

## External Heatsink Installation Guide (J / V / T 1000)

### 1 Power range 0.1 to 4 kW (Heavy Duty rating)

#### 1.1 Overview

CIMR-V□B□0001 to 0018	CIMR-J□B□0001 to 0018	CIMR-T□BV0001 to 0012
CIMR-V□2□0001 to 0020	CIMR-J□2□0001 to 0020	CIMR-T□2V0001 to 0020
CIMR-V□4□0001 to 0011	CIMR-J□2□0001 to 0020	CIMR-T□4V0001 to 0011

The installation in principle can be seen in Figure 1. The installation differs depending on the environment:

1. In case of clean environment use methods, described in section 1.2 of this document
2. In case of dirty environment, additionally take care to follow the instructions regarding panel cut size and gasket size in section 1.3

The table below shows the mounting dimensions of the drives with attachment and the fitting method of the drives. For dimensions of the drive without attachment, refer to the drives technical manual.

The figures, describing the panel cut, can be found on page 9.

Model code #: V, J or T	IP20 / IP20 with closed top							Cut Figure	Fitting meth.
	W	W1	H	H1	D1	D2	D3		
CIMR-#□B□0001 0002	68	56	160	148	69.5	12	30	Fig. 7	1
CIMR-#□B□0003	68	56	160	148	69.5	42	50	Fig. 7	1
CIMR-#□B□0006	108	96	158	144	79.5	58	70	Fig. 8	3
CIMR-#□B□0010	108	96	158	144	96.0	58	70	Fig. 8	3
CIMR-#□B□0012	140	128	158	144	98.0	65	70	Fig. 9	3, 4
CIMR-#□2□0001 2□0002	68	56	160	148	69.5	12	30	Fig. 7	1
CIMR-#□2□0004	68	56	160	148	69.5	42	50	Fig. 7	1
CIMR-#□2□0006	68	56	160	148	69.5	62	70	Fig. 7	1
CIMR-#□2□0010	108	96	158		71.0	58	70	Fig. 8	3, 4
CIMR-#□2□0012	108	96	158	144	79.5	58	70	Fig. 8	3, 4
CIMR-#□2□0020	140	128	158	144	78.0	65	70	Fig. 9	3, 4
CIMR-#□4□0001	108	96	158	144	71.0	13.5	30	Fig. 8	2
CIMR-#□4□0002	108	96	158	144	79.5	58	70	Fig. 8	3
CIMR-#□4□0004	108	96	158	144	96.0	58	70	Fig. 8	3, 4
CIMR-#□4□0005 4□0007 4□0009	108	96	158	144	96.0	58	70	Fig. 8	3, 4
CIMR-#□4□0011	140	128	158	144	78.0	65	70	Fig. 9	3, 4

