

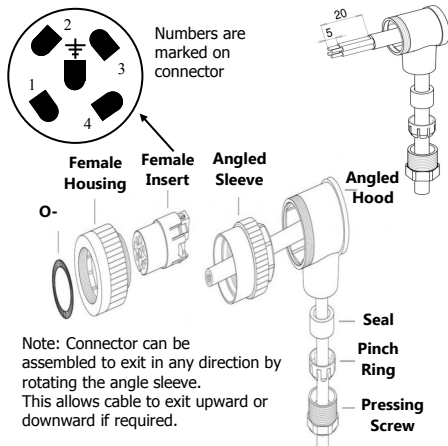
2: Connector Assembly:

Assemble each connector following the guide below

5 PIN Power Connector Assembly: PF-PC-05-FM-L

Pin connections for main power connector
(Recommended cable: 4.0mm² 5 core flex)

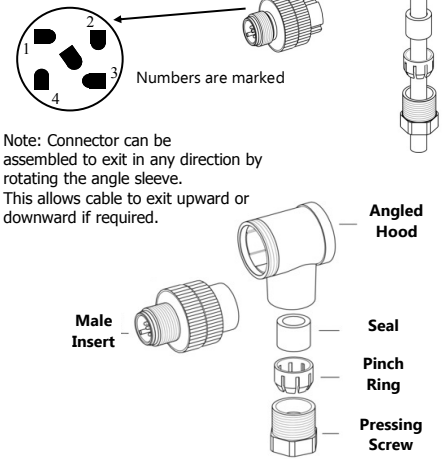
- PIN 1:** Live In (from supply) **(Brown)**
- PIN 2:** Live Output 1 (to load 1) **(Black)**
- PIN 3:** Live Output 2 (to load 2) **(Grey)**
- PIN 4:** Neutral **(Blue)**
- CENTRE PIN:** Protective Earth **(Green/Yellow)**



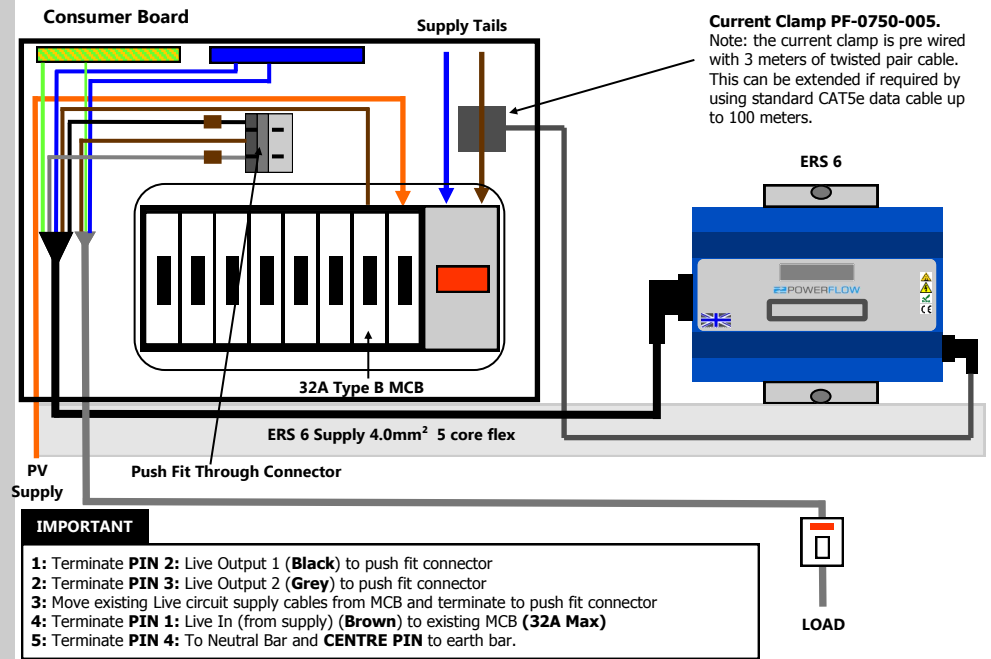
5 PIN Current Clamp Connector: PF-CC-05-ML

