

Solar package NIBE PV

NIBE PV is an integrated solution which is based on a fully modular system with eight basic sizes: 3, 6, 9, 12, 15, 18, 21 & 24 kW. Each size consists of a number of base package with 10 panels and a nominal power of 3 kW, mounting parts and a suitable inverter with communication module, all of which are ready for installation.

NIBE PV comprises of monocrystalline silicon cell panels which use PERC technology, with an output of 300 Wp. The solar panels are elegant, all-black panels. NIBE PV harnesses sunlight all year round and converts it into electricity. NIBE PV can be connected to your NIBE heat pump* for maximum energy efficiency.

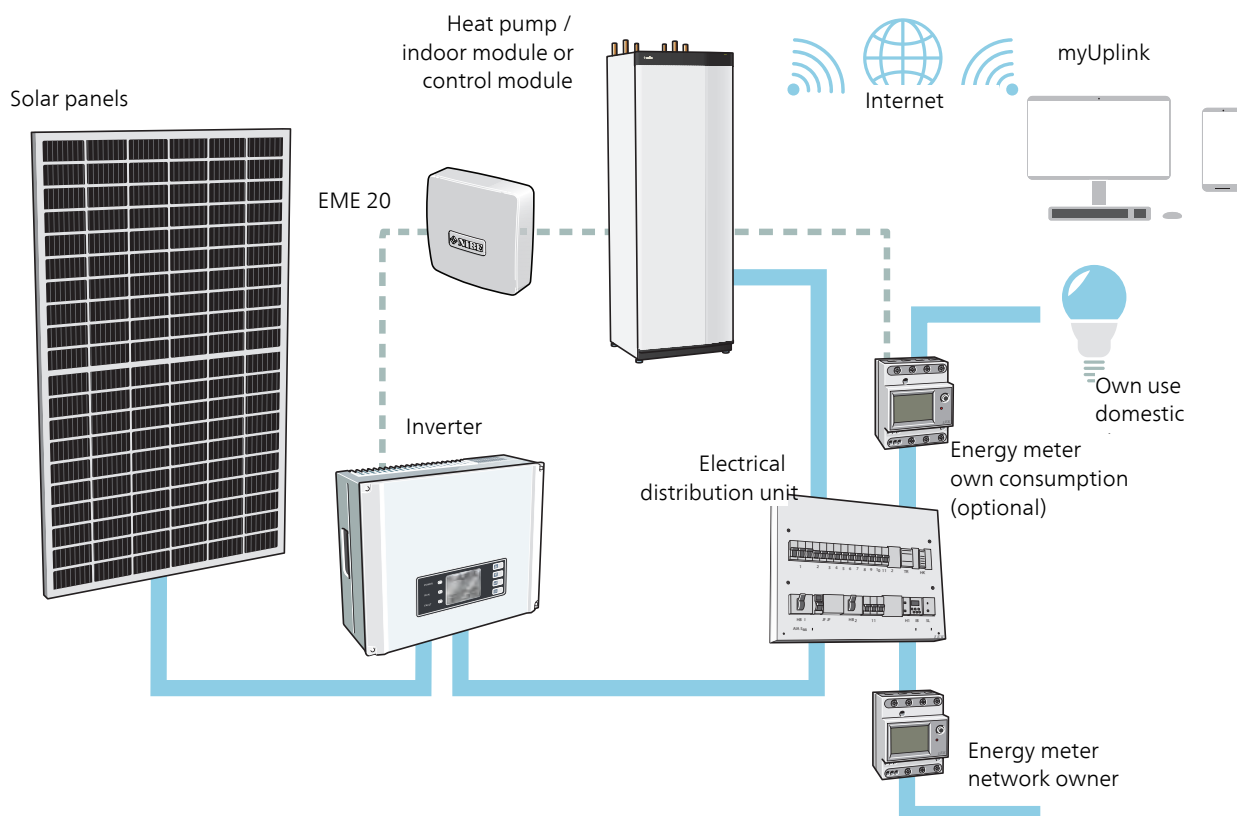
Thanks to smart technology, the product gives you control over your energy consumption and will be a key part of your connected home. The efficient control system automatically adjusts the indoor climate for maximum comfort, and you do nature a favour at the same time.

