



Daikin Altherma HPC

Heat pump convectors
A fresh approach to comfort



FWXV-ABTV3(R)
FWXT-ABTV3(C)(L)(CL)
FWXM-ATV3(R)



reddot winner 2020

What is

a heat pump convector?

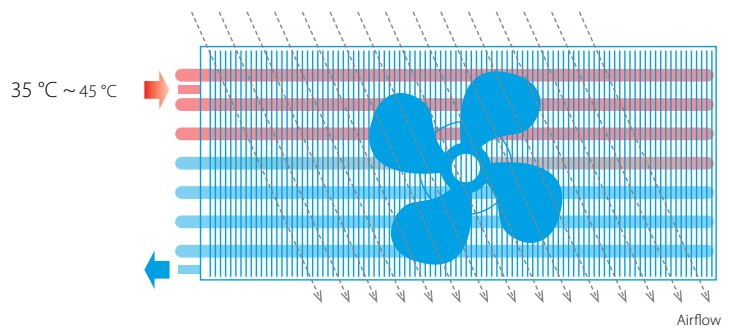
Daikin Altherma HPC provides both cooling and heating. The system is compatible with underfloor piping and radiators in a multi-zoning installation, or can replace radiators in combination with low temperature heat pumps. The unit is suited for use in bedrooms and living rooms thanks to its silent operation.

How does it work?

The way a heat pump convector works is similar to a radiator, as both use convection to heat a room. A radiator creates convection by running water through its pipes. With a heat pump convector, the convection process is faster because there is a small fan behind it, speeding up the heating cycle.

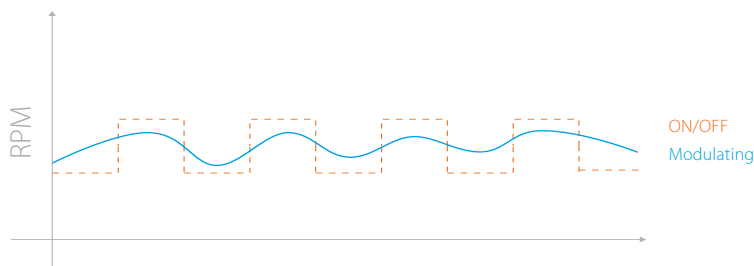
A heat pump convector creates the same room temperature as a traditional radiator, but with lower water temperatures inside the radiator, which in the long run contributes to direct energy savings for end users.

- › Optimized for newly built houses.
- › Can be set at low water temperature (35 °C) which makes it ideal for heat pump applications.



Modulated airflow

When there is less heating demand, the unit modulates its airflow to slow down the fan rate, and in the process, lowers the operational sound. A standard ON/OFF fan running simultaneously at full speed can increase sound pressure.



DC Inverter

Daikin Altherma HPC uses the latest technologies to consume less electricity down to 3W of standby power input.

Natural symbiosis

with heat pumps

By running on low temperature, Daikin Altherma heat pump convectors naturally fit with Daikin heat pumps. The heat pump convector range is made of 3 models:

- 1 Floor standing model with indoor air quality control (optional)
- 2 Wall mounted model with remote control
- 3 Concealed model hidden in the ceiling or wall



Daikin Altherma HPC Floor standing model



The floor standing heat pump convector impresses with its low sound operations, and its slim design that received the RedDot Award 2020. Next to heating and cooling, the unit can also provide indoor air quality control.

Why Indoor Air Quality Matters

Indoor Air Quality (IAQ) refers to the air quality in a building or structure, breathed in every day by the building's occupants.

When planning new residential buildings, schools, offices or light commercial buildings, many things must be considered. Besides structural factors, there are also the topics of heating, cooling and something often neglected: indoor air quality.

