Daytech Energy Pure Sine Wave Inverter

Model DT-PSI12-600W-1000W-1500W-2000W-3000W

Overview

The Daytech line of high-quality Pure Sine Wave Inverters are a range of highly efficient (90~ 96%) and rugged self-contained inverter, intended for use in the home, marine, Caravan/RV, rural, shed power and general 12VDC solar installations. The pure sinewave output ensures any device (excluding prescribed medical equipment) can run without increased risk of damage when compared to modified sine wave inverters. The range includes 600-W, 1000-W, 1500-W, 2000-W, and 3000-Watt models.

Designed in Germany and manufactured by Daytech's contract partners in China, with QC and testing completed in Australia, you can be assured of the highest quality. Featuring an attractive design, with AUS or EU or US socket outlets available directly on the unit, for fast and easy installation.

Overload protection | Overtemperature Protection | Low voltage protection | High pressure protection | Short circuit protection

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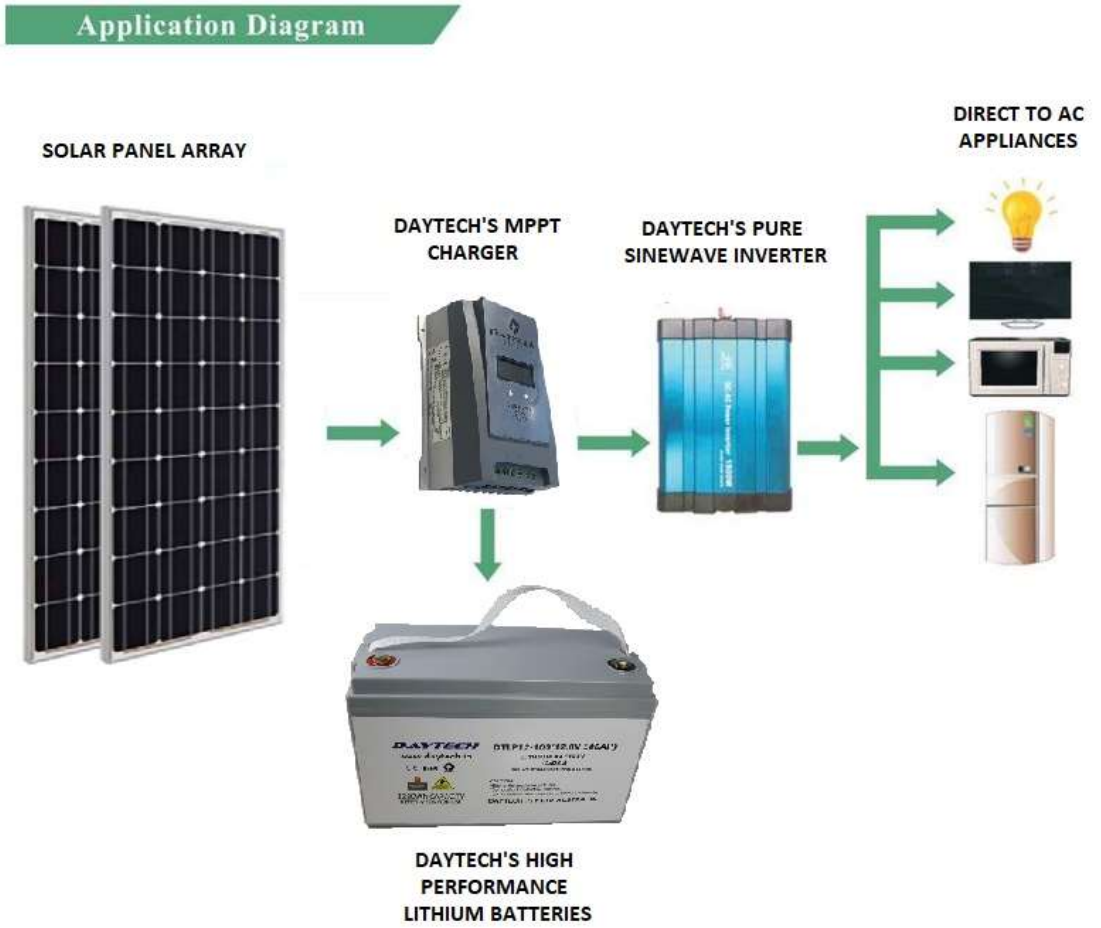
Features

- 12V input Supply from solar panels, in parallel with the MPPT charge controller and 12VDC Batteries for complete off-grid solutions
- Pure Sine wave output (< 3% THD)
- Output is isolated from input for safety
- Efficiency from 90 ~ 96% depending on load
- Capable of supplying inrush current to reactive loads such as motors and power tools
- Surge power up to two times greater than maximum running power
- Cooling fan controlled by load and ambient temperature.
- Easy to use and friendly user interface with automatic features
- Protected against short circuit, input over or under voltage, over temperature, reverse polarity protection by fuse, which will blow if the battery is connected in reverse
- USB charging port at 2.1A, 5V – standard on all versions
- Remote control options – including wired and wireless
- Battery fault, Earth fault and load fault protection, Softstart protection of 3-5 seconds
- LCD display for system status, voltage and power, battery and load monitoring
- 2 year Australian warranty – lifetime technical support backed by engineers

Installation and Application Example

Power ON/OFF switch, USB charging socket, remote control connection socket, Green LED for power on and Red LED for fault indication, with LCD display standard (not shown here).

