

AEG

GRID-TIED SOLAR INVERTERS



AEG

AS-IC12-2 / THREE-PHASE GRID-TIED SOLAR INVERTER

CHARACTERISTICS

Power classes: 4 kW - 20 kW
three-phase, 2 MPPT
Matte black housing, compact size
RS485+WiFi

PRODUCT NAME CODE (PNC)

AS-IC12-4000/5000/6000-2
AS-IC12-8000/10000-2
AS-IC12-12000/15000/17000/20000-2

EXTRA PEACE OF MIND

Extensive certifications and Quality Control
5 years product warranty
(optionally extendable to 10/15/20 years)

ADVANTAGES

For larger residential and commercial installations
Compact size; Global monitoring
Suitable for use with high currents
generated by larger solar modules

AS-IC12-2 / THREE-PHASE GRID-TIED SOLAR INVERTER

PRODUCT SERIES			
AEG THREE-PHASE GRID-TIED SOLAR INVERTER			

PRODUCT NAMECODE (PNC)						
AS-IC12-4000/5000/6000/8000/10000/15000-2						

WARRANTY ⁵	
Product warranty	5 (optionally extendable to 10/ 15 / 20 years)

TECHNICAL DATA			
MODEL: AS-IC12-XXX-2 (XXX=...)	4000	5000	6000

TECHNICAL DATA						
MODEL: AS-IC12-XXX-2 (XXX=...)	8000	10000	12000	15000	17000	20000

CERTIFICATIONS AND STANDARDS	
IEC-EN 62109-1:2010, IEC-EN 62109-2:2011, IEC 61727:2004, IEC 62116:2014, EN 50549-1:2019, VDE-AR-N 4105:2018, CEI 0-21:2019, Synergrid / C10/CT1, NTS 2.1, UNE2127002, UNE2127001, UTE C15-712-1, VDE 0126 VFR 2019. For further information, please visit: www.aeg-solar.com	

INPUT			
Max. Input Power	[W]	6000	7500 / 9000
Max. Input Voltage	[V]	1000	1000 / 1000
MPPT Operating Voltage Range	[V]	180-850	180-850 / 180-850
MPPT Voltage Range at Nominal Power	[V]	410-800	410-800 / 410-800
Start-up Voltage	[V]	180	180 / 180
Nominal Input Voltage	[V]	620	620 / 620
Max. Input Current per MPPT	[A]	16	16 / 16
Max. Short Circuit Current per MPPT	[A]	20	20 / 20
Max. Backfeed Current to the Array	[A]	0	0 / 0
Number of MPP Trackers		2	2 / 2
Number of Strings per MPPT		1	1 / 1

INPUT						
Max. Input Power	[W]	16000	20000	24000	30000	34000 / 40000
Max. Input Voltage	[V]	1100	1100	1100	1100	1100
MPPT Operating Voltage Range	[V]	140-950	140-950	140-950	140-950	140-950
MPPT Voltage Range at Nominal Power	[V]	290-850	360-850	220-850	275-850	300-850 / 360-850
Start-up Voltage	[V]	180	180	180	180	180
Nominal Input Voltage	[V]	620	620	620	620	620 / 620
Max. Input Current per MPPT	[A]	15	15	30	30	30 / 30
Max. Short Circuit Current per MPPT	[A]	18.7	18.7	37.5	37.5	37.5 / 37.5
Max. Backfeed Current to the Array	[A]	0	0	0	0	0 / 0
Number of MPP Trackers		2	2	2	2	2 / 2
Number of Strings per MPPT		1	1	2	2	2 / 2

PRODUCT APPEARANCE



OUTPUT			
Nominal Output Power	[W]	4000	5000 / 6000
Nominal Output Apparent Power	[VA]	4000	5000 / 6000
Max. AC Active Power ¹	[W]	4400	5500 / 6600
Max. AC Apparent Power ²	[VA]	4400	5500 / 6600
Nominal Power at 40°C	[W]	4000	5000 / 6000
Max. Power at 40°C (incl. AC Overload)	[W]	4000	5000 / 6000
Nominal Output Voltage	[V]	400.3L/N/PE	
Output Voltage Range	[V]	180-270	
Nominal AC Grid Frequency	[Hz]	50 / 60	50 / 60 / 50 / 60
AC Grid Frequency Range	[Hz]	45-55 / 55-65	
Max. Output Current	[A]	6.4	8 / 9.6
Max. Output Fault Current (peak and duration)	[A(5ms)]	22	22 / 22
Inrush current (peak and duration)	[A(50ms)]	10	10 / 10
Nominal Output Current	[A]	5.8	7.2 / 8.7
Power Factor		-1 (Adjust. from 0.8 leading to 0.8 lagging)	
Max. Total Harmonic Distortion		<3%	<3% / <3%
Max. Output Overcurrent Protection	[A]	22	22 / 22

OUTPUT						
Nominal Output Power	[W]	8000	10000	12000	15000	17000 / 20000
Nominal Output Apparent Power	[VA]	8000	10000	12000	15000	17000 / 20000
Max. AC Active Power ¹	[W]	8800	11000	13200	16500	18700 / 22000
Max. AC Apparent Power ²	[VA]	8800	11000	13200	16500	18700 / 22000
Nominal Power at 40°C	[W]	8000	10000	12000	15000	17000 / 20000
Max. Power at 40°C (incl. AC Overload)	[W]	8800	11000	13200	16500	18700 / 22000
Nominal Output Voltage	[V]	380/400/415, 3/N/PE				
Output Voltage Range	[V]	180-270 (According to local standard)				
Nominal AC Grid Frequency	[Hz]	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
AC Grid Frequency Range	[Hz]	45-55 / 55-65				
Max. Output Current	[A]	12.8	16.0	19.1	24.0	27.1 / 32.0
Max. Output Fault Current (peak and duration)	[A(5ms)]	38	38	89	89	89 / 89
Inrush current (peak and duration)	[A(50ms)]	30	30	30	50	50 / 50
Nominal Output Current	[A]	11.6	14.5	17.4	21.7	24.6 / 29.0
Power Factor		-1 (Adjust. from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion		<3%	<3%	<3%	<3%	<3% / <3%
Max. Output Overcurrent Protection	[A]	38.4	38.4	88.9	88.9	88.9 / 88.9

