

# Photovoltaics

## SINVERT PVS 600Series Central Inverters and Components for Photovoltaic Power Plants

Brochure · April 2012



# SINVERT

Answers for the environment.

**SIEMENS**

# Sunny prospects for photovoltaic plants

The SINVERT PVS 600Series central inverters from 500 to 2 520 kW:  
compact, robust, durable

Whether on the roofs of large industrial facilities, in ground-mounted PV systems, or solar power plants – you can now utilize the power of the sun even more efficiently: with the new three-phase SINVERT PVS 600Series photovoltaic inverters.

With these inverters you can achieve a peak efficiency of 98.7% and a European efficiency of 98.4% when converting solar power for feeding into the grid.

The SINVERT PVS inverters operate in inverter stations according to the Siemens master-slave concept that has been proven in use now for more than a decade, and that stands for maximum plant availability, a particularly long service life, and optimized efficiency.

Inverter stations with SINVERT PVS inverters are system solutions for simple and fast implementation of photovoltaic power plants. Additional system components and accessories required for this purpose are available.

The SINVERT Select dimensioning program helps to find the best possible configuration for a photovoltaic plant.

A modular service concept means that services can be tailored to different needs as required.

The SINVERT PVS inverters are characterized by their ruggedness and longevity, which we back up with a five-year manufacturer's warranty as standard.

**Peak efficiency you can count on!**



SINVERT PVS 600Series Inverter type	Power / kW			
	500	1000	1500	2000
PVS500				
PVS585				
PVS600				
PVS630				
PVS1000				
PVS1170				
PVS1200				
PVS1260				
PVS1500				
PVS1755				
PVS1800				
PVS1890				
PVS2000				
PVS2340				
PVS2400				
PVS2520				

Power levels of the SINVERT PVS 600Series central inverters



SINVERT PVS 600Series central inverter (subunit)

# Technical data of the SINVERT PVS500 inverter (according to IEC)<sup>1)</sup>

Inverter type		PVS500	PVS1000	PVS1500	PVS2000
<b>Input DC</b>					
MPP voltage	V	450 ... 750	450 ... 750	450 ... 750	450 ... 750
Maximum input voltage <sup>2)</sup>	V	820	820	820	820
Minimum input voltage	V	450	450	450	450
Rated input power	kW	513	1 026	1 539	2 052
Maximum input current	A	1 103	2 206	3 309	4 412
Number of DC inputs		3	6	9	12
Maximum current per DC input	A	368	368	368	368
Surge arrester		Type 2	Type 2	Type 2	Type 2
<b>Output AC</b>					
Grid connection		50/60 Hz 288 V 3 AC	50/60 Hz 288 V 3 AC	50/60 Hz 288 V 3 AC	50/60 Hz 288 V 3 AC
Rated power	kW	500	1 000	1 500	2 000
Maximum output current	A	1 002	2 004	3 006	4 008
Line voltage	V	244.8 ... 316.8	244.8 ... 316.8	244.8 ... 316.8	244.8 ... 316.8
Power factor, inductive		0.8	0.8	0.8	0.8
Power factor, capacitive		0.8	0.8	0.8	0.8
<b>Efficiency</b>					
European efficiency factor	%	98.1	98.3	98.3	98.3
CEC efficiency factor	%	98.2	98.3	98.3	98.3
Maximum efficiency factor	%	98.4	98.4	98.4	98.4
<b>Further data</b>					
Number of subunits		1	2	3	4
Dimensions (H/W/D) per subunit	mm	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730
Weight per subunit	kg	2 085	2 085	2 085	2 085
Ambient temperature					
- during operation	°C	0 ... +50	0 ... +50	0 ... +50	0 ... +50
- during storage and transport	°C	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Relative humidity	%	0 ... 95	0 ... 95	0 ... 95	0 ... 95
Installation altitude					
- maximum permissible	m	2 000	2 000	2 000	2 000
- at rated power	m	0 ... 1 000	0 ... 1 000	0 ... 1 000	0 ... 1 000
Data interface		Ethernet	Ethernet	Ethernet	Ethernet
<b>Order number</b>					
Order number (grid frequency 50 Hz)		6AG3111-1AH00-3AB0	6AG3111-1AH10-3AB0	6AG3111-1AH20-3AB0	6AG3111-1AH30-3AB0
Order number (grid frequency 60 Hz)		6AG3111-2AH00-3AB0	6AG3111-2AH10-3AB0	6AG3111-2AH20-3AB0	6AG3111-2AH30-3AB0

<sup>1)</sup> Detailed technical information can be found at:

<http://support.automation.siemens.com>

<sup>2)</sup> With the 1 000 V option, expandable to 1 000 V (see page 10 and 24).