Pin connections for current clamp connector

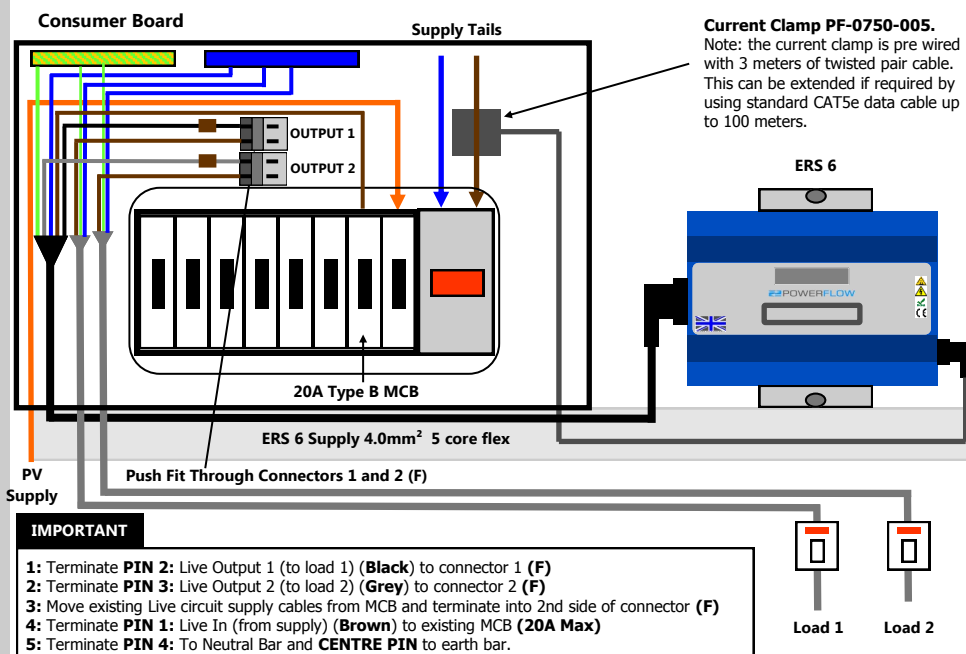
- PIN 1:** Spare
- PIN 2:** Spare
- PIN 3:** Live (Black)
- PIN 4:** Ground (White)
- CENTRE PIN:** Spare



3: Wiring Diagram: Typical wiring configuration for ERS 6 Blue Edition: Parallel Mode



3: Wiring Diagram: Typical wiring configuration for ERS 6 Blue Edition: Serial Mode



5: Commissioning

Before switching on for the first time, follow the commissioning check list:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. E.R.S has been mounted vertically to a secure heat tolerant surface, the correct way up and with adequate ventilation 2. All cable runs are correctly fixed or supported 3. The main power cable has been terminated observing the correct pin numbers 4. Ensure all the terminations inside the consumer unit are correct and the terminals have been tightened 5. Ensure earth continuity between the earthing bar inside the consumer unit and one of the end plate screws. This should typically be less than 1 ohm 6. Ensure the current clamp connector has been terminated observing the correct pin numbers and is securely clamped around the incoming live supply conductor in the correct orientation between the main meter position and the main consumer board. | Tick
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/> |
|---|--|

Signed: _____

E.R.S Setup:

PowerFlow E.R.S is an intelligent device with no initial setup required. It automatically detects the import/export voltage and current, and the size of the load. At the left hand end plate, push ON/OFF switch to ERS operation.

For use with immersion heaters where hot water is currently heated by;

Gas or Oil boilers: all default settings are optimised for installations containing gas or oil boilers.

To maximise savings, it is advised to retune the boilers domestic hot water timer to come on after sunset to allow the ERS to heat or pre-heat the hot water. This will allow maximum energy capture.

Electric Immersion heating: An external timer using the Auxiliary connection and additional part AUXCONN will be required. Please refer to www.powerflowenergy.com for advice on advanced setup options.

