E5 Hybrid Energy Storage System

It’s time to embrace your energy independence

With the E5 Hybrid Inverter and Battery Storage System, you create your own secure supply of energy when the grid lets you down.

Powered by Panasonic's own cell "pack", the BX6.0 includes 6 safety mechanisms, layered steel casing, 5000kg impact tested and an IP55 rating for the battery and IP65 rating for the inverter, making it the safest home energy storage device.

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www.deltapvi.com.au

DELTA

Smarter. Greener. Together.

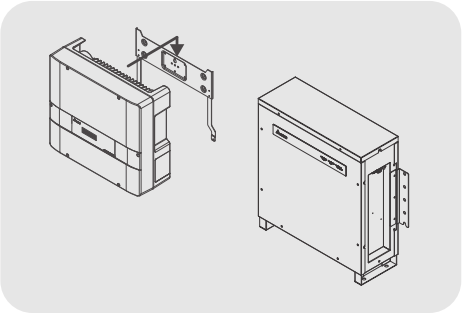
Product Features

Delta Integrated Solution

E5 inverter, BX6.0 battery and S4 monitoring system seamlessly integrate for a complete solution.

Easy Plug & Play Installation

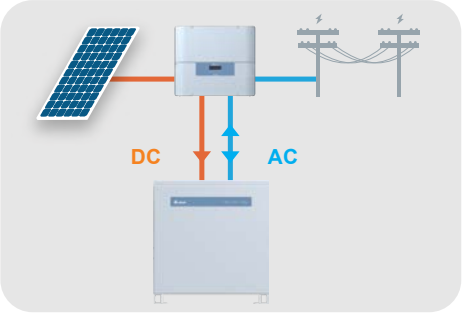
Compact design for easy installation. Battery can be free standing or wall mounted. Easily expand battery modules using daisy chain connection. No external ATS required.



A True Hybrid System

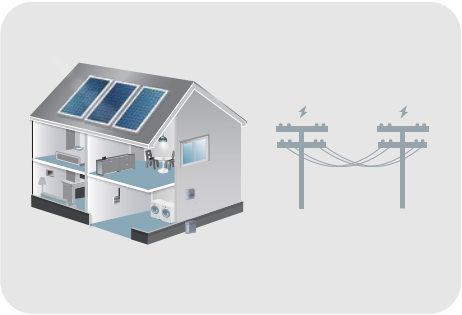
The E5 inverter is a true Hybrid BRI (battery ready inverter). Acting as a traditional inverter with the one exception that it can “Island” during a power cut delivering energy to your key loads.

This is provided your solar panels are generating electricity. This can happen without a battery installed.



Zero Export Capable

Some areas require limiting the energy exported to the grid. Utilising our colour touch screen and power CT you can meet this requirement. This is done using the Delta S4 management panel.



Warranty

All components are covered by Delta's 5 year (or optional 10 year) warranty backed by Australian based customer support team. The BX6.0 comes with a 10 year / 12.6MWh warranty standard.

System Additions

Power Meter

The P1 (Single Phase) and P3 (Three Phase) can measure your energy purchased, exported, stored and self consumed. The S4 will display this in real time as it happens.