Socket Outlets selected for the destination country (example below of Australian General Purpose Outlet – 3 pin sockets for AC connection):



Remote Control Options

Options for different remote control types:

Applications

- Off-grid solar and battery power
- RV, caravan and camping
- Home, shed and building power
- Portable equipment power
- Personal power stations
- Trades and industrial stand-alone power systems
- Vehicle and automotive DC-AC power
- Yacht, boat and marine power
- Rural, farming, pumping and outback power

Specifications – 600W

Input	
DC Voltage (Nominal)	12V DC
Voltage Range	10.5 ~ 15V DC
Idle current draw	≤0.6A
Typical Efficiency	90 ~ 96%
Fuse	50A x 2
Output	
AC Voltage	240V AC
Rated power	600W
Surge Power	1200W (20m - resistive)
Waveform	Pure Sine Wave (< 3% THD)
Frequency	50Hz ±0.05%
AC Regulation	±10%
Power factor range	COSθ-90°~COSθ+90°
Safety Standards & EMC	
Compliance	Certified EN 60950-1; 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013.
Insulation resistance	100M Ohms at 500VDC
EMI conduction and radiation	Certified EN 62040-2:2006,EN61000-3-2; EN61000-3-3;
EMS Immunity	Certified IEC61000-4-3, IEC61000-4-6
E-MARK	Certified ECE RIO.05:2014

Environment	
Working Temp.	0 ~ +50°C
Working Humidity	20 ~ 90%RH non-condensing
Storage conditions	-30 ~ +70°C 10 ~ 95%RH
Over temperature	Shut off output voltage, recover when fault rectified.
Over current	Shut off output voltage, restart to recover
Protection	
Battery low alarm	10.5V ±0.5V DC
Battery low shutdown	10V ±0.5V DC
Over voltage	15.5V ±0.5V DC
Over temperature &/Or Over Current	Shut off output voltage, recover when fault rectified.
Soft Start Earth Fault	Soft start 3-5s. Earth fault - Shut off output voltage
Hardware	
Dimensions (LxWxH)	281.5 x 173.6 x 103.1mm
Packing	2.1kg; 6pcs/13.2kg/0.06m^3
Cooling	Fan controlled by load or thermal conditions

Specifications – 1000W

Input	
DC Voltage (Nominal)	12V DC
Voltage Range	10.5 ~ 15V DC
Idle current draw	≤0.8A
Typical Efficiency	94 ~ 97%
Fuse	40A x 4
Output	
AC Voltage	240V AC
Rated power	1000W
Surge Power	2000W (20m - resistive)
Waveform	Pure Sine Wave (< 3% THD)
Frequency	50Hz ±0.05%
AC Regulation	±10%
Power factor range	COSθ-90°~COSθ+90°
Safety Standards & EMC	
Compliance	Certified EN 60950-1; 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013.
Insulation resistance	100M Ohms at 500VDC
EMI conduction and radiation	Certified EN 62040-2:2006,EN61000-3-2; EN61000-3-3;
EMS Immunity	Certified IEC61000-4-3, IEC61000-4-6
E-MARK	Certified ECE RIO.05:2014

Environment	
Working Temp.	0 ~ +50°C
Working Humidity	20 ~ 90%RH non-condensing
Storage conditions	-30 ~ +70°C 10 ~ 95%RH
Over temperature	Shut off output voltage, recover when fault rectified.
Over current	Shut off output voltage, restart to recover
Protection	
Battery low alarm	10.5V ±0.5V DC
Battery low shutdown	10V ±0.5V DC
Over voltage	15.5V ±0.5V DC
Over temperature &/Or Over Current	Shut off output voltage, recover when fault rectified.
Soft Start Earth Fault	Soft start 3-5s. Earth fault - Shut off output voltage
Hardware	
Dimensions (LxWxH)	313.5 x 173.6 x 103.1mm
Packing	2.9kg; 4pcs/12.8kg/0.05m^3
Cooling	Fan controlled by load or thermal conditions