□ - means any letter

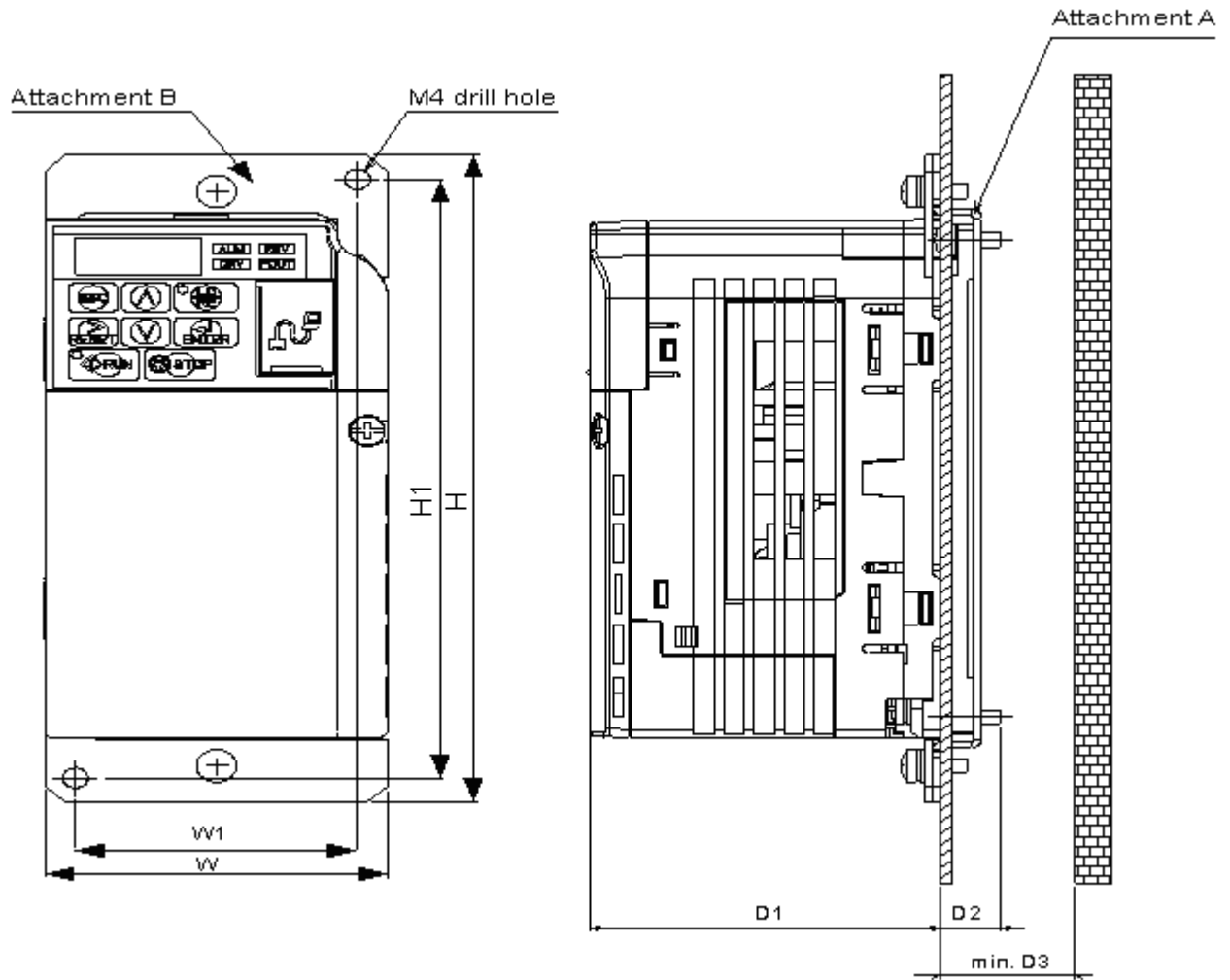


Figure 1: Installation – devices for motors up to 4 kW (HD)

## 1.2 Installation in clean environment

The right fitting method depends on the respective inverter size and voltage class and can be taken from the table on page 1.

### Attachment fitting method 1

Figure 2 shows an example with CIMR-VC2A0001

1. Make the panel cut out as described in section 1.4. The number of the appropriate figure can be taken from the table above.
2. Remove front cover.
3. Fix *Attachment A* to the inverter, using the mounting holes of the inverter enclosure and a screw (size M4x10). Use spring and washer.
4. Fix 2 pcs of *Attachment B* to *Attachment A* with screws M4x10. Use spring and washer.
5. Put front cover back to the inverter.

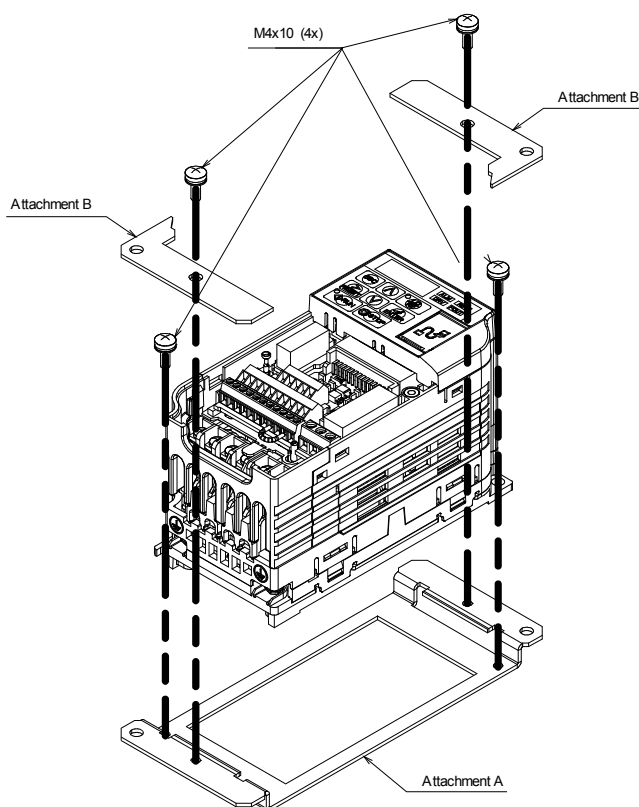


Figure 2: Installation – Fitting method 1

## Attachment fitting method 2

Figure 3 illustrates the installation process.

1. Make the panel cut out as described in section 1.4. The number of the appropriate figure can be taken from the table above.
2. Remove front cover.
3. Fix 2 pcs. *Attachment A* to the inverter, using the mounting holes of the inverter enclosure and a screw (size M4x10). Use spring and washer.
4. Fix each one of the 2 pcs *Attachment B* to each of the *Attachments A* with screws M4x10. Use spring and washer.
5. Put front cover back to the inverter.

