

Daikin Altherma HPC

Heat pump convectors
A fresh approach to comfort



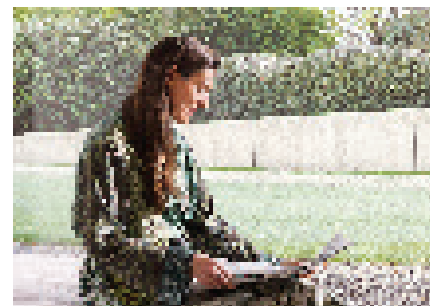
FWXV/T/M-ATV3 series



reddot winner 2020

Daikin Altherma HPC

Floor standing model



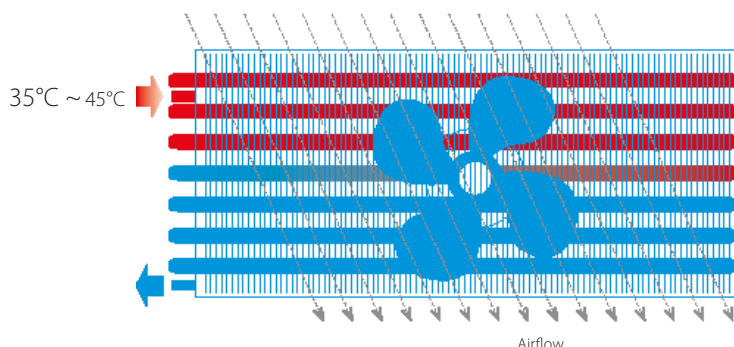
By providing cooling and heating, Daikin Altherma HPC is combinable with underfloor piping and can replace outdated radiators. The unit is available in three models (floor standing, wall mounted and concealed) and fits in any bedrooms or living rooms thanks to its silent operation.



What is a heat pump convector

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, a radiator's 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 in the radiator, and in the long run, contribute to direct energy savings for users.



- > Optimized for new build houses
- > Can be selected at low water temperature (35°C) which makes it ideal for heat pump applications.



Slim design



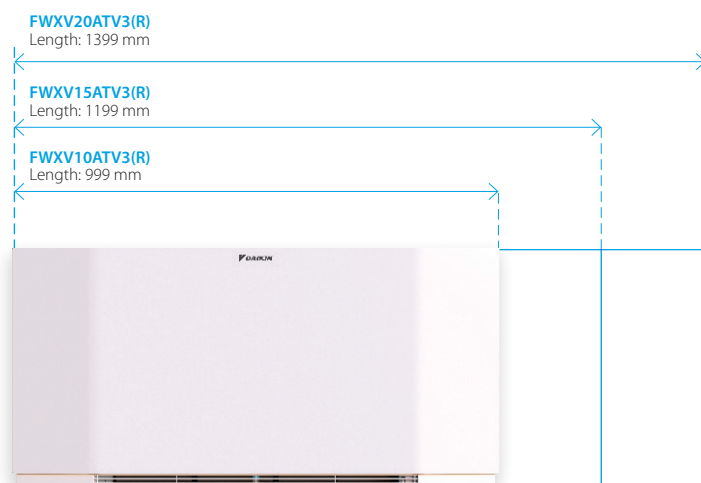
reddot winner 2020

The floor standing Daikin Altherma HPC measures 135 mm (depth), this heat pump convector can fit in any house or apartment. Its optimised design was reward with the Reddot Design Award 2020.