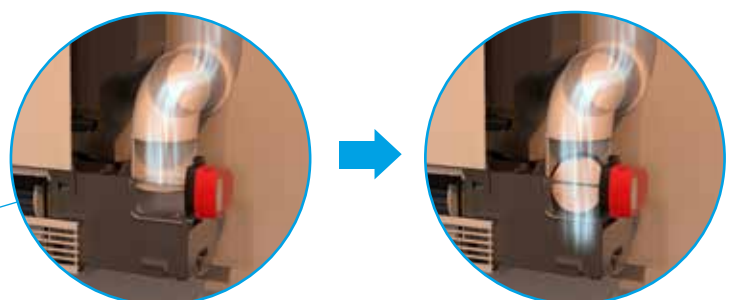
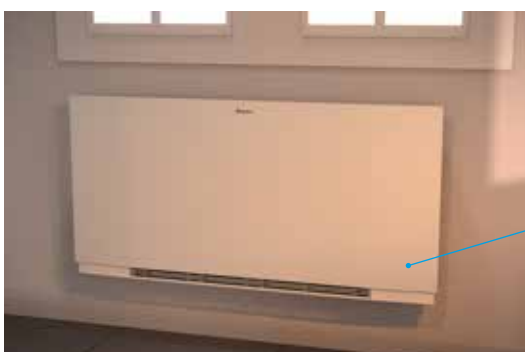
Did you know that the indoor air we breathe, whether at home, at the office, or in a hotel room could in fact be much more polluted than the air outside?

- › 90% of our lives is spent indoors
- › Indoor air quality can be 2 to 5 times worse than outdoor air quality because of pollutants, such as pollen, bacteria, etc.



How does Daikin Altherma HPC ensure a healthy and comfortable indoor air quality?

When a pollutant level of indoor air is reached, the IAQ sensor opens a damper, which allows fresh air to come in. The incoming fresh air is immediately heated or cooled (depending on the demand) by the heat pump convector. In this way the indoor air remains of good quality while comfort is ensured.





Slim design



The floor standing Daikin Altherma HPC has a depth of only 135 mm that fits any house or apartment. Its optimised design was rewarded with the Reddot Design Award 2020.



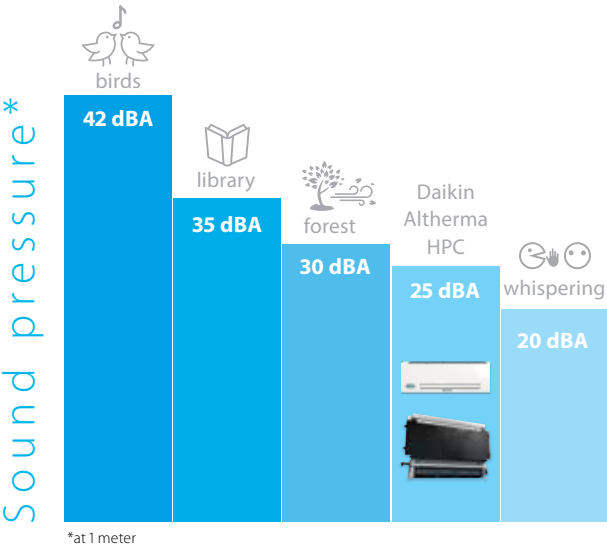
Fast and high capacity

The Daikin Altherma HPC combines the advantages of residential underfloor heating and radiators. It delivers high-capacity heating or cooling faster and can be set at ultra-low temperatures (35/30 °C regime).








Discreet

As the unit reaches its set point, a continuous modulating fan gradually reduces its speed and creates less noise. For the wall mounted and concealed units, the sound pressure measures 25dB(A) at 1m when the fan is on low-speed setting. Even lower sound pressure in super-silent mode (night mode).



Controls

Daikin offers a wide variety of controllers that are functional and have a great design.

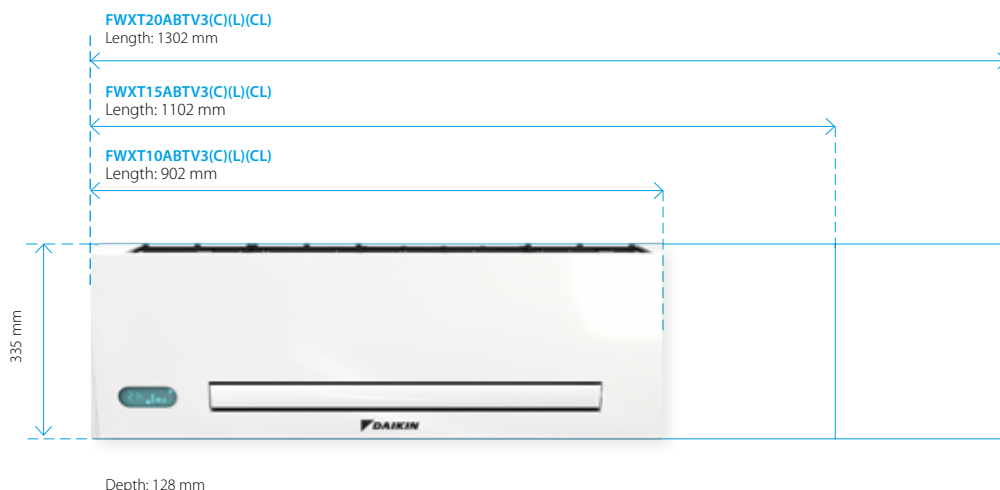
- EKRTCTRL1**

 - > Built-in controller
 - > Fully modulating
 - > Multicolor display
- EKRTCTRL2**

