

Sirio Central inverters allow direct connection to the low voltage grid ensuring the galvanic separation compared to direct current installations. The generous rating of the transformer and the other inverter components provides a return of the highest among the machines of the same category.

Maximum energy and safety

The Maximum Power Point Tracking (MPPT) research algorithm implemented in the control system of Sirio Central inverters allows full use of the photovoltaic generator in any radiation and temperature conditions, making the plant work constantly at maximum efficiency. In the absence of solar radiation the converter goes on standby and resumes normal operation when there is radiation again. This feature reduces self-consumption to a minimum

and maximizes energy efficiency. The use of speed-controlled fans helps to optimize the overall efficiency of the inverter. Fan operation that is linked to the temperature also increases the expected lifespan and reduces costs incurred for extraordinary maintenance. All these design features, the careful choice of components and guaranteed quality of production according to ISO9001 standards make the three-phase inverters Sirio extremely efficient and reliable and guarantee maximum energy production.

Thermal derating

Derating as a function of temperature aimed to safeguard against overheating inverter semiconductors in the case of environments with temperatures exceeding installation specifications or for forced ventilation faults, without causing a complete block of the inverter itself. Sirio Central models ensure rated power output up to 45°C environment. If this threshold is exceeded, the inverter gradually decreases the power fed into the network in such a way as to maintain heat sink temperature within the maximum limit. Once back in the range of thermal normal operation, the inverter restores the optimal working point, again ensuring maximum power transfer.

Easy installation and maintenance

The footprint of these devices has been considerably reduced and there is no need to leave space at the side or back of the equipment since the electronics and power components are fully accessible from the front. Fully automatic operation ensures ease of use and facilitates installation and startup, thus avoiding installation and configuration errors which could lead to failures or reduced plant productivity.

Personalized solutions

AROS is able on request to supply Sirio Central inverters specific to the client's needs. Available options include the integrated isolation control and the pole/earth connection kit (positive or negative) that is required for some kinds of photovoltaic modules.

Certificate of Factory Inspection

Sirio Central inverters meet "Made in EU" criteria as they are designed, manufactured and tested in Italy.



Central Inverters

User Interface

Sirio Central inverters provide a series of new user interfaces composed of an LCD colour touch screen in a convenient 4.3" format. The millions of colours and quantity of features greatly enrich the user's interaction experience with the solar inverter.

Intuitive icons and brief messages in the set language guide users through the simple menu structure, allowing them to access all reference, configuration and inverter control features. In particular, it is possible to view a daily energy production graph and the instantaneous value of power produced, verify module temperatures and the measurements of any installed analogue sensors.

The archive section allows viewing and analysis of historical data, crossing measurements as desired (no longer two sizes at a time). By scrolling a finger along the screen, users can query values recorded in previous days, including in monthly or annual intervals, and the graphs displayed can be sent via e-mail. Internal storage allows for the archiving of about 10 years of data. However, if necessary, it is possible to delete older years by means of a special feature. Historical data produced by the inverter and that of the system card can be saved on a USB flash drive.

The device also allows users to change the €/KWh ratio, adjust display brightness, change the system date and time, assign an identification and label to the plant it belongs to, configure and customise up to 4 external analogue sensors. It also allows e-mails to be sent (for which you can set the frequency) with production data and graphs and, in the case of abnormalities, any malfunction or ignition failure alarms.

Finally, via special counters in the Info section, users can consult data regarding total produced energy, the overall hours of operation, the economic return of the plan and other technical parameters, including the amount of memory used for historical data. The graphic interface is available in Italian, English, French, Spanish and German.

Network access

The touch screen device offers many communication possibilities if a connection to the local network exists. The inverter is compatible both with PVSER proprietary protocol on the network and with ModBUS/TCP, thus offering easy insertion in any management BMS or data analysis using an Ethernet network.

The display software can be easily and quickly updated. Moreover, with a free-ware software (VNC), users can remotely view the inverter screen or interact with it from their computer or mobile device.





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODEL	Sirio K12
Approximate power of the photovoltaic field	14 kWp max 9 kWp min
Rated AC power	12 kW
Maximum AC power	13,2 kW
INPUT	
Maximum DC voltage in an open circuit	800 Vdc
MPPT operating range	330÷700 Vdc
Working range	330÷700 Vdc
Maximum input current	36 Adc
Initial feeding voltage	390 Vdc
Ripple voltage	<1%
Number of inputs	1
MPPT number	1
D.C. connectors	Screw terminals
OUTPUT	
Operating voltage	400 Vac
Operating interval	340÷460 Vac ⁽¹⁾
Maximum power range	340÷460 Vac
Frequency range	47,5÷51,5 Hz ⁽¹⁾
Settable frequency range	47÷53 Hz
Nominal current	17,3 Aac
Maximum current	22,4 Aac
Fault level contribution	34 Aac
Current Harmonic Distorsion (THDi)	<3%
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾
Galvanic separation	LF transformer
A.C. connectors	Screw terminals
SYSTEM	
Maximum efficiency	95,8%
European efficiency	94,8%
Stand-by consumption	<32W
Night consumption	<32W
Internal protections	MCCB AC side, Switch DC side
Off-Grid protection	Yes
Detecting earth leakage	Yes
Heat dissipation	controlled fans
Operating temperature	0°C÷45°C (without derating)
Storage temperature	-20°C÷70°C
Humidity	0÷95% non-condensing

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 310 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

