

**Contents**

1 About these instructions .....	1
2 Description of the solar modules .....	1
3 Safety .....	2
4 Assembly .....	2
5 Electrical connection.....	3
6 Maintenance .....	4
7 Disclaimer .....	4
8 Customer service / Contact .....	4

**1 About these instructions**

These instructions contain information about safe handling of KYOCERA solar modules of the KD-series. They are directed at personnel with electro-technical qualifications and contain safety-relevant instructions for the assembly, connection and maintenance of the solar modules.

**IMPORTANT**

The solar modules may only be mounted by personnel with electro-technical qualifications. Appropriately qualified technicians must always be deployed to service the units or remedy faults during operation.

Please read these instructions carefully before handling the solar module and familiarise yourself with the safety information. After the module has been installed, hand over these instructions to the operator of the solar modules for safe-keeping.

**2****2.3 Technical data**

Type designation	KD135GH-2PU	KD180GH-2PU	KD185GH-2PU	KD205GH-2PU	KD210GH-2PU
<b>Electrical data</b> (at standard test conditions: Irradiation 1000 W/m <sup>2</sup> ; air mass AM 1,5; module temperature 25 °C)					
P <sub>max</sub> [W]	135	180	185	205	210
V <sub>oc</sub> [V]	22.1	29.5	29.5	33.2	33.2
I <sub>sc</sub> [A]	8.37	8.35	8.58	8.36	8.58
V <sub>mp</sub> [V]	17.7	23.6	23.6	26.6	26.6
I <sub>mp</sub> [A]	7.63	7.63	7.84	7.71	7.90
<b>Bypass diode (pre-installed)</b>					
Number	2	3	3	3	3
Phase fuse [A]	15	15	15	15	15
<b>Temperature properties: Temperature coefficient</b>					
V <sub>oc</sub> [V/°C]	-0.80 * 10 <sup>-3</sup>	-1.06 * 10 <sup>-3</sup>	-1.06 * 10 <sup>-3</sup>	-1.20 * 10 <sup>-3</sup>	-1.20 * 10 <sup>-3</sup>
I <sub>sc</sub> [A/°C]	5.02 * 10 <sup>-3</sup>	5.01 * 10 <sup>-3</sup>	5.15 * 10 <sup>-3</sup>	5.02 * 10 <sup>-3</sup>	5.15 * 10 <sup>-3</sup>
V <sub>mp</sub> [V/°C]	-0.92 * 10 <sup>-3</sup>	-1.21 * 10 <sup>-3</sup>	-1.23 * 10 <sup>-3</sup>	-1.38 * 10 <sup>-3</sup>	-1.38 * 10 <sup>-3</sup>
<b>Physical properties:</b>					
Length [mm]	1500	1338	1338	1500	1500
Width [mm]	668	990	990	990	990
Height [mm]	46	46	46	46	46
Weight [kg]	12.5	16.0	16.0	18.0	18.0
Assembly boreholes	Diameter 9 mm, 4 units				
Grounding boreholes	Diameter 9 mm, 4 units				
Application class	Class A				

**Description of the solar modules****2.1 Proper use**

The solar modules use the photovoltaic principle to turn light into electricity. The solar modules are primarily designed for connection to an inverter to feed the energy into the public power grid. When connecting to a charge controller, please observe the instructions of the manufacturer of the charge controller and accumulator. Several solar modules can be connected in series or in parallel. The solar modules may not be directly connected to electrical consumers.

**2.2 Description**

The solar modules have an aluminium assembly frame with assembly and grounding boreholes. The solar modules have a junction box and solar cables with plugs for the electrical connection. **Appendix 1** of these instructions contains an illustration of a solar module.

Pos.	Designation
1	Grounding boreholes
2	Junction box
3	Assembly boreholes
4	Module frame
5	Solar cable

The solar modules are equipped with bypass diodes. In the event of clouding, these minimise the losses and help to prevent damage to the solar modules. The solar modules are not equipped with blocking diodes preventing battery discharging at night. Most PV charge regulators incorporate nighttime disconnect feature. The solar modules comply with the application class A in accordance with IEC/EN 61730-1.

