AU series

NEXT GENERATION Aluminium Case

The perfect unity of flexibility, versatility, and appearance!

4 Distinct Models for Different Applications

Standard Model AU series

Standard model with front/rear sheet aluminium panels.

See page 151 ~ 154

Detachable Panel Model AUP series

Easy maintenance with detachable front/rear panels.
An EMC shielded AUPE series is also available.

See page 155 ~ 162

Control Box Model AUX series

Structure of extruded aluminium frames on 4 sides.

Suitable for control box use.

EMC shielded AUXE series is also available.

See page 163 ~ 170

Corner Guard Model AUG series

TPE Corner guard model.
An EMC shielded AUGE series is also available.

See page 171 ~ 178

Providing versatile and flexible enclosing solutions

The aluminium case AU series has an assembly-type structure which allows it to be easily customizable. Both versatile and flexible, it is designed to be used as various devices from the classic audio amplifiers to next-gen IoT devices.
Select from a huge line-up of 117 different sizes based on your application type and ideas.

Measuring Equipment

Fiber Optic Transmitter

IoT Gateway

Audio Amplifier

Command Panel

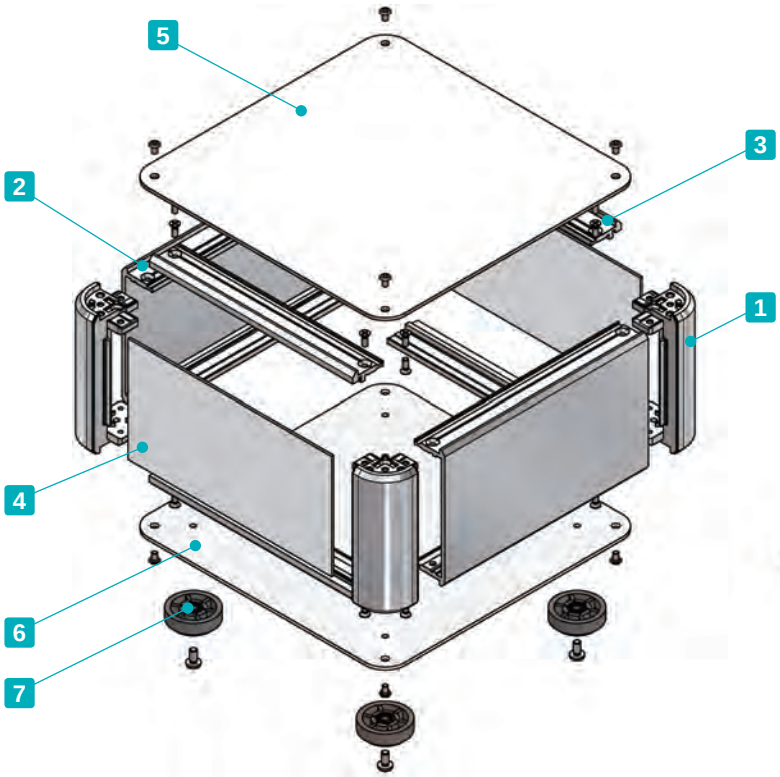
Industrial Embedded PC

Power Supply

AU series ALUMINIUM ENCLOSURE

NEW

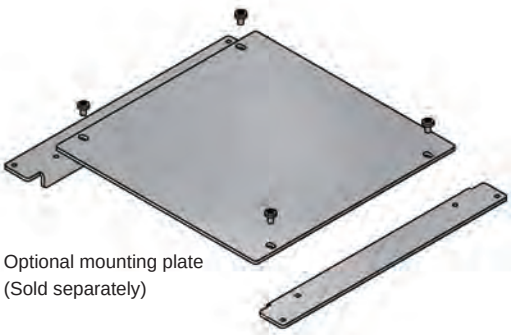
- Elegantly designed aluminium enclosure with front/rear panels.
- A large selection of 117 different sizes to choose from.
- Top/bottom covers and front/rear panels are made from easily customizable sheet aluminium material.
- Versatile aluminium enclosure suitable for use as measuring instrument, controller, industrial embedded computer, power supply, audio amplifier, and so on.
- Feet is selectable between rubber or aluminium type.



Included screws

- Top / Bottom cover
  M3-5 original trapezoid head (plus / hex) &
  Nickel plated / Black trivalent chromate x 8~16 pcs
- Frame / Panel support frame
  M3-8 flat head & Nickel plated x 16 pcs
- Rubber feet / Aluminium feet
  M4-8 bind head & Black trivalent chromate x 4 pcs

Recommended torque : 0.3 ~ 0.6N • m
* Recommended torque listed is for reference only; actual may differ.
  Assemble after testing torque.



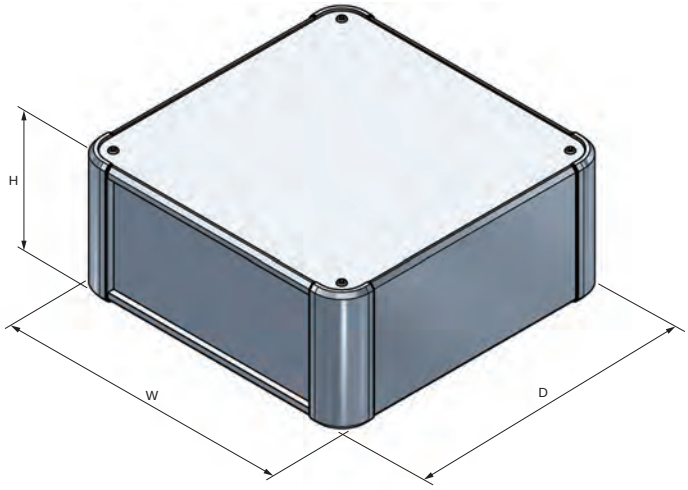
Optional mounting plate
(Sold separately)

Components

No.	Part name	Pcs	Material	Color / Finish
1	Corner block	4	Diecast aluminium ADC12	Silver • Black / Painted (Unfinished inside)
2	Frame	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized
3	Panel support frame	4	Extruded aluminium A6063S-T5	Silver • Black / Anodized
4	Panel	2	Aluminium A1100P	Silver • Black / Anodized
5	Top cover	1	Aluminium A1100P	Silver • Black / Anodized
6	Bottom cover	1	Aluminium A1100P	Silver • Black / Anodized
7	Rubber feet : Aluminium feet	4	TPE (Elastomer) : Aluminium	Black : Silver • Black / Anodized

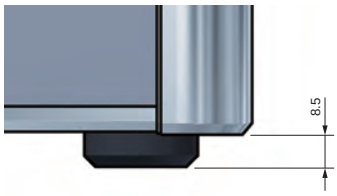
AU dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

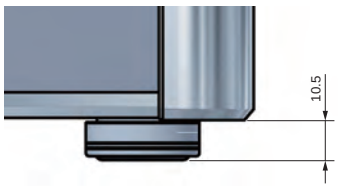


■ Feet is selectable between rubber or aluminium type.
※Rubber and aluminium feet height are different.

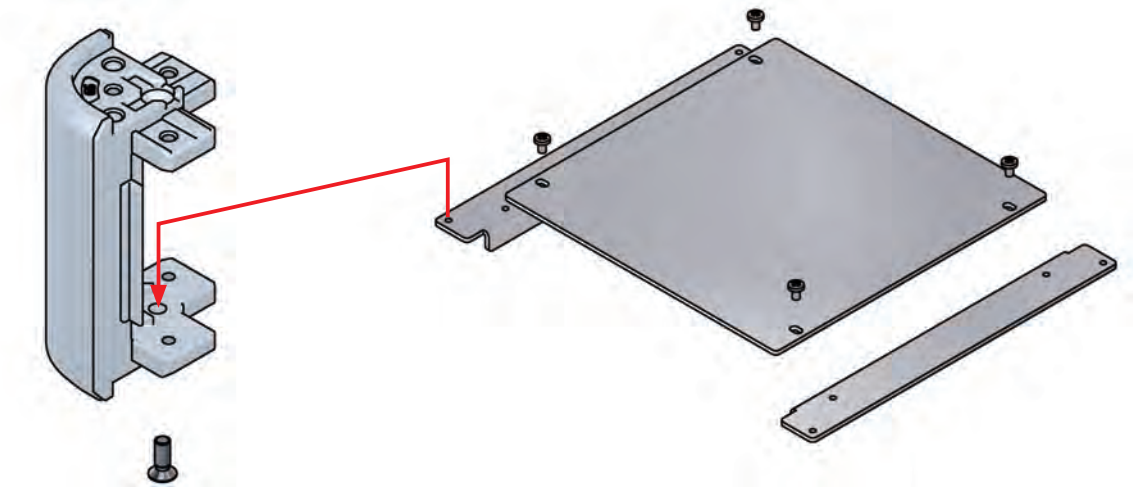
Rubber Feet



Aluminium Feet

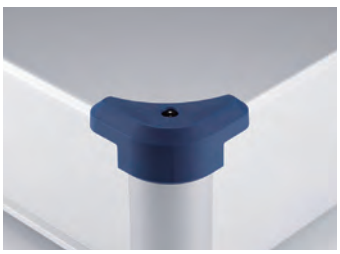


■ Mounting of a PCB or optional mounting plate is made easy through the use of the through-holes inside the aluminium diecast corner block.
See page 180 for how to install mounting plate.



Accessories (Optional parts)

Mounting plate AUC series
See page 179 ~ 180



Corner guard AUCG series
See page 180

Elastomer carrying handle FM200
See website

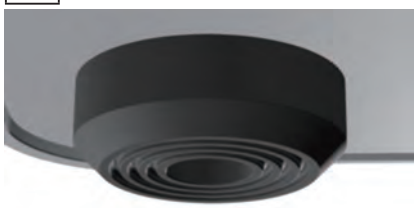
Tilt leg TLW series
See page 222

To select Feet/Screw/Color types, follow steps 1 ~ 3 below.

1 Feet Type

*Color of "Aluminium Feet" will be the same as bottom cover color.

R Rubber (Black / Unfinished)



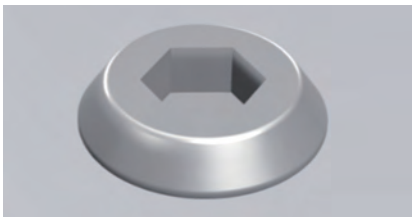
A Aluminium (Silver / Anodized) (Black / Anodized)

2 Screw Type

*Color of screw will be the same as top • bottom cover color.

P Plus (Silver / Nickel plated) (Black / Black trivalent chromate)

H Hex (Silver / Nickel plated) (Black / Black trivalent chromate)



Hex wrench included.

3 Color Type

Please choose from the color combinations listed below.

S S

S B

B S

B B

To determine a product number, suffix Feet/Screw/Color code at the end of product number.

Product Number

AU □ - □ - □ □ □ - □ □

H-W-D dimensions	1 Feet	2 Screw	3 Color
See page 154 for dimensions and product no.	R or A	P or H	SS • SB • BS • BB

Numbering example :
If looking at "H88 x W300 x D200mm, Feet type A, Screw type H, Color type BS"

➡ **AU 88-30-20 AH-BS**

Product no. / Dimensions

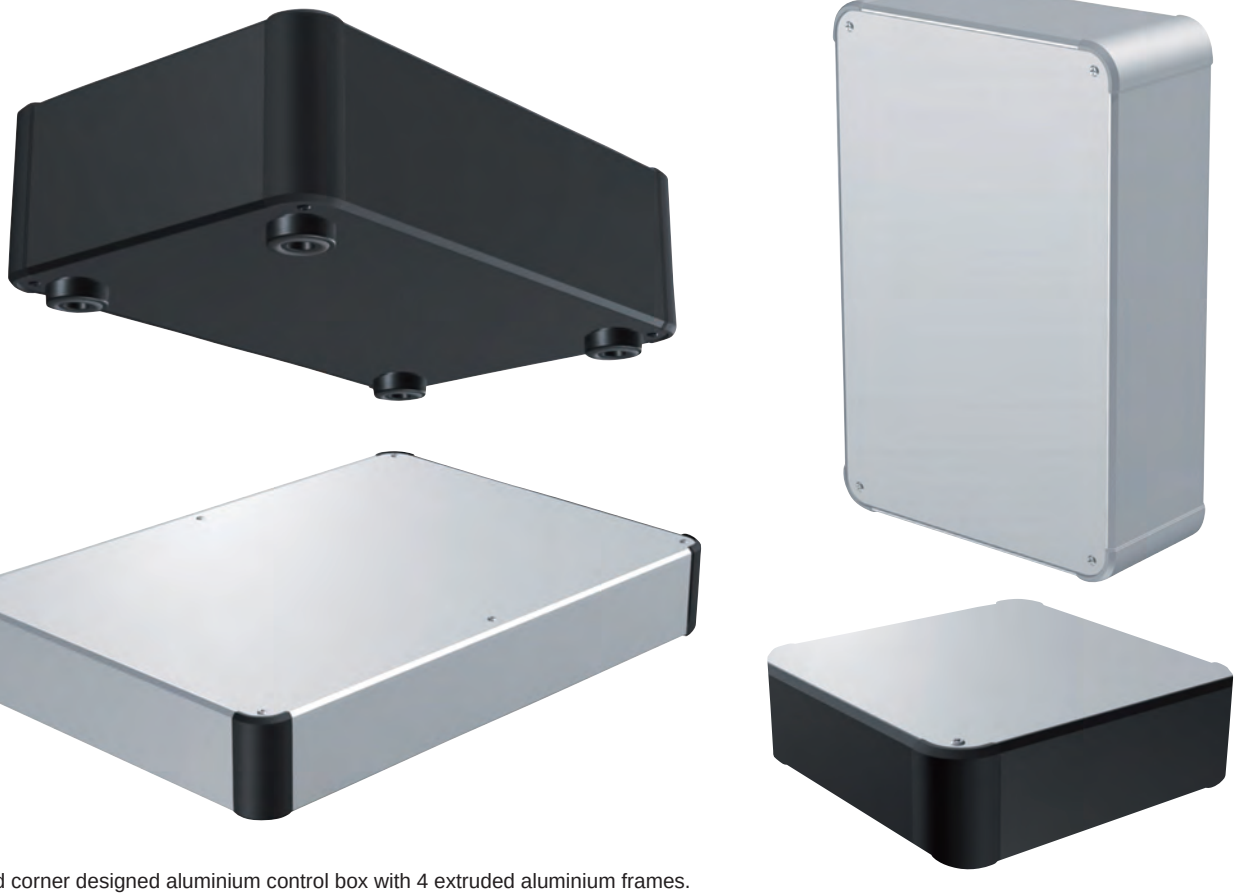
■ Please suffix feet, screw, and color code at the end of the product number

Product no.	H	W	D	Weight (kg)
AU 66-16-16□□-□□	66	160	160	0.9
AU 66-16-20□□-□□	66	160	200	1.0
AU 66-16-25□□-□□	66	160	250	1.2
AU 66-16-30□□-□□	66	160	300	1.3
AU 66-20-16□□-□□	66	200	160	1.0
AU 66-20-20□□-□□	66	200	200	1.1
AU 66-20-25□□-□□	66	200	250	1.3
AU 66-20-30□□-□□	66	200	300	1.5
AU 66-20-36□□-□□	66	200	360	1.7
AU 66-20-43□□-□□	66	200	430	2.0
AU 66-25-16□□-□□	66	250	160	1.1
AU 66-25-20□□-□□	66	250	200	1.3
AU 66-25-25□□-□□	66	250	250	1.5
AU 66-25-30□□-□□	66	250	300	1.7
AU 66-25-36□□-□□	66	250	360	2.0
AU 66-25-43□□-□□	66	250	430	2.3
AU 66-30-16□□-□□	66	300	160	1.3
AU 66-30-20□□-□□	66	300	200	1.5
AU 66-30-25□□-□□	66	300	250	1.7
AU 66-30-30□□-□□	66	300	300	1.9
AU 66-30-36□□-□□	66	300	360	2.2
AU 66-30-43□□-□□	66	300	430	2.6
AU 66-30-50□□-□□	66	300	500	2.9
AU 66-36-20□□-□□	66	360	200	1.7
AU 66-36-25□□-□□	66	360	250	1.9
AU 66-36-30□□-□□	66	360	300	2.2
AU 66-36-36□□-□□	66	360	360	2.5
AU 66-36-43□□-□□	66	360	430	2.9
AU 66-36-50□□-□□	66	360	500	3.3
AU 66-43-20□□-□□	66	430	200	1.9
AU 66-43-25□□-□□	66	430	250	2.2
AU 66-43-30□□-□□	66	430	300	2.5
AU 66-43-36□□-□□	66	430	360	2.9
AU 66-43-43□□-□□	66	430	430	3.3
AU 66-43-50□□-□□	66	430	500	3.7
AU 66-50-30□□-□□	66	500	300	2.8
AU 66-50-36□□-□□	66	500	360	3.3
AU 66-50-43□□-□□	66	500	430	3.7
AU 66-50-50□□-□□	66	500	500	4.2
AU 88-16-16□□-□□	88	160	160	0.9
AU 88-16-20□□-□□	88	160	200	1.1
AU 88-16-25□□-□□	88	160	250	1.3
AU 88-16-30□□-□□	88	160	300	1.4
AU 88-20-16□□-□□	88	200	160	1.1
AU 88-20-20□□-□□	88	200	200	1.2
AU 88-20-25□□-□□	88	200	250	1.4
AU 88-20-30□□-□□	88	200	300	1.6
AU 88-20-36□□-□□	88	200	360	1.8
AU 88-20-43□□-□□	88	200	430	2.1
AU 88-25-16□□-□□	88	250	160	1.2
AU 88-25-20□□-□□	88	250	200	1.4
AU 88-25-25□□-□□	88	250	250	1.6
AU 88-25-30□□-□□	88	250	300	1.8
AU 88-25-36□□-□□	88	250	360	2.1
AU 88-25-43□□-□□	88	250	430	2.4
AU 88-30-16□□-□□	88	300	160	1.4
AU 88-30-20□□-□□	88	300	200	1.6
AU 88-30-25□□-□□	88	300	250	1.8
AU 88-30-30□□-□□	88	300	300	2.1
AU 88-30-36□□-□□	88	300	360	2.4
AU 88-30-43□□-□□	88	300	430	2.7
AU 88-30-50□□-□□	88	300	500	3.1
AU 88-36-20□□-□□	88	360	200	1.8
AU 88-36-25□□-□□	88	360	250	2.1
AU 88-36-30□□-□□	88	360	300	2.3
AU 88-36-36□□-□□	88	360	360	2.7
AU 88-36-43□□-□□	88	360	430	3.1
AU 88-36-50□□-□□	88	360	500	3.5
AU 88-43-20□□-□□	88	430	200	2.1
AU 88-43-25□□-□□	88	430	250	2.4
AU 88-43-30□□-□□	88	430	300	2.7
AU 88-43-36□□-□□	88	430	360	3.1
AU 88-43-43□□-□□	88	430	430	3.5
AU 88-43-50□□-□□	88	430	500	4.0
AU 88-50-30□□-□□	88	500	300	3.0
AU 88-50-36□□-□□	88	500	360	3.4
AU 88-50-43□□-□□	88	500	430	3.9
AU 88-50-50□□-□□	88	500	500	4.4
AU133-16-16□□-□□	132.5	160	160	1.2
AU133-16-20□□-□□	132.5	160	200	1.4
AU133-16-25□□-□□	132.5	160	250	1.6
AU133-16-30□□-□□	132.5	160	300	1.8
AU133-20-16□□-□□	132.5	200	160	1.3
AU133-20-20□□-□□	132.5	200	200	1.5
AU133-20-25□□-□□	132.5	200	250	1.7
AU133-20-30□□-□□	132.5	200	300	2.0
AU133-20-36□□-□□	132.5	200	360	2.3
AU133-20-43□□-□□	132.5	200	430	2.6
AU133-25-16□□-□□	132.5	250	160	1.5
AU133-25-20□□-□□	132.5	250	200	1.7
AU133-25-25□□-□□	132.5	250	250	2.0
AU133-25-30□□-□□	132.5	250	300	2.2
AU133-25-36□□-□□	132.5	250	360	2.6
AU133-25-43□□-□□	132.5	250	430	3.0
AU133-30-16□□-□□	132.5	300	160	1.7
AU133-30-20□□-□□	132.5	300	200	1.9
AU133-30-25□□-□□	132.5	300	250	2.2
AU133-30-30□□-□□	132.5	300	300	2.5
AU133-30-36□□-□□	132.5	300	360	2.8
AU133-30-43□□-□□	132.5	300	430	3.3
AU133-30-50□□-□□	132.5	300	500	3.7
AU133-36-20□□-□□	132.5	360	200	2.1
AU133-36-25□□-□□	132.5	360	250	2.5
AU133-36-30□□-□□	132.5	360	300	2.8
AU133-36-36□□-□□	132.5	360	360	3.2
AU133-36-43□□-□□	132.5	360	430	3.7
AU133-36-50□□-□□	132.5	360	500	4.1
AU133-43-20□□-□□	132.5	430	200	2.4
AU133-43-25□□-□□	132.5	430	250	2.8
AU133-43-30□□-□□	132.5	430	300	3.2
AU133-43-36□□-□□	132.5	430	360	3.6
AU133-43-43□□-□□	132.5	430	430	4.1
AU133-43-50□□-□□	132.5	430	500	4.6
AU133-50-30□□-□□	132.5	500	300	3.5
AU133-50-36□□-□□	132.5	500	360	4.0
AU133-50-43□□-□□	132.5	500	430	4.6
AU133-50-50□□-□□	132.5	500	500	5.1

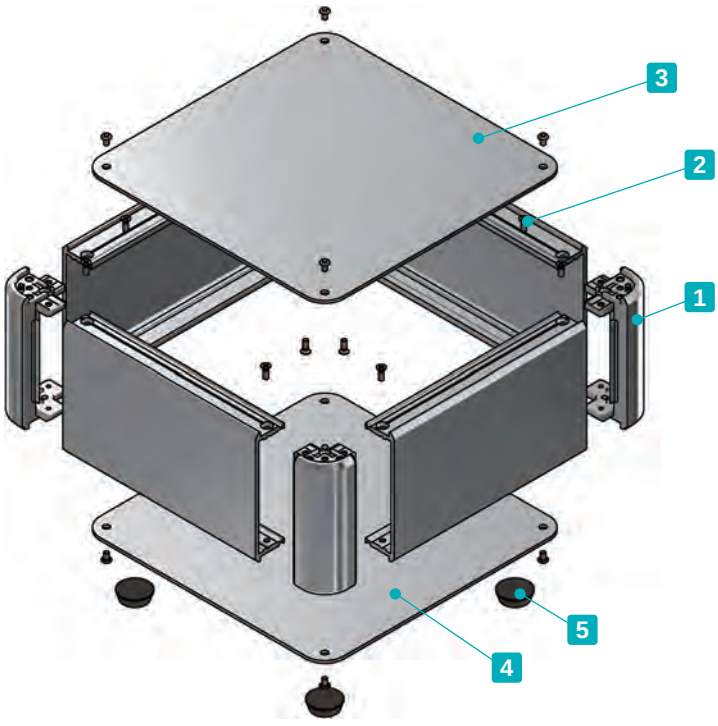
*Weight listed is calculated based on rubber feet selection.

AUX series ALUMINIUM CONTROL BOX

NEW



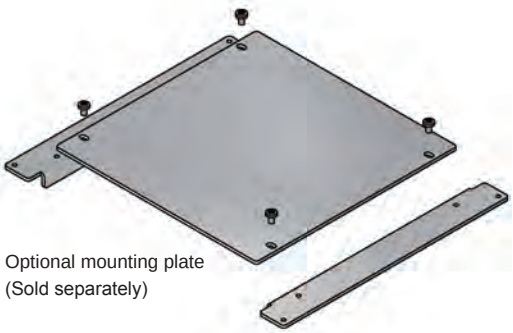
- Round corner designed aluminium control box with 4 extruded aluminium frames.
- A wide selection of 75 different sizes to choose from.
- Aluminium control box is suitable for use as industrial controller, machine controller, audio amplifier, power supply, and so on.
- Feet is selectable between adhesive rubber or aluminium type.



Included screws

- Top / Bottom cover
  M3-5 original trapezoid head (plus / hex) &
  Nickel plated / Black trivalent chromate x 8~16 pcs
- Frame
  M3-8 flat head & Nickel plated x 16 pcs
- Aluminium feet
  M4-8 bind head & Black trivalent chromate x 4 pcs

Redommended torque : 0.3 ~ 0.6N • m
* Recommended torque listed is for reference only; actual may differ
  Assemble after testing torque.

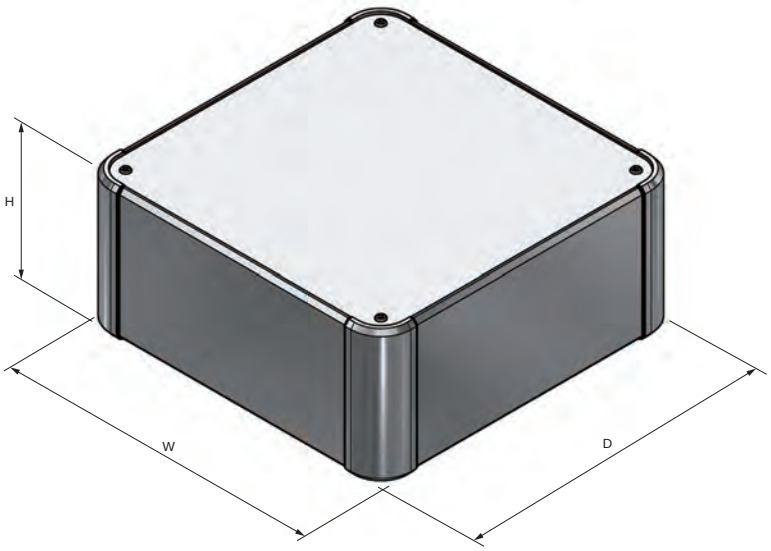


Optional mounting plate
(Sold separately)

Components

No.	Part name	Pcs	Material	Color / Finish
1	Corner block	4	Diecast aluminium ADC12	Silver • Black / Painted (Unfinished inside)
2	Frame	4	Extruded aluminium A6063S-T5	Silver • Black / Anodized
3	Top cover	1	Aluminium A1100P	Silver • Black / Anodized
4	Bottom cover	1	Aluminium A1100P	Silver • Black / Anodized
5	Adhesive Rubber feet : Aluminium feet	4	Synthetic rubber : Aluminium	Black : Silver • Black / Anodized

AUX dimensions

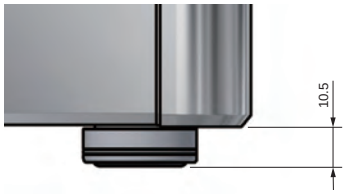


■ DXF/DWG/PDF/STP drawings available on our website.

■ Feet is selectable between rubber or aluminium type.
※Rubber and aluminium feet height are different.

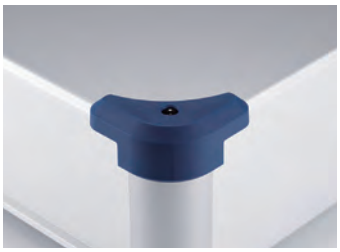
Rubber Feet

Aluminium Feet



Accessories (Optional parts)

Mounting plate AUC series
See page 179 ~ 180



Corner guard AUCG series
See page 180

Elastomer carrying handle FM200
See website

Aluminium handle OH series
See website

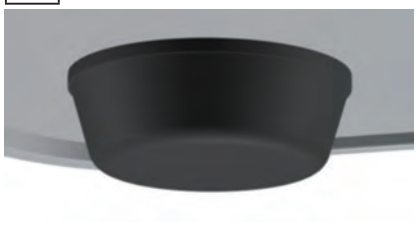
Wall mount support arm MAR series
See page 181 ~ 182

To select Feet/Screw/Color types, follow steps 1 ~ 3 below.

1 Feet Type

*Color of "Aluminum feet" will be the same as bottom cover color.

R Adhesive Rubber (Black / Unfinished)



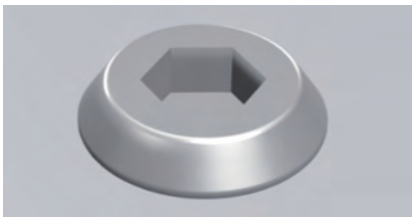
A Aluminium (Silver / Anodized) (Black / Anodized)

2 Screw Type

*Color of screw will be the same as top • bottom cover color.

P Plus (Silver / Nickel plated) (Black / Black trivalent chromate)

H Hex (Silver / Nickel plated) (Black / Black trivalent chromate)



Hex wrench included.

3 Color Type

Please choose from the color combinations listed below.

S S

S B

B X

B B

To determine a product number, suffix Feet/Screw/Color code at the end of product number.

Product Number

AUX □ – □ – □ □ □ – □ □

- H-W-D dimensions — See page 166 for dimensions / product no.
- 1 Feet — R or A
- 2 Screw — P or H
- 3 Color — SS • SB • BX • BB

Numbering example :
If looking at "H66 x W250 x D250mm, Feet type R, Screw type H, Color type BX"

➡ **AUX 66-25-25 RH-BX**

Product no. / Dimensions

■ Please suffix feet, screw, and color code at the end of the product number

Product no.	H	W	D	Weight (kg)
AUX 66-16-16□□-□□	66	160	160	0.9
AUX 66-20-16□□-□□	66	200	160	1.0
AUX 66-20-20□□-□□	66	200	200	1.1
AUX 66-25-16□□-□□	66	250	160	1.2
AUX 66-25-20□□-□□	66	250	200	1.3
AUX 66-25-25□□-□□	66	250	250	1.5
AUX 66-30-16□□-□□	66	300	160	1.3
AUX 66-30-20□□-□□	66	300	200	1.5
AUX 66-30-25□□-□□	66	300	250	1.7
AUX 66-30-30□□-□□	66	300	300	2.0
AUX 66-36-20□□-□□	66	360	200	1.7
AUX 66-36-25□□-□□	66	360	250	2.0
AUX 66-36-30□□-□□	66	360	300	2.2
AUX 66-36-36□□-□□	66	360	360	2.6
AUX 66-43-20□□-□□	66	430	200	2.0
AUX 66-43-25□□-□□	66	430	250	2.3
AUX 66-43-30□□-□□	66	430	300	2.6
AUX 66-43-36□□-□□	66	430	360	3.0
AUX 66-43-43□□-□□	66	430	430	3.4
AUX 66-50-30□□-□□	66	500	300	2.9
AUX 66-50-36□□-□□	66	500	360	3.3
AUX 66-50-43□□-□□	66	500	430	3.8
AUX 66-50-50□□-□□	66	500	500	4.3
AUX 66-60-36□□-□□	66	600	360	3.8
AUX 66-60-43□□-□□	66	600	430	4.4
AUX 88-16-16□□-□□	88	160	160	1.0
AUX 88-20-16□□-□□	88	200	160	1.1
AUX 88-20-20□□-□□	88	200	200	1.3
AUX 88-25-16□□-□□	88	250	160	1.3
AUX 88-25-20□□-□□	88	250	200	1.5
AUX 88-25-25□□-□□	88	250	250	1.7
AUX 88-30-16□□-□□	88	300	160	1.5
AUX 88-30-20□□-□□	88	300	200	1.7
AUX 88-30-25□□-□□	88	300	250	1.9
AUX 88-30-30□□-□□	88	300	300	2.2
AUX 88-36-20□□-□□	88	360	200	1.9
AUX 88-36-25□□-□□	88	360	250	2.2
AUX 88-36-30□□-□□	88	360	300	2.4
AUX 88-36-36□□-□□	88	360	360	2.8
AUX 88-43-20□□-□□	88	430	200	2.2
AUX 88-43-25□□-□□	88	430	250	2.5
AUX 88-43-30□□-□□	88	430	300	2.8
AUX 88-43-36□□-□□	88	430	360	3.2
AUX 88-43-43□□-□□	88	430	430	3.6
AUX 88-50-30□□-□□	88	500	300	3.2
AUX 88-50-36□□-□□	88	500	360	3.6
AUX 88-50-43□□-□□	88	500	430	4.1
AUX 88-50-50□□-□□	88	500	500	4.6
AUX 88-60-36□□-□□	88	600	360	4.1
AUX 88-60-43□□-□□	88	600	430	4.7

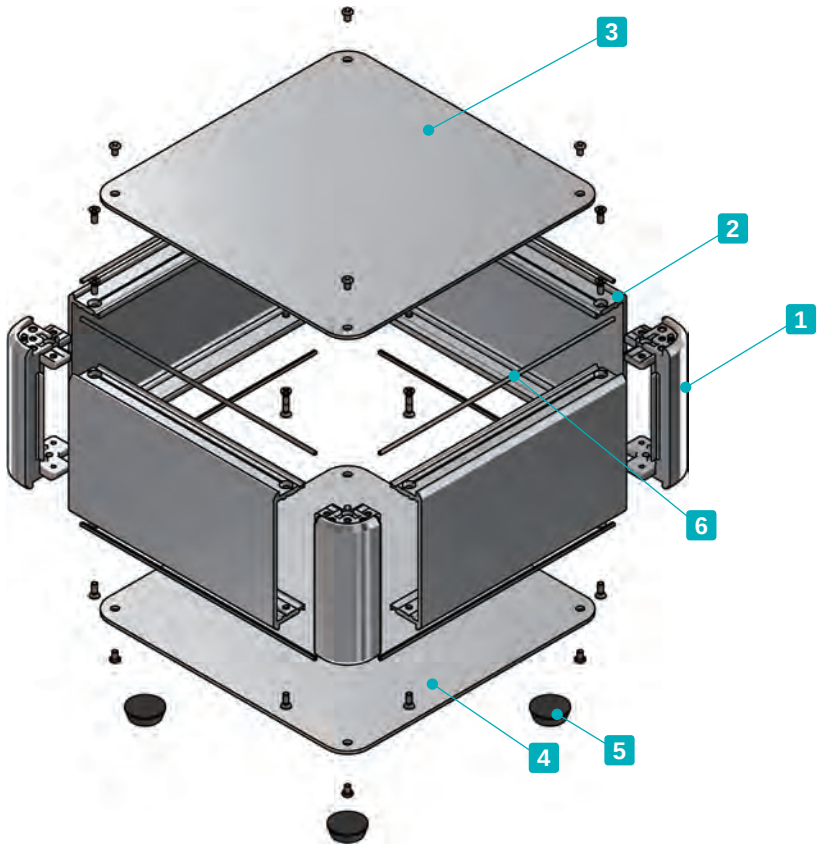
Product no.	H	W	D	Weight (kg)
AUX133-16-16□□-□□	132.5	160	160	1.3
AUX133-20-16□□-□□	132.5	200	160	1.5
AUX133-20-20□□-□□	132.5	200	200	1.7
AUX133-25-16□□-□□	132.5	250	160	1.7
AUX133-25-20□□-□□	132.5	250	200	1.9
AUX133-25-25□□-□□	132.5	250	250	2.2
AUX133-30-16□□-□□	132.5	300	160	1.9
AUX133-30-20□□-□□	132.5	300	200	2.1
AUX133-30-25□□-□□	132.5	300	250	2.4
AUX133-30-30□□-□□	132.5	300	300	2.7
AUX133-36-20□□-□□	132.5	360	200	2.4
AUX133-36-25□□-□□	132.5	360	250	2.7
AUX133-36-30□□-□□	132.5	360	300	3.1
AUX133-36-36□□-□□	132.5	360	360	3.4
AUX133-43-20□□-□□	132.5	430	200	2.8
AUX133-43-25□□-□□	132.5	430	250	3.1
AUX133-43-30□□-□□	132.5	430	300	3.5
AUX133-43-36□□-□□	132.5	430	360	3.9
AUX133-43-43□□-□□	132.5	430	430	4.4
AUX133-50-30□□-□□	132.5	500	300	3.9
AUX133-50-36□□-□□	132.5	500	360	4.4
AUX133-50-43□□-□□	132.5	500	430	4.9
AUX133-50-50□□-□□	132.5	500	500	5.5
AUX133-60-36□□-□□	132.5	600	360	5.0
AUX133-60-43□□-□□	132.5	600	430	5.7

*Weight listed is calculated based on rubber feet selection.

AUXE series EMC SHIELDED ALUMINIUM CONTROL BOX NEW

EMC Shielding Effects

- Round corner designed aluminium enclosure with 4 extruded aluminium frames.
- Shielding gasket allows the enclosure to be EMC shielded.
- A wide selection of 75 different sizes to choose from.
- Feet is selectable between adhesive rubber or aluminium type.



Included screws

- Top / Bottom cover
  M3-5 original trapezoid head (plus / hex) & Nickel plated x 8~16 pcs
- Frame
  M3-8 flat head & Nickel plated x 16 pcs
- Aluminium feet
  M4-8 bind head & Black trivalent chromate x 4 pcs

Recommended torque : 0.3 ~ 0.6N • m
* Recommended torque listed is for reference only; actual may differ.
  Assemble after testing torque.

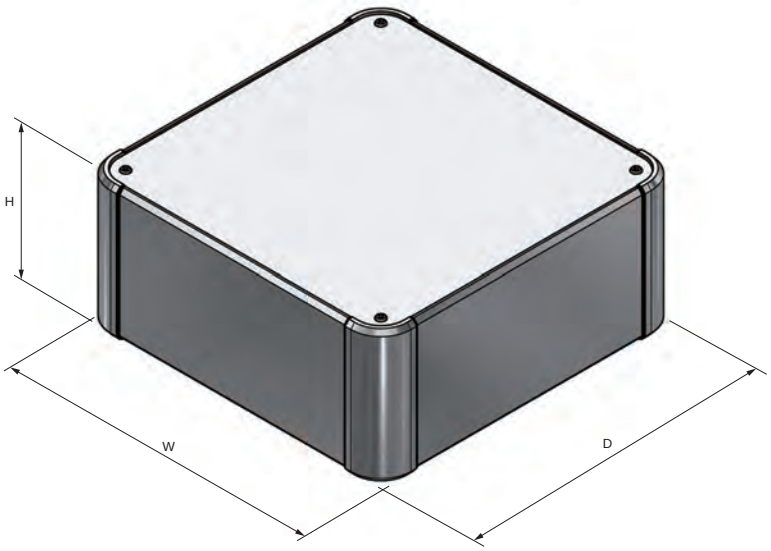
Components

No.	Part name	Pcs	Material	Color / Finish
1	Corner block	4	Diecast aluminium ADC12	Silver • Black / Painted (Unfinished inside)
2	Frame	4	Extruded aluminium A6063S-T5	Silver / Painted (Unfinished inside)
3	Top cover	1	Aluminium A1100P	Silver / Painted (Conductive inside)
4	Bottom cover	1	Aluminium A1100P	Silver / Painted (Conductive inside)
5	Adhesive Rubber feet : Aluminium feet	4	Synthetic rubber : Aluminium	Black : Silver / Anodized
6	EMC shielding gasket	8	Conductive fiber UL94V-0	Metallic gray

AUXE dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

■ Feet is selectable between rubber or aluminium type.
※Rubber and aluminium feet height are different.



Rubber Feet

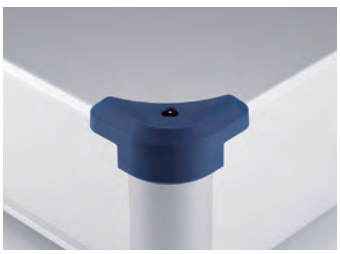
Aluminium Feet

■ Install the EMC shielding gasket into the grooves on the frame and corner block.

Accessories (Optional parts)

Wall mount support arm MAR series
See page 181 ~ 182

Mounting plate AUC series
See page 179 ~ 180



Corner guard AUCG series
See page 180

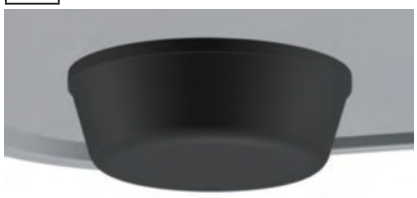
Elastomer carrying handle FM200
See website

Aluminium handle OH series
See website

To select Feet/Screw/Color types, follow steps 1 ~ 3 below.

1 Feet Type

R Adhesive Rubber (Black / Unfinished)

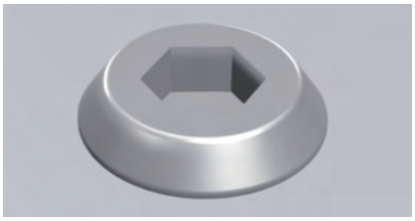


A Aluminium (Silver / Anodized)

2 Screw Type

P Plus (Silver / Nickel plated)

H Hex (Silver / Nickel plated)



Hex wrench included.

3 Color Type

Please choose from the color combinations listed below.

S S

S B

To determine a product number, suffix Feet/Screw/Color code at the end of product number.

