OHM ELECTRIC

Enclosure cooler

COOL CABI

DIGEST CATALOG

http://www.ohm.jp/

Agent/Distributor

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⚠ Please read the instruction manual thoroughly before use.

- The actual color of the product may differ slightly from the pictures shown.
- The contents of this catalog are subject to change for product improvement without notice.
- The contents of this catalog are as of January 2015.

OHM ELECTRIC CO., LTD.
http://www.ohm.jp/

Cope with changing environments

COOLCABI Evolution

To respond to ever-changing production conditions and growing environmental concerns, enhanced performance is also required for enclosure coolers. OHM Electric has launched new performance-added COOLCABI to satisfy variety of needs.
You will be impressed by our renewed COOLCABI with higher performance!

COOLCABI

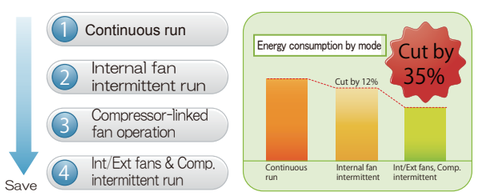
NEW APPLICATION Four features of New COOLCABI

1 Reduces power usage up to 35% per year

(compared to our former model)

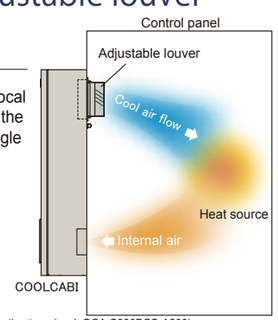
eco
Energy saving mode

Not only the conventional continuous running, 3 energy saving modes have newly added for minimizing energy consumption.



2 Directly cool the heat source! - Adjustable louver

Effective for preventing local temperature elevation in the enclosure. Adjustable angle enables ideal cooling.



* Included as standard for lateral mounting type (excl. OCA-S300BCS-A200). Available as option for other models.

Model	TR-CC300-100V	TR-CC600-100V	TR-CC1000-100V	TR-CC1600-100V
Primary side (50/60Hz)	100V			
Secondary side (50/60Hz)	200V			
Capacity	500VA	750VA	1kVA	1.5kVA
Weight	6.7kg	8.0kg	9.5kg	13.0kg
Insulation class *	A			
Terminal screw	M3			M4
COOL CABI models to use with	OCA-S300BC-A200-R OCA-S300BCS-A200 OCA-S300AC-A200 OCA-S350BCD-A200	OCA-S600BC-A200-R OCA-S700AC-A200 OCA-S700BCD-A200	OCA-S1000BC-A200-R OCA-S1100AC-A200 OCA-S1300BCD-A200	OCA-S1600BC-A200-R OCA-S1700AC-A200

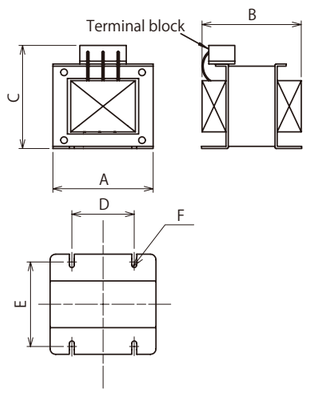
Model	TR-CC300-115V	TR-CC600-115V	TR-CC1000-115V	TR-CC1600-115V
Primary side (50/60Hz)	115V			
Secondary side (50/60Hz)	200V			
Capacity	500VA	750VA	1kVA	1.5kVA
Weight	6.7kg	6.5kg	9.5kg	12.0kg
Insulation class *	A			
Terminal screw	M3			M4
COOL CABI models to use with	OCA-S300BC-A200(-R) OCA-S300BCS-A200 OCA-S300AC-A200 OCA-S350BCD-A200	OCA-S600BC-A200(-R) OCA-S700AC-A200 OCA-S700BCD-A200	OCA-S1000BC-A200(-R) OCA-S1100AC-A200 OCA-S1300BCD-A200	OCA-S1600BC-A200(-R) OCA-S1700AC-A200

Model and specifications of Three-phase power transformer (autotransformer)

Model	TR-CC2200-220V	TR-CC2900-220V	TR-CC2200-230V	TR-CC2900-230V
Primary side (50/60Hz)	220V		230V	
Secondary side (50/60Hz)	200V		200V	
Capacity	2.5KVA	3KVA	2.5KVA	3KVA
Weight	8.0 kg		10.0kg	
Insulation class *	A			
Terminal screw	M4			
COOL CABI models to use with	OCA-S2200BC-A200 (-R) OCA-S2300AC-A200 OCA-S2300BCD-A200	OCA-S2900BC-A200 (-R) OCA-S3000AC-A200	OCA-S2200BC-A200(-R) OCA-S2300AC-A200 OCA-S2300BCD-A200	OCA-S2900BC-A200 (-R) OCA-S3000AC-A200

* According to JIS C 5310

Outline drawing



Model	A	B	C	D	E	F
TR-CC300-220V	86	105	110	60	60	φ4.5 slot
TR-CC600-220V	86	120	110	60	75	φ4.5 slot
TR-CC1000-220V	97	115	120	70	70	φ4.5 slot
TR-CC1600-220V	106	125	126	80	80	φ4.5 slot
TR-CC300-230V	86	120	110	60	75	φ4.5 slot
TR-CC600-230V	97	115	120	70	70	φ4.5 slot
TR-CC1000-230V	106	125	126	80	80	φ4.5 slot
TR-CC1600-230V	115	130	135	85	85	φ6.5 slot
TR-CC300-100V	115	145	135	85	100	φ6.5 slot
TR-CC600-100V	133	150	150	95	100	φ6.5 slot
TR-CC1000-100V	152	150	170	100	105	φ8.0 slot
TR-CC1600-100V	152	180	170	100	130	φ8.0 slot
TR-CC300-115V	115	145	135	85	100	φ6.5 slot
TR-CC600-115V	133	130	150	95	85	φ6.5 slot
TR-CC1000-115V	152	150	170	100	105	φ8.0 slot
TR-CC1600-115V	152	165	170	100	120	φ8.0 slot
TR-CC2200-220V	210	120	190	120	65	φ7.0 slot
TR-CC2900-220V	210	120	190	120	65	φ7.0 slot
TR-CC2200-230V	210	140	190	120	85	φ7.0 slot
TR-CC2900-230V	210	140	190	120	85	φ7.0 slot

Option

Adjustable louver set

By blowing cool air to the heat source directly, local temperature elevation is suppressed and keeps internal temperature uniform.
Directional air flow creates good air circulation in the enclosure which facilitates heat exchange of the enclosure and thus leads to energy saving.

Installation example with OCA-S700AC

※Standard Roof mounting type

【Applicable models】
OCA-S300BCS-A200
Standard Roof mounting type
Condensate-free type

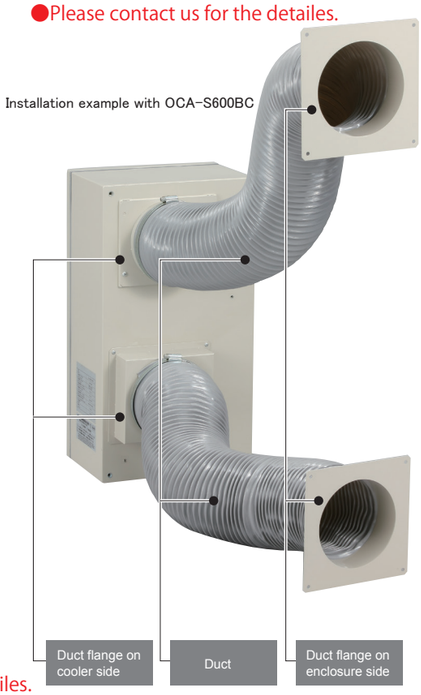
●Please contact us for the detailes.

Duct set

Duct connection enables installation of cooler at a separated place.

●Please contact us for the detailes.

Installation example with OCA-S600BC

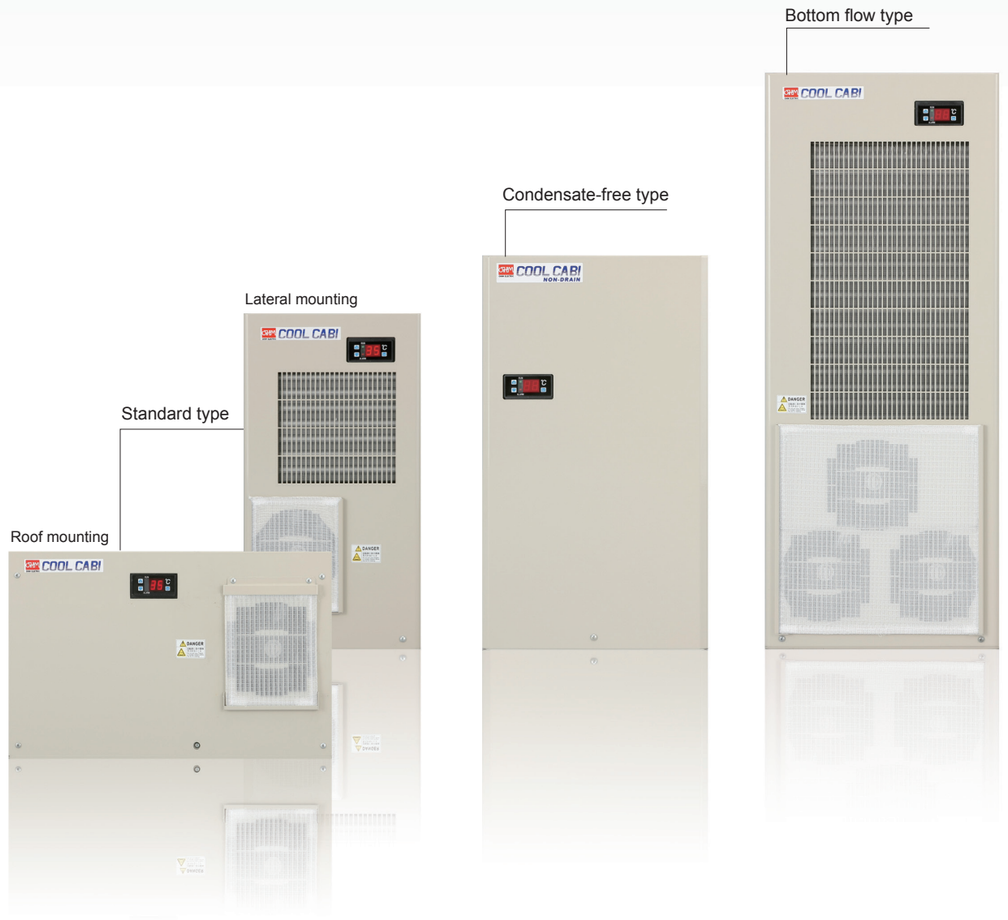


Transformer for COOLCABI (separate placement)

