

KITS EFM CirPower Hybrid



Self-consumption photovoltaic kits for on-grid or off-grid systems

Description

The **EFM CirPower kits** are specifically designed to meet the energy needs of those customers who either have an on-grid or off-grid electrical installations. With these kits, the user will have the essential elements of the whole photovoltaic energy system, with the certainty that those elements have been correctly selected for their installation. The **EFM CirPower Hybrid** kits guarantee 0 network injection or controlled injection.

The kits comprise the following material:

- Photovoltaic modules (adapted to the power of each reference)
- Support structures to secure the photovoltaic modules to any type of surface.
- Multi-management hybrid solar inverter with web monitoring (**CirPower Hybrid** model)
- **CIRCUTOR REA** compact battery cabinet (or in a rack depending on capacity)
- Electric cabinets with all necessary AC/DC protections; measuring and monitoring.

The main advantages of these kits are:

- Reduced grid energy consumption and contracted power.
- Reduced fuel consumption and emissions in gensets.
- Monitoring and management of the electrical consumption.
- Function (UPS): ensures the working of the loads in case of a failure in the grid.
- **CIRCUTOR** warranty for the whole kit.
- Documentation, schematic diagrams and technical assistance for all components.
- Reduction of the logistics supply chain and number of suppliers for each system (1 supplier for the whole site instead of 1 supplier per component)
- Dimensioning study according to the user's consumption profile (modules, inverter, protections and structure).
- Using OPzV batteries without maintenance

Applications

- On-grid photovoltaic system installations with energy storage in batteries.
- Off-grid systems with energy storage in batteries.
- Micro-grids.
- Self-consumption systems without grid injection or with controlled injection.

Technical features

Photovoltaic modules	Type	Polycrystalline modules
	Power	260 Wp
	Performance	16,2 %
	Dimensions	1640 x 992 x 40 mm
	Standards	PV Cycle, IEC 61215, IEC 61730
Support structures	Types	Sloped or flat roof for horizontal or vertical modules, single or double rows.
	Type of material	Anodised aluminium Stainless steel fasteners
	Quality certificate	NBE-AE 88
Inverter	Connection	Single-phase
	Power	4000 W
	Voltage range	150...700 V _{dc}
	MPPT voltage range	180...650 V _{dc}
	Maximum efficiency	98 %
	Charge controller	Integrated MPPT
	Charge/discharge current	80/40 A
	Communications	RS-485 / Ethernet / CAN Bus
	Functional features	Web Server with monitoring, integrated <i>data logger</i>
	Standards	EN 62109-1, EN 62109-2, IEC 62116, VDE 0126-1-1, VDE AR-N4105, CEI 0-21, RD 1699:2011, G59/1-2, UNE 217001 IN

KITS EFM

CirPower Hybrid

Self-consumption photovoltaic kits for network connected or isolated installations

Technical features

Batteries	Type	REA compact cabinet or rack of elements depending on the capacity
	Battery Type	OPzV without maintenance
	Battery voltage	48 V
	Standards	EN 50272-2, IEC 61427, DIN 43539T5, IEC 60896-21/-22, Eurobat Long Life KfW
Electric panels	DC protections	<ul style="list-style-type: none"> – gPV rapid disconnection fuses with fuse holders – Overvoltage protections
	AC protections	<ul style="list-style-type: none"> – RCCB with ultra-immunised type A circuit breaker – AC overvoltage protections for each output
	Monitoring	CVM-MINI power analyzer
	Battery protection	2 gPV fuse box in separate panel
	Quality certificate	Individual Test Report Certified electric panel with serial number for traceability

References

Type	Code	Daily consumption	PV power	Battery
EFM-HYB-25-100	E7K111	8600 Wh/day	2600 Wp	48 V / 160 Ah
EFM-HYB-35-100	E7K121	12000 Wh/day	3640 Wp	48 V / 330 Ah
EFM-HYB-40-130	E7K132	13300 Wh/day	4160 Wp	48 V / 330 Ah
EFM-HYB-50-130	E7K142	16100 Wh/day	4680 Wp	48 V / 330 Ah

All the kits use the CIRCUTOR single-phase hybrid inverter with 1x230 V, 4 kW nominal power and 48 V battery voltage. All the kits include combiner box and string box (electrical panels in general) with protection and monitoring devices. For other options or special needs, please contact with your commercial agent.
All **EFM-HYB Kits** can be supplied without batteries, please contact us for more information.