* applies to systems which can be connected to NIBE Uplink.

- Flexible modular system with eight basic sizes which can be easily expanded.
- Elegant, all-black panels which use PERC technology for maximum efficiency.
- Connect to a NIBE heat pump for maximum energy efficiency.



This is how NIBE PV works



Factory-fitted junction boxes prepared with cables for positive and negative connections can be found on the reverse of the solar panels. The cables are fitted with quick-release connectors.

The electrical cables between the panels and the inverter must be double insulated and UV/weather-resistant photovoltaic cables, 4 mm² up to 100 m length (not supplied).

The inverter is connected and fused to the fuse panel as if it was a load with the same output. The inverter includes a factory-fitted 300 mA residual current device. If the inverter is to be connected to an external residual current device, this must be 300 mA or larger and of type A.

On an annual basis, you obtain the maximum possible benefit from your solar panel package when it is used together with a NIBE heat pump.

NIBE PV connected to your NIBE heat pump via a supplied communication module, which in turn can be connected to NIBE Uplink. This system solution means that the inverter's information is shown in the heat pump. Thanks to smart technology, this system solution provides you with control over your energy consumption via NIBE Uplink.

With the heat pump's efficient control system and smart communication, the heat pump can adapt to the free solar energy that is produced.

The surplus portion is supplied to the national grid for use in the neighbourhood. When you produce your own solar electricity from solar cells, you are producing renewable energy without any emissions, and with no worry about rising electricity prices.

INSTALLATION

General

The installation must only be carried out by competent personnel.

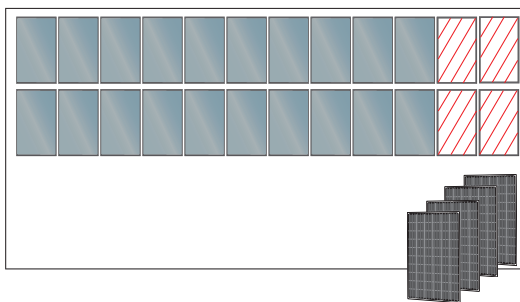
The enclosed materials are those required for the installations described. In special cases, these may need to be supplemented. In case of doubt, contact your supplier. Information regarding applicable standards and regulations must be obtained prior to the installation and commissioning of the solar panel system.

Mounting

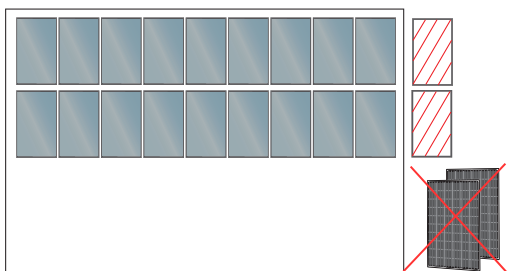
Each package can be expanded with additional panels. This means that you have extremely good flexibility, allowing attractive roof installation.

Example

6.4 kW package installed on roof that is expanded by e.g. four solar panels (7.7 kW)



6.2 kW package installed on roof where you have decided not to install e.g. two panels (5.8 kW).



It may be necessary to supplement connectors and mounting materials such as roof brackets, if the panels are to be installed in different groupings.

Number of solar panels per string and per package

The table shows how many panels you can have per string, as well as how many panels are standard and how many the inverter can cope with. The inverter has dual trackers, allowing the installation of different numbers of panels per string. If the number of panels is not sufficient to achieve the minimum number for two strings, you have to install all the panels in one string.

String = a number of panels connected in series.

Inverter max. DC:	Min./ string	Max./ string	Std./ no.	Min. total	Max. total
3.9 kW	4	10	10	6	12
7.8 kW	8	21	20	8	24
10.4 kW	8	21	30	8	32
13 kW	8	21	40	8	40
19.5 kW	8	2x21 *	50	8	60
26 kW	10	2x21 **	80	10	80

* Tracker one can manage one string or two equally long strings.