Product Number

AUXE □ - □ - □ □ □ - □ □

H-W-D dimensions	1 Feet	2 Screw	3 Color
See page 170 for dimensions / product no.	R or A	P or H	SS • SB

Numbering example :
If looking at "H133 x W300 x D300mm, Feet type R, Screw type P, Color type SB"

➡ **AUXE 133-30-30 RP-SB**

Product no. / Dimensions

■ Please suffix feet, screw, and color code at the end of the product number

Product no.	H	W	D	Weight (kg)
AUXE 66-16-16□□-□□	66	160	160	0.9
AUXE 66-20-16□□-□□	66	200	160	1.0
AUXE 66-20-20□□-□□	66	200	200	1.1
AUXE 66-25-16□□-□□	66	250	160	1.2
AUXE 66-25-20□□-□□	66	250	200	1.3
AUXE 66-25-25□□-□□	66	250	250	1.5
AUXE 66-30-16□□-□□	66	300	160	1.3
AUXE 66-30-20□□-□□	66	300	200	1.5
AUXE 66-30-25□□-□□	66	300	250	1.7
AUXE 66-30-30□□-□□	66	300	300	2.0
AUXE 66-36-20□□-□□	66	360	200	1.7
AUXE 66-36-25□□-□□	66	360	250	2.0
AUXE 66-36-30□□-□□	66	360	300	2.2
AUXE 66-36-36□□-□□	66	360	360	2.6
AUXE 66-43-20□□-□□	66	430	200	2.0
AUXE 66-43-25□□-□□	66	430	250	2.3
AUXE 66-43-30□□-□□	66	430	300	2.6
AUXE 66-43-36□□-□□	66	430	360	3.0
AUXE 66-43-43□□-□□	66	430	430	3.4
AUXE 66-50-30□□-□□	66	500	300	2.9
AUXE 66-50-36□□-□□	66	500	360	3.3
AUXE 66-50-43□□-□□	66	500	430	3.8
AUXE 66-50-50□□-□□	66	500	500	4.3
AUXE 66-60-36□□-□□	66	600	360	3.9
AUXE 66-60-43□□-□□	66	600	430	4.4
AUXE 88-16-16□□-□□	88	160	160	1.0
AUXE 88-20-16□□-□□	88	200	160	1.1
AUXE 88-20-20□□-□□	88	200	200	1.3
AUXE 88-25-16□□-□□	88	250	160	1.3
AUXE 88-25-20□□-□□	88	250	200	1.5
AUXE 88-25-25□□-□□	88	250	250	1.7
AUXE 88-30-16□□-□□	88	300	160	1.5
AUXE 88-30-20□□-□□	88	300	200	1.7
AUXE 88-30-25□□-□□	88	300	250	1.9
AUXE 88-30-30□□-□□	88	300	300	2.2
AUXE 88-36-20□□-□□	88	360	200	1.9
AUXE 88-36-25□□-□□	88	360	250	2.2
AUXE 88-36-30□□-□□	88	360	300	2.5
AUXE 88-36-36□□-□□	88	360	360	2.8
AUXE 88-43-20□□-□□	88	430	200	2.2
AUXE 88-43-25□□-□□	88	430	250	2.5
AUXE 88-43-30□□-□□	88	430	300	2.8
AUXE 88-43-36□□-□□	88	430	360	3.2
AUXE 88-43-43□□-□□	88	430	430	3.6
AUXE 88-50-30□□-□□	88	500	300	3.2
AUXE 88-50-36□□-□□	88	500	360	3.6
AUXE 88-50-43□□-□□	88	500	430	4.1
AUXE 88-50-50□□-□□	88	500	500	4.6
AUXE 88-60-36□□-□□	88	600	360	4.2
AUXE 88-60-43□□-□□	88	600	430	4.7

Product no.	H	W	D	Weight (kg)
AUXE133-16-16□□-□□	132.5	160	160	1.3
AUXE133-20-16□□-□□	132.5	200	160	1.5
AUXE133-20-20□□-□□	132.5	200	200	1.7
AUXE133-25-16□□-□□	132.5	250	160	1.7
AUXE133-25-20□□-□□	132.5	250	200	1.9
AUXE133-25-25□□-□□	132.5	250	250	2.2
AUXE133-30-16□□-□□	132.5	300	160	1.9
AUXE133-30-20□□-□□	132.5	300	200	2.1
AUXE133-30-25□□-□□	132.5	300	250	2.4
AUXE133-30-30□□-□□	132.5	300	300	2.7
AUXE133-36-20□□-□□	132.5	360	200	2.4
AUXE133-36-25□□-□□	132.5	360	250	2.7
AUXE133-36-30□□-□□	132.5	360	300	3.1
AUXE133-36-36□□-□□	132.5	360	360	3.5
AUXE133-43-20□□-□□	132.5	430	200	2.8
AUXE133-43-25□□-□□	132.5	430	250	3.1
AUXE133-43-30□□-□□	132.5	430	300	3.5
AUXE133-43-36□□-□□	132.5	430	360	3.9
AUXE133-43-43□□-□□	132.5	430	430	4.4
AUXE133-50-30□□-□□	132.5	500	300	3.9
AUXE133-50-36□□-□□	132.5	500	360	4.4
AUXE133-50-43□□-□□	132.5	500	430	5.0
AUXE133-50-50□□-□□	132.5	500	500	5.5
AUXE133-60-36□□-□□	132.5	600	360	5.0
AUXE133-60-43□□-□□	132.5	600	430	5.7

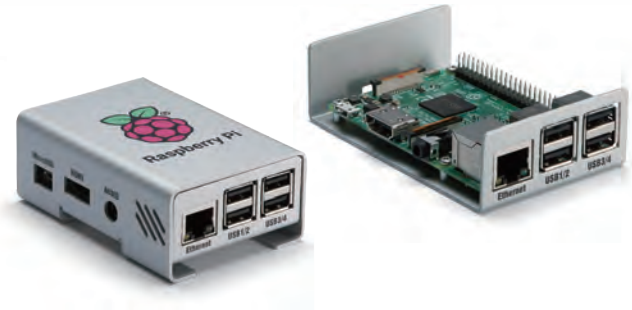
*Weight listed is calculated based on rubber feet selection.

HIGH END DESIGN Aluminium Case HD series

Distinctive design, suitable for many different devices

Industrial Embedded System

Raspberry Pi

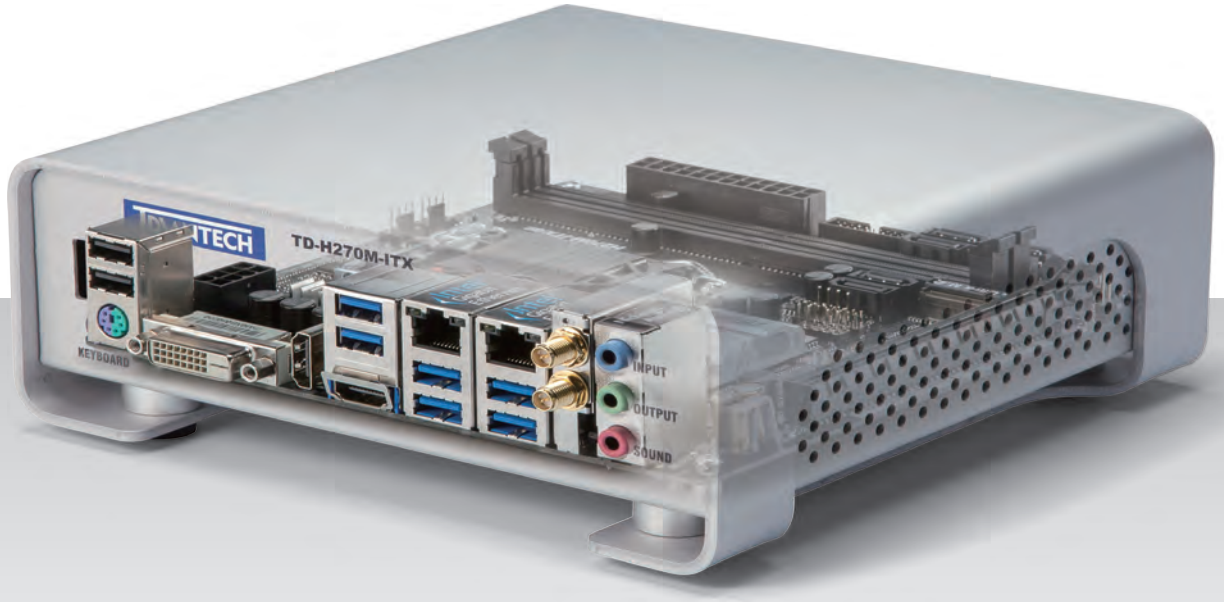


Data Transmitter / Receiver

Measurement / Test Equipment

Audio Amplifier

Power Supply



Compatibility with Standard Board Sizes

Raspberry Pi

Board Size
56×85mm

EURO BOARD

Board Size
100×160mm

3.5 inch Board

Board Size
146×102mm

Mini STX

Board Size
140×147mm

Mini ITX

Board Size
170×170mm

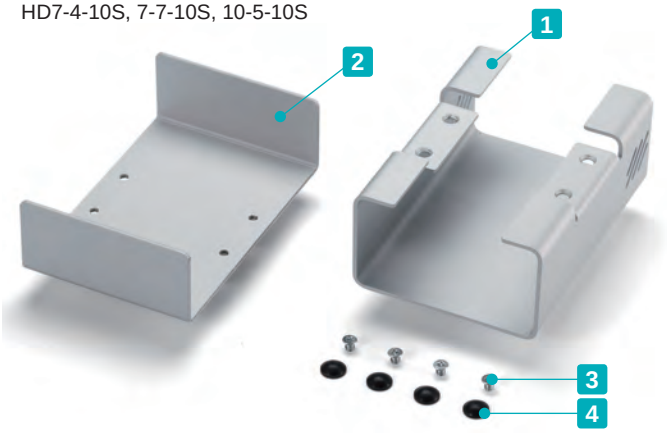
• See page 144 for more details.

HD series HIGH-END DESIGN ALUMINIUM CASE

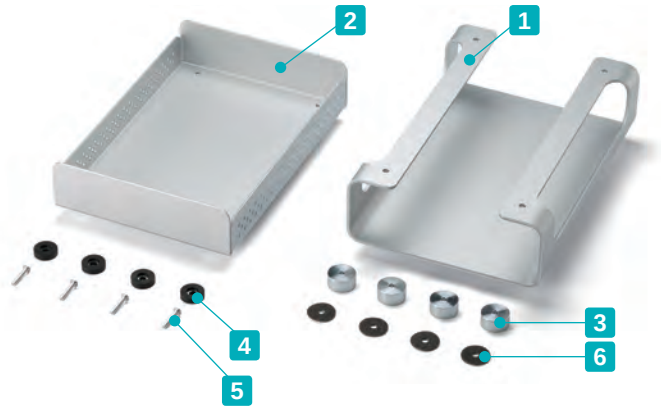
Conductive

- Distinctively designed aluminium case.
- Polished, elegant and sleek metallic silver finish.
- Suitable for embedded system, measurement equipment, data transmitter, audio amplifier, and so on.

HD7-4-10S, 7-7-10S, 10-5-10S



Other models



Components

HD7-4-10S, 7-7-10S, 10-5-10S

No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	Aluminium A1100P	Metallic silver / Painted (Conductive inside)
2	Base	1	Aluminium A1100P	Metallic silver / Painted (Conductive inside)
3	Screw	4	Steel	Trivalent chromate
4	Rubber feet	4	Synthetic rubber	Black

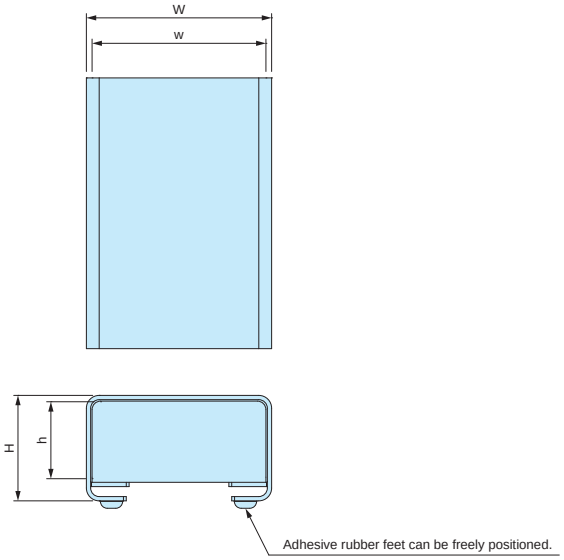
Other models

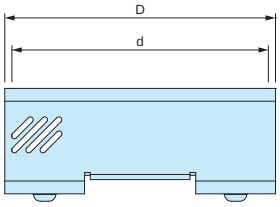
No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	HD11-5-18S ~ HD19-8-21S : Aluminium A1050P	Metallic silver / Painted
			HD21-14-25S ~ HD32-10-23S : Aluminium A1050P	Metallic silver / Painted
2	Base	1	HD11-5-18S ~ HD19-8-21S : Aluminium A1100P	Metallic silver / Painted (Conductive inside)
			HD21-14-25S to HD 32-10-23S : Aluminium A1050P	Metallic silver / Painted
3	Pillar feet	4	Extruded Aluminium A6063S-T5	Silver / Anodized
4	Rubber feet	4	Synthetic rubber	Black
5	Screw	4	Steel	Trivalent chromate
6	Cushion	4	Polyethylene	Black

HD dimensions

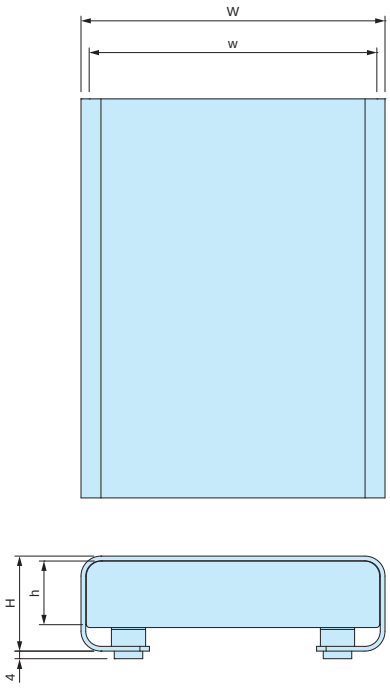
■ DXF/DWG/PDF/STP drawings available on our website.

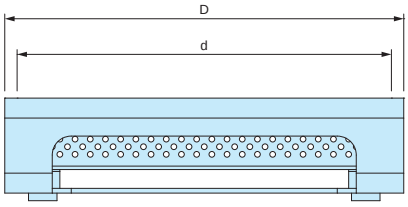
HD7-4-10S • 7-7-10S • 10-5-10S (Conductive)





Other models (Non-conductive)





Product no. / Dimensions

Product no.	External dimensions			Internal dimensions			Included screw	Compatible board	Weight (g)
	W	H	D	w	h	d			
HD 7- 4-10S	65	37	95	61	27	90	M3-4 flat head	Raspberry Pi (56 x 85)	94.1
HD 7- 7-10S	65	65	95	61	55.5	90	M3-4 flat head		129
HD10- 5-10S	95	48	95	91	35.5	90	M3-4 flat head	—	138.5
HD11- 5-18S	111	50	175	102.4	33.5	162	M3-16 flat head	Euro Board (100 x 160)	386.3
HD11- 7-18S	111	70	175	102.4	53.5	162	M3-16 flat head		447.7
HD15- 7-16S	151	65	162	142.4	48.5	149	M3-16 flat head	Mini STX (140 x 147)	500.8
HD16- 6-12S	157	60	118	148.4	43.5	105	M3-16 flat head	3.5 Inch Board (146 x 102)	382.1
HD16- 5-21S	160	50	210	151.4	33.5	197	M3-16 flat head	—	573.9
HD19- 8-21S	192	75	210	182.4	57.5	197	M3-20 flat head	Mini ITX (170 x 170)	838.1
HD21-14-25S	210	135	250	199.4	117	236	M3-20 flat head	—	1587.8
HD26- 8-20S	260	80	200	249.4	62	186	M3-20 flat head	—	1162.8
HD32-10-23S	320	100	230	309.4	82	216	M3-20 flat head	—	1678

Uniquely Designed Aluminium Case with distinctive features and easy-to-assemble structure!

Flat panels with a curved arc design creates a unique aesthetic appearance and allows both easy assembly and customization.

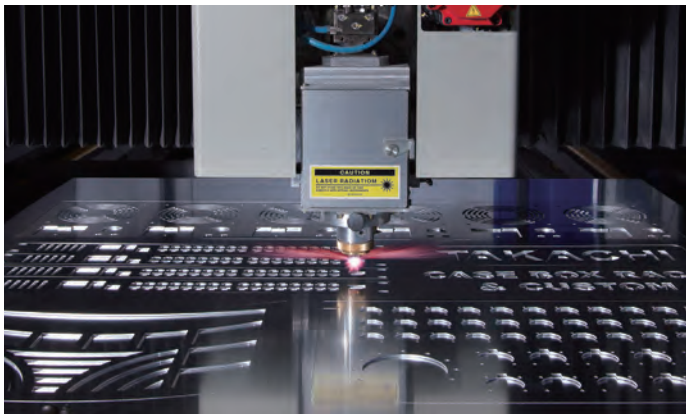
Embedded Computer

Raspberry Pi Case

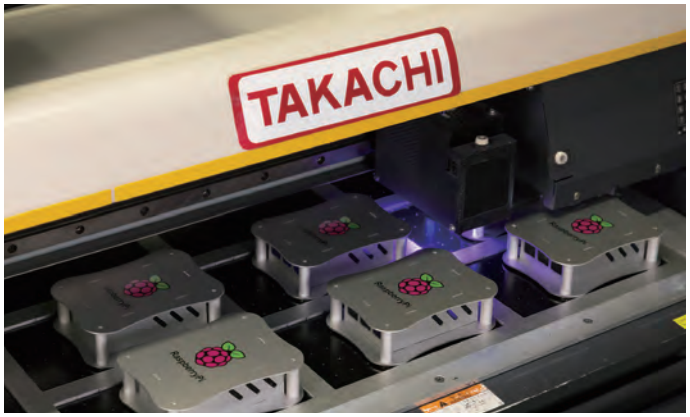
Audio Amplifier

Power Supply

Customization services available at TAKACHI



Fiber laser machine allows the processing of aluminium sheets with both high precision and speed.
See page Custom-9 and website for further details.



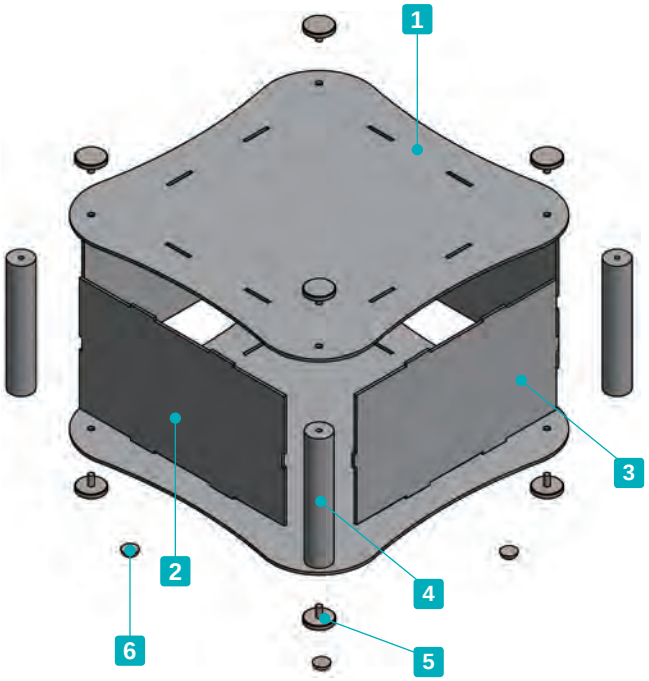
Digital inkjet printing enables high quality full color printing with minimal tooling cost.
High resolution photo images and color gradation can also be printed with ease.
See page Custom-3 ~ Custom-4 and website for further details.

Installation of self-clinching standoffs and nuts are possible.
TAKACHI has over 100 different types of clinching standoffs and nuts available, which can be installed with precision and speed.
See page Custom-11 and website for further details.

Custom Color Anodization • Custom Color Painting

ALR series ARC DESIGN ALUMINIUM CASE

NEW



- Curved arc designed aluminium case with corner support columns.
- 6 different sizes are available.
- While elegantly designed, the flat panel structure allows for easy usage and customization.
- ALR11-5-17 and 11-8-17 models are compatible with the Euro Board. ALR18-7-18 and 18-10-18 models are compatible with the Mini ITX board.
- Possible to be used in a flat layout, or a standing layout.
- Knurled thumb screws for easy hand assembly.

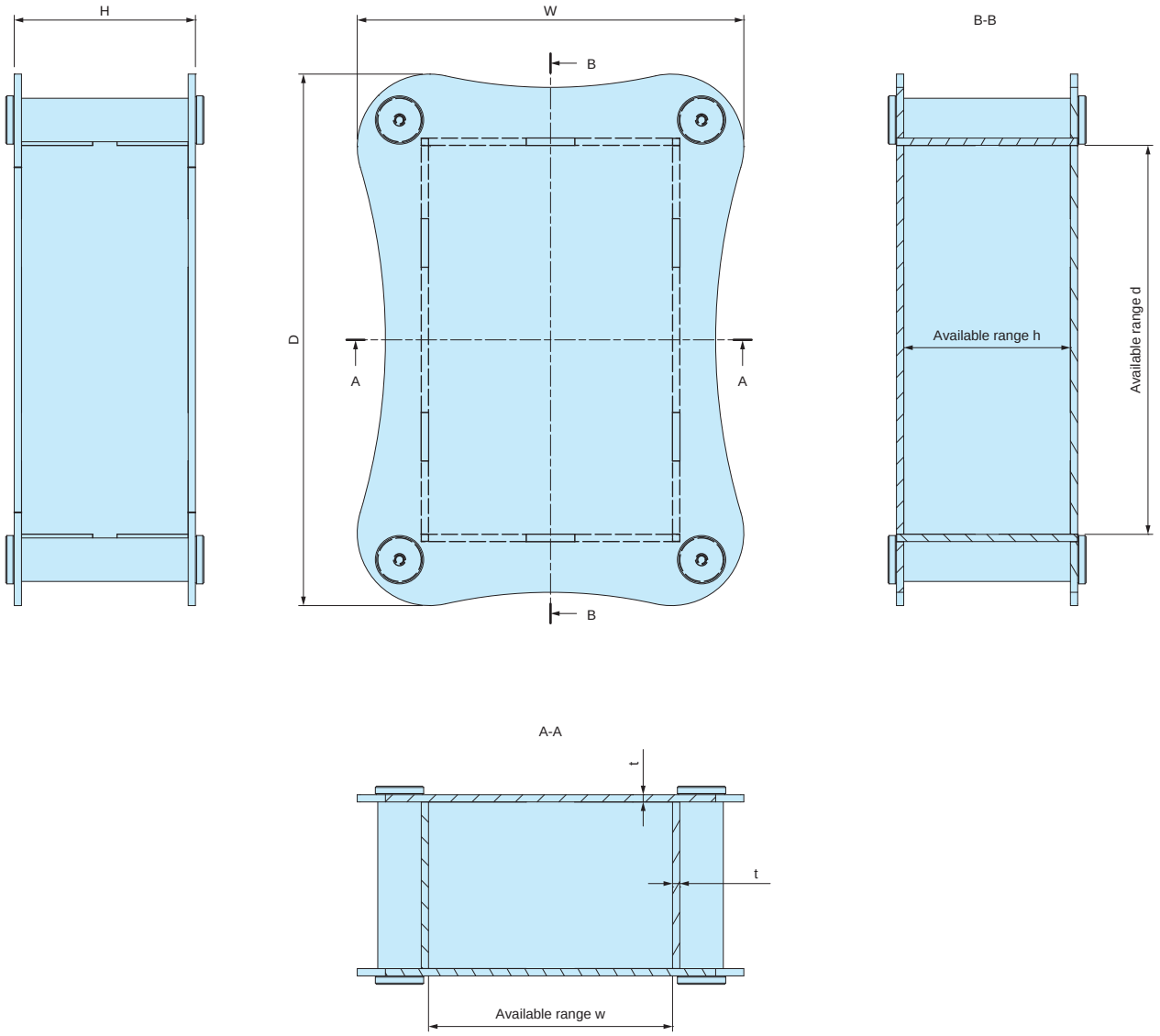
- Custom size is available.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top · bottom cover	1 each	Aluminium A1100P	Silver anodized
2	W panel	2	Aluminium A1100P	Silver anodized
3	D panel	2	Aluminium A1100P	Silver anodized
4	Pillar	4	Extruded aluminium A6063S-T5	Silver anodized
5	Knurled thumb screw	8	Brass	Nickel plated
6	Rubber feet	4	Polyurethane	Transparent

ALR dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



Product no. / Dimensions

Product no.	External dimensions			Available range (Internal)			t	Screw size	Compatible Board Size	Weight (g)
	W	H	D	w	h	d				
ALR10- 5-10	140	50	140	101	47	101	1.5	M3	–	274
ALR11- 5-17	163	45	223	101	41	161	2	M4	Euro Board (100 x 160)	653
ALR11- 8-17	163	75	223	101	71	161	2	M4		816.5
ALR18- 7-18	237	65	237	171	61	171	2	M4	Mini ITX (170 x 170)	1,004
ALR18-10-18	237	100	237	171	96	171	2	M4		1,225
ALR30- 7-20	362	70	264	296	66	196	2	M4	–	1,536

■ Similar transparent type design, as well as custom sizes are also available.

Skeleton acrylic case SKL series
See page 111 ~ 114

Custom sized skeleton acrylic case SKLF series
See website

Custom sized arc design aluminium case ALRF series
See website

MXF • MXB • MXA • MX series

ALUMINIUM MOBILE ENCLOSURE

MXF • MXB • MXA • MX mobile enclosures are designed with a beautiful and elegant finish in mind. Having a rounded design, it fits comfortably in your hand, while giving off a simple yet stylish look. Suitable for use in a wide variety of industries, such as a small audio device, or as an amplifier unit, among others.
Selectable from 4 different types: an economical plastic end panel MX series, a luxurious aluminium end panel MXA series, a flanged end panel MXF series, and a protective silicone band MXB series.

APPLICATION EXAMPLE

Fiber Optic LAN Converter

Product by ENZO j-Fi (Japan)

Desktop Audio Preamplifier with USB

Product by conisis lab (Japan)

Wireless Microphone System

Product by Catchbox (Finland)

reddot award
product design

Ethernet Cellular Router

Product by NimbeLink (USA)

WiFi Access Point

AIS (Automatic Identification System) Signal Receiver

Product by SRT Marine System Solutions (UK)

Data Transmitter for Automatic Number Plate Recognition (ANPR) System

Product by Sensor Dynamics (Australia)

IO-Link DEVICE

Product by Lemonage Software (Germany)

CAN & LIN Vehicle Communication Simulator / Monitor

Product by P&A Technologies (Japan)

Signal Checker / Tester

Product by KUWATEC (Japan)

Audio Power Supply

Product by ACOUSTIC REVIVE (Japan)

Model Railroad Controller

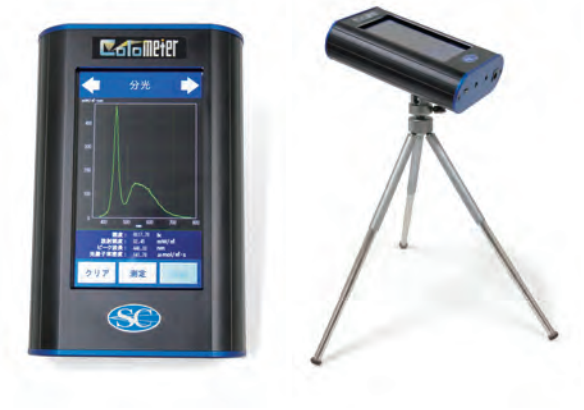
Product by Calura (Japan)

Portable Frequency Standard Device

Product by FREQTIME (Japan)

Spectral Luminometer

Product by Spectra Co-op (Japan)



RTD Sensor Tester

Product by Turbomation (USA)

Mobile Moisture Meter

Product by ARP (Japan)

Full Color LED Tabletop Lighting Device

Product by DAISHO DENKI (Japan)

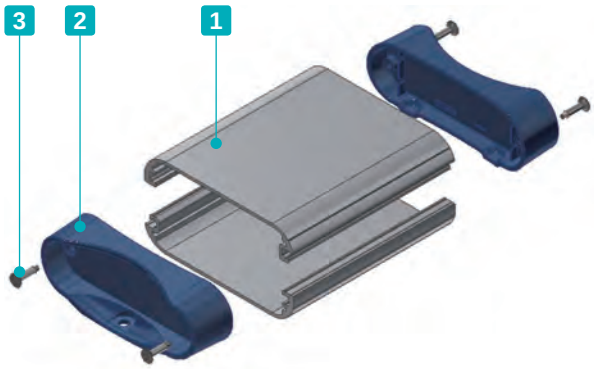
Active EMF Protection Device

Product by Blueshield (New Zealand)

Illumination Inverter

Product by Future Illuminations (USA)

MXF series FLANGED NETWORK ALUMINIUM ENCLOSURE



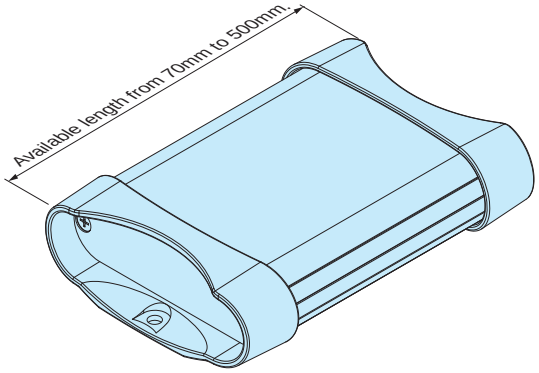
- Flanged network enclosure with easy to hold rounded design.
- 8 different color combinations and 12 different sizes available to choose from.
- Suitable to be used as transmitters, measurement tools, controllers, etc.
- Grooves are built into the internal enclosure, allowing for easy sliding/insertion of PCB boards.

Included screws
MXF2-6 models : M2.6-14 x 4 pcs
MXF2-8, 3-11 models : M3-12 x 4 pcs
MXF4-13 models : M3-14 x 4 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
2	Flanged panel	2	ABS UL94HB	Black • Gray / Unpainted Navy • Lime / Painted
3	Self-tapping screw	4	Steel	Nickel plated • Black trivalent chromate

Custom length available in 1mm intervals.



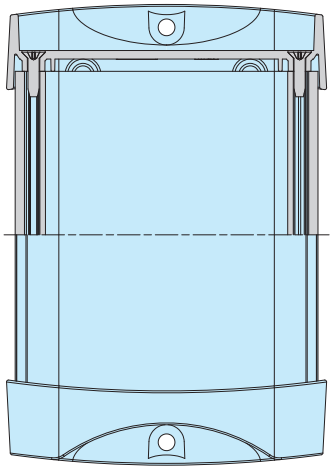
Color Type Please choose from the color combinations listed below

※Black and Gray panels are ABS color. Navy and Lime panels are Painted.

BB Black / Black	BG Black / Gray	BN Black / Navy	BL Black / Lime
SB Silver / Black	**SG Silver / Gray**	**SN Silver / Navy**	**SL Silver / Lime**

MXF dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



Screw Type

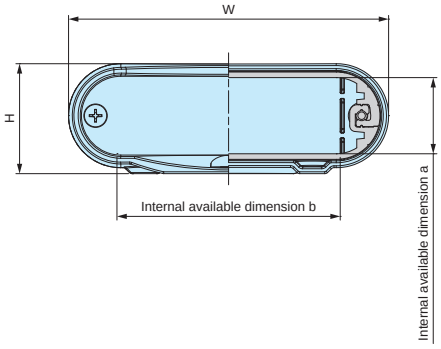
P	H
Plus head	Hexalobular head

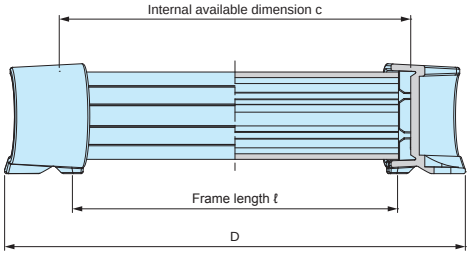
Please request / order by indicating the combination part number as below.

MXF 2 – 6 – 7 □ □ □

Color code

Screw P or H



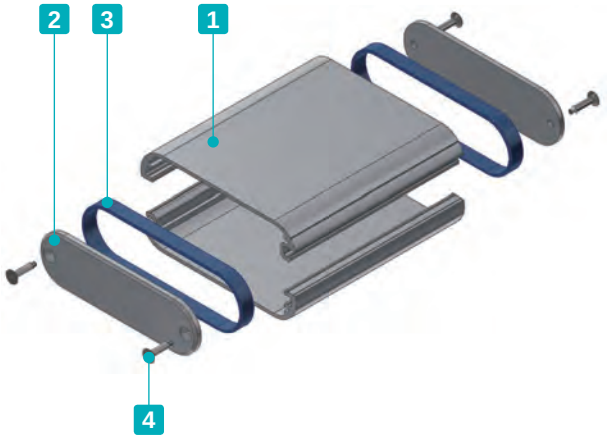


Product no. / Dimensions

■ Please suffix color and screw code at the end of the product number.

Product no.	H	W	D	a	b	c	ℓ	Weight (g)
MXF2- 6- 7□□□	23.4	60.9	65	15.1	41.1	45	40	44
MXF2- 6- 9□□□	23.4	60.9	90	15.1	41.1	70	65	59
MXF2- 6-12□□□	23.4	60.9	115	15.1	41.1	95	90	75
MXF2- 8- 9□□□	29.6	86.1	94	20.5	60.1	64.6	58	90
MXF2- 8-12□□□	29.6	86.1	124	20.5	60.1	94.6	88	121
MXF2- 8-15□□□	29.6	86.1	154	20.5	60.1	124.6	118	153
MXF3-11-10□□□	35.6	114.2	104	26.5	87.3	74.6	66	130
MXF3-11-14□□□	35.6	114.2	144	26.5	87.3	114.6	106	184
MXF3-11-19□□□	35.6	114.2	194	26.5	87.3	164.6	156	251
MXF4-13-12□□□	40.6	134.2	124	31	104.1	94.4	84	197
MXF4-13-17□□□	40.6	134.2	174	31	104.1	144.4	134	284
MXF4-13-23□□□	40.6	134.2	234	31	104.1	204.4	194	388

MXB series ALUMINIUM MOBILE ENCLOSURE with SILICONE BAND



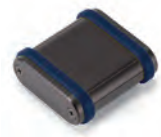
- All aluminium mobile enclosure with anti-slip, impact resistant silicone band.
- 16 different color combinations and 24 different sizes available to choose from.
- Suitable to be used as digital audio amplifiers, communication devices, measurement tools, etc.

Included screws
MXB2-4, 2-6 models : M2.6-14 x 4 pcs
MXB2-7, 2-8, 3-11, 4-7, 4-10, 4-13 models : M3-10 x 4 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
2	Panel	2	Aluminium A1050P	Silver • Black / Anodized
3	Silicone band	2	Silicone	Black • Light gray • Navy • Cyan • Green • Yellow • Orange • Red
4	Self-tapping screw	4	Steel	Nickel plated • Black trivalent chromate

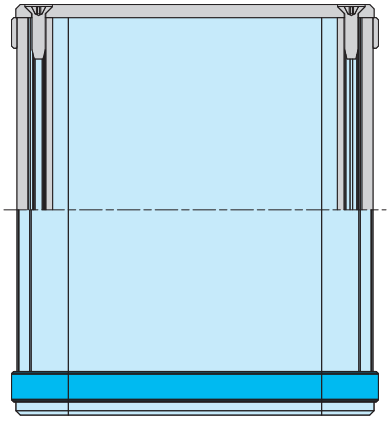
Color Type

BB Black / Black	BL Black / Light gray	BN Black / Navy	BC Black / Cyan	BG Black / Green	BY Black / Yellow	BO Black / Orange	BR Black / Red
							
SB Silver / Black	**SL Silver / Light gray**	**SN Silver / Navy**	**SC Silver / Cyan**	**SG Silver / Green**	**SY Silver / Yellow**	**SO Silver / Orange**	**SR Silver / Red**

■ Mix and match the MXA series with the SIB series silicone band for a wider variety of color combinations.

MXB dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



Screw Type

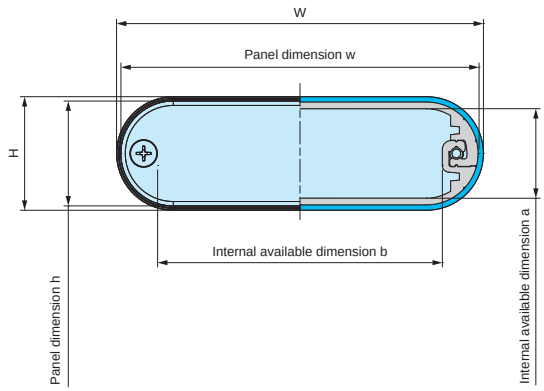
P	H
Plus head	Hexalobular head

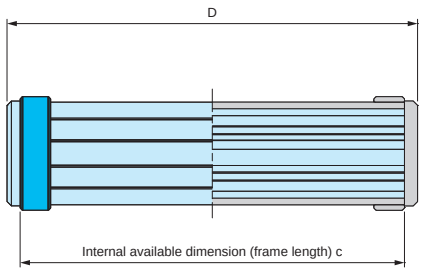
Please request / order by indicating the combination part number as below.

MXB 2 – 4 – 4 □ □ □

Color code

Screw P or H





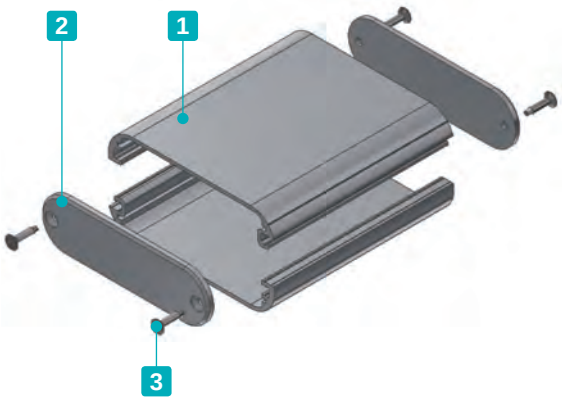
Product no. / Dimensions

■ Please suffix color and screw code at the end of the product number.

Product no.	H	W	D	h	w	a	b	c	Weight (g)
MXB2- 4- 4□□□	18	43.6	44	15	41	12.2	26.6	38	26
MXB2- 4- 7□□□	18	43.6	74	15	41	12.2	26.6	68	41
MXB2- 4-10□□□	18	43.6	104	15	41	12.2	26.6	98	51
MXB2- 6- 5□□□	20.3	59.6	46	18	57	15.1	42.5	40	36
MXB2- 6- 7□□□	20.3	59.6	71	18	57	15.1	42.5	65	51
MXB2- 6-10□□□	20.3	59.6	96	18	57	15.1	42.5	90	66
MXB2- 7- 5□□□	23.5	72.5	54	20	70	16.5	53.2	48	57
MXB2- 7- 8□□□	23.5	72.5	84	20	70	16.5	53.2	78	82
MXB2- 7-11□□□	23.5	72.5	114	20	70	16.5	53.2	108	112
MXB2- 8- 6□□□	26.5	84.8	64	24	82	20.5	65.2	58	77
MXB2- 8- 9□□□	26.5	84.8	94	24	82	20.5	65.2	88	107
MXB2- 8-12□□□	26.5	84.8	124	24	82	20.5	65.2	118	137
MXB3-11- 7□□□	33.5	113.9	72	30	110	26.5	93.2	66	120
MXB3-11-11□□□	33.5	113.9	112	30	110	26.5	93.2	106	170
MXB3-11-16□□□	33.5	113.9	162	30	110	26.5	93.2	156	240
MXB4- 7- 5□□□	38.2	72	52	35	70	31.4	53.2	46	72
MXB4- 7- 8□□□	38.2	72	82	35	70	31.4	53.2	76	102
MXB4- 7-11□□□	38.2	72	112	35	70	31.4	53.2	106	137
MXB4-10- 7□□□	44.7	97.9	70	40	95	36.4	78.2	64	125
MXB4-10-11□□□	44.7	97.9	110	40	95	36.4	78.2	104	180
MXB4-10-14□□□	44.7	97.9	140	40	95	36.4	78.2	134	225
MXB4-13- 9□□□	38.5	134	90	35	130	31	113.2	84	187
MXB4-13-14□□□	38.5	134	140	35	130	31	113.2	134	272
MXB4-13-20□□□	38.5	134	200	35	130	31	113.2	194	377

■ H and W may experience slight variance from listed dimensions due to silicone band construct.

MXA series ALUMINIUM MOBILE ENCLOSURE



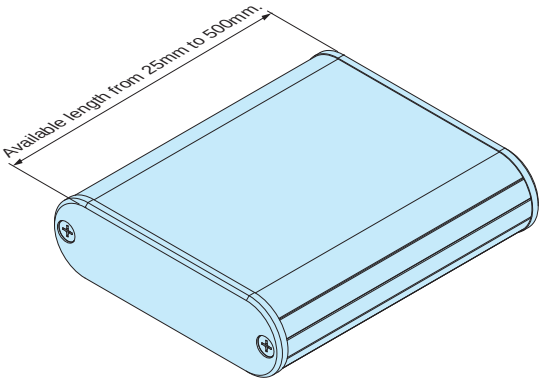
- All aluminium mobile enclosure with easy to hold rounded design.
- 14 different color combinations and 24 different sizes available to choose from.
- Suitable to be used as digital audio amplifiers, communication devices, measurement tools, etc.
- Grooves are built into the internal enclosure, allowing for easy sliding/insertion of PCB boards.

Included screws
MXA2-4, 2-6 models : M2.6-14 x 4pcs
MXA2-7, 2-8, 3-11, 4-7, 4-10, 4-13 models : M3-10 x 4 pcs

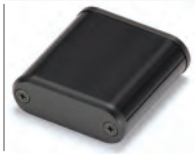
Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
2	Panel	2	Aluminium A1050P	Black • Silver • Cobalt • Green • Purple • Orange • Red / Anodized
3	Self-tapping screw	4	Steel	Nickel plated • Black trivalent chromate

Custom length available in 1mm intervals.

