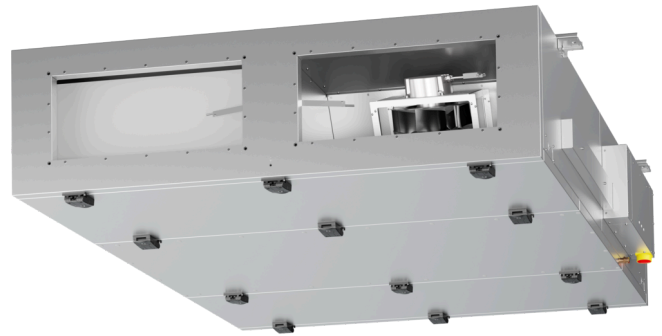


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- Flat air handling unit with counter flow heat exchanger
- Ceiling mounting, version right
- Frameless, double wall housing made of galvanized steel sheet, insulated
- Constant air flow EC fans, integrated controls
- Automatic summer bypass
- Electric heating, without cooling, panel filter F7/M5
- Designed based on VDI 6022



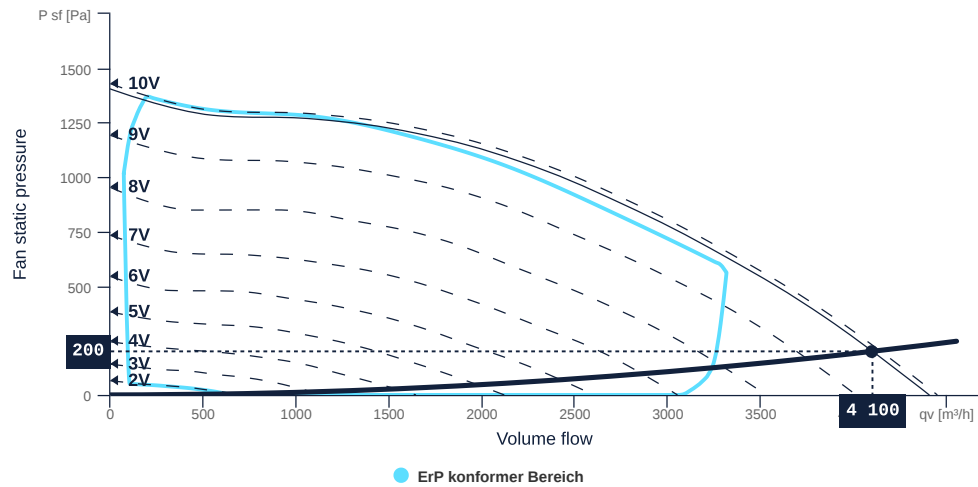
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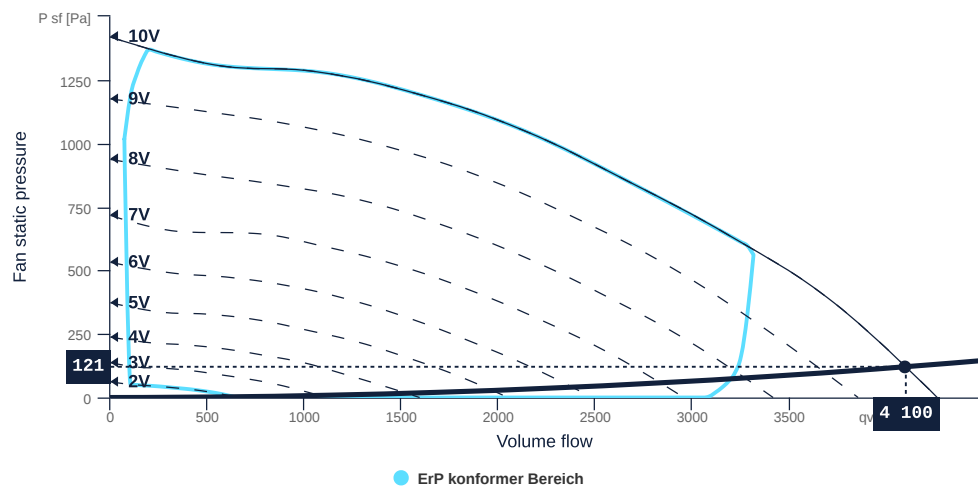
MAP

Name	Value	Unit
Volume flow	4100	m³/h
Pressure	200	