** Two equally long strings per input/tracker (can also manage one string per tracker).

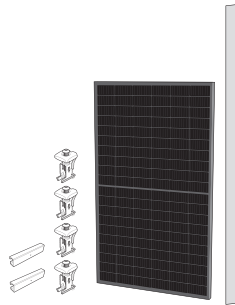
Technical specifications

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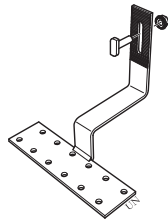
<i>Solar panel</i>		<i>3.2 kW</i>	<i>6.4 kW</i>	<i>9.6 kW</i>	<i>12.8 kW</i>	<i>16 kW</i>	<i>19.2 kW</i>	<i>22.4 kW</i>
Rated output at STC (Pmpp)	Wp	320						
Rated voltage (Umpp)	V	33.5						
Rated current (Impp)	A	9.56						
External; dimensions (LxWxH)	mm	1684x1002x35						
Version with aluminium frame		Anodised black						
Weight	kg	20.7						
Connection cables with pre-installed connectors	mm	2x300						
<i>PVK basic kit 10-10</i>								
Part No.		057 225						
<i>Inverter</i>		<i>PVI 10-3</i>	<i>PVI 10-6</i>	<i>PVI 10-9</i>	<i>PVI 10-12</i>	<i>PVI 10-15</i>	<i>PVI 10-21</i>	
Outer dimensions (WxHxD)	mm	347x432x145	516x474x192				516x650x203	
Weight	kg	14	24				39	
Max. number of strings		2				3		4
Colour		White						
Number of trackers (MPPT)		2						
Enclosure class		IP65						
Rec. fuse rating	A	16	16	16	20	32	40	
Part No.		057 200	057 201	057 202	057 203	057 230	057 204	
<i>EME 20 (included in inverter PVI 10)</i>								
External; dimensions (LxWxH)	mm	81x81x28						
Enclosure class		IP22						
Part No.		057 188						
<i>Roof brackets 20 pcs</i>								
<i>PRM 11-20 (Roof bracket, tiled roof)</i>								
Part No.		057 207						
<i>PRM 61-20 (Retrofit kit for horizontal installation on tiled roof)</i>								
Part No.		057 249						
<i>PRM 21-20 (Roof bracket, sheet metal roof)</i>								
Part No.		057 208						
<i>PRM 41-20 (Roof bracket, felt roof)</i>								
Part No.		057 209						
<i>PRM 31-20 (Roof bracket, seamed sheet metal roof)</i>								
Part No.		057 210						
<i>PRM 51-20 (Ceiling bracket universal for aluminium rails). Lower section for the ceiling bracket is not supplied by NIBE</i>								
Part No.		057 227						

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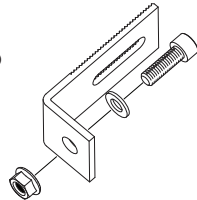
1 x PVK 20-1 Solar panel with mounting kit
(4 x assembly clamps, 1 x aluminium rail, 2 x joints)
Part no. 057 256



1 pcs PRM 11-1 Roof bracket, tiled roof
Part no. 057 181



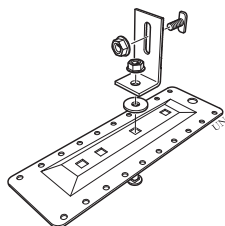
1 x PRM 61-1 Roof bracket, horizontal installation for tiled roof. Supplement to PRM 11-1.
Part no. 057 250



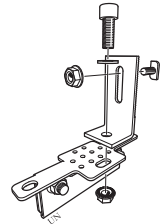
1 pcs PRM 21-1 Roof bracket, sheet metal roof
Part no. 057 182



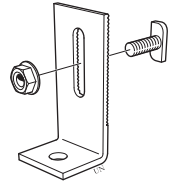
1 pcs PRM 41-1 Roof bracket, felt roof
Part no. 057 183