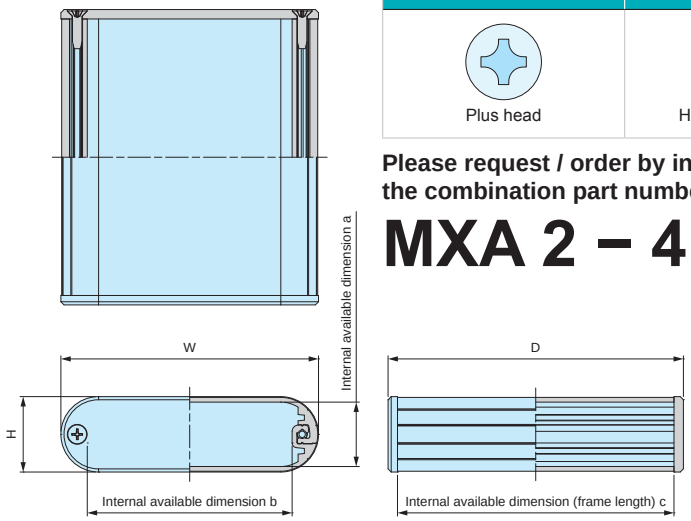


Color Type Please choose from the color combinations listed below

B B Black / Black	B S Black / Silver	B C Black / Cobalt	B G Black / Green	B P Black / Purple	B O Black / Orange	B R Black / Red
						

S B Silver / Black	S S Silver / Silver	S C Silver / Cobalt	S G Silver / Green	S P Silver / Purple	S O Silver / Orange	S R Silver / Red

MXA dimensions



Screw Type

P	H
Plus head	Hexalobular head

Please request / order by indicating the combination part number as below.

MXA 2 – 4 – 4 □ □ □

Color code

Screw P or H

■ DXF/DWG/PDF/STP drawings available on our website.

Accessories (Optional parts)

Silicone band SIB series
See page 196

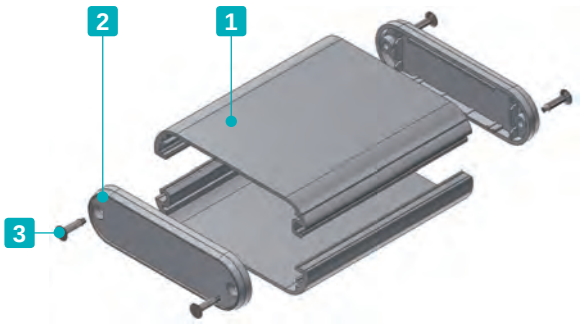
Embedded battery box BC series
See page 125 ~ 128

Product no. / Dimensions

■ Please suffix color and screw code at the end of the product number.

Product no.	H	W	D	a	b	c	Weight (g)
MXA2- 4- 4□□□	15	41	44	12.2	26.6	38	25
MXA2- 4- 7□□□	15	41	74	12.2	26.6	68	40
MXA2- 4-10□□□	15	41	104	12.2	26.6	98	50
MXA2- 6- 5□□□	18	57	46	15.1	42.5	40	35
MXA2- 6- 7□□□	18	57	71	15.1	42.5	65	50
MXA2- 6-10□□□	18	57	96	15.1	42.5	90	65
MXA2- 7- 5□□□	20	70	54	16.5	53.2	48	55
MXA2- 7- 8□□□	20	70	84	16.5	53.2	78	80
MXA2- 7-11□□□	20	70	114	16.5	53.2	108	110
MXA2- 8- 6□□□	24	82	64	20.5	65.2	58	75
MXA2- 8- 9□□□	24	82	94	20.5	65.2	88	105
MXA2- 8-12□□□	24	82	124	20.5	65.2	118	135
MXA3-11- 7□□□	30	110	72	26.5	93.2	66	115
MXA3-11-11□□□	30	110	112	26.5	93.2	106	165
MXA3-11-16□□□	30	110	162	26.5	93.2	156	235
MXA4- 7- 5□□□	35	70	52	31.4	53.2	46	70
MXA4- 7- 8□□□	35	70	82	31.4	53.2	76	100
MXA4- 7-11□□□	35	70	112	31.4	53.2	106	135
MXA4-10- 7□□□	40	95	70	36.4	78.2	64	120
MXA4-10-11□□□	40	95	110	36.4	78.2	104	175
MXA4-10-14□□□	40	95	140	36.4	78.2	134	220
MXA4-13- 9□□□	35	130	90	31	113.2	84	180
MXA4-13-14□□□	35	130	140	31	113.2	134	265
MXA4-13-20□□□	35	130	200	31	113.2	194	370

MX series MOBILE ENCLOSURE



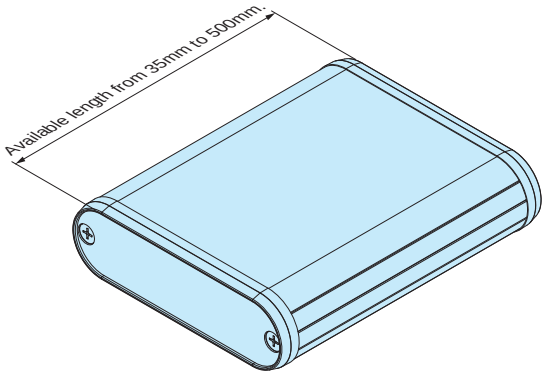
- Mobile enclosure with easy to hold rounded design.
- 12 different color combinations and 24 different sizes available to choose from.
- Frame is made from extruded aluminium material, while the panel is ABS plastic.
- Grooves are built into the internal enclosure, allowing for easy sliding/insertion of PCB boards.

Included screws
MX2-4, 2-6 models : M2.6-14 x 4 pcs
MX2-7, 2-8, 3-11 models : M3-12 x 4 pcs
MX4-7, 4-10, 4-13 models : M3-14 x 4 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
2	Panel	2	ABS UL94HB	Gray • Black / Unpainted Navy • Lime • Orange • Red / Painted
3	Self-tapping screw	4	Steel	Nickel plated • Black trivalent chromate

Custom length available in 1mm intervals.

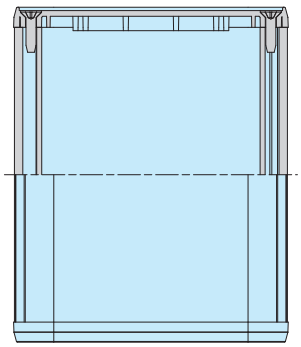


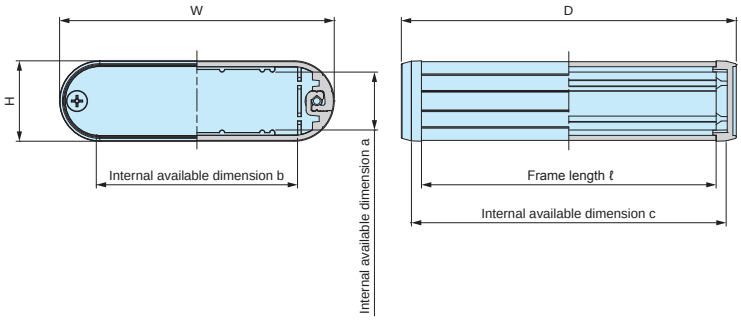
Color Type Please choose from the color combinations listed below

※Black • Gray panels / Unpainted Other panels / Painted

BB Black / Black	BG Black / Gray	BN Black / Navy	BL Black / Lime	BO Black / Orange	BR Black / Red
SB Silver / Black	**SG Silver / Gray**	**SN Silver / Navy**	**SL Silver / Lime**	**SO Silver / Orange**	**SR Silver / Red**

MX dimensions





■ DXF/DWG/PDF/STP drawings available on our website.

Screw Type

P	H
Plus head	Hexalobular head

Please request / order by indicating the combination part number as below.

MX 2 – 4 – 5 □ □ □

Color code

Screw P or H

Accessories (Optional parts)

Silicone band SIB series
See page 196

Embedded battery box BC series
See page 125 ~ 128

Product no. / Dimensions

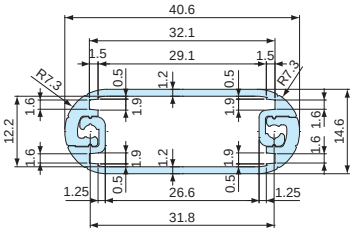
■ Please suffix color and screw code at the end of the product number.

Product no.	H	W	D	a	b	c	ℓ	Weight (g)
MX2- 4- 5□□□	15	41	50	8.9	26.6	44.6	38	20
MX2- 4- 8□□□	15	41	80	8.9	26.6	74.6	68	35
MX2- 4-11□□□	15	41	110	8.9	26.6	104.6	98	50
MX2- 6- 5□□□	18	57	50	12.3	42.5	45	40	35
MX2- 6- 8□□□	18	57	75	12.3	42.5	70	65	50
MX2- 6-10□□□	18	57	100	12.3	42.5	95	90	70
MX2- 7- 6□□□	20	70	60	13.2	53.2	54.6	48	50
MX2- 7- 9□□□	20	70	90	13.2	53.2	84.6	78	80
MX2- 7-12□□□	20	70	120	13.2	53.2	114.6	108	105
MX2- 8- 7□□□	24	82	70	17.2	65.2	64.6	58	75
MX2- 8-10□□□	24	82	100	17.2	65.2	94.6	88	105
MX2- 8-13□□□	24	82	130	17.2	65.2	124.6	118	140
MX3-11- 8□□□	30	110	80	23.3	93.2	74.6	66	110
MX3-11-12□□□	30	110	120	23.3	93.2	114.6	106	165
MX3-11-17□□□	30	110	170	23.3	93.2	164.6	156	235
MX4- 7- 6□□□	35	70	60	28.2	53.2	53	46	65
MX4- 7- 9□□□	35	70	90	28.2	53.2	83	76	100
MX4- 7-12□□□	35	70	120	28.2	53.2	113	106	130
MX4-10- 8□□□	40	95	80	33.1	78.2	73	64	115
MX4-10-12□□□	40	95	120	33.1	78.2	113	104	175
MX4-10-15□□□	40	95	150	33.1	78.2	143	134	215
MX4-13-10□□□	35	130	100	27.7	113.2	94.4	84	175
MX4-13-15□□□	35	130	150	27.7	113.2	144.4	134	265
MX4-13-21□□□	35	130	210	27.7	113.2	204.4	194	375

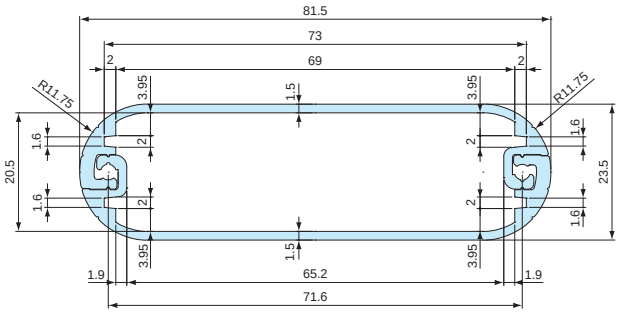
Cross section view of MXF • MXB • MXA • MX frames

■ DXF/DWG/PDF/STP drawings available on our website.

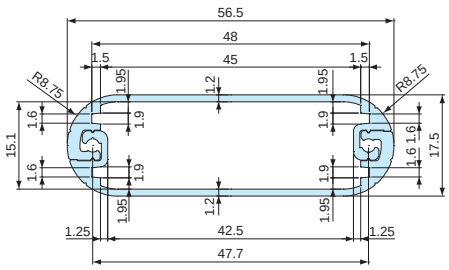
MXF • MXB • MXA • MX2-4-□



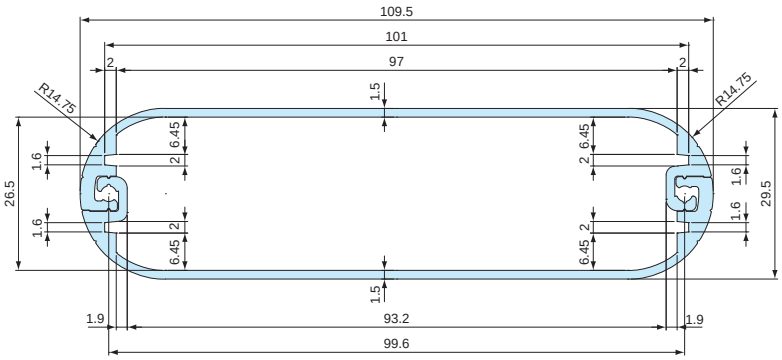
MXF • MXB • MXA • MX2-8-□



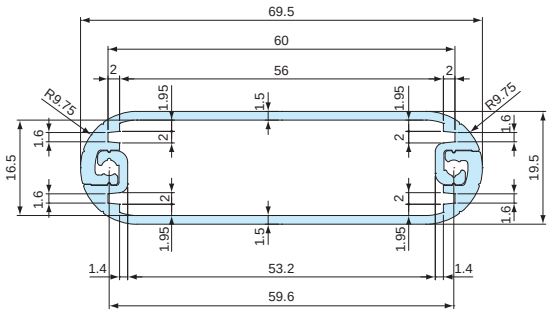
MXF • MXB • MXA • MX2-6-□



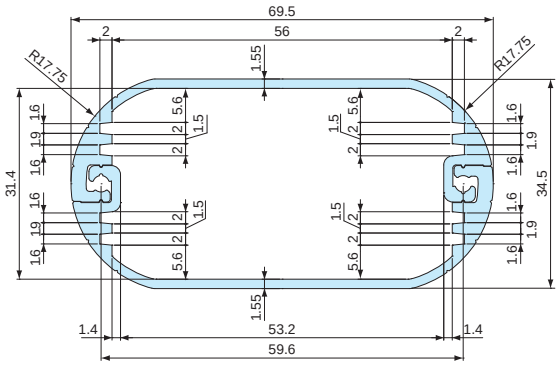
MXF • MXB • MXA • MX3-11-□



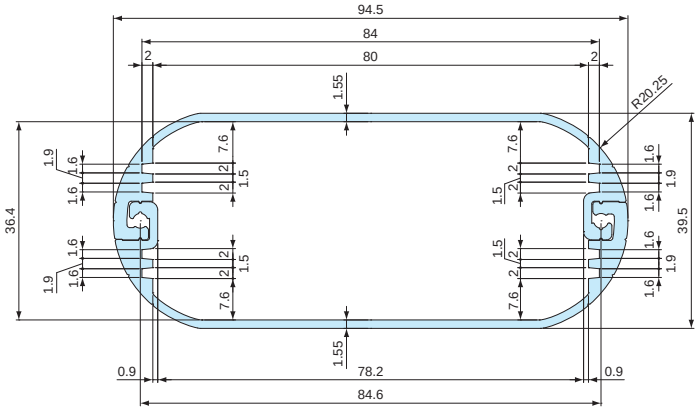
MXF • MXB • MXA • MX2-7-□



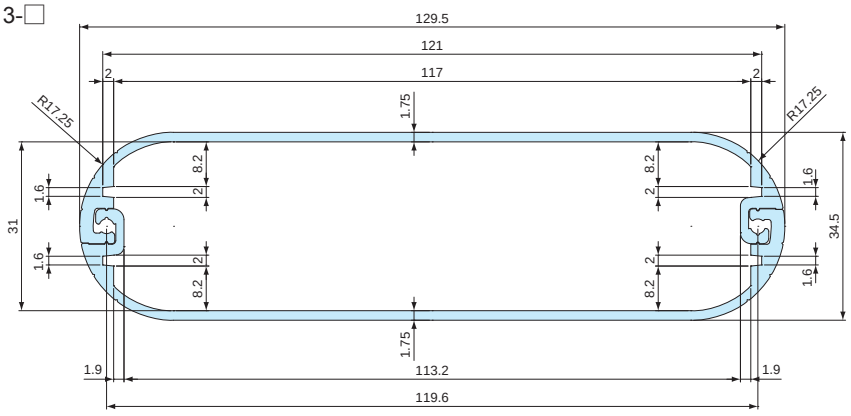
MXF • MXB • MXA • MX4-7-□



MXF • MXB • MXA • MX4-10-□



MXF • MXB • MXA • MX4-13-□



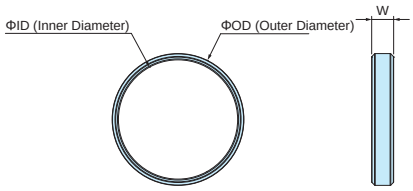
Accessories (Optional parts)

SIB series SILICONE BAND

Application example

- Silicone band designed to fit MXA and MX series.
- Silicone band provides both shock resistance and non-slip grips for the enclosure.
- Elastic silicone band may also fit other similarly sized enclosures.

SIB dimensions



Color Type

Code	R Red	O Orange	Y Yellow	G Green	C Cyan	N Navy	L Light gray	B Black
Color								

Components

Part name	Pcs	Material	Color
Silicone band	Pair (2 pcs)	Silicone	Red • Orange • Yellow • Green • Cyan • Navy • Light gray • Black

Product no. / Dimensions

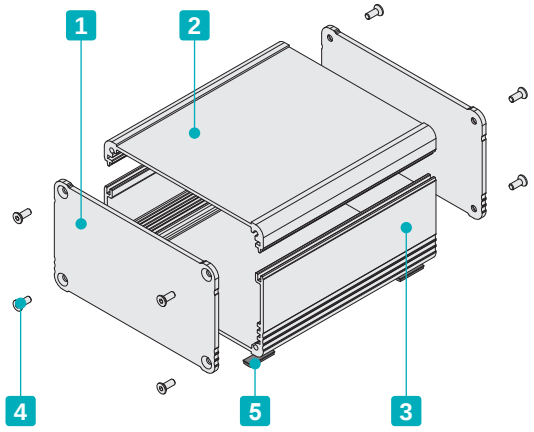
■ Please suffix color code at the end of the product number.

Product no.	W	ID	OD	Suitable models	Enclosure circumference (mm)	Weight (g)
SIB-21□	6	21	25	MXA • MX2-4-□ • 2-6-□	95~135	2
SIB-38□	7	38	42	MXA • MX2-7-□ • 2-8-□ • 4-7-□	160~190	4
SIB-58□	8	58	63	MXA • MX3-11-□ • 4-10-□	215~255	10
SIB-72□	10	72	77	MXA • MX4-13-□	280~320	14

EX series EXTRUDED ALUMINIUM CASE

NEW SIZE

- Simple yet beautifully designed aluminium extrusion enclosure.
- Selectable in 4 different color combinations and 73 different sizes.
- High-end finish is achieved by precision CNC of the end panels.
- Suitable for industrial and audio interface equipment.
- Custom length is available.



Components

No.	Part name	Pcs	Material	Color / Finish
1	Panel	2	Aluminium A1050P	Silver • Black / Anodized
2	Top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
3	Bottom cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
4	Screw (Hexagonal)	8	Stainless steel	Unfinished
5	Rubber feet	4	Polyurethane • Synthetic rubber	Black

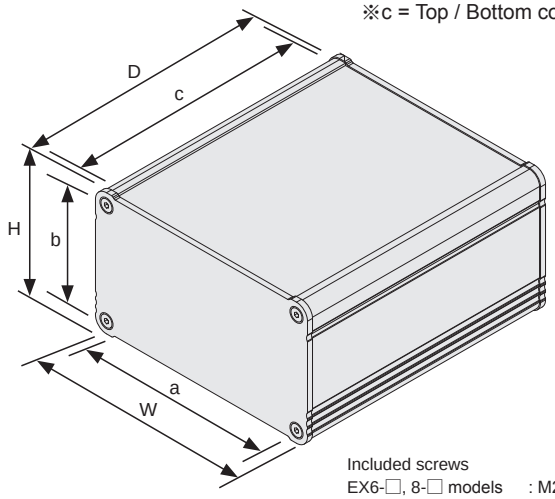
■ See page 217 ~ 220 for Top / Bottom cover dimensions
■ Rubber feet material : Polyurethane : EX6-□ ~ 19-□ models • Synthetic rubber : EX23-□ ~ 29-□ models.

Color Type

Code	S S Silver / Silver	S B Silver / Black	B S Black / Silver	B B Black / Black
Color				

EX dimensions

※c = Top / Bottom cover length.



Included screws
EX6-□, 8-□ models : M2.5-8 x 8 pcs
EX11-□, 14-□ models : M3-8 x 8 pcs
EX19-□ models : M4-10 x 8 pcs
EX23-□, 29-□ models : M5-10 x 8 pcs
※Hexagonal wrench included.

■ DXF/DWG/PDF/STP drawings available on our website.

Accessories (Optional parts)

Wall mounting bracket EF series
See page 254

Product no. / Dimensions

■ Please suffix color code at the end of the product number.

Product no.	External dimensions			Internal dimensions		
	W	H	D	a	b	c
EX 6- 3- 5□□	60.6	25.6	50	46	19.6	46
EX 6- 3- 8□□	60.6	25.6	77	46	19.6	73
EX 6- 3-10□□	60.6	25.6	100	46	19.6	96
EX 6- 4- 5□□	60.6	35.6	50	46	29.6	46
EX 6- 4- 8□□	60.6	35.6	77	46	29.6	73
EX 6- 4-10□□	60.6	35.6	100	46	29.6	96
EX 6- 5- 5□□	60.6	50.6	50	46	44.6	46
EX 6- 5- 8□□	60.6	50.6	77	46	44.6	73
EX 6- 5-10□□	60.6	50.6	100	46	44.6	96
EX 8- 3- 6□□	80.6	30.6	60	66	24.6	56
EX 8- 3- 9□□	80.6	30.6	90	66	24.6	86
EX 8- 3-12□□	80.6	30.6	120	66	24.6	116
EX 8- 4- 6□□	80.6	40.6	60	66	34.6	56
EX 8- 4- 9□□	80.6	40.6	90	66	34.6	86
EX 8- 4-12□□	80.6	40.6	120	66	34.6	116
EX 8- 6- 6□□	80.6	55.6	60	66	49.6	56
EX 8- 6- 9□□	80.6	55.6	90	66	49.6	86
EX 8- 6-12□□	80.6	55.6	120	66	49.6	116
EX11- 3- 8□□	106	31	79	88	24	74
EX11- 3-12□□	106	31	119	88	24	114
EX11- 3-16□□	106	31	165	88	24	160
EX11- 5- 8□□	106	46	79	88	39	74
EX11- 5-12□□	106	46	119	88	39	114
EX11- 5-16□□	106	46	165	88	39	160
EX11- 6- 8□□	106	61	79	88	54	74
EX11- 6-12□□	106	61	119	88	54	114
EX11- 6-16□□	106	61	165	88	54	160
EX14- 4-10□□	141	36	98	106.8	29	93
EX14- 4-14□□	141	36	138	106.8	29	133
EX14- 4-19□□	141	36	188	106.8	29	183
EX14- 5-10□□	141	51	98	106.8	44	93
EX14- 5-14□□	141	51	138	106.8	44	133
EX14- 5-19□□	141	51	188	106.8	44	183
EX14- 7-10□□	141	71	98	106.8	64	93
EX14- 7-14□□	141	71	138	106.8	64	133
EX14- 7-19□□	141	71	188	106.8	64	183
EX14- 9-10□□	141	91	98	106.8	84	93
EX14- 9-14□□	141	91	138	106.8	84	133
EX14- 9-19□□	141	91	188	106.8	84	183

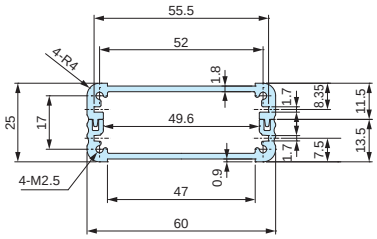
Product no.	External dimensions			Internal dimensions		
	W	H	D	a	b	c
EX19- 4-13□□	186.5	43.5	125	131	35	120
EX19- 4-18□□	186.5	43.5	177	131	35	172
EX19- 4-23□□	186.5	43.5	230	131	35	225
EX19- 4-29□□	186.5	43.5	285	131	35	280
EX19- 6-13□□	186.5	61.5	125	131	53	120
EX19- 6-18□□	186.5	61.5	177	131	53	172
EX19- 6-23□□	186.5	61.5	230	131	53	225
EX19- 6-29□□	186.5	61.5	285	131	53	280
EX19- 8-13□□	186.5	81.5	125	131	73	120
EX19- 8-18□□	186.5	81.5	177	131	73	172
EX19- 8-23□□	186.5	81.5	230	131	73	225
EX19- 8-29□□	186.5	81.5	285	131	73	280
EX19-11-13□□	186.5	106.5	125	131	98	120
EX19-11-18□□	186.5	106.5	177	131	98	172
EX19-11-23□□	186.5	106.5	230	131	98	225
EX19-11-29□□	186.5	106.5	285	131	98	280
EX23- 5-15□□	232	52	153	176	43	147
EX23- 5-21□□	232	52	213	176	43	207
EX23- 5-27□□	232	52	273	176	43	267
EX23- 5-33□□	232	52	333	176	43	327
EX23- 8-15□□	232	77	153	176	68	147
EX23- 8-21□□	232	77	213	176	68	207
EX23- 8-27□□	232	77	273	176	68	267
EX23- 8-33□□	232	77	333	176	68	327
EX23-10-15□□	232	102	153	176	93	147
EX23-10-21□□	232	102	213	176	93	207
EX23-10-27□□	232	102	273	176	93	267
EX23-10-33□□	232	102	333	176	93	327
NEW EX29- 8-23□□	287.5	77.5	234	230	68	228
NEW EX29- 8-30□□	287.5	77.5	304	230	68	298
NEW EX29- 8-38□□	287.5	77.5	384	230	68	378
NEW EX29-13-23□□	287.5	127.5	234	230	118	228
NEW EX29-13-30□□	287.5	127.5	304	230	118	298
NEW EX29-13-38□□	287.5	127.5	384	230	118	378

■ Custom length is available

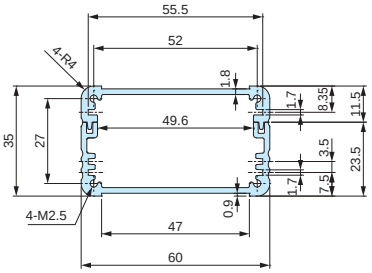
Cross-section view of top & bottom covers

■ DXF/DWG/PDF/STP drawings available on our website.

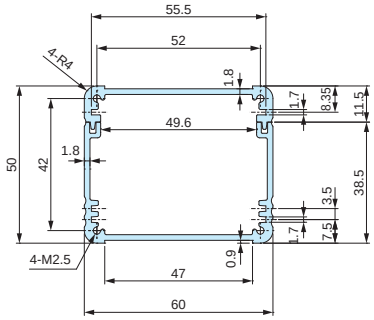
EXP • EXPE • EXW • EXPF • EXEF • EXWF7-3-□
EX6-3-□



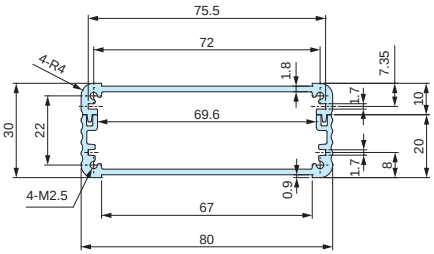
EXP • EXPE • EXW • EXPF • EXEF • EXWF7-4-□
EX6-4-□



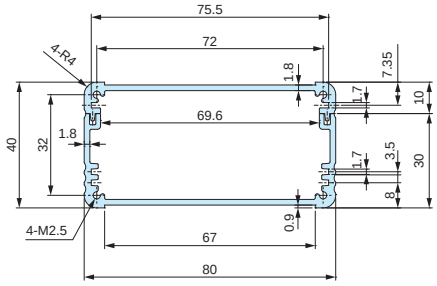
EXP • EXPE • EXW • EXPF • EXEF • EXWF7-6-□
EX6-5-□



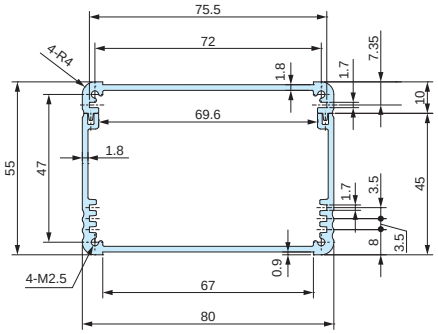
EXP • EXPE • EXW • EXPF • EXEF • EXWF9-4-□
EX8-3-□



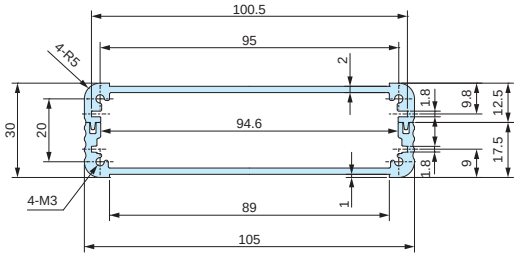
EXP • EXPE • EXW • EXPF • EXEF • EXWF9-5-□
EX8-4-□



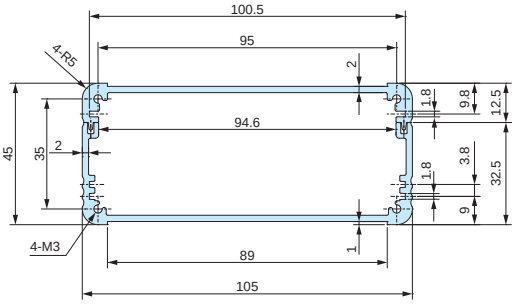
EXP • EXPE • EXW • EXPF • EXEF • EXWF9-6-□
EX8-6-□



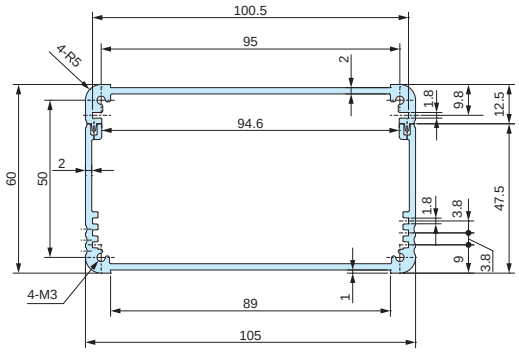
EXP • EXPE • EXW12-4-□
EXPF • EXEF • EXWF11-4-□
EX11-3-□



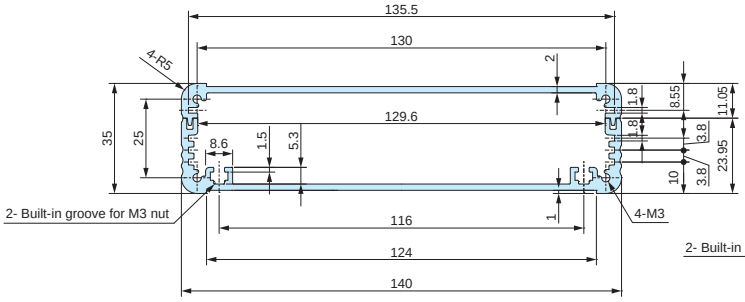
EXP • EXPE • EXW12-6-□
EXPF • EXEF • EXWF11-6-□
EX11-5-□



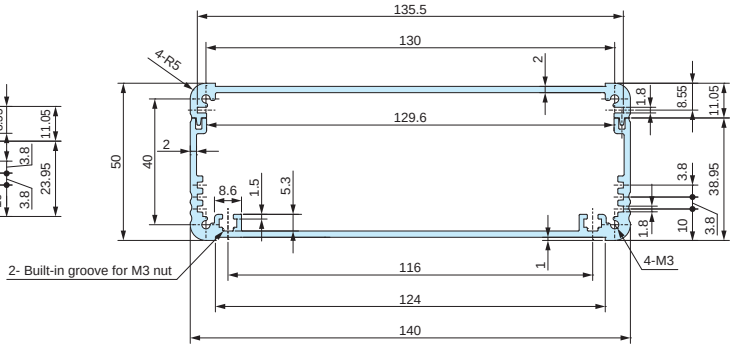
EXP • EXPE • EXW12-7-□
EXPF • EXEF • EXWF11-7-□
EX11-6-□



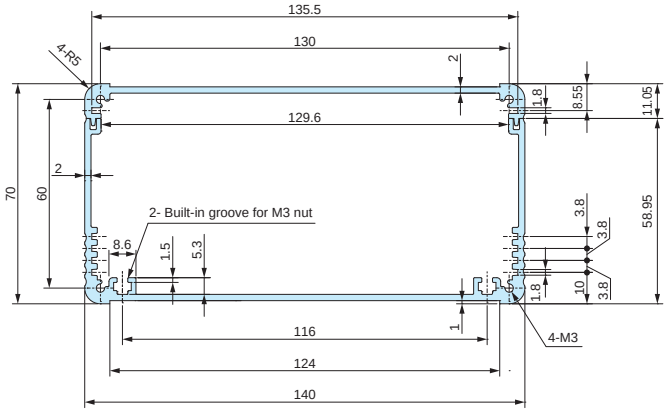
EXP • EXPE • EXW • EXPF • EXEF • EXWF15-5-□
EX14-4-□



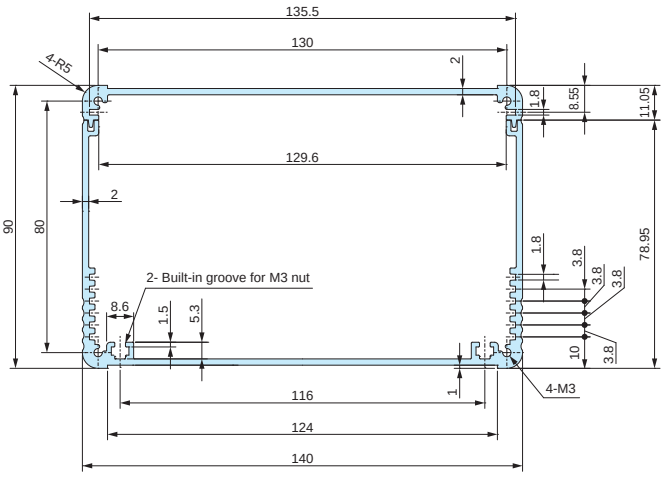
EXP • EXPE • EXW • EXPF • EXEF • EXWF15-6-□
EX14-5-□

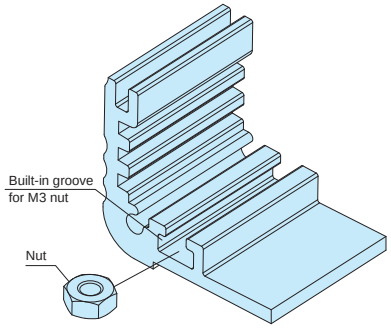


EXP • EXPE • EXW • EXPF • EXEF • EXWF15-8-□
EX14-7-□



EXP • EXPE • EXW • EXPF • EXEF • EXWF15-10-□
EX14-9-□





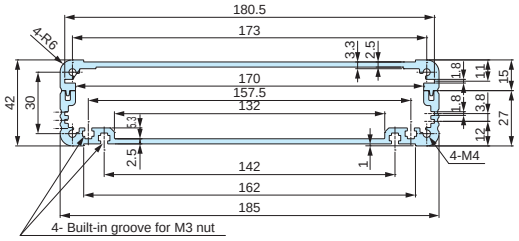
■ Optional sliding nut is available to be used for width 140mm or larger bottom covers.

See page 221 for further details.

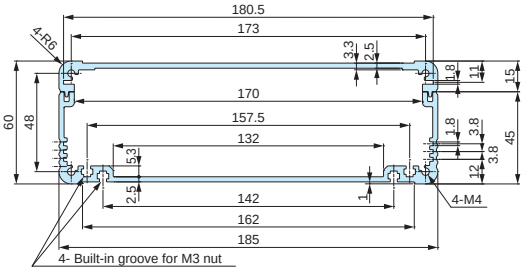
Cross-section view of top & bottom covers

■ DXF/DWG/PDF/STP drawings available on our website.

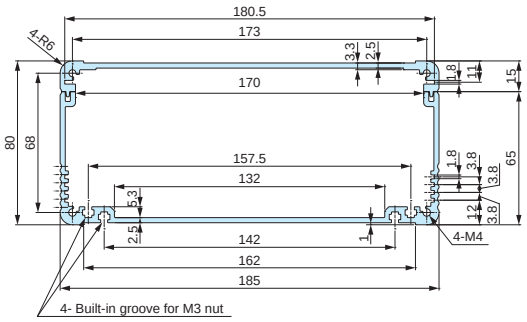
EXPT • EXP • EXPE • EXPF • EXEF • EXWF20-6-□
EX19-4-□



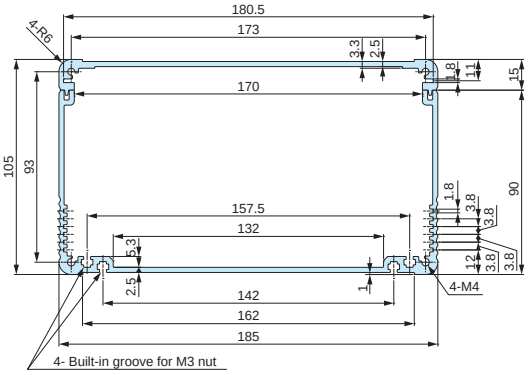
EXPT • EXP • EXPE20-7-□
EXPF • EXEF • EXWF20-8-□
EX19-6-□



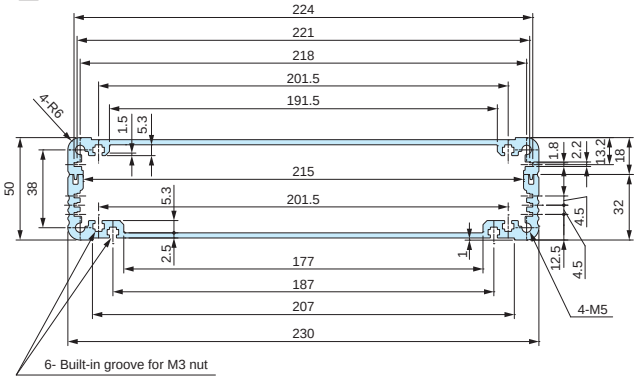
EXPT • EXP • EXPE20-9-□
EXPF • EXEF • EXWF20-10-□
EX19-8-□

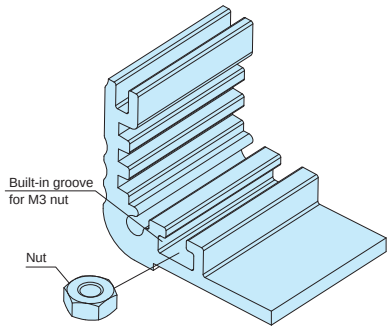


EXPT • EXP • EXPE • EXPF • EXEF • EXWF20-12-□
EX19-11-□



EXPT • EXP • EXPE24-6-□
EXPF • EXEF • EXWF24-7-□
EX23-5-□

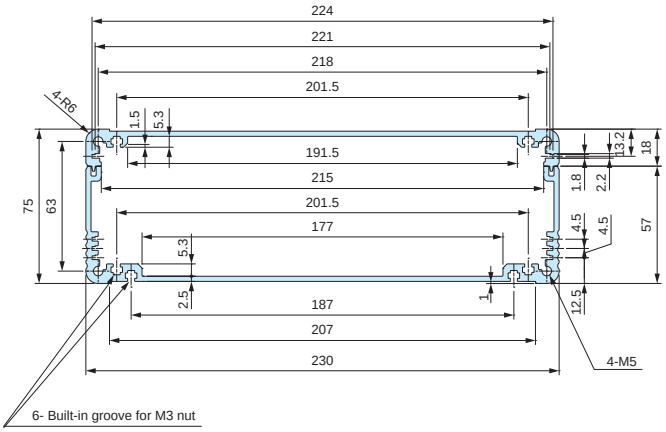




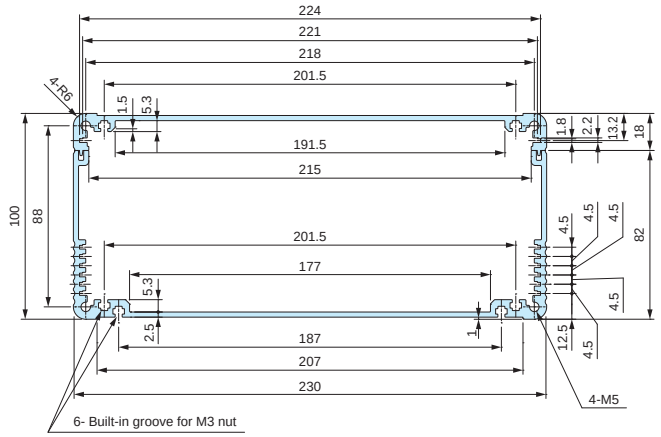
■ Optional sliding nut is available to be used for width 140mm or larger bottom covers.

See page 221 for further details.