Model and Specifications of Single-phase power transformers (autotransformer)

Model	TR-CC300-220V	TR-CC600-220V	TR-CC1000-220V	TR-CC1600-220V
Primary side (50/60Hz)	220V			
Secondary side (50/60Hz)	200V			
Capacity	500VA	750VA	1kVA	1.5kVA
Weight	2.0kg	2.5kg	3.5kg	4.5kg
Insulation class *	A			
Terminal screw	M3			
COOL CABI models to use with	OCA-S300BC-A200(-R) OCA-S300BCS-A200 OCA-S300AC-A200 OCA-S350BCD-A200	OCA-S600BC-A200(-R) OCA-S700AC-A200 OCA-S700BCD-A200	OCA-S1000BC-A200(-R) OCA-S1100AC-A200 OCA-S1300BCD-A200	OCA-S1600BC-A200(-R) OCA-S1700AC-A200

Model	TR-CC300-230V	TR-CC600-230V	TR-CC1000-230V	TR-CC1600-230V
Primary side (50/60Hz)	230V			
Secondary side (50/60Hz)	200V			
Capacity	500VA	750VA	1kVA	1.5kVA
Weight	2.5kg	3.5kg	4.0kg	5.5kg
Insulation class *	A			
Terminal screw	M3			
COOL CABI models to use with	OCA-S300BC-A200(-R) OCA-S300BCS-A200 OCA-S300AC-A200 OCA-S350BCD-A200	OCA-S600BC-A200(-R) OCA-S700AC-A200 OCA-S700BCD-A200	OCA-S1000BC-A200 (-R) OCA-S1100AC-A200 OCA-S1300BCD-A200	OCA-S1600BC-A200 (-R) OCA-S1700AC-A200



3 Made filter replacement work easier

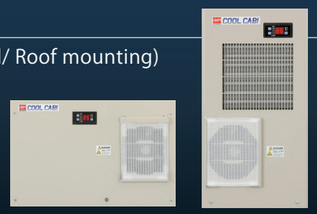
Attaching and detaching the filter of roof mounting type can be made from the lower side.
This makes filter cleaning and replacement easy for roof-mounted unit installed at high place.

4 Expanded the choice of installation site

COOLCABI now has a duct set that allows cooling from a separated installation site.

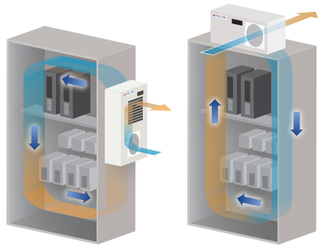
Standard type

(Lateral/ Roof mounting)



Wide variation offers free choice of capacity and mounting

Available from 300 to 3000W in lateral and roof mounting. For narrow space, a slim type is also available.



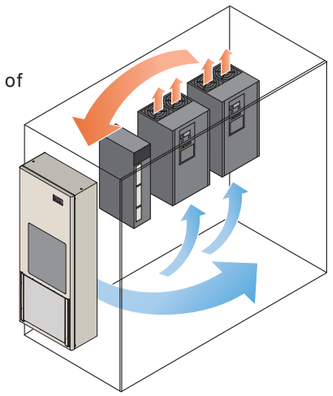
Lateral mounting　　Roof mounting

Bottom flow type

(Lateral mounting)

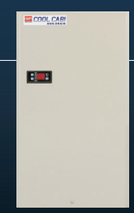
Highly efficient for self-cooling fans

The self-cooling fans of invertors and servo amplifiers draw air from their bottoms. Bottom flow coolers send cool air directly into those fans for efficient and speedy cooling.



Condensate-free type

(Lateral mounting)



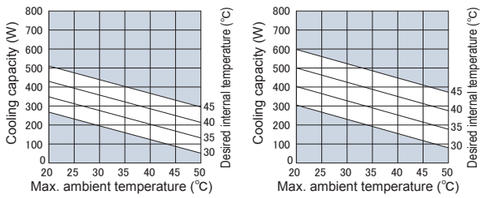
Innovative three-step evaporation system

No electricity for evaporation of condensate liquid

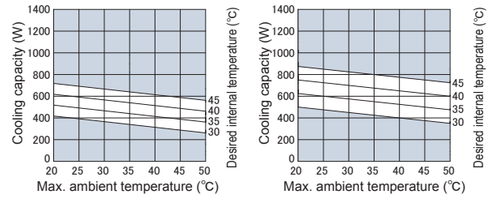
COOLCABI

● Bottm flow type

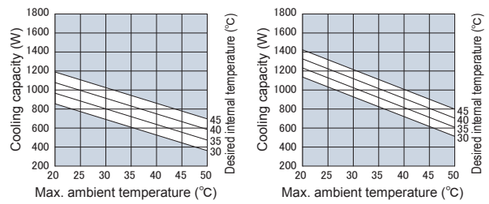
OCA-S300BC-A200-R



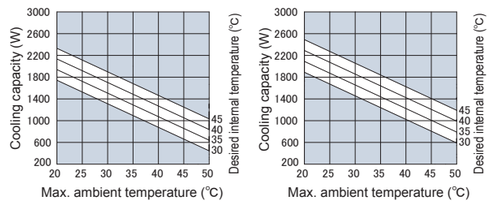
OCA-S600BC-A200-R



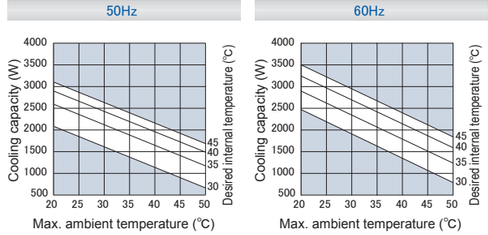
OCA-S1000BC-A200-R



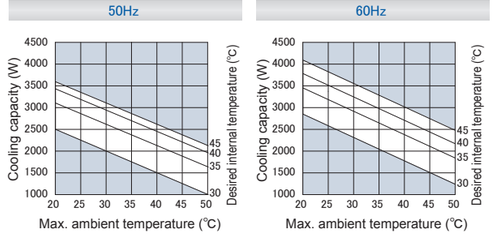
OCA-S1600BC-A200-R



OCA-S2200BC-A200-R

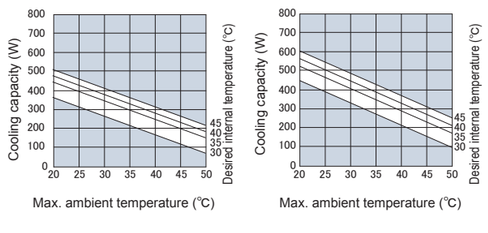


OCA-S2900BC-A200-R

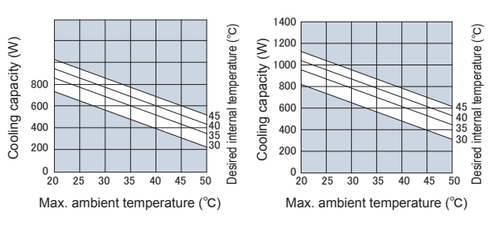


● Condensate-free type

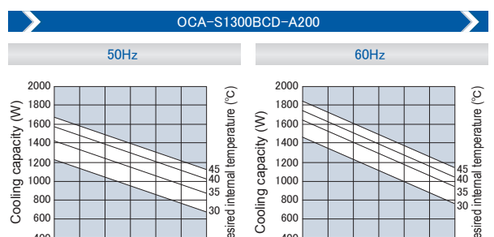
OCA-S350BCD-A200



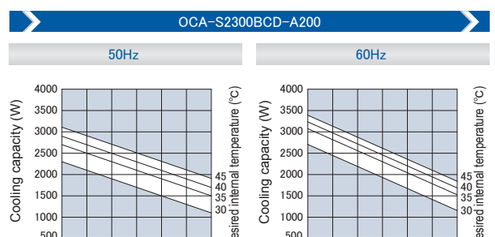
OCA-S700BCD-A200



OCA-S1300BCD-A200



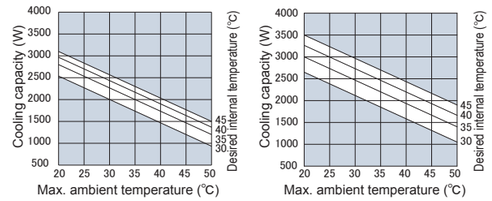
OCA-S2300BCD-A200



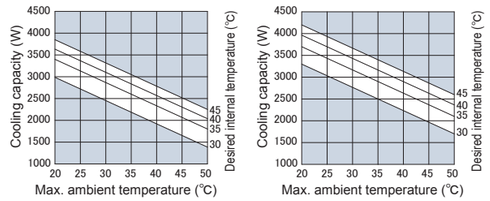
Performance chart

● Standard type (Lateral mounting)