Fast and high capacity

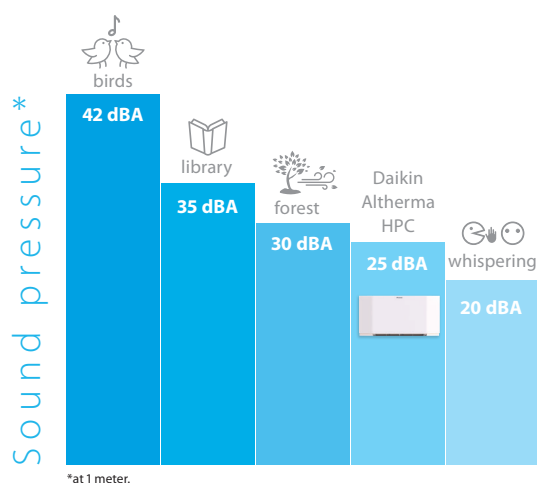
The Daikin Altherma HPC combines the advantages of residential underfloor heating and radiators. It delivers high capacity heating or cooling faster and can be selected at ultra-low temperatures (35/30°C regime).





Discreet

As the unit reaches its set point, a continuous modulating fan gradually reduces its speed and creates less noise. The unit's sound pressure measures 25dB(A) at 1m when the fan is on a low-speed setting.



DC Inverter

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



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 selection

EKWHCTRL1



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

EKPCB0

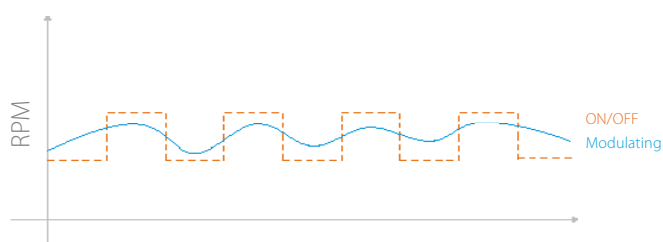


- > Built-in controller
- > ON/OFF
- > In combination with external thermostats



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.



*Only applicable for EKRTCTRL1, EKWHCTRL1



Perfect combination

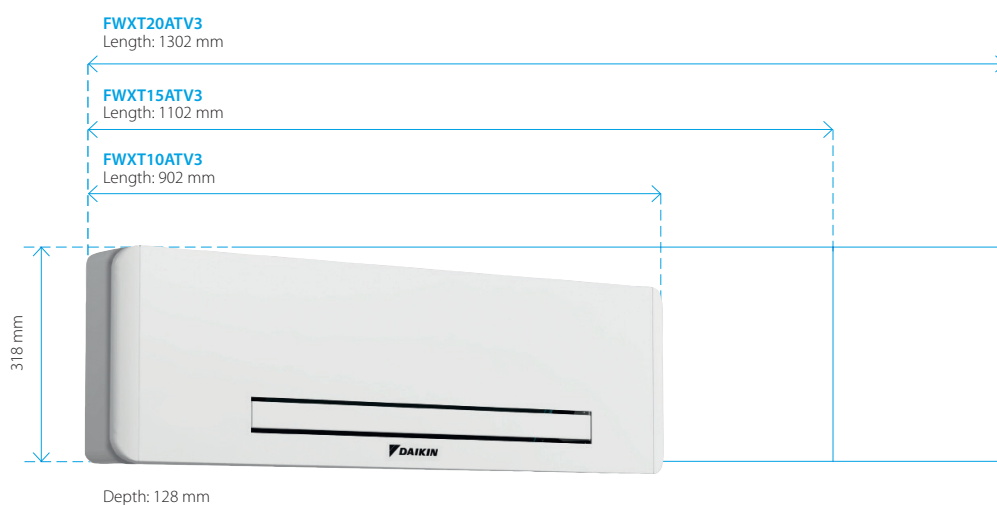
This heat pump convector fits perfectly within the Daikin Altherma 3 range.





Slim design

Daikin Altherma HPC is a compact unit made of a design metal casing including all valves. Its wall hung application saves space on the floor for furnitures and decoration.



Controls

Choice of:

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

EKWHCTRL1

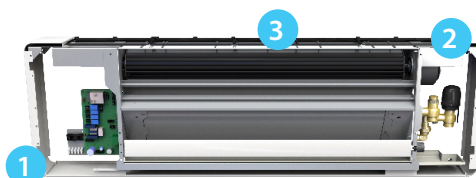


- > Wall controller
- > Fully modulating

Infrared remote controller



Compactness



1 SLIM DEPTH

Depth of 129 mm is an outstanding technical achievement that ensures the best fitting into any residential dwelling.

