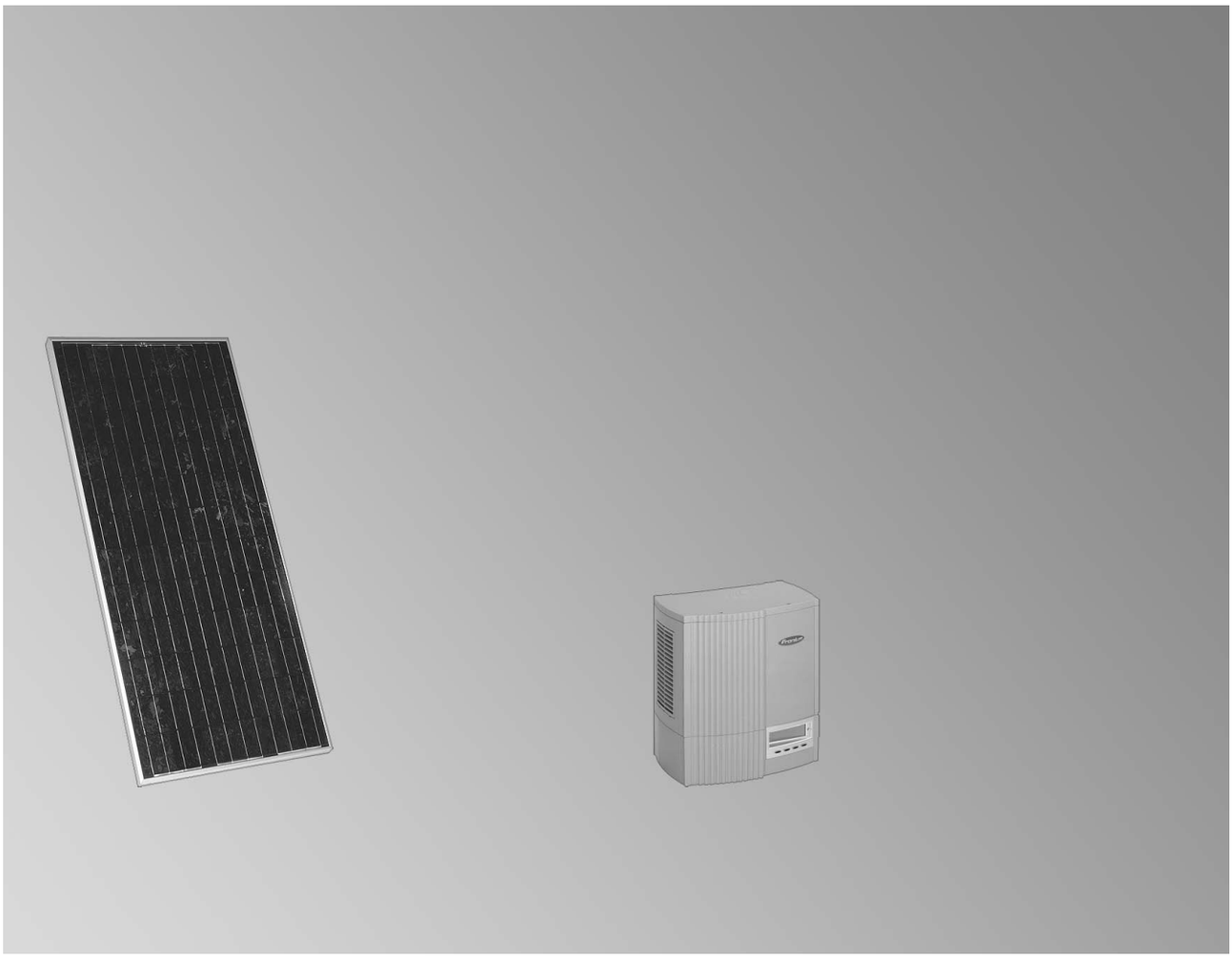
VIESMANN

VITOVOLT 200

Photovoltaic systems
1.48 to 6.66 kW_p

Datasheet

Part numbers and prices: see pricelist



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VITOVOLT 200 Type SB2

Photovoltaic panels with 185 W_p (1.5 m^2 area)
for generating power from the sun.
Suitable for vertical and horizontal installation on pitched roofs and horizontal installation on flat roofs.

