Sync Energy Flow

A flexible and scalable Home Energy Management solution, designed to optimise energy storage and use. Available with a choice of 3.6kW or 6kW Hybrid Inverters and modular Battery Storage expandable up to 35.84kWh, the Sync Energy Flow Range can be configured to suit a wide range of property types and energy needs.

Suitable for new installations or retrofit projects, with or without solar (PV), the system provides future-ready energy management with remote monitoring and control via the Sync Energy App.

Key Features:

- **Modular Battery Storage** scalable up to 35.84kWh
- **Hybrid Inverters** available in 3.6kW or 6kW options
- **PV Ready** solar systems can be added at any time
- **Integrated Fire Suppression** for safety and peace of mind
- **Remote Monitoring & Control** via the Sync Energy App
- **UK-Based Technical Support** available by phone or email
- **10-Year Warranty**

At A Glance:

Hybrid Inverter

Feature	Info
Max. Input Power (kW)	3.6kW – 6kW
PV Voltage	550V
AC/DC Surge Protection	Type 2 – Integrated Protection
Cooling Method	Intelligent Fan
Mounting	Wall Bracket or All In One Stack
Battery Type	LiFePo4 Batteries
CEC Efficiency (%)	97%

Storage Battery

Feature	Info
Total Capacity (KWH)	5.12KWH
Life Cycles	6000 Cycles
Cooling Method	Integrated Heating Packs
Depth of Discharge	90%
Battery Type	LiFePo4 Batteries
Handling	Fold Down Handles
Connection	Integrated Stack Connection

Why Choose Sync Energy Flow?

Our investment in the Sync Energy Flow Range demonstrates our commitment to developing smart, sustainable energy solutions that support both our customers and our long-term vision. This flexible system allows homeowners to store energy when it's cheapest or most abundant, and use it when it's needed most, helping to reduce energy costs and improve energy independence.

By storing solar energy, the system can reduce typical solar-only payback periods by up to 50%, with as little as 25% additional of the up-front cost.

The transition to net zero relies on the electrification of energy and the Sync Energy Flow range will enable us to help meet this challenge.

As demand for energy-efficient solutions grows, our systems enable homeowners to make sustainable choices while maximising savings and help us continue to offer competitive, future-ready technology.

Savings from a typical Home Energy Management System

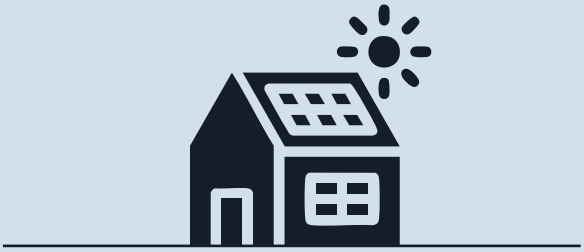
Our HEMs systems will enable consumers to efficiently conrol their energy usage

10pm-6am

Battery changes from the grid at off-peak cost
(Potential to save up to 75% on electricity bills)

6am-10am

Battery used to offset higher
morning peak time costs



3pm-10pm

Battery used to offset higher
evening peak time costs

10am-3pm

Battery used to store energy from solar panels
(Up to 50% faster payback period vs. solar panels alone)

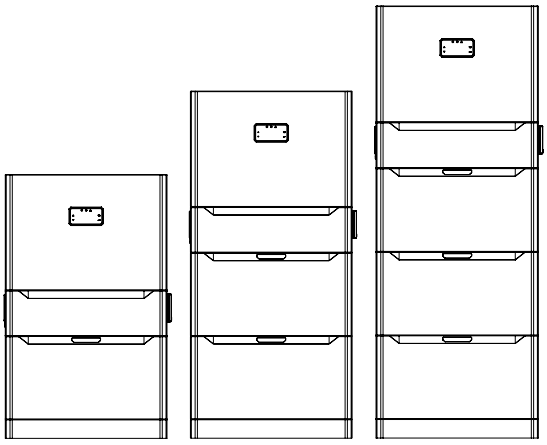
System Configurations

Our products are available as an All in One Kit or individual components for those looking to add to an existing system

This range has been developed for both home users who either have solar panels and want to make the most of their solar energy, or home users who don't have solar yet but want to take advantage of off-peak energy costs by storing energy in our batteries.

All In One Kits

The **All In One** kits offer an energy storage solution; With or without Solar Panels to make the most of off peak energy costs.