OCA-S2200BC-A200

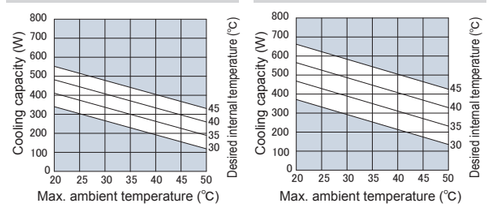


OCA-S2900BC-A200

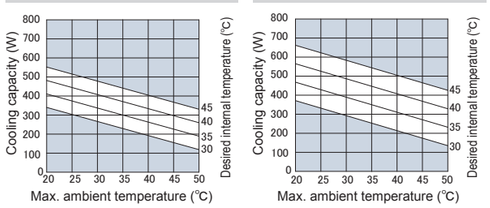


● Standard type (Roof mounting))

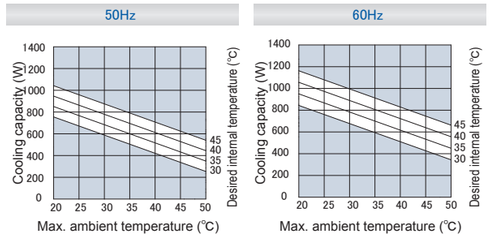
OCA-S300AC-A100



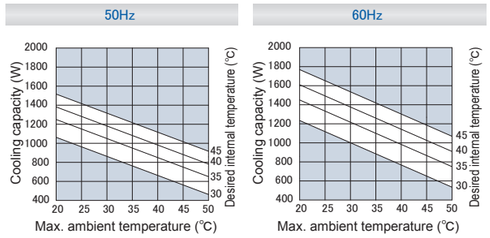
OCA-S300AC-A200



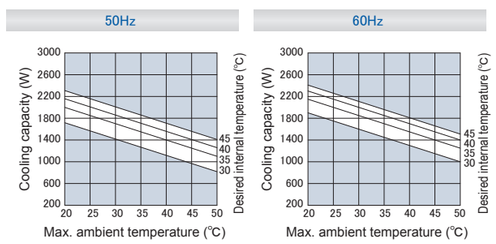
OCA-S700AC-A200V



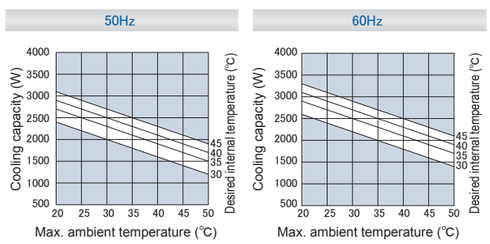
OCA-S1100AC-A200V



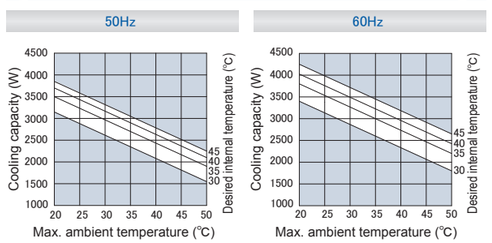
OCA-S1700AC-A200



OCA-S2300AC-A200



OCA-S3000AC-A200



For both 100VAC and 200VAC supplies

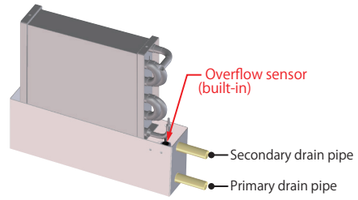
Available from either 100V or 200V rated models.

CE-marked

All 6 models each of Lateral and Roof mounting models are marked with CE satisfying the safety standard of EU.

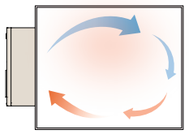
Throughgoing safety measures

Provided dual pipe system for all roof mounting models to eliminate risk of water leaks.



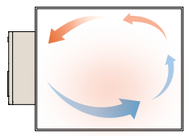
Difference between Standard and Bottom flow types in cooling

Standard type



Suitable when a heat source is located upper side in an enclosure

Bottom flow type



Suitable when a heat source is located lower side in an enclosure

Originally designed downward cool air blast!

Enhanced cooling effect by blastingcool air downward

The cool air is directed downward so as not to blow directly onto electronic components. It reaches to the bottom of the cabinet to be smoothly inhaled by the self-cooling fans of components.

1 Evaporation Pan (1st step)

Water resulted from dehumidification that took place in an enclosure will pool in the Evaporation pan.
Evaporation coil is equipped in the pan to heat up the water. Heated water will vaporize by the external air that passes above the pan and goes out. Meanwhile, the evaporation coil is cooled by cold drain water, and thus heat radiation rate increases.

2 Evaporation Fin (2nd step)

Residue water in the Evaporation pan will flow to the Evaporation fin.
By the high-temperature Evaporation fin and the external air that passes through the fin, the water vaporizes into the atmosphere.
Meanwhile, such evaporation takes heat away from the surroundings and it brings about higher heat radiation rate. As a result, electric consumption of the cooling unit is cut up to 6%.

3 Evaporation Sheet (3rd step) <auxiliary>

As the final step, the Evaporation sheet absorbs the water not evaporated in the Evaporation fin to evaporate it by the hot external air heated by the compressor and the condenser.

Note) This product is designed to process condensate by the above 3-step evaporation mechanism on condition that both internal and external temperature and humidity conditions are under 35 deg. C. 85% RH. Condensate water produced outside the above range is to be discharged through the drain pipe.

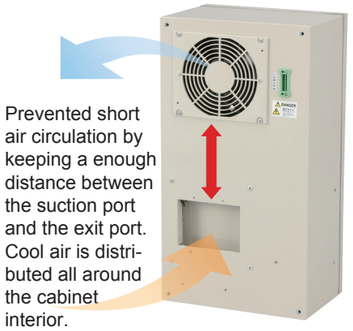
COOLCABI

Definite answer to enclosure cooling
3 advantages of COOLCABI

POINT 1 Reliable capability

Prevents short air circulation

Prevented short air circulation by keeping a enough distance between the suction port and the exit port. Cool air is distri-buted all around the cabinet interior.



POINT 2 Designed for safe and durability

Withstand in harsh environment

Oil and chemical-resistant metallic fan is used on external side

Metallic fan

POINT 3 Simple and trouble-free maintenance work

Easy fan replacement

No need to detach the COOLCABI from the enclosure. Fan replacement with only a screwdriver. Simply connect the lead wire by its faston terminal.

Outside the cabinet

Inside the cabinet

Model/Specifications

Standard type - Lateral mounting

Model		OCA-S300BC-A100	OCA-S300BC-A200	OCA-S300BCS-A200	OCA-S600BC-A100	OCA-S600BC-A200
Type of mounting		Lateral mounting				
Cooling capacity (*1)		250/300W		280/300W	400/520W	500/610W
Rated voltage		Single phase, 100VAC±10%	Single phase, 200VAC±10%		Single phase, 100VAC±10%	Single phase, 200VAC±10%
Current consumption (*2)	Rated	3.1/2.6A	1.5/1.4A	1.4/1.2A	4.1/3.9	2.1/2.0A
	Max.	3.3/3.1A	1.6/1.6A	1.5/1.5A	5.1/5.3A	2.4/2.7A
Starting current		7.0/6.7A	3.8/3.7A	3.5/3.4A	11.8/10.6A	5.9/5.7A
Power consumption (*2)	Rated	265/260W	260/270W	235/235W	365/385W	380/400W
	Max.	330/320W	295/315W	275/290W	475/530W	460/530W
Refrigerant		R134a(140g)	R134a(100g)	R134a(130g)	R134a(200g)	R134a(170g)
Working temperature (*3)		+20 to +50℃				
Temp. setting range (*3)		+30 to +45℃ (Factory setting +35℃)				
Working humidity		85%RH or less, free from condensation				
External output		Alarm output 1a 240V 1.5A×2 (COMMON) *Setting can be changed between Alarm output and cooling opeartion output.				
Display		Internal temperature, Alarm code/Operation lamp, Alarm lamp				
Function		Off-temperature alarm, Detection of abnormal heat dissipation, Detection of temperature sensor disconnection, Maintenance reminder, Forced cooling operation for inspection				
Noise		65dB(A)		61dB(A)	65dB(A)	
Noise immunity		①	②	①	①	②
Vibration proof		Vibration frequency 10 to 50Hz, Acceleration 0.5G, Sweep cycle 20 times				
Protective category		Internal circuit : equivalent to IP54				
Safety/Environmental standard		RoHS	CE, RoHS	CE, RoHS	RoHS	CE, RoHS
Color		Beige (5Y7/1 equivalent)				
Dimension (mm)		W300×H500×D150		W200×H590×D200	W300×H550×D200	
Weight		16.0kg		14.0kg	18.0kg	