Specifications – 1500W

Input	
DC Voltage (Nominal)	12V DC
Voltage Range	10.5 ~ 15V DC
Idle current draw	≤1.1A
Typical Efficiency	90 ~ 96%
Fuse	40A x 6
Output	
AC Voltage	240V AC
Rated power	1500W
Surge Power	3000W (20m - resistive)
Waveform	Pure Sine Wave (< 3% THD)
Frequency	50Hz ±0.05%
AC Regulation	±10%
Power factor range	COSθ-90°~COSθ+90°
Safety Standards & EMC	
Compliance	Certified EN 60950-1; 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013.
Insulation resistance	100M Ohms at 500VDC
EMI conduction and radiation	Certified EN 62040-2:2006,EN61000-3-2; EN61000-3-3;
EMS Immunity	Certified IEC61000-4-3, IEC61000-4-6
E-MARK	Certified ECE RIO.05:2014

Environment	
Working Temp.	0 ~ +50°C
Working Humidity	20 ~ 90%RH non-condensing
Storage conditions	-30 ~ +70°C 10 ~ 95%RH
Over temperature	Shut off output voltage, recover when fault rectified.
Over current	Shut off output voltage, restart to recover
Protection	
Battery low alarm	10.5V ±0.5V DC
Battery low shutdown	10V ±0.5V DC
Over voltage	15.5V ±0.5V DC
Over temperature &/Or Over Current	Shut off output voltage, recover when fault rectified.
Soft Start Earth Fault	Soft start 3-5s. Earth fault - Shut off output voltage
Hardware	
Dimensions (LxWxH)	325.2 x 281.3 x 112.7mm
Packing	5.2kg; 2pcs/11.1kg/0.06m^3
Cooling	Fan controlled by load or thermal conditions

Specifications – 2000W

Input	
DC Voltage (Nominal)	12V DC
Voltage Range	10.5 ~ 15V DC
Idle current draw	≤1.1A
Typical Efficiency	90 ~ 96%
Fuse	40A x 8
Output	
AC Voltage	240V AC
Rated power	2000W
Surge Power	4000W (20m - resistive)
Waveform	Pure Sine Wave (< 3% THD)
Frequency	50Hz ±0.05%
AC Regulation	±10%
Power factor range	COSθ-90°~COSθ+90°
Safety Standards & EMC	
Compliance	Certified EN 60950-1; 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013.
Insulation resistance	100M Ohms at 500VDC
EMI conduction and radiation	Certified EN 62040-2:2006,EN61000-3-2; EN61000-3-3;
EMS Immunity	Certified IEC61000-4-3, IEC61000-4-6
E-MARK	Certified ECE RIO.05:2014

Environment	
Working Temp.	0 ~ +50°C
Working Humidity	20 ~ 90%RH non-condensing
Storage conditions	-30 ~ +70°C 10 ~ 95%RH
Over temperature	Shut off output voltage, recover when fault rectified.
Over current	Shut off output voltage, restart to recover
Protection	
Battery low alarm	10.5V ±0.5V DC
Battery low shutdown	10V ±0.5V DC
Over voltage	15.5V ±0.5V DC
Over temperature &/Or Over Current	Shut off output voltage, recover when fault rectified.
Soft Start Earth Fault	Soft start 3-5s. Earth fault - Shut off output voltage
Hardware	
Dimensions (LxWxH)	325.2 x 281.3 x 112.7mm
Packing	5.2kg; 2pcs/11.1kg/0.06m^3
Cooling	Fan controlled by load or thermal conditions

Specifications – 3000W

Input	
DC Voltage (Nominal)	12V DC
Voltage Range	10.5 ~ 15V DC
Idle current draw	≤1.2A
Typical Efficiency	90 ~ 96%
Fuse	40A x 12
Output	
AC Voltage	240V AC
Rated power	3000W
Surge Power	6000W (20m - resistive)
Waveform	Pure Sine Wave (< 3% THD)
Frequency	50Hz ±0.05%
AC Regulation	±10%
Power factor range	COSθ-90°~COSθ+90°
Safety Standards & EMC	
Compliance	Certified EN 60950-1; 2006+A11: 2009+A1: 2010+A12: 2011+A2: 2013.
Insulation resistance	100M Ohms at 500VDC
EMI conduction and radiation	Certified EN 62040-2:2006,EN61000-3-2; EN61000-3-3;
EMS Immunity	Certified IEC61000-4-3, IEC61000-4-6
E-MARK	Certified ECE RIO.05:2014

Environment	
Working Temp.	0 ~ +50°C
Working Humidity	20 ~ 90%RH non-condensing
Storage conditions	-30 ~ +70°C 10 ~ 95%RH
Over temperature	Shut off output voltage, recover when fault rectified.
Over current	Shut off output voltage, restart to recover
Protection	
Battery low alarm	10.5V ±0.5V DC
Battery low shutdown	10V ±0.5V DC
Over voltage	15.5V ±0.5V DC
Over temperature &/Or Over Current	Shut off output voltage, recover when fault rectified.
Soft Start Earth Fault	Soft start 3-5s. Earth fault - Shut off output voltage
Hardware	
Dimensions (LxWxH)	442.2 x 261.3 x 112.7mm
Packing	8kg; 2pcs/17kg/0.08m^3
Cooling	Fan controlled by load or thermal conditions