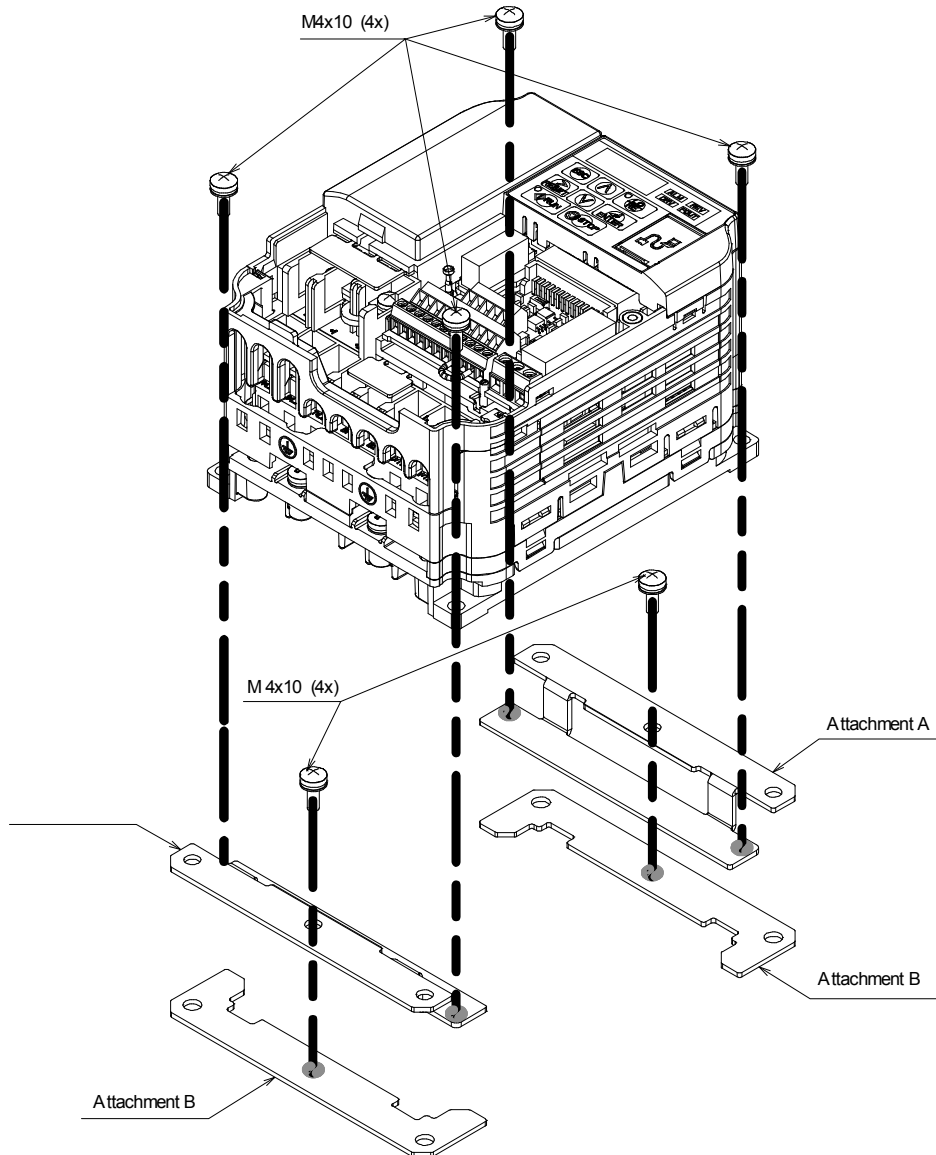


Figure 3: Installation – Fitting method 2

### Attachment fitting method 3

Figure 4 shows the installation process for fitting method 3

1. Make the panel cut out as described in section 1.4. The number of the appropriate figure can be taken from the table above.
2. Remove front cover.
3. Fix 2 pcs. of *Attachment A* to the inverter, using the mounting wholes of the inverter which can be seen in the figure. Use M4x10 screws with spring and washer.

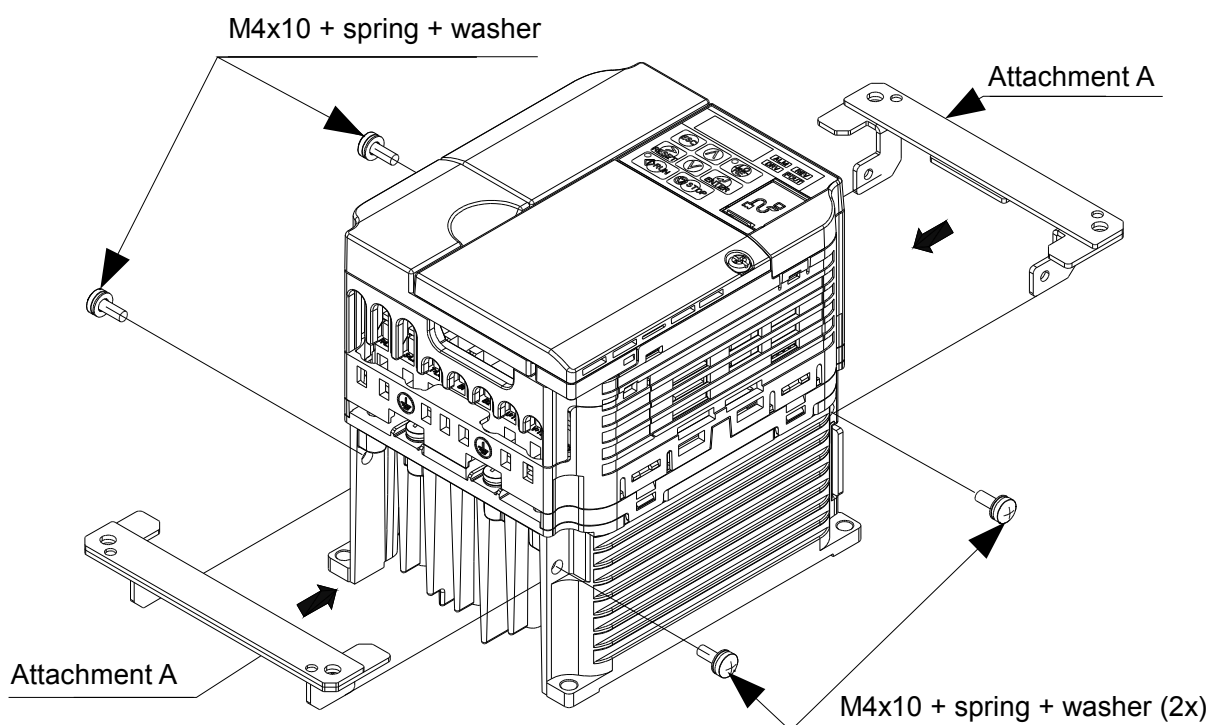


Figure 4: Installation - Fitting method 3

### Attachment fitting method 4

This method (Figure 5) is needed additionally for the devices, marked in the table above with "3, 4".