**2****2.3 Technical data**

Type designation	KD135GH-2PU	KD180GH-2PU	KD185GH-2PU	KD205GH-2PU	KD210GH-2PU
<b>Electrical data</b> (at standard test conditions: Irradiation 1000 W/m <sup>2</sup> ; air mass AM 1,5; module temperature 25 °C)					
P <sub>max</sub> [W]	135	180	185	205	210
V <sub>oc</sub> [V]	22.1	29.5	29.5	33.2	33.2
I <sub>sc</sub> [A]	8.37	8.35	8.58	8.36	8.58
V <sub>mp</sub> [V]	17.7	23.6	23.6	26.6	26.6
I <sub>mp</sub> [A]	7.63	7.63	7.84	7.71	7.90
<b>Bypass diode (pre-installed)</b>					
Number	2	3	3	3	3
Phase fuse [A]	15	15	15	15	15
<b>Temperature properties: Temperature coefficient</b>					
V <sub>oc</sub> [V/°C]	-0.80 * 10 <sup>-3</sup>	-1.06 * 10 <sup>-3</sup>	-1.06 * 10 <sup>-3</sup>	-1.20 * 10 <sup>-3</sup>	-1.20 * 10 <sup>-3</sup>
I <sub>sc</sub> [A/°C]	5.02 * 10 <sup>-3</sup>	5.01 * 10 <sup>-3</sup>	5.15 * 10 <sup>-3</sup>	5.02 * 10 <sup>-3</sup>	5.15 * 10 <sup>-3</sup>
V <sub>mp</sub> [V/°C]	-0.92 * 10 <sup>-3</sup>	-1.21 * 10 <sup>-3</sup>	-1.23 * 10 <sup>-3</sup>	-1.38 * 10 <sup>-3</sup>	-1.38 * 10 <sup>-3</sup>
<b>Physical properties:</b>					
Length [mm]	1500	1338	1338	1500	1500
Width [mm]	668	990	990	990	990
Height [mm]	46	46	46	46	46
Weight [kg]	12.5	16.0	16.0	18.0	18.0
Assembly boreholes	Diameter 9 mm, 4 units				
Grounding boreholes	Diameter 9 mm, 4 units				
Application class	Class A				

**3 Safety**

Solar modules generate power and bear current as soon as they are exposed to light. A single solar module generates a voltage of below 50 VDC; if several modules are connected in series, the voltages of the individual modules accumulate and can pose a hazard.

**Hazard**

Potentially fatal risk due to electrical shock if damaged solar modules are touched.

- Only touch solar modules with fractured or broken front glass or a damaged rear foil if you are wearing rubber gloves.
- Only touch damaged solar modules if it is absolutely necessary.

**Warning!**

Risk of falling when working on roofs.

- Use suitable fall protection equipment.
- Do not perform assembly work in strong winds.
- Only perform assembly work in dry weather conditions.
- Observe the accident prevention regulations.

**Warning!**

Risk of injury from falling objects.

- Cordon off a safe distance around the hazardous zone when working on roofs.

**Caution**

To avoid damage to the solar module, please observe the following points:

- Do not apply paint or any adhesives to the rear side of the solar module.
- Never use the junction box or the solar cable to carry the unit.
- Do not expose the solar module to concentrated light.
- Do not allow any objects to fall upon the solar module.
- Avoid scratches to the front glass.

**Caution**

Risk of breaking the solar module.

- Do not walk across or step on the solar module.

**4 Assembly**

Assembly work may only be performed by trained and qualified personnel.

**4.1 Safety information relating to assembly****Caution**

KYOCERA solar modules are "non-explosion-protected operating equipment".

- Do not install the solar module close to flammable gases or vapours.

**Hazard**

Potentially fatal risk if live parts are touched.

- Cover the solar module with opaque foils or materials during assembly.

**Warning!**

Risk of falling when working on roofs.

- Use suitable fall protection equipment.
- Do not perform assembly work in strong winds.
- Only perform assembly work in dry weather conditions.
- Observe the accident prevention regulations.