Model		OCA-S1000BC-A100	OCA-S1000BC-A200	OCA-S1600BC-A100	OCA-S1600BC-A200	OCA-S2200BC-A200	OCA-S2900BC-A200
Type of mounting		Lateral mounting					
Cooling capacity (*1)		750/900W	800/1000W	1300/1450W	1450/1600W	2000/2200W	2600/2900W
Rated voltage		Single phase, 100VAC±10%	Single phase, 200VAC±10%	Single phase, 100VAC±10%	Single phase, 200VAC±10%	Threee phase, 200VAC±10%	
Current consumption (*2)	Rated	7.8/8.1A	3.4/3.7A	8.9/9.2A	4.3/4.5A	3.5/3.8A	4.5/5.2A
	Max.	10.5/9.8A	4.5/4.7A	11.2/11.4A	4.9/5.6A	4.0/4.4A	5.7/6.3A
Starting current		24.3/20.2A	12.5/11.9A	26.2/23.8A	14.4/13.8A	12.6/14.2A	20.0/19.0A
Power consumption (*2)	Rated	665/770W	635/735W	805/890W	795/895W	995/1155W	1450/1600W
	Max.	1065/995W	800/905W	1200/1135W	925/1110W	1155/1375W	1800/2000W
Refrigerant		R407C(410g)	R407C(400g)	R407C(510g)	R407C(450g)	R407C(730g)	R407C(980g)
Working temperature (*3)		+20 to +50℃					
Temp. setting range (*3)		+30 to +45℃ (Factory setting +35℃)					
Working humidity		85%RH or less, free from condensation					
External output		Alarm output 1a 240V 1.5A×2 (COMMON) *Setting can be changed between Alarm output and cooling opeartion output.					
Display		Internal temperature, Alarm code/Operation lamp, Alarm lamp					
Function		Off-temperature alarm, Detection of abnormal heat dissipation, Detection of temperature sensor disconnection, Maintenance reminder, Forced cooling operation for inspection					
Noise		65dB		68dB		66dB	69dB
Noise immunity		①	②	①	②	②	②
Vibration proof		Vibration frequency 10 to 150Hz, Acceleration 0.5G, Sweep cycle 20 times					
Protective category		Internal circuit : equivalent to IP54					
Safety/Environmental standard		RoHS	CE, RoHS	RoHS	CE, RoHS	CE, RoHS	CE, RoHS
Color		Beige (5Y7/1 equivalent)					
Dimension (mm)		W350×H900×D200		W390×H950×D220		W450×H1150×D220	W450×H1350×D220
Weight		33.0kg		36.0kg		52.0kg	59.0kg

Remarks: *1) Nominal value when both of internal and external temperatures are +35℃, which can be reduced by 5% at maximum if the enclosed louver is attached. (Excl. OCA-S300BCS-A200)
*2) Nominal values when both inside and outside temperatures are 35℃ are indicated in "Rated" and when outside is 50℃ and inside is 35℃ are in "Max". *3) Use only within the specified temperature range. ●Please consult us for other supply voltages than the above.

Standard type - Roof mounting

Model		OCA-S300AC-A100	OCA-S300AC-A200	OCA-S700AC-A200	OCA-S1100AC-A200	OCA-S1700AC-A200	OCA-S2300AC-A200	OCA-S3000AC-A200
Type of mounting		Roof mounting						
Cooling capacity (*1)		300/350W		600/700W	950/1100W	1550/1700W	2100/2300W	2700/3000W
Rated voltage		Single phase, 100VAC±10%	Single phase, 200VAC±10%				Threee phase, 200VAC±10%	
Current consumption (*2)	Rated	2.9/2.6A	1.4/1.2A	2.1/2.1A	3.6/3.7A	4.3/4.4A	3.6/3.9A	5.0/5.6A
	Max.	3.3/3.1A	1.5/1.5A	2.4/2.6A	4.3/4.5A	5.3/5.6A	4.3/4.8A	6.2/6.7A
Starting current		7.1/6.6A	3.6/3.4A	6.0/5.9A	12.6/11.9A	14.9/13.8A	14.7/14.5A	17.8/19.2A
Power consumption (*2)	Rated	245/255W	235/230W	380/410W	660/720W	795/875W	1025/1220W	1405/1735W
	Max.	300/305W	275/290W	440/505W	805/900W	1000/1115W	1280/1530W	1825/2110W
Refrigerant		R134a(135g)	R134a(120g)	R134a(140g)	R407C(300g)	R407C(420g)	R407C(580g)	R407C(780g)
Working temperature (*3)		+20 to +50℃						
Temp. setting range (*3)		+30 to +45℃ (Factory setting +35℃)						
Working humidity		85%RH or less, free from condensation						
External output		Alarm output 1a 240V 1.5A×2 (COMMON) *Setting can be changed between Alarm output and cooling opeartion output.						
Display		Internal temperature, Alarm code/Operation lamp, Alarm lamp						
Function		Off-temperature alarm, Detection of abnormal heat dissipation, Detection of temperature sensor disconnection, Maintenance reminder, Forced cooling operation for inspection, Detection of drain overflow, Detection of evaporator freezing						
Noise		61dB		64dB	65dB	66dB	64dB	
Noise immunity		①	②	②	②	②	②	②
Vibration proof		Vibration frequency 10 to 150Hz, Acceleration 0.5G, Sweep cycle 20 times						
Protective category		Internal circuit : equivalent to IP54						
Safety/Environmental standard		RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
Color		Beige (5Y7/1 equivalent)						
Dimension (mm)		W450×H230×D250		W550×H332×D270	W600×H350×D350	W590×H447×D350	W650×H447×D400	W760×H447×D400
Weight		16.0kg		23.5kg	31.5kg	40.0kg	48.0kg	57.0kg

Remarks: *1) Nominal value when both of internal and external temperatures are +35℃. *2) Nominal values when both inside and outside temperatures are 35℃ are indicated in "Rated" and when outside is 50℃ and inside is 35℃ are in "Max". *3) Use only within the specified temperature range. ●Please consult us for other supply voltages than the above.

Performance chart

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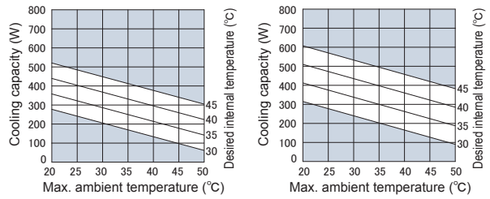
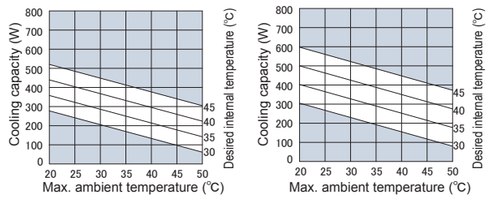
● Standard type (Lateral mounting)

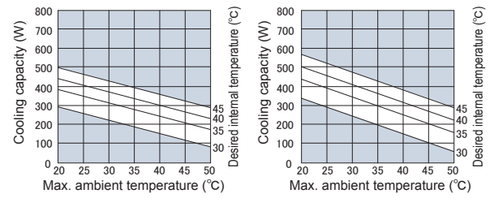
OCA-S300BC-A100



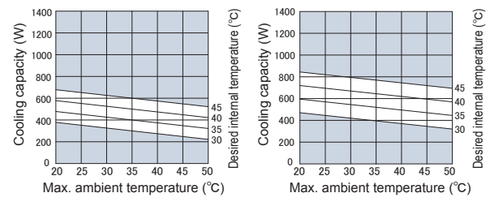
OCA-S300BC-A200



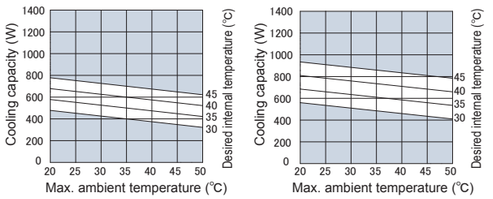
OCA-S300BCS-A200



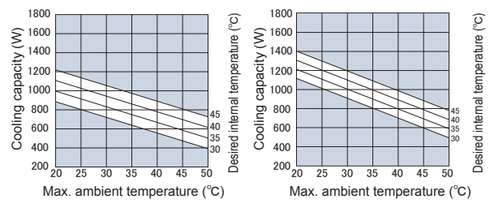
OCA-S600BC-A100



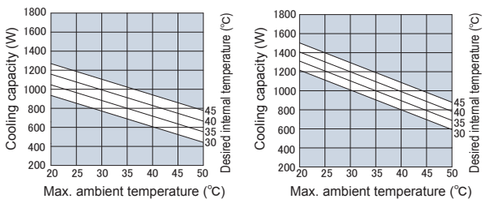
OCA-S600BC-A200



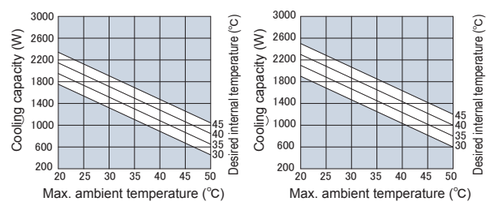
OCA-S1000BC-A100



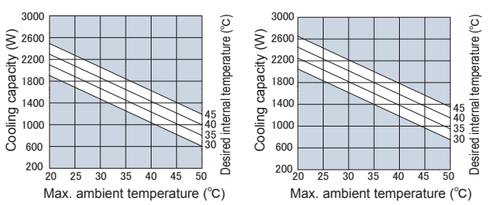
OCA-S1000BC-A200



OCA-S1600BC-A100

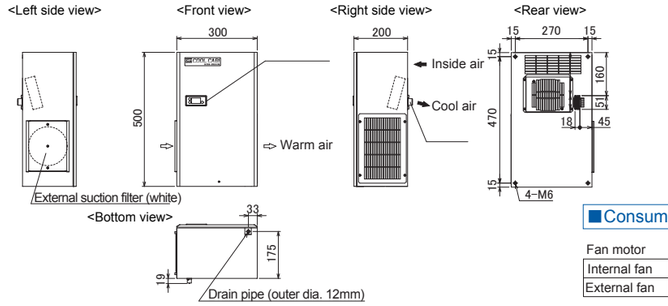


OCA-S1600BC-A200

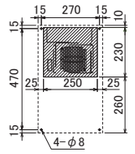


Outline drawing　Condensate-free type

OCA-S350BCD-A200



Panel cutouts



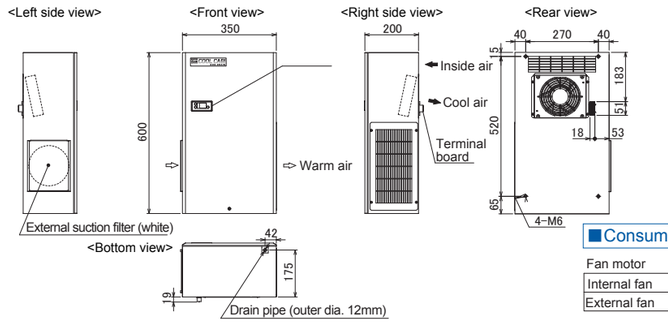
■Consumable parts

Fan motor	
Internal fan	FM-350BCDIN-200V
External fan	FM-350BCDOUT-200V

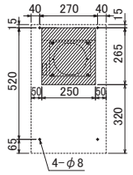
Filter: CF-S1 (2 pcs)