1. Remove front cover
2. Follow the advices above for fitting method 3
3. Fix the *Air deflector* to the bottom of the inverter. Use screw M4x10 with spring and washer

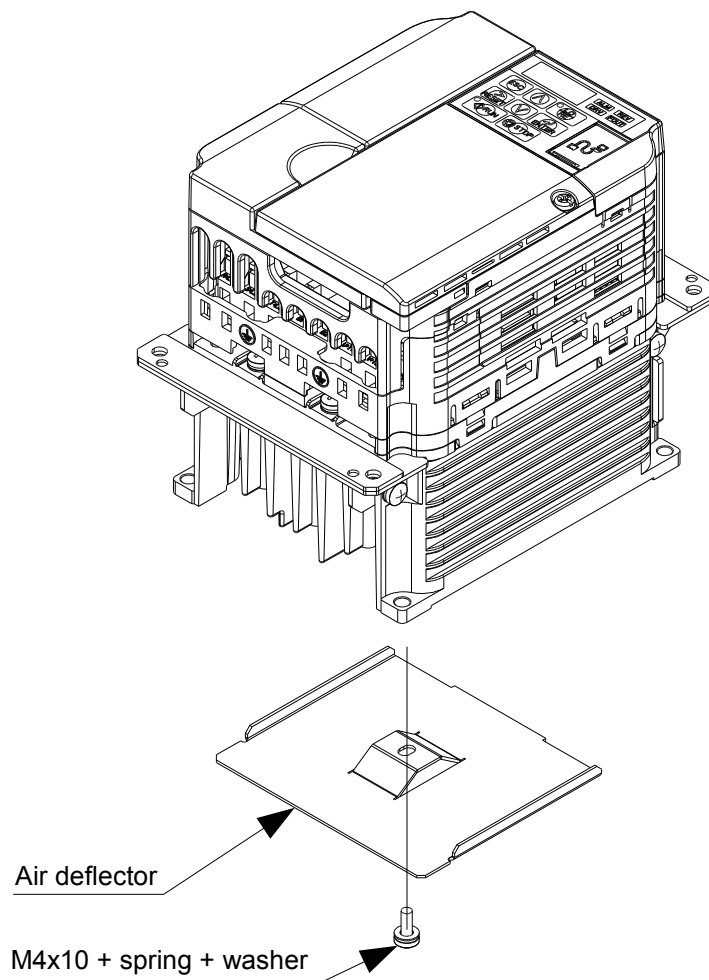


Figure 5: Installation – Fitting method 4

## 1.3 Installation in dirty environment

After installing the attachments, cut the panel using the sizes shown in **Error! Reference source not found.** The cut sizes are the inner dimensions. The hatched area and the outer dimensions show the dimensioning of the gasket.

Note:

1. In case that the gap between attachments and inverter is a problem, apply a sealing like shown in Figure 6.
2. As material of the gasket, EPDM or CR should be used. Use a thickness of approximately 2 mm. Recommended products are:
  - Gasket: C-4205
  - Sealing: KE-3494

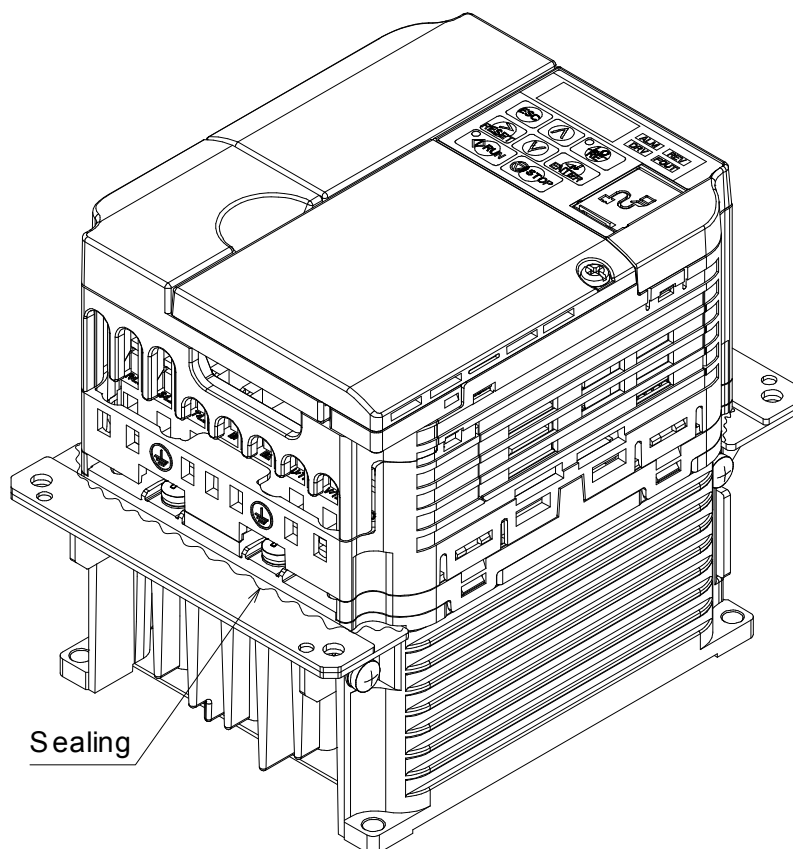


Figure 6: Dirty environment – Installation completed



## 1.4 Cut and gasket sizes

The following figures show the dimensions of the panel cut. When installing in clean environment, only the inner dimensions must be considered. In case of dirty environment, a gasket as described above must be considered. Use the outer dimensions in order to apply the gasket.

