



# AEG

## THREE-PHASE GRID-TIED SOLAR INVERTER QUICK INSTALLATION GUIDE

AS-IC01 SERIES 40 kW TO 70 kW

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### THANK YOU FOR CHOOSING AEG

Follow these instructions to successfully install your AEG solar inverter of the series AS-IC01:

AS-IC01 three-phase grid-tied solar inverter, 1 MPPT:  
AS-IC01-40000 / 50000 / 60000 / 70000

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## 1. SAFETY RECOMMENDATIONS

### General safety recommendations

- Only qualified electricians are allowed to install the inverter.
- Make sure the installation site is not accessible to children or non-authorized personnel.
- Remove metal accessories such as rings or bracelets before installation and electrical connection to avoid electric shock.

### Product safety recommendations

- Only use original parts and original accessories.
- Do not put and install the inverter on or close to combustible materials.
- Install the inverter far from devices with strong electromagnetic interference.
- To avoid product damage, ensure the inverter input voltage does not exceed the maximum input voltage.
- Ensure a stable installation and a reliable electrical connection, as well as proper grounding of the inverter; improper connection or no grounding may cause the inverter to stop functioning.
- To avoid irreparable damage, ensure that the positive and negative poles of solar modules are not grounded.

## 2. PRODUCT UNPACKING AND INSPECTION

### 2.1 Product inspection

Double-check the order information and the product nameplate to ensure the products are of the ordered type and that the package is not damaged. Should you find any problems, contact your supplier as soon as possible.

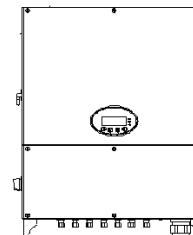
In the packaging of your AEG inverter you will find:

Model AS-IC01-xxx-	40000-2 50000-2 60000-2 70000-2
Inverter	1
Installation bracket	1
Quick installation guide	1
Communication connector	1
Expansion screws	6 (M8*60)
Hexagon assembling bolts	6 (M8*20)
Hexagon assembling bolts	2 (M6*16)
DC connectors	8 (40 kW model) / 10 (50 kW model) / 14 (60-70 kW models)
Wall panel cutout template	1

Table 1: Three-phase inverter packing list

### 2.2 Product look

Front view of AEG AS-IC01 40-70 kW



## 3. BEFORE INSTALLATION

Before installing your AEG grid-tied solar inverter, please take in consideration the following aspects:

### 3.1 Installation place

Select the installation place considering that:

- 1- The environment temperature should be between -25°C and 60 °C.
- 2- The installation surface should be perpendicular to the horizontal line. Please refer to figure 2 here below.

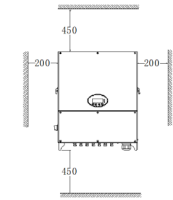


Figure 1: Optimal mounting height/ Installation space (mm)

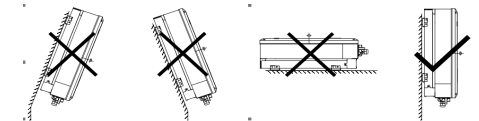


Figure 2: Installation position

### 3.2 Cable specifications

Select connection cables according to the below table:

Model	DC side		AC side			
	Min. cross sect.(L ≤50m)	Min. cross sect.(L >50m)	Min.cross sect.(L ≤50m)		Min.cross sect.(L >50m)	
			L	N/PE	L	N/PE
AS-IC01-40000 AS-IC01-50000	4 mm <sup>2</sup>	6 mm <sup>2</sup>	25 mm <sup>2</sup>	16 mm <sup>2</sup>	GNTR 25-6	GNTR 16-5
AS-IC01-60000 AS-IC01-70000	4 mm <sup>2</sup>	6 mm <sup>2</sup>	35 mm <sup>2</sup>	25 mm <sup>2</sup>	GNTR 35-6	GNTR 25-5

Table 2: Cable specifications

## 4. MECHANICAL INSTALLATION

We take as reference a typical installation environment, such as a concrete wall. We recommend to install the inverter vertically to the wall or to the metal bracket.