# Technical data of the SINVERT PVS585 inverter (according to IEC)<sup>1)</sup>

Inverter type		PVS585	PVS1170	PVS1755	PVS2340
<b>Input DC</b>					
MPP voltage	V	530 ... 750	530 ... 750	530 ... 750	530 ... 750
Maximum input voltage <sup>2)</sup>	V	820	820	820	820
Minimum input voltage	V	530	530	530	530
Rated input power	kW	598	1 196	1 794	2 392
Maximum input current	A	1 104	2 208	3 312	4 416
Number of DC inputs		3	6	9	12
Maximum current per DC input	A	368	368	368	368
Surge arrester		Type 2	Type 2	Type 2	Type 2
<b>Output AC</b>					
Grid connection		50/60 Hz 340 V 3 AC	50/60 Hz 340 V 3 AC	50/60 Hz 340 V 3 AC	50/60 Hz 340 V 3 AC
Rated power	kW	585	1 170	1 755	2 340
Maximum output current	A	995	1 990	2 985	3 980
Line voltage	V	289 ... 374	289 ... 374	289 ... 374	289 ... 374
Power factor, inductive		0.8	0.8	0.8	0.8
Power factor, capacitive		0.8	0.8	0.8	0.8
<b>Efficiency</b>					
European efficiency factor	%	98.2	98.4	98.4	98.4
CEC efficiency factor	%	98.3	98.3	98.4	98.4
Maximum efficiency factor	%	98.6	98.6	98.6	98.6
<b>Further data</b>					
Number of subunits		1	2	3	4
Dimensions (H/W/D) per subunit	mm	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730
Weight per subunit	kg	2 085	2 085	2 085	2 085
Ambient temperature					
- during operation	°C	0 ... +50	0 ... +50	0 ... +50	0 ... +50
- during storage and transport	°C	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Relative humidity	%	0 ... 95	0 ... 95	0 ... 95	0 ... 95
Installation altitude					
- maximum permissible	m	2 000	2 000	2 000	2 000
- at rated power	m	0 ... 1 000	0 ... 1 000	0 ... 1 000	0 ... 1 000
Data interface		Ethernet	Ethernet	Ethernet	Ethernet
<b>Order number</b>					
Order number (grid frequency 50 Hz)		6AG3111-1AH00-7AB0	6AG3111-1AH10-7AB0	6AG3111-1AH20-7AB0	6AG3111-1AH30-7AB0
Order number (grid frequency 60 Hz)		6AG3111-2AH00-7AB0	6AG3111-2AH10-7AB0	6AG3111-2AH20-7AB0	6AG3111-2AH30-7AB0

<sup>1)</sup> Detailed technical information can be found at:

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<sup>2)</sup> With the 1 000 V option, expandable to 1 000 V (see page 10 and 24).