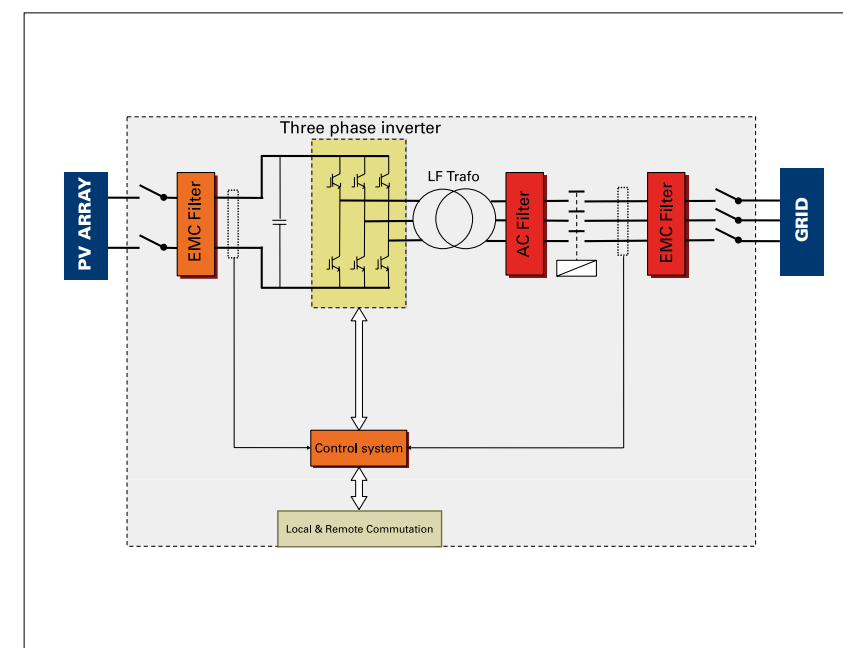
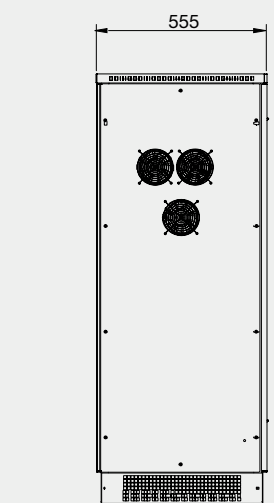
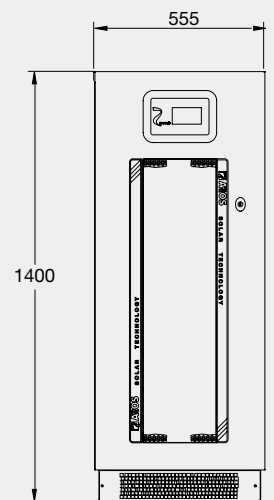
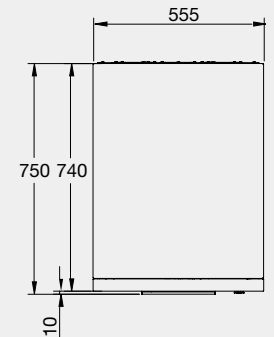
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODEL	Sirio K15
Approximate power of the photovoltaic field	18 kWp max 12 kWp min
Rated AC power	15 kW
Maximum AC power	17 kW
INPUT	
Maximum DC voltage in an open circuit	800 Vdc
MPPT operating range	330÷700 Vdc
Working range	330÷700 Vdc
Maximum input current	54 Adc
Initial feeding voltage	390 Vdc
Ripple voltage	<1%
Number of inputs	1
MPPT number	1
D.C. connectors	Screw terminals
OUTPUT	
Operating voltage	400 Vac
Operating interval	340÷460 Vac ⁽¹⁾
Maximum power range	340÷460 Vac
Frequency range	47,5÷51,5 Hz ⁽¹⁾
Settable frequency range	47÷53 Hz
Nominal current	21,7 Aac
Maximum current	28,1 Aac
Fault level contribution	42 Aac
Current Harmonic Distorsion (THDi)	<3%
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾
Galvanic separation	LF transformer
A.C. connectors	Screw terminals
SYSTEM	
Maximum efficiency	95,8%
European efficiency	94,8%
Stand-by consumption	<32W
Night consumption	<32W
Internal protections	MCCB AC side, Switch DC side
Off-Grid protection	Yes
Detecting earth leakage	Yes
Heat dissipation	controlled fans
Operating temperature	0°C÷45°C (without derating)
Storage temperature	-20°C÷70°C
Humidity	0÷95% non-condensing

(1) These values can vary according to the local regulations



FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 320 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