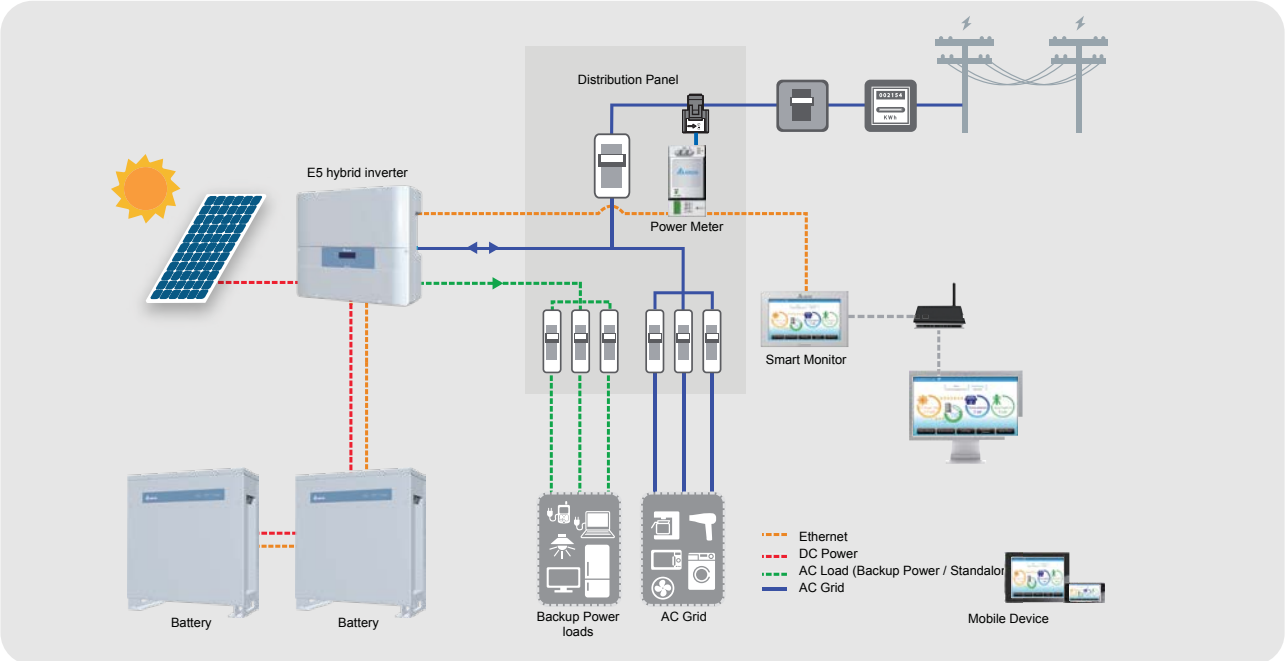
Battery

Pair the BX6.0 to the E5 and you have instant "Energy Security" for when the grid lets you down. Also saving your money by storing your free solar energy for use later on.

Smart Monitor

The S4 brings a new dynamic to managing your energy. Choose when and how you want energy delivered. View the real time status of your battery and consumption.

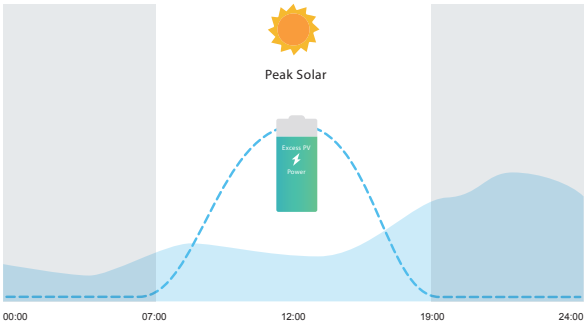
System Diagram



Smart Monitoring

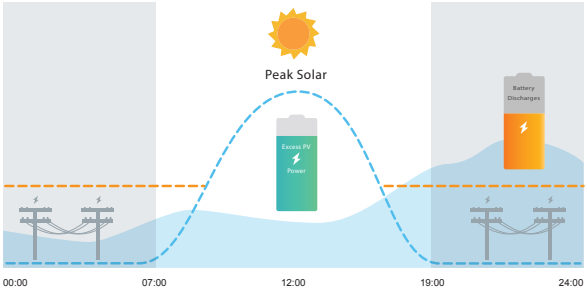
Maximise Your Energy Consumption

Set to "Self Consumption" mode and the Delta product just works. As time allows you to become more familiar you can try different modes and select the one that best suits your personal needs, there are many to choose from.