Product description

Construction

The Vitovolt 200 photovoltaic panels comprise of a total of 50 polycrystalline solar cells. The connection in series of the individual cells delivers a maximum of 185 W_p.
The panel is designed as a glass laminate construction. The individual solar cells are embedded between two material layers. The rear cover is composed of a foil. Panes and foils are laminated together. This protects the cells against outside weather conditions.

Function

Electrons are released as soon as light strikes the photovoltaic panels. Positive and negative load carriers collect at the electrical contacts - positive and negative poles - creating a DC current.
The inverter transforms DC into AC current, which it feeds into the public grid. The current fed into the grid is metered by a feed-in meter and paid for in accordance with the EEG [Germany] by your electricity supplier [check local facilities].

Benefits

- Assured performance through silicon cells manufactured to the highest quality standard.
- All necessary components, such as interconnecting cables and the inverter of the photovoltaic system, are perfectly matched up.
- Good inherent panel stability through a robust aluminium frame.
- Quick installation through:
  - Simple push connection of electrical cables
  - Installation set for vertical and horizontal rooftop installation.
- Integral bypass diodes ensure high yields, even with partially shaded panels (preventing hot spots).
- Fully wired, highly efficient inverter with integral information display. Data collection via RS-232 interface.
- System data is visualised via the following components:
  - Data transfer interface for integration into the inverter
    or
  - Datalogger box as separate housing with integral data transfer interface
    or
  - Generous display for easy viewing of the current system performance, daily and total energy.

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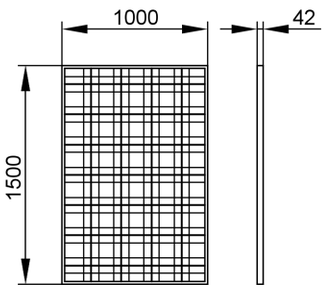
Specification

Specification

Rated output	W_p	185
Output tolerance	%	±5
Panel efficiency	%	12
Type of cell		Polycrystalline silicone cell
Voltage during MPP*1	V	25.4
Current during MPP*1	A	7.29
Idle voltage (STC*2)	V	32.3
Short circuit current (STC*2)	A	8.00
Dimensions		
Width	mm	1000
High	mm	1500
Depth	mm	42
Weight	kg	21
Requirements of base structure and fixings		with sufficient ballast to counteract prevailing wind forces



Performance warranty

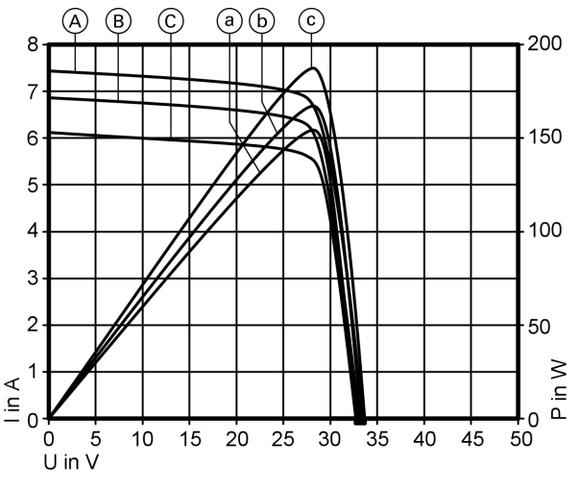
- 12 years: 90 %
- 20 years: 80 %

*1 *MPP = Maximum power point (maximum output at STC)*

*2 *STC = Standard test conditions (standardised test conditions: irradiation 1000 W/m², cell temperature 25 °C and atmospheric nucleon number AM 1,5 G).*

Specification (cont.)

Current-voltage curves



The graph shows the curve under standard test conditions. A short-circuit current of 8.00 A results from any shorted out panel. The idle voltage is 32.3 V.
The intelligent control of the inverter results in an "operation" of the photovoltaic panel at an operating point, where it produces its maximum output. This operating point is called MPP.
The max. output of the panel is 185 W_p. At that point it supplies a current of 7.29 A at 25.4 V.