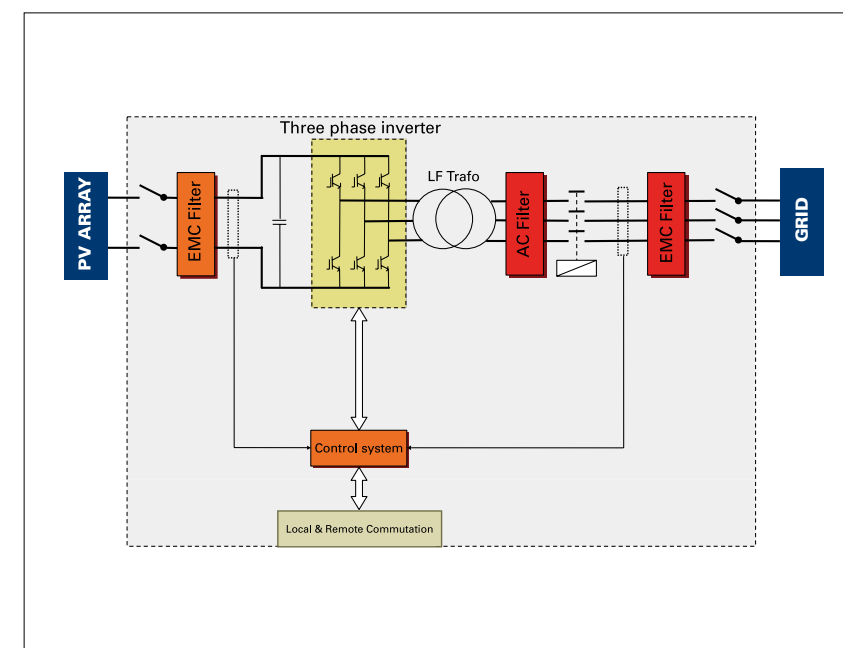
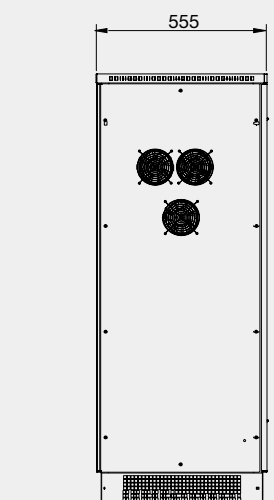
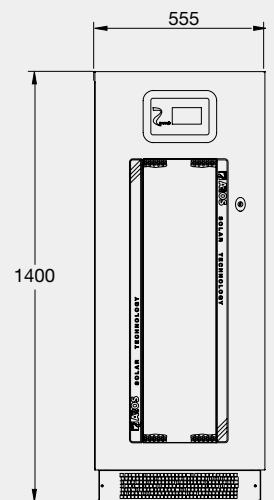
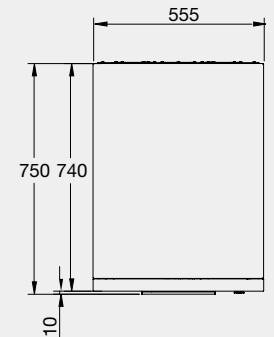
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODEL	Sirio K18
Approximate power of the photovoltaic field	21 kWp max 16 kWp min
Rated AC power	18 kW
Maximum AC power	20 kW
INPUT	
Maximum DC voltage in an open circuit	800 Vdc
MPPT operating range	330÷700 Vdc
Working range	330÷700 Vdc
Maximum input current	63 Adc
Initial feeding voltage	390 Vdc
Ripple voltage	<1%
Number of inputs	1
MPPT number	1
D.C. connectors	Screw terminals
OUTPUT	
Operating voltage	400 Vac
Operating interval	340÷460 Vac ⁽¹⁾
Maximum power range	340÷460 Vac
Frequency range	47,5÷51,5 Hz ⁽¹⁾
Settable frequency range	47÷53 Hz
Nominal current	26 Aac
Maximum current	33 Aac
Fault level contribution	50 Aac
Current Harmonic Distorsion (THDi)	<3%
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾
Galvanic separation	LF transformer
A.C. connectors	Screw terminals
SYSTEM	
Maximum efficiency	95,8%
European efficiency	94,8%
Stand-by consumption	<32W
Night consumption	<32W
Internal protections	MCCB AC side, Switch DC side
Off-Grid protection	Yes
Detecting earth leakage	Yes
Heat dissipation	controlled fans
Operating temperature	0°C÷45°C (without derating)
Storage temperature	-20°C÷70°C
Humidity	0÷95% non-condensing

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 340 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

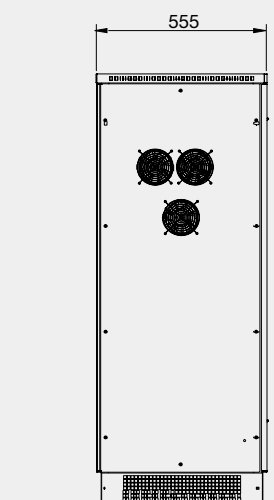
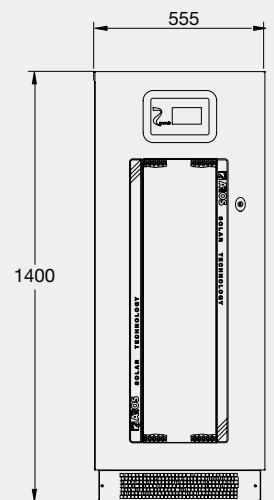
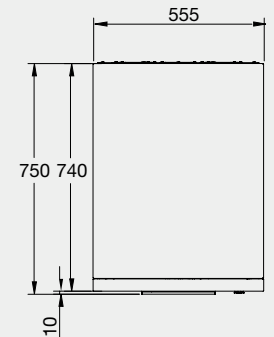
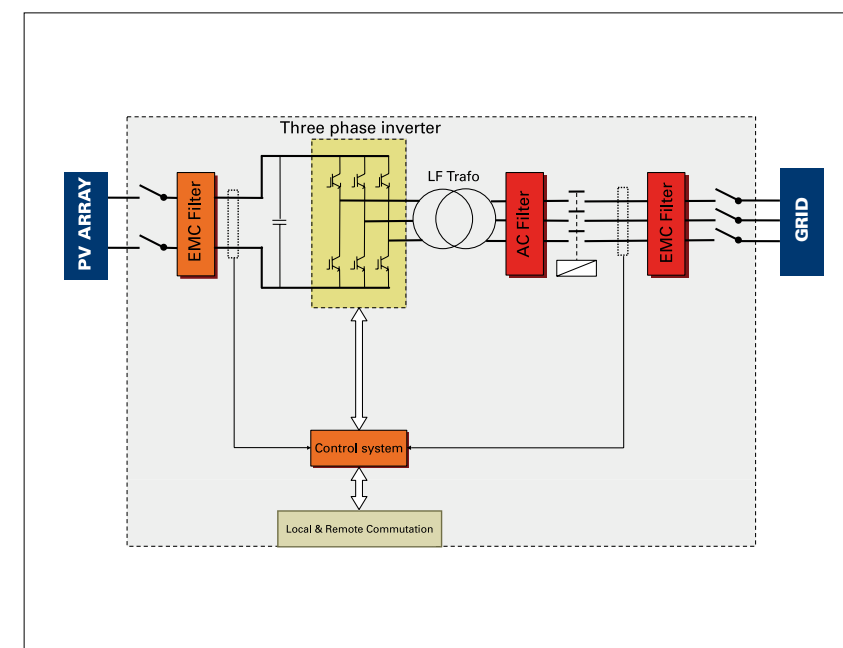
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3