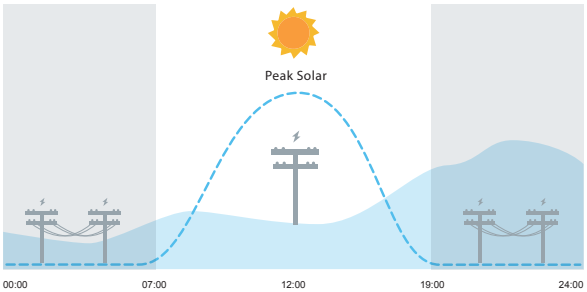
Self-Consumption Mode

This setting allows you to maximise the use of self-generated solar energy by storing excess power produced during the day for later use. In this mode the inverter will act as a standard hybrid inverter with the added advantage of being able to program different battery charge and discharge times for purchasing and exporting energy to the grid. When there is no PV power, the battery will supply home load until the available stored energy is consumed (night time).



Peak Cut Mode

This setting helps reduce peak demand and subsequent cost from the grid provider by discharging batteries at a predefined ‘peak level’. When the home load exceeds the ‘peak level’ (set by the installer), the battery will discharge to assist in reducing the homes energy usage. This allows the stored energy to be used at times of the day when savings are greatest.



Without Battery Mode

This allows the E5 hybrid inverter to operate as a standard grid-connected inverter until the home owner is ready to add the battery unit. Using the battery bypass mode you can still deliver energy to the key circuits in the event of a power failure with the E5 “Islanding” feature. Islanding without a battery simply requires the PV to be generating energy.

Back Up Power Supply

Solar stand-alone power supply

The Delta hybrid system can act as a standalone power supply. Paired with an appropriately sized solar array you can power that remote location where grid energy is not available.

There are locations utilising this function in Australia already. The stand-alone function of the Hybrid E5 nverter allows the owner to use the battery to power key loads when the grid is not available.

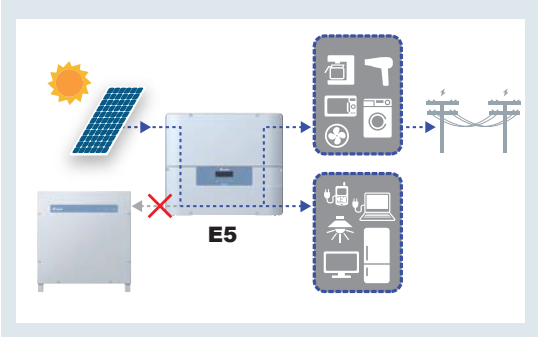
This function will activate automatically during a power outage, although the E5 also has a button to manually switch the system to stand-alone mode if desired.

This function is particularly useful in regions where grid power is not regularly reliable. The inverter still powers the loads.

* Delta storage system is completely compliant with the grid standard which stands to maintain the stability of feed in power, E5 will only change to back-up mode 3 secs after black out.

PV inverter only

If battery is not installed yet, the E5 inverter can work independently as a regular PV inverter.



Manual bypass

Delta has built in redundancy that allows you to bypass the inverter if necessary.

BX 6.0 Li-Ion Battery

Reliable

- Stand-alone fulltime for remote installs
- All in one, all Delta - battery and inverter manufactured by Delta
- One call support based in Australia

High Performance

- Black-out protection
- Heat saturated test at 40°C for 24 hours

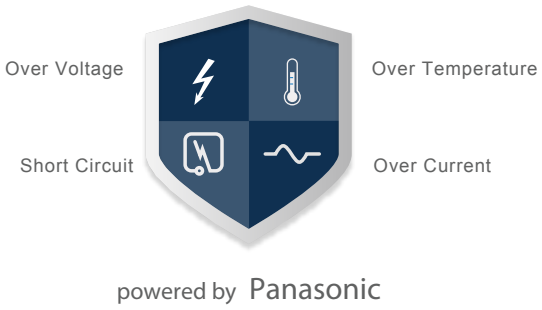
Easy Set Up

- Easy plug & play installation.
- Expandable battery modules by daisy chain
- Compatible with Delta E5 Hybrid Inverter

Safe

- Fortified steel battery casing
- 4 layer protection
- Fire tested
- IP55 protection level
- 5000kg Impact tested

4x Battery Production



powered by Panasonic

Safe and Powerful

Built using Panasonic Li-ion battery pack with 18650 cell. A range of different alloys have been integrated into the battery to make it safer and to increase its lifespan.