 - > Built-in controller
 - > 4 speed settings
- EKWHCTRL1**

 - > Wall controller
 - > Fully modulating
 - > In combination with EKWHCTRL0
- EKPCBO**

 - > Built-in controller
 - > ON/OFF
 - > In combination with external thermostats
- EKWHCTRL1A**

 - > Wall controller
 - > Fully modulating
 - > In combination with EKWHCTRL0
 - > Includes indoor air quality sensor



Thanks to its slim design, our wall-mounted unit blends in with your interior discreetly while helping you save valuable floor space.

Slim design

Daikin Altherma HPC is a compact unit made of a design metal casing including all valves.



Controls

Choice of:

- > Fully modulating controller allowing for remote control of the unit.
- > Infrared remote controller and on-board touch panel.

EKWHCTRL1



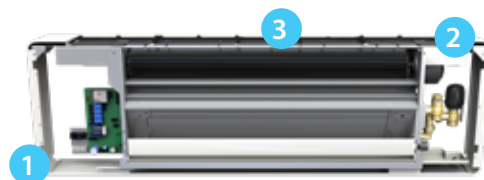
- > Wall controller
- > Fully modulating
- > For models FWXT-ABTV3(L)

Infrared remote controller



- > Remote
- > Fully modulating
- > For models FWXT-ABTV3(C)(L)

Compactness



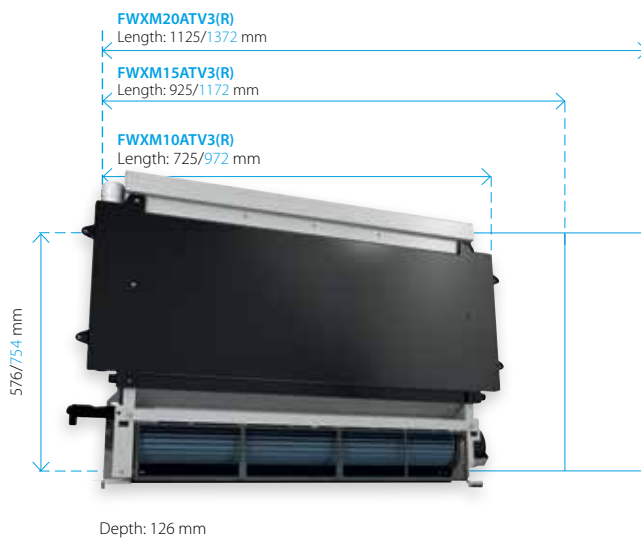
- 1 Slim depth**
The depth of 128 mm is an outstanding technical achievement that ensures a perfect fit in any home.
- 2 More space for valves**
Ease of installation: the space for hydraulic valves is wide and easily accessible.

- 3 Modulated airflow**
When there is less heating demand, the unit modulates its airflow to slow down the fan rate, and in the process, lowers the operational sound.



Forget about your heating or cooling installation altogether: our concealed model vanishes into the wall or ceiling for visual comfort while preserving its unique heating and cooling capabilities.

Slim design



Blue dimensions are for the front cover.

Controls

EKWHCTRL1



- > Wall controller
- > Fully modulating
- > In combination with EKWHCTRL0

Flexible installation

Daikin Altherma HPC can be installed in four different ways, allowing you to install it in almost all conditions. The unit can be positioned horizontally or vertically. For horizontal, in-ceiling installation, three different possibilities are offered:

- > Horizontal cover panel and vertical grille for air outlet
- > Horizontal intake grille and vertical grille for air outlet
- > Horizontal intake and outlet grilles



Heat pump convectors - FWXV-ABTV3(R)