# Technical data of the SINVERT PVS600 inverter (according to IEC)<sup>1)</sup>

Inverter type		PVS600	PVS1200	PVS1800	PVS2400
<b>Input DC</b>					
MPP voltage	V	570 ... 750	570 ... 750	570 ... 750	570 ... 750
Maximum input voltage <sup>2)</sup>	V	820	820	820	820
Minimum input voltage	V	570	570	570	570
Rated input power	kW	613	1 226	1 839	2 452
Maximum input current	A	1 104	2 208	3 312	4 416
Number of DC inputs		3	6	9	12
Maximum current per DC input	A	368	368	368	368
Surge arrester		Type 2	Type 2	Type 2	Type 2
<b>Output AC</b>					
Grid connection		50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC
Rated power	kW	600	1 200	1 800	2 400
Maximum output current	A	936	1 872	2 808	3 744
Line voltage	V	314.5 ... 407	314.5 ... 407	314.5 ... 407	314.5 ... 407
Power factor, inductive		0.8	0.8	0.8	0.8
Power factor, capacitive		0.8	0.8	0.8	0.8
<b>Efficiency</b>					
European efficiency factor	%	98.4	98.6	98.6	98.6
CEC efficiency factor	%	98.5	98.6	98.6	98.6
Maximum efficiency factor	%	98.7	98.7	98.7	98.7
<b>Further data</b>					
Number of subunits		1	2	3	4
Dimensions (H/W/D) per subunit	mm	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730
Weight per subunit	kg	2 085	2 085	2 085	2 085
Ambient temperature					
- during operation	°C	0 ... +50	0 ... +50	0 ... +50	0 ... +50
- during storage and transport	°C	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Relative humidity	%	0 ... 95	0 ... 95	0 ... 95	0 ... 95
Installation altitude					
- maximum permissible	m	2 000	2 000	2 000	2 000
- at rated power	m	0 ... 1 000	0 ... 1 000	0 ... 1 000	0 ... 1 000
Data interface		Ethernet	Ethernet	Ethernet	Ethernet
<b>Order number</b>					
Order number (grid frequency 50 Hz)		6AG3111-1AH00-OAB0	6AG3111-1AH10-OAB0	6AG3111-1AH20-OAB0	6AG3111-1AH30-OAB0
Order number (grid frequency 60 Hz)		6AG3111-2AH00-OAB0	6AG3111-2AH10-OAB0	6AG3111-2AH20-OAB0	6AG3111-2AH30-OAB0

<sup>1)</sup> Detailed technical information can be found at:

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<sup>2)</sup> With the 1 000 V option, expandable to 1 000 V (see page 10 and 24).

# Technical data of the SINVERT PVS630 inverter (according to IEC)<sup>1)</sup>

Inverter type		PVS630	PVS1260	PVS1890	PVS2520
<b>Input DC</b>					
MPP voltage	V	570 ... 750	570 ... 750	570 ... 750	570 ... 750
Maximum input voltage <sup>2)</sup>	V	820	820	820	820
Minimum input voltage	V	570	570	570	570
Rated input power	kW	643	1 286	1 929	2 572
Maximum input current	A	1 104	2 208	3 312	4 416
Number of DC inputs		3	6	9	12
Maximum current per DC input	A	368	368	368	368
Surge arrester		Type 2	Type 2	Type 2	Type 2
<b>Output AC</b>					
Grid connection		50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC	50/60 Hz 370 V 3 AC
Rated power	kW	630	1 260	1 890	2 520
Maximum output current	A	985	1 970	2 955	3 940
Line voltage	V	314.5 ... 407	314.5 ... 407	314.5 ... 407	314.5 ... 407
Power factor, inductive		0.8	0.8	0.8	0.8
Power factor, capacitive		0.8	0.8	0.8	0.8
<b>Efficiency</b>					
European efficiency factor	%	98.3	98.5	98.5	98.5
CEC efficiency factor	%	98.4	98.5	98.5	98.5
Maximum efficiency factor	%	98.7	98.7	98.7	98.7
<b>Further data</b>					
Number of subunits		1	2	3	4
Dimensions (H/W/D) per subunit	mm	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730	2 100 x 2 700 x 730
Weight per subunit	kg	2 085	2 085	2 085	2 085
Ambient temperature					
- during operation	°C	0 ... +50	0 ... +50	0 ... +50	0 ... +50
- during storage and transport	°C	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Relative humidity	%	0 ... 95	0 ... 95	0 ... 95	0 ... 95
Installation altitude					
- maximum permissible	m	2 000	2 000	2 000	2 000
- at rated power	m	0 ... 1 000	0 ... 1 000	0 ... 1 000	0 ... 1 000
Data interface		Ethernet	Ethernet	Ethernet	Ethernet
<b>Order number</b>					
Order number (grid frequency 50 Hz)		6AG3111-1AH00-8AB0	6AG3111-1AH10-8AB0	6AG3111-1AH20-8AB0	6AG3111-1AH30-8AB0
Order number (grid frequency 60 Hz)		6AG3111-2AH00-8AB0	6AG3111-2AH10-8AB0	6AG3111-2AH20-8AB0	6AG3111-2AH30-8AB0

<sup>1)</sup> Detailed technical information can be found at:

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<sup>2)</sup> With the 1 000 V option, expandable to 1 000 V (see page 10 and 24).

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Order No.: E86060-T1818-A101-A2-7600  
MP.R3.XT.0000.00.2.07 / Dispo 46371  
BR 0512 3. WÜ 32 En  
Printed in Germany  
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