Sirio K25 and K25 HV

CENTRAL INVERTERS

**GRID CONNECTION CRITERIA**

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3

**OPTION ON REQUEST**

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODELS	Sirio K25	Sirio K25 HV
Approximate power of the photovoltaic field	30 kWp max 20 kWp min	
Rated AC power	25 kW	
Maximum AC power	28 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	80 Adc	59 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Screw terminals	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	36 Aac	
Maximum current	46 Aac	
Fault level contribution	68 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Screw terminals	
SYSTEM		
Maximum efficiency	95,8%	96,4%
European efficiency	94,9%	95,3%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 350 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

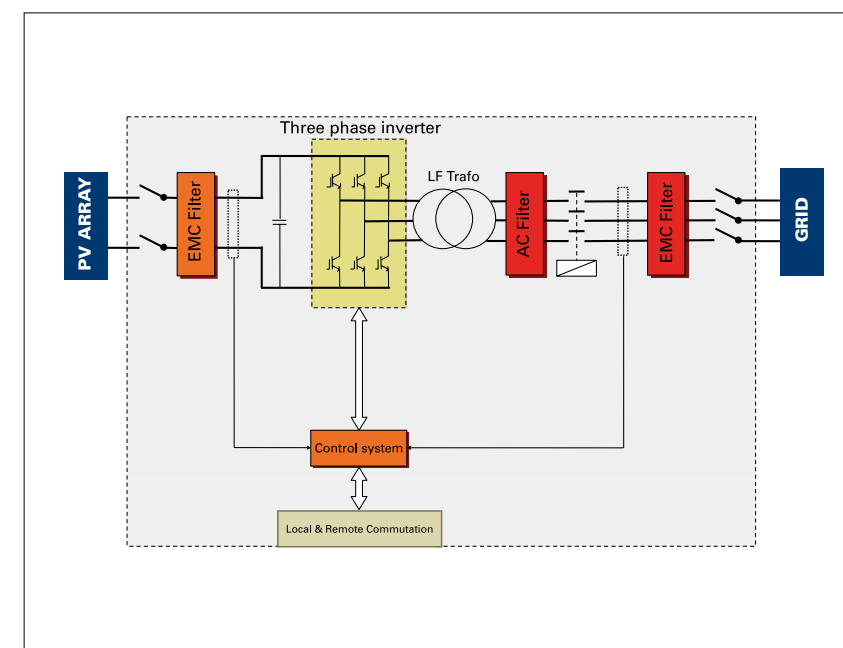
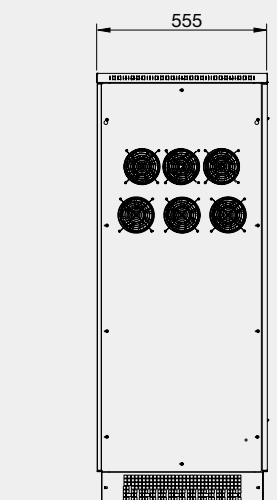
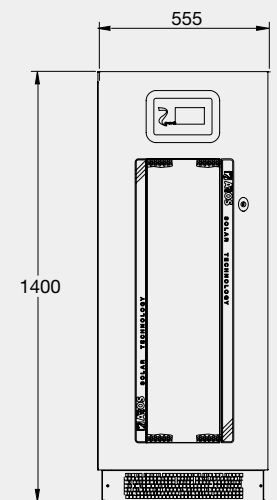
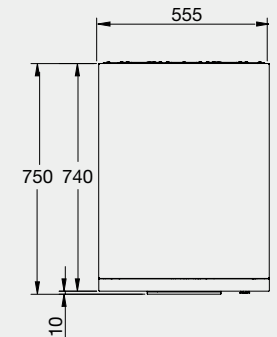
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODELS	Sirio K33	Sirio K33 HV
Approximate power of the photovoltaic field	40 kWp max 30 kWp min	
Rated AC power	33 kW	
Maximum AC power	36 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	105 Adc	79 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Screw terminals	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	48 Aac	
Maximum current	60 Aac	
Fault level contribution	90 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Screw terminals	
SYSTEM		
Maximum efficiency	95,8%	96,3%
European efficiency	94,9%	95,3%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 380 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

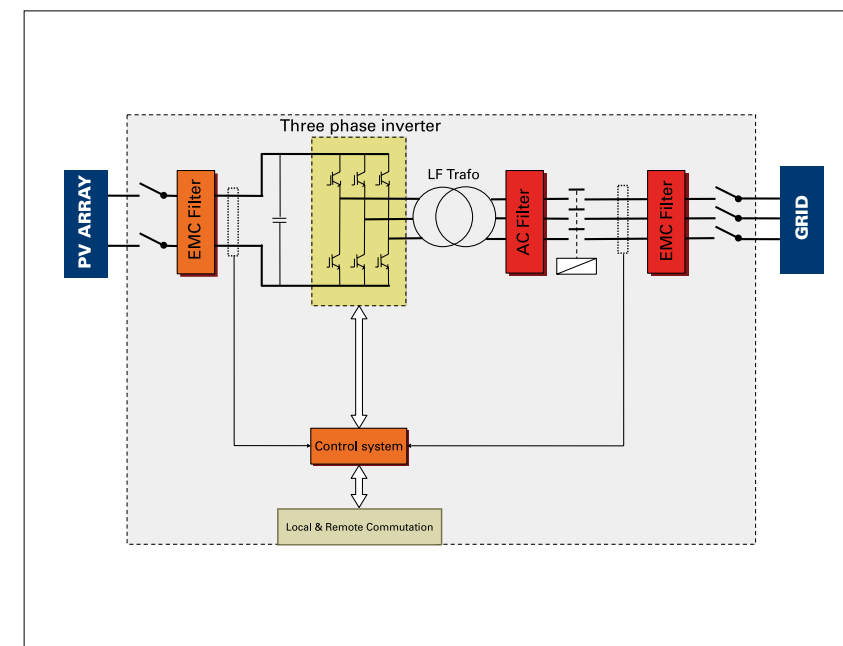
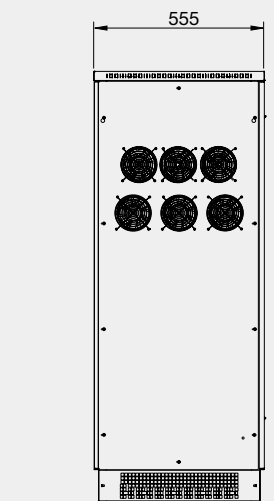
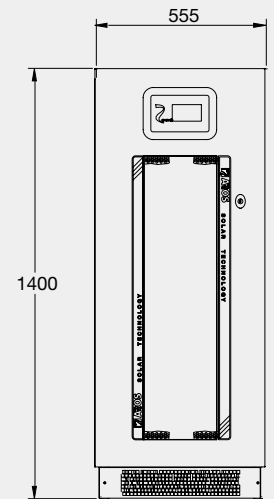
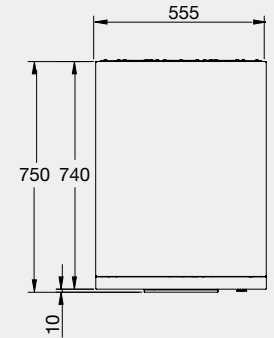
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3