Impact Protection

The strengthened metal framework protects the battery from impact, possibly eliminating the need for a bollard. The BX6.0 casing can withstand 5000kg of pressure which is the equivalent to the weight of 4 small vehicles.

Floor or Wall Mounted

The BX6.0 can be easily installed on the wall or floor using the mounting bracket included.

Water-resistant & Dustproof

IP55 Protection level allows the BX6.0 to be installed indoor or outdoor.

Hybrid inverter

Model		E5
DC Input	Startup Power	30w / 125VDC
	Rated voltage	370Vdc
	Recommended PV power	7kW
	MPPT	2
	Max. input current	2×12Adc
	Operating voltage range	100Vdc ~ 550Vdc
	MPP voltage range	220Vdc ~ 450Vdc
AC Output	Rated output power	5000VA
	Rated voltage	230Vac
	THD	< 3% at rated power
Efficiency	Peak efficiency	97.2%
	European efficiency	96.5%
Information	Communication port	RS-485
	Display	20 x 4 LCD
Standalone power		3600VA
Communication		RS-485
Environment		Outside
Operating temperature		-25 ~ 60°C
Relative humidity		0 ~ 100%, non-condensing
Dimensions(unit)		510 x 445 x 177 mm
Weight		27kg
Cooling		Natural cooling
Installation type		Indoor/outdoor
Enclosure rating		IP65
Certificates		IEC 62109-1/-2 IEC 62040 ARN-4105 IEC-62116

Battery

Model	BX_6.0
Battery supplier	Panasonic
Nominal capacity	6kWh
Usable capacity (80% DoD)	4.8kWh
Cycle stability (80% DoD)	6000
Voltage range	85 ~ 104 VDC
Nominal charging power	2.5kW
Nominal discharging power	3.6kW
Max. charging current	30A
Max. discharging current	35A
Battery technology	Li-ion
Dimensions	552 x 596 x 200 mm
Weight	75kg
Enclosure rating	IP55
Installation type	Indoor/outdoor
Ambient temperature range	-10 ~ 45°C
Permitted humidity	0 ~ 90%
Certificates	UN38.3
Warranty	10 Years / 12.6MWh*

*Whichever comes first

Power meter

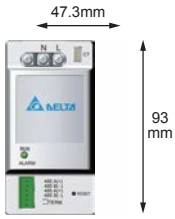
Model	PPM P1E-000	PPM P3E-000
Phase	1	3
Communication	RS-485	RS-485
Information	LED indicator	LED indicator
Rated operating voltage(L – N)	100Vac ~ 240Vac	230Vac
Operating voltage range(L – N)	85Vac ~ 264Vac	130Vac ~ 260Vac
Operating current limit	120A	120A
Rated frequency	45 ~ 65 Hz	45 ~ 65 Hz
Power consumption	Max. 2 Watt	Max. 3 Watt
Power consumption with N1	Max. 4 Watt	Max. 6 Watt
Safety standard	IEC 60950-1	
Emission	EN 55022 class B	
Immunity	EN 61000-6-2	
Operation temperature	-20°C ~ 50°C	
Storage temperature	-20°C ~ 60°C	
Relative humidity	30% ~ 85%	
Dimension	93 × 47.3 × 66.5 mm	93 × 70 × 66.5 mm
Weight	145 g without CT	200 g without CT

Smart monitor

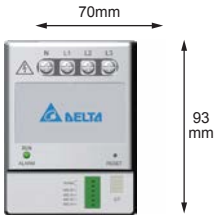
Module	PPM R4
Rated operating voltage	12Vdc
Operating voltage range	10Vdc ~ 16Vdc
Power consumption	< 6 Watt (Without USB port)
Safety standard	EN 62109-2
Emission	EN 55022 class B
Immunity	EN 61000-6-2
Information	LCD Display Touch resistive screen 7 inch TFT LCD, 800 x 480 pixel, 24 bit RGB
Power Supply	PoE (Supplied from inverter)
Communication	RS-485
Operation temperature	-20°C ~ 50°C
Storage temperature	-20°C ~ 60°C
Relative humidity	30% ~ 85%
Dimension	120 × 190 × 32 mm
Weight	440 g

* Power meter and smart monitor are optional.

