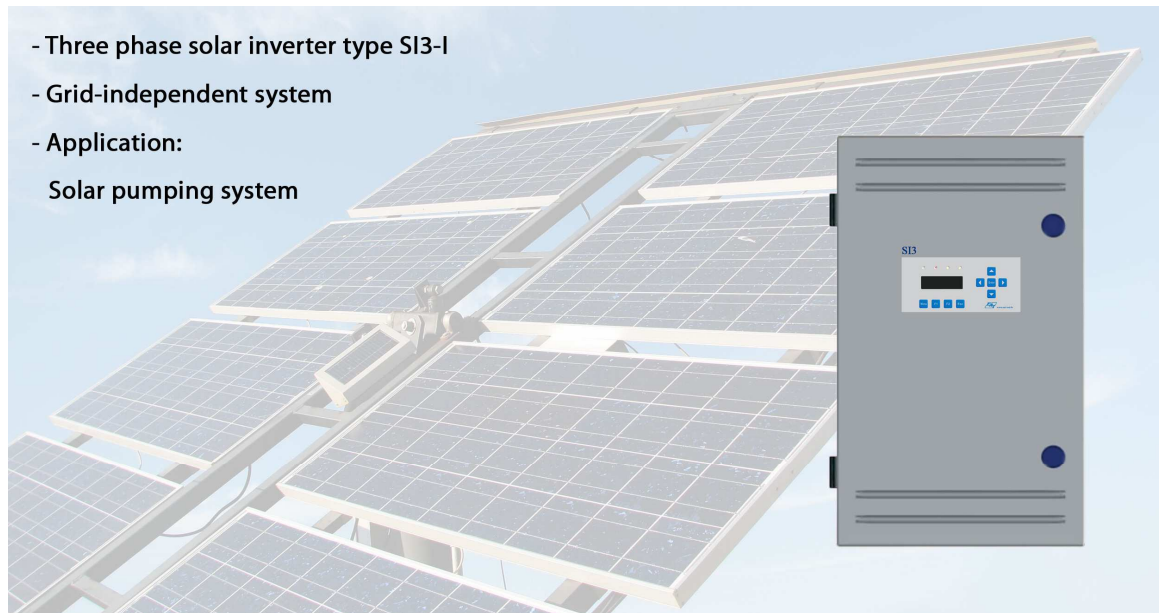


## SOLAR INVERTER TYPE SI3-I



### Function

The Solar Inverter type SI3-I, controlled by microprocessor, allows the usage of sunlight as power supply for grid-independent systems. The SI3-I converts input DC into a three phase output voltage, staggered by 120°. The DC supply can be provided by photovoltaic generators, accumulators and other DC systems. The SI3-I generates and monitors a three phase system for operation of motors and other technical devices using three phase current. There is a complete galvanic isolation between power circuits and all measured and processed signals within the micro processing unit. As grid-independent system, the inverter does not need any auxiliary power supply.

### Features

- \* Modular design
- \* Microprocessor controlled inverter
- \* Three phase current (3x400 V, 3x230 V)
- \* No auxiliary power supply necessary
- \* Isolated operation with or without integrated sine filter
- \* Connection of three phase motors and other electric consumers
- \* Pump load with startup function (U / f- characteristic curve)
- \* Optional: pump operation with variable frequency
- \* No potential isolation between input- and output circle
- \* Galvanic separation of measured and processed signals
- \* Ergonomic display and parameter input via front panel
- \* Communication via serial interface (RS232)
- \* Optional: integration of additional software for controlling and monitoring functions (customer-specific)
- \* Optional: Energy management

## Control & Display Unit

Different measurements and messages are possible by customer specifications. For example:

### Shows the following parameters:

- \* Solar cell voltage in V
- \* Solar cell current in A
- \* Solar cell power in W
- \* Output voltage in V
- \* Output current in A
- \* Instantaneous output power in W
- \* Output frequency in Hz
- \* Power factor ( $\cos\phi$ ) - load
- \* Generated energy after restart in kWh
- \* Max./ min. daily output in W  
same for week and month

### Output of error/ fault messages:

- \* Solar cell voltage too low
- \* Short circuit of output
- \* Heat sink temperature too high
- \* Over load protection
- \* Power factor monitoring ( $\cos\phi$ )  
(Dry run protection)
- \* Unbalanced load monitoring

## Technical Data

Three-phase system	<u>Type SI3-I-2-400</u> 400 V
Rated Power	2000 W
Max. continuously rated load	2300 W
<u>Inputs:</u>	
max. input voltage	820 V DC
rated input voltage	350...700 V DC
max. current	4 A DC
<u>Outputs:</u>	
rated voltage	3 x 400 V AC $\pm 10\%$
rated current	3 A
output frequency	50 Hz
optional	pump operation 30...60 Hz
over load capability	10% continuous load, 15% electr. overload protection (load break)
galvanic separation	power unit input/output: no measured and processed signals: yes
dimensions	400 mm x 600 mm x 360 mm (W x H x D)
type of protection	IP54 or IP20
ambient temperature	standard 0°C...+50°C
with additional heater/ cooler	-20°C...+60°C
cable cross-sections	inputs 2,5-10 mm <sup>2</sup> outputs 2,5-6 mm <sup>2</sup>

### Further Solar Inverter:

Type	Rated power
SI3-I-3.5-xxx	3,5 kW
SI3-I-5-xxx	5,0 kW
SI3-I-7,5-xxx	7,5 kW



### EAI Elektro- und Automatisierungstechnik GmbH

Bakenröder Str. 11  
38871 Ilsenburg / Germany  
www.eai-net.de

Fon: +49 (0) 39452 964 0  
Fax: +49 (0) 39452 964 15  
mails@eai-net.de