Sirio K40 and K40 HV

**GRID CONNECTION CRITERIA**

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3

**OPTION ON REQUEST**

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODELS	Sirio K40	Sirio K40 HV
Approximate power of the photovoltaic field	50kWp max 36kWp min	
Rated AC power	40kW	
Maximum AC power	44kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	130 Adc	98 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Screw terminals	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	58 Aac	
Maximum current	73 Aac	
Fault level contribution	110 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Screw terminals	
SYSTEM		
Maximum efficiency	95,8%	96,2%
European efficiency	95%	95,3%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 555x720x1400 mm

Weight: 420 Kg

Protection level: IP20

Acoustic noise: <66dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

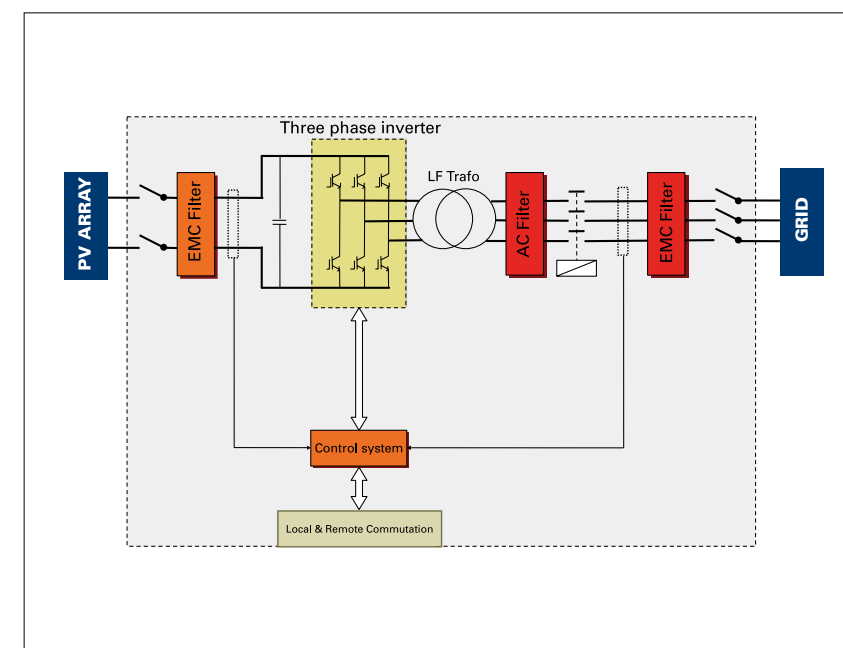
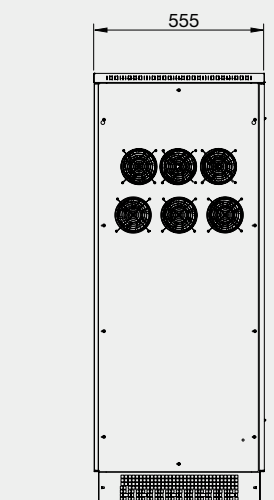
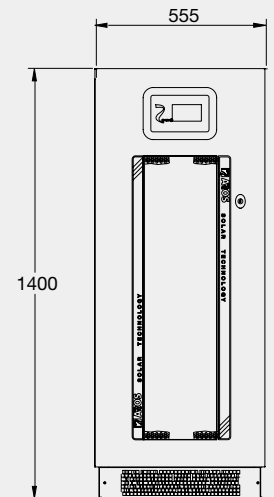
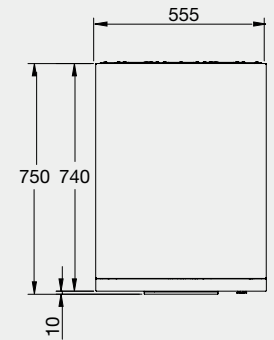
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

Sirio K64 and K64 HV

MODELS	Sirio K64	Sirio K64 HV
Approximate power of the photovoltaic field	80 kWp max 55 kWp min	
Rated AC power	64 kW	
Maximum AC power	71 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	205 Adc	157 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Bar	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	92 Aac	
Maximum current	117 Aac	
Fault level contribution	175 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Bar	
SYSTEM		
Maximum efficiency	96,1%	96,1%
European efficiency	95%	94,9%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations



FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 800x800x1900 mm

Weight: 600 Kg

Protection level: IP20

Acoustic noise: <68dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

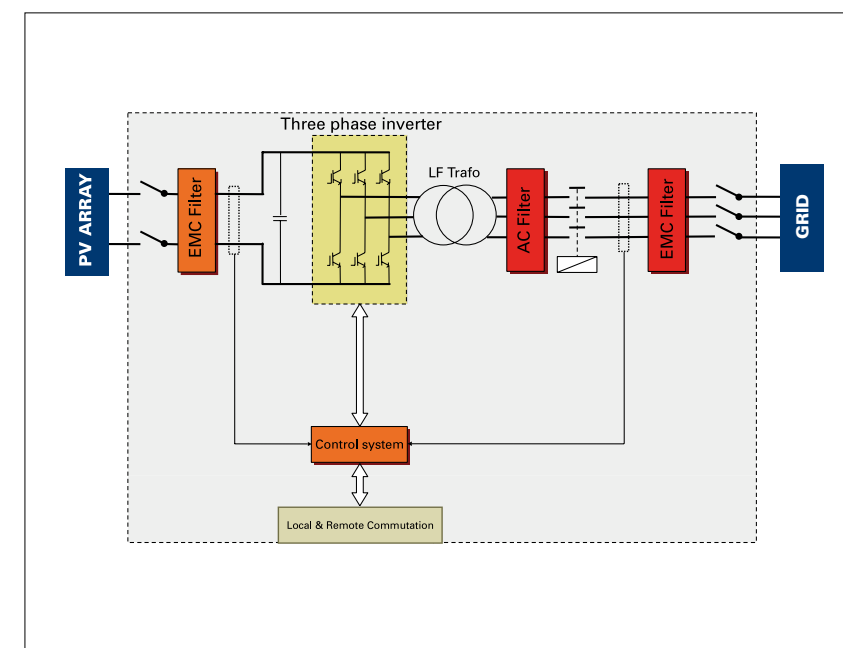
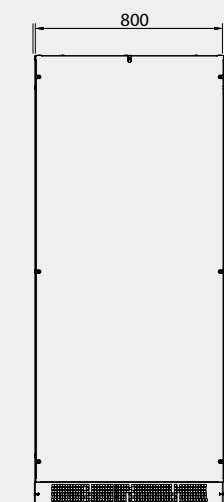
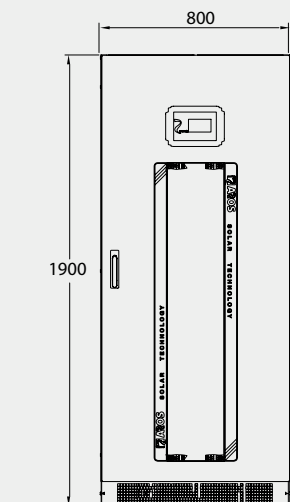
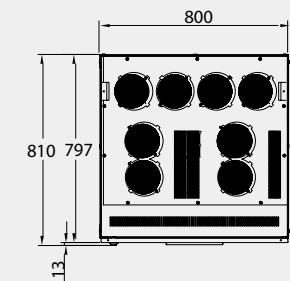
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

Sirio K80 and K80 HV

MODELS	Sirio K80	Sirio K80 HV
Approximate power of the photovoltaic field	100 kWp max 70 kWp min	
Rated AC power	80 kW	
Maximum AC power	88 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	260 Adc	196 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Bar	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	115 Aac	
Maximum current	146 Aac	
Fault level contribution	219 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Bar	
SYSTEM		
Maximum efficiency	96,1%	96,1%
European efficiency	95%	95%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations



FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 800x800x1900 mm

Weight: 650 Kg

Protection level: IP20

Acoustic noise: <68dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

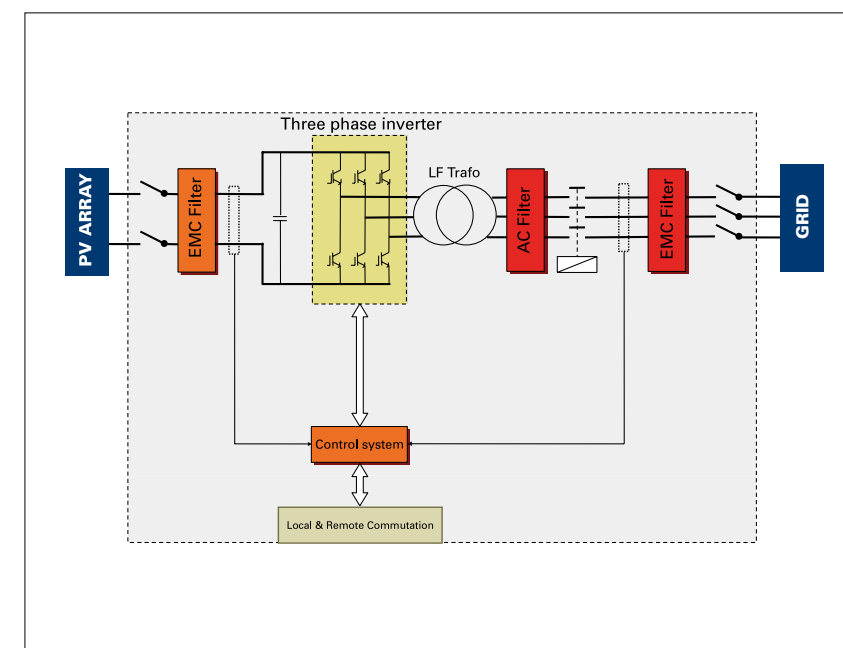
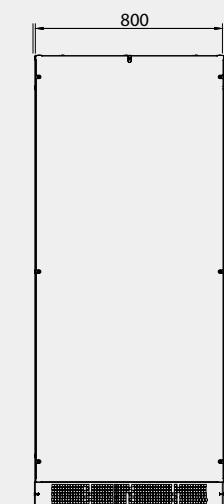
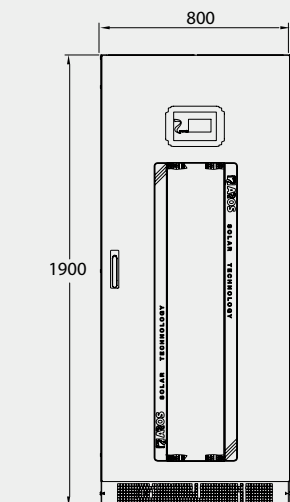
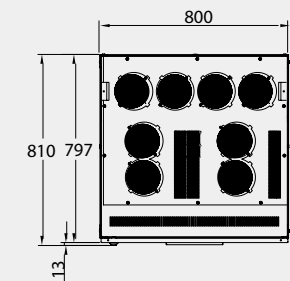
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3