Indoor unit				FWXV10ABTV3(R)	FWXV15ABTV3(R)	FWXV20ABTV3(R)
Cooling capacity at 7/12 °C	Min.		kW	0,78	1,10	1,13
	Med.		kW	1,11	1,65	1,98
	Max.		kW	1,62	2,64	2,99
Sensible cooling capacity at 7/12 °C	Min.		kW	0,58	0,82	0,85
	Med.		kW	0,71	1,15	1,55
	Max.		kW	1,25	1,91	2,33
Heating capacity at 45/40 °C	Min.		kW	0,87	1,12	1,11
	Med.		kW	1,27	1,83	2,32
	Max.		kW	1,96	2,86	3,50
Power input	Min.		W	6	7	8
	Med.		W	10	13	15
	Max.		W	19	25	31
Fan speed	Min.		RPM		720	
	Med.		RPM		1220	
	Max.		RPM		1700	
Casing	Colour	White, RAL 9003				
	Material	Metal sheet				
Dimensions	Unit	Height	mm		601	
		Width	mm	999		1399
		Depth	mm		135	
	Packed unit	Height	mm		690	
		Width	mm	1230	1430	1630
		Depth	mm		210	
Weight	Unit		kg	20	23	26
	Packed unit		kg	21	24	27
Packing	Material	Carton				
	Weight		kg		1	
Heat exchanger	Quantity	1				
	Internal coil volume		l	0,80	1,13	1,46
		Max Operating pressure		bar		10
Water circuit	Piping connections diameter		inch	3/4" male		
	Piping material			Copper		
	Heating - Water pressure drop at 45/40 °C	Min.	kPa	7	9	8
		Med.	kPa	8	14	15
		Max.	kPa	11	23	22
	Cooling - Water pressure drop at 7/12 °C	Min.	kPa	7	9	8
		Med.	kPa	8	14	15
		Max.	kPa	11	23	22
	Heating - Water flow rate at 45/40 °C	Min.	kg/h	150	193	191
		Med.	kg/h	218	315	399
		Max.	kg/h	337	492	602
	Cooling - Water flow rate at 7/12 °C	Min.	kg/h	134	189	194
		Med.	kg/h	191	284	341
Max.		kg/h	279	454	514	
Pressure	Heating/Max.	bar		10		
Sound power level	Min.		dB(A)	40	42	43
	Med.		dB(A)	47	49	50
	Max.		dB(A)	56	57	58
Operation range	Heating	Water side	Min.	°C	30	
			Max.	°C	85	
	Cooling	Water side	Min.	°C	5	
			Max.	°C	18	
	Indoor installation	Ambient	Min.	°CDB	0	
			Max.	°CDB	45	
Control systems	Infrared remote control	no				
	On-board control	yes				
Electrical specifications				FWXV10ABTV3(R)	FWXV15ABTV3(R)	FWXV20ABTV3(R)
Power supply	Phase	1				
	Frequency		Hz		50	
	Voltage		V		230	
Electrical power consumption	Max.		W	19	25	31
	Standby		W	3	4	5
Current	Maximum running current		A	0,15	0,21	0,27



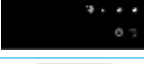








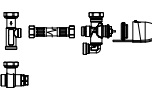
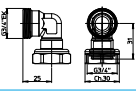
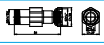











Heat pump convectors - FWXT-ABTV3(C)(L)(CL)