1 pcs PRM 31-1 Roof bracket, seamed sheet metal roof
Part no. 057 184

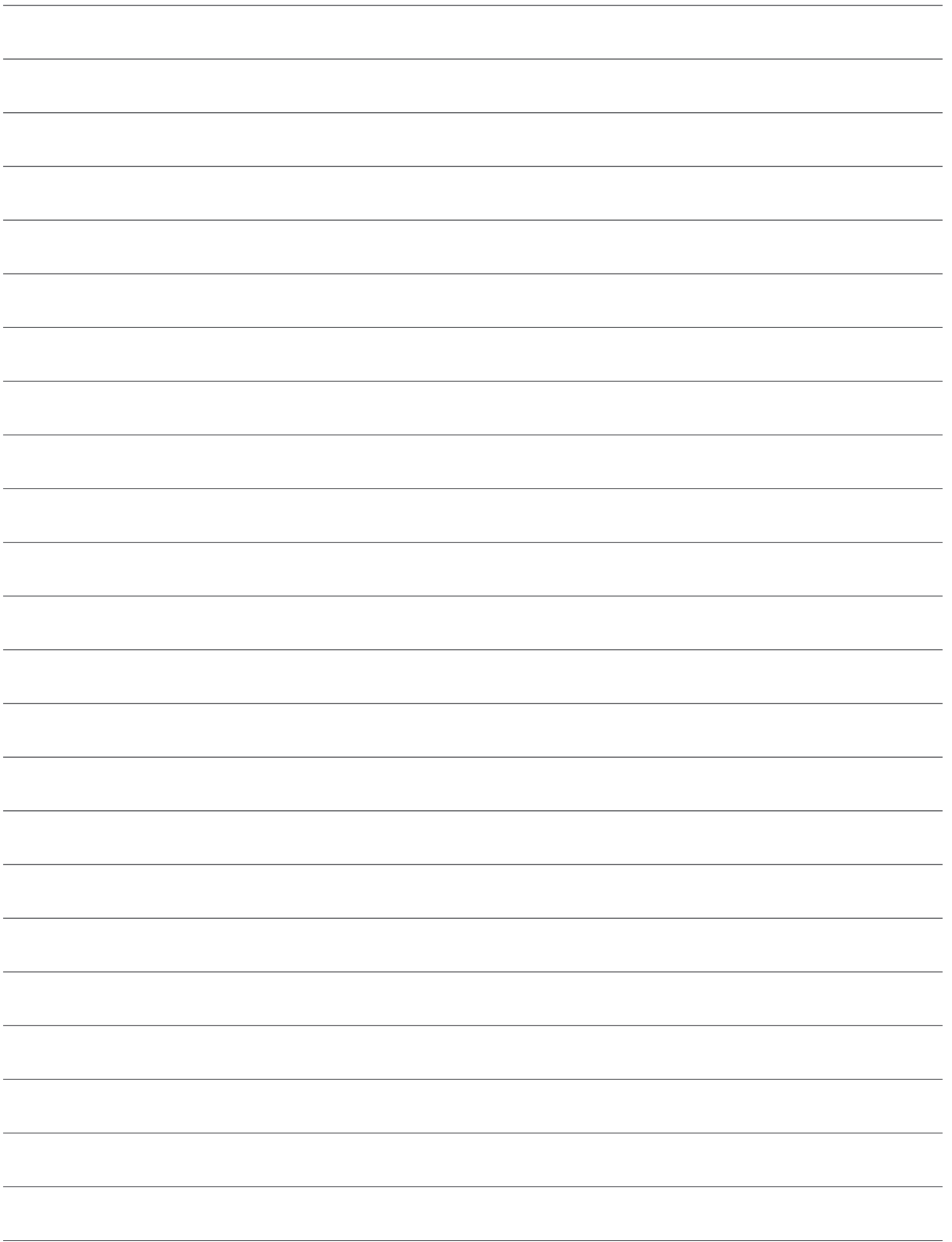


1 x PRM 51-1 Ceiling bracket universal for aluminium rails
Part no. 057 228



1 x Wifi communication module CMO 11
Part no. 057 252





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