2 MORE SPACE FOR VALVES

A special attention to the easiness of installation: the space for hydraulic valves is wide and easy accessible.

3 MODULATED AIRFLOW

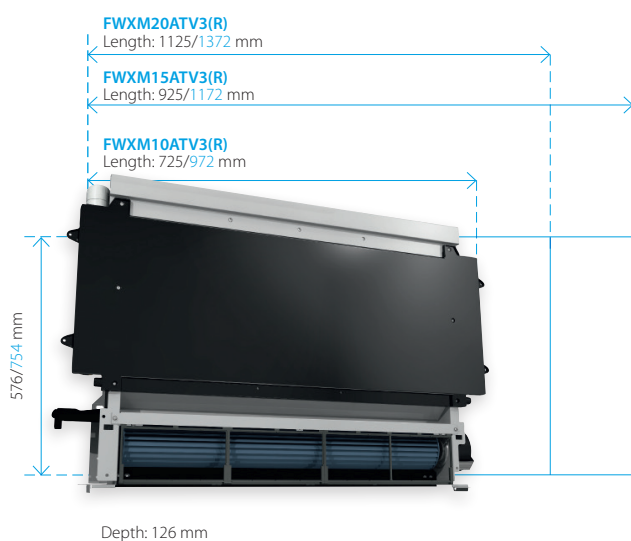
When there is less heating demand, the unit modulates its airflow to slow down the fan rate, and in the process, lowers the operational sound. A standard ON/OFF fan running simultaneously at full speed can increase sound pressure.

Concealed model



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 4 different ways, allowing you to install it in almost all conditions. The unit can be positioned horizontally or vertically. For horizontal, in ceiling installation, 3 different possibilities are offered:

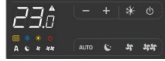
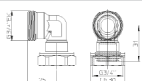
- > Horizontal cover panel and vertical grill for air outlet
- > Horizontal intake grill and vertical grill for air outlet
- > Horizontal in and out grills for air outlet