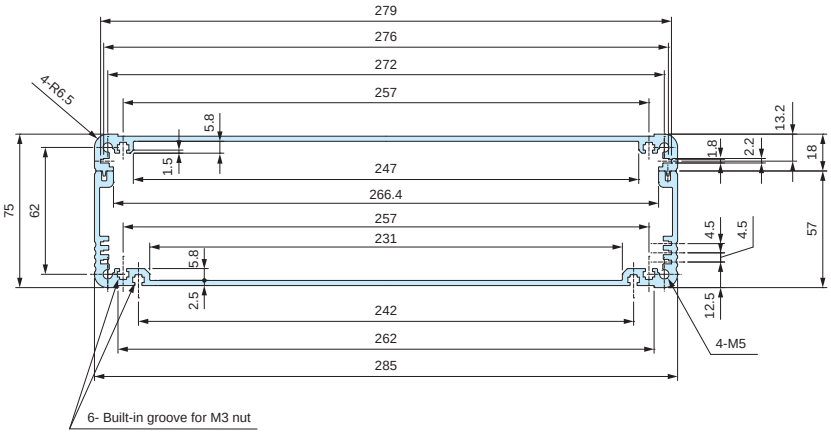
EXPT • EXP • EXPE • EXPF • EXEF • EXWF24-9-□
EX23-8-□



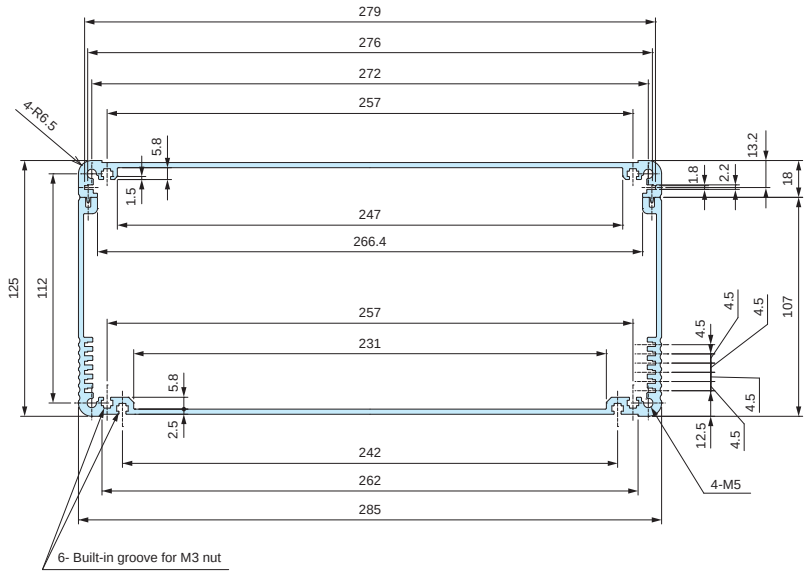
EXPT • EXP • EXPE24-11-□
EXPF • EXEF • EXWF24-12-□
EX23-10-□



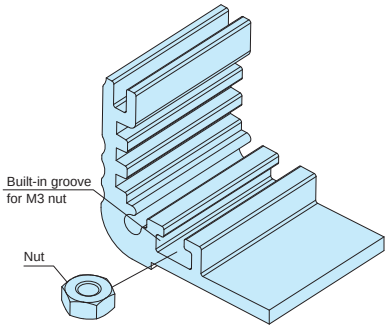
EXPT • EXP • EXPE • EXPF • EXEF • EXWF30-9-□
EX29-8-□



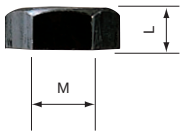
EXPT • EXP • EXPE • EXPF • EXEF • EXWF30-14-□
EX29-13-□



MT-3N SLIDING NUT for EX□ • EXH□



MT-3N dimensions



Product no. / Dimensions

Product no.	M	L	Material	Finish	Pack of
MT-3N	3	2.4	Steel	Black trivalent chromate	50

■ Sliding nut can be used on all EXPT • EXP • EXPE • EXW • EXPF • EXEF • EXWF • EX models with width 140mm or larger bottom covers, as well as with width 230mm and 285mm top covers, on all EXH • EXHE • EXHF • EXHFE models with width 140mm or larger bottom covers, as well as all heat-sink top covers.

EXEG series EMC SHIELDING FABRIC-OVER-FOAM GASKET

■ Exclusive EMC shielding fabric-over-foam gasket for EXPE • EXEF • EXHE • EXHFE models.

EMC Shielding Effects

■ Material / Color : Conductive fiber • TPE / Metallic gray

Suitable Models

Product no.	Suitable models
EXEG-2.5	EXPE7-□, 9-□, 12-□, 15-□, EXEF7-□, 9-□, 11-□, 15-□ EXHE8-□, 11-□, 14-□, EXHFE8-□, 11-□, 14-□
EXEG-3.2	EXPE20-□, 24-□, 30-□, EXEF20-□, 24-□ EXHE19-□, 23-□, 29-□, EXHFE19-□, 23-□, 29-□

Product no. / Dimensions

Product no.	Dimensions	Pack of
EXEG-2.5	Φ2.5×500mm	1
EXEG-3.2	Φ3.2×500mm	1

Length tolerance = +/- 10%

EX series APPLICATION EXAMPLE

Tube Amplifier

Product by MJ Audio Technology

IoT Relay Module

Product by Bunnyhop (Japan)

Premain Power Amplifier

Product by AY-densi (Japan)

USB Edge Node

Product by SHINWA (Japan)

FIRSTAE

TLW series TILT LEG

APPLICATION EXAMPLE

- Double shot injection molded feet with soft and well-designed rounded shape.
- Non-slip design with Elastomer (TPE) pad.
- Available in 3 different color patterns (2 color patterns for TLW-70 models).
- TLW-70E models are exclusively for use with width 185mm or larger bottom covers of EXP • EXPE • EXW • EX • EXH • EXHE aluminium enclosures.

Technical Data
Max load : 7kg

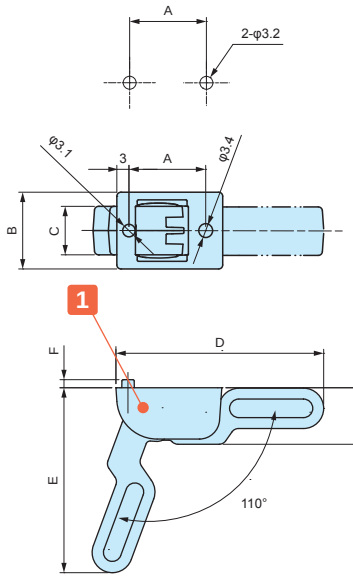
Components

No.	Part name	Pcs	Material	Color / Finish
1	Front foot	2	PC + ABS UL94V-0 • TPE	Black & Black • Navy & Gray • Light gray & Gray
2	Rear foot	2	PC + ABS UL94V-0 • TPE	Black & Black • Navy & Gray • Light gray & Gray
–	Screw	4	Steel M3-8 pan head	Black trivalent chromate
–	Nut	4	Steel M3	Black trivalent chromate

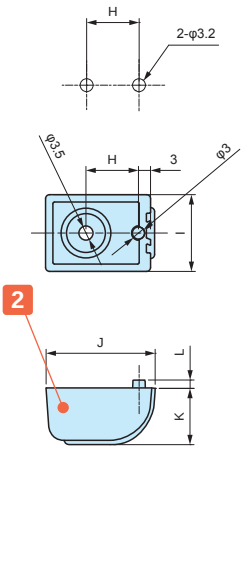
TLW dimensions

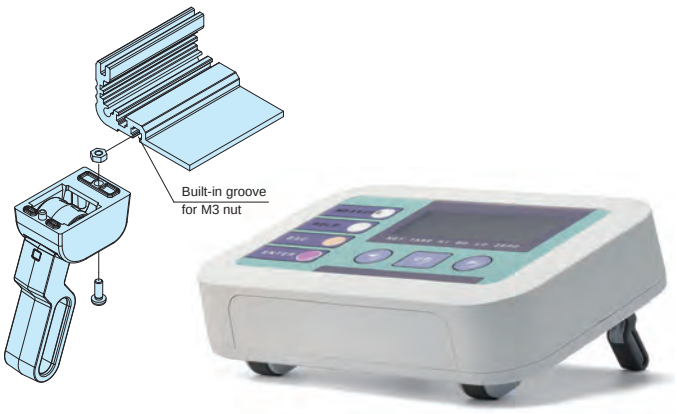
- DXF/DWG/PDF/STP drawings available on our website.
- TLW-70E□□ models are for installation (with M3 nut) into the built-in grooves on bottom-covers of EXP • EXPE 20-6, EXH • EXHE • EX 19-4 or larger models.
- Hole milling is required to install TLW-46□□ and TLW-70□□ models.
- Max installation panel thickness : t = 3.5mm

Mounting hole (Front)



Mounting hole (Rear)





Product no. / Dimensions

Product no.	A	B	C	D	E	F	G	H	I	J	K	L	Color (plastic)	Color (TPE)	Weight (g)
TLW-46BB	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Black	Black	23
TLW46-NG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Navy	Gray	23
TLW-46LG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Light gray	Gray	23
TLW-70EBB	–	25	16	75.4	69	3	21.5	–	25	39	21.5	3	Black	Black	59
TLW-70ENG	–	25	16	75.4	69	3	21.5	–	25	39	21.5	3	Navy	Gray	59
TLW-70ELG	–	25	16	75.4	69	3	21.5	–	25	39	21.5	3	Light gray	Gray	59
TLW-70BB	30	25	16	75.4	69	2	21.5	20	25	39	21.5	2	Black	Black	59
TLW-70LG	30	25	16	75.4	69	2	21.5	20	25	39	21.5	2	Light gray	Gray	59

AWA series HEAT-SINK ALUMINIUM ENCLOSURE

AWA series is an aluminium enclosure that has a frame with heat-sink fins on both sides. Furthermore, the enclosure is also conductive, which provides a shielding effect. By machining the panels, the unit becomes extremely suitable to be used as high-end audio, or as an industrial equipment.

APPLICATION EXAMPLE

Industrial IoT Interface Device

Product by SEE Système Radio (France)

Industrial Fanless PC

Audio Amplifier

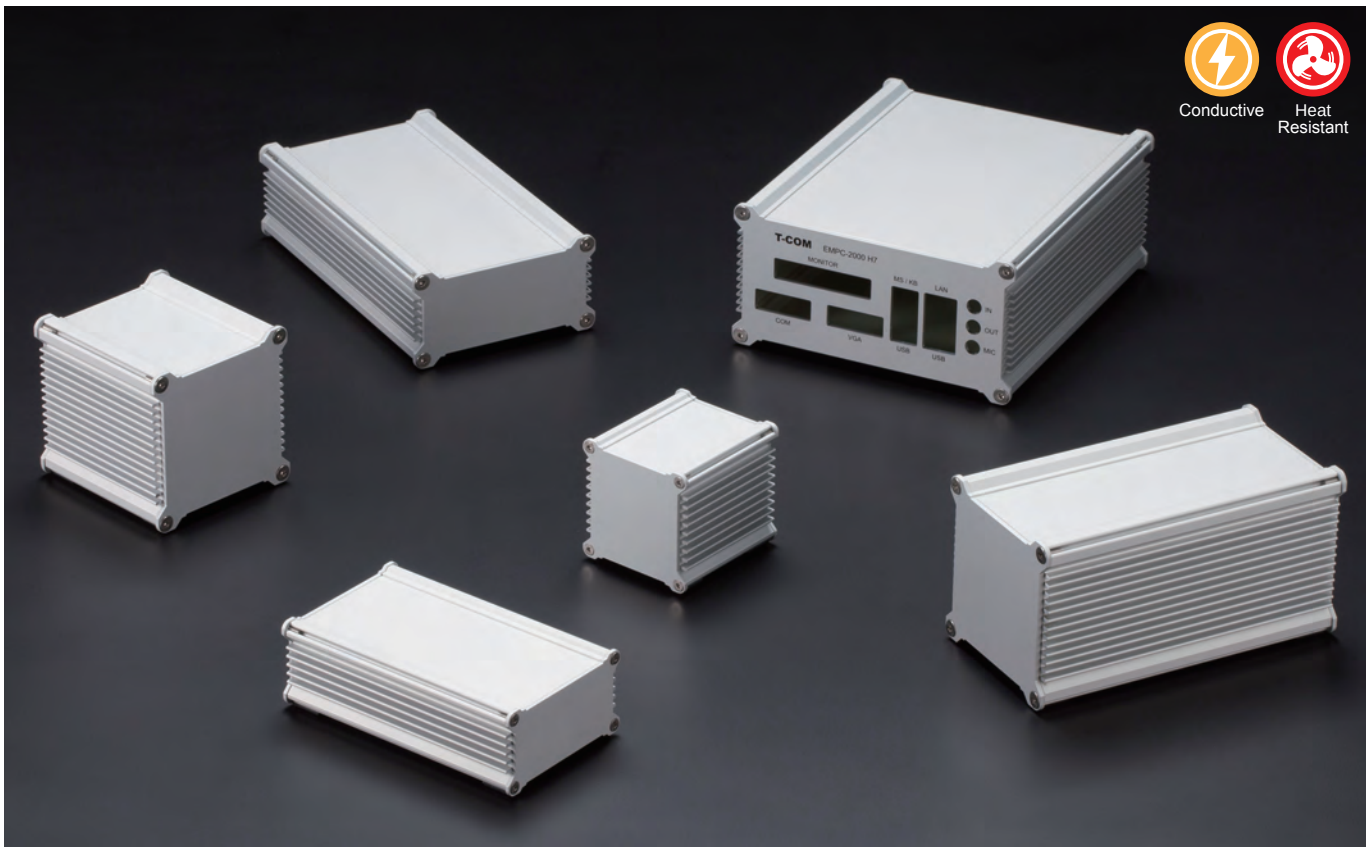
Wide-Band Solid State Optical Amplifier

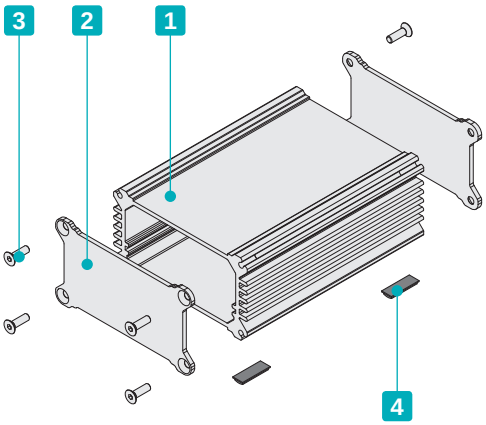
Product by Spectra Quest Lab. (Japan)

Customization

CNC milling available for customization on AWA series.
See website for more details.

AWA series HEAT-SINK ALUMINIUM ENCLOSURE





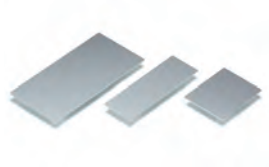
- Extruded aluminium frame manufactured with heat-sink sides.
- Silver anodized end panels makes for a luxurious finish.
- Conductivity is achieved by utilizing the contact between the unfinished end panels side, and the unfinished ends of the frame.
- PCB or chassis can be horizontally mounted by sliding into an inner-grooved body frame.
- Suitable for industrial fanless PC, measuring instrument, digital audio amplifier and so on.
- Custom length is available.

Included screws :
AWA5-3, 6-6, 8-4 models : Hex flat head M3-10 x 8 pcs
AWA8-8, 10-5, 12-7, 15-8 models : Hex flat head M4-10 x 8 pcs
AWA20-8 models : Hex flat head M5-10 x 8 pcs
※Hexagonal wrench included.

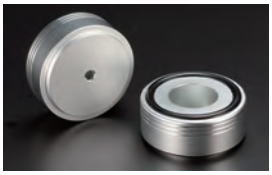
Component

No.	Part name	Pcs	Material	Color / Finish
1	Body frame	1	Extruded aluminium A6063S-T5	Silver / Anodized with clear coating
2	End panel	2	Aluminium A1050P	Silver / Anodized (Unfinished inside)
3	Hex socket screw	8	Stainless steel	Unfinished
4	Rubber feet	4	Polyurethane	Black

Accessories (Optional parts)



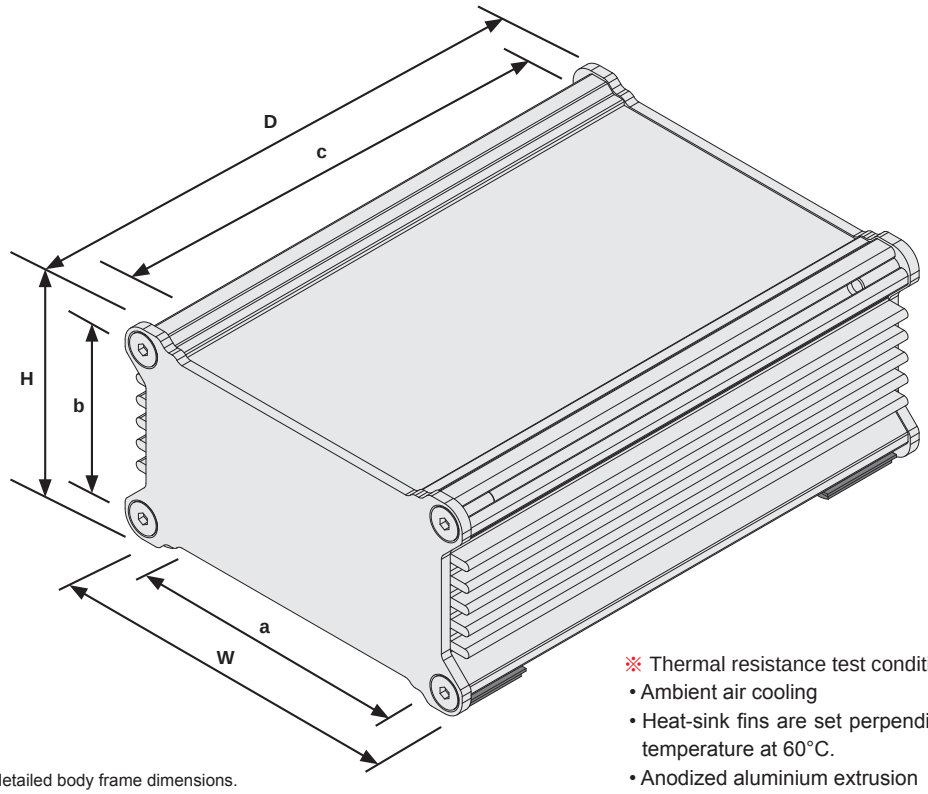
Mounting plate AWC series
See page 238



Aluminium isolation feet AFS • AFM series
See page 293 ~ 294

AWA dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



See page 235 and 236 for detailed body frame dimensions.

※ Thermal resistance test condition
- Ambient air cooling
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Anodized aluminium extrusion
- Heat source is applied on the opposite side (inner side) of the fins.

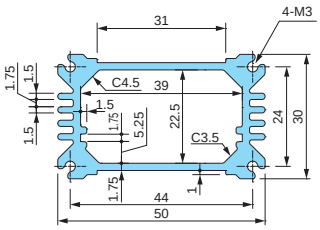
Product no. / Dimensions

Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)	Weight (g)
	W	H	D	a	b	c		
AWA 5-3- 5SS	52	32	53.2	39	22.5	49.2	11.2	69.5
AWA 5-3- 7SS	52	32	73.2	39	22.5	69.2	9.18	90.5
AWA 5-3-10SS	52	32	98.2	39	22.5	94.2	7.64	116.5
AWA 5-3-12SS	52	32	123.2	39	22.5	119.2	6.63	142.5
AWA 6-6- 7SS	61	61	68	47	51	64	4.41	156
AWA 6-6-10SS	61	61	98	47	51	94	3.5	212
AWA 6-6-14SS	61	61	138	47	51	134	2.83	286
AWA 6-6-19SS	61	61	188	47	51	184	2.33	379
AWA 6-6-24SS	61	61	238	47	51	234	2.02	471.5
AWA 8-4- 8SS	76	41	78	62	31	74	5.97	154
AWA 8-4-10SS	76	41	103	62	31	99	5.01	195
AWA 8-4-13SS	76	41	128	62	31	124	4.37	236.5
AWA 8-4-16SS	76	41	163	62	31	159	3.76	294
AWA 8-8- 9SS	82	82	86	66.5	66.5	81	3.1	319.5
AWA 8-8-11SS	82	82	111	66.5	66.5	106	2.63	392.5
AWA 8-8-16SS	82	82	156	66.5	66.5	151	2.12	523.5
AWA 8-8-21SS	82	82	206	66.5	66.5	201	1.79	669.5
AWA 8-8-26SS	82	82	261	66.5	66.5	256	1.54	829.5
AWA10-5-10SS	102	52	95.6	86.5	36.5	90.6	4.52	288.5
AWA10-5-14SS	102	52	135.6	86.5	36.5	130.6	3.62	387.5
AWA10-5-18SS	102	52	175.6	86.5	36.5	170.6	3.08	486
AWA10-5-23SS	102	52	225.6	86.5	36.5	220.6	2.64	609
AWA12-7- 9SS	115.7	67	90.6	100.2	51.5	85.6	3.6	354
AWA12-7-12SS	115.7	67	125.6	100.2	51.5	120.6	2.93	460
AWA12-7-17SS	115.7	67	165.1	100.2	51.5	160.1	2.47	579.5
AWA12-7-20SS	115.7	67	200.6	100.2	51.5	195.6	2.18	687
AWA15-8-12SS	152	77	120.6	136.5	61.5	115.6	2.64	565.5
AWA15-8-16SS	152	77	160.6	136.5	61.5	155.6	2.2	712
AWA15-8-21SS	152	77	210.6	136.5	61.5	205.6	1.86	895.5
AWA15-8-26SS	152	77	260.6	136.5	61.5	255.6	1.63	1,079
AWA20-8-15SS	202.4	77.4	153.8	186.5	61.5	147.8	2.3	854.5
AWA20-8-19SS	202.4	77.4	193.8	186.5	61.5	187.8	1.99	1,025
AWA20-8-24SS	202.4	77.4	243.8	186.5	61.5	237.8	1.72	1,238
AWA20-8-29SS	202.4	77.4	293.8	186.5	61.5	287.8	1.54	1,451.5

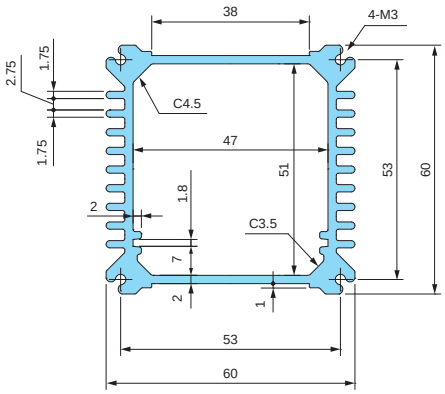
Cross-section view of frame

■ DXF/DWG/PDF/STP drawings available on our website.

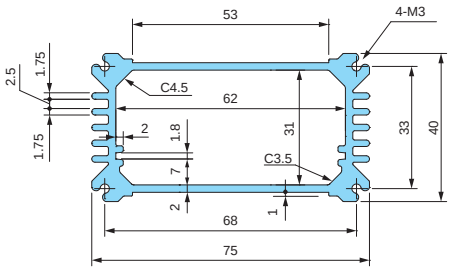
AW • AWN5-4-□
AWA5-3-□



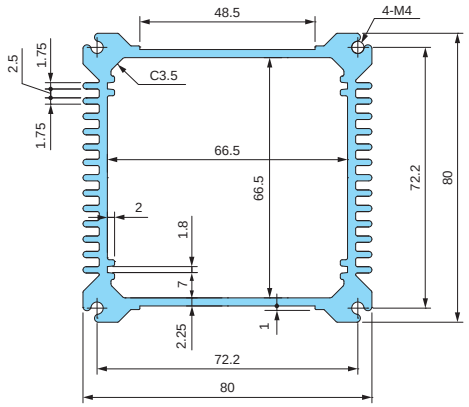
AW • AWN • AWP7-7-□
AWA6-6-□



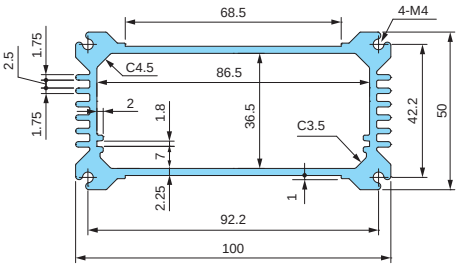
AW • AWN • AWP8-5-□
AWA8-4-□



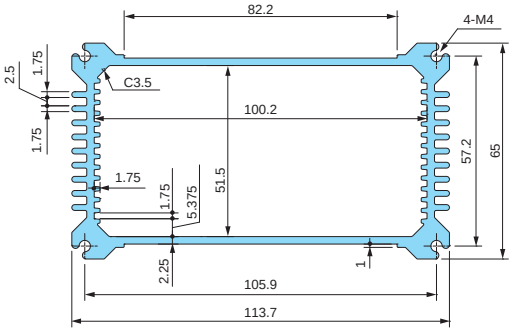
AW • AWN • AWP9-9-□
AWA8-8-□



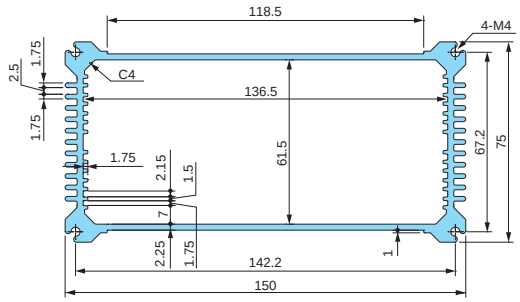
AW • AWN • AWP11-6-□
AWA10-5-□



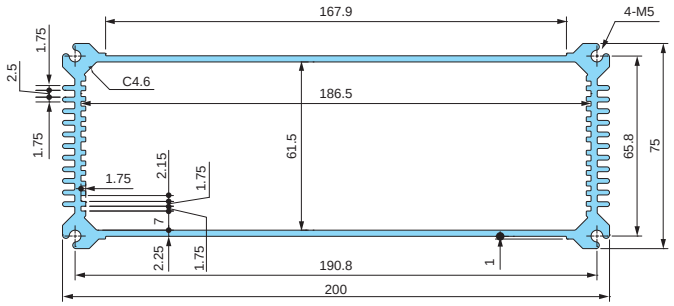
AW • AWN • AWP12-8-□
AWA12-7-□



AW • AWN • AWP16-9-□
AWA15-8-□



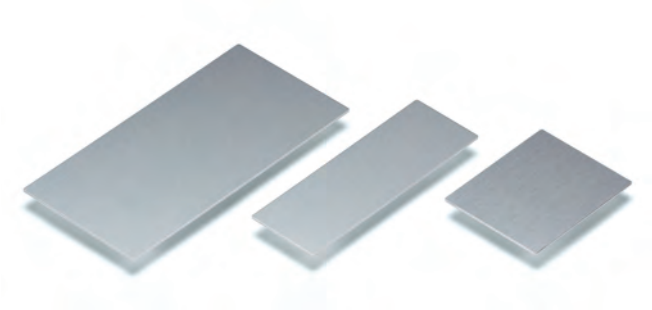
AW • AWN • AWP21-9-□
AWA20-8-□



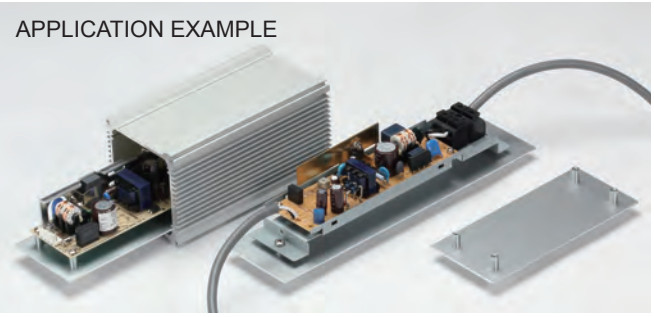
※ Thermal resistance test condition
- Ambient air cooling
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Anodized aluminium extrusion
- Heat source is applied on the opposite side (inner side) of the fins.

Product no.				Frame length	※Thermal resistance rate (°C/W)
AW 5-4- 7	AWN 5-4- 7	—	AWA 5-3- 5	49.2	11.2
AW 5-4- 9	AWN 5-4- 9	—	AWA 5-3- 7	69.2	9.18
AW 5-4-11	AWN 5-4-11	—	AWA 5-3-10	94.2	7.64
AW 5-4-14	AWN 5-4-14	—	AWA 5-3-12	119.2	6.63
AW 7-7- 8	AWN 7-7- 8	—	AWA 6-6- 7	64	4.41
AW 7-7-11	AWN 7-7-11	—	AWA 6-6-10	94	3.5
AW 7-7-15	AWN 7-7-15	—	AWA 6-6-14	134	2.83
AW 7-7-20	AWN 7-7-20	—	AWA 6-6-19	184	2.33
AW 7-7-25	AWN 7-7-25	—	AWA 6-6-24	234	2.02
AW 8-5- 9	AWN 8-5- 9	AWP 8-5- 9	AWA 8-4- 8	74	5.97
AW 8-5-12	AWN 8-5-12	AWP 8-5-12	AWA 8-4-10	99	5.01
AW 8-5-14	AWN 8-5-14	AWP 8-5-14	AWA 8-4-13	124	4.37
AW 8-5-18	AWN 8-5-18	AWP 8-5-18	AWA 8-4-16	159	3.76
AW 9-9-10	AWN 9-9-10	AWP 9-9-10	AWA 8-8- 9	81	3.1
AW 9-9-13	AWN 9-9-13	AWP 9-9-13	AWA 8-8-11	106	2.63
AW 9-9-17	AWN 9-9-17	AWP 9-9-17	AWA 8-8-16	151	2.12
AW 9-9-22	AWN 9-9-22	AWP 9-9-22	AWA 8-8-21	201	1.79
AW 9-9-28	AWN 9-9-28	AWP 9-9-28	AWA 8-8-26	256	1.54
AW11-6-11	AWN11-6-11	AWP11-6-11	AWA10-5-10	90.6	4.52
AW11-6-15	AWN11-6-15	AWP11-6-15	AWA10-5-14	130.6	3.62
AW11-6-19	AWN11-6-19	AWP11-6-19	AWA10-5-18	170.6	3.08
AW11-6-24	AWN11-6-24	AWP11-6-24	AWA10-5-23	220.6	2.64
AW12-8-11	AWN12-8-11	AWP12-8-11	AWA12-7-9	85.6	3.6
AW12-8-14	AWN12-8-14	AWP12-8-14	AWA12-7-12	120.6	2.93
AW12-8-17	AWN12-8-17	AWP12-8-17	AWA12-7-17	160.1	2.47
AW12-8-22	AWN12-8-22	AWP12-8-22	AWA12-7-20	195.6	2.18
AW16-9-14	AWN16-9-14	AWP16-9-14	AWA15-8-12	115.6	2.64
AW16-9-18	AWN16-9-18	AWP16-9-18	AWA15-8-16	155.6	2.2
AW16-9-23	AWN16-9-23	AWP16-9-23	AWA15-8-21	205.6	1.86
AW16-9-28	AWN16-9-28	AWP16-9-28	AWA15-8-26	255.6	1.63
AW21-9-17	AWN21-9-17	AWP21-9-17	AWA20-8-15	147.8	2.3
AW21-9-21	AWN21-9-21	AWP21-9-21	AWA20-8-19	187.8	1.99
AW21-9-26	AWN21-9-26	AWP21-9-26	AWA20-8-24	237.8	1.72
AW21-9-31	AWN21-9-31	AWP21-9-31	AWA20-8-29	287.8	1.54

AWC series ALUMINIUM MOUNTING PLATE for AW • AWN • AWP • AWA



APPLICATION EXAMPLE

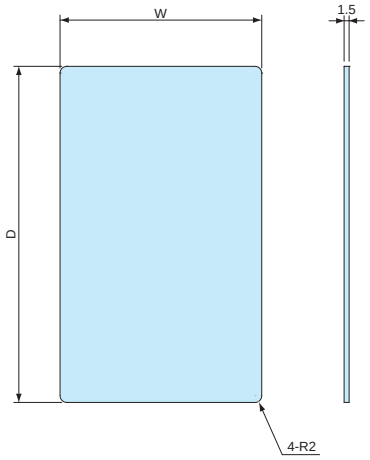


- Material: Aluminium A1050P t=1.5 / Silver anodized
- Mounting plate for AW, AWN, AWP, and AWA enclosures.
- Utilize for mounting PCB, power supply, terminal blocks, etc.

Product no. / Dimensions

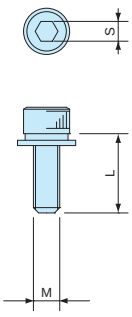
Product no.	W	D	Suitable models
AWC 5- 7	38.9	49.2	AW • AWN 5-4- 7 • AWA 5-3- 5
AWC 5- 9	38.9	69.2	AW • AWN 5-4- 9 • AWA 5-3- 7
AWC 5-11	38.9	94.2	AW • AWN 5-4-11 • AWA 5-3-10
AWC 5-14	38.9	119.2	AW • AWN 5-4-14 • AWA 5-3-12
AWC 7- 8	47	64	AW • AWN • AWP 7-7- 8 • AWA 6-6- 7
AWC 7-11	47	94	AW • AWN • AWP 7-7-11 • AWA 6-6-10
AWC 7-15	47	134	AW • AWN • AWP 7-7-15 • AWA 6-6-14
AWC 7-20	47	184	AW • AWN • AWP 7-7-20 • AWA 6-6-19
AWC 7-25	47	234	AW • AWN • AWP 7-7-25 • AWA 6-6-24
AWC 8- 9	61.8	74	AW • AWN • AWP 8-5- 9 • AWA 8-4- 8
AWC 8-12	61.8	99	AW • AWN • AWP 8-5-12 • AWA 8-4-10
AWC 8-14	61.8	124	AW • AWN • AWP 8-5-14 • AWA 8-4-13
AWC 8-18	61.8	159	AW • AWN • AWP 8-5-18 • AWA 8-4-16
AWC 9-10	66.5	81	AW • AWN • AWP 9-9-10 • AWA 8-8- 9
AWC 9-13	66.5	106	AW • AWN • AWP 9-9-13 • AWA 8-8-11
AWC 9-17	66.5	151	AW • AWN • AWP 9-9-17 • AWA 8-8-16
AWC 9-22	66.5	201	AW • AWN • AWP 9-9-22 • AWA 8-8-21
AWC 9-28	66.5	256	AW • AWN • AWP 9-9-28 • AWA 8-8-26
AWC11-11	86.5	90.6	AW • AWN • AWP11-6-11 • AWA10-5-10
AWC11-15	86.5	130.6	AW • AWN • AWP11-6-15 • AWA10-5-14
AWC11-19	86.5	170.6	AW • AWN • AWP11-6-19 • AWA10-5-18
AWC11-24	86.5	220.6	AW • AWN • AWP11-6-24 • AWA10-5-23
AWC12-11	100.2	85.6	AW • AWN • AWP12-8-11 • AWA12-7- 9
AWC12-14	100.2	120.6	AW • AWN • AWP12-8-14 • AWA12-7-12
AWC12-17	100.2	160.1	AW • AWN • AWP12-8-17 • AWA12-7-17
AWC12-22	100.2	195.6	AW • AWN • AWP12-8-22 • AWA12-7-20
AWC16-14	136.3	115.6	AW • AWN • AWP16-9-14 • AWA15-8-12
AWC16-18	136.3	155.6	AW • AWN • AWP16-9-18 • AWA15-8-16
AWC16-23	136.3	205.6	AW • AWN • AWP16-9-23 • AWA15-8-21
AWC16-28	136.3	255.6	AW • AWN • AWP16-9-28 • AWA15-8-26
AWC21-17	186.1	147.8	AW • AWN • AWP21-9-17 • AWA20-8-15
AWC21-21	186.1	187.8	AW • AWN • AWP21-9-21 • AWA20-8-19
AWC21-26	186.1	237.8	AW • AWN • AWP21-9-26 • AWA20-8-24
AWC21-31	186.1	287.8	AW • AWN • AWP21-9-31 • AWA20-8-29

AWC dimensions



- DXF/DWG/PDF drawings available on our website.

HCS series HEXAGON SOCKET HEAD SCREW for AW • AWN



- Hexagon socket head screws for fastening the end panels of AW and AWN enclosures.
- Utilize for tamper-resistance functionality or for an elegant sleek look.

Product no. / Dimensions

Product no.	M	L	S	Material	Pack of
HCS3-12S	3	12	2.5	Stainless steel	8
HCS4-12S	4	12	3	Stainless steel	8
HCS5-12S	5	12	4	Stainless steel	8

TAKACHI ELECTRONICS ENCLOSURE CO., LTD.
3-21-16 Higashi-ryoke, Kawaguchi-shi, Saitama, 332-0003 JAPAN
Tel. +81-48-222-5409 / Fax. +81-48-222-7652

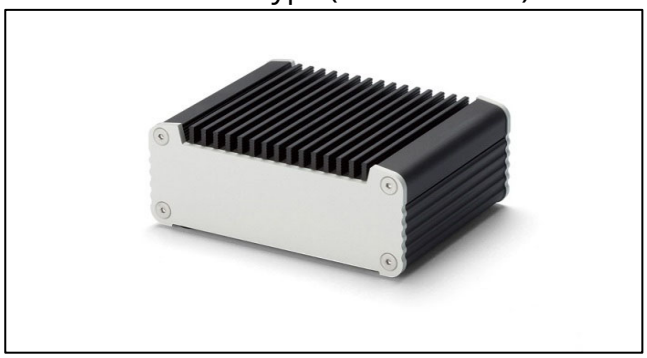
October 6, 2021

NOTICE

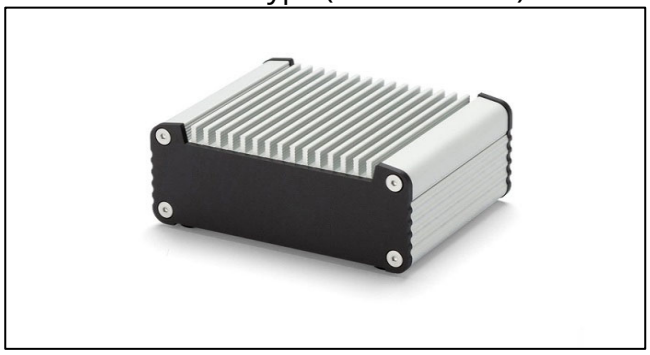
EXH, EXHF and EXHS Series
Discontinuation of Color Types

■ Affected series / models : EXH, EXHF, EXHS series ("BS" and "SB" color types).

BS Color Type (Discontinued)



SB Color Type (Discontinued)



NOTICE

EXH, EXHF, EXHS, EF and EF-36 Series
Changes to Surface Finish

■ Affected series/models : EXH, EXHF, and EXHS series ("SS" color type)
EF, and EF-36 series ("S" color type)

■ Changes : Surface Finish

Current (Old) Design

New Design

Current (Old) Surface Finish
・Silver Anodized

New Surface Finish
・Silver Metallic Painted (Unfinished Inside)

■ Purpose: To ensure consistent quality throughout via streamlined supply chain and materials.
■ Effective date : From December 9, 2021.
■ Alternatives : "SS" or "BB" color types.

Thank you for your understanding.
For more information, kindly contact us at: sales@takachi-el.co.jp

EXH • EXHE • EXHF • EXHFE series

HEAT-SINK ALUMINIUM ENCLOSURE

EXH • EXHE • EXHF • EXHFE series are aluminium enclosures with a highly efficient heat-sink top cover. Suitable to be used as fanless PC, power amplifier, and power supply box where heat dissipation is required.

Wide range, 64 different sizes available with EMC shielded and flanged models.

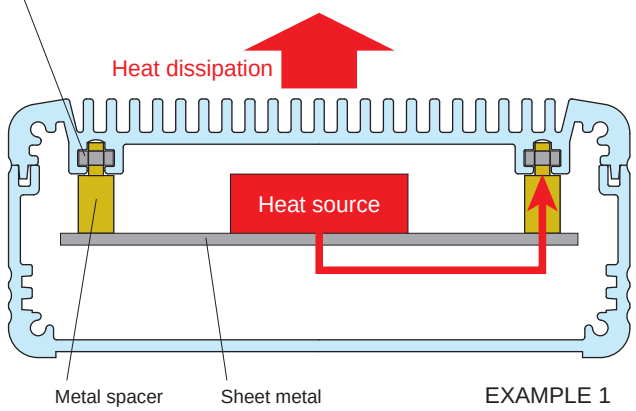
Waved surface heat-sink fins for maximum cooling performance!

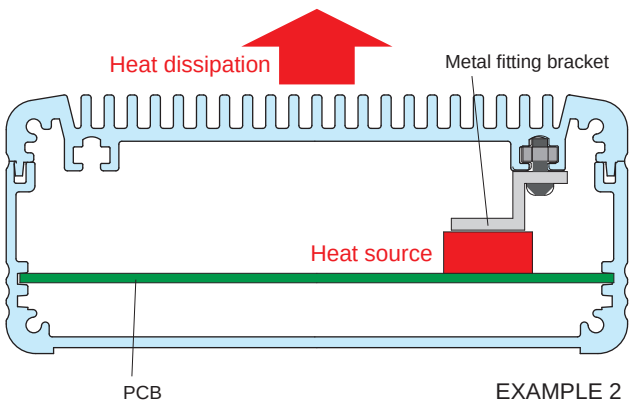
- Each heat-sink fin has a waved surface construction for maximum cooling performance.

Waved Surface

HEAT DISSIPATION EXAMPLE

- EXH series has grooves to put M3 nuts inside its heat-sink cover.
  It is possible to construct a heat conduction route from your heat source to heat-sink cover easily for better heat dissipation performance.





CUSTOMIZATION EXAMPLE

CNC Machining on Heat-sink Cover

Heat-sink plates can be customized with our high speed CNC machines.

Pin Shaped Fin Customization

Pin shaped heat-sink fin can be customized for better cooling performance.

Color Anodization

Various colors, such as blue, red, orange, green or purple can be anodized as per your requirements.

■ Not all colors and shades of colors are possible.