Indoor unit				FWXT10ABTV3(C)(L)(CL)	FWXT15ABTV3(C)(L)(CL)	FWXT20ABTV3(C)(L)(CL)	
Cooling capacity at 7/12 °C	Min.		kW	0,49	0,62	0,70	
	Med.		kW	0,88	1,08	1,21	
	Max.		kW	1,24	1,61	1,94	
Sensible cooling capacity at 7/12 °C	Min.		kW	0,37	0,52	0,57	
	Med.		kW	0,70	0,86	1,02	
	Max.		kW	0,98	1,27	1,52	
Heating capacity at 45/40 °C	Min.		kW	0,55	0,79	0,84	
	Med.		kW	1	1,36	1,75	
	Max.		kW	1,50	2,01	2,41	
Power input	Min.		W		5		
	Mid.		W	8	9	10	
	Max.		W	19	20	29	
Fan speed	Min.		RPM		680		
	Med.		RPM		1100		
	Max.		RPM		1500		
Casing	Colour	White, RAL 9003					
	Material	Metal sheet					
Dimensions	Unit	Height	mm	335			
		Width	mm	902	1102	1302	
		Depth	mm	128			
	Packed unit	Height	mm	490			
		Width	mm	1030	1230	1430	
		Depth	mm	210			
Weight	Unit		kg	14	16	19	
	Packed unit		kg	15	17	20	
Packing	Material	Carton					
	Weight	kg					
Heat exchanger	Quantity	1					
	Internal coil volume		l	0,80	1,13	1,46	
		Max Operating pressure		bar	10		
Water circuit	Piping connections diameter		inch	3/4" male			
	Piping material	Copper					
	Heating - Water pressure drop at 45/40 °C	Min.		kPa	5,10	4,81	6
		Med.		kPa	12	6,30	6,40
		Max.		kPa	16,30	7,20	8,10
	Cooling - Water pressure drop at 7/12 °C	Min.		kPa	4,80	4,70	5,50
		Med.		kPa	10,50	5,60	5,40
		Max.		kPa	11,70	5,05	5,30
	Heating - Water flow rate at 45/40 °C	Min.		kg/h	95	136	144
		Med.		kg/h	172	234	301
		Max.		kg/h	258	346	415
	Cooling - Water flow rate at 7/12 °C	Min.		kg/h	84	107	120
		Med.		kg/h	151	186	208
Max.			kg/h	213	277	334	
Pressure	Heating/Max.		bar	10			
Sound power level	Min.		dB(A)	35	36	37	
	Med.		dB(A)	46	47	48	
	Max.		dB(A)	53	54	55	
Operation range	Heating	Water side	Min.	°C			
			Max.	°C			
	Cooling	Water side	Min.	°C			
			Max.	°C			
	Indoor installation	Ambient	Min.	°CDB			
			Max.	°CDB			
Control systems	Infrared remote control	yes for -C models					
	On-board control	yes					
Electrical specifications				FWXT10ABTV3(C)(L)(CL)	FWXT15ABTV3(C)(L)(CL)	FWXT20ABTV3(C)(L)(CL)	
Power supply	Phase	1					
	Frequency	Hz					
	Voltage	V					
Electrical power consumption	Max.	W					
	Standby	W					
Current	Maximum running current	A					

Heat pump convectors - FWXM-ATV3(R)

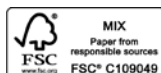
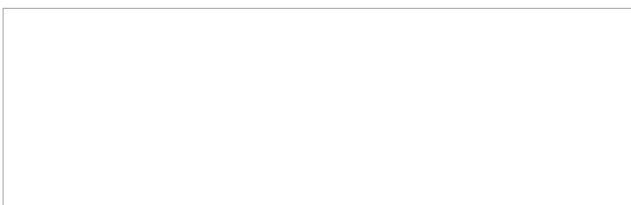
Indoor unit				FWXM10ATV3(R)	FWXM15ATV3(R)	FWXM20ATV3(R)
Cooling capacity at 7/12 °C	Min.		kW	0,75	1,15	1,32
	Med.		kW	1,36	2,08	2,39
	Max.		kW	2,12	2,81	3,30
Sensible cooling capacity at 7/12 °C	Min.		kW	0,59	0,83	1,02
	Med.		kW	1,07	1,51	1,84
	Max.		kW	1,72	2,11	2,71
Heating capacity at 45/40 °C	Min.		kW	0,82	1,20	1,47
	Med.		kW	1,53	2,16	2,59
	Max.		kW	2,21	3,02	3,81
Power input	Min.		W	4	6	5
	Med.		W	8	11	11
	Max.		W	19	20	29
Fan speed	Min.		RPM		680	
	Med.		RPM		1100	
	Max.		RPM		1500	
Casing	Material			No casing		
Dimensions	Unit	Height	mm		576	
		Width	mm	725	925	1125
		Depth	mm		126	
	Packed unit	Height	mm		690	
		Width	mm	830	1030	1230
		Depth	mm		210	
Weight	Unit		kg	12	15	18
	Packed unit		kg	13	16	19
Packing	Material			Carton		
	Weight		kg		1	
Heat exchanger	Quantity			1	1	1
	Internal coil volume		l	0,80	1,13	1,46
	Max Operating pressure		bar		10	
Water circuit	Piping connections diameter		inch		3/4" male	
	Piping material				Copper	
	Heating - Water pressure drop at 45/40 °C	Min.	kPa	1,50	2,70	3
		Med.	kPa	4,30	9,30	8,90
		Max.	kPa	1,90	19,10	21,20
	Cooling - Water pressure drop at 7/12 °C	Min.	kPa	1,90	2,70	2,50
		Med.	kPa	4,30	9,90	8,80
		Max.	kPa	8,20	17,10	18
	Heating - Water flow rate at 45/40 °C	Min.	kg/h	141	206	253
		Med.	kg/h	263	372	445
		Max.	kg/h	380	519	655
	Cooling - Water flow rate at 7/12 °C	Min.	kg/h	129	198	227
Med.		kg/h	234	358	411	
Max.		kg/h	365	483	568	
Sound power level	Pressure		Heating/Max.	bar	10	
	Min.	dBA	35	36	36	
	Med.	dBA	45	46	47	
Operation range	Heating	Water side	Min.	°C	30	
			Max.	°C	85	
	Cooling	Water side	Min.	°C	5	
			Max.	°C	18	
	Indoor installation	Ambient	Min.	°CDB	0	
			Max.	°CDB	45	
Control systems	Infrared remote control			no		
	On-board control			no		
Electrical specifications				FWXM10ATV3(R)	FWXM15ATV3(R)	FWXM20ATV3(R)
Power supply	Phase			1		
	Frequency		Hz	50		
	Voltage		V	230		
Electrical power consumption	Max.		W	19	20	29
	Standby		W	3	4	5
Current	Maximum running current		A	0,16	0,18	0,26

