-60S + MPX-60S      | See page 2 | NA                                                              | 8.0 KVA                          |  |
|                             | 2   | DIDO                     | MPSL-30D + MPX-30D      | See page 2 | MPSH-30D + MPX-30D                                              | 8.0 KVA                          |  |
| MS4024PAE                   | 1   | DIDO                     | MMP250-30D              | See page 1 | NA                                                              | 4.0 KVA                          |  |
|                             | 2   | DIDO x 2                 | MPSL-30D + MPX-30D      | See page 2 | MPSH-30D + MPX-30D or MPDH-30D                                  | 8.0 KVA                          |  |
|                             | 3   | DIDO x 3                 | MPSH-30D + MPX-30D (x2) | See page 3 | MPDH-30D + MPX-30D                                              | 12.0 KVA                         |  |
|                             | 4   | DIDO x 4                 | MPDH-30D + MPX-30D (x2) | See page 4 | NA                                                              | 16.0 KVA                         |  |
| MS4448PAE                   | 1   | DIDO                     | MMP175-30D              | See page 1 | NA                                                              | 4.4 KVA                          |  |
|                             | 2   | DIDO x 2                 | MPSL-30D + MPX-30D      | See page 2 | MPSH-30D + MPX-30D or MPDH-30D                                  | 8.8 KVA                          |  |
|                             | 3   | DIDO x 3                 | MPSH-30D + MPX-30D (x2) | See page 3 | MPDH-30D + MPX-30D                                              | 13.2 KVA                         |  |
|                             | 4   | DIDO x 4                 | MPDH-30D + MPX-30D (x2) | See page 4 | NA                                                              | 17.6 KVA                         |  |

## Reading Magnum Panel Part Numbers

### Available Magnum Panel part numbers:

- MPSL-30D
- MPSL-60S
- MPSH-30D
- MPDH-30D

Magnum Panel part numbers follow the same three-part pattern: MPSL-30D, which may be broken down into:

|           |           |              |     |                                                                                                                           |
|-----------|-----------|--------------|-----|---------------------------------------------------------------------------------------------------------------------------|
| <b>MP</b> | <b>SL</b> | <b>- 30D</b> |     |                                                                                                                           |
|           |           |              | 30D | 30 AAC Double-pole, input circuit breaker(s). x1 for single box or x2 for dual box                                        |
|           |           |              | 60S | 60 AAC Single-pole, input circuit breaker                                                                                 |
|           | SL        |              |     | Single box, low capacity – includes 60 AAC bypass, 500 ADC shunt and one 250 ADC breaker. Capability for 1-2 inverters    |
|           | SH        |              |     | Single box, high capacity – includes 125 AAC bypass, 1000 ADC shunt and one 250 ADC breaker. Capability for 2-3 inverters |
|           | DH        |              |     | Dual box, high capacity – includes 125 AAC bypass, 1000 ADC shunt and two 250 ADC breakers. Capability for 2-4 inverters  |
|           |           |              | MP  | Magnum Panel                                                                                                              |