**4.2 Select the location****NOTE**

Before installing the PV system, contact local authorities to determine the necessary permits, installation and inspection requirements. During assembly, pay attention to the local building standards.

The solar modules can be installed on roofs or open space on support structures. To achieve maximum power yields for feeding into the public grid, the following should be observed when selecting the installation site: The solar irradiation should be as high as possible distributed throughout the year. To this end, the surface of the solar modules in the northern hemisphere must face south. In Europe, the ideal module slope is approx. 30° - 40°. While a bigger module slope leads to energy losses, smaller module slope can also lead to high accumulations of non-slipping snow on the module, which might cause damages to the module or its frame. The solar modules should not be exposed to shadows cast by trees or buildings as this would lead to energy losses. For more information about the selection of the site, please contact the KYOCERA customer service.

**4.3 Preparatory work for assembly**

The solar module must be mounted to a support structure. Please observe the information provided by the manufacturer when selecting the support structure.

If installed on a roof, the solar modules must be mounted on a fire-resistant surface.

#### 4.4 Mounting the solar module

Please observe the following during assembly:

- A clearance of at least 15 mm needs to be kept between the module frame and the attachment surface. This allows the cool ambient air to circulate below the solar module. This is necessary for optimum performance in all application ranges.
- There should be a clearance of at least 3.2 mm between the individual module frames to allow heat-related expansion.
- The solar modules can be installed in either an upright or landscape position.
- When installing modules in a snowy area, please take countermeasures against possible damage to the lower part of the frame due to slipping snow accumulating in the lowest row of modules (e.g. attach supporting parts to the lowest modules).
- When selecting the material for the support structure, pay attention to the electrochemical series in order to avoid galvanic corrosion between different kinds of metal.

#### 4.4.1 Screw attachment

##### Assembly material

- Stainless steel screws, diameter 8 mm (4 units)
- Nuts with locking teeth (4 units)

##### NOTE

No boreholes may be drilled into the module frame.

##### Procedure

- ✓ Please see the drawing in **Appendix 1** of these instructions for the positions of the mounting boreholes.
- ✓ Drill the required assembly boreholes to the support structure.
- ✓ Tighten the screws with adequate torque (usually 12.5 Nm) to securely attach the solar module to the supporting frame. As adequate torque figure depends on selected bolt nuts, follow the manufacturers' recommended numbers.

#### 4.4.2 Clamps

##### Assembly material

- Rustproof module clamps (at least 4 units).
- Please observe the information provided by the manufacturer when selecting the clamps.

##### NOTE

The module clamps

- may not bend the module frame.
- may not touch the front glass.
- may not cast a shadow on the front glass.
- may not damage the surface of the frame.
- must be at least 40 mm long respectively.
- must overlap the module frame by at least 9 mm.

##### Procedure

- ✓ Define the positions of the clamps based on the drawings in **Appendix 2**.
- ✓ Tighten the module clamps to the torque stated by the clamp manufacturer.

#### 4.4.3 Assembly to insertion system

When mounting the modules to an insertion system, follow the instructions in the drawings in **Appendix 2**. Please observe the information provided by the manufacturer.

#### 5 Electrical connection



Only specially trained and qualified personnel may make the electrical connection.

#### 5.1 Safety information relating to the electrical connection

##### Hazard!

Potentially fatal risk if live parts are touched.

- Never disconnect or connect electrical contacts when under load.
- Only use dry, insulated tools for the electrical assembly work.
- Never touch live parts with bare hands.
- Cover the solar module during installation with opaque foils or materials.
- Do not wear any metal jewellery.

#### 5.2 Wiring of the solar modules

##### NOTE

The maximum system voltage of solar modules connected to each other may not exceed 1000 VDC. When designing the system, please note that the module voltage increases when the temperatures are low. Do not connect the modules in parallel without max. over current protection.

Under normal conditions, solar modules can supply higher currents and/or a higher voltage than reported at the standard test conditions (**see chapter 2.3 "Technical Data"**). Therefore, when determining component voltage ratings, conductor current ratings, fuse sizes, and the size of controls connected to the output of the solar modules, the stipulated values of  $I_{sc}$  and  $V_{oc}$  should be multiplied with a factor of 1.25. Only interconnect modules of the same type within a system.