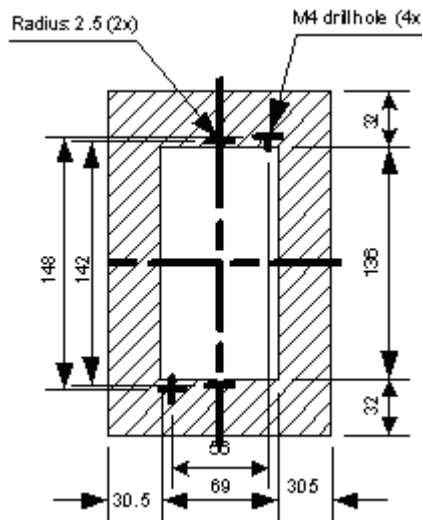


Figure 7

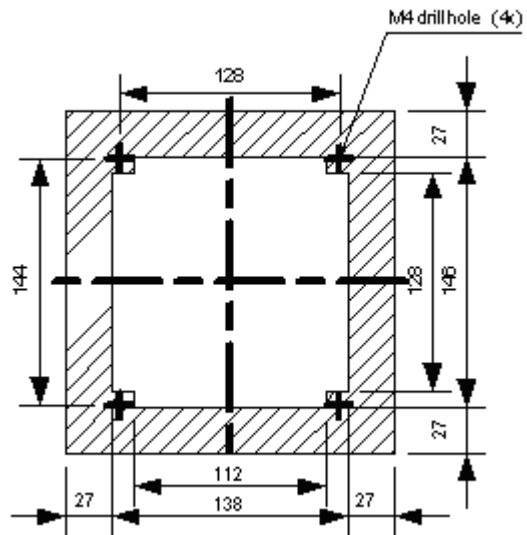


Figure 8

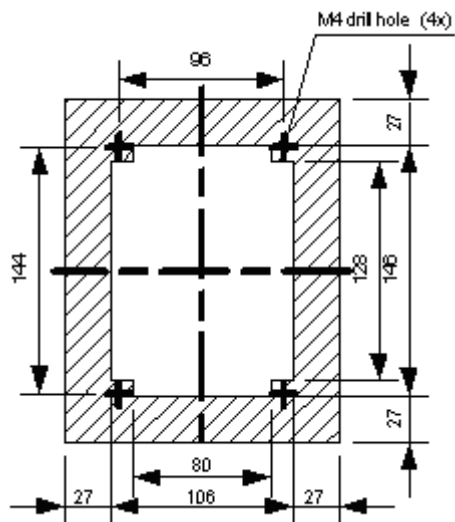


Figure 9

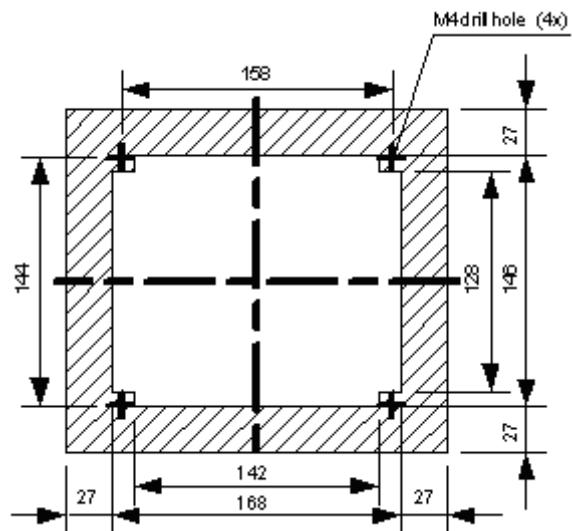


Figure 10

## 2 Power range 5.5 to 18.5 kW

### 2.1 Overview

CIMR-V□2□0030 to 0069

CIMR-T□2V0030 to 0069

CIMR-V□4□0018 to 0038

CIMR-T□4V0018 to 0038

Depending on the environment, different types of installation:

1. In case of clean environment follow the steps, described in section 2.2 of this document
2. In case of dirty environment, additionally take care to follow the instructions regarding panel cut size and gasket size like described in section 2.3

The table below shows the dimensions of the drives with installed attachment as shown in Figure 11:

Model code #: V or T	IP20 / IP20 with closed top							
	W	W1	H	H1	D1	D2	D3	a
CIMR-#□2□0030	158	122	286	272	86,6	53,4	60	M5
CIMR-#□2□0040	158	122	286	272	86,6	53,4	60	M5
CIMR-#□2□0056	198	160	322	308	89,6	73,4	80	M5
CIMR-#□2□0069	241	192	380	362	110,6	76,4	85	M6
CIMR-#□4□0018	158	122	286	272	86,6	53,4	60	M5
CIMR-#□4□0023	158	122	286	272	86,6	53,4	60	M5
CIMR-#□4□0031	198	160	322	308	89,6	53,4	60	M5
CIMR-#□4□0038	198	160	322	308	89,6	73,4	80	M5