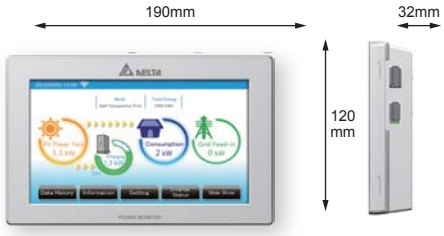
P1E



P3E

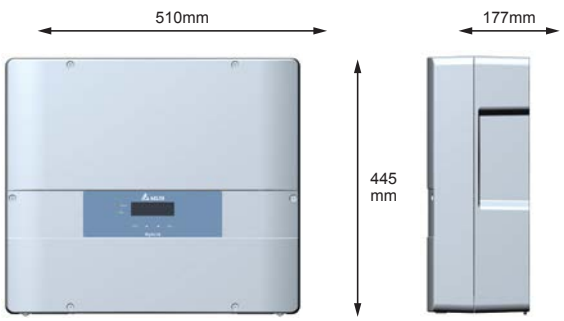


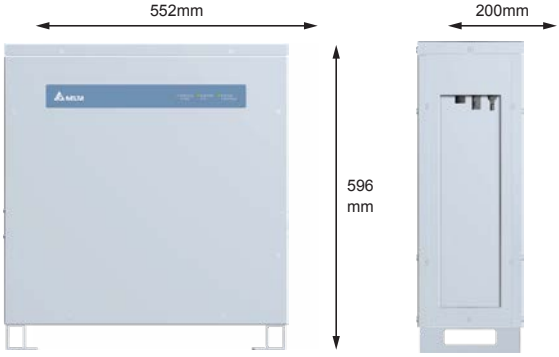
R4

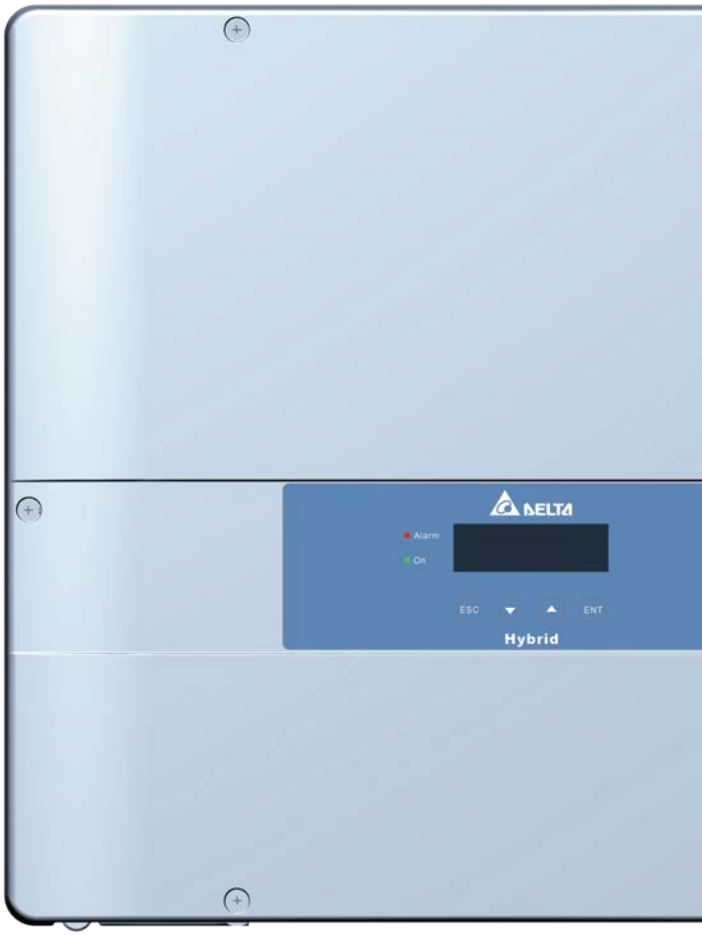


Battery box

E5







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