Evaporation sheet: CJ-S1 (1 pc)

OCA-S700BCD-A200



Panel cutouts



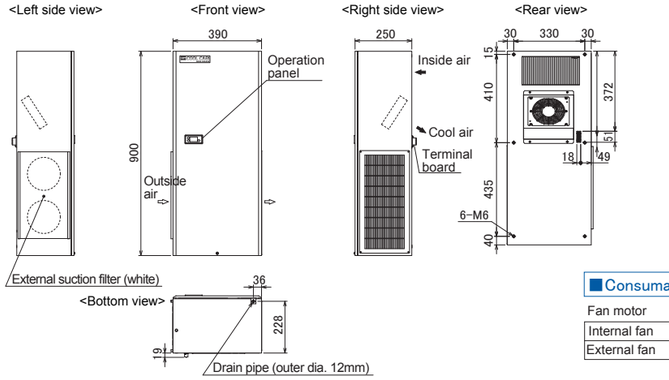
■Consumable parts

Fan motor	
Internal fan	FM-700BCDIN-200V
External fan	FM-700BCDOUT-200V

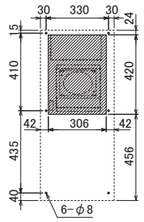
Filter: CF-S1 (2 pcs)

Evaporation sheet: CJ-S2 (1 pc)

OCA-S1300BCD-A200



Panel cutouts



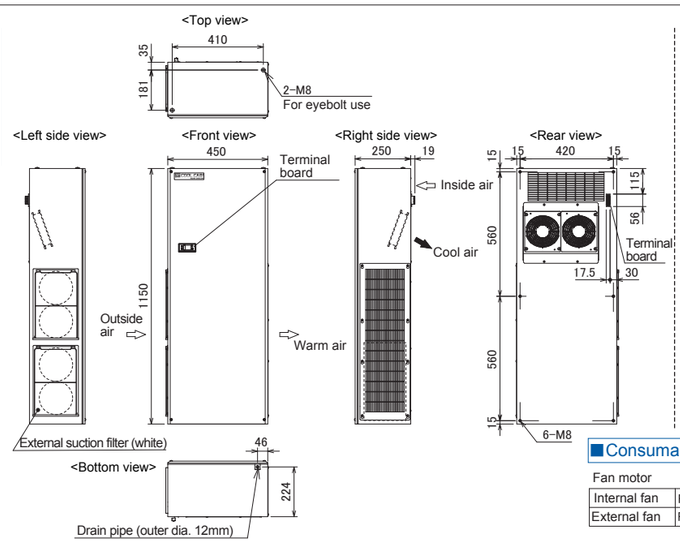
■Consumable parts

Fan motor	
Internal fan	FM-1300BCDIN-200V
External fan	FM-1300BCDOUT-200V

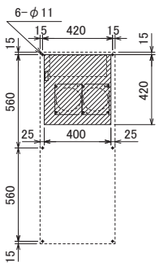
CF-S8 (2 pcs)

CJ-S3 (1 pc)

OCA-S2300BCD-A200



Panel cutouts



■Consumable parts

Fan motor	
Internal fan	FM-2300BCDIN-200V
External fan	FM-2300BCDOUT-200V

Filter: CF-S2 (2 pcs)

Evaporation sheet: CJ-S4 (1 pc)

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Bottom flow type - Lateral mounting

Model	OCA-S300BC-A200-R	OCA-S600BC-A200-R	OCA-S1000BC-A200-R	OCA-S1600BC-A200-R	OCA-S2200BC-A200-R	OCA-S2900BC-A200-R
Type of mounting	Lateral mounting					
Cooling capacity (*1)	240/290W	440/550W	720/920W	1290/1440W	1880/2070W	2370/2640W
Rated voltage	Single phase, 200VAC±10%				Threee phase, 200VAC±10%	
Current consumption (*2) Rated	1.5/1.3A	2.1/2.1A	3.5/3.6A	4.2/4.3A	3.5/3.7A	4.5/5.2A
Current consumption (*2) Max.	1.6/1.6A	2.4/2.7A	4.2/4.4A	4.9/5.5A	4.0/4.4A	5.7/6.3A
Starting current	3.8/3.7A	5.9/5.7A	12.5/11.9A	14.4/13.8A	12.6/14.2A	20.0/19.0A
Power consumption (*2) Rated	255/260W	380/405W	635/715W	770/860W	980/1125W	1450/1600W
Power consumption (*2) Max.	290/305W	455/525W	775/850W	930/1090W	1180/1380W	1800/2000W
Refrigerant	R134a(100g)	R134a(170g)	R407C(400g)	R407C(450g)	R407C(730g)	R407C(980g)
Working temperature (*3)	+20 to +50℃					
Temp. setting range (*3)	+30 to +45℃ (Factory setting +35℃)					
Working humidity	85%RH or less, free from condensation					
External output	Alarm output 1a 240V 1.5A×2 (COMMON) *Setting can be changed between Alarm output and cooling opeartion output.					
Display	Internal temperature, Alarm code/Operation lamp, Alarm lamp					
Function	Off-temperature alarm, Detection of abnormal heat dissipation, Detection of temperature sensor disconnection, Maintenance reminder, Forced cooling operation for inspection					
Noise	65dB			67dB	67dB	69dB
Noise immunity	①	①	①	①	①	①
Vibration proof	Vibration frequency 10 to 50Hz, Acceleration 0.5G, Sweep cycle 20 times					
Protective category	Internal circuit : equivalent to IP54					
Safety/Environmental standard	RoHS					
Color	Beige (5Y7/1 equivalent)					
Dimension (mm)	W300×H500×D150	W300×H550×D200	W350×H900×D200	W390×H950×D220	W450×H1150×D220	W450×H1350×D220
Weight	16.0kg	18.0kg	33.0kg	36.0kg	52.0kg	59.0kg

Remarks: *1) Nominal value when both of internal and external temperatures are +35℃. *2) Nominal values when both inside and outside temperatures are 35℃ are indicated in "Rated" and when outside is 50℃ and inside is 35℃ are in "Max". *3) Use only within the specified temperature range. ●Please consult us for other supply voltages than the above.

Condensate-free type - Lateral mounting

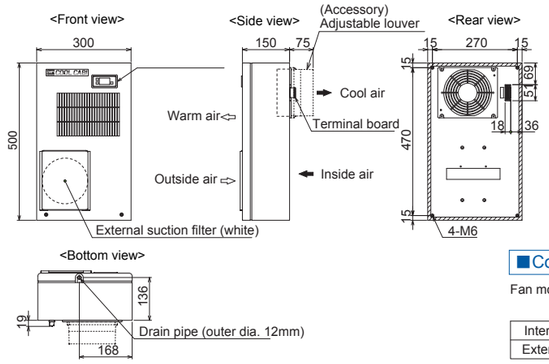
Model	OCA-S350BCD-A200	OCA-S700BCD-A200	OCA-S1300BCD-A200	OCA-S2300BCD-A200
Type of mounting	Lateral mounting (External only)			
Cooling capacity (*1)	300/350W	600/700W	1150/1300W	2100/2300W
Rated voltage	Single phase, 200VAC±10%			Threee phase, 200VAC±10%
Current consumption Rated (*2)	1.4/1.4A	2.1/2.2A	3.5/3.6A	3.5/3.6A
Current consumption Evaporation (*3)	1.3/1.2A	2.1/2.1A	3.4/3.5A	3.4/3.7A
Current consumption Max. (*2)	1.5/1.5A	2.4/2.6A	4.1/4.4A	4.0/4.4A
Starting current	3.7/3.6A	6.1/5.9A	12.6/11.9A	14.6/14.8A
Power consumption Rated (*2)	235/260W	390/425W	630/705W	975/1115W
Power consumption Evaporation (*3)	225/240W	380/410W	625/695W	960/1150W
Power consumption Max. (*2)	270/295W	455/510W	760/875W	1160/1390W
Refrigerant	R134a(130g)	R134a(190g)	R407C(355g)	R407C(620g)
Working temperature	+20 to +50℃			
Temp. setting range (*3)	+30 to +45℃ (Factory setting +35℃)			
Working humidity	85%RH or less, free from condensation			
External output	Alarm output 1a 240V 1.5A×2 (COMMON) *Setting can be changed between Alarm output and cooling opeartion output.			
Condensate free condition	+35℃ 85%RH or less			
Display	Internal temperature, Alarm code/Operation lamp, Alarm lamp			
Function	Off-temperature alarm, Detection of abnormal heat dissipation, Detection of temperature sensor disconnection, Maintenance reminder, Forced cooling operation for inspection			
Noise	62dB	65dB	65dB	68dB
Noise immunity	①	①	①	①
Vibration proof	Vibration frequency 10 to 50Hz, Acceleration 0.5G, Sweep cycle 20 times			
Protective category	Internal circuit : equivalent to IP54			
Safety/Environmental standard	RoHS			
Color	Beige (5Y7/1 equivalent)			
Dimension (mm)	W300×H500×D200	W350×H600×D200	W390×H900×D250	W450×H1150×D250
Weight	17.0kg	22.0kg	34.0kg	52.0kg

Remarks: *1) Nominal value when both of internal and external temperatures are +35℃. *2) Nominal values when under ambient condition of 35℃, 40%RH without condensation are indicated in "Rated" and under ambient condition of 50℃, 40%RH without condensation are indicated in "Max". *3) Nominal values when maximum amount of condensate water is generated under 35℃, 85%RH temperature and humidity conditions for both inside and outside the control panel. 4)Use only within the specified temperature range.
●Please consult us for other supply voltages than the above.

