

Fagor solar inverter

Grid connection with top efficiency



▶ THREE-PHASE INVERTERS

- Consisting of the following subsystems:
 - A three-phase inverter module (400V AC, 3F).
 - Connection system and protections from the inverter to the photovoltaic field.
 - A system for connection/disconnection to/from grid
 - A monitoring, control and protection system.
 - A galvanic isolation transformer connected to the inverter output.
 - Maximum power point tracking (MPPT).
- Easy parameter setting, installation and operation.
- RS485 communication.

Friendly interface





FSI - 25

FSI - 50

FSI - 100

MPPT voltage range	410 - 750 Vdc		
Maximum voltage without load (it must never be exceeded considering low temperatures)	900 Vdc		
Maximum current	55 A	110 A	220 A
Short-circuit and grounding	70 A	130 A	250 A
Connection system and grounding	Yes, automatic		

Rated output power	25 Kw ac	50 Kw ac	100 Kw ac
Maximum power	26 Kw ac	55 Kw ac	105 Kw ac
Rated voltage	400 V AC, 3F (+10%, -15%)		
Frequency	49 51 Hz		
Power factor	Adjustable between 0.9 and 1		
Output harmonic distortion (THD)	< 3% at rated power		
Isolation transformer	Yes		
Efficiency Including the transformer	> 96%		
European Efficiency including the transformer	> 95%		
Control structure	Control logic and DSP. SVM technology		
Soft start	Yes		
Communications	RS 485 communications port		

Standards	RD 1663/2000 EMC EN 50081-1 and 50081-2 standards EN 50178 low voltage standard CE seal		
Maneuvers	Start / Stop Grid on / off		
Running temperature	0 C a 45 C		
Relative humidity	0 95% non condensing		
Dimensions	1300 x 600 x 600	1900 x 800 x 800	1900 x 800 x 800
Approx.	390 kg.	850 kg.	980 kg.
Degree of protection	IP20		

Over-voltage Over-current	At input and output		
Reversed polarity Over-temperature Maximum and minimum frequency Maximum and minimum voltage	Yes		
Anti-islanding	Automatic disconnection from grid		
Panels	Short-circuit and grounding		

<p>Remote monitoring system, including:</p> <ul style="list-style-type: none"> Access to corporate portal via internet with user name and password - alarm analysis and evaluation. Analysis by downloading detailed reports. Failure warnings and alarms via e-mail, fax or SMS. Weather stations. GSM communications. <p>With / Without transformer. Warranty contract extension. Additional preventive maintenance services. Start-up service.</p>
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▶ SINGLE-PHASE INVERTERS

FSI - 2.5



MPPT voltage	125 - 420 Vdc.
Maximum input voltage	450 Vdc.
Maximum power of the PV panels	3000 w
Maximum input current	23,1 Amp.

Rated power	2.500 W
Maximum power	2.750 W
Rated Mains voltage	230 Vac. (195,5 - 253 Vac.)
Frequency	50 Hz (49 - 51 Hz)
Maximum current	12 Amp.
Harmonic distortion (THD)	< 3%
Power factor	~1, meets RD1663/2000
Maximum efficiency	> 94 %

Degree of isolation	IP21 / IP65
Running temperature	-20 C to +60 C
Its own consumption	< 10 W
Approx.	11,6 Kg
Communication	Standard RS-485

CE seal.
Royal decree 1663/2000, on connection of photovoltaic installations to low-voltage mains.
EN 61000-6-2 and 3, EN 61000-3-2, EN61000-3-3, EN 50178.

Reverse input polarity.
Input over-voltage and over-current.
Ground leaks at the input line.
Output short-circuit and overload.
Maximum and minimum voltage and frequency according to RD 1663/2000.
Anti-islanding.

With Fagor technology



- Galvanic isolation through high frequency transformer.
- Optimum efficiency through state-of-the-art electronic structure.
- With well-proven reliability of a leader with years of experience in control and power electronics.