The solar modules are equipped ex-works with 4 mm<sup>2</sup>-solar cables. The solar cables have Multi-Contact® PV-3-plugs. These plugs are designed for series wiring only. Always use special solar cables with a diameter of at least 4 mm<sup>2</sup> and Multi-Contact® PV-3-plugs for further series or parallel wiring.

When wiring, proceed as follows:

- Ensure the poles are connected correctly and that the plugs are connected properly without gaps
- Observe the minimum bending radius of 24.5 mm of the solar cables that are used.

#### 5.3 Connection of the solar modules

Please observe the information provided by the manufacturer of the inverter when connecting the solar modules to an inverter.

#### 8 Customer service / Contact

**KYOCERA Fineceramics GmbH**  
Solar Division  
Fritz-Mueller-Strasse 27  
D-73730 Esslingen / Germany

- **for technical questions:**  
Tel: +49 (0)711-93934-999  
Fax: +49 (0)711-93934-861  
E-Mail: pv-support@kyocera.de

- **for general questions:**  
Tel: +49 (0)711-93934-999  
Fax: +49 (0)711-93934-950  
E-Mail: solar@kyocera.de

You will find more information and the latest data sheets, warranty conditions, certificates etc. in the download section of our website: [www.kyocerasolar.de](http://www.kyocerasolar.de)

#### 5.4 Grounding of the solar modules

To minimise the risk of an electrical shock, the frames of the solar modules should be grounded.

##### Assembly material

- stainless steel screw, diameter 8 mm with serrated washer and nut
- suitable grounding cable

##### NOTE

Ensure that the anodised layer of the frame is penetrated and a secure electrical contact is created with the frame.

##### Procedure

- ✓ Please see the drawing in **Appendix 1** of these instructions for the positions of the grounding boreholes.
- ✓ Screw the grounding cable firmly to one of the grounding boreholes using the stainless steel screw and a min. torque of 8 Nm.

#### 6 Maintenance



Only specially trained and qualified personnel may service the solar system.

KYOCERA-solar modules are designed for long-term service and are almost maintenance-free.

#### 6.1 Safety information relevant for maintenance



##### Warning!

Risk of falling when working on roofs.

- Use suitable fall protection equipment.
- Observe the accident prevention regulations.

#### 6.2 Cleaning the solar module

When the slope is adequate (> 15 degrees), the solar modules do not need to be cleaned thanks to the self-cleaning effect of the rain. If heavily soiled, clean with plenty of water, a mild detergent and a soft cloth/sponge.

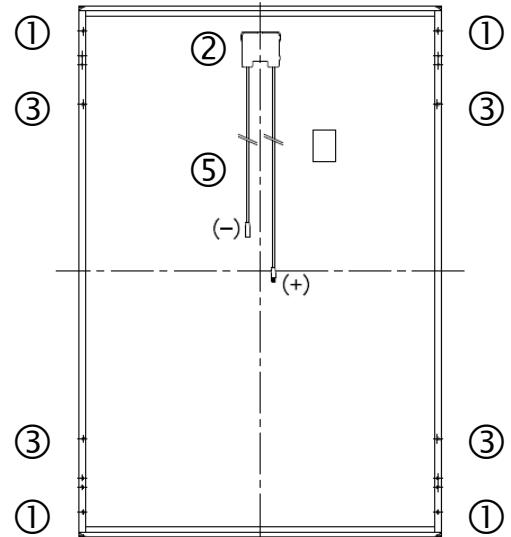
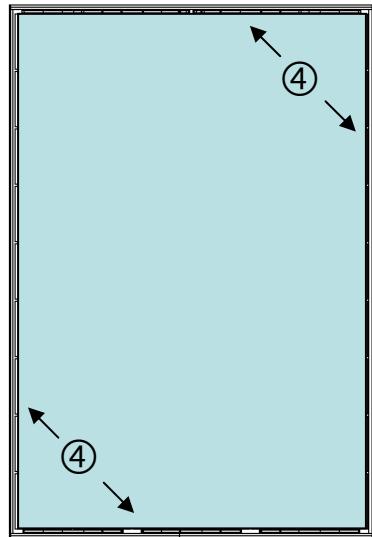
#### 6.3 Solar module maintenance