Indoor unit				FWXV10ATV3(R)		FWXV15ATV3(R)		FWXV20ATV3(R)		
Cooling capacity at 7/12 °C	Min.			kW	0,66		1,30		1,82	
	Med.			kW	1,36		2,16		2,52	
	Max.			kW	1,77		2,89		3,20	
Sensible cooling capacity at 7/12 °C	Min.			kW	0,39		0,99		1,22	
	Med.			kW	0,98		1,53		1,55	
	Max.			kW	1,33		2,10		1,78	
Heating capacity at 35/30 °C	Min.			kW	0,41		0,45		0,93	
	Med.			kW	0,82		1,29		1,66	
	Max.			kW	1,14		1,73		2,15	
Heating capacity at 45/40 °C	Min.			kW	0,95		1,24		1,90	
	Med.			kW	1,63		2,33		3,05	
	Max.			kW	2,18		3,11		3,88	
Power input	Min.			kW	0,004		0,005		0,010	
	Med.			kW	0,011		0,012		0,016	
	Max.			kW	0,020		0,020		0,030	
Fan speed	Min.			m³/h	118		180		246	
	Med.			m³/h	210		318		410	
	Max.			m³/h	294		438		566	
Casing	Colour			RAL 9003						
	Material			Metal sheet						
Dimensions	Unit		Height	mm			601			
			Width	mm	999		1199		1399	
			Depth	mm	135		135		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		1		1	
	Internal coil volume			l	0,8		1,13		1,46	
	Max Operating pressure			bar	10					
Water circuit	Piping connections diameter			inch	3/4" male					
	Piping material			EUROKONUS						
	Heating - Water pressure drop at 35/30 °C	Min.	kPa	0,3		2,0		1,2		
		Med.	kPa	1,3		7,5		4,0		
		Max.	kPa	2,4		12,3		8,0		
	Heating - Water pressure drop at 45/40 °C	Min.	kPa	1,3		8,6		3,8		
		Med.	kPa	4,2		3,3		11,2		
		Max.	kPa	7,2		11,5		21,3		
	Cooling - Water pressure drop at 7/12 °C	Min.	kPa	1,2		4,3		2,1		
		Med.	kPa	2,8		19,3		13,1		
		Max.	kPa	2,9		27,0		24,0		
	Heating - Water flow rate at 35/30 °C	Min.	kg/h	69,9		73,6		160,2		
		Med.	kg/h	141,4		221,1		285,3		
		Max.	kg/h	195,2		297,2		369,9		
	Heating - Water flow rate at 45/40 °C	Min.	kg/h	163,5		212,5		327,0		
		Med.	kg/h	280,3		401,1		524,6		
		Max.	kg/h	374,1		534,5		667,5		
	Cooling - Water flow rate at 7/12 °C	Min.	kg/h	113,5		223,7		313,0		
		Med.	kg/h	234,1		371,7		433,6		
		Max.	kg/h	303,6		496,6		550,6		
	Pressure			Heating/Max.	bar	10		10		
Sound power level	Super silent			dBA	29		31		32	
	Min.			dBA	34		35		35	
	Max.			dBA	55		57		58	
Sound pressure level	Super silent			dBA	20		22		23	
	Min.			dBA	25		26		26	
	Max.			dBA	42		44		45	
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				FWXV10ATV3(R)		FWXV15ATV3(R)		FWXV20ATV3(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		0,16		0,26	

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 35/30 °C	Min.		kW	0,41		0,45		0,93			
	Med.		kW	0,82		1,29		1,66			
	Max.		kW	1,14		1,73		2,15			
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.		kW	0,004		0,005		0,006			
	Med.		kW	0,008		0,011		0,011			
	Max.		kW	0,019		0,020		0,029			
Fan speed	Min.		m³/h	118		180		246			
	Med.		m³/h	210		318		410			
	Max.		m³/h	294		438		566			
Casing	Material			No casing							
Dimensions	Unit	Height	mm	576							
		Width	mm	725		925		1125			
		Depth	mm	126		126		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							
Heat exchanger	Quantity			1							
	Internal coil volume			l		0,8		1,13		1,46	
	Max Operating pressure			bar		10					
Water circuit	Piping connections diameter			inch							
	Piping material			EUROKONUS							
	Heating - Water pressure drop at 35/30 °C	Min.	kPa	0,3		2,0		1,2			
		Med.	kPa	1,3		7,5		4,0			
		Max.	kPa	2,4		12,3		8,0			
	Heating - Water pressure drop at 45/40 °C	Min.	kPa	1,3		8,6		3,8			
		Med.	kPa	4,2		3,3		11,2			
		Max.	kPa	7,2		11,5		21,3			
	Cooling - Water pressure drop at 7/12 °C	Min.	kPa	1,2		4,3		2,1			
		Med.	kPa	2,8		19,3		13,1			
		Max.	kPa	2,9		27,0		24,0			
	Heating - Water flow rate at 35/30 °C	Min.	kg/h	69,9		73,6		160,2			
		Med.	kg/h	141,4		221,1		285,3			
		Max.	kg/h	195,2		297,2		369,9			
	Heating - Water flow rate at 45/40 °C	Min.	kg/h	163,5		212,5		327,0			
		Med.	kg/h	280,3		401,1		524,6			
		Max.	kg/h	374,1		534,5		667,5			
	Cooling - Water flow rate at 7/12 °C	Min.	kg/h	113,5		223,7		313,0			
		Med.	kg/h	234,1		371,7		433,6			
		Max.	kg/h	303,6		496,6		550,6			
		Pressure	Heating/Max.	bar	10		10		10		
Sound power level	Super silent			dBA		29		31		32	
	Min.			dBA		35		35		36	
	Max.			dBA		53		54		55	
Sound pressure level	Super silent			dBA		20		22		23	
	Min.			dBA		25		26		26	
	Max.			dBA		42		44		46	
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							
	Voltage			V							
Electrical power consumption	Max.			W		19		20		29	
	Standby			W		3		4		5	
Current	Maximum running current			A		0,16		0,16		0,26	