Custom Length Available

APPLICATION EXAMPLE

Stabilized Diode Laser

Product by Spectra Quest Lab. (Japan)

Controller

Laser Head

IoT Gateway

Product by VNPT Technology (Vietnam)

UPS Battery Monitoring System

Product by BatteryDAQ (USA)

All-in-one Edge Node

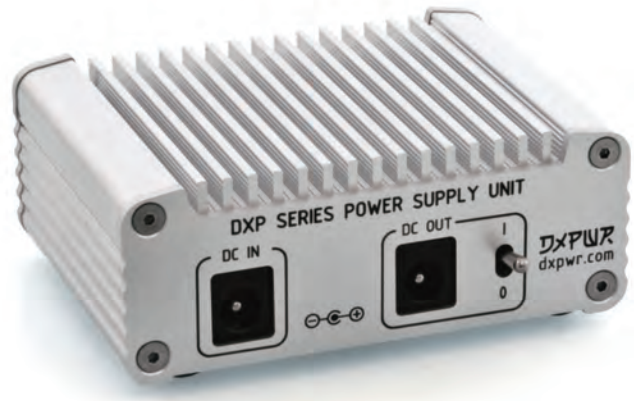
Product by SHINWA (Japan)

4 Channel Power Switching Edge Node

Product by SHINWA (Japan)

Ultra Low Noise Regulation Power Supply

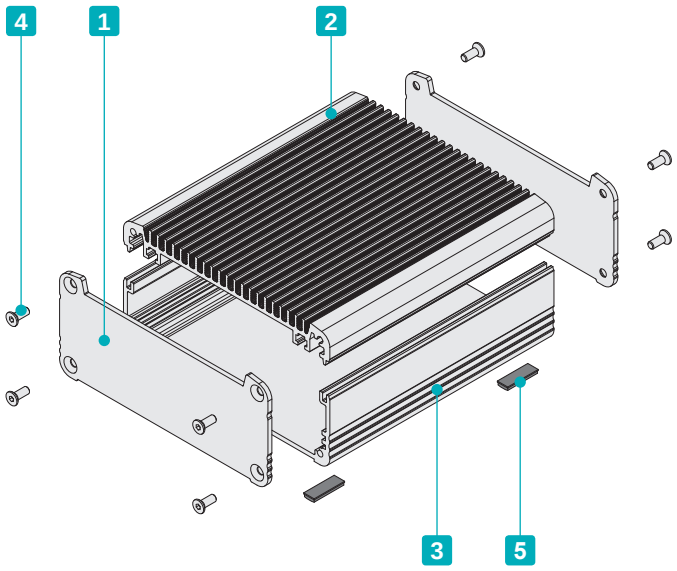
Product by Impex Technology (UAE)



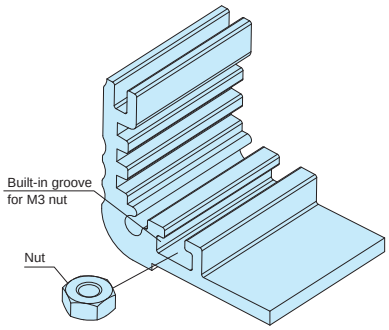
EXH series HEAT-SINK ALUMINIUM ENCLOSURE

NEW SIZE

Heat Resistant



- Aluminum enclosure equipped with a highly efficient heat-sink top cover.
- Suitable to be used as a fanless PC, power amplifier, power supply etc. where heat dissipation is required.
- Selectable in 64 different sizes and 2 different color combinations.
- Grooves for M3 sliding nut are built into the heat-sink top cover and bottom frame (140mm or wider). Optional nut is available.

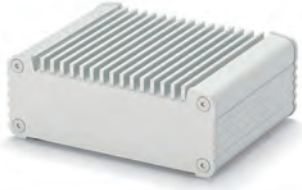


Components

No.	Part name	Pcs	Material	Color / Finish
1	Panel	2	Aluminium A1050P	Metallic silver / Painted (Unfinished inside) : Black / Anodized
2	Heat-sink top cover	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside) : Black / Anodized
3	Bottom frame	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside) : Black / Anodized
4	Screw (Hexagonal)	8	Stainless steel	Unfinished
5	Rubber feet	4	Polyurethane • Synthetic rubber	Black

■ Rubber feet material : Polyurethane : EXH8-□ ~ 19-□ models • Synthetic rubber : EXH23-□ ~ 29-□ models.

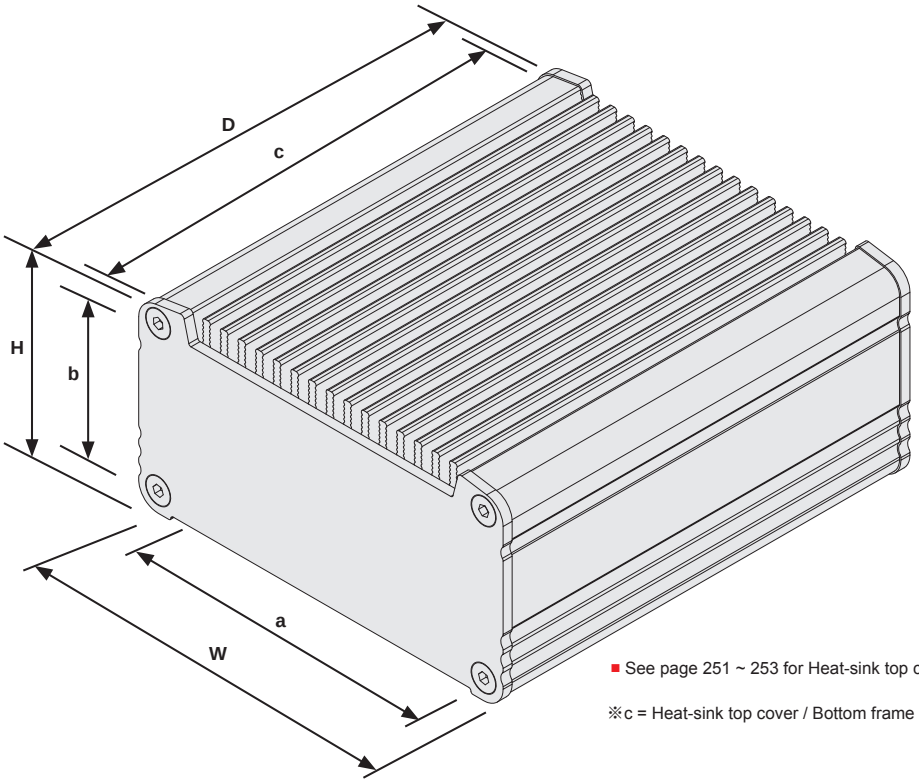
Color Type

Code	S S Silver / Silver	B B Black / Black
Color		

Included screws
EXH8-□ models : M2.5-8 x 8 pcs
EXH11-□, 14-□ models : M3-8 x 8 pcs
EXH19-□ models : M4-10 x 8 pcs
EXH23-□, 29-□ models : M5-10 x 8 pcs
※Hexagonal wrench included.

EXH dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



■ See page 251 ~ 253 for Heat-sink top cover / Bottom frame dimensions.

※c = Heat-sink top cover / Bottom frame length.

Product no. / Dimensions

■ Please suffix color code at the end of the product number.

Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXH 8-3- 6□□	80.6	30.7	60	66	15	56	7.32
EXH 8-3- 9□□	80.6	30.7	90	66	15	86	5.65
EXH 8-3-12□□	80.6	30.7	120	66	15	116	4.72
EXH 8-4- 6□□	80.6	40.7	60	66	25	56	7.32
EXH 8-4- 9□□	80.6	40.7	90	66	25	86	5.65
EXH 8-4-12□□	80.6	40.7	120	66	25	116	4.72
EXH 8-6- 6□□	80.6	55.7	60	66	40	56	7.32
EXH 8-6- 9□□	80.6	55.7	90	66	40	86	5.65
EXH 8-6-12□□	80.6	55.7	120	66	40	116	4.72
EXH11-3- 8□□	106	31.1	78	88.5	14	74	4.82
EXH11-3-12□□	106	31.1	118	88.5	14	114	3.72
EXH11-3-16□□	106	31.1	164	88.5	14	160	3.03
EXH11-5- 8□□	106	46.1	78	88.5	29	74	4.82
EXH11-5-12□□	106	46.1	118	88.5	29	114	3.72
EXH11-5-16□□	106	46.1	164	88.5	29	160	3.03
EXH11-6- 8□□	106	61.1	78	88.5	44	74	4.82
EXH11-6-12□□	106	61.1	118	88.5	44	114	3.72
EXH11-6-16□□	106	61.1	164	88.5	44	160	3.03
EXH14-4-10□□	141	36.1	97	101.8	24.3	93	3.4
EXH14-4-14□□	141	36.1	137	101.8	24.3	133	2.75
EXH14-4-19□□	141	36.1	187	101.8	24.3	183	2.27
EXH14-5-10□□	141	51.1	97	101.8	39.3	93	3.4
EXH14-5-14□□	141	51.1	137	101.8	39.3	133	2.75
EXH14-5-19□□	141	51.1	187	101.8	39.3	183	2.27
EXH14-7-10□□	141	71.1	97	101.8	59.3	93	3.4
EXH14-7-14□□	141	71.1	137	101.8	59.3	133	2.75
EXH14-7-19□□	141	71.1	187	101.8	59.3	183	2.27
EXH14-9-10□□	141	91.1	97	101.8	79.3	93	3.4
EXH14-9-14□□	141	91.1	137	101.8	79.3	133	2.75
EXH14-9-19□□	141	91.1	187	101.8	79.3	183	2.27

※Thermal resistance test condition
- Ambient air cooling.
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Painted aluminium extrusion.
- Heat source is applied on the opposite side (inner side) of the fins.

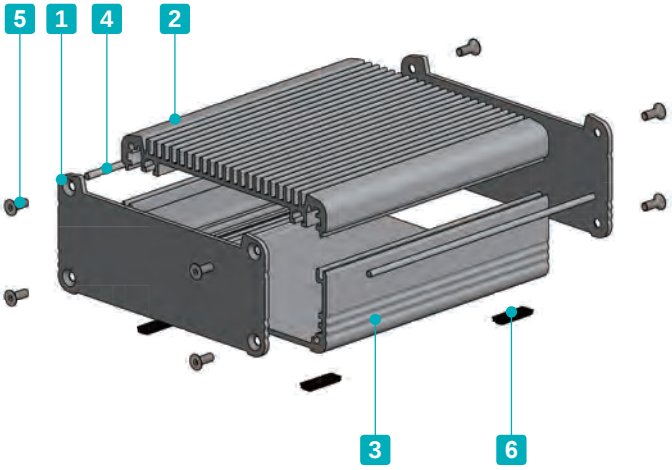
Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXH19- 4-13□□	186.5	43.5	125	131	26.8	120	1.92
EXH19- 4-18□□	186.5	43.5	177	131	26.8	172	1.56
EXH19- 4-23□□	186.5	43.5	230	131	26.8	225	1.32
EXH19- 4-29□□	186.5	43.5	285	131	26.8	280	1.15
EXH19- 6-13□□	186.5	61.5	125	131	44.8	120	1.92
EXH19- 6-18□□	186.5	61.5	177	131	44.8	172	1.56
EXH19- 6-23□□	186.5	61.5	230	131	44.8	225	1.32
EXH19- 6-29□□	186.5	61.5	285	131	44.8	280	1.15
EXH19- 8-13□□	186.5	81.5	125	131	64.8	120	1.92
EXH19- 8-18□□	186.5	81.5	177	131	64.8	172	1.56
EXH19- 8-23□□	186.5	81.5	230	131	64.8	225	1.32
EXH19- 8-29□□	186.5	81.5	285	131	64.8	280	1.15
EXH19-11-13□□	186.5	106.5	125	131	89.8	120	1.92
EXH19-11-18□□	186.5	106.5	177	131	89.8	172	1.56
EXH19-11-23□□	186.5	106.5	230	131	89.8	225	1.32
EXH19-11-29□□	186.5	106.5	285	131	89.8	280	1.15
EXH23- 5-15□□	232	52	153	176	34.8	147	1.47
EXH23- 5-21□□	232	52	213	176	34.8	207	1.2
EXH23- 5-27□□	232	52	273	176	34.8	267	1.03
EXH23- 5-33□□	232	52	333	176	34.8	327	0.91
EXH23- 8-15□□	232	77	153	176	59.8	147	1.47
EXH23- 8-21□□	232	77	213	176	59.8	207	1.2
EXH23- 8-27□□	232	77	273	176	59.8	267	1.03
EXH23- 8-33□□	232	77	333	176	59.8	327	0.91
EXH23-10-15□□	232	102	153	176	84.8	147	1.47
EXH23-10-21□□	232	102	213	176	84.8	207	1.2
EXH23-10-27□□	232	102	273	176	84.8	267	1.03
EXH23-10-33□□	232	102	333	176	84.8	327	0.91
NEW EXH29- 8-23□□	287.5	77.5	234	230	59.5	228	0.97
NEW EXH29- 8-30□□	287.5	77.5	304	230	59.5	298	0.82
NEW EXH29- 8-38□□	287.5	77.5	384	230	59.5	378	0.71
NEW EXH29-13-23□□	287.5	127.5	234	230	109.5	228	0.97
NEW EXH29-13-30□□	287.5	127.5	304	230	109.5	298	0.82
NEW EXH29-13-38□□	287.5	127.5	384	230	109.5	378	0.71

■ Custom length is available.

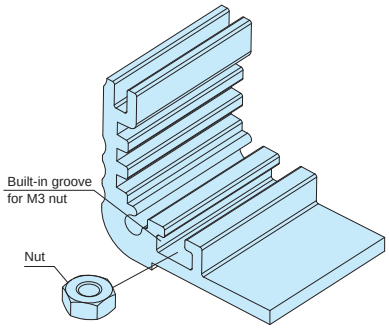
EXHE series HEAT-SINK ALUMINIUM EMC SHIELDED ENCLOSURE NEW

Heat Resistant

EMC Shielding Effects



- EMC shielding is achieved by having the unfinished inner sides of the heat-sink top cover, bottom frame and panels, as well as the shielding gasket in contact with one another.
- Aluminum enclosure equipped with a highly efficient heat-sink top cover.
- Grooves for M3 sliding nut are built into the heat-sink top cover and bottom frame (140mm or wider). Optional nut is available.

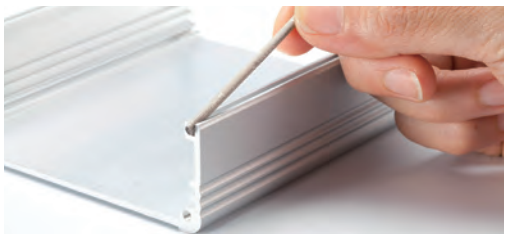


Components

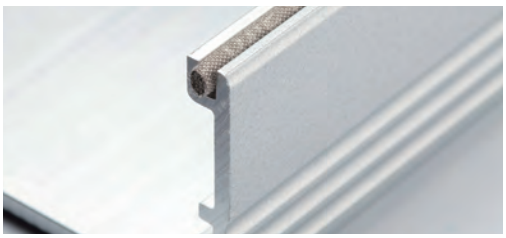
No.	Part name	Pcs	Material	Color / Finish
1	Panel	2	Aluminium A1050P	Metallic silver / Painted (Unfinished inside)
2	Heat-sink top cover	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside)
3	Bottom frame	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside)
4	Fabric-over-foam gasket	2	Conductive fabric : TPE	Metallic gray
5	Screw (Hexagonal)	8	Stainless steel	Unfinished
6	Rubber feet	4	Polyurethane • Synthetic rubber	Black

■ Rubber feet material : Polyurethane : EXHE8-□ ~ 19-□models • Synthetic rubber : EXHE23-□ ~ 29-□ models.

How to install shield gaskets



■ Insert fabric-over-foam gaskets into the joint-grooves on both sides of the bottom cover.

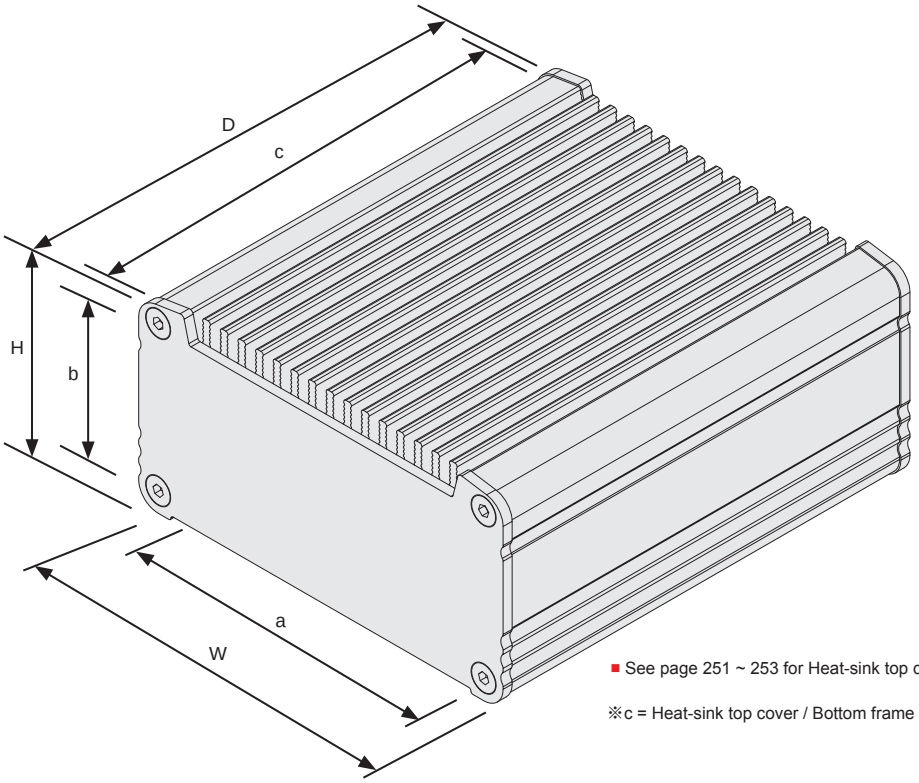


■ Ensure that a small portion of the fabric-over-foam gaskets protrude out in order to maintain connections with the end panels.

Included screws
EXHE8-□ models : M2.5-8 x 8 pcs
EXHE11-□, 14-□ models : M3-8 x 8 pcs
EXHE19-□ models : M4-10 x 8 pcs
EXHE23-□, 29-□ models : M5-10 x 8 pcs
※Hexagonal wrench included.

EXHE dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



■ See page 251 ~ 253 for Heat-sink top cover / Bottom frame dimensions.

※c = Heat-sink top cover / Bottom frame length.

Product no. / Dimensions

Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXHE 8-3- 6SS	80.6	30.7	60	66	15	56	7.32
EXHE 8-3- 9SS	80.6	30.7	90	66	15	86	5.65
EXHE 8-3-12SS	80.6	30.7	120	66	15	116	4.72
EXHE 8-4- 6SS	80.6	40.7	60	66	25	56	7.32
EXHE 8-4- 9SS	80.6	40.7	90	66	25	86	5.65
EXHE 8-4-12SS	80.6	40.7	120	66	25	116	4.72
EXHE 8-6- 6SS	80.6	55.7	60	66	40	56	7.32
EXHE 8-6- 9SS	80.6	55.7	90	66	40	86	5.65
EXHE 8-6-12SS	80.6	55.7	120	66	40	116	4.72
EXHE11-3- 8SS	106	31.1	78	88.5	14	74	4.82
EXHE11-3-12SS	106	31.1	118	88.5	14	114	3.72
EXHE11-3-16SS	106	31.1	164	88.5	14	160	3.03
EXHE11-5- 8SS	106	46.1	78	88.5	29	74	4.82
EXHE11-5-12SS	106	46.1	118	88.5	29	114	3.72
EXHE11-5-16SS	106	46.1	164	88.5	29	160	3.03
EXHE11-6- 8SS	106	61.1	78	88.5	44	74	4.82
EXHE11-6-12SS	106	61.1	118	88.5	44	114	3.72
EXHE11-6-16SS	106	61.1	164	88.5	44	160	3.03
EXHE14-4-10SS	141	36.1	97	101.8	24.3	93	3.4
EXHE14-4-14SS	141	36.1	137	101.8	24.3	133	2.75
EXHE14-4-19SS	141	36.1	187	101.8	24.3	183	2.27
EXHE14-5-10SS	141	51.1	97	101.8	39.3	93	3.4
EXHE14-5-14SS	141	51.1	137	101.8	39.3	133	2.75
EXHE14-5-19SS	141	51.1	187	101.8	39.3	183	2.27
EXHE14-7-10SS	141	71.1	97	101.8	59.3	93	3.4
EXHE14-7-14SS	141	71.1	137	101.8	59.3	133	2.75
EXHE14-7-19SS	141	71.1	187	101.8	59.3	183	2.27
EXHE14-9-10SS	141	91.1	97	101.8	79.3	93	3.4
EXHE14-9-14SS	141	91.1	137	101.8	79.3	133	2.75
EXHE14-9-19SS	141	91.1	187	101.8	79.3	183	2.27

※Thermal resistance test condition
- Ambient air cooling.
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Painted aluminium extrusion.
- Heat source is applied on the opposite side (inner side) of the fins.

Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXHE19- 4-13SS	186.5	43.5	125	131	26.8	120	1.92
EXHE19- 4-18SS	186.5	43.5	177	131	26.8	172	1.56
EXHE19- 4-23SS	186.5	43.5	230	131	26.8	225	1.32
EXHE19- 4-29SS	186.5	43.5	285	131	26.8	280	1.15
EXHE19- 6-13SS	186.5	61.5	125	131	44.8	120	1.92
EXHE19- 6-18SS	186.5	61.5	177	131	44.8	172	1.56
EXHE19- 6-23SS	186.5	61.5	230	131	44.8	225	1.32
EXHE19- 6-29SS	186.5	61.5	285	131	44.8	280	1.15
EXHE19- 8-13SS	186.5	81.5	125	131	64.8	120	1.92
EXHE19- 8-18SS	186.5	81.5	177	131	64.8	172	1.56
EXHE19- 8-23SS	186.5	81.5	230	131	64.8	225	1.32
EXHE19- 8-29SS	186.5	81.5	285	131	64.8	280	1.15
EXHE19-11-13SS	186.5	106.5	125	131	89.8	120	1.92
EXHE19-11-18SS	186.5	106.5	177	131	89.8	172	1.56
EXHE19-11-23SS	186.5	106.5	230	131	89.8	225	1.32
EXHE19-11-29SS	186.5	106.5	285	131	89.8	280	1.15
EXHE23- 5-15SS	232	52	153	176	34.8	147	1.47
EXHE23- 5-21SS	232	52	213	176	34.8	207	1.2
EXHE23- 5-27SS	232	52	273	176	34.8	267	1.03
EXHE23- 5-33SS	232	52	333	176	34.8	327	0.91
EXHE23- 8-15SS	232	77	153	176	59.8	147	1.47
EXHE23- 8-21SS	232	77	213	176	59.8	207	1.2
EXHE23- 8-27SS	232	77	273	176	59.8	267	1.03
EXHE23- 8-33SS	232	77	333	176	59.8	327	0.91
EXHE23-10-15SS	232	102	153	176	84.8	147	1.47
EXHE23-10-21SS	232	102	213	176	84.8	207	1.2
EXHE23-10-27SS	232	102	273	176	84.8	267	1.03
EXHE23-10-33SS	232	102	333	176	84.8	327	0.91
EXHE29- 8-23SS	287.5	77.5	234	230	59,5	228	0.97
EXHE29- 8-30SS	287.5	77.5	304	230	59,5	298	0.82
EXHE29- 8-38SS	287.5	77.5	384	230	59,5	378	0.71
EXHE29-13-23SS	287.5	127.5	234	230	109.5	228	0.97
EXHE29-13-30SS	287.5	127.5	304	230	109.5	298	0.82
EXHE29-13-38SS	287.5	127.5	384	230	109.5	378	0.71

■ Custom length is available.

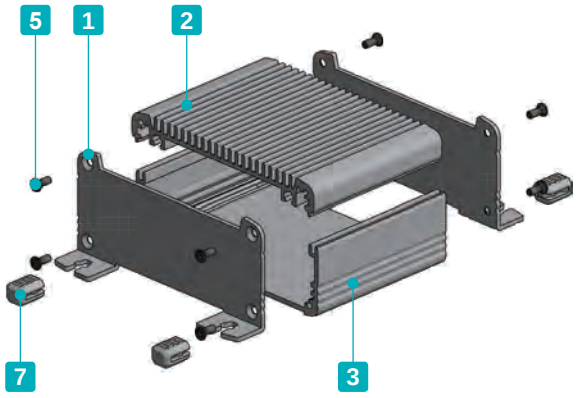
EXHF series FLANGED HEAT-SINK ALUMINIUM ENCLOSURE

NEW SIZE

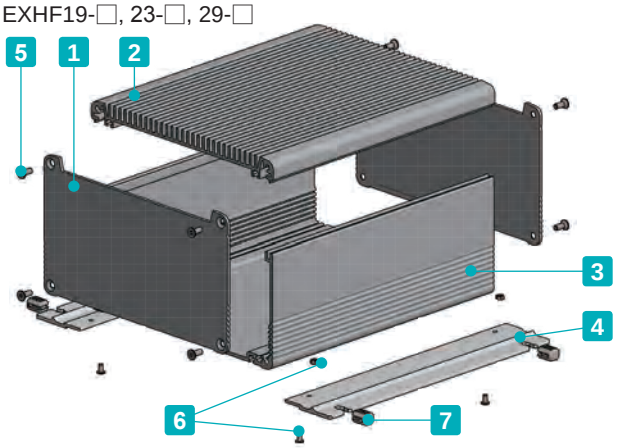
Heat Resistant

- Equipped with flanged bracket for easy wall mounting.
- Aluminum enclosure equipped with a highly efficient heat-sink top cover.

EXHF8-□, 11-□, 14-□



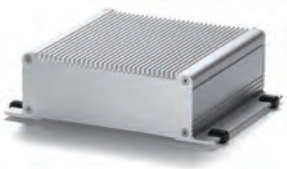
EXHF19-□, 23-□, 29-□



Components

No.	Part name	Pcs	Material	Color / Finish
1	Flanged panel (EXHF8-□, 11-□, 14-□) Panel (EXHF19-□, 23-□, 29-□)	2	Aluminium A1050P	Metallic silver / Painted (Unfinished inside) : Black / Anodized
2	Heat-sink top cover	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside) : Black / Anodized
3	Bottom frame	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside) : Black / Anodized
4	Flange bracket	2	Extruded aluminium A6063S-T5	Metallic silver / Painted • Black / Anodized
5	Panel screw (Hexagonal)	8	Stainless steel	Unfinished
6	Flange screw & nut	4 each	Steel	Black trivalent chromate
7	Rubber feet	4	Silicone	Black

Color Type

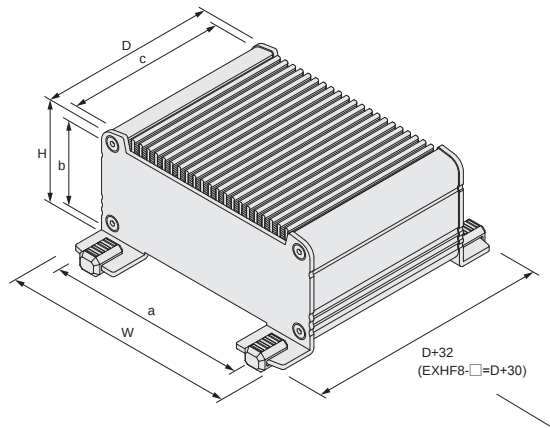
Code	SS Silver / Silver	BB Black / Black
Color		

Included screws
EXHF8-□ models : M2.5-8 x 8 pcs
EXHF11-□, 14-□ models : M3-8 x 8 pcs
EXHF19-□ models : M4-10 x 8 pcs
EXHF23-□, 29-□ models : M5-10 x 8 pcs
※Hexagonal wrench included.

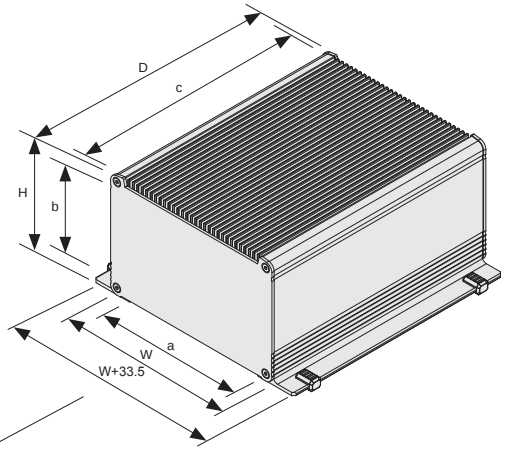
EXHF dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

EXHF8-□, 11-□, 14-□



EXHF19-□, 23-□, 29-□



■ See page 251 ~ 253 for Heat-sink top cover / Bottom frame dimensions.
※c = Heat-sink top cover / Bottom frame length.

*Rubber feet dimensions are not included.

Product no. / Dimensions

■ Please suffix color code at the end of the product number.

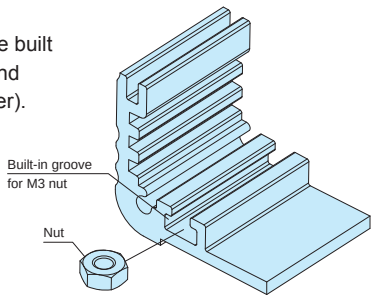
Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
NEW EXHF 8-3- 6□□	80.6	32.8	60	66	15	56	7.32
NEW EXHF 8-3- 9□□	80.6	32.8	90	66	15	86	5.65
NEW EXHF 8-3-12□□	80.6	32.8	120	66	15	116	4.72
NEW EXHF 8-4- 6□□	80.6	42.8	60	66	25	56	7.32
NEW EXHF 8-4- 9□□	80.6	42.8	90	66	25	86	5.65
NEW EXHF 8-4-12□□	80.6	42.8	120	66	25	116	4.72
NEW EXHF 8-6- 6□□	80.6	57.8	60	66	40	56	7.32
NEW EXHF 8-6- 9□□	80.6	57.8	90	66	40	86	5.65
NEW EXHF 8-6-12□□	80.6	57.8	120	66	40	116	4.72
NEW EXHF11-3- 8□□	106	33.1	78	88.5	14	74	4.82
NEW EXHF11-3-12□□	106	33.1	118	88.5	14	114	3.72
NEW EXHF11-3-16□□	106	33.1	164	88.5	14	160	3.03
NEW EXHF11-5- 8□□	106	48.1	78	88.5	29	74	4.82
NEW EXHF11-5-12□□	106	48.1	118	88.5	29	114	3.72
NEW EXHF11-5-16□□	106	48.1	164	88.5	29	160	3.03
NEW EXHF11-6- 8□□	106	63.1	78	88.5	44	74	4.82
NEW EXHF11-6-12□□	106	63.1	118	88.5	44	114	3.72
NEW EXHF11-6-16□□	106	63.1	164	88.5	44	160	3.03
NEW EXHF14-4-10□□	141	38.1	97	101.8	24.3	93	3.4
NEW EXHF14-4-14□□	141	38.1	137	101.8	24.3	133	2.75
NEW EXHF14-4-19□□	141	38.1	187	101.8	24.3	183	2.27
NEW EXHF14-5-10□□	141	53.1	97	101.8	39.3	93	3.4
NEW EXHF14-5-14□□	141	53.1	137	101.8	39.3	133	2.75
NEW EXHF14-5-19□□	141	53.1	187	101.8	39.3	183	2.27
NEW EXHF14-7-10□□	141	73.1	97	101.8	59.3	93	3.4
NEW EXHF14-7-14□□	141	73.1	137	101.8	59.3	133	2.75
NEW EXHF14-7-19□□	141	73.1	187	101.8	59.3	183	2.27
NEW EXHF14-9-10□□	141	93.1	97	101.8	79.3	93	3.4
NEW EXHF14-9-14□□	141	93.1	137	101.8	79.3	133	2.75
NEW EXHF14-9-19□□	141	93.1	187	101.8	79.3	183	2.27

※Thermal resistance test condition
- Ambient air cooling.
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Painted aluminium extrusion.
- Heat source is applied on the opposite side (inner side) of the fins.

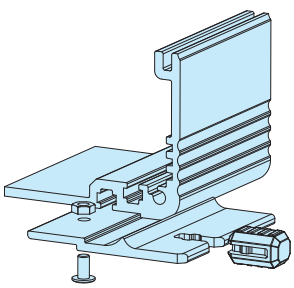
Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXHF19- 4-13□□	186.5	45.25	125	131	26.8	120	1.92
EXHF19- 4-18□□	186.5	45.25	177	131	26.8	172	1.56
EXHF19- 4-23□□	186.5	45.25	230	131	26.8	225	1.32
EXHF19- 4-29□□	186.5	45.25	285	131	26.8	280	1.15
EXHF19- 6-13□□	186.5	63.25	125	131	44.8	120	1.92
EXHF19- 6-18□□	186.5	63.25	177	131	44.8	172	1.56
EXHF19- 6-23□□	186.5	63.25	230	131	44.8	225	1.32
EXHF19- 6-29□□	186.5	63.25	285	131	44.8	280	1.15
EXHF19- 8-13□□	186.5	83.25	125	131	64.8	120	1.92
EXHF19- 8-18□□	186.5	83.25	177	131	64.8	172	1.56
EXHF19- 8-23□□	186.5	83.25	230	131	64.8	225	1.32
EXHF19- 8-29□□	186.5	83.25	285	131	64.8	280	1.15
EXHF19-11-13□□	186.5	108.25	125	131	89.8	120	1.92
EXHF19-11-18□□	186.5	108.25	177	131	89.8	172	1.56
EXHF19-11-23□□	186.5	108.25	230	131	89.8	225	1.32
EXHF19-11-29□□	186.5	108.25	285	131	89.8	280	1.15
EXHF23- 5-15□□	232	53.5	153	176	34.8	147	1.47
EXHF23- 5-21□□	232	53.5	213	176	34.8	207	1.2
EXHF23- 5-27□□	232	53.5	273	176	34.8	267	1.03
EXHF23- 5-33□□	232	53.5	333	176	34.8	327	0.91
EXHF23- 8-15□□	232	78.5	153	176	59.8	147	1.47
EXHF23- 8-21□□	232	78.5	213	176	59.8	207	1.2
EXHF23- 8-27□□	232	78.5	273	176	59.8	267	1.03
EXHF23- 8-33□□	232	78.5	333	176	59.8	327	0.91
EXHF23-10-15□□	232	103.5	153	176	84.8	147	1.47
EXHF23-10-21□□	232	103.5	213	176	84.8	207	1.2
EXHF23-10-27□□	232	103.5	273	176	84.8	267	1.03
EXHF23-10-33□□	232	103.5	333	176	84.8	327	0.91
NEW EXHF29- 8-23□□	287.5	78.75	234	230	59.5	228	0.97
NEW EXHF29- 8-30□□	287.5	78.75	304	230	59.5	298	0.82
NEW EXHF29- 8-38□□	287.5	78.75	384	230	59.5	378	0.71
NEW EXHF29-13-23□□	287.5	128.75	234	230	109.5	228	0.97
NEW EXHF29-13-30□□	287.5	128.75	304	230	109.5	298	0.82
NEW EXHF29-13-38□□	287.5	128.75	384	230	109.5	378	0.71

■ Custom length is available.

■ Grooves for M3 sliding nut are built into the heat-sink top cover and bottom frame (140mm or wider). Optional nut is available.



■ Flange bracket is installed as per the diagram below.



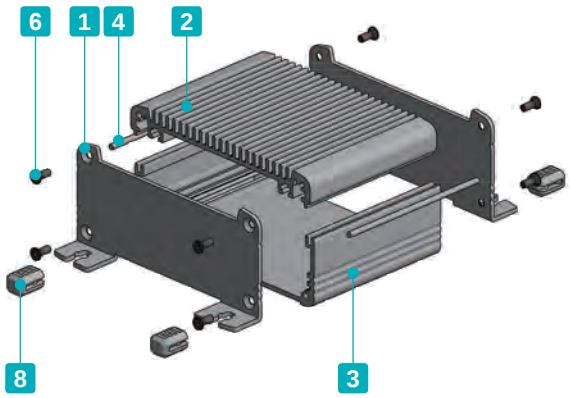
EXHFE series FLANGED HEAT-SINK ALUMINIUM EMC SHIELDED ENCLOSURE NEW

Heat Resistant

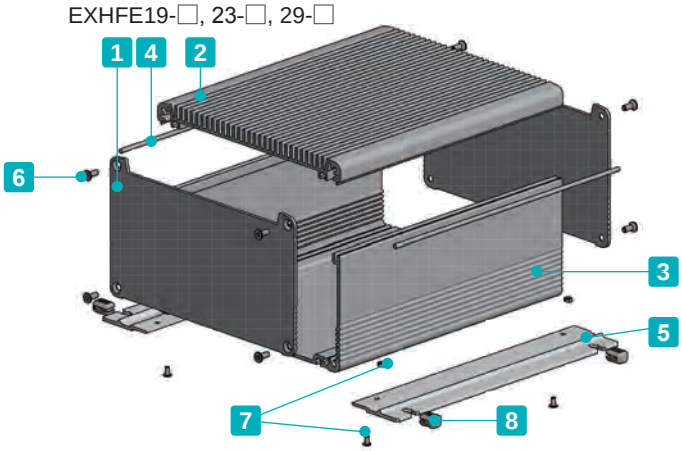
EMC Shielding Effects

- EMC shielding is achieved by having the unfinished internal parts of the enclosure, as well as the fabric-over-foam gasket, in contact with one another.
- Aluminum enclosure equipped with a highly efficient heat-sink top cover.
- Equipped with flanged bracket for easy wall mounting.

EXHFE8-□, 11-□, 14-□



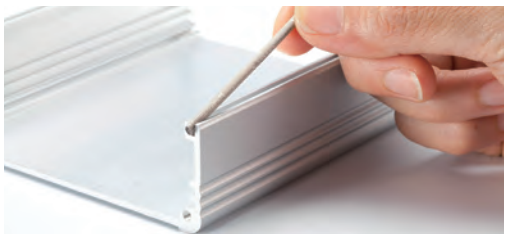
EXHFE19-□, 23-□, 29-□



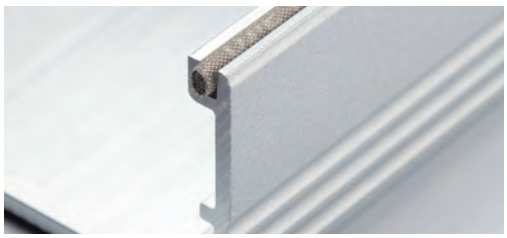
Components

No.	Part name	Pcs	Material	Color / Finish
1	Flanged panel (EXHF8-□, 11-□, 14-□) Panel (EXHF19-□, 23-□, 29-□)	2	Aluminium A1050P	Metallic silver / Painted (Unfinished inside)
2	Heat-sink top cover	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside)
3	Bottom frame	1	Extruded aluminium A6063S-T5	Metallic silver / Painted (Unfinished inside)
4	Fabric-over-foam gasket	2	Conductive fabric : TPE	Metallic gray
5	Flange bracket	2	Extruded aluminium A6063S-T5	Metallic silver / Painted
6	Panel screw (Hexagonal)	8	Stainless steel	Unfinished
7	Flange screw & nut	4 each	Steel	Black trivalent chromate
8	Rubber feet	4	Silicone	Black

How to install shield gaskets



- Insert fabric-over-foam gaskets into the joint-grooves on both sides of the bottom cover.



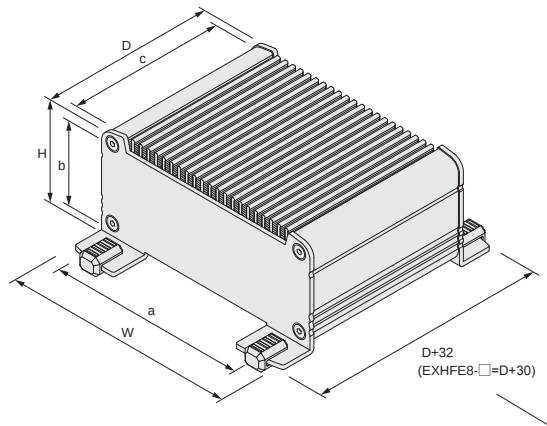
- Ensure that a small portion of the fabric-over-foam gaskets protrude out in order to maintain connections with the end panels.

Included screws
EXHFE8-□ models : M2.5-8 x 8 pcs
EXHFE11-□, 14-□ models : M3-8 x 8 pcs
EXHFE19-□ models : M4-10 x 8 pcs
EXHFE23-□, 29-□ models : M5-10 x 8 pcs
※Hexagonal wrench included.

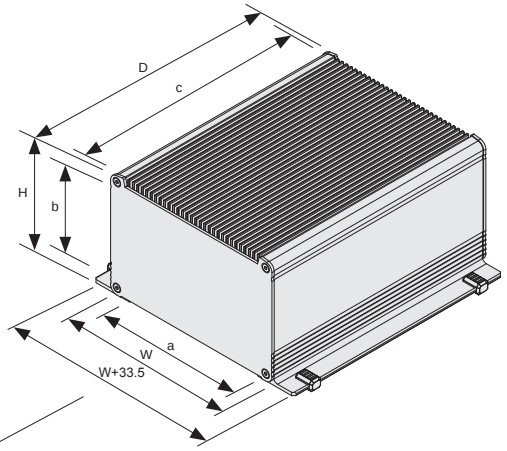
EXHFE dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

EXHFE8-□, 11-□, 14-□



EXHFE19-□, 23-□, 29-□



■ See page 251 ~ 253 for Heat-sink top cover / Bottom frame dimensions.
※c = Heat-sink top cover / Bottom frame length.

*Rubber feet dimensions are not included.

Product no. / Dimensions

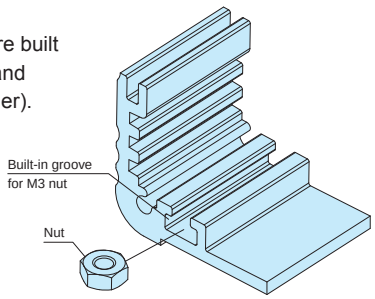
Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXHFE 8-3- 6SS	80.6	32.8	60	66	15	56	7.32
EXHFE 8-3- 9SS	80.6	32.8	90	66	15	86	5.65
EXHFE 8-3-12SS	80.6	32.8	120	66	15	116	4.72
EXHFE 8-4- 6SS	80.6	42.8	60	66	25	56	7.32
EXHFE 8-4- 9SS	80.6	42.8	90	66	25	86	5.65
EXHFE 8-4-12SS	80.6	42.8	120	66	25	116	4.72
EXHFE 8-6- 6SS	80.6	57.8	60	66	40	56	7.32
EXHFE 8-6- 9SS	80.6	57.8	90	66	40	86	5.65
EXHFE 8-6-12SS	80.6	57.8	120	66	40	116	4.72
EXHFE11-3- 8SS	106	33.1	78	88.5	14	74	4.82
EXHFE11-3-12SS	106	33.1	118	88.5	14	114	3.72
EXHFE11-3-16SS	106	33.1	164	88.5	14	160	3.03
EXHFE11-5- 8SS	106	48.1	78	88.5	29	74	4.82
EXHFE11-5-12SS	106	48.1	118	88.5	29	114	3.72
EXHFE11-5-16SS	106	48.1	164	88.5	29	160	3.03
EXHFE11-6- 8SS	106	63.1	78	88.5	44	74	4.82
EXHFE11-6-12SS	106	63.1	118	88.5	44	114	3.72
EXHFE11-6-16SS	106	63.1	164	88.5	44	160	3.03
EXHFE14-4-10SS	141	38.1	97	101.8	24.3	93	3.4
EXHFE14-4-14SS	141	38.1	137	101.8	24.3	133	2.75
EXHFE14-4-19SS	141	38.1	187	101.8	24.3	183	2.27
EXHFE14-5-10SS	141	53.1	97	101.8	39.3	93	3.4
EXHFE14-5-14SS	141	53.1	137	101.8	39.3	133	2.75
EXHFE14-5-19SS	141	53.1	187	101.8	39.3	183	2.27
EXHFE14-7-10SS	141	73.1	97	101.8	59.3	93	3.4
EXHFE14-7-14SS	141	73.1	137	101.8	59.3	133	2.75
EXHFE14-7-19SS	141	73.1	187	101.8	59.3	183	2.27
EXHFE14-9-10SS	141	93.1	97	101.8	79.3	93	3.4
EXHFE14-9-14SS	141	93.1	137	101.8	79.3	133	2.75
EXHFE14-9-19SS	141	93.1	187	101.8	79.3	183	2.27

※Thermal resistance test condition
- Ambient air cooling.
- Heat-sink fins are set perpendicular to the ground with temperature at 60°C.
- Painted aluminium extrusion.
- Heat source is applied on the opposite side (inner side) of the fins.