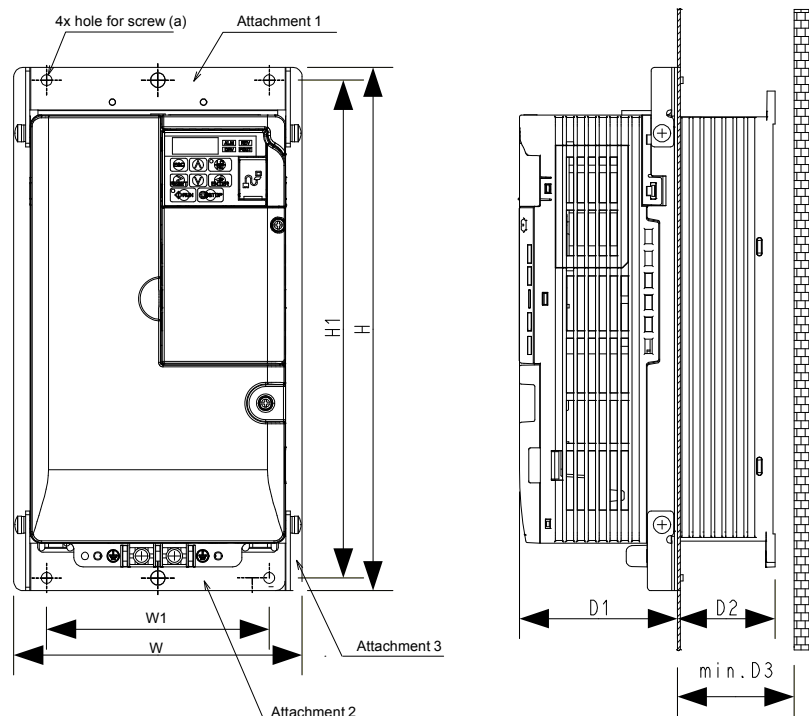


Figure 11: Installation - 5.5 to 18.5 kW

## 2.2 Installation in clean environment

1. Make the panel cut out as described in section 2.4. The number of the appropriate figure can be taken from the table above.
2. Remove terminal cover, top cover, NEMA 1 cover and placket. (Figure 12).

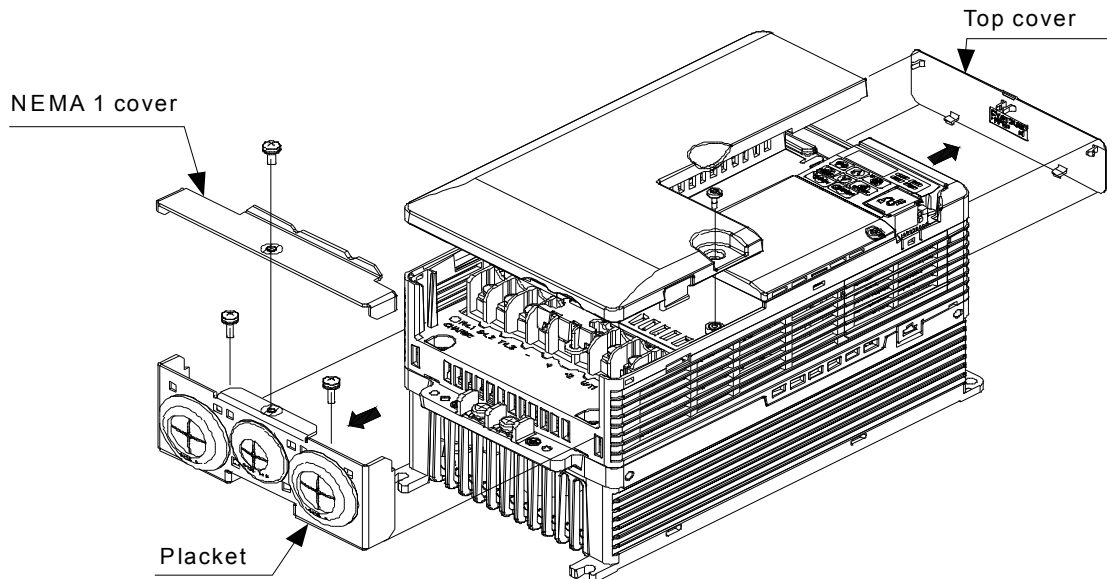


Figure 12: Installation - Step 2

3. Fix *Attachment 1* to the top of the inverter and *Attachment 2* to the bottom like shown in Figure 13. Use the prepared screw holes on the side of the device with M5x12 screws and spring and washer.