Sirio K100 and K100 HV

**GRID CONNECTION CRITERIA**

The entire range can be configured according to the following standards:

- CEI 0-21
- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3

**OPTION ON REQUEST**

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODELS	Sirio K100	Sirio K100 HV
Approximate power of the photovoltaic field	125 kWp max	80 kWp min
Rated AC power	100 kW	
Maximum AC power	110 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	320 Adc	245 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Bar	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	145 Aac	
Maximum current	182 Aac	
Fault level contribution	274 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Bar	
SYSTEM		
Maximum efficiency	96,1%	96,1%
European efficiency	95,1%	95,1%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 800x800x1900 mm

Weight: 720 Kg

Protection level: IP20

Acoustic noise: <68dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

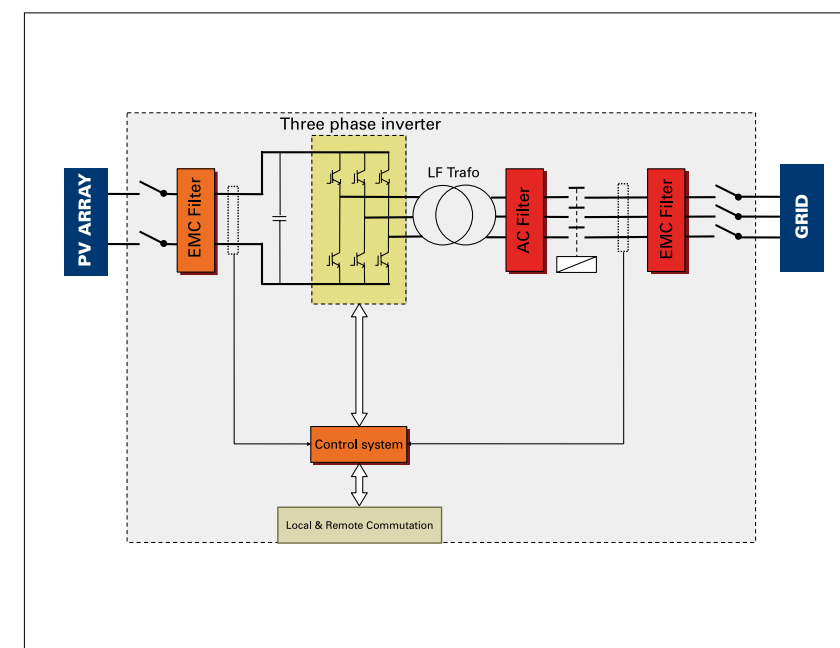
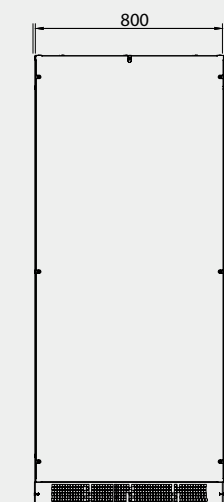
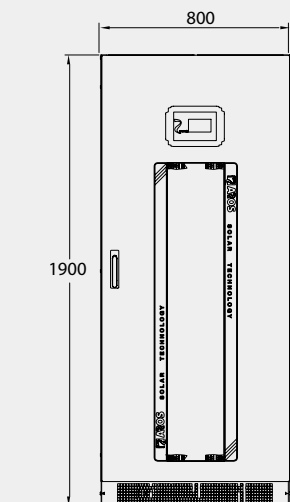
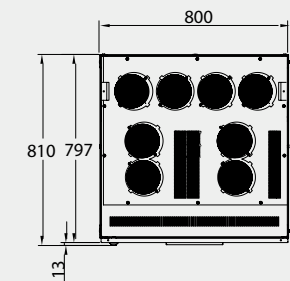
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-21, CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3



Sirio K200 and K200 HV

CENTRAL INVERTERS

**GRID CONNECTION CRITERIA**

The entire range can be configured according to the following standards:

- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3

**OPTION ON REQUEST**

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODELS	Sirio K200	Sirio K200 HV
Approximate power of the photovoltaic field	250 kWp max 180 kWp min	
Rated AC power	200 kW	
Maximum AC power	220 kW	
INPUT		
Maximum DC voltage in an open circuit	800 Vdc	880 Vdc
MPPT operating range	330÷700 Vdc	450÷760 Vdc
Working range	330÷700 Vdc	450÷760 Vdc
Maximum input current	650 Adc	500 Adc
Initial feeding voltage	390 Vdc	540 Vdc
Ripple voltage	<1%	
Number of inputs	1	
MPPT number	1	
D.C. connectors	Bar	
OUTPUT		
Operating voltage	400 Vac	
Operating interval	340÷460 Vac ⁽¹⁾	
Maximum power range	340÷460 Vac	
Frequency range	47,5÷51,5 Hz ⁽¹⁾	
Settable frequency range	47÷53 Hz	
Nominal current	289 Aac	
Maximum current	364 Aac	
Fault level contribution	546 Aac	
Current Harmonic Distorsion (THDi)	<3%	
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾	
Galvanic separation	LF transformer	
A.C. connectors	Bar	
SYSTEM		
Maximum efficiency	96,2%	96,3%
European efficiency	95,2%	95,2%
Stand-by consumption	<32W	
Night consumption	<32W	
Internal protections	MCCB AC side, Switch DC side	
Off-Grid protection	Yes	
Detecting earth leakage	Yes	
Heat dissipation	controlled fans	
Operating temperature	0°C÷45°C (without derating)	
Storage temperature	-20°C÷70°C	
Humidity	0÷95% non-condensing	