Indoor unit				FWXT10ATV3(C)		FWXT15ATV3(C)		FWXT20ATV3(C)	
Cooling capacity at 7/12 °C	Min.		kW	0,53		0,65		0,74	
	Med.		kW	0,98		1,20		1,35	
	Max.		kW	1,21		1,62		2,12	
Sensible cooling capacity at 7/12 °C	Min.		kW	0,13		0,15		0,36	
	Med.		kW	0,40		0,56		0,70	
	Max.		kW	1,01		1,44		1,99	
Heating capacity at 35/30 °C	Min.		kW	0,29		0,23		0,47	
	Med.		kW	0,48		0,69		1,08	
	Max.		kW	0,66		1,00		1,44	
Heating capacity at 45/40 °C	Min.		kW	0,61		0,85		1,08	
	Med.		kW	1,12		1,51		1,95	
	Max.		kW	1,51		2,03		2,62	
Power input	Min.		kW	0,004		0,005		0,006	
	Max.		kW	0,019		0,020		0,029	
Fan speed	Min.		m³/h	84		124		138	
	Med.		m³/h	155		229		283	
	Max.		m³/h	228		331		440	
Casing	Colour			RAL 9003					
	Material			Metal sheet					
Dimensions	Unit	Height	mm	335					
		Width	mm	902		1100		1300	
	Packed unit	Depth	mm	128					
		Height	mm	490					
		Width	mm	1030		1230		1430	
		Depth	mm	210					
		Weight	Unit	kg	14		16		19
Packing	Packed unit		kg	15		17		20	
	Material			Carton					
Heat exchanger	Weight		kg	1					
	Quantity			1					
	Internal coil volume		l	0,54		0,74		0,93	
Water circuit		Max Operating pressure	bar	10					
	Piping connections diameter		inch	3/4" male					
	Piping material			EUROKONUS					
	Heating - Water pressure drop at 35/30 °C	Min.	kPa	0,2		1,9		0,3	
		Med.	kPa	0,9		2,9		1,4	
		Max.	kPa	1,6		3,3		2,3	
	Heating - Water pressure drop at 45/40 °C	Min.	kPa	1,1		2,8		1,1	
		Med.	kPa	3,1		3,5		4,1	
		Max.	kPa	5,4		4,0		6,6	
	Cooling - Water pressure drop at 7/12 °C	Min.	kPa	1,1		3,9		1,3	
		Med.	kPa	3,0		4,8		4,2	
		Max.	kPa	5,2		5,7		6,9	
	Heating - Water flow rate at 35/30 °C	Min.	kg/h	39,3		39,0		80,8	
		Med.	kg/h	81,8		119,4		185,4	
		Max.	kg/h	114,0		172,4		247,8	
	Heating - Water flow rate at 45/40 °C	Min.	kg/h	91,9		112,6		164,8	
		Med.	kg/h	162,0		216,6		341,0	
		Max.	kg/h	218,4		310,0		447,2	
	Cooling - Water flow rate at 7/12 °C	Min.	kg/h	82,1		98,9		156,5	
		Med.	kg/h	138,1		177,4		300,6	
		Max.	kg/h	184,4		283,0		396,8	
	Pressure	Heating/Max.	bar	10		10		10	
Sound power level	Min.		dBA	35		36		36	
	Max.		dBA	53		54		55	
Sound pressure level	Min.		dBA	25		25		26	
	Max.		dBA	40		42		43	
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				
Electrical specifications				FWXT10ATV3(C)		FWXT15ATV3(C)		FWXT20ATV3(C)	
Power supply	Phase			1					
	Frequency		Hz	50					
	Voltage		V	230					
Electrical power consumption	Max.		W	17,6		19,8		26,5	
	Standby		W	5		5		5,8	
Current	Maximum running current		A	0,16					