The system should be inspected once a year with regard to the following:

- Secure hold and no rust on any of the attachments
- Secure connection, cleanliness and that all cable connections are free of corrosion
- Soundness of cables and front glass

#### 7 Disclaimer

Kyocera's **"Limited Warranty for Photovoltaic-Modules"** does not apply if this assembly and maintenance instruction is not strictly observed. KYOCERA will not assume any liability for damage arising from improper use, wrong assembly, operation or maintenance.



**KD205GH-2PU, KD210GH-2PU**

Installation with long side frame  
 Befestigung an der langen Rahmenseite  
 Fijación al lado largo del bastidor  
 Fixation sur la partie longue du cadre  
 Fissaggio sul lato lungo del telaio  
 Upevnění na dlouhé straně rámu

Mounting table A-1  
 Montagetabelle A-1  
 Tabla de montaje A-1  
 Tableau de montage A-1  
 Tabella di montaggio A-1  
 Montážní tabulka A-1

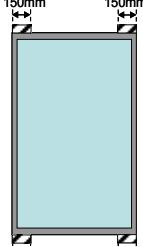
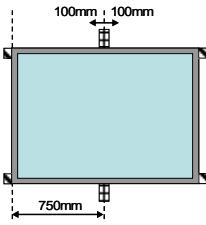
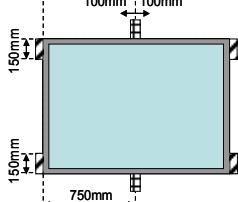
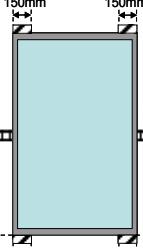
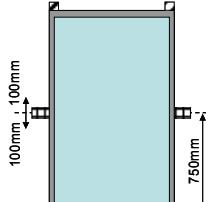
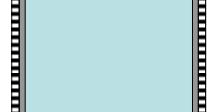
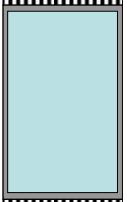
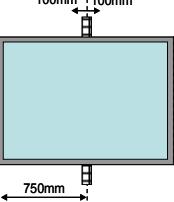
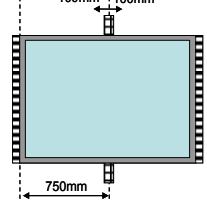
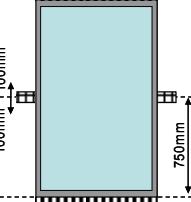
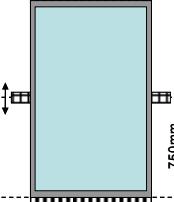
	2,400 Pa	5,400 Pa
Bolting Verschrauben Atornillado Vissage Fissaggio a vite Přišroubování	<p>278.5mm 943mm</p>	<p>278.5mm 943mm</p>
Clamping Klemmen Bornes Connexion Fissaggio con morsetti Svorky	<p>278.5mm 943mm</p>	<p>278.5mm 943mm</p>
Inlay Einlegen Inserción Insertion Incasso Vkládání		

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2,400 Pa und 5,400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2,400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5,400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2,400 Pa y 5,400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máxima de 2,400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5,400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2,400 Pa et 5,400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2,400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5,400 Pa.)
- Il modulo in oggetto resiste/ono alla prova di carico meccanico secondo IEC61215 ed.2 a 2,400 Pa e 5,400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2,400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5,400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2,400 Pa a 5,400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2,400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5,400 Pa.)