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 1630x1000x1900 mm

Weight: 1580 Kg

Protection level: IP20

Acoustic noise: <72dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

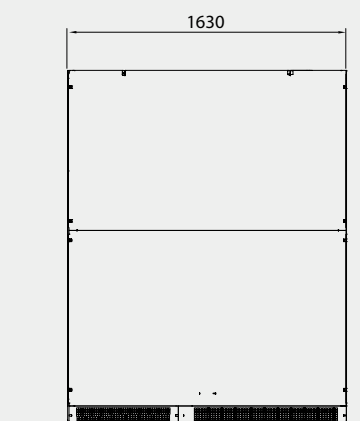
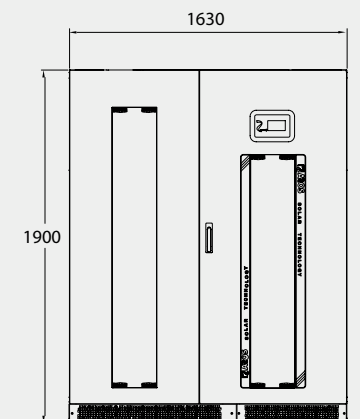
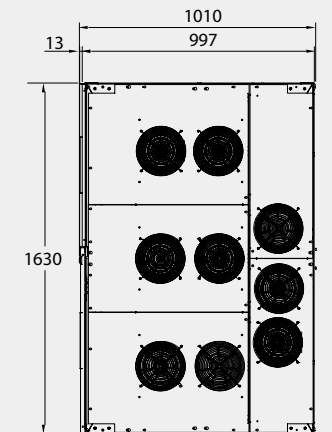
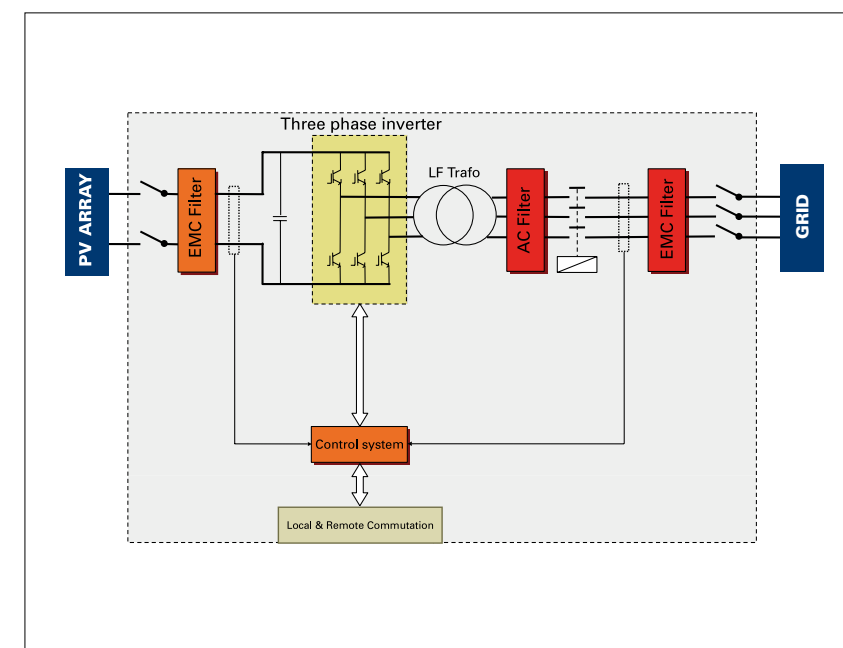
STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3





GRID CONNECTION CRITERIA

The entire range can be configured according to the following standards:

- CEI 0-16
- VDE AR-N-4105
- VDE 0126-1-1
- G59/2
- Real Decreto 1663-2000
- PO12.3



OPTION ON REQUEST

- Pole/earth connection kit (positive or negative)
- Overvoltage protection (SPD)

MODEL	Sirio K250 HV
Approximate power of the photovoltaic field	320 kWp max 220 kWp min
Rated AC power	250 kW
Maximum AC power	250 kW
INPUT	
Maximum DC voltage in an open circuit	880 Vdc
MPPT operating range	450÷760 Vdc
Working range	450÷760 Vdc
Maximum input current	590 Adc
Initial feeding voltage	540 Vdc
Ripple voltage	<1%
Number of inputs	1
MPPT number	1
D.C. connectors	Bar
OUTPUT	
Operating voltage	400 Vac
Operating interval	340÷460 Vac ⁽¹⁾
Maximum power range	340÷460 Vac
Frequency range	47,5÷51,5 Hz ⁽¹⁾
Settable frequency range	47÷53 Hz
Nominal current	361 Aac
Maximum current	420 Aac
Fault level contribution	630 Aac
Current Harmonic Distorsion (THDi)	<3%
Power factor	from 0,9 ind. to 0,9 cap. ⁽¹⁾
Galvanic separation	LF transformer
A.C. connectors	Bar
SYSTEM	
Maximum efficiency	96,3%
European efficiency	95,3%
Stand-by consumption	<32W
Night consumption	<32W
Internal protections	MCCB AC side, Switch DC side
Off-Grid protection	Yes
Detecting earth leakage	Yes
Heat dissipation	controlled fans
Operating temperature	0°C÷45°C (without derating)
Storage temperature	-20°C÷70°C
Humidity	0÷95% non-condensing

(1) These values can vary according to the local regulations

FEATURES

Colour: RAL 7035

Dimensions (WxDxH): 1630x1000x1900 mm

Weight: 1630 Kg

Protection level: IP20

Acoustic noise: <72dBA

COMMUNICATION

Display: Color LCD touch screen

Communication interface: Ethernet, USB, 2xRS232 as standard, RS485 optional (slot version)

Protocols: ModBUS and ModBUS/TCP

STANDARDS

EMC: EN61000-6-3, EN61000-6-2, EN61000-3-11, EN61000-3-12

Security: EN62109-1, EN62109-2

Directives: Low Voltage Directive: 2006/95/EC, EMC Directive: 2004/108/EC

Grid connection criteria: CEI 0-16, A70, VDE AR-N-4105, VDE 0126-1-1, G59/2, Real Decreto 1663-2000, PO12.3

