



INVERTER SWITCHGEAR MODULE

ISM 120/240



All Switchgear in a Single Enclosure

The entire electronics for a battery based PV system in a single enclosure for quick, easy installation. The Apollo Solar ISM 120/240 comes factory assembled with the Inverter Breakers for DC input and AC input / output / bypass breakers, ready to add breaker Pacts from Apollo Solar for Charge Controller, GFP and Generator / Grid Selector. Thus, the AC and DC disconnects, bus bars, shunt and connectors are in a single enclosure. The installer need only connect the PV Input, Battery Cables, AC Load, and optional AC Line/Generator Input from the outside, providing a complete plug-and-play solar power switchgear package.

- Fits all Apollo Solar Inverters: TrueSineWave™ TSW3224 and TSW3648
- Fits all Apollo Solar T80 or T80HV TurboCharger™ Charge Controllers

Lower Costs Using a Factory-Built Appliance

The ISM can provide 240/120VAC split phase, 120VAC single phase or 230V AC power for the global market with the selection of our available AC Circuit Breaker Pacts. The ISM is easily installed into tight spaces while enabling the Apollo Solar TSW Inverters and TurboChargers™, thus providing a complete power center with PV input.

Simply Connect PV Input, Battery Cables & AC

The wiring box has clearly labeled connectors for the PV array input, the battery cables, and a second bypass toggle space is provided for optional generator input.

The ISM 120/240 Ships Fully Assembled with:

As shown in the photo on the left

- Powder coated Aluminum cabinet and mounting hardware
- Three 40Amp, 120/240 VAC, two-pole, DIN-rail breakers for AC input, inverter bypass, and AC output to load.
- One F frame 250A 3/8" stud inverter DC input breaker
- One Ground bus bar
- One AC Neutral bus bar
- One distribution block for PV input wires
- One System negative terminal bus bar
- One Battery positive terminal bus plate
- One 500Amp/50mV shunt
- AC Input and Output wires (THHN) for the TSW Inverter
- Room to expand – total knock-out positions for 18 single pole 1/2" (13mm) wide DIN rail AC or DC breakers.

Save time on every installation

Small Footprint: 11" wide, 15" tall, 7" deep
(shown installed with a TSW3224)

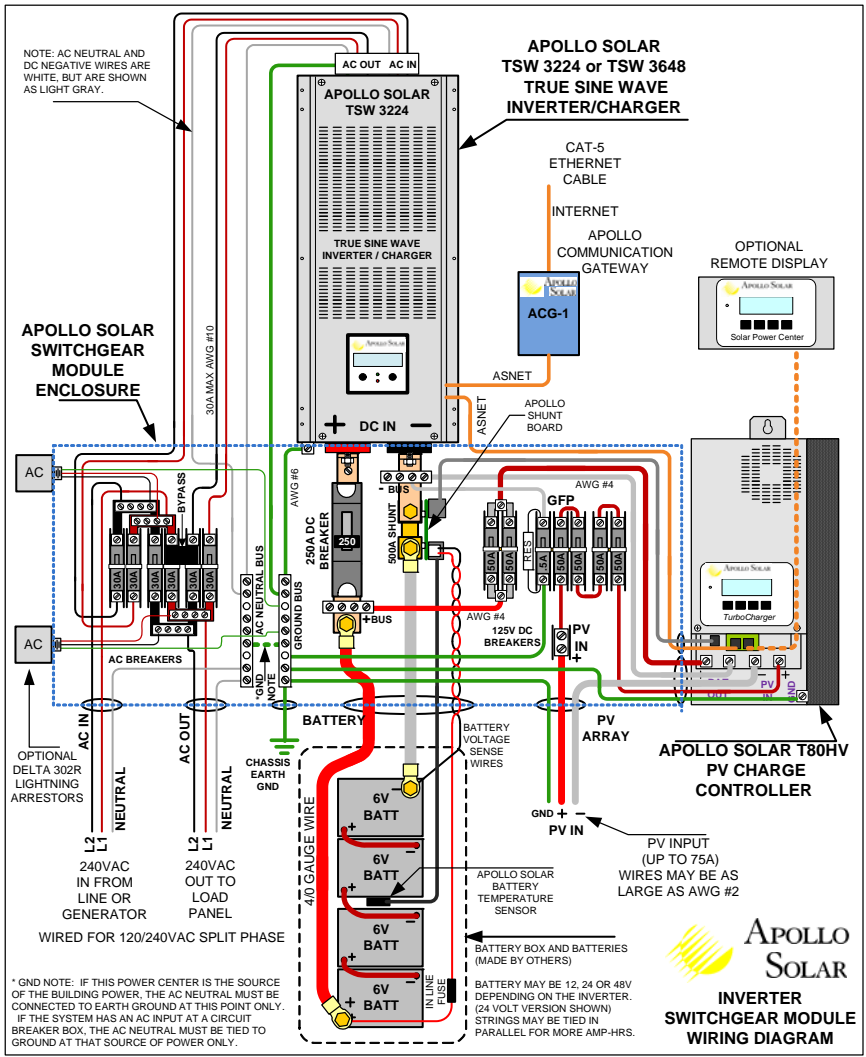
Modular Design – One ISM per Inverter

UL1741 certified, NEC compliant

Inverter / Battery breaker included

Slots for 18 DIN rail 1/2" wide breakers:

- DC Breakers for Charge Controller
- GFP on PV input
- AC Breakers and bypass for Inverter
- AC Generator / Grid input selector



Wiring Diagram of the ISM 120/240 with T80HV Charge Controller



Parallel Stacking with T80HV



ISM 120/240 with cover removed

INVERTER SWITCHGEAR MODULE -- SPECIFICATIONS

- See the individual spec sheet for details of the T80 TurboCharger™, TrueSineWave™ Inverters and Remote Displays.
- Battery voltages 12, 24 or 48 VDC nominal
 - PV Input range with T80: Up to 70 Amps, 16 to 112VDC operating, 140VDC Max Open Circuit Voltage
 - PV Input range with T80HV: .. Up to 70 Amps, 24 to 160VDC operating, 200VDC Max Open Circuit Voltage
 - Data Comm Options ASNET Apollo Network available for optional Remote Displays and Internet Gateway
 - Connectors PV input: Distribution Block accepts #14 to #2. AC: Terminals accept #14 to #8.
 - Battery Terminals: 3/8" hex bolts accept up to a pair of #4/0 AWG cables lugs.
 - Unit dimensions 15" tall X 11" wide X 7.25" deep. (381x280x184mm) Shipping: 19" x 12" x 11"
 - Weight Unit: 11 lbs. (4.8kg) Shipping weight: 13 lbs. (5.8 kg)
 - Environmental rating Indoor Type 1.
 - Optional Accessories AC Breakers for 120VAC and for 230VAC, DC Breakers and GFP pacs for the T80 and for the T80HV Charge Controllers, Remote Monitor, Generator Start Module



APOLLO SOLAR

23 Francis J. Clarke Circle
 Bethel, CT 06801
 (203) 790-6400
www.ApolloSolar.com