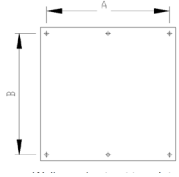


Figure 3: Installation brackets cutout template

Model	Installation hole	
	A	B
AS-IC01-60000	430 mm	330 mm

Table 3: Size of installation bracket

Follow these steps to install your AEG inverter:

1. Put the installation bracket cutout template against the wall; drill into the wall according to the marked holes.
2. Fix the expansion bolts into the 4/6 holes with a hammer; Fix the installation bracket on the bolts and ensure it is firm enough (as shown in figure 4 below).
3. Hang the inverter on the installation bracket and ensure it is locked-in as shown in figure 4; fix the screws into the screw-holes to ensure that the installation is fastened

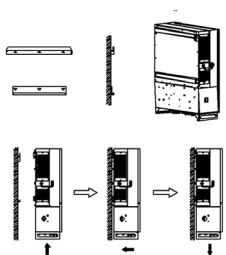


Figure 4: Installation AS-IC01-40000 to 70000

## 5. ELECTRICAL INSTALLATION

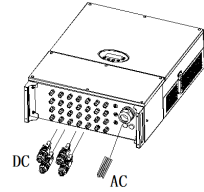


Figure 5: Inverter electrical wiring

Follow the next step to carry out the electrical wiring of your AEG inverter:

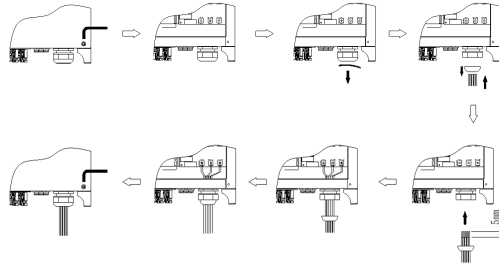


Figure 6: Wiring of AC side and inverter

- 1- Before AC connection, take lightning and short-circuit protection measures in accordance with the local electrical safety codes; only cables qualified according to the local electrical safety laws and regulations should be used for connection. Only with the inverter of the local electric power company can the inverter be connected to the utility grid;
- 2- Remove the surface cover of the lower case of the inverter, and remove the waterproof protection cover of the AC junction box; connect the five leads (L1, L2, L3, N-optional-, PE) well crimped to the AC terminal; screw tightly the AC waterproof cap and the surface cover of the inverter (see figure 6).
- 3- Connect the DC output line of the PV board to the DC connector, and connect the latter to the MC4 terminal of the inverter's DC port.

## 6. OPERATION

### 6.1 Pre-operation inspection

Before starting inverter operations, please make sure to:

- 1- Check that the voltage of the components is in the allowed input voltage range of the inverter.
- 2- Check that the voltage of the AC grid is regular.
- 3- Check that the inverter is well grounded.
- 4- Ensure that all the switches are positioned on „OFF“
- 5- Ensure that all electrical safety precautions are clearly identifiable at the installation site.
- 6- Make sure that the WiFi stick (if used) is well connected.

### 6.2 Commissioning

To start the inverter:

- 1- Switch on the integrated DC switch.
- 2- Should you wish to change the default country, currency and time settings (Netherlands, EUR, GMT+1) of the inverter, you can use the External Display or the WiFi Stick (local monitoring mode via the app AEG InverterControl).

In this case Install the WiFi Stick and the App as described in the guide you will find in the WiFi Stick packaging, then connect your phone with the wireless network „AEG WiFi“ (generated by the WiFi Stick). Launch the App and input the individual parameters as specified in the WiFi Stick guide.

- 3- Switch on the breakers at the AC side
- 4- Check the LED indicators and the information displayed on the LCD screen / on the external display:

<p>Run Alarm Fault</p>	The green indicator blinks, the other indicators are off: the inverter is on and is in self-inspection mode
<p>Run Alarm Fault</p>	The green indicator is on, the other indicators are off: the inverter is in power generation mode after self-inspection. The inverter was successfully commissioned

<p>Run Alarm Fault</p>	„Alarm“ or „Fault“ indicators are on or blinking: the inverter is on, but faults are occurring
<p>Run Alarm Fault</p>	

For the complete list of errors and warnings, see the extended version of the installation manual at [www.aeg-industrialsolar.de](http://www.aeg-industrialsolar.de)

### 6.3 Accessories (Complements) and wiring

- Complements to the inverter are :
- the External Display (optional)
  - the WiFi Stick

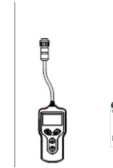


Figure 6: Complements to the inverter

These can be connected to the dedicated RS485 inverter port.

### 6.4 Regular maintenance

To carry out maintenance, inspection or troubleshooting operations on the inverter, stop the device as follows:

- 1- Switch off the breakers at the AC side.
- 2- Switch off the integrated (inverter 's) DC switch
- 3- Contact your local distributor or the AEG Inverter Service.

## 7. MORE INFORMATION / CONTACTS

You can download the extended version of the AEG grid-tied three-phase solar inverter and the related Warranty Conditions at [www.aeg-industrialsolar.de](http://www.aeg-industrialsolar.de).

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