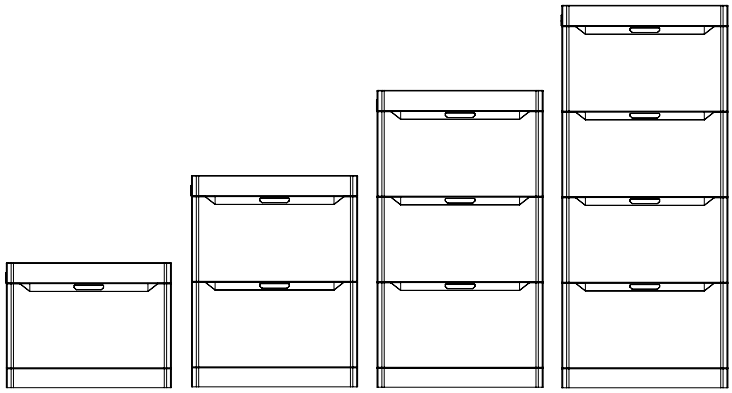


3.6kW All In One Kits	
SEF1A36G1	Sync Energy Flow All In One 3.6kW + 1 Battery
SEF1A36G2	Sync Energy Flow All In One 3.6kW + 2 Batteries
SEF1A36G3	Sync Energy Flow All In One 3.6kW + 3 Batteries

6kW All In One Kits	
SEF1A60G1	Sync Energy Flow All In One 6kW + 1 Battery
SEF1A60G2	Sync Energy Flow All In One 6kW + 2 Batteries
SEF1A60G3	Sync Energy Flow All In One 6kW + 3 Batteries

Batteries

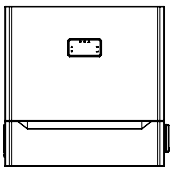
Offering additional **batteries** separately allows for future expansion, enabling you to add up to four extra batteries to your **All In One** Kit.



Battery Stacks	
SEFB512G1	Sync Energy Flow 1 Battery 5.1kW
SEFB512G2	Sync Energy Flow 2 Batteries 10.2kW
SEFB512G3	Sync Energy Flow 3 Batteries 15.4kW
SEFB512G4	Sync Energy Flow 4 Batteries 20.4kW
SEF2MCIBS	2M Inverter to Battery Extension Cable
SEF2MCBBS	2M Battery to Battery Extension Cable

Inverters

A standalone **hybrid inverter** offers the flexibility to add batteries later, while its 150% PV oversupply capability provides greater design freedom and increased capacity to harvest and store solar energy.



3.6kW Inverter	
SEFHI36G	Sync Energy Flow Hybrid Inverter 3.6kW

6kW Inverter	
SEFHI60G	Sync Energy Flow Hybrid Inverter 6kW

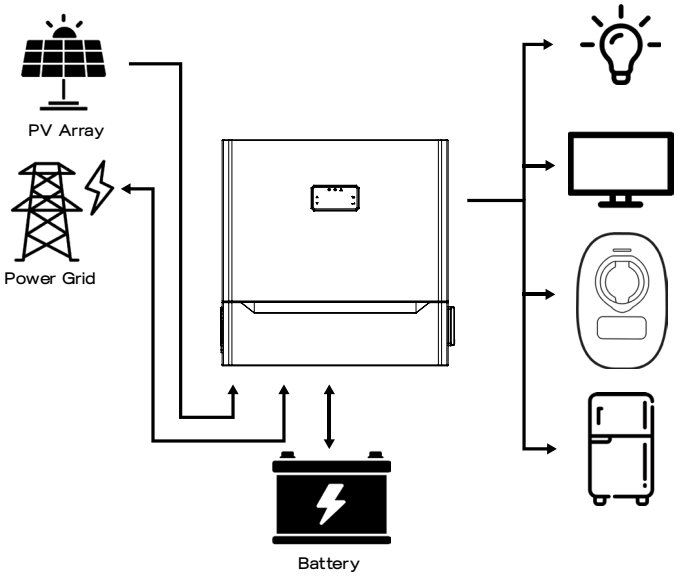
System Diagrams

Hybrid Inverter, Battery Storage and Solar (PV)

A complete home energy management system combining a Hybrid Inverter, modular Battery Storage, and Solar (PV).

This system enables energy storage from both solar generation and the grid, with full grid import/export capability. Optimise energy use by storing excess solar or taking advantage of off-peak electricity rates.

Designed to operate both on-grid and off-grid.

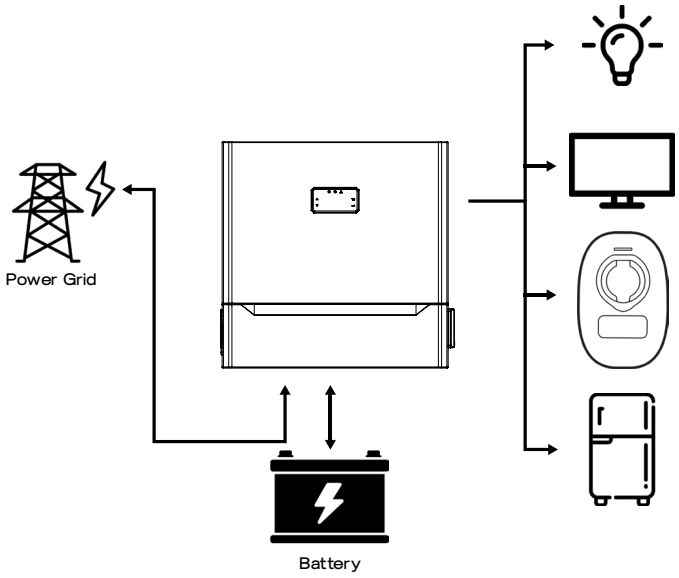


Hybrid Inverter and Battery Storage

A flexible energy storage system combining a Hybrid Inverter and modular Battery Storage.