Standard display

The standard display lets you monitor the instant production, system alarm warnings and auto-diagnosis.



Different connection options



▶ MONITORING

FSI - Monitor-Soft

User-friendly PC application for communication between a PC and FSI 2.5 inverters.

MAIN CHARACTERISTICS:

- RS485 serial communication between the inverters and a PC.
- Up to 247 FSI 2.5 inverters may be connected.
- USB adapter available

FUNCTIONALITY:

- Inverter setup tool.
- Monitoring and history of data, alarms, errors.
- Data log in CSV files.
- Graphic representation of captured data.
- Different access levels.



FSI - Datalogger

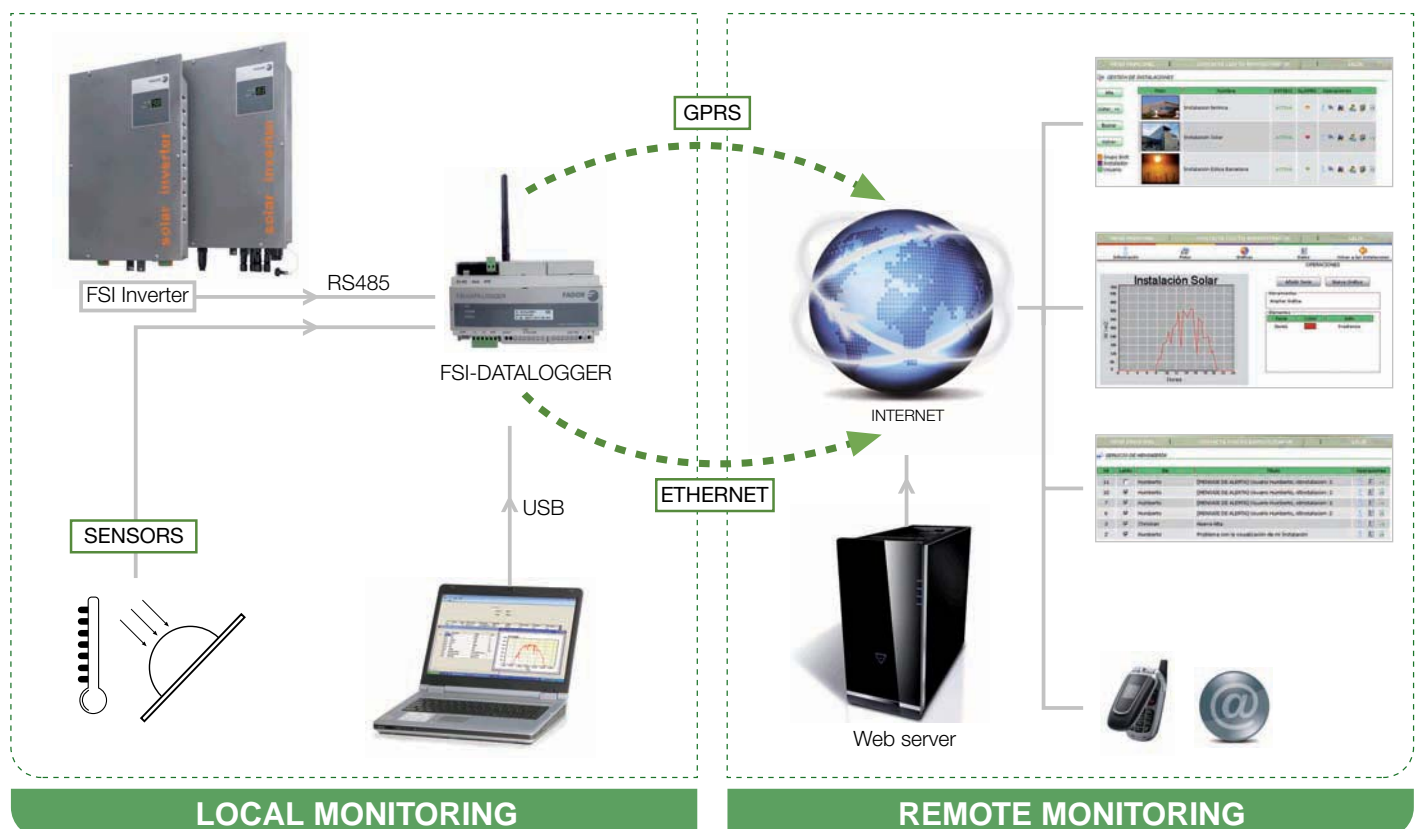
Communication device for capturing and sending data, alarms, etc. of FSI inverters on WEB server.