# KD205GH-2PU, KD210GH-2PU

Installation with short side frame  
 Befestigung an der kurzen Rahmenseite  
 Fijación al lado corto del bastidor  
 Fixation sur la partie courte du cadre  
 Fissaggio sul lato corto del telaio  
 Upevnění na krátké straně rámu

Mounting table A-2  
 Montagetabelle A-2  
 Tabla de montaje A-2  
 Tableau de montage A-2  
 Tabella di montaggio A-2  
 Montážní tabulka A-2

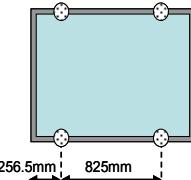
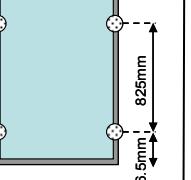
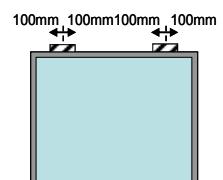
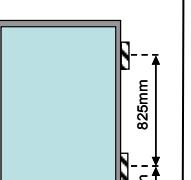
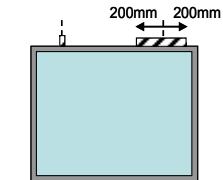
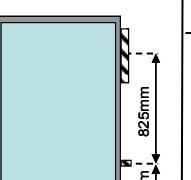
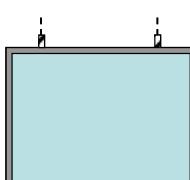
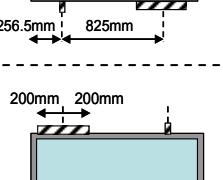
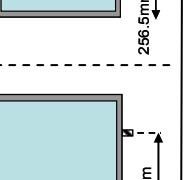
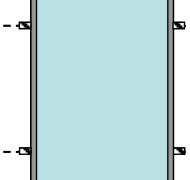
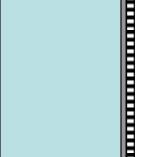
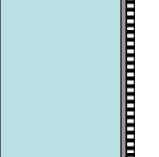
	2,400 Pa	5,400 Pa
<b>Clamping</b> <b>Klemmen</b> <b>Bornes</b> <b>Connexion</b> <b>Fissaggio con morsetti</b> <b>Svorky</b>  : Permissible clamping range Zulässiger Klemmbereich Zona de bornes permisible Plage de connexion admise Area di bloccaggio consentita Přípustná oblast upnutí	  	  
<b>Inlay</b> <b>Einlegen</b> <b>Inserción</b> <b>Insertion</b> <b>Incasso</b> <b>Vkládání</b>   : Inlay mounting-bar Einlegesystem Sistema de inserción Système d'insertion Sistema d'installazione Vkládací systém	  	  

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2.400 Pa und 5.400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2.400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5.400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2.400 Pa y 5.400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máx. de 2.400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5.400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2.400 Pa et 5.400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2.400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5.400 Pa.)
- Il modulo in oggetto resiste/ono alla prova di carico meccanico secondo IEC61215 ed.2 a 2.400 Pa e 5.400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2.400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5.400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2.400 Pa a 5.400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2.400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5.400 Pa.)

# KD180GH-2PU, KD185GH-2PU

Installation with long side frame  
 Befestigung an der langen Rahmenseite  
 Fijación al lado largo del bastidor  
 Fixation sur la partie longue du cadre  
 Fissaggio sul lato lungo del telaio  
 Upevnění na dlouhé straně rámu

Mounting table B-1  
 Montagetabelle B-1  
 Tabla de montaje B-1  
 Tableau de montage B-1  
 Tabella di montaggio B-1  
 Montážní tabulka B-1