Ⓐ Irradiation 1000 W/m²
Ⓑ Irradiation 900 W/m²
Ⓒ Irradiation 800 W/m²
ⓐ Output during irradiation 1000 W/m²
ⓑ Output during irradiation 900 W/m²
ⓒ Output during irradiation 800 W/m²

As delivered condition

The Vitovolt 200 is delivered as a packing unit comprising 2 and/or 16 panels, fully wired with 1.0 m connecting cables.

Accessories

Fixing sets

For part no., see pricelist
Packed separately, subject to order:
The fixing sets contain components required for the relevant method of installation, such as:
- Timber
- Roof hooks
- Mounting plates
- Mounting rails
- Supports
- Clamping bolts, screws, nuts

Inverter

The inverter can be selected subject to the number of existing photovoltaic panels.

Inverter specification

Type		IG 15	IG 20	IG 30	IG 40	IG 60
System output	kW_p	1.3 to 2.0	1.8 to 2.7	2.5 to 3.6	3.5 to 5.5	4.6 to 6.7
Rated output						
DC	kW	1.40	1.94	2.96	3.76	4.95
AC	kW	1.50	2.00	2.65	4.10	5.00
Standby mode						
– during day operation	W	7	7	7	12	12
– during night operation	W	0	0	0	0	0
MPP range DC	V	150-400				
Efficiency						
– European	%	91.4	91.6	92.7	93.5	93.5
– maximum	%	94.2	94.3	94.3	94.3	94.3

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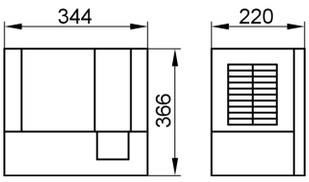
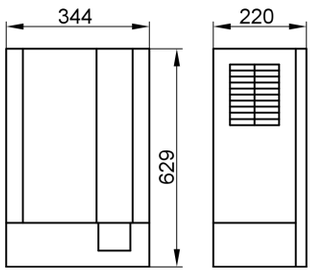
Accessories (cont.)

Type		IG 15	IG 20	IG 30	IG 40	IG 60
Weight	kg	9			16	
Protection		IP 21*1				



IG 15, IG 20 and IG 30



IG 40 and IG 60

Connecting/extension cable

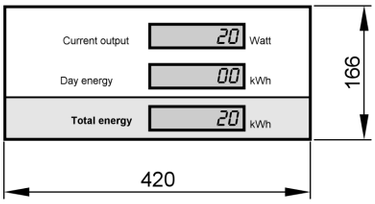
Part no. 7190 525
(2 pieces at 15 m long, 4 mm^2)
For connecting the panels to the inverter

Extension cable

Part no. 7179 222
(1 piece at 3 m long, 4 mm^2)
For interconnecting panels where panels are installed further apart

Generous display

Part no. 7143 989

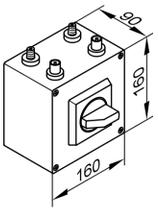


With pulse counter and software for easy viewing of
- current output in W
- day energy in kWh
- total energy in kWh

Only for internal installation.

DC isolator

Part no. 9570 243



Separates the generator (photovoltaic panels) at the DC side of the inverter.
2 strings may be connected.

*1 *Protection IP 45 (outdoor version) on request.*

Accessories (cont.)

Data transfer interface

Part no. 9556 337
COM CARD PCB for installation of the inverter in conjunction with the datalogger box.
In larger systems comprising several inverters, this inverter acts as link between the individual inverters (RS 485) and must be installed in each inverter (integral power supply for internal/external options; galvanic separation towards the inverter).

Datalogger box

Part no. 9556 338
Separate housing with integral data transfer interface.
Suitable for recording data for up to 100 inverters (RS 485).
A connection to a PC (RS 232) enables the setting of parameters, maintenance and remote data transfer.

"EASY" datalogger box

Part no. 7188 582
Datalogger box for **one** inverter.

Data cable

- **RS 232**
  Part no. 9556 339
  Null modem cable for connection to an inverter with the PC.
  2.0 m long.
- **RS 485**
  Part no. 9556 340
  For interconnecting several inverters.
  1.0 m long, with RJ 45 plug.
- **RS 485**
  Part no. 9556 341
  For interconnecting several inverters.
  20.0 m long, with loose plug.

SIGNAL CARD

Part no. 7188 581
For integration into the inverter.
For fault notification.

Tested quality

CE designation according to current EC Directives.

Subject to technical modifications.

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