Switch ON:

1. Turn the Power switch forward to the ON (E.R.S) position,
2. The display will Show: **POWERFLOW E.R.S Model: 6.0 V*****
3. The display will switch to the home screen and E.R.S will perform an auto calibrate procedure to start operation. It is not a requirement that the solar or wind system is switched off or that the load is switched on to start operation.

Affix Serial No. label
from carton here

6: Specification

TECHNICAL DATA	POWERFLOW
Output power: Max / Nominal	6000 / 5000 Watts
Output current: Max / Nominal	25A / 21A
Phase Operation	Single Phase
Voltage range / frequency	206-262V / 50 Hz
Fuse Protection (replaceable)	20A (Serial) 32A (Parallel)
Compatible Generator Type	Solar PV / Wind / Hydro
Recommended renewable generator size	10kW + per phase
Output load	Resistive Only
Output control range	5% - 100%
Minimum output load	100 W
Minimum export power level / Export tracking range	25W / 25-200W
General Data	
Dimensions (without connectors) (W / H / D) mm	230 / 160 / 54
Weight	1.9kg
Noise emissions	<10dBA
Self-consumption (night)	8mA
Degree of protection	IP54
Operating temperature range	-10 °C to +60 °C
Cooling concept	Convective Cooling
Efficiency	99%
Compliant Standards	CE / RoHS / BS EN: EMC / LVD



IMPORTANT SAFETY INFORMATION

Caution: Please take note of the following:

- Risk of burns due to hot enclosure.**
During operation the ERS enclosure may become hot to touch. Always use caution when touching the enclosure after long periods of operation.
- DO NOT place objects over the enclosure.**
PowerFlow ERS uses the metal enclosure to dissipate heat. Covering the enclosure may cause product failure. Please ensure adequate ventilation is provided.
For further information refer to the installation guide.
- DO NOT disassemble the ERS unit at any time.**
PowerFlow ERS contains live parts inside, never disassemble the system.

Important: Legionella Advice

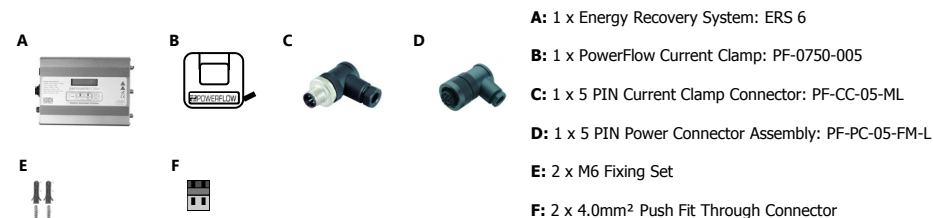
Legionella is a bacteria that can grow in water below 60°C. It is common practice for hot water and heating systems to raise the water temperature on a weekly basis over 60°C in order to kill any bacteria growth. Due to the very nature of ERS it is possible during periods of low energy export to partially heat the water. In systems without a second heating source such as a boiler to 'top up' the water temperature, it is possible that unused warm water could remain in a temperature range where bacteria can grow. Because the particulars of each installation are different, PowerFlow Energy cannot take responsibility for controlling the risk of legionella. It is the installers responsibility to ensure that this risk is controlled. Adequate water exchange and/or additional heating must be supplied in order to raise the water temperature above 60°C on a minimum of a weekly basis. This can be achieved in all electric homes by using the external timer function to override the ERS system once per week. Further advice on Legionella can be found at www.hse.gov.uk/legionnaires

Energy Recovery System ERS 6 Blue Edition Installation Guide

1: Getting Started

Thank you for purchasing the PowerFlow Energy Recovery System, ERS 6. Please read fully, and take note of, the required installation conditions set out by this installation guide, before commencing work. If you are unsure about installation, further design and installation advice can be found in the full technical manual available for download at www.powerflowenergy.com. All electrical work should be carried out by a competent, qualified person and all relevant building regulations should be considered prior to installation.

1.1: Unpacking: PowerFlow ERS 6: The following elements are included:



1.2: Mounting:

When selecting a mounting location (vertically mounted, normally close to the main consumer unit) ensure ERS 6 has enough ventilation. A minimum of 100mm above and to the sides is required. Note the position of the connections when considering mounting.