MAIN CHARACTERISTICS:

- Programmable data capture intervals.
- Automatic sending of data to a WEB server.
- Quick and easy internet access to captured data.

FUNCTIONALITY:

- Reading of the desired variables of FSI inverters through the RS485 serial line.
- Automatic sending of captured data, alarms and errors to the server through ETHERNET or GPRS.
- Analog and digital inputs with the following functionalities:
 - Irradiance measurement.
 - Room temperature and panel temperature measurement.
 - Wind velocity and direction measurement.
 - Counter power and energy reading.
 - Output to activate the sound or visual alarm.
- Quick and safe access to plant data protected by password.
- Programmed transmission of SMS or email with desired data.

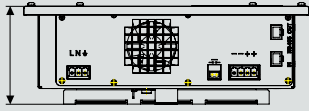


LOCAL MONITORING

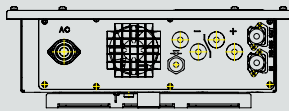
REMOTE MONITORING

▶ DIMENSIONS

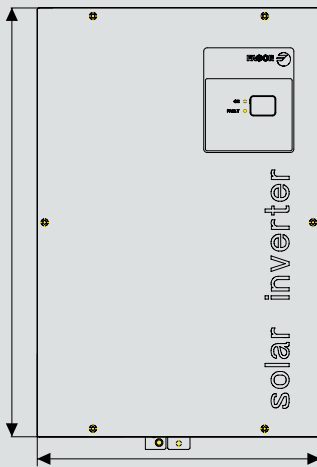
Single-phase inverters



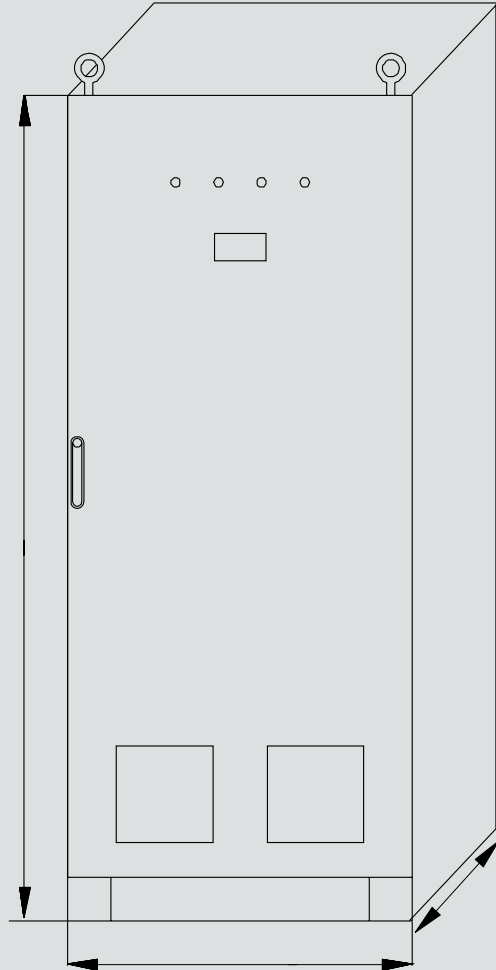
Indoor IP-21



Outdoor IP-65



Three-phase inverters



FSI-25	1300mm.	600mm.	600mm.
FSI-50	1900mm.	800mm.	800mm.
FSI-100	1900mm.	800mm.	800mm.

Distributor

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HELVETICA FSI EN 0708