EFFICIENCY		
Max. Efficiency		98.2% / 98.2% / 98.2%
European Efficiency		97.6% / 97.6% / 97.6%

EFFICIENCY						
Max. Efficiency		98.3%	98.3%	98.4%	98.4%	98.4% / 98.4%
European Efficiency		97.6%	97.6%	97.8%	97.8%	97.8% / 97.8%

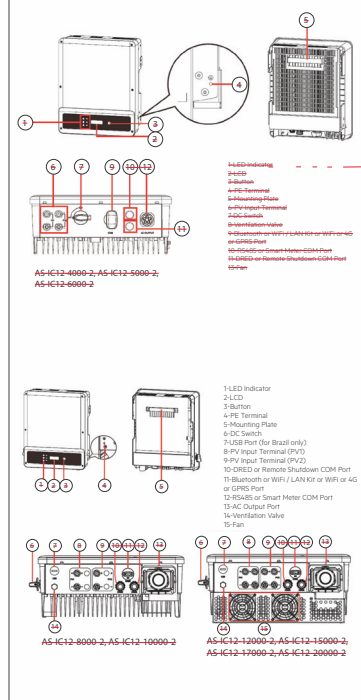
PROTECTION	
PV Insulation Resistance Detection	Integrated
Residual Current Monitoring	Integrated
PV Reverse Polarity Protection	Integrated
Anti-islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
DC Surge Protection	Type III (Type II Optional)
AC Surge Protection	Type III
AFCI	Optional
Emergency Power Off	Optional
Remote Shutdown	Optional

PROTECTION	
PV Insulation Resistance Detection	Integrated
Residual Current Monitoring	Integrated
PV Reverse Polarity Protection	Integrated
Anti-islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
DC Surge Arrester	Type II
AC Surge Protection	Type III
AFCI	Optional
Emergency Power Off	Optional
Remote Shutdown	Optional

GENERAL DATA	
Operating Temperature Range (°C)	[°C] 30 - 60 ³
Relative Humidity	0 - 100%
Max. Operating Altitude ⁴	[m] ≤4000
Cooling Method	Natural Convection
User Interface	LCD & LED (WLAN + APP)
Communication	WiFi+ RS485 (LAN optional)
Weight	[kg] 15
Size (Width*Height*Depth)	[mm] 354*433*147
Noise Emission	[dB] <34
Topology	Non-isolated
Self-consumption at Night	[W] <1
Ingress Protection Rating	IP65
Anti-Corrosion Class	C4
DC Connector	MC4 (4-6mm ²)
AC Connector	Plug and play connector
Environmental Category	4K4H
Pollution Degree	III
Overvoltage Category	DC II / AC III
Protective Class	I
Decisive Voltage Class (DVC)	PVC ACC ComA
Active Anti-Islanding Method	AADPF + AODPF ⁵

GENERAL DATA	
Operating Temperature Range (°C)	[°C] -30 - +60
Relative Humidity	0 - 100%
Max. Operating Altitude ⁴	[m] 4000
Cooling Method	Natural Convection / Smart Fan Cooling
User Interface	LCD & LED (WLAN + APP)
Communication	WiFi+ RS485
Weight	[kg] 20.5 / 20.5 / 23.5 / 26 / 26 / 26
Size (Width*Height*Depth)	[mm] 415*511*175 / 415*511*198
Noise Emission	[dB] <25 / <45
Topology	Non-isolated
Self-consumption at Night	[W] <1
Ingress Protection Rating	IP65
Anti-Corrosion Class	C4
DC Connector	MC4 (4-6mm ²)
AC Connector	OT Terminal
Environmental Category	4K4H
Pollution Degree	III
Overvoltage Category	DC II / AC III
Protective Class	I
Decisive Voltage Class (DVC)	PVC ACC ComA
Active Anti-Islanding Method	AADPF + AODPF ⁵

TECHNICAL DRAWINGS⁷



NOTES

1- For Belgium Max. AC Active Power (W): AS-IC12-4000-2 is 4000, AS-IC12-5000-2 is 5000, AS-IC12-6000-2 is 6000, AS-IC12-8000-2 is 8000, AS-IC12-10000-2 is 10000, for AS-IC12-12000-2 is 12000, for AS-IC12-15000-2 is 15000, for AS-IC12-17000-2 is 17000, for AS-IC12-20000-2 is 20000.

2- For Belgium Max. Output Apparent Power (VA): AS-IC12-4000-2 is 4000, AS-IC12-5000-2 is 5000, AS-IC12-6000-2 is 6000, AS-IC12-8000-2 is 8000, AS-IC12-10000-2 is 10000, for AS-IC12-12000-2 is 12000, for AS-IC12-15000-2 is 15000, for AS-IC12-17000-2 is 17000, for AS-IC12-20000-2 is 20000.

3- 60° for outdoor unconditioned with solar effects.

4- For Australia, Max. Operating Altitude (m) is 3000.

5- AADPF: Active Frequency Drift with Positive Feedback, AODPF: Active O Drift with Positive Feedback.

6- For the full Warranty Terms please visit www.aeg-solar.com © Solar Solutions Group. Version 2023.04.V1EN Specifications in this datasheet are subject to change without notice.

7- Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (+0.075°)

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