| Standard Features        |                              |                                        |                                         |                                                          |                                  |                                                    | Optional Features |
|--------------------------|------------------------------|----------------------------------------|-----------------------------------------|----------------------------------------------------------|----------------------------------|----------------------------------------------------|-------------------|
| Nominal DC Input Voltage | AC Input Voltage & Frequency | Inverter AC Output Voltage & Frequency | Battery Charger Maximum Output at 25° C | AC Input / Pass-through Capacity Breaker Rating at 25° C | AC Input / Bypass with Interlock | Maximum DC Load Breakers (13mm width / back mount) |                   |
| 12 VDC                   | 120 VAC @ 60 Hz              | 120 VAC @ 60 Hz                        | 100 amps DC                             | 60 amps AC                                               | D60 amps AC                      | 8 / 4                                              |                   |
| 12 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 VAC @ 60 Hz                        | 100 amps DC                             | D30 amps AC                                              | D60 amps AC                      | 8 / 4                                              |                   |
| 12 VDC                   | 120 VAC @ 60 Hz              | 120 VAC @ 60 Hz                        | 125 amps DC                             | 60 amps AC                                               | D60 amps AC                      | 8 / 4                                              |                   |
| 12 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 VAC @ 60 Hz                        | 125 amps DC                             | D30 amps AC                                              | D60 amps AC                      | 8 / 4                                              |                   |
| 24 VDC                   | 120 VAC @ 60 Hz              | 120 VAC @ 60 Hz                        | 105 amps DC                             | 60 amps AC                                               | D60 amps AC                      | 8 / 4                                              |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 VAC @ 60 Hz                        | 105 amps DC                             | D30 amps AC                                              | D60 or D 125 amps AC             | 8 / 4                                              |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 / 240 VAC @ 60 Hz                  | 105 amps DC x 2                         | D60 amps AC                                              | D60 or D 125 amps AC             | 10 / 5                                             |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 / 240 VAC @ 60 Hz                  | 105 amps DC x 2                         | D60 amps AC                                              | D60 or D 125 amps AC             | 10 / 5                                             |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 / 240 VAC @ 60 Hz                  | 105 amps DC                             | D30 amps AC                                              | D60 amps AC                      | 8 / 4                                              |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz x 2    | 120 / 240 VAC @ 60 Hz x 2              | 105 amps DC x 2                         | D30 amps AC x 2                                          | D60 or D 125 amps AC             | 10 / 5                                             |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz x 3    | 120 / 240 VAC @ 60 Hz x 3              | 105 amps DC x 3                         | D30 amps AC x 3                                          | D125 amps AC                     | NA                                                 |                   |
| 24 VDC                   | 120 / 240 VAC @ 60 Hz x 4    | 120 / 240 VAC @ 60 Hz x 4              | 105 amps DC x 4                         | D30 amps AC x 4                                          | D125 amps AC                     | 15 / 7                                             |                   |
| 48 VDC                   | 120 / 240 VAC @ 60 Hz        | 120 / 240 VAC @ 60 Hz                  | 60 amps DC                              | D30 amps AC                                              | D60 amps AC                      | 8 / 4                                              |                   |
| 48 VDC                   | 120 / 240 VAC @ 60 Hz x 2    | 120 / 240 VAC @ 60 Hz x 2              | 60 amps DC x 2                          | D30 amps AC x 2                                          | D60 or D 125 amps AC             | 10 / 5                                             |                   |
| 48 VDC                   | 120 / 240 VAC @ 60 Hz x 3    | 120 / 240 VAC @ 60 Hz x 3              | 60 amps DC x 3                          | D30 amps AC x 3                                          | D125 amps AC                     | NA                                                 |                   |
| 48 VDC                   | 120 / 240 VAC @ 60 Hz x 4    | 120 / 240 VAC @ 60 Hz x 4              | 60 amps DC x 4                          | D30 amps AC x 4                                          | D125 amps AC                     | 15 / 7                                             |                   |

### Available Magnum Panel Extension part numbers:

- MPX-30D
- MPX-60S

Magnum Panel Extension part numbers follow the same two-part pattern: MPX-30D, which may be broken down into:

|            |            |            |                                                                                                                  |
|------------|------------|------------|------------------------------------------------------------------------------------------------------------------|
| <b>MPX</b> | <b>30D</b> | 30D        | Ships with one 30 AAC Double-pole, input circuit breaker, one 250 ADC breaker, and all AC and DC inverter wiring |
|            | <b>60S</b> | 60S        | Ships with one 60 AAC Single-pole, input circuit breaker, one 250 ADC breaker, and all AC and DC inverter wiring |
|            |            | <b>MPX</b> | Magnum Panel Extension Box – 1 unit capacity                                                                     |

### Mini Magnum Panel part numbers:

Mini Magnum Panel part numbers follow the same three-part pattern: MMP175-30D, which may be broken down into:

|            |            |          |            |     |                                                                                       |
|------------|------------|----------|------------|-----|---------------------------------------------------------------------------------------|
| <b>MMP</b> | <b>175</b> | <b>-</b> | <b>30D</b> | 30D | 30 AAC Double-pole, input circuit breaker(s).<br>x1 for single box or x2 for dual box |
|            |            |          |            | 60S | 60 AAC Single-pole, input circuit breaker                                             |
|            |            |          |            | 175 | 175 ADC breaker                                                                       |
|            |            |          |            | 250 | 250 ADC breaker                                                                       |
|            |            |          |            | MMP | Mini Magnum Panel                                                                     |

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