This system enables energy storage directly from the grid, allowing energy to be stored during off-peak periods for use during peak times.

Designed to operate on-grid, with the option to add Solar (PV) at any time.

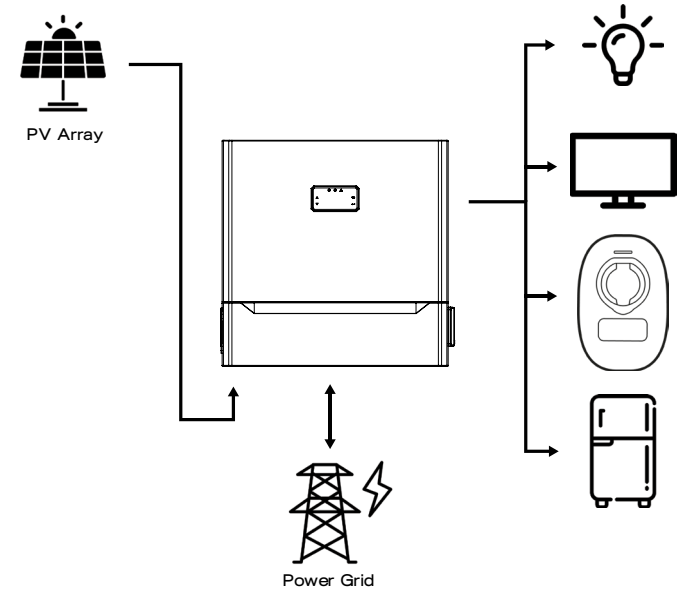


Hybrid Inverter and Solar (PV)

A solar generation system combining a Hybrid Inverter with Solar (PV), without battery storage.

This system enables real-time use of solar energy, with the ability to export excess generation back to the grid.

Designed for on-grid operation, with the ability to add Battery Storage in the future.





3.6kW ALL IN ONE

General Specificatons

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Product	Sync Energy Flow All In One 3.6kW + 1 Battery	Sync Energy Flow All In One 3.6kW + 2 Batteries	Sync Energy Flow All In One 3.6kW + 3 Batteries
Number of Battery Modules	1	2	3
Battery Capacity (kW)	5.12	10.24	15.4
Inverter Power (kW)	3.6	3.6	3.6
Weight (kg)	99.6	150.7	201.8
Dimensions (with Floor Stand) (H x W x D mm)	979 x 621 x 245	1288 x 621 x 245	1597 x 621 x 245
Mounting Installation	Wall Mounting (Inverter Only) Or Floor Stand	Wall Mounting (Inverter Only) Or Floor Stand	Wall Mounting (Inverter Only) Or Floor Stand

Battery Storage

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Nominal Voltage (V)	51.2		
Operating Temperature (Charge) (C°)	Integrated heating below 5		
Operating Temperature (Discharge) (C°)	-20 to +60		
Ambient Temperature (C°)	-15 to +55		
Relative Humidity (%)	65±20		
Charging Current (kW)	3.6		
Recommended Charging Current (A)	50		
Maximum Charge Current (A)	100		
Battery Voltage Range (V)	44.8 - 56.2		
Max. Charge/Discharge Power (kW)	3.6		
Max. Charge/Discharge Current (A)	80		
Battery Type	LiFePo4 (Lithium Ferrous Phosphate)		

PV Input

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Max. Input Power (kW)	5.4 (150%)		
Max. PV Voltage (V)	550		
MPPT Range (V)	80-500		
Full MPPT Range (V)	110-500		
Normal Voltage (V)	360		
Startup Voltage (V)	100		
Max. Input Current (A)	18.5 x 2		
Max. Short Current (A)	26 x 2		
No. of MPP Tracker / No. of PV strings	2 / 2 Independent Strings		

Capital AC

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Max Continuous Current (A)		17	
Max Continuous Power (kVA)		3.6	
Max Peak Current (A) (10min)		24.6/23.5	
Max Peak Power (kVA) (10min)		5.4	
Nominal AC Voltage L-N (V)		220/230	
Nominal AC Frequency (Hz)		50/60	
Switching Time (ms)		Seamless	
Voltage THD (%)		< 3	