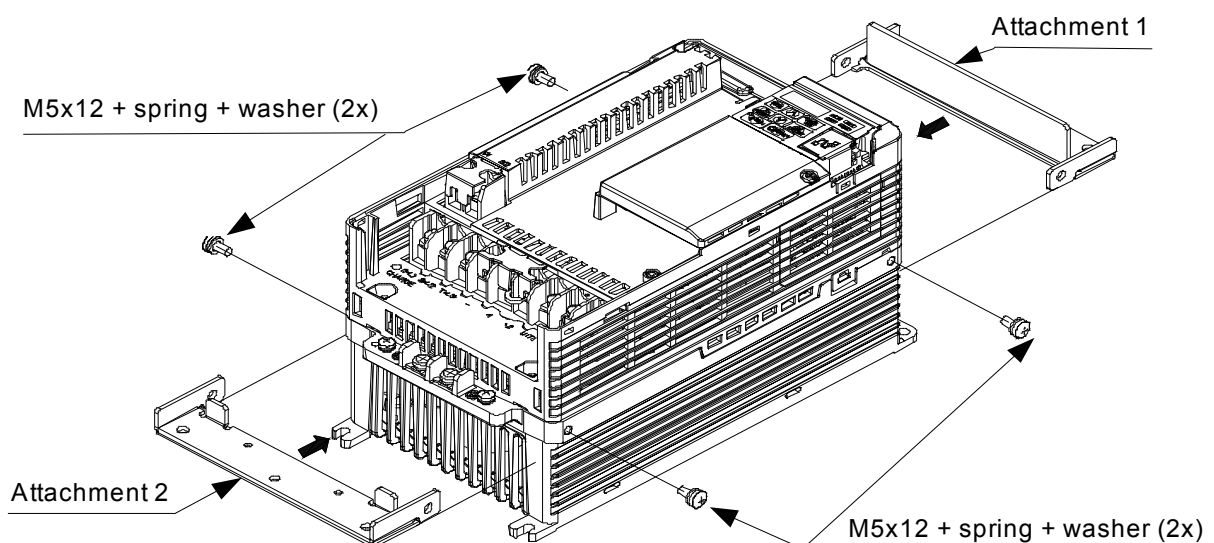


Figure 13: Installation - Step 3

4. Mount *Attachment 3* below the inverter like shown in Figure 14. Use the screw holes in *Attachments 1* and 2 and M4x10 screws with spring and washer.
5. Reinstall terminal cover, top cover, NEMA 1 cover and placket. Figure 15 shows the completely prepared unit.

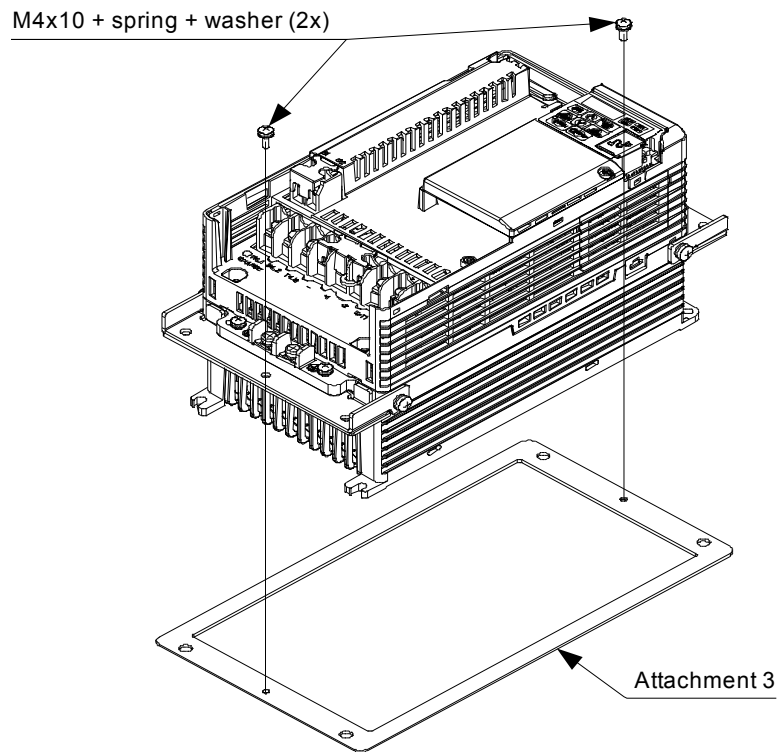


Figure 14: Installation - Step 4

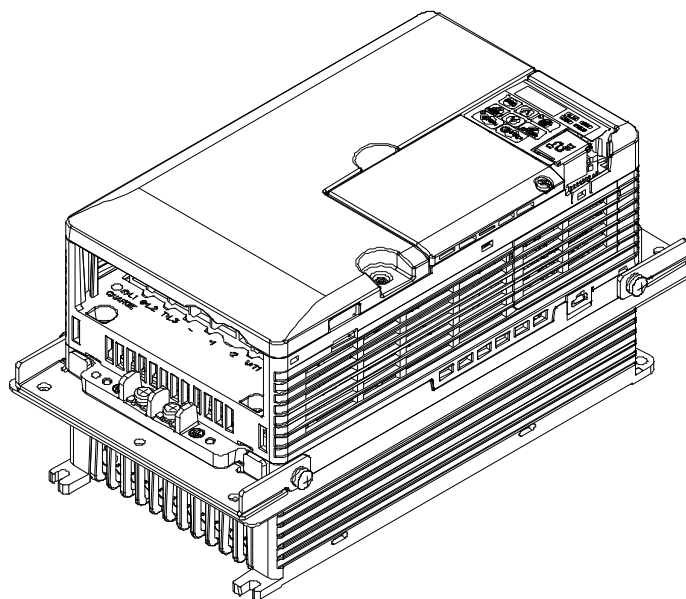


Figure 15: 5.5 to 18.5 kW - Installation completed

## 2.3 Installation in dirty environment

After installing the attachments like described above, cut the panel using the sizes shown in Figure 17, section 2.4. The cut sizes are the inner dimensions. The hatched area and the outer dimensions show the dimensioning of the gasket.

In case of dirty environment, not the following:

1. In case that the gap between the attachments and the inverter is a problem, apply a sealing like shown in Figure 16.
2. As material of the gasket, EPDM or CR should be used. Use a thickness of approximately 2 mm. Recommended products are:
  - Gasket: C-4205
  - Sealing: KE-3494