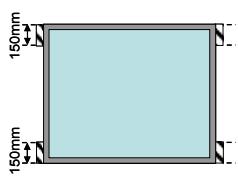
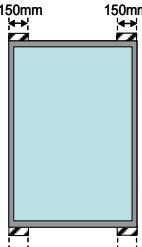
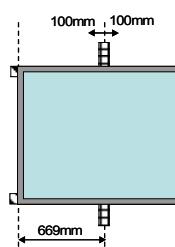
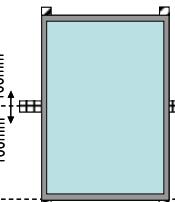
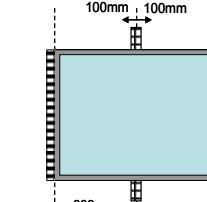
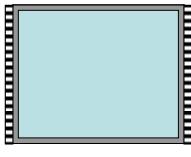
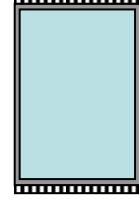
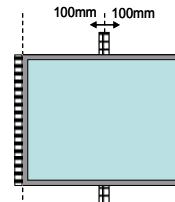
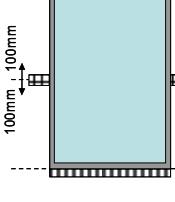
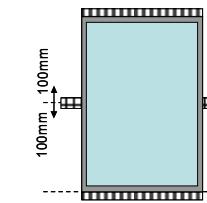
	2,400 Pa	5,400 Pa
Bolting Verschrauben Atornillado Vissage Fissaggio a vite Příšroubování		
Clamping Klemmen Bornes Connexion Fissaggio con morsetti Svorky	   	
<input checked="" type="checkbox"/> : Permissible clamping range Zulässiger Klemmbereich Zona de bornes permisible Plage de connexion admise Area di bloccaggio consentita Přípustná oblast upnutí	 	
Inlay Einlegen Inserción Insertion Incasso Vkládání		
<input type="checkbox"/> : Inlay mounting-bar Einlegesystem Sistema de inserción Système d'insertion Sistema d'installazione Vkládací systém		

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2,400 Pa und 5,400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2,400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5,400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2,400 Pa y 5,400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máxima de 2,400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5,400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2,400 Pa et 5,400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2,400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5,400 Pa.)
- Il modulo in oggetto resiste/ono alla prova di carico meccanico secondo IEC61215 ed.2 a 2,400 Pa e 5,400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2,400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5,400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2,400 Pa a 5,400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2,400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5,400 Pa.)

# KD180GH-2PU, KD185GH-2PU

Installation with short side frame  
 Befestigung an der kurzen Rahmenseite  
 Fijación al lado corto del bastidor  
 Fixation sur la partie courte du cadre  
 Fissaggio sul lato corto del telaio  
 Upevnění na krátké straně rámu

Mounting table B-2  
 Montagetabelle B-2  
 Tabla de montaje B-2  
 Tableau de montage B-2  
 Tabella di montaggio B-2  
 Montážní tabulka B-2

	2,400 Pa	5,400 Pa
<b>Clamping</b> <b>Klemmen</b> <b>Bornes</b> <b>Connexion</b> <b>Fissaggio con morsetti</b> <b>Svorky</b>  : Permissible clamping range Zulässiger Klemmbereich Zona de bornes permisible Plage de connexion admise Area di bloccaggio consentita Přípustná oblast upnutí	  	 
<b>Inlay</b> <b>Einlegen</b> <b>Inserción</b> <b>Insertion</b> <b>Incasso</b> <b>Vkládání</b>  : Inlay mounting-bar Einlegesystem Sistema de inserción Système d'insertion Sistema d'installazione Vkládací systém	  	 

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2,400 Pa und 5,400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2,400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5,400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2,400 Pa y 5,400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máx. de 2,400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5,400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2,400 Pa et 5,400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2,400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5,400 Pa.)
- Il modulo in oggetto resiste/ono alla prova di carico meccanico secondo IEC61215 ed.2 a 2,400 Pa e 5,400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2,400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5,400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2,400 Pa a 5,400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2,400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5,400 Pa.)