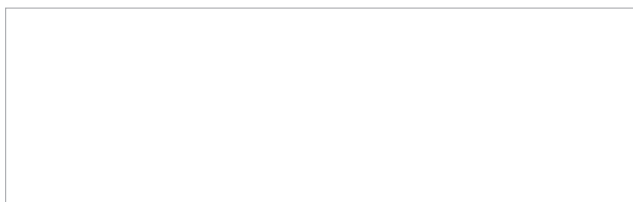
							
			FWXV10ATV3(R)	FWXM10ATV3(R)	FWXM15ATV3(R)	FWXM20ATV3(R)	FWXT10ATV3(C)
			FWXV15ATV3(R)				FWXT15ATV3(C)
			FWXV20ATV3(R)				FWXT20ATV3(C)
			DC Inverter fan coil unit with sheet metal cabinet (white colour)	Built in DC Inverter fancoil for horizontal and vertical			High Wall fancoil
Material name	Description	Picture					
EKRTCTRL1	On board electronic control SMART TOUCH with PID full modulating fan and thermostat		Opt				
EKRTCTRL2	On board electronic control SMART TOUCH 4 speeds with thermostat		Opt				
EKPCBO	On board 4 speeds control switch to be combine with Daikin combinable thermostats		Opt				
EKWHCTRL0	On board controller for EKWHCTRL1		Opt	Opt	Opt	Opt	
EKWHCTRL1	SMART LCD wall controller with temperature probe, white casing		Opt	Opt	Opt	Opt	Opt
EKFA	Aestetical feet		Opt				
EK2VK0	Motorized 2-way valve (FWXV/M)		Opt	Opt	Opt	Opt	
EKT2VK0	Motorized 2-way valve (FWXT)						Opt
EK3VK1	Motorized 3-way valve (FWXV/M)		Opt	Opt	Opt	Opt	
EKT3VK1	Motorized 3-way valve (FWXT)						Opt
EKEUR90	L-bow 90 °C		Opt	Opt	Opt	Opt	
EKDIST	Extension piece		Opt	Opt	Opt	Opt	
EKM10COH	Condensate collector tray for horizontal installation		FWXV10ATV3(R)				
EKM15COH			FWXV15ATV3(R)				
EKM20COH			FWXV20ATV3(R)				
EKM10CS	Metal casing			Opt			
EKM15CS					Opt		
EKM20CS						Opt	
EKM10CH	Front cover for ceiling installation			Opt			
EKM15CH					Opt		
EKM20CH						Opt	
EKM10CV	Front cover for wall installation			Opt			
EKM15CV					Opt		
EKM20CV						Opt	
EKM10DH	Air intake fitting			Opt			
EKM15DH					Opt		
EKM20DH						Opt	
EKM10D90	90 °C exhaust bend (Horizontal)			Opt			
EKM15D90					Opt		
EKM20D90						Opt	
EKM10DT	Telescopic air flow duct			Opt			
EKM15DT					Opt		
EKM20DT						Opt	
EKM10IS	Aluminum air intake grill with straight airflow			Opt			
EKM15IS					Opt		
EKM20IS						Opt	
EKM10SV	Straight airflow vent			Opt			
EKM15SV					Opt		
EKM20SV						Opt	
EKM10IC	Aluminum air intake grill with curved airflow			Opt			
EKM15IC					Opt		
EKM20IC						Opt	
EKM10CA	Aluminum air outlet grill with curved airflow			Opt			
EKM15CA					Opt		
EKM20CA						Opt	

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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