Noise immunity

①	②
Fast Transient/Burst immunity test Level 3, Electrostatic immunity test Level 3, Surge test Level 3, Conducted interference immunity test Level 3, Mains terminal interface voltage test Class B	EN61000-4-2/-3/-4/-5/-6/-8/-11 and EN61000-6-2/-4 compliant

OCA-S300BC-A100/A200



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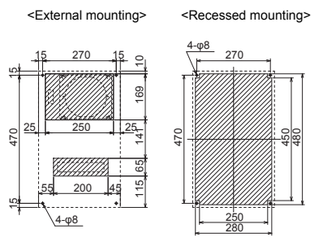


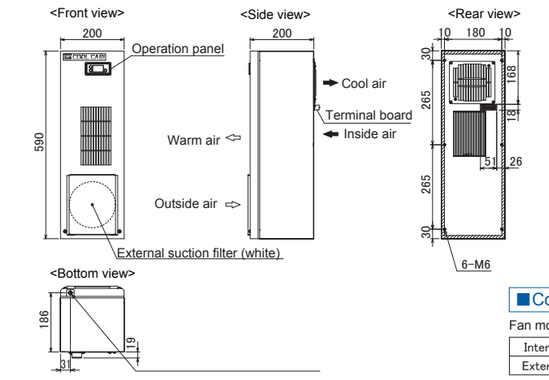
■Consumable parts

Fan motor

	100VAC	200VAC
Internal fan	FM-300BCIN-100V	FM-300BCIN-200V
External fan	FM-300BCOUT-100V	FM-300BCOUT-200V

Filter: CF-S1(2 pcs)

OCA-S300BCS-A200



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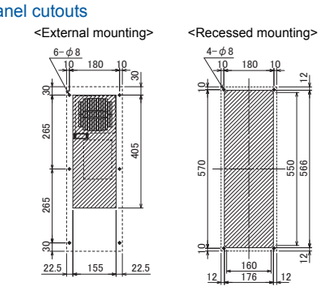


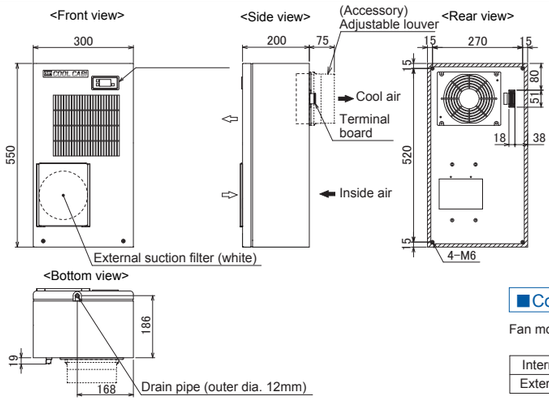
■Consumable parts

Fan motor

Internal fan	FM-300BCSIN-200V
External fan	FM-300BCSOUT-200V

Filter: CF-S1(2 pcs)

OCA-S600BC-A100/A200



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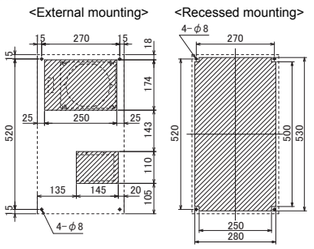


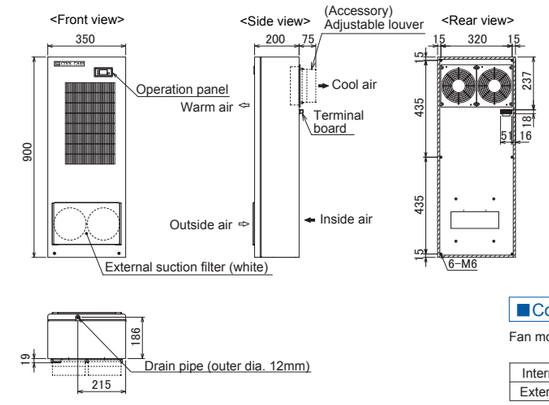
■Consumable parts

Fan motor

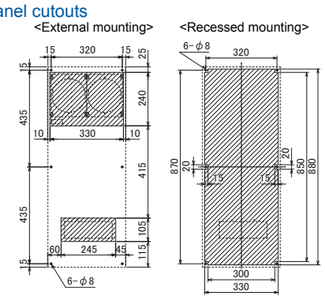
	100VAC	200VAC
Internal fan	FM-600BCIN-100V	FM-600BCIN-200V
External fan	FM-600BCOUT-100V	FM-600BCOUT-200V

Filter: CF-S1(2 pcs)

OCA-S1000BC-A100/A200



Panel cutouts



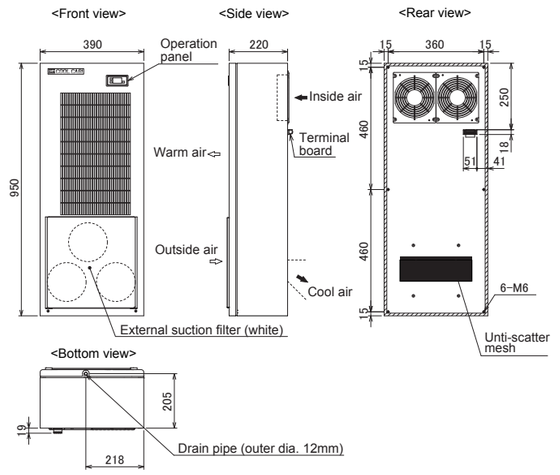
■Consumable parts

Fan motor

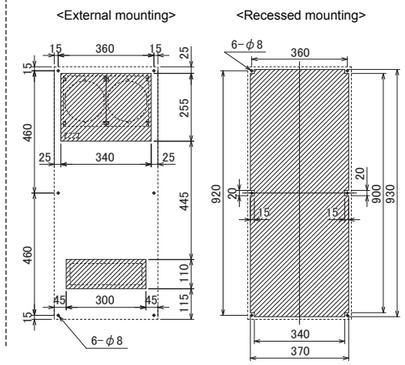
	100VAC	200VAC
Internal fan	FM-1000BCIN-100V	FM-1000BCIN-200V
External fan	FM-1000BCOUT-100V	FM-1000BCOUT-200V

Filter: CF-S1(2 pcs)

OCA-S1600BC-A200-R



Panel cutouts



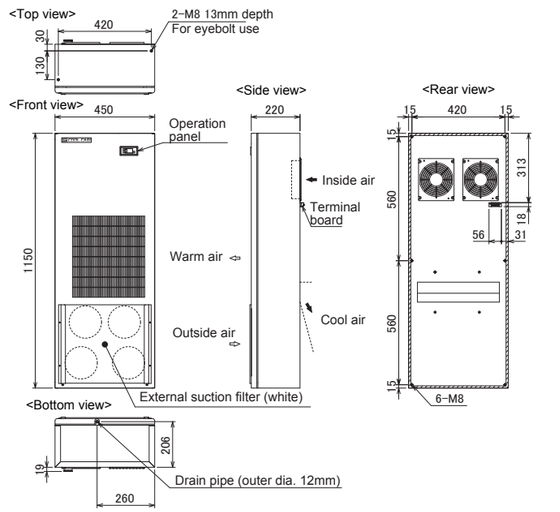
■Consumable parts

Fan motor

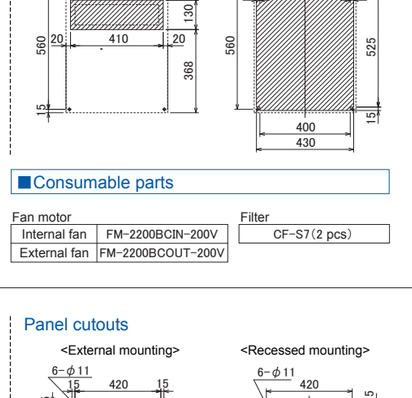
Internal fan	FM-1600BCIN-200V
External fan	FM-1600BCOUT-200V

Filter: CF-S3(2 pcs)

OCA-S2200BC-A200-R



Panel cutouts



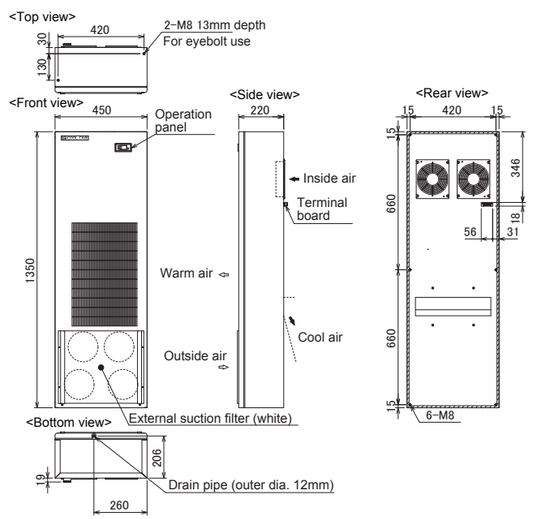
■Consumable parts

Fan motor

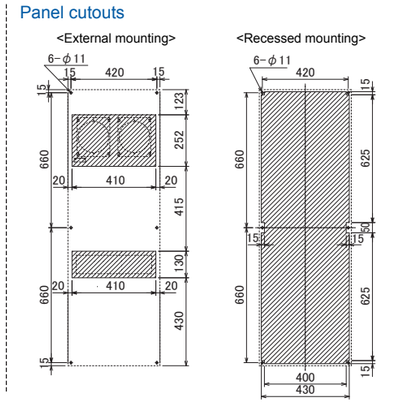
Internal fan	FM-2200BCIN-200V
External fan	FM-2200BCOUT-200V