Efficiency

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
CEC Efficiency (%)		97	
Max. Efficiency (%)		97.6	
PV to Bat. Efficiency (%)		98.1	
Bat. Between AC Efficiency (%)		96.8	

Protection & Safety

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
PV Reverse Polarity Protection		YES	
Over Current/Voltage Protection		YES	
Anti-Islanding Protection		YES	
AC Short Circuit Protection		YES	
Residual Current Detection		YES	
Ground Fault Monitoring		YES	
Insulation Resistance Detection		YES	
Enclosure Protect Level		IP65	
AC/DC Surge protection		Type II Intergrated Protection	
Topology		Transformerless	
Cooling Method		Intelligent Fan	
Operating Altitude (m)		< 2000	
Noise Emission (dB)		< 25	
Standby Consumption (W)		< 10	
Fire Suppression Module		Intergrated In Each Battery Module	

Efficiency

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
App		Powered By Sync Energy	
Warranty		10 Years / 6000 Cycles	
Display & Communication Interfaces		LCD, LED, RS485, CAN, Wi-Fi Ethernet	
Certification & Approvals		G98/G99 EN62109-1, EN62109-2	
EMC		EN61000-6-2, EN61000-6-3	



6kW All IN ONE

General Specificatons

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Product	Sync Energy Flow All In One 6kW + 1 Battery	Sync Energy Flow All In One 6kW + 2 Batteries	Sync Energy Flow All In One 6kW + 3 Batteries
Number of Battery Modules	1	2	3
Battery Capacity (kW)	5.12	10.24	15.4
Inverter Power (kW)	6	6	6
Weight (kg)	99.6	150.7	201.8
Dimensions (with Floor Stand) (H x W x D mm)	979 x 621 x 245	1288 x 621 x 245	1597 x 621 x 245
Mounting Installation	Wall Mounting (Inverter Only) Or Floor Stand	Wall Mounting (Inverter Only) Or Floor Stand	Wall Mounting (Inverter Only) Or Floor Stand

Battery Storage

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Nominal Voltage (V)	51.2		
Operating Temperature (Charge) (C°)	Integrated heating below 5		
Operating Temperature (Discharge) (C°)	-20 to +60		
Ambient Temperature (C°)	-15 to +55		
Relative Humidity (%)	65±20		
Charging Current (kW)	5.2		
Recommended Charging Current (A)	50A		
Maximum Charge Current (A)	100A		
Battery Voltage Range (V)	44.8 - 56.2		
Max. Charge/Discharge Power (kW)	6		
Max. Charge/Discharge Current (A)	120		
Battery Type	LiFePo4 (Lithium Ferrous Phosphate)		

PV Input

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Max. Input Power (kW)	9 (150%)		
Max. PV Voltage (V)	550		
MPPT Range (V)	80-500		
Full MPPT Range (V)	170-500		
Normal Voltage (V)	360		
Startup Voltage (V)	100		
Max. Input Current (A)	18.5 x 2		
Max. Short Current (A)	26 x 2		
No. of MPP Tracker / No. of PV Strings	2 / 2 Independent Strings		

Capital AC

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
Max Continuous Current (A)		28	
Max Continuous Power (kVA)		6	
Max Peak Current (A) (10min)		41/39.2	
Max Peak Power (kVA) (10min)		9	
Nominal AC Voltage L-N (V)		220/230	
Nominal AC Frequency (Hz)		50/60	
Switching Time (ms)		Seamless	
Voltage THD (%)		< 3	

Efficiency

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
CEC Efficiency (%)		97	
Max. Efficiency (%)		97.6	
PV to Bat. Efficiency (%)		98.1	
Bat. Between AC Efficiency (%)		96.8	

Protection & Safety

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
PV Reverse Polarity Protection		YES	
Over Current/Voltage Protection		YES	
Anti-Islanding Protection		YES	
AC Short Circuit Protection		YES	
Residual Current Detection		YES	
Ground Fault Monitoring		YES	
Insulation Resister Detection		YES	
Enclosure Protect Level		IP65	
AC/DC Surge protection		Type II Intergrated Protection	
Topology		Transformerless	
Cooling Method		Intelligent Fan	
Operating Altitude (m)		< 2000	
Noise Emission (dB)		< 25	
Standby Consumption (W)		< 10	
Fire Suppression Module		Intergrated In Each Battery Module	

Efficiency

Product Code	SEF1A36G1	SEF1A36G2	SEF1A36G3
App		Powered By Sync Energy	
Warranty		10 Years / 6000 Cycles	
Display & Communication Interfaces		LCD, LED, RS485, CAN, Wi-Fi Ethernet	
Certification & Approvals		G98/G99 EN62109-1, EN62109-2	
EMC		EN61000-6-2, EN61000-6-3	