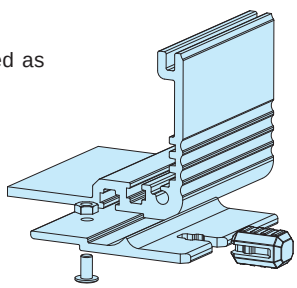
Product no.	External dimensions			Internal dimensions			※Thermal resistance rate (°C/W)
	W	H	D	a	b	c	
EXHFE19- 4-13SS	186.5	45.25	125	131	26.8	120	1.92
EXHFE19- 4-18SS	186.5	45.25	177	131	26.8	172	1.56
EXHFE19- 4-23SS	186.5	45.25	230	131	26.8	225	1.32
EXHFE19- 4-29SS	186.5	45.25	285	131	26.8	280	1.15
EXHFE19- 6-13SS	186.5	63.25	125	131	44.8	120	1.92
EXHFE19- 6-18SS	186.5	63.25	177	131	44.8	172	1.56
EXHFE19- 6-23SS	186.5	63.25	230	131	44.8	225	1.32
EXHFE19- 6-29SS	186.5	63.25	285	131	44.8	280	1.15
EXHFE19- 8-13SS	186.5	83.25	125	131	64.8	120	1.92
EXHFE19- 8-18SS	186.5	83.25	177	131	64.8	172	1.56
EXHFE19- 8-23SS	186.5	83.25	230	131	64.8	225	1.32
EXHFE19- 8-29SS	186.5	83.25	285	131	64.8	280	1.15
EXHFE19-11-13SS	186.5	108.25	125	131	89.8	120	1.92
EXHFE19-11-18SS	186.5	108.25	177	131	89.8	172	1.56
EXHFE19-11-23SS	186.5	108.25	230	131	89.8	225	1.32
EXHFE19-11-29SS	186.5	108.25	285	131	89.8	280	1.15
EXHFE23- 5-15SS	232	53.5	153	176	34.8	147	1.47
EXHFE23- 5-21SS	232	53.5	213	176	34.8	207	1.2
EXHFE23- 5-27SS	232	53.5	273	176	34.8	267	1.03
EXHFE23- 5-33SS	232	53.5	333	176	34.8	327	0.91
EXHFE23- 8-15SS	232	78.5	153	176	59.8	147	1.47
EXHFE23- 8-21SS	232	78.5	213	176	59.8	207	1.2
EXHFE23- 8-27SS	232	78.5	273	176	59.8	267	1.03
EXHFE23- 8-33SS	232	78.5	333	176	59.8	327	0.91
EXHFE23-10-15SS	232	103.5	153	176	84.8	147	1.47
EXHFE23-10-21SS	232	103.5	213	176	84.8	207	1.2
EXHFE23-10-27SS	232	103.5	273	176	84.8	267	1.03
EXHFE23-10-33SS	232	103.5	333	176	84.8	327	0.91
EXHFE29- 8-23SS	287.5	78.75	234	230	59.5	228	0.97
EXHFE29- 8-30SS	287.5	78.75	304	230	59.5	298	0.82
EXHFE29- 8-38SS	287.5	78.75	384	230	59.5	378	0.71
EXHFE29-13-23SS	287.5	128.75	234	230	109.5	228	0.97
EXHFE29-13-30SS	287.5	128.75	304	230	109.5	298	0.82
EXHFE29-13-38SS	287.5	128.75	384	230	109.5	378	0.71

■ Custom length is available.

■ Grooves for M3 sliding nut are built into the heat-sink top cover and bottom frame (140mm or wider). Optional nut is available.



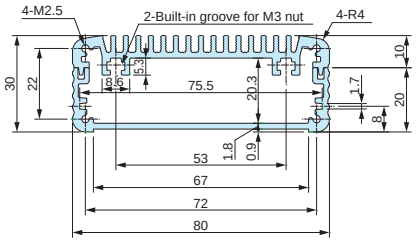
■ Flange bracket is installed as per the diagram below.



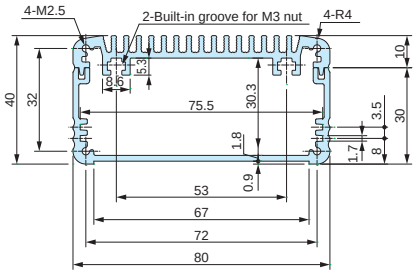
Cross-section view of heat-sink top cover & bottom frame

■ DXF/DWG/PDF/STP drawings available on our website.

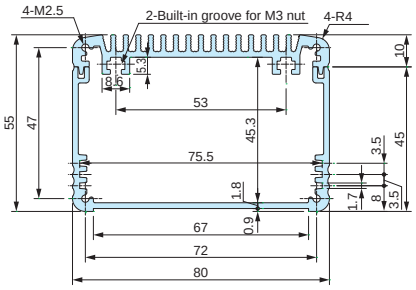
EXH • EXHE • EXHF • EXHFE8-3-□



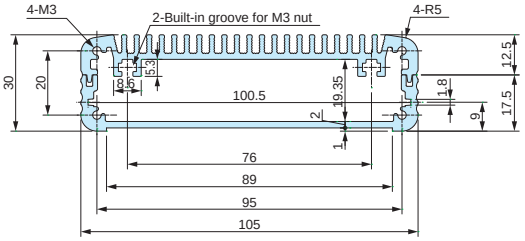
EXH • EXHE • EXHF • EXHFE8-4-□



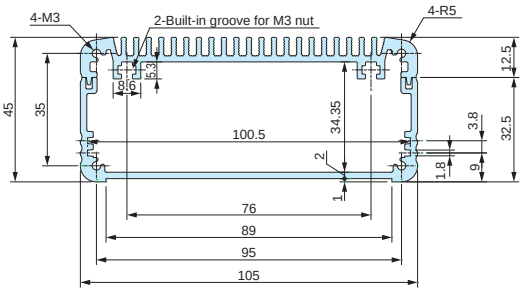
EXH • EXHE • EXHF • EXHFE8-6-□



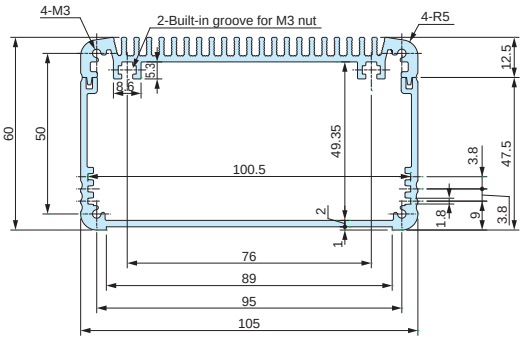
EXH • EXHE • EXHF • EXHFE11-3-□



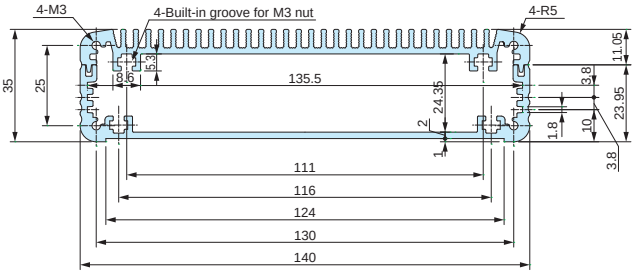
EXH • EXHE • EXHF • EXHFE11-5-□



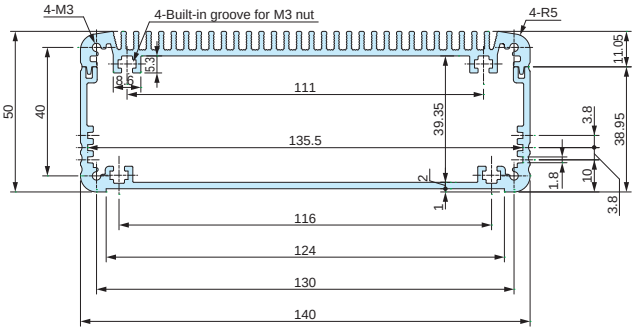
EXH • EXHE • EXHF • EXHFE11-6-□



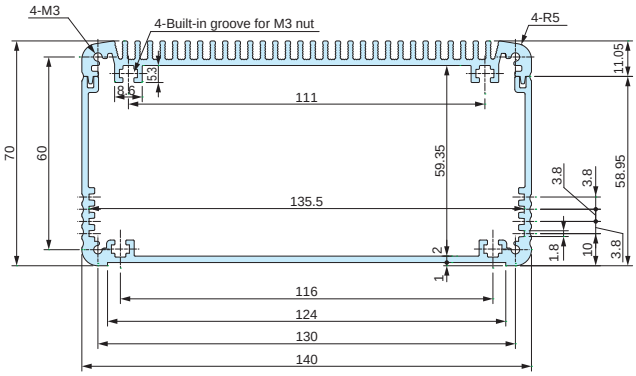
EXH • EXHE • EXHF • EXHFE14-4-□



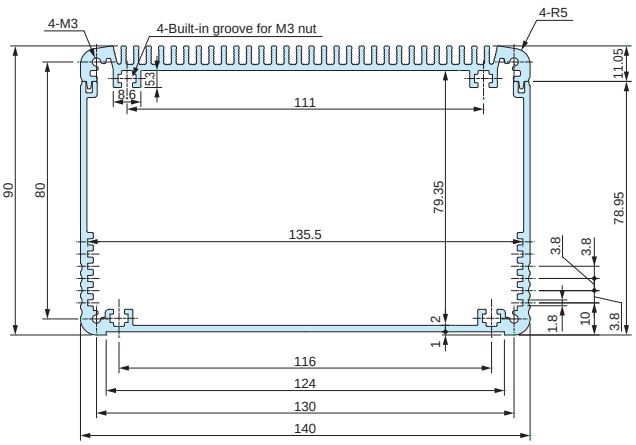
EXH • EXHE • EXHF • EXHFE14-5-□



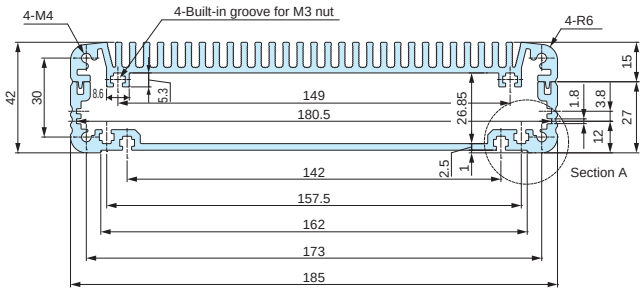
EXH • EXHE • EXHF • EXHFE14-7-□



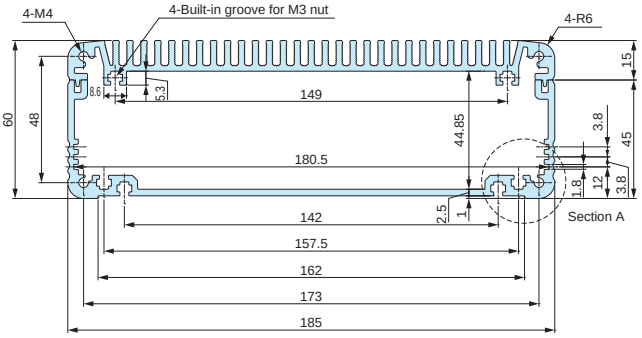
EXH • EXHE • EXHF • EXHFE14-9-□



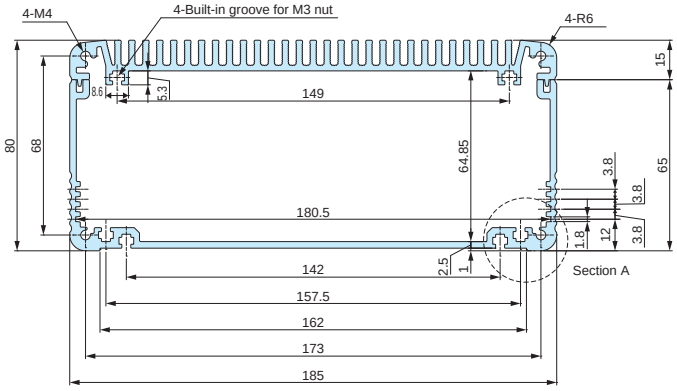
EXH • EXHE • EXHF • EXHFE19-4-□



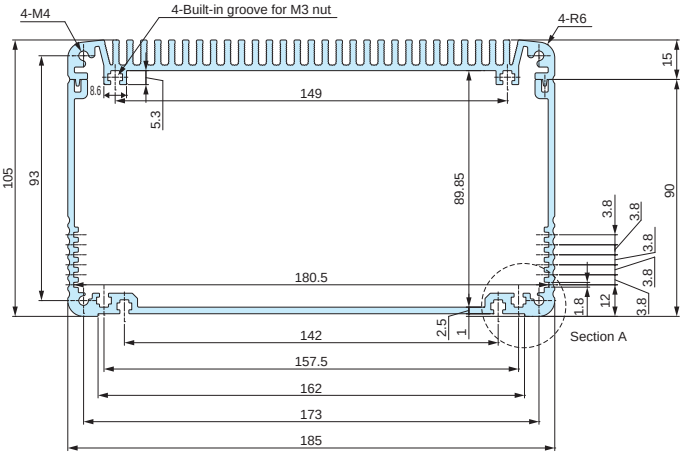
EXH • EXHE • EXHF • EXHFE19-6-□



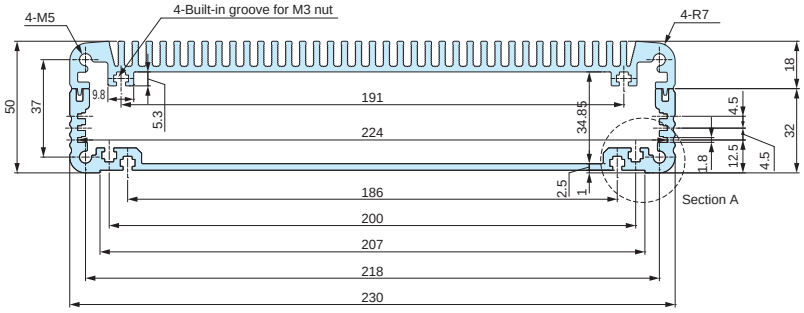
EXH • EXHE • EXHF • EXHFE19-8-□

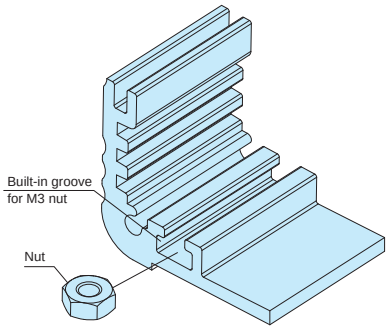


EXH • EXHE • EXHF • EXHFE19-11-□

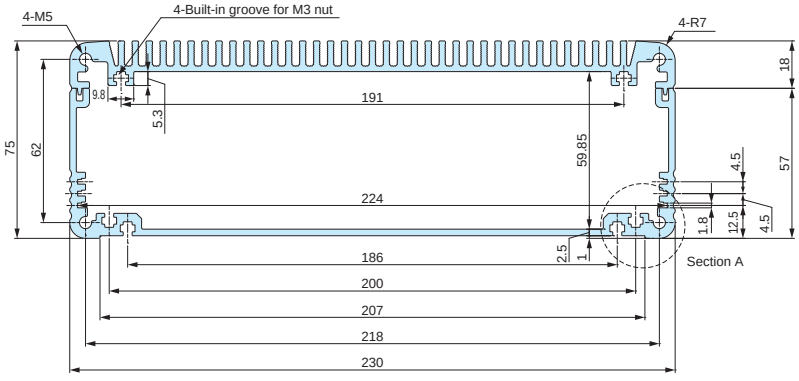


EXH • EXHE • EXHF • EXHFE23-5-□





EXH • EXHE • EXHF • EXHFE23-8-□



■ Optional M3 nut is available.

Sliding nut can be used on all EXH • EXHE • EXHF • EXHFE models with width 140mm or larger bottom covers, as well as all heat-sink top covers.

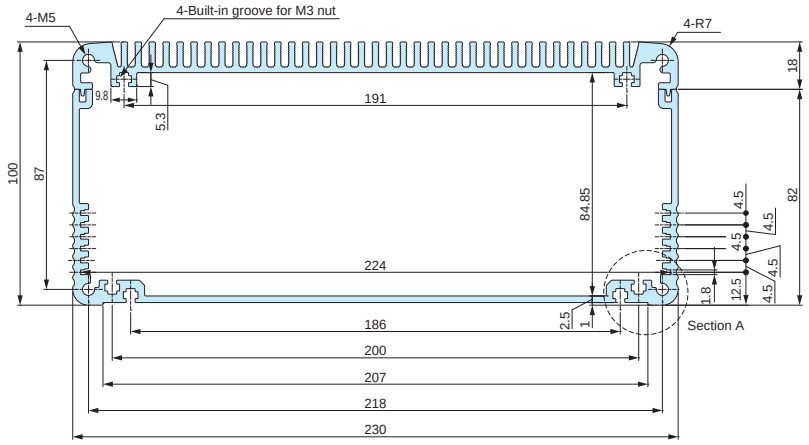
See page 221 for MT-3N optional M3 nut.

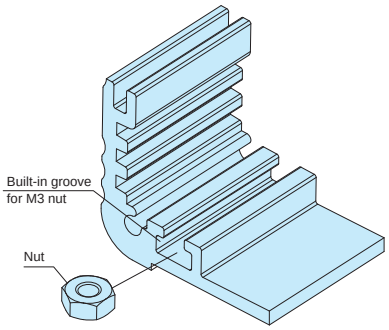
*See page 253 for detailed dimensions for Section A

Cross-section view of heat-sink top cover & bottom frame

■ DXF/DWG/PDF/STP drawings available on our website.

EXH • EXHE • EXHF • EXHFE23-10-□



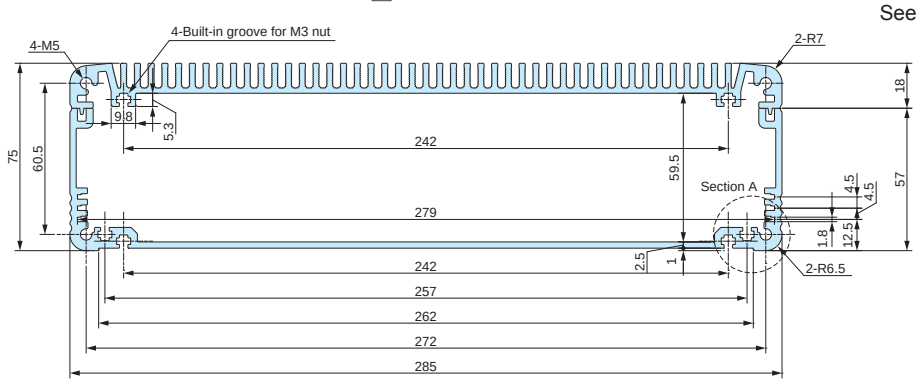


■ Optional M3 nut is available.

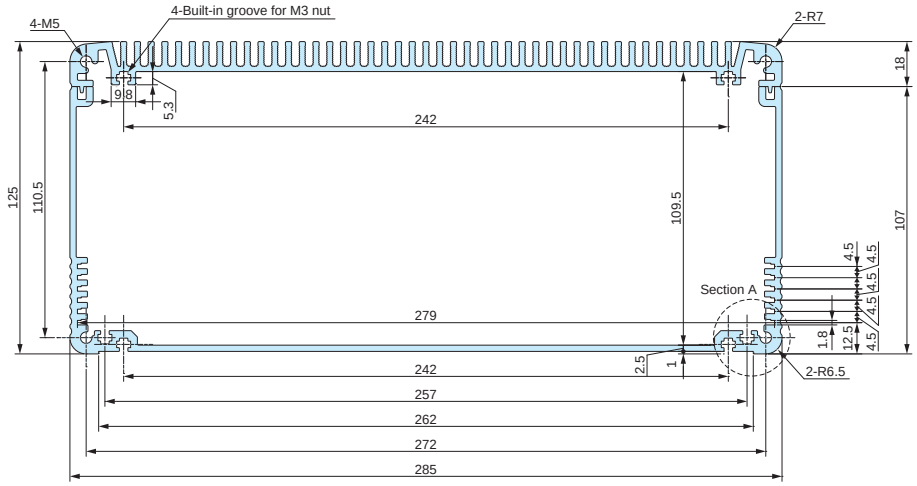
Sliding nut can be used on all EXH • EXHE • EXHF • EXHFE models with width 140mm or larger bottom covers, as well as all heat-sink top covers.

See page 221 for MT-3N optional M3 nut.

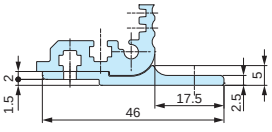
EXH • EXHE • EXHF • EXHFE29-8-□



EXH • EXHE • EXHF • EXHFE29-13-□



Flange bracket dimensions
(Section A)



EF series WALL MOUNTING BRACKET for EX • EXH • EXHE

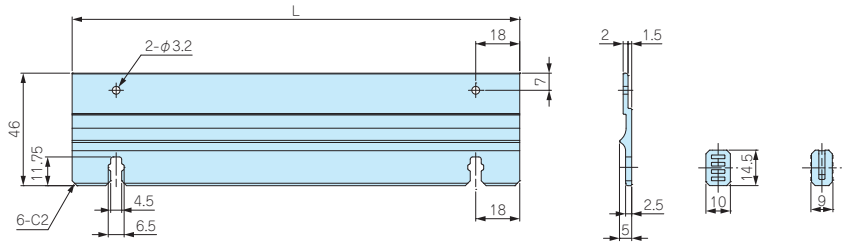
NEW SIZE

Installation Example

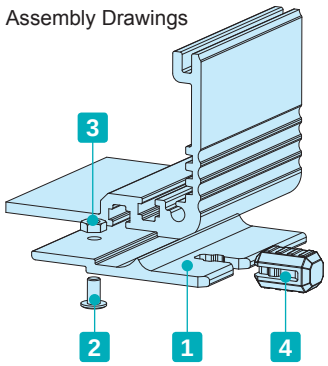
- Wall mounting bracket for EX, EXH, and EXHE series. Applicable only for width 185, 230, and 285mm bottom covers.
- Easy installation by inserting the nuts into built-in grooves on EX, EXH, and EXHE bottom cover.
- Rubber feet are included to hide the mounting cutouts when not used for wall mounting, and act as feet stabilizers for desktop use.

EF dimensions

- DXF/DWG/PDF/STP drawings available on our website.



Assembly Drawings



Components

No.	Part name	Pcs	Material	Color / Finish
1	Bracket	2	Extruded aluminium A6063S-T5	Metallic silver / Painted • Black / Anodized
2	Screw	4	Steel	Black trivalent chromate
3	Nut	4	Steel	Black trivalent chromate
4	Rubber feet	4	Silicone	Black

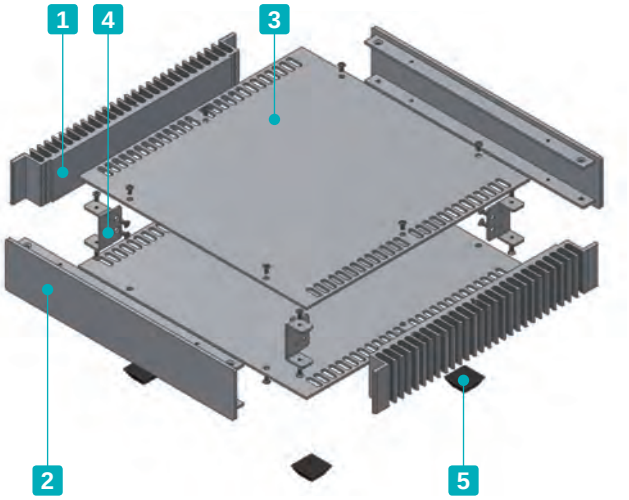
Product no. / Dimensions

Product no.		L	Suitable models
● Metallic silver	● Black		
EF19-13S	EF19-13B	119.5	EX • EXH • EXHE19-□-13
EF19-18S	EF19-18B	171.5	EX • EXH • EXHE19-□-18
EF19-23S	EF19-23B	224.5	EX • EXH • EXHE19-□-23
EF19-29S	EF19-29B	279.5	EX • EXH • EXHE19-□-29
EF23-15S	EF23-15B	146.5	EX • EXH • EXHE23-□-15
EF23-21S	EF23-21B	206.5	EX • EXH • EXHE23-□-21
EF23-27S	EF23-27B	266.5	EX • EXH • EXHE23-□-27
EF23-33S	EF23-33B	326.5	EX • EXH • EXHE23-□-33
NEW EF29-23S	NEW EF29-23B	227.5	EX • EXH • EXHE29-□-23
NEW EF29-30S	NEW EF29-30B	297.5	EX • EXH • EXHE29-□-30
NEW EF29-38S	NEW EF29-38B	377.5	EX • EXH • EXHE29-□-38

HY series HEAT-SINK ALUMINIUM ENCLOSURE

Heat Resistant

Variations of HY series, HYR and HYRH series are also available.
See website for more details.



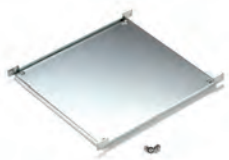
- Stylish and elegantly designed with a hairline finish.
- Excellent cooling performance with the heat-sink side plates.
- Now available in 56 sizes, and 2 different colors.
- Tough and robust enclosure from using aluminium extrusion parts.
- Simple and easy to assemble construction.
- Flat back heat-sink plates for more effective heat spreading.

Included screws
BB color type
M3-6 flat head & Black trivalent chromate x 16 pcs
M3-5 Slotted raised countersunk & Black trivalent chromate x 12 pcs
SS color type
M3-6 flat head & Nickel plated x 16 pcs
M3-5 Slotted raised countersunk & Nickel plated x 12 pcs

Components

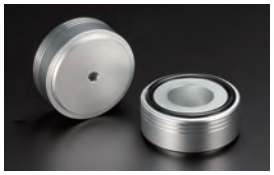
No.	Part name	Pcs	Material	Color / Finish
1	Heat-sink side plate	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized
2	Panel	2	Extruded aluminium A6063S-T5	Silver • Black / Hairline brushed & Anodized
3	Top • Bottom cover	2	Aluminium A1050P t=2.0	Silver • Black / Hairline brushed & Anodized
4	Corner support	4	Steel SPCC t=1.6	Trivalent chromate
5	Rubber feet	4	Polyurethane	Black

Accessories (Optional parts)



Mounting plate HYC series
See page 257

L-bracket HYCL series
See page 257

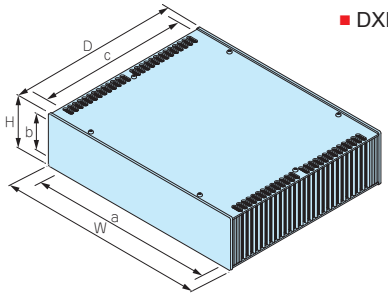


Aluminium isolation feet AFS • AFM series
See page 293 ~ 294

TORX screw - for top / bottom cover MR3-5Z series
See website

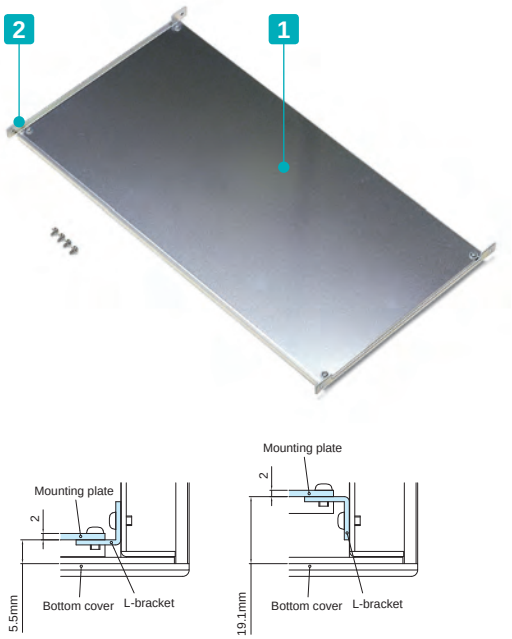
HY dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

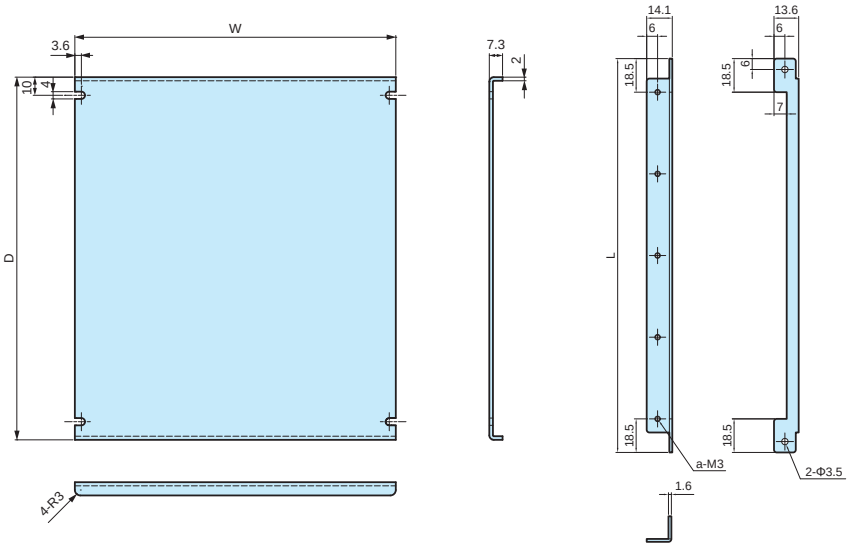


Product no.		External dimensions			Internal dimensions			Weight (kg)
● Silver	● Black	W	H	D	a	b	c	
HY 44-23-23SS	HY 44-23-23BB	230	44	231	186	36	225	1.1
HY 44-23-33SS	HY 44-23-33BB	230	44	330	186	36	324	1.6
HY 44-28-23SS	HY 44-28-23BB	280	44	231	236	36	225	1.4
HY 44-28-33SS	HY 44-28-33BB	280	44	330	236	36	324	1.9
HY 44-33-23SS	HY 44-33-23BB	330	44	231	286	36	225	1.5
HY 44-33-33SS	HY 44-33-33BB	330	44	330	286	36	324	2.2
HY 44-43-23SS	HY 44-43-23BB	430	44	231	386	36	225	1.9
HY 44-43-33SS	HY 44-43-33BB	430	44	330	386	36	324	2.6
HY 70-23-23SS	HY 70-23-23BB	230	70	231	186	62	225	1.6
HY 70-23-33SS	HY 70-23-33BB	230	70	330	186	62	324	2.2
HY 70-28-23SS	HY 70-28-23BB	280	70	231	236	62	225	1.8
HY 70-28-33SS	HY 70-28-33BB	280	70	330	236	62	324	2.5
HY 70-33-23SS	HY 70-33-23BB	330	70	231	286	62	225	2.0
HY 70-33-33SS	HY 70-33-33BB	330	70	330	286	62	324	2.8
HY 70-43-23SS	HY 70-43-23BB	430	70	231	386	62	225	2.3
HY 70-43-33SS	HY 70-43-33BB	430	70	330	386	62	324	3.2
HY 88-23-23SS	HY 88-23-23BB	230	88	231	186	80	225	1.9
HY 88-23-33SS	HY 88-23-33BB	230	88	330	186	80	324	2.6
HY 88-28-23SS	HY 88-28-23BB	280	88	231	236	80	225	2.1
HY 88-28-33SS	HY 88-28-33BB	280	88	330	236	80	324	2.8
HY 88-33-23SS	HY 88-33-23BB	330	88	231	286	80	225	2.3
HY 88-33-33SS	HY 88-33-33BB	330	88	330	286	80	324	3.1
HY 88-43-23SS	HY 88-43-23BB	430	88	231	386	80	225	2.7
HY 88-43-33SS	HY 88-43-33BB	430	88	330	386	80	324	3.6
HY 99-23-23SS	HY 99-23-23BB	230	99	231	186	91	225	2.1
HY 99-23-33SS	HY 99-23-33BB	230	99	330	186	91	324	2.7
HY 99-28-23SS	HY 99-28-23BB	280	99	231	236	91	225	2.3
HY 99-28-33SS	HY 99-28-33BB	280	99	330	236	91	324	3.1
HY 99-33-23SS	HY 99-33-23BB	330	99	231	286	91	225	2.5
HY 99-33-33SS	HY 99-33-33BB	330	99	330	286	91	324	3.4
HY 99-43-23SS	HY 99-43-23BB	430	99	231	386	91	225	2.9
HY 99-43-33SS	HY 99-43-33BB	430	99	330	386	91	324	3.9
HY133-23-23SS	HY133-23-23BB	230	132.5	231	186	124.5	225	2.6
HY133-23-33SS	HY133-23-33BB	230	132.5	330	186	124.5	324	3.4
HY133-28-23SS	HY133-28-23BB	280	132.5	231	236	124.5	225	2.8
HY133-28-33SS	HY133-28-33BB	280	132.5	330	236	124.5	324	3.8
HY133-33-23SS	HY133-33-23BB	330	132.5	231	286	124.5	225	3.0
HY133-33-33SS	HY133-33-33BB	330	132.5	330	286	124.5	324	4.1
HY133-43-23SS	HY133-43-23BB	430	132.5	231	386	124.5	225	3.5
HY133-43-33SS	HY133-43-33BB	430	132.5	330	386	124.5	324	4.7
HY149-23-23SS	HY149-23-23BB	230	149	231	186	141	225	2.8
HY149-23-33SS	HY149-23-33BB	230	149	330	186	141	324	3.8
HY149-28-23SS	HY149-28-23BB	280	149	231	236	141	225	3.1
HY149-28-33SS	HY149-28-33BB	280	149	330	236	141	324	4.2
HY149-33-23SS	HY149-33-23BB	330	149	231	286	141	225	3.3
HY149-33-33SS	HY149-33-33BB	330	149	330	286	141	324	4.5
HY149-43-23SS	HY149-43-23BB	430	149	231	386	141	225	3.8
HY149-43-33SS	HY149-43-33BB	430	149	330	386	141	324	5.1
HY177-23-23SS	HY177-23-23BB	230	177	231	186	169	225	3.4
HY177-23-33SS	HY177-23-33BB	230	177	330	186	169	324	4.5
HY177-28-23SS	HY177-28-23BB	280	177	231	236	169	225	3.6
HY177-28-33SS	HY177-28-33BB	280	177	330	236	169	324	4.8
HY177-33-23SS	HY177-33-23BB	330	177	231	286	169	225	3.9
HY177-33-33SS	HY177-33-33BB	330	177	330	286	169	324	5.2
HY177-43-23SS	HY177-43-23BB	430	177	231	386	169	225	4.5
HY177-43-33SS	HY177-43-33BB	430	177	330	386	169	324	5.8

HYC series MOUNTING PLATE for HY • HYR • HYRH



HYC dimensions



■ DXF/DWG/PDF/STP drawings available on our website.

■ Mounting plate and L-bracket set.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Mounting plate	1	Aluminium A1050P t=2.0	Unfinished
2	L-bracket	2	Steel SPCC t=1.6	Trivalent chromate
—	Screw	1 set	Steel M3	Trivalent chromate

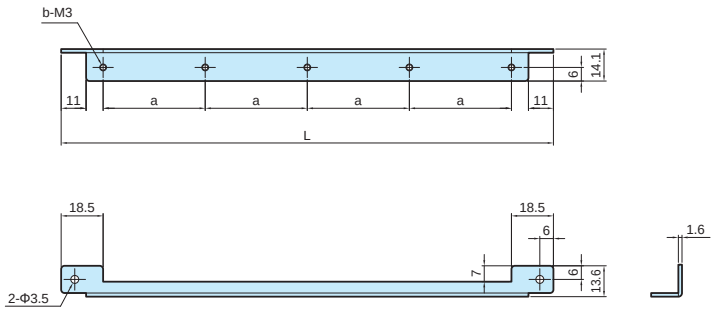
Product no. / Dimensions

Product no.	W	D	L	a	Suitable models	Weight (g)
HYC23-23	177	200	217	5	HY□-23-23	300
HYC23-28	227	200	217	5	HY□-28-23	350
HYC23-33	277	200	217	5	HY□-33-23	410
HYC23-43	377	200	217	5	HY□-43-23	520
HYC33-23	177	299	316	7	HY□-23-33	450
HYC33-28	227	299	316	7	HY□-28-33	550
HYC33-33	277	299	316	7	HY□-33-33	710
HYC33-43	377	299	316	7	HY□-43-33	800

Clinching stud customization service available.

HYCL series L-bracket for HY • HYR • HYRH

HYCL dimensions



■ DXF/DWG/PDF/STP drawings available on our website.

■ Simple L-bracket and screw set.

■ Use with your original mounting plate or PCB.

Components

No.	Part name	Material	Color / Finish
1	L-bracket	Steel t=1.6	Trivalent chromate
2	Screw	Steel M3	Trivalent chromate

Product no. / Dimensions

Product no.	L	a	b	Pack of
HYCL-23	217	45	5	2
HYCL-33	316	46.5	7	2

HY series APPLICATION EXAMPLE

Complete Balanced Special Tuned DC Headphone Amplifier

Product by Sanyo Kasei (Japan)

Front

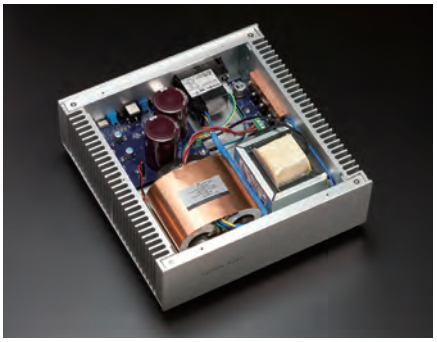
Rear

Energy Creation Power Conditioner Development Kit

Product by Smart Energy Laboratory (Japan)

Linear Power Supply

Product by UpTone Audio (USA)



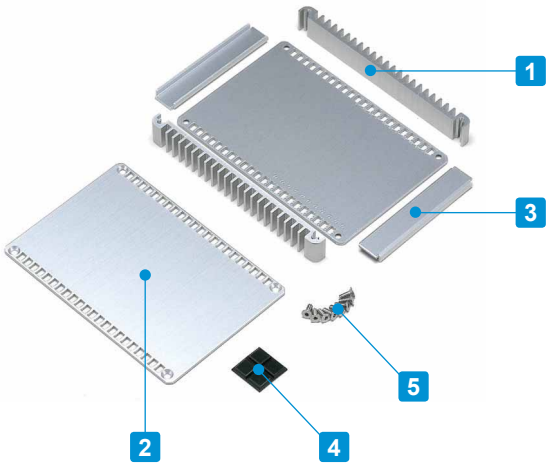
Industrial Fanless PC

Product by Techno Veins (Japan)

HIT SERIES HEAT-SINK ALUMINIUM CASE

Heat Resistant

- Heat dissipation and cooling via the utilization of extruded aluminium heat-sink side plates.
- Rounded corners gives it an elegant feel.
- Aluminium extrusion parts provides high structural durability.
- Suitable for use as small-type fanless PC, digital audio equipment, and so on.
- Available in both Silver and Black color types.



- Optional aluminium isolation feet, AFS and AFM series are available. See page AFS•AFM-1 ~ AFS•AFM-2 for more details.

Application example

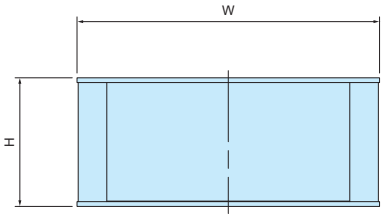
Included screws
Enclosure (Silver) M3-8 Hexagonal countersunk : Stainless steel : Unfinished x 8 pcs
Enclosure (Black) M3-8 Hexagonal countersunk : Steel : Black trivalent chromate x 8 pcs
※Hexagonal wrench included

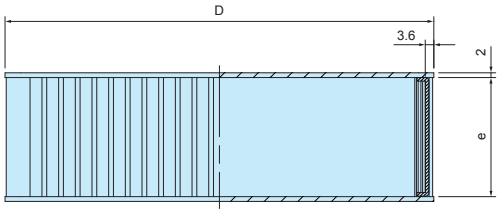
Components

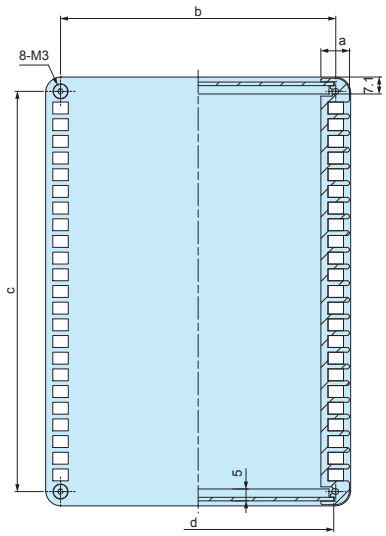
No.	Part name	Pcs	Material	Color / Finish
1	Heat-sink side plate	2	Extruded aluminium A6063S-T5	Silver • Black / Anodized
2	Top • Bottom cover	2	Aluminium A1050P t=2.0	Silver • Black / Hairline brushed & Anodized
3	Front • Rear panel	2	Aluminium A1050P t=1.5	Silver • Black / Hairline brushed & Anodized
4	Rubber feet	1 set	Polyurethane	Black
5	Screw	8	Stailess steel (SS color type) Steel (BB color type)	Unfinished Black trivalent chromate (Steel)

HIT dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.