Filter: CF-S7(2 pcs)

OCA-S2900BC-A200-R



Panel cutouts



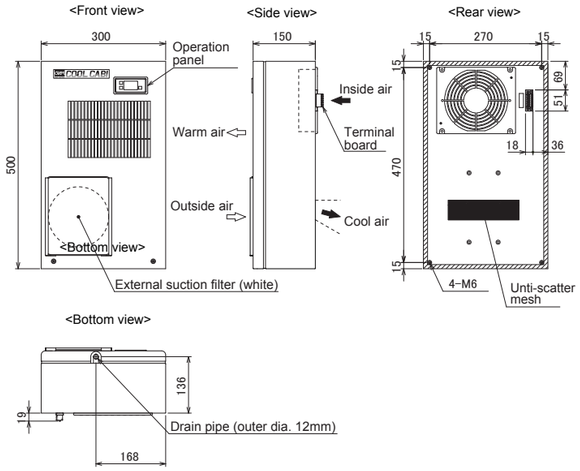
■Consumable parts

Fan motor

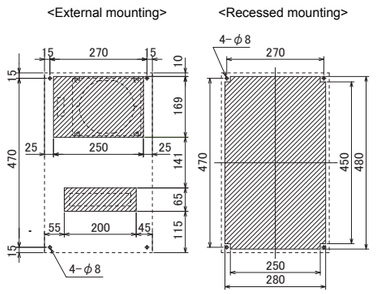
Internal fan	FM-2900BCIN-200V
External fan	FM-2900BCOUT-200V

Filter: CF-S7(2 pcs)

OCA-S300BC-A200-R



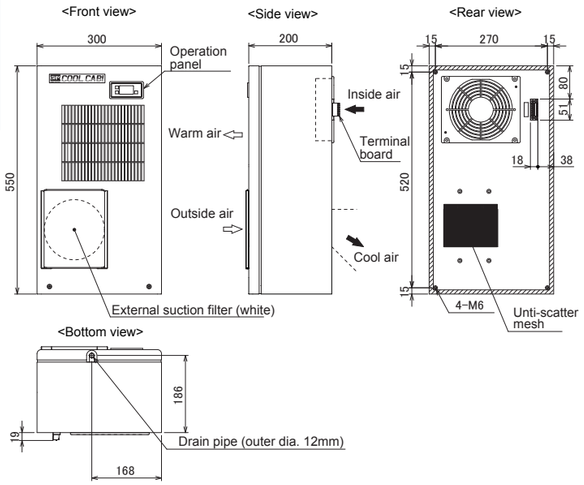
Panel cutouts



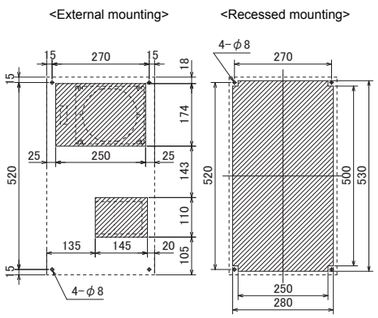
■Consumable parts

Fan motor		Filter
Internal fan	FM-300BCIN-200V	CF-S1(2 pcs)
External fan	FM-300BCOUT-200V	

OCA-S600BC-A200-R



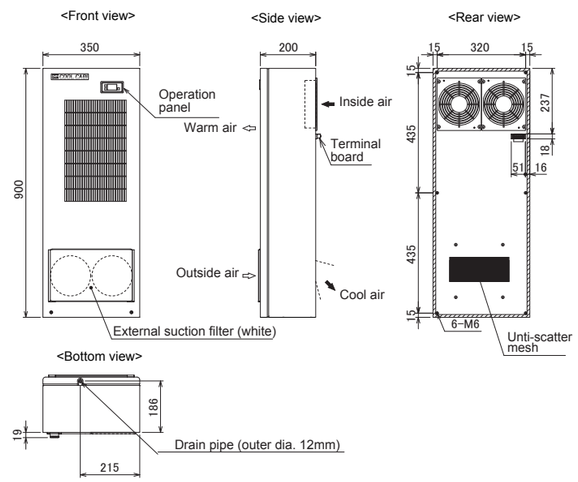
Panel cutouts



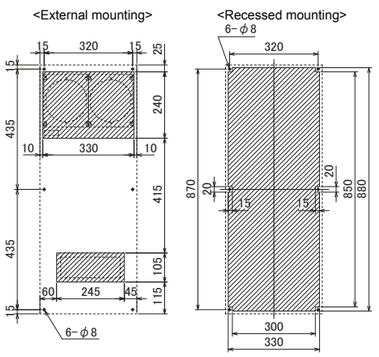
■Consumable parts

Fan motor		Filter
Internal fan	FM-600BCIN-200V	CF-S1(2 pcs)
External fan	FM-600BCOUT-200V	

OCA-S1000BC-A200-R



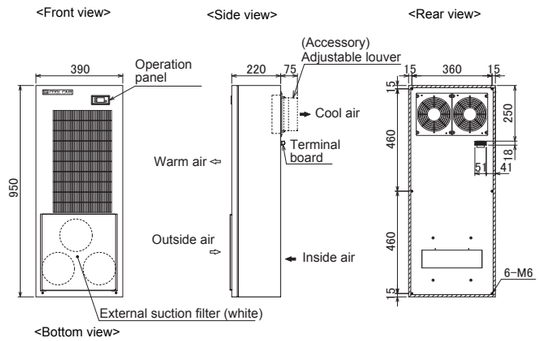
Panel cutouts



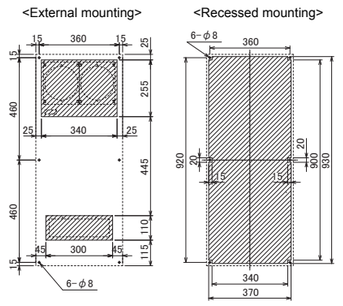
■Consumable parts

Fan motor		Filter
Internal fan	FM-1000BCIN-200V	CF-S2(2 pcs)
External fan	FM-1000BCOUT-200V	

OCA-S1600BC-A100/A200



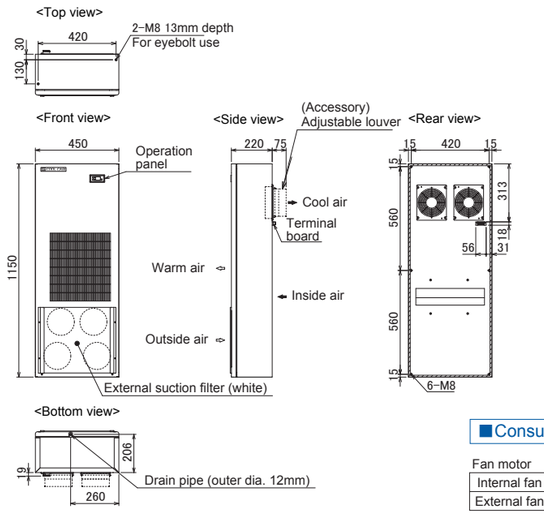
Panel cutouts



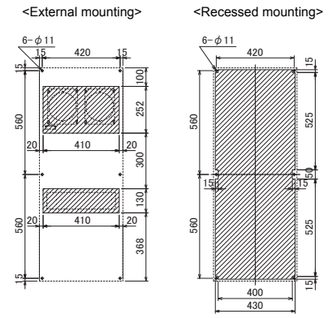
■Consumable parts

Fan motor	AC100V	AC200V	Filter
Internal fan	FM-1600BCIN-100V	FM-1600BCIN-200V	CF-S3(2 pcs)
External fan	FM-1600BCOUT-100V	FM-1600BCOUT-200V	

OCA-S2200BC-A200



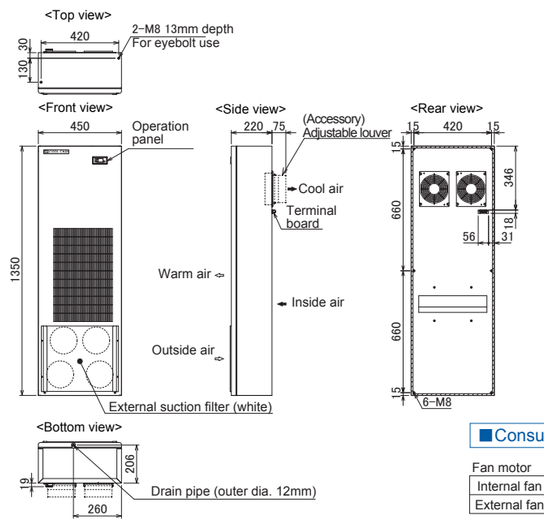
Panel cutouts



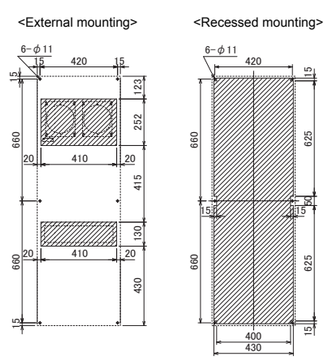
■Consumable parts

Fan motor		Filter
Internal fan	FM-2200BCSIN-200V	CF-S7(2 pcs)
External fan	FM-2200BCSOUT-200V	