				
FWXV10ABTV3(R)	FWXT10ABTV3(C)(L)(CL)	FWXM10ATV3(R)	FWXM15ATV3(R)	FWXM20ATV3(R)
FWXV15ABTV3(R)	FWXT15ABTV3(C)(L)(CL)			
FWXV20ABTV3(R)	FWXT20ABTV3(C)(L)(CL)			

Description	Picture	Material name					
On-board electronic control SMART TOUCH with PID full modulating fan and thermostat		EKRTCTRL1	Opt				
On-board electronic control SMART TOUCH 4 speeds with thermostat		EKRTCTRL2	Opt				
On-board 4 speeds control switch to be combined with Daikin compatible thermostats		EKPCB0	Opt		Opt	Opt	Opt
On board 4 speeds control box to be combine with 4 speed thermostats		EKPCB4S	Opt		Opt	Opt	Opt
On board 1-10V control box to be combine with 1-10V thermostats		EKPCB10	Opt		Opt	Opt	Opt
On-board controller for EKWHCTRL1		EKWHCTRL0	Opt		Opt	Opt	Opt
SMART LCD wall controller with temperature probe, white casing		EKWHCTRL1	Opt	Opt (excl. FWXT-ABTV3(C/CL))	Opt	Opt	Opt
SMART LCD wall controller with temperature probe, white casing, including indoor air quality sensor		EKWHCTRL1A	Opt				
IR remote control				Standard (only FWXT-ABTV3(C/CL))			
Aesthetical feet		EKFA	Opt				
Motorised 2-way valve (FWXV/M)		EK2VK0	Opt		Opt	Opt	Opt
Motorised 2-way valve (FWXT)		EKT2VK0		Opt			
Motorised 3-way valve (FWXV/M)		EK3VK1	Opt		Opt	Opt	Opt
Motorised 3-way valve (FWXT)		EKT3VK1		Opt			
L-bow 90 °C		EKEUR90	Opt		Opt	Opt	Opt
Extension piece		EKDIST	Opt		Opt	Opt	Opt
Condensate collector tray for horizontal installation		EKM10COH	Opt				
		EKM15COH	Opt				
		EKM20COH	Opt				
Metal casing		EKM10CS			Opt		
		EKM15CS				Opt	
		EKM20CS					Opt
Front cover for ceiling installation		EKM10CH			Opt		
		EKM15CH				Opt	
		EKM20CH					Opt
Front cover for wall installation		EKM10CV			Opt		
		EKM15CV				Opt	
		EKM20CV					Opt
Air intake fitting		EKM10DH			Opt		
		EKM15DH				Opt	
		EKM20DH					Opt
90 °C exhaust bend (Horizontal)		EKM10D90			Opt		
		EKM15D90				Opt	
		EKM20D90					Opt
Telescopic air flow duct		EKM10DT			Opt		
		EKM15DT				Opt	
		EKM20DT					Opt
Aluminum air intake grille with straight airflow		EKM10IS			Opt		
		EKM15IS				Opt	
		EKM20IS					Opt
Straight airflow vent		EKM10SV			Opt		
		EKM15SV				Opt	
		EKM20SV					Opt
Aluminum air intake grille with curved airflow		EKM10IC			Opt		
		EKM15IC				Opt	
		EKM20IC					Opt
Aluminum air outlet grille with curved airflow		EKM10CA			Opt		
		EKM15CA				Opt	
		EKM20CA					Opt



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