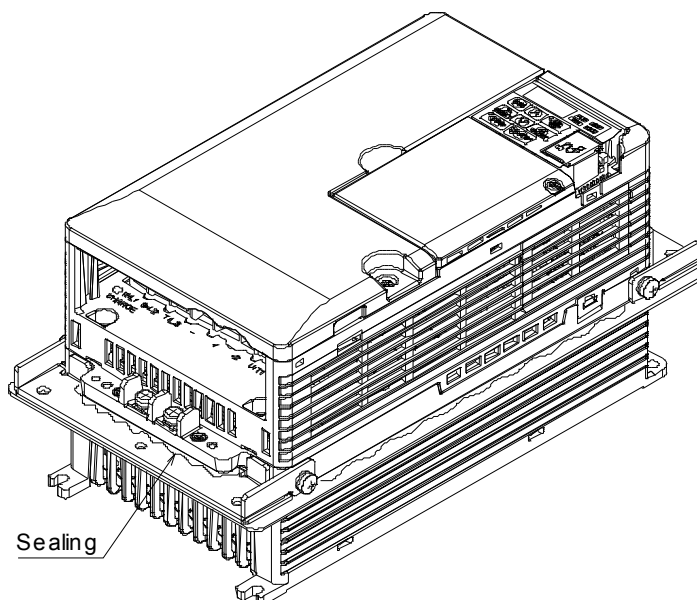


Figure 16: 5.5 kW to 18.5 kW – Apply sealing

## 2.4 Cut and gasket sizes

Model code	IP20 / IP20 with closed top										
	W	H	W1	(W2)	W3)	H1	(H2)	(H3)	A	B	d
CIMR-VC2A0030	158	286	122	9	9	272	8,5	7	140	255	M5
CIMR-VC2A0040	158	286	122	9	9	272	8,5	7	140	255	M5
CIMR-VC2A0056	198	322	160	10	9	308	10,5	7	180	287	M5
CIMR-VC2A0069	241	380	192	14	10,5	362	10,5	9	220	341	M6
CIMR-VC4A0018	158	286	122	9	9	272	8,5	7	140	255	M5
CIMR-VC4A0023	158	286	122	9	9	272	8,5	7	140	255	M5
CIMR-VC4A0031	198	322	160	10	9	308	10,5	7	180	287	M5
CIMR-VC4A0038	198	322	160	10	9	308	10,5	7	180	287	M5

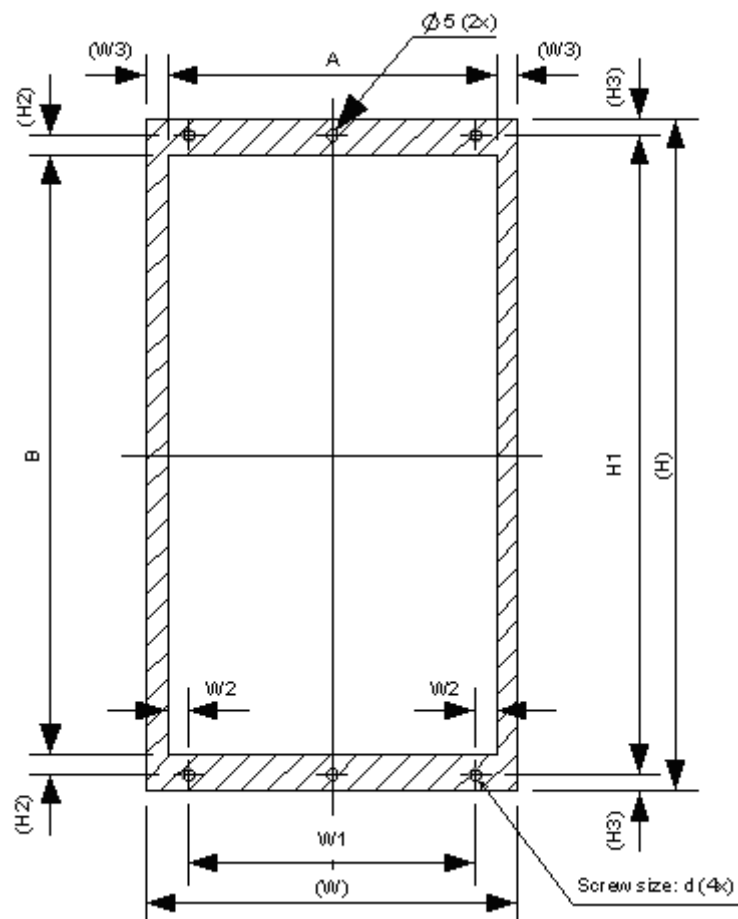


Figure 17: Cut and gasket size - 5.5 to 18.5 kW

### 3 Informations for ordering

Model code #: V, J or T*	Code for ordering	Enclosure
CIMR-#□B□0001 0002	100-034-075	IP20 / NEMA Type 1
CIMR-#□B□0003	100-034-076	
CIMR-#□B□0006	100-036-418	
CIMR-#□B□0010	100-034-079	
CIMR-#□B□0012	100-034-080	
CIMR-#□B□0018	100-036-357	
CIMR-#□2□0001 2□0002	100-034-075	
CIMR-#□2□0004	100-034-076	
CIMR-#□2□0006	100-034-077	
CIMR-#□2□0008 2□0010 2□0012	100-034-079	

Model code #: V, J or T*	Code for ordering	Enclosure
CIMR-#□2□0020	100-034-080	IP20 / NEMA Type 1
CIMR-#□4□0001	100-034-078	
CIMR-#□4□0002 4□0004	100-036-418	
CIMR-#□4□0005 4□0007 4□0009	IP20 / NEMA Type 1	
CIMR-#□4□0011	100-034-080	
CIMR-#□2□0030 2□0040	100-036-300	
CIMR-#□2□0056	100-036-301	
CIMR-#□2□0069	100-036-302	
CIMR-#□4□0018 4□0023	100-036-300	
CIMR-#□4□0031 4□0038	100-036-301	

\* T in single phase available up to B□0012

□ - means any letter