OCA-S2900BC-A200



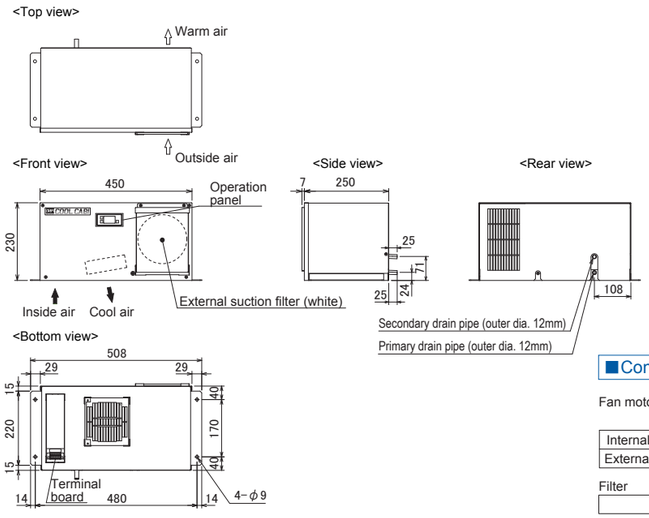
Panel cutouts



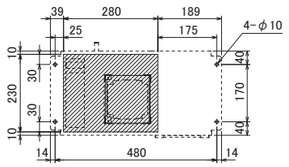
■Consumable parts

Fan motor		Filter
Internal fan	FM-2900BCSIN-200V	CF-S7(2 pcs)
External fan	FM-2900BCSOUT-200V	

OCA-S300AC-A100/200



Panel cutouts



■Consumable parts

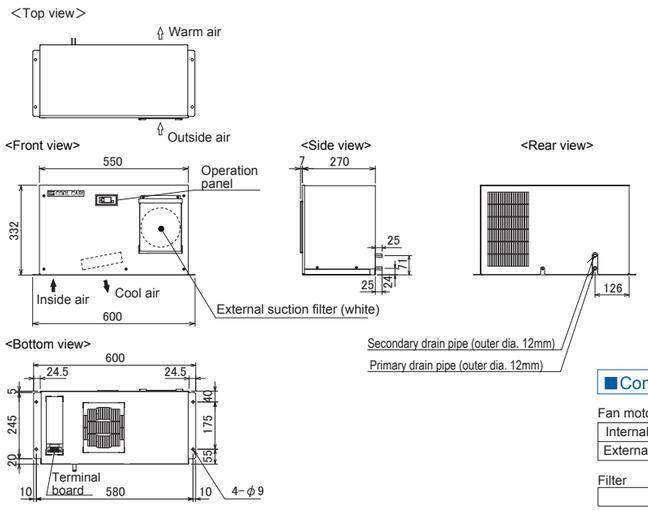
Fan motor

	100VAC	200VAC
Internal fan	FM-300ACIN-100V	FM-300ACIN-200V
External fan	FM-300ACOUT-100V	FM-300ACOUT-200V

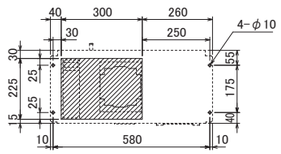
Filter

CF-S1(2 pcs)

OCA-S700AC-A200



Panel cutouts



■Consumable parts

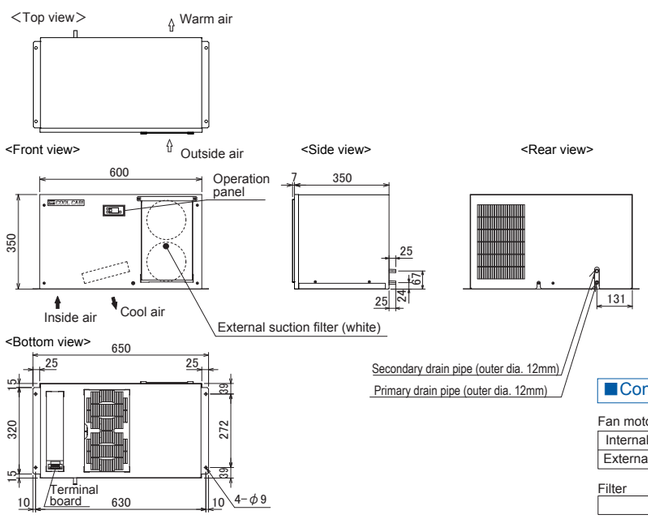
Fan motor

Internal fan	FM-700ACIN-200V
External fan	FM-700ACOUT-200V

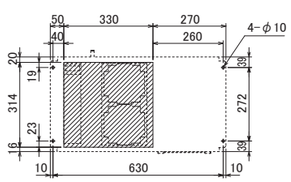
Filter

CF-S1(2 pcs)

OCA-S1100AC-A200



Panel cutouts



■Consumable parts

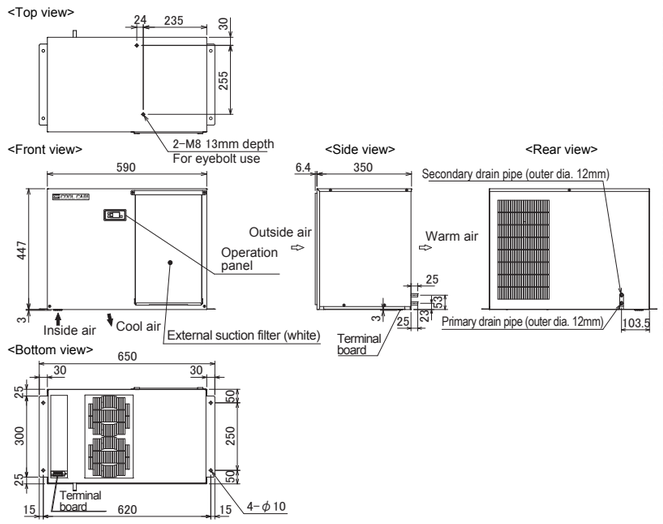
Fan motor

Internal fan	FM-1100ACIN-200V
External fan	FM-1100ACOUT-200V

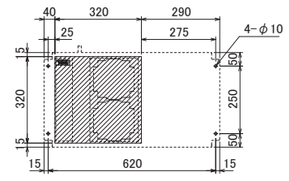
Filter

CF-S2(2 pcs)

OCA-S1700AC-A200



Panel cutouts



■Consumable parts

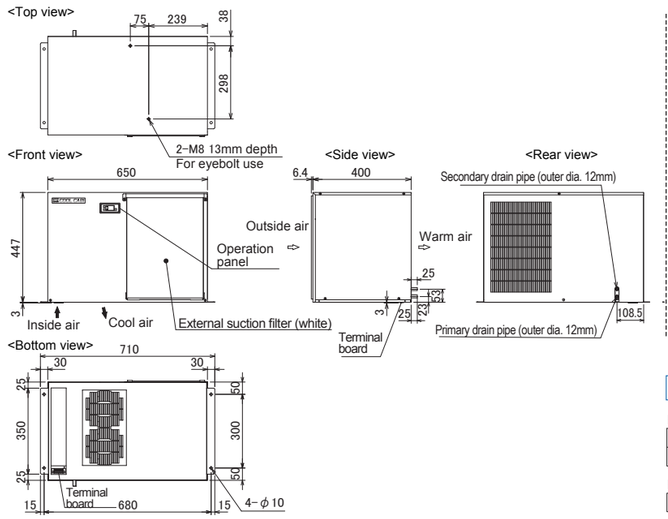
Fan motor

Internal fan	FM-1700ACIN-200V
External fan	FM-1700ACOUT-200V

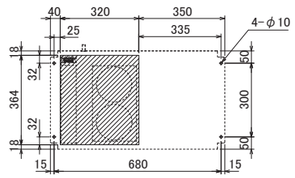
Filter

CF-S4(2 pcs)

OCA-S2300AC-A200



Panel cutouts



■Consumable parts

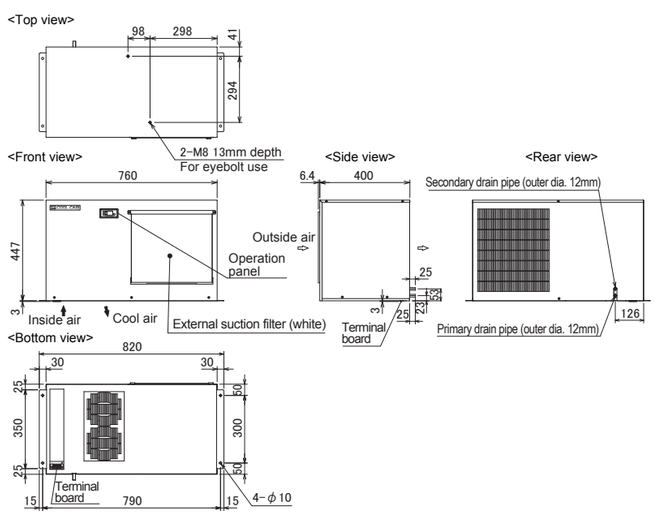
Fan motor

Internal fan	FM-2300ACIN-200V
External fan	FM-2300ACOUT-200V

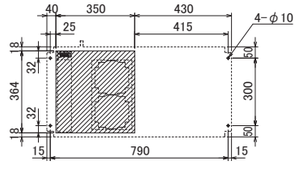
Filter

CF-S5(2 pcs)

OCA-S3000AC-A200



Panel cutouts



■Consumable parts

Fan motor

Internal fan	FM-3000ACIN-200V
External fan	FM-3000ACOUT-200V

Filter

CF-S6(2 pcs)