## KD130GH-2PU, KD135GH-2PU

Installation with long side frame  
 Befestigung an der langen Rahmenseite  
 Fijación al lado largo del bastidor  
 Fixation sur la partie longue du cadre  
 Fissaggio sul lato lungo del telaio  
 Upevnění na dlouhé straně rámu

Mounting table C-1  
 Montagetabelle C-1  
 Tabla de montaje C-1  
 Tableau de montage C-1  
 Tabella di montaggio C-1  
 Montážní tabulka C-1

	2,400 Pa	5,400 Pa
Bolting Verschrauben Atornillado Vissage Fissaggio a vite Příšroubování		
Clamping Klemmen Bornes Connexion Fissaggio con morsetti Svorky		
Inlay Einlegen Inserción Insertion Incasso Vkládání		

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2,400 Pa und 5,400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2,400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5,400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2,400 Pa y 5,400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máxima de 2,400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5,400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2,400 Pa et 5,400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2,400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5,400 Pa.)
- Il modulo in oggetto resiste/pone alla prova di carico meccanico secondo IEC61215 ed.2 a 2,400 Pa e 5,400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2,400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5,400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2,400 Pa a 5,400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2,400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5,400 Pa.)

# KD130GH-2PU, KD135GH-2PU

Installation with short side frame  
 Befestigung an der kurzen Rahmenseite  
 Fijación al lado corto del bastidor  
 Fixation sur la partie courte du cadre  
 Fissaggio sul lato corto del telaio  
 Upevnění na krátké straně rámu

Mounting table C-2  
 Montagetabelle C-2  
 Tabla de montaje C-2  
 Tableau de montage C-2  
 Tabella di montaggio C-2  
 Montážní tabulka C-2

	2,400 Pa	5,400 Pa
<b>Clamping</b> <b>Klemmen</b> <b>Bornes</b> <b>Connexion</b> <b>Fissaggio con morsetti</b> <b>Svorky</b>  : Permissible clamping range Zulässiger Klemmbereich Zona de bornes permisible Plage de connexion admise Area di bloccaggio consentita Přípustná oblast upnutí	 	
<b>Inlay</b> <b>Einlegen</b> <b>Inserción</b> <b>Insertion</b> <b>Incasso</b> <b>Vkládání</b>  : Inlay mounting-bar Einlegesystem Sistema de inserción Système d'insertion Sistema d'installazione Vkládací systém	 	

- This module passes 2,400 Pa and 5,400 Pa mechanical load tests based on IEC61215 ed.2. The installation methods which are described in the KYOCERA installation manual are covered by 2,400 Pa warranty. (5,400 Pa mechanical load mounting method is certified by TÜV Rheinland.)
- Dieses Modul besteht bei mechanischen Belastungstest gemäß IEC61215 ed.2 bei 2,400 Pa und 5,400 Pa. Für die in der KYOCERA Montageanleitung beschriebenen Installationsmethoden wird eine max.mechanische Belastung von 2,400 Pa gewährleistet. (Der TÜV Rheinland hat die Montagemethode für 5,400 Pa mechanische Belastung zertifiziert.)
- Este módulo cumple la prueba de carga mecánica según IEC61215 ed.2 a 2,400 Pa y 5,400 Pa. Para los métodos de instalación descritos en el manual de montaje KYOCERA se garantiza una carga mecánica máx. de 2,400 Pa. (TÜV Rheinland certificó el método de montaje para una carga mecánica de 5,400 Pa.)
- Ce module répond au test de contrainte mécanique selon IEC61215 ed.2 à 2,400 Pa et 5,400 Pa. Pour les méthodes d'installation décrites dans les instructions de montage KYOCERA, la contrainte mécanique max. garantie est de 2,400 Pa. (Le TÜV Rheinland a certifié la méthode de montage pour une contrainte mécanique de 5,400 Pa.)
- Il modulo in oggetto resiste/ono alla prova di carico meccanico secondo IEC61215 ed.2 a 2,400 Pa e 5,400 Pa. Per i metodi di installazione descritti nelle istruzioni di montaggio di KYOCERA è garantito un carico meccanico massimo di 2,400 Pa. (Il TÜV Renania ha certificato il metodo di montaggio per 5,400 Pa di carico meccanico.)
- Tento modul odolá testu na mechanické zatížení dle požadavků normy IEC61215 ed.2 při 2,400 Pa a 5,400 Pa. Pro všechny metody instalace popsané v montážní návodu firmy KYOCERA je garantováno max. mechanické zatížení 2,400 Pa. (Zkušebna TÜV Rheinland provedla certifikaci montážní metody pro mechanické zatížení 5,400 Pa.)