APPLICATION EXAMPLE

FIBER OPTICS EXTENSION UNIT

Product by Sanritz Automation (Japan)

AUDIO POWER SUPPLY for MacBook

Product by AY-densi (Japan)

Product no. / Dimensions

■ Thermal resistance calculation is based on the fins being perpendicular to the ground with temperature at 60°C.

Product no.		W	H	D	a	b	c	d	e	※Thermal resistance rate (°C/W)	Weight (g)
● Silver	● Black										
HIT 9-2-13SS	HIT 9-2-13BB	89	20	130	8	81	118.6	78.8	16	9.14	183
HIT 9-4-13SS	HIT 9-4-13BB	89	40	130	8	81	118.6	78.8	36	5.6	255
HIT13-3-13SS	HIT13-3-13BB	130	30	130	8	122	118.6	119.8	26	6.82	289
HIT13-5-13SS	HIT13-5-13BB	130	50	130	8	122	118.6	119.8	46	4.83	370
HIT18-4-13SS	HIT18-4-13BB	180	40	130	8	172	118.6	169.8	36	5.6	414
HIT18-6-13SS	HIT18-6-13BB	180	60	130	8	172	118.6	169.8	56	4.29	503
HIT13-3-18SS	HIT13-3-18BB	128	30	180	12	115.5	168	113.8	26	4.38	411
HIT13-5-18SS	HIT13-5-18BB	128	50	180	12	115.5	168	113.8	46	3.1	535
HIT17-4-18SS	HIT17-4-18BB	174	40	180	12	161.5	168	159.8	36	3.6	578
HIT17-6-18SS	HIT17-6-18BB	174	60	180	12	161.5	168	159.8	56	2.76	719
HIT23-5-18SS	HIT23-5-18BB	228	50	180	12	215.5	168	213.8	46	3.1	772
HIT23-7-18SS	HIT23-7-18BB	228	70	180	12	215.5	168	213.8	66	2.5	928

HS SERIES HEAT-SINK ALUMINIUM CASE

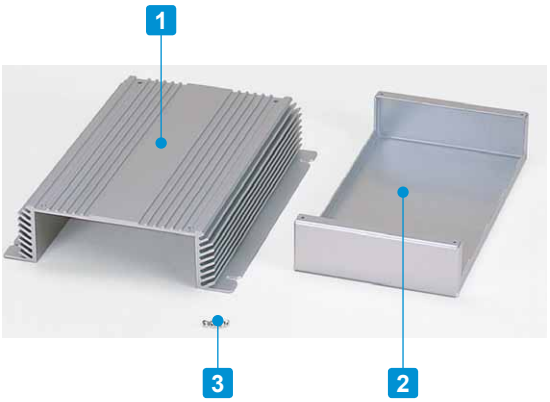
Heat Resistant

- Aluminium case with heat dissipating heat-sink cover for superior cooling effect.
- Recommended for use with equipment requiring heat dissipation.
- Manufactured with mounting flange for easy attachment onto walls and other surfaces.

APPLICATION EXAMPLE

HIGH-END PERFORMANCE AUDIO AMPLIFER

Product by: IC Technologies (Australia)

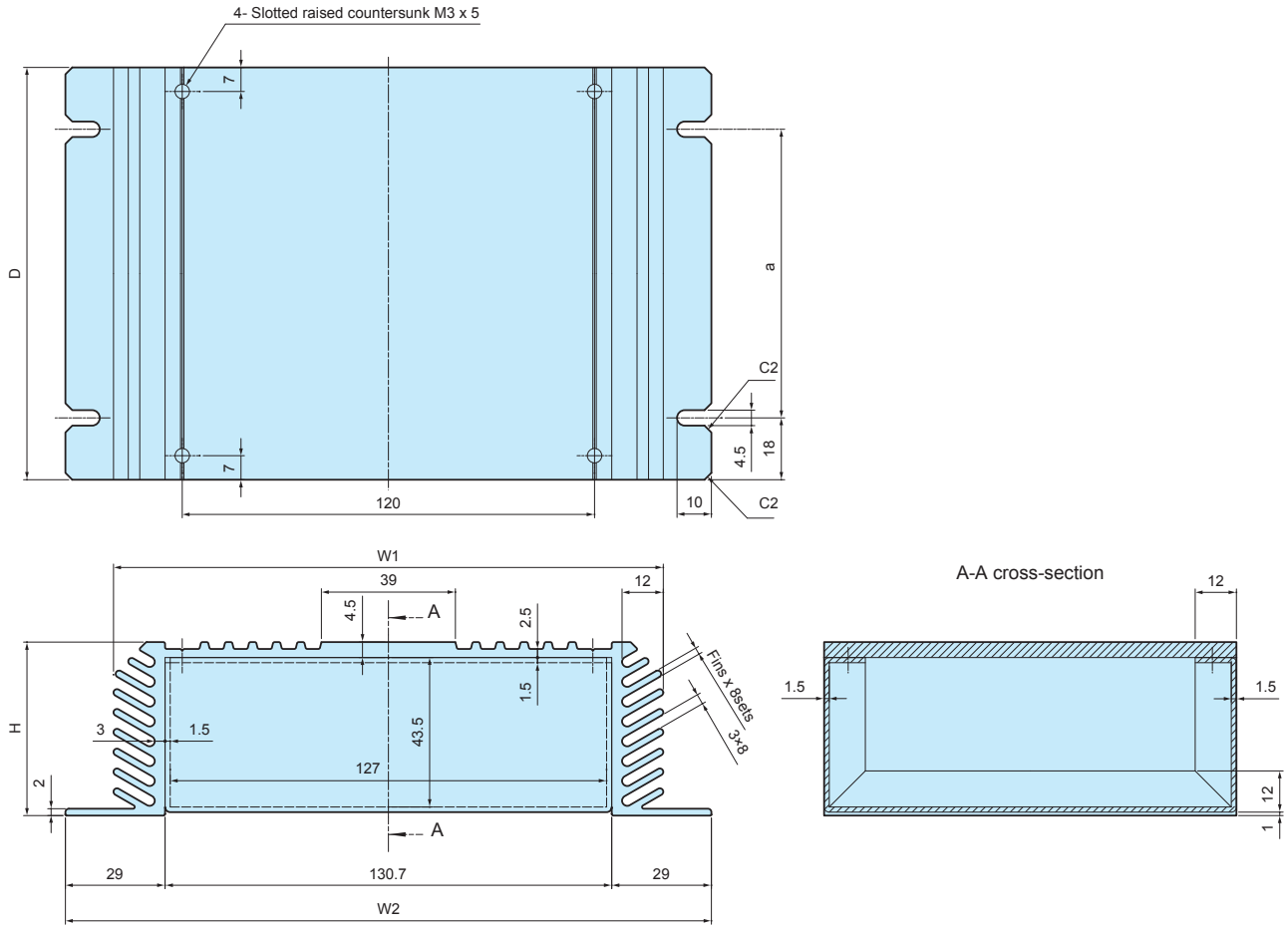


Components

No.	Part name	Pcs	Material	Color / Finish
1	Heat-sink cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized
2	Bottom chassis	1	Aluminium A1050P t=1.5	Silver • Black / Anodized
3	Screw	4	Steel M3-5	Nickel plated • Black trivalent chromate

HS dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.



Product no. / Dimensions

Product no.		W1	W2	H	D	a	Thermal resistance (°C / W)	Weight (kg)
● Silver	● Black							
HS16-5-16S	~~HS16-5-16B~~	160	188.7	50.5	160	124	1.1	0.72
HS16-5-23S	HS16-5-23B	160	188.7	50.5	230	194	0.83	1.0
HS16-5-30S	HS16-5-30B	160	188.7	50.5	300	264	0.69	1.29

※Cross out products are discontinued. ■ Thermal resistance calculation is based on the fins being perpendicular to the ground with temperature at 60°C.

Accessories (Optional parts)

MR SERIES SLOTTED RAISED COUNTERSUNK TORX SCREW

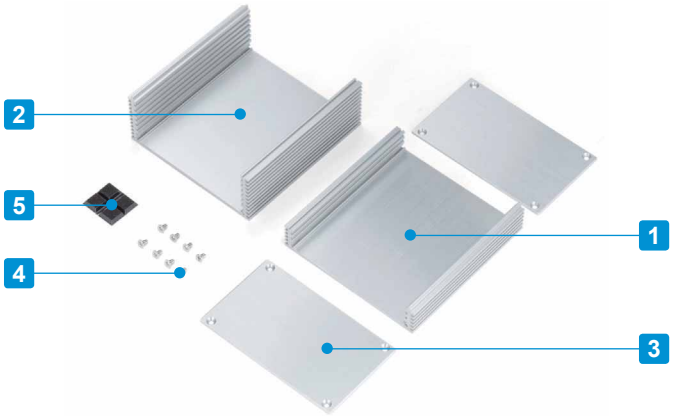
- For use with the heat-sink cover.
- Recommended for aesthetic purposes, or for tampering resistance.
- Requires the use of a specialized screwdriver.

Product no. / Dimensions

Product no.	M	L	TORX head no.	Material	Color / Finish	Pack of
MR3-5ZS	3	5	T10	Steel	Nickel plated	20
MR3-5ZB	3	5	T10	Steel	Black trivalent chromate	20

HEN SERIES HEAT-SINK ALUMINIUM CASE

Heat Resistant



- Stylish design coupled with hairline brushed finish makes for a luxurious high-end case.
- Heat dissipation and cooling via the utilization of extruded aluminium heat-sink top/bottom cover.
- Available in 18 sizes.
- Sturdy extruded case construction.

Included screws
Enclosure (Silver) M3-6 countersunk : Steel : Nickel plated x 8 pcs
Enclosure (Black) M3-6 countersunk : Steel : Black trivalent chromate x 8 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Hairline brushed & Anodized
2	Bottom cover	1	Extruded aluminium A6063S-T5	Silver • Black / Hairline brushed & Anodized
3	Front • Rear panel	2	Aluminium A1050P t=2.0	Silver • Black / Hairline brushed & Anodized
4	Screw	8	Steel countersunk M3-6	Nickel plated • Black trivalent chromate
5	Rubber feet	4	Polyurethane	Black

※HL = Hairline brushed

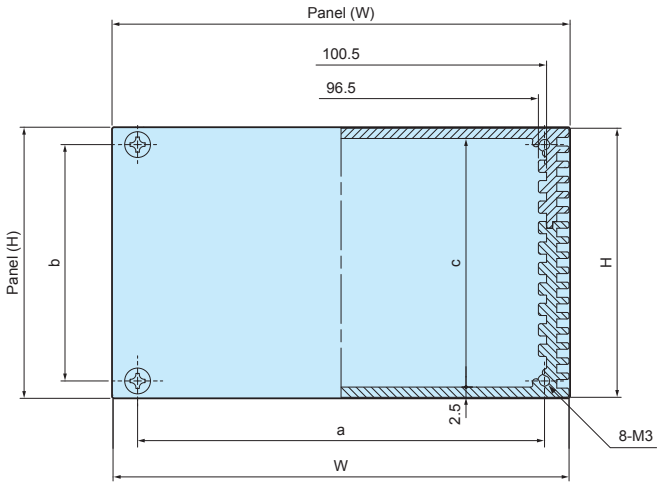
Accessories (Optional parts)

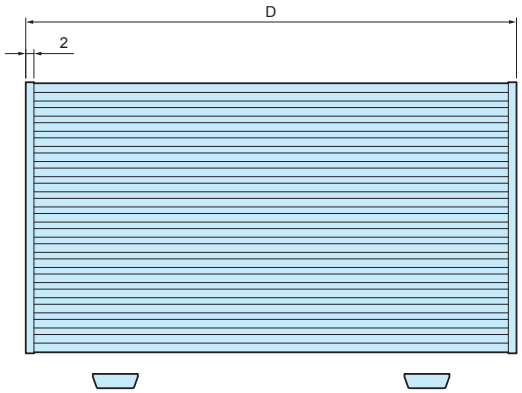
TORX screw MR-2S
See page EM•MR-1

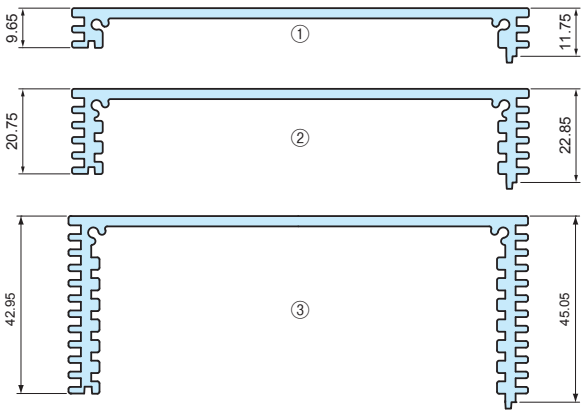
Aluminium isolation feet AFS • AFM series
See page AFS•AFM-1 ～ AFS•AFM-2

HEN dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.







Cover Type

Cover	Cover length (D-4)	※Thermal resistance rate (°C/W)
①	56	6.7
	116	3.6
	196	2.1
②	56	5
	116	2.6
	196	1.5
③	56	3.3
	116	1.7
	196	0.93

■ Thermal resistance calculation is based on the fins being perpendicular to the ground with temperature at 60°C.

Product no. / Dimensions

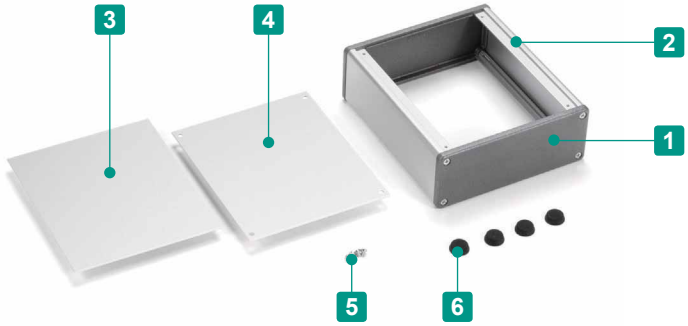
Product no.		W	H	D	Panel (W)	Panel (H)	a	b	c	Cover combination	Weight (g)
● Silver	● Black										
HEN110206S	HEN110206B	111.2	21.4	60	112	21.9	99.2	13.4	16.4	①×2	143
HEN110212S	HEN110212B	111.2	21.4	120	112	21.9	99.2	13.4	16.4		258
HEN110220S	HEN110220B	111.2	21.4	200	112	21.9	99.2	13.4	16.4		411
HEN110306S	HEN110306B	111.2	32.5	60	112	33.0	99.2	24.5	27.5	①×1 ②×1	179
HEN110312S	HEN110312B	111.2	32.5	120	112	33.0	99.2	24.5	27.5		311
HEN110320S	HEN110320B	111.2	32.5	200	112	33.0	99.2	24.5	27.5		488
HEN110406S	HEN110406B	111.2	43.6	60	112	44.1	99.2	35.6	38.6	②×2	215
HEN110412S	HEN110412B	111.2	43.6	120	112	44.1	99.2	35.6	38.6		365
HEN110420S	HEN110420B	111.2	43.6	200	112	44.1	99.2	35.6	38.6		565
HEN110506S	HEN110506B	111.2	54.7	60	112	55.2	99.2	46.7	49.7	①×1 ③×1	250
HEN110512S	HEN110512B	111.2	54.7	120	112	55.2	99.2	46.7	49.7		417
HEN110520S	HEN110520B	111.2	54.7	200	112	55.2	99.2	46.7	49.7		640
HEN110606S	HEN110606B	111.2	65.8	60	112	66.3	99.2	57.8	60.8	②×1 ③×1	286
HEN110612S	HEN110612B	111.2	65.8	120	112	66.3	99.2	57.8	60.8		471
HEN110620S	HEN110620B	111.2	65.8	200	112	66.3	99.2	57.8	60.8		717
HEN110806S	HEN110806B	111.2	88.0	60	112	88.5	99.2	80.8	83.0	③×2	358
HEN110812S	HEN110812B	111.2	88.0	120	112	88.5	99.2	80.8	83.0		577
HEN110820S	HEN110820B	111.2	88.0	200	112	88.5	99.2	80.8	83.0		869

APPLICATION EXAMPLE AUDIO POWER SUPPLY

Product by AY-densi (Japan)

TAKACHI

CH SERIES ALUMINIUM CONTROL BOX



- Simple and strong construction with diecast and extruded aluminium material.
- Durable powder-coated side plate.
- Both the slide and screwed panel can be utilized as the front panel.
- 2 color types available.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Side plate	2	Diecast aluminium ADC12	Black • Metallic gray / Powder coated
2	Frame	2	Extruded aluminium A6063S-T5	Black / Anodized • Silver / Hairline brushed & Anodized
3	Slide panel	1	Aluminium A1100P • A1050P	Black / Painted • Silver / Hairline brushed & Anodized
4	Screwed panel	1	Aluminium A1100P • A1050P	Black / Painted • Silver / Hairline brushed & Anodized
5	Screw	1 set	Steel	Black trivalent chromate • Nickel plated
6	Rubber feet	4	Synthetic rubber	Black

■ Note: panels are covered with a protective film on one side. Remove before assembly.

※CH7 models come with copper plated screws for grounding.

APPLICATION EXAMPLE

WAVEFORM ANALYZER

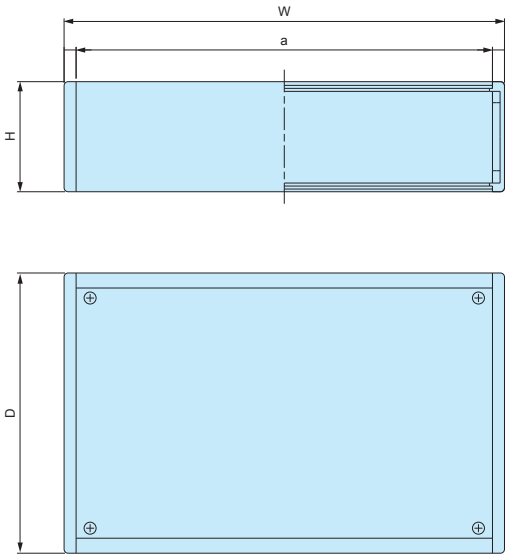
Product by Graviton Inc. (Japan)

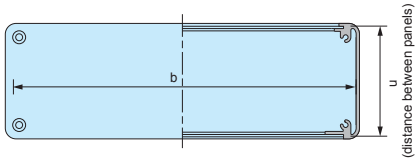
CNC MACHINING CENTER CONTROL UNIT

Product by FNS Co. Ltd. (Japan)

CH dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.





Included screws

CH4 • CH6 models
M3-5 Slotted raised countersunk • Black trivalent chromate x 4 pcs
M3-5 Slotted raised countersunk • Nickel plated x 4 pcs
M3-10 countersunk • Black trivalent chromate x 8 pcs
M3-10 countersunk • Nickel plated x 8 pcs

CH7 • CH8 models
M3-5 Slotted raised countersunk • Black trivalent chromate x 4 pcs
M3-5 Slotted raised countersunk • Nickel plated x 4 pcs
M4-12 countersunk • Black trivalent chromate x 8 pcs
M4-12 countersunk • Nickel plated x 8 pcs

Product no. / Dimensions

Product no.		W	H	D	a	b	u	Weight (kg)
● Black (BBP)	● Gray•Silver(GSP)							
CH4- 7-10BBP	CH4- 7-10GSP	70	36.5	100.5	60	96.4	30.5	0.15
CH4-10-10BBP	CH4-10-10GSP	100	36.5	100.5	90	96.4	30.5	0.20
CH4-15-10BBP	CH4-15-10GSP	150	36.5	100.5	140	96.4	30.5	0.27
CH4-20-10BBP	CH4-20-10GSP	200	36.5	100.5	190	96.4	30.5	0.35
CH4-25-10BBP	CH4-25-10GSP	250	36.5	100.5	240	96.4	30.5	0.42
CH6- 8-14BBP	CH6- 8-14GSP	80	55	140.7	68	135.7	48.8	0.25
CH6-11-14BBP	CH6-11-14GSP	110	55	140.7	98	135.7	48.8	0.31
CH6-16-14BBP	CH6-16-14GSP	160	55	140.7	148	135.7	48.8	0.41
CH6-22-14BBP	CH6-22-14GSP	220	55	140.7	208	135.7	48.8	0.53
CH6-29-14BBP	CH6-29-14GSP	290	55	140.7	278	135.7	48.8	0.67

Product no.		W	H	D	a	b	u	Weight (kg)
● Black (BBP)	● Gray•Silver(GSP)							
CH7- 9-17BBP	CH7- 9-17GSP	90	65.5	168.5	74	164.4	58	0.50
CH7-12-17BBP	CH7-12-17GSP	120	65.5	168.5	104	164.4	58	0.58
CH7-17-17BBP	CH7-17-17GSP	170	65.5	168.5	154	164.4	58	0.72
CH7-25-17BBP	CH7-25-17GSP	250	65.5	168.5	234	164.4	58	0.94
CH7-33-17BBP	CH7-33-17GSP	330	65.5	168.5	314	164.4	58	1.16
CH8-15-23BBP	CH8-15-23GSP	150	75	230.6	134	226.1	68.8	0.74
CH8-25-23BBP	CH8-25-23GSP	250	75	230.6	234	226.1	68.8	1.06
CH8-33-23BBP	CH8-33-23GSP	330	75	230.6	314	226.1	68.8	1.31
CH8-43-23BBP	CH8-43-23GSP	430	75	230.6	414	226.1	68.8	1.63

Accessories (Optional parts)

MR SERIES TORX SCREW

■ Material / Finish : Steel / Nickel plated
■ TORX screw set for 1 unit.
■ Recommended for aesthetic purposes, or for tamper-resistance.
■ Requires the use of a specialized screwdriver.

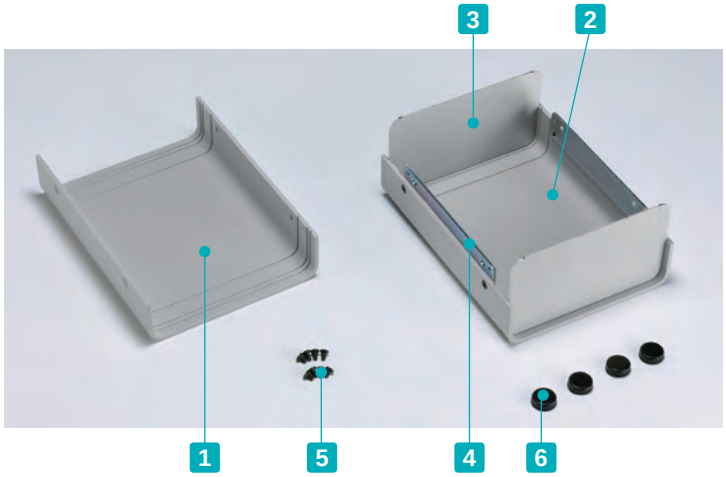
Suitable Enclosures

Product no.	Suitable enclosures
MR-3CS	CH4 and CH6 models
MR-4CS	CH7 and CH8 models

Product no. / Dimensions

Product no.	Included screws	TORX head no.
MR-3CS	M3-10 countersunk x 8 pcs • M3-5 Slotted raised countersunk x 4 pcs	T10 (M3)
MR-4CS	M4-12 countersunk x 8 pcs • M3-5 Slotted raised countersunk x 4 pcs	T10 (M3) • T20 (M4)

UC series UNIVERSAL ALUMINIUM CASE



- Simple structure and tough case with extruded aluminium covers
- 36 sizes and 2 different colors for a total of 72 different combinations.
- 2 or 3 grooves available on top/bottom covers for adjusting front/rear panel positions or PCB insertion.
- Optional mounting plate, mounting bracket, panel retainer, and TORX screw are available.
- Custom length is available

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	Extruded aluminium A6063S-T5	Light gray • Black / Painted
2	Bottom cover	1	Extruded aluminium A6063S-T5	Light gray • Black / Painted
3	Panel	2	Aluminium A1100P t=1.5	Light gray • Black / Painted
4	Joint plate	2	Steel SPCC t=2.0	Trivalent chromate
5	Screw (M3 flat head)	12	Steel	Black trivalent chromate
6	Rubber feet	4	Synthetic rubber	Black

■ Panels are covered with a protective film on one side.

Accessories (Optional parts)

Mounting plate UCC series
See page 261

Mounting bracket UCK-P series
See page 262

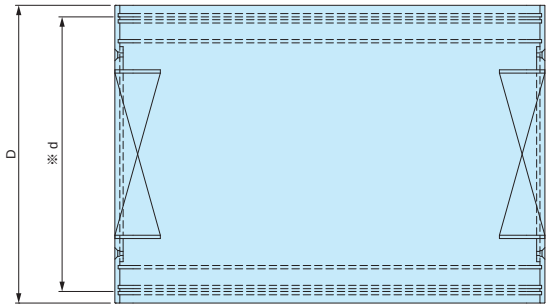
Panel retainer UCF-26
See page 262

TORX screw MR-1
See page 123

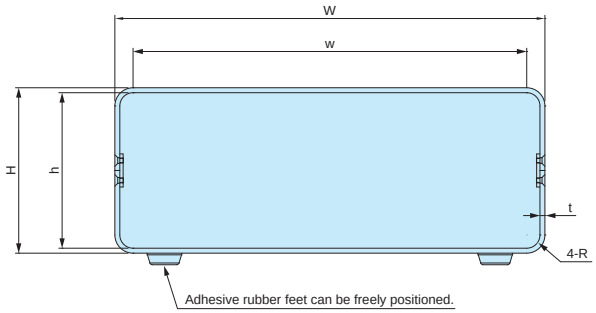
Aluminium isolation feet AFS • AFM series
See page 293 ~ 294

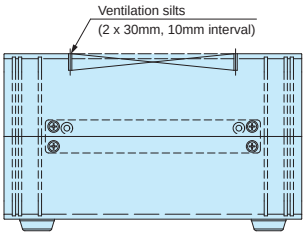
UC dimensions

■ DXF/DWG/PDF/STP drawings available on our website.



*d dimension varies depending on panel mount position. Dimensions listed are based on outermost mount position.





Color Type

● GG

Cover	Light gray
Panel	Light gray

● BB

Cover	Black
Panel	Black

Product no. / Dimensions

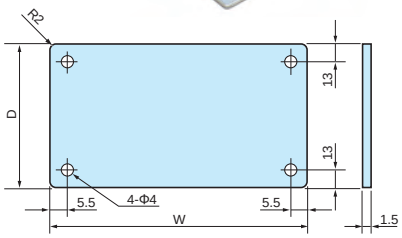
■ Please suffix color code at the end of the product number.
■ See below chart for ventilation slits availability.

Product no.	External dimensions			Internal dimensions			R	t	Ventilation slits	Weight (kg)
	W	H	D	w	h	d				
UC 6- 3- 8□	60	35	80	50	31	72	3	2	–	0.12
UC 7- 3-10□	75	30	100	65	26	92	3	2	–	0.16
UC 7- 8-14□	75	85	140	60	80	130	5	2.5	–	0.37
UC 8- 3- 6□	80	30	60	70	26	52	3	2	–	0.10
UC 9- 5-12□	90	50	120	75	45	112	5	2.5	–	0.29
UC10- 4-14□	100	40	140	85	35	130	5	2.5	–	0.32
UC10-11-18□	100	110	180	78	104	166	8	3	–	0.72
UC11- 3- 8□	110	30	80	100	26	72	3	2	–	0.17
UC11- 5- 8□	110	50	80	100	46	72	3	2	–	0.20
UC12- 7-16□	120	70	160	98	64	146	8	3	–	0.56
UC12-14-22□	120	140	220	98	134	206	8	3	○	1.08
UC13- 4-18□	130	40	180	108	34	166	8	3	–	0.56
UC14- 4-10□	140	40	100	130	36	92	3	2	–	0.27
UC14- 6-10□	140	60	100	130	56	92	3	2	–	0.31
UC15- 8-20□	150	80	200	128	74	186	8	3	○	0.86
UC15-10-12□	150	100	120	135	95	112	5	2.5	–	0.53
UC15-18-28□	150	180	280	128	174	266	8	3	○	1.74
UC16- 5-22□	165	50	220	143	44	206	8	3	○	0.84
UC17- 5-12□	170	50	120	155	45	112	5	2.5	–	0.45
UC17- 7-12□	170	70	120	155	65	112	5	2.5	–	0.51
UC18-10-24□	180	100	240	158	94	226	8	3	○	1.26
UC18-21-34□	180	210	340	157.6	203.6	326	8	3.2	○	2.63
UC20- 5-14□	200	50	140	185	45	130	5	2.5	–	0.56
UC20- 8-14□	200	80	140	185	75	130	5	2.5	–	0.67
UC20-12-16□	200	120	160	178	114	146	8	3	–	0.82
UC22-12-26□	220	120	260	198	114	246	8	3	○	1.70
UC24-14-34□	240	140	340	217.6	133.6	326	8	3.2	○	2.54
UC26- 5-18□	260	50	180	238	44	166	8	3	○	1.02
UC26- 7-20□	260	70	200	238	64	186	8	3	○	1.23
UC26-10-18□	260	100	180	238	94	166	8	3	○	1.26
UC32- 5-22□	320	50	220	298	44	206	8	3	○	1.45
UC32- 8-24□	320	80	240	298	74	226	8	3	○	1.76
UC32-12-22□	320	120	220	298	114	206	8	3	○	1.88
UC35-13-26□	350	130	260	328	124	246	8	3	○	2.45
UC43- 5-28□	430	50	280	408	44	266	8	3	○	2.37
UC43-14-28□	430	140	280	408	134	266	8	3	○	3.05

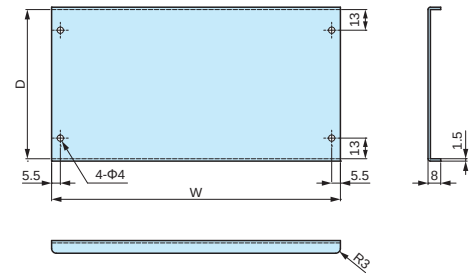
UCC series MOUNTING PLATE for UC

■ DXF/DWG/PDF drawings available on our website.

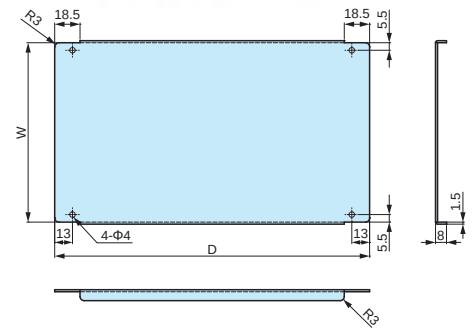
Type A



Type B



Type C



Components

Part name	Pcs	Material	Color / Finish
Mounting plate	1	Aluminium A1050P t=1.5	Unfinished
Screw	4	Steel M3-5	Trivalent chromate

Product no. / Dimensions (Type A)

Product no.	Suitable models	W	D
UCC 6- 8	UC 6- 3- 8	43	58
UCC 7-10	UC 7- 3-10	58	78
UCC 8- 6	UC 8- 3- 6	63	38
UCC11- 8	UC 11- 3- 8	93	58
	UC 11- 5- 8		
UCC 9-12	UC 9- 5-12	72	94
UCC10-14	UC 10- 4-14	82	94
UCC12-16	UC 12- 7-16	101	110
UCC13-18	UC 13- 4-18	111	130
UCC15-20	UC 15- 8-20	131	150
	UCG15- 9-20		
UCC14-10	UC 14- 4-10	123	78
	UC 14- 6-10		
UCC15-12	UC 15-10-12	132	94
UCC17-12	UC 17- 5-12	152	94
	UC 17- 7-12		
UCC 7-14	UC 7- 8-14	57	94
UCC10-18	UC 10-11-18	81	130
UCC12-22	UC 12-14-22	101	170

Product no. / Dimensions (Type B)

Product no.	Suitable models	W	D
UCC16-22	UC 16- 5-22	146	170
UCC18-24	UC 18-10-24	161	190
	UCG18-10-24		
UCC20-14	UC 20- 5-14	182	94
	UC 20- 8-14		
	UCG20- 9-14		
UCC22-26	UC 22-12-26	201	210
UCC20-16	UC 20-12-16	181	110
UCC26-18	UC 26- 5-18	241	130
	UC 26-10-18		
	UCG26-10-18		
UCC26-20	UC 26- 7-20	241	150
UCC32-22	UC 32- 5-22	301	170
	UC 32-12-22		
	UCG32-12-22		
UCC32-24	UC 32- 8-24	301	190
UCC35-26	UC 35-13-26	331	210
UCC43-28	UC 43- 5-28	411	230
	UC 43-14-28		

Product no. / Dimensions (Type C)

Product no.	Suitable models	W	D
UCC15-28	UC 15-18-28	131	230
UCC18-34	UC 18-21-34	160.6	290
UCC24-34	UC 24-14-34	220.6	290

UCK-P series MOUNTING BRACKET for UC

Components

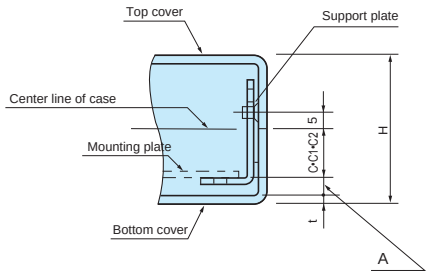
Product name	Material	Finish	Pack of
Mounting bracket	Steel SPCC t=1.6	Trivalent chromate	4

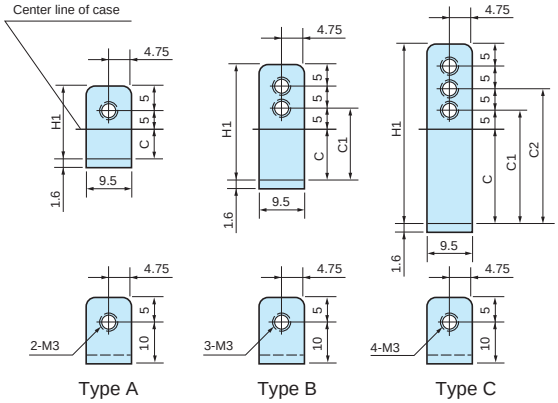
Product no. / Dimensions

Product no.	Type	H1	C	C1	C2	Pack of
UCK-P 13	A	13	3	—	—	4
UCK-P 17	A	17	7	—	—	4
UCK-P 27	B	27	12	17	—	4
UCK-P 42	C	42	22	27	32	4
UCK-P 57	C	57	37	42	47	4
UCK-P 72	C	72	52	57	62	4
UCK-P 87	C	87	67	72	77	4
UCK-P102	C	102	82	87	92	4

■ DXF/DWG/PDF drawings available on our website.

UCK-P assembly drawings





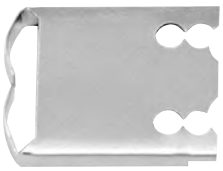
Bracket matching chart / A dimension

Product no.	Bracket no.	A
UC 6- 3- 8	UCK-P 13	12.5
	UCK-P 17	8.5
UC 7- 3-10	UCK-P 13	10
	UCK-P 17	6
UC 9- 5-12	UCK-P 17	15.5
	UCK-P 27	10.5 5.5
UC 10- 4-14	UCK-P 13	14.5
	UCK-P 17	10.5
	UCK-P 27	5.5
UC 12- 7-16	UCK-P 27	15
	UCK-P 42	10
UC 13- 4-18	UCK-P 13	14
	UCK-P 17	10
UC 15- 8-20	UCK-P 42	15 10 5
UC 16- 5-22	UCK-P 13	19
	UCK-P 17	15
	UCK-P 27	10
UC 24-14-34	UCK-P 57	19.8
	UCK-P 72	14.8 9.8
UC 8- 3- 6	UCK-P 13	10
	UCK-P 17	6
UC 11- 3- 8	UCK-P 13	10
	UCK-P 17	6
UC 11- 5- 8	UCK-P 17	16
	UCK-P 27	11 6

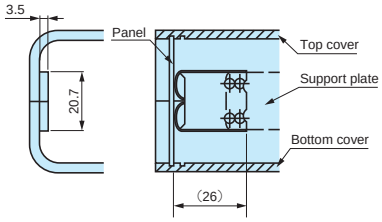
Product no.	Bracket no.	A
UC 14- 4-10	UCK-P 13	15
	UCK-P 17	11
	UCK-P 27	6
UC 14- 6-10	UCK-P 27	16 11
	UCK-P 42	6
UC 15- 9-20	UCK-P 42	10
	UCK-P 57	
UC 15-10-12	UCK-P 42	20.5 15.5
	UCK-P 57	10.5 5.5
UC 17- 5-12	UCK-P 17	15.5
	UCK-P 27	10.5 5.5
UC 17- 7-12	UCK-P 27	15.5
	UCK-P 42	10.5 5.5
UC 20- 5-14	UCK-P 13	19.5
	UCK-P 17	15.5
	UCK-P 27	10.5 5.5
UC 20- 8-14	UCK-P 27	20.5
	UCK-P 42	15.5 10.5
UCG 20- 9-14	UCK-P 42	5
	UCK-P 57	
UC 20-12-16	UCK-P 57	20 15 10
UC 26- 5-18	UCK-P 13	19
	UCK-P 17	15
	UCK-P 27	10

Product no.	Bracket no.	A
UC 26-10-18	UCK-P 42	20 15
UCG 26-10-18	UCK-P 57	10
UCG 26- 7-20	UCK-P 27	15
	UCK-P 42	10
UC 18-10-24	UCK-P 42	20 15
UCG 18-10-24	UCK-P 57	10
UC 22-12-26	UCK-P 57	20 15 10
UC 32- 5-22	UCK-P 13	19
	UCK-P 17	15
	UCK-P 27	10
UC 32-12-22 UCG 32-12-22	UCK-P 57	20 15 10
UC 32- 8-24	UCK-P 42	15 10 5
UC 35-13-26	UCK-P 57	25 20 15
	UCK-P 72	10 5
UC 43- 5-28	UCK-P 13	19
	UCK-P 17	15
	UCK-P 27	10
UC 43-14-28	UCK-P 57	20
	UCK-P 72	15 10
UC 7- 8-14	UCK-P 42	18 13 8
UC 10-11-18	UCK-P 57	15 10 5
UC 12-14-22	UCK-P 72	15 10 5
UC 15-18-28	UCK-P 87	20 15 10
UC 18-21-34	UCK-P102	19.8 14.8 9.8

UCF-26 PANEL RETAINER for UC



UCF-26 drawings



■ DXF/DWG/PDF drawings available on our website.

Product no.

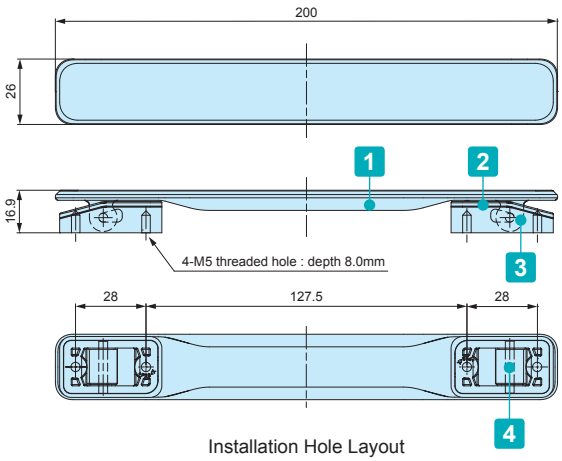
Product no.	Material	Finish	Pack of
UCF-26	Stainless steel t=0.3	Unfinished	2

■ Not applicable for use on 60, 80, 100 and 120 "D" dimension cases.

FM200 SERIES ELASTOMER CARRYING HANDLE

NEW

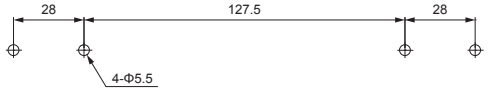
■ DXF/DWG/PDF drawings available on our website.



■ Comfortable and easy to grip elastomer handle.

Technical Data
Max load : 20kg

Installation Hole Layout



Components

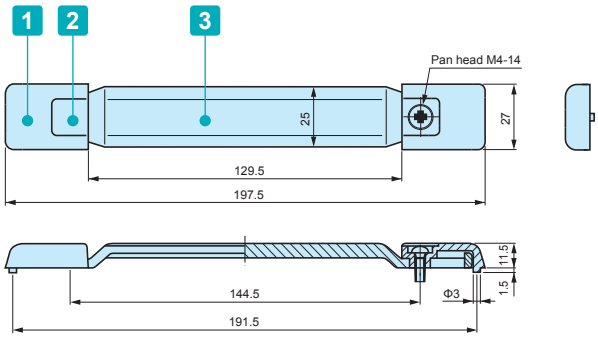
No.	Part name	Pcs	Material	Color / Finish
1	Grip	1	PU	Black • Gray
2	Base	2	PA6	Black • Gray
3	Base cover	2	ABS	Black • Gray
4	Shaft	2	SWCH	Nickel plated
—	Screw (Pan head tapping M5-8)	4	Steel	Trivalent chromate

Product no.

Product no.	
● Black	● Gray
NEW FM200B	NEW FM200G

MH SERIES CARRYING HANDLE

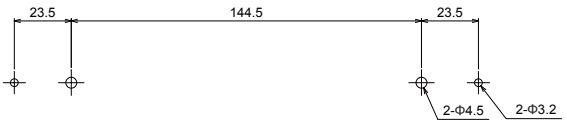
■ DXF/DWG/PDF drawings available on our website.



Components

No.	Part name	Pcs	Material	Color / Finish
1	Holder	2	PC + ABS	Black • Gray
2	Blind cap	2	PP + Elastomer	Black • Gray
3	Grip	1	PP + Elastomer	Black • Gray
—	Screw (Pan head M4-14)	2	Steel	Trivalent chromate
—	Nut	2	Steel	Trivalent chromate
—	Spring washer	2	Steel	Trivalent chromate

Installation Hole Layout



Product no.

Product no.	
● Black	● Gray
MH-197B	MH-197G

Technical Data
Max load : 20kg

SRDSL SERIES ALUMINIUM DESKTOP CHASSIS

- Designed with an elegant and stylish hairline brushed top cover.
- Champagne gold and silver top covers available.
- Recommended for audio amplifier use.

APPLICATION EXAMPLE

VACUUM TUBE POWER AMPLIFIER

Product by MJ Musen to Jikken (Japan)

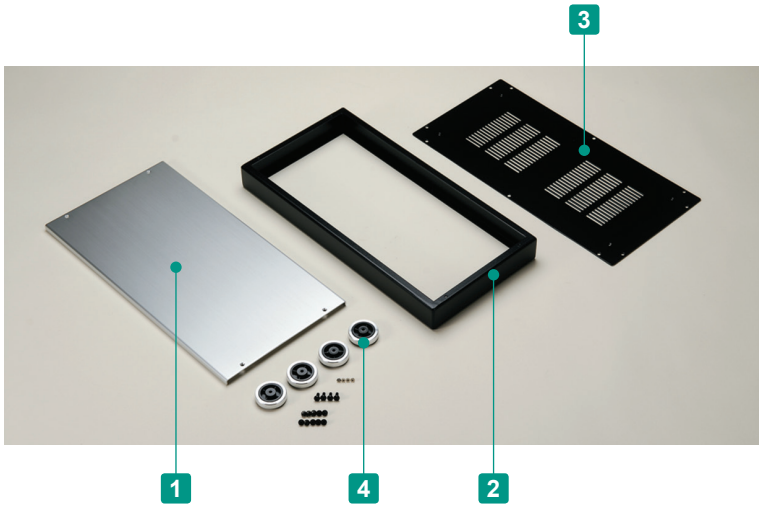
DIGITAL MULTI-CHANNEL ANALYZER

Product by Project Integration LLC (Armenia)

Accessories (Optional parts)

Aluminium isolation feet AFS • AFM series

See page AFS • AFM-1 ~ AFS • AFM-2



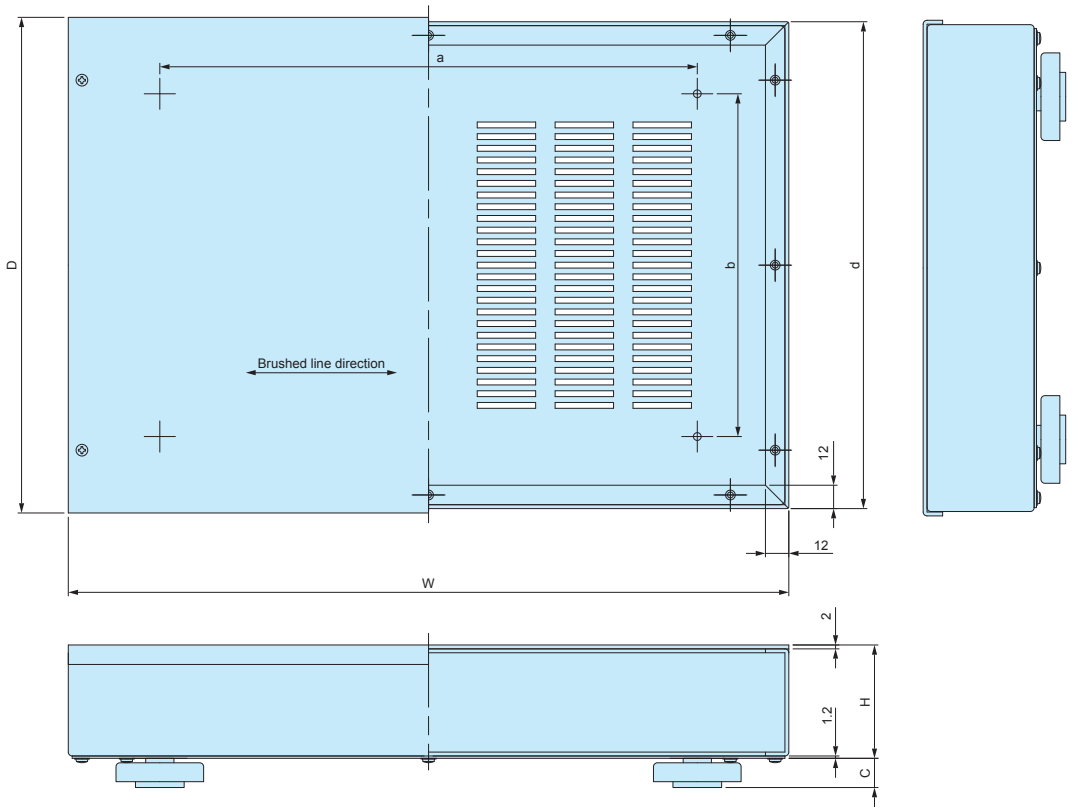
Included screws
M3-5 countersunk • Nickel plated x 4 pcs
M3-5 Binding head with washer • Black trivalent chromate x 14 pcs
M4-10 Binding head • Black trivalent chromate x 4 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	Aluminium A1050P t=2.0	Champagne gold • Silver / Hairline brushed & Anodized
2	Body frame	1	Aluminium A1050P t=2.0	Black / Painted (leather tone)
3	Bottom cover	1	Steel SECC t=1.2	Black / Painted
4	Feet	4	ABS UL94HB : Aluminium	Black : Gold • Black : Silver

SRDSL dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.



Product no. / Dimensions

Product no.		W	H	D	a	b	c	d	Weight (kg)
Champagne gold	Silver								
SRDSL- 7HG	~~SRDSL- 7HS~~	400	43.2	164.5	336	96	12	160	1.29
SRDSL- 8HG	SRDSL- 8HS	350	58.2	224.5	246	142	12	220	1.56
SRDSL- 9HG	SRDSL- 9HS	400	43.2	204.5	336	136	12	200	1.53
SRDSL-10HG	SRDSL-10HS	370	58.2	254.5	276	176	15	250	1.77
SRDSL-15HG	~~SRDSL-15HS~~	460	63.2	224.5	396	156	15	220	1.91
SRDSL-20HG	SRDSL-20HS	450	68.2	305	336	208	15	300	2.49

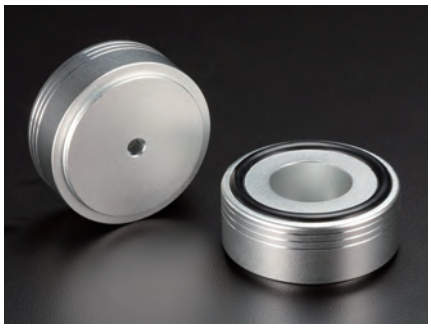
※Cross out products are discontinued.

AFS•AFM series ALUMINIUM ISOLATION FEET

- The surface treatment and finish allows the feet to exhibit a polished and luxurious feel.
- Non-slip NBR O-ring is present on the underside of the feet.
- Suitable for use in audio devices.

Available in both internal and external screw installation type.

External type / Shot blast finish (AFS series)



The external type is secured via screws from the underside / base of the feet to the enclosure.
A thread hole is required for direct securing, while a circular hole is required for lock nut securing.

The shot blast finish provides a high quality surface finish look, and pairing well with various types of enclosure surfaces.

Available in both silver and black.

Internal type / Reflective finish (AFM series)

The internal type is secured via screws from the inside of the enclosure. A circular hole is required for securing into the pre-made threads in the top-side of the feet.

The reflective surface finish adds a high quality touch to the unit, allow it to have a luxurious look.

Available only in Silver.

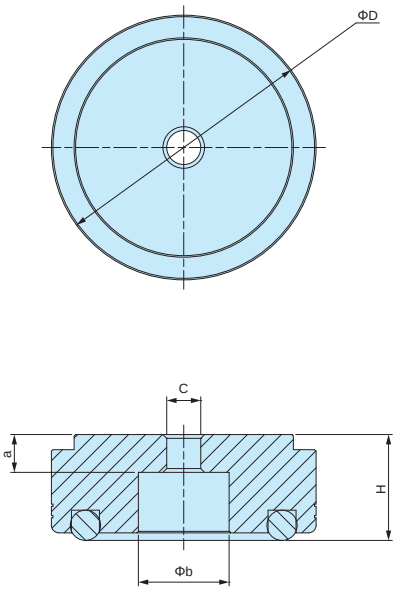
Product no. / Dimensions

Product no.		D	H	Installation type	C	a	b	Pack of
Silver	Black							
AFS20- 8S	AFS20- 8B	20	8	External	Φ3.4	3	9	4
AFS25-10S	AFS25-10B	25	10	External	Φ4.5	4	12	4
AFS30-12S	AFS30-12B	30	12	External	Φ4.5	5	12	4
AFS35-14S	AFS35-14B	35	14	External	Φ4.5	5	12	4
AFS39-16S	AFS39-16B	39	16	External	Φ4.5	5	15	4
AFS44-18S	AFS44-18B	44	18	External	Φ4.5	5	20	4
AFS55-20S	AFS55-20B	55	20	External	Φ5.5	5	20	4
AFM15- 7S	–	15	7	Internal	M3	4	–	4
AFM20- 9S	–	20	9	Internal	M3	5	–	4
AFM25-12S	–	25	12	Internal	M4	7	–	4
AFM30-14S	–	30	14	Internal	M4	8	–	4
AFM35-16S	–	35	16	Internal	M4	10	–	4
AFM39-18S	–	39	18	Internal	M4	10	–	4
AFM44-20S	–	44	20	Internal	M4	10	–	4
AFM55-22S	–	55	22	Internal	M5	15	–	4

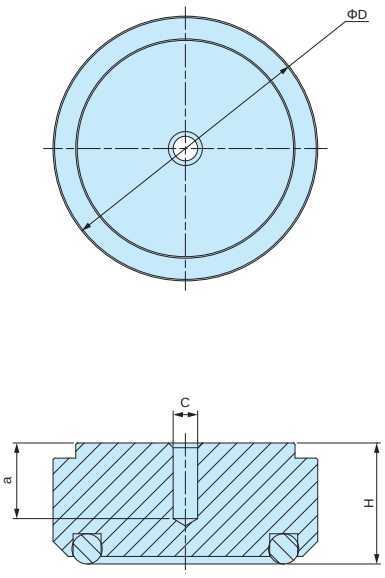
AFS • AFM dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

AFS SERIES



AFM SERIES



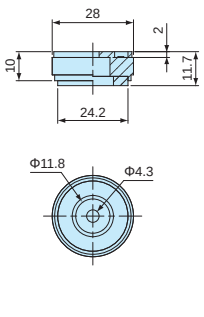
APPLICATION EXAMPLE

RS series PLATED PLASTIC FEET

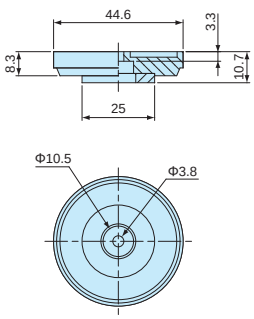
- Suitable for audio equipment use.
- Elastomeric foam pad can be found at the underside of the feet.

RS dimensions

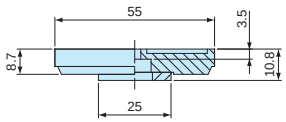
RS-28

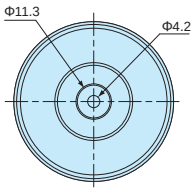


RS-45

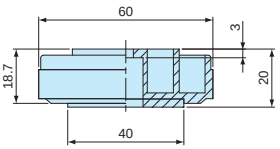


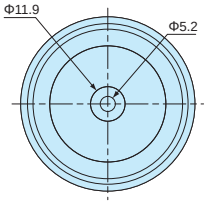
RS-55





RS-60





- DXF/DWG/PDF drawings available on our website.

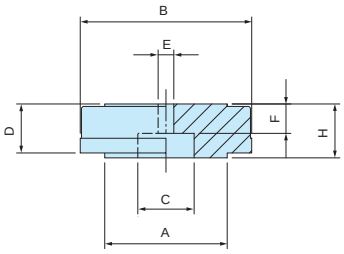
Product no. / Dimensions

Product no.		Material	Pack of
Silver	Gold		
RS-28S	RS-28G	ABS UL94HB / Polyester / EVA	4
RS-45S	RS-45G	ABS UL94HB / Polyester / EVA	4
RS-55S	RS-55G	ABS UL94HB / Polyester / EVA	4
RS-60S	RS-60G	ABS UL94HB / Polyester / EVA	4

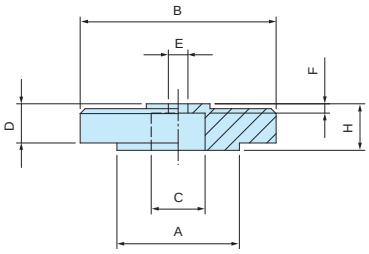
TC series ALUMINIUM FEET

- Aluminium material gives it a refined and elegant look.
- Suitable for audio equipment use.
- Elastomeric foam pad can be found on the underside of the feet.

TC dimensions



TC–1



TC–2 • TC-3

- DXF/DWG/PDF drawings available on our website.

Product no. / Dimensions

Product no.		A	B	C	D	E	F	H	Material	Pack of
Silver	Gold									
TC-1S	TC-1G	25	35	11.5	9.7	3.4	5.6	11.5	ABS UL94HB / Aluminium / EVA	4
TC-2S	TC-2G	25	40	11	10.4	4.1	2.4	12.5	ABS UL94HB / Aluminium / EVA	4
TC-3S	TC-3G	25	45	11.7	13	4.2	7.5	15	ABS UL94HB / Aluminium / EVA	4

TB series ADHESIVE RUBBER FEET

■ Adhesive is present on the underside.

Product no. / Dimensions

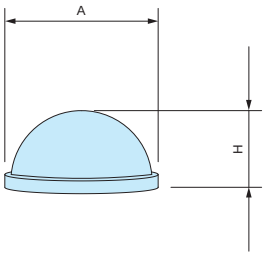
■ Material : Rubber

Product no.			A	H	Pack of
● Black*	● White gray	● White			
TB- 7	–	–	6.7	4.2	10
TB- 8	–	TB- 8W	8	2.6	10
TB-10	–	–	10	2.8	10
TB-12	–	TB-12W	11.3	5.6	10
TB-14	–	–	14	8	10
TB-16	–	TB-16W	15.9	8	10
TB-21	–	–	21.6	8.5	10
TB-27	TB-27G	–	27.8	7.4	10

* No color code denotation required

TB dimensions

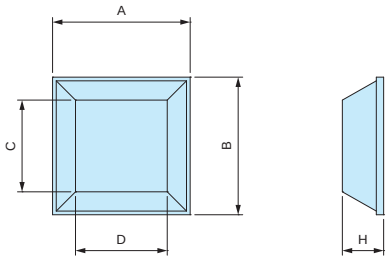
■ DXF/DWG/PDF drawings available on our website.

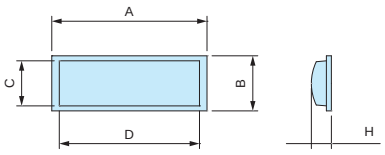


SJ-P series POLYURETHANE RUBBER FEET

■ Adhesive is present on the underside.

SJ-P dimensions





SJ-P1011

Product no. / Dimensions

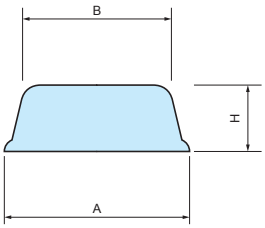
■ Material / Color : Polyurethane / Black

Product no.	A	B	H	C	D	Pack of
SJ-P5007	10.4	10.4	2.5	7.5	7.5	10
SJ-P5008	12.7	12.7	3	9.5	9.5	10
SJ-P5018	12.7	12.7	5.8	7	7	10
SJ-P1004	15	15	4.5	10	10	10
SJ-P5023	20.6	20.6	7.6	12.7	12.7	10
SJ-P1011	15.5	5.5	2	4.5	14.5	10

■ DXF/DWG/PDF drawings available on our website.

B SERIES ADHESIVE RUBBER FEET

■ DXF/DWG/PDF drawings available on our website.



■ Injection molded type.

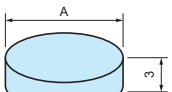
Product no. / Dimensions

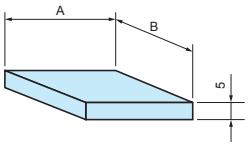
■ Material : Synthetic rubber

Product no.	A	B	H	Color	Pack of
B 6-2	6	5	1.8	Black	10
B 8-4	8	7.7	3.5	Black	10
B10-4	10	9.2	4.2	Black	10
B11-3	10.8	10.2	3	Black	10
B11-5	11	9.6	5	Black	10
B12-4	12.7	10	3.8	Black	10
B15-5	15.4	14.8	5.1	Black	10
B16-7	16	13	7	Black	10
B19-4	19	15.8	4.2	Black	10
B21-7	21	17	7	Black	10
B23-5	22.8	22.4	5	Black	10
B26-11	26	20	11	Black	10
B 6-2G	6	5	1.8	Gray	10
B11-3G	10.8	10.2	3	Gray	10
B15-5G	15.4	14.8	5.1	Gray	10
B21-7G	21	17	7	Gray	10
B26-11G	26	20	11	Gray	10

B-P SERIES ADHESIVE RUBBER FEET

■ DXF/DWG/PDF drawings available on our website.





■ Press-punched type.

Product no. / Dimensions

■ Material / Color : Synthetic rubber / Black

Product no.	A	Pack of
B-P21	10	10
B-P22	20	10
B-P23	15	10

Product no. / Dimensions

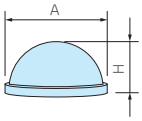
■ Material / Color : Synthetic rubber / Black

Product no.	A	B	Pack of
B-P31	28	16	10
B-P32	46	26	10

TB SERIES ROUNDED ADHESIVE RUBBER FEET

NEW COLOR

■ DXF/DWG/PDF drawings available on our website.



Product no. / Dimensions

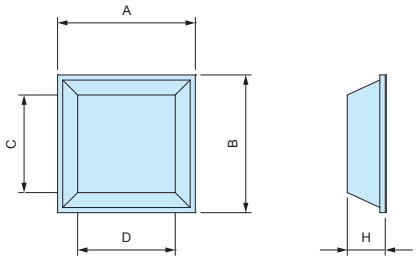
■ Material : Synthetic rubber

Product no.		A	H	Pack of
● Black	● White (W) ● White gray (G)			
TB- 7	–	6.7	4.2	10
TB- 8	NEW TB- 8W	8	2.6	10
TB-10	–	10	2.8	10
TB-12	NEW TB-12W	11.3	5.6	10
TB-14	–	14	8	10
TB-16	NEW TB-16W	15.9	8	10
TB-21	–	21.6	8.5	10
TB-27	TB-27G	27.8	7.4	10

SF SERIES SQUARE ADHESIVE RUBBER FEET - LOW COST TYPE

■ DXF/DWG/PDF drawings available on our website.

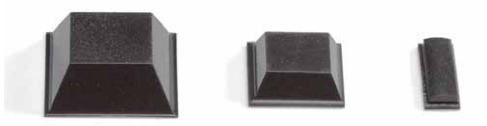
■ Square-shaped adhesive rubber feet.



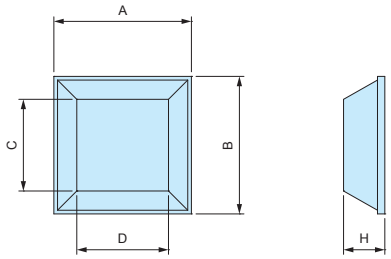
Product no. / Dimensions ■ Material / Color : Synthetic rubber / Black

Product no.	A	B	H	C	D	Pack of
SF11-3	10.5	10.5	2.5	8.6	8.6	10
SF13-4	12.7	12.7	3.5	9	9	10
SF13-6	12.7	12.7	6	7	7	10
SF20-8	20	20	7.6	14	14	10

SJ-P SERIES SQUARE ADHESIVE POLYRETHANE FEET

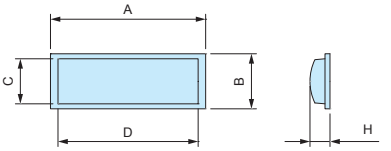


■ Strong adhesive strength with the use of rubber pressure sensitive adhesive.
■ Polyurethane material is resistant against color migration.



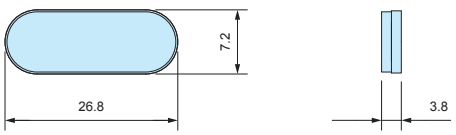
Product no. / Dimensions ■ Material / Color : Polyurethane / Black

Product no.	A	B	H	C	D	Pack of
SJ-P5007	10.4	10.4	2.5	7.5	7.5	10
SJ-P5008	12.7	12.7	3	9.5	9.5	10
SJ-P5018	12.7	12.7	5.8	7	7	10
SJ-P1004	15	15	4.5	10	10	10
SJ-P5023	20.6	20.6	7.6	12.7	12.7	10
SJ-P1011	15.5	5.5	2	4.5	14.5	10



SJ-P1011

TN-27 OVAL ADHESIVE RUBBER FEET



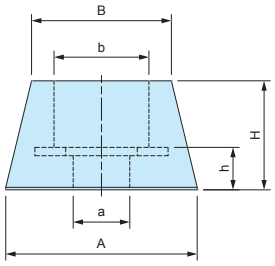
Product no. / Feature ■ Material / Color : Synthetic rubber / Black

Product no.	Pack of
TN-27	10

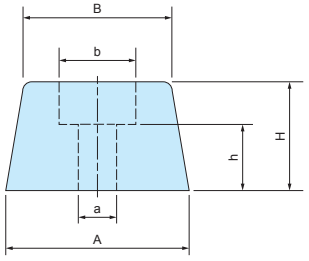
B-P SERIES SCREW MOUNT RUBBER FEET

■ DXF/DWG/PDF drawings available on our website.

■ Built-in washer and non-washer types are available.
■ Installation screws are separately sold.



B-P1S, P1M, P1L, P2S, P4, P5



B-P1, P2, P3

Product no. / Dimensions

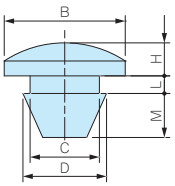
■ Color : Black

Product no.	A	B	H	a	b	h	Washer	Material	Pack of
B-P1S	11.5	8.4	7.2	3.4	5.7	3.2	○	Synthetic rubber	10
B-P1M	15	15	4	3.5	7.4	2.2	○	Synthetic rubber	10
B-P1	15	13	7.7	3	6	4.2	×	Synthetic rubber	10
B-P1L	16	13	7.8	3	6	3.7	○	Synthetic rubber	10
B-P2S	18	15	11	3	6	5	○	Synthetic rubber	10
B-P2	19	15	8	3	6	4.5	×	Synthetic rubber	10
B-P3	22	18	13	3	7.5	7	×	Synthetic rubber	10
B-P4	32	26	20	5	15	10	○	EPDM	10
B-P5	32	28	15	5	14	10	○	EPDM	10

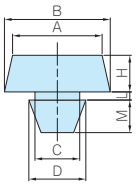
B-P SERIES SNAP-IN RUBBER FEET

■ DXF/DWG/PDF drawings available on our website.

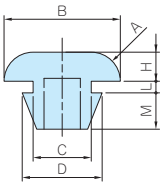
■ Hole milling required for installation.



B-P10



B-P10S, P11, P12



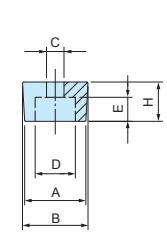
B-P13, P14, P15

Product no. / Dimensions

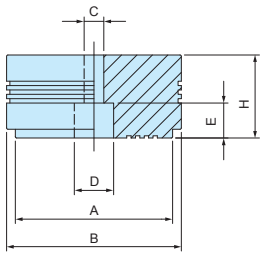
Product no.	A	B	H	C	D	L	M	Material	Color	Pack of
B-P10S	8	8	2	5	5.6	0.9	3	Silicone UL94V-0	Black	10
B-P10	—	11	3	6.3	7.6	1.6	4	Silicone UL94V-0	Black	10
B-P11	11	13	4.5	5.5	7	1	4	Synthetic rubber	Black	10
B-P12	15	17	4.5	5.5	7	1	4	Synthetic rubber	Black	10
B-P13	R3	12	3	5	7	1.6	4	EPDM	Black	10
B-P14	R4	14	4	6	9	1.6	5	EPDM	Black	10
B-P15	R4	16	4	8	11	1.6	5	EPDM	Black	10

A-P SERIES SCREW MOUNT ELASTOMER FEET

■ DXF/DWG/PDF drawings available on our website.



A–P1 ~ A–P5



A–P6

- Prepare screws for installation.
- Resistant against color migration.

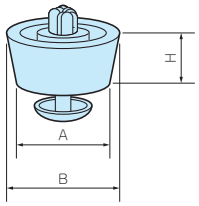
Product no. / Dimensions

■ Material / Color : Elastomer / Black

Product no.	A	B	H	C	D	E	Pack of
A-P1	9.4	10.8	4	3.3	6.8	2	10
A-P2	13.4	14.2	5.5	3	8	3.5	10
A-P3	14	15	9	4	9.5	6	10
A-P4	20	21	8	4	8.2	5	10
A-P5	20	24	14	5.5	8.6	8	10
A-P6	36	40	19	4.5	9	7.5	10

TP SERIES SNAP-IN ELASTOMER FEET

■ DXF/DWG/PDF drawings available on our website.



- Easy installation with snap-in pin.
- Require a hole for installation.
- Resistant against color migration.

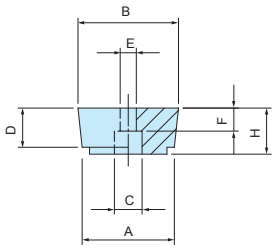
Product no. / Dimensions

■ Material / Color : (Feet) LDPE • (PIN) PP / Black

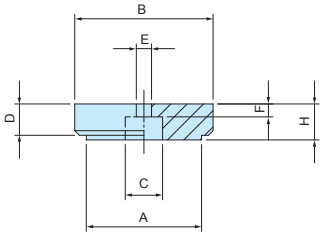
Product no.	A	B	H	Mounting hole	Panel thickness	Pack of
TP-1	12	12.7	4.4	5	1.0 ~ 2.0	10
TP-2	15	15.7	4.4	5	1.0 ~ 2.0	10
TP-3	17.2	19.2	7.9	8	0.8 ~ 1.2	10
TP-4	18	20	10	8	1.0 ~ 2.5	10
TP-5	19.8	20.8	6.4	8	1.0 ~ 2.5	10
TP-6	19.5	23.7	13.7	8	1.0 ~ 2.5	10
TP-7	26.5	29.4	15	10	1.0 ~ 3.5	10

TM SERIES PLASTIC FEET

■ DXF/DWG/PDF drawings available on our website.



TM-1, TM-2



TM-1S, TM-3

- Plastic feet equipped with soft padding on the bottom to prevent sliding.

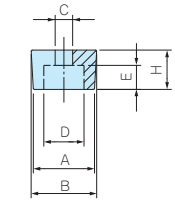
Product no. / Dimensions

Product no.	A	B	H	C	D	E	F	Feet material	Pad material	Color	Pack of
TM-1S	15.9	19.5	6.3	7	5.8	4	2.3	ABS UL94HB	Silicone	Black	10
TM-1	20	21.8	10	7.2	8.5	3.5	4.5	ABS UL94HB	EVA	Black	10
TM-2	20	21.8	15	7.2	13.5	3.5	4.5	ABS UL94HB	EVA	Black	10
TM-3	25	30	7.8	8.1	6.8	3.3	2.7	ABS UL94HB	EVA	Black	10

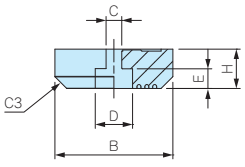
A series SCREW MOUNT ELASTOMER FEET

A dimensions

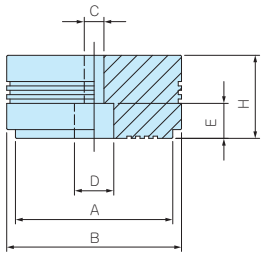
■ DXF/DWG/PDF drawings available on our website.



A11–4～A24–14



A30–10



A40–19

■ Prepare screws for installation.
■ Resistant against color migration.

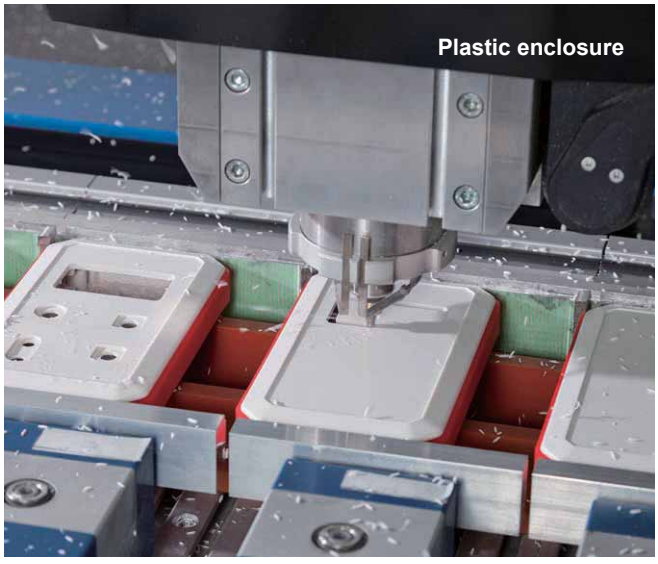
■ Material / Color : Elastomer / Black

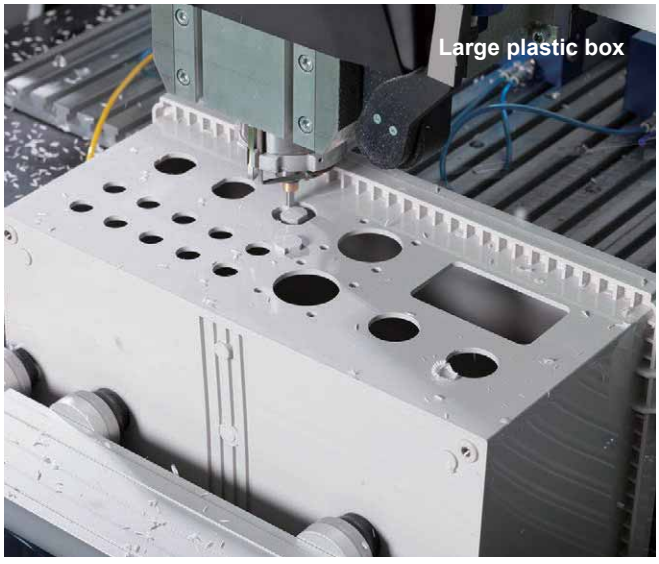
Product no.	A	B	H	C	D	E	Pack of	Old product no.	Difference
A11- 4	9.4	10.8	4	3.3	6.8	2	10	A-P1	Product number change only.
A14- 6	13.4	14.2	5.5	3	8	3.5	10	A-P2	Product number change only.
A15- 9	14	15	9	4	9.5	6	10	A-P3	Product number change only.
A21- 8	20	21	8	4	8.2	5	10	A-P4	Product number change only.
A24-14	20	24	14	5.5	8.6	8	10	A-P5	Product number change only.
NEW A30-10	—	30	10	4	9.5	5	10	—	—
A40-19	36	40	19	4.5	9	8	10	A-P6	Product number change only.

CNC MACHINING

CNC milling is a form of computer controlled machining. Similar in operation to drilling and cutting, it is able to create various hole styles and shapes by using a rotating cutting tool to bore into the object.

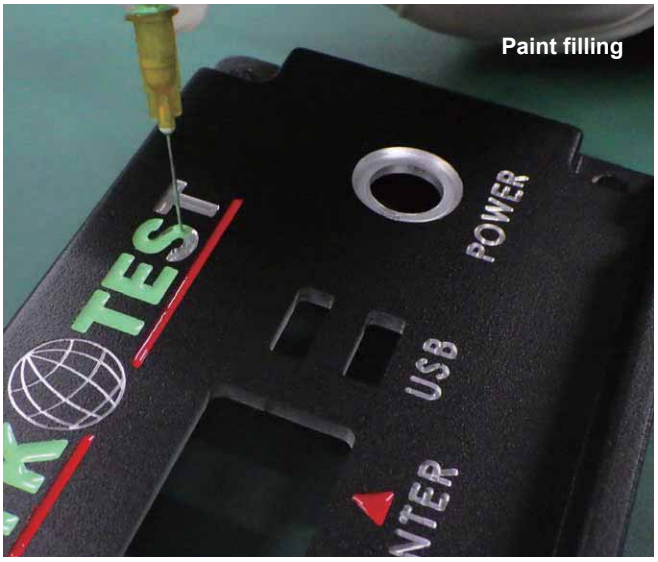
- Mainly used for plastic, aluminium die-cast, and aluminium extrusion material types.
- Able to perform milling for various shapes and sizes.
- Recommended for small quantity customization.





ENGRAVING

By having the drill-head slightly milling the surface, the engraving of fine text or complex designs is able to be performed on a variety of surfaces, be it flat, curved, and so on.
Suitable for small batch print, and/or simple lettering. Font shall be similar to VAG Rounded font type.

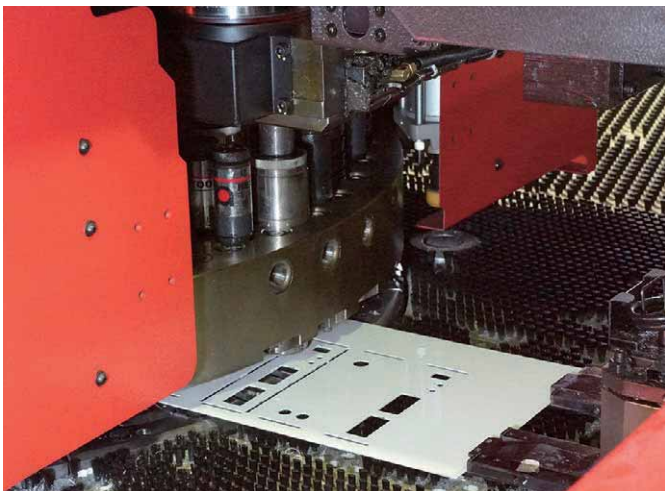


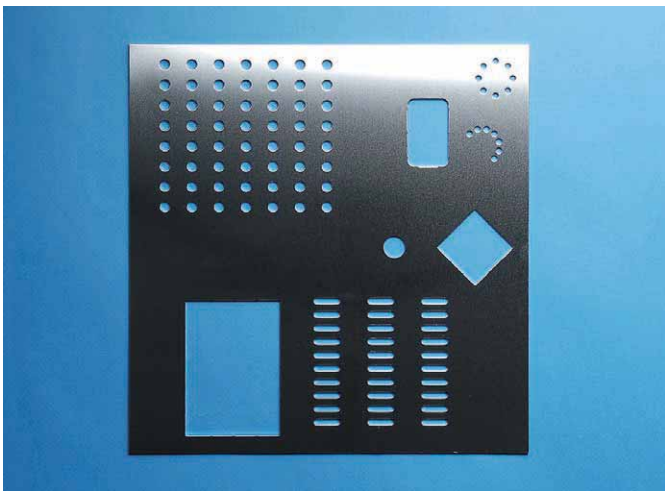
LASER CUTTING

Laser cutting utilizes a laser to perform cutting on an object, allowing various types and shapes of holes to be cut.
New fiber laser machine allows the processing of aluminium sheets with both high precision and speed. Processing of Pure Aluminium 1050 is also possible with minimal burr as compared to conventional CO^2 laser machines, which causes excessive burring.

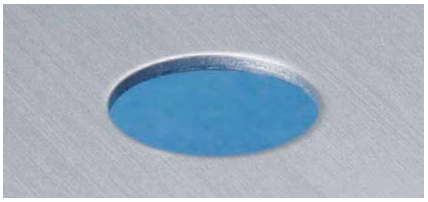
PUNCHING PRESS

What is punching press? It is a type of machine press used to cut holes in material via the use of various sized die sets.
Punching press allows the realization of high cost performance due to its high speed automated turret punching process, which significantly reduces machining lead-time.
Due to its ability to create designated sized holes by means of rapid multiple hole punches, this enables it to punch holes of various sizes and types quickly and efficiently.



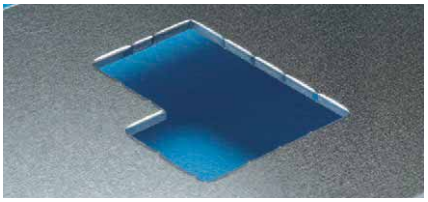


Circular hole



Circular holes as small as 1.0mm in diameter can be punched .

Nibbling press (rectangle)

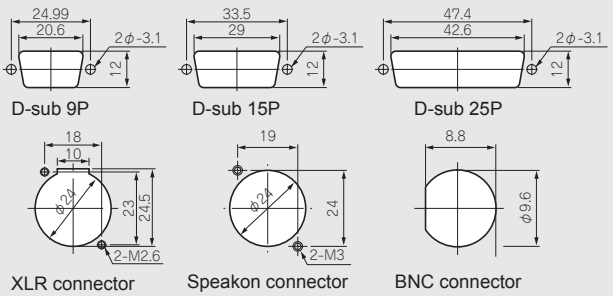


Complex or large rectangular shapes can be punched out with multiple presses.

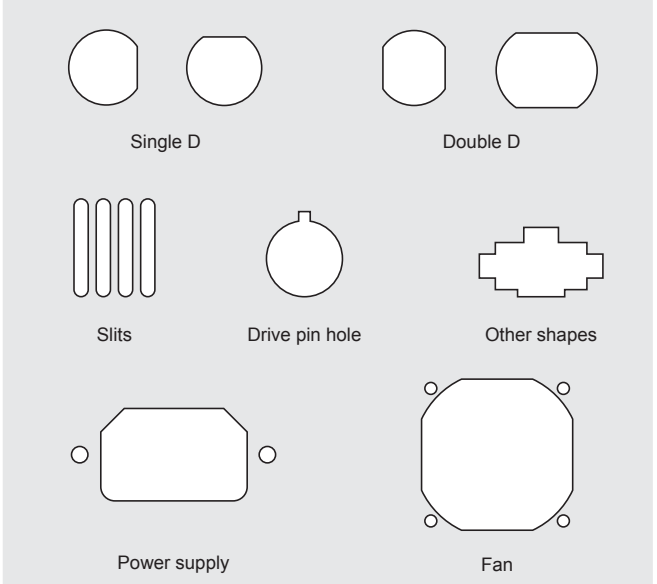
Nibbling press (round)

Punching of large circular holes with multiple smaller die strokes.

Common connector shapes

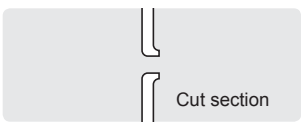


Unique shapes



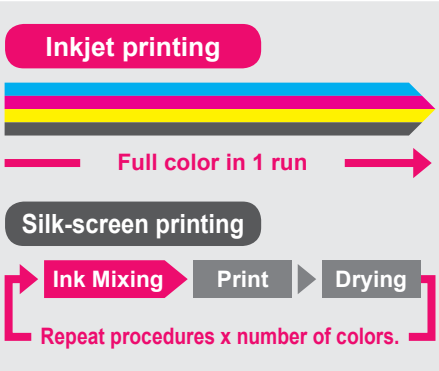
Burring punch

Increasing surface area on a thin metallic sheet for screw threads to bore into.



INKJET PRINTING

Full color digitally designed image can be printed in 1 run.
No cost difference regardless of the number of colors used.



Low printing cost

Full color print possible in small quantities

Inkjet printing 1 run only for full color print

Printing cost Full color

Silk-screen printing Printing cost x number of colors

Printing cost Color 1	Printing cost Color 2	Printing cost Color 3	Printing cost Color 4

High quality printing of photo image and color gradation.

Print photo images in maximum 1,800 x 1,800 dpi quality.
Pictures, logos and unique designs with color gradation can be recreated in a high quality print.

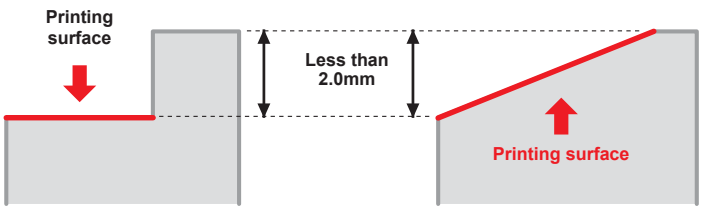
Maximum printable enclosure size

D 420mm × W 594mm × H 270mm

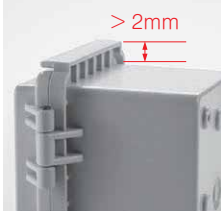
Printable on surfaces with height differential

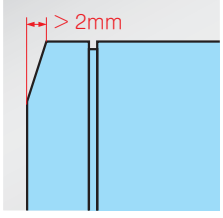
Printing is possible on recessed, sloped and rounded sections.

Gap difference is less than 2.0mm.



***Not suitable if height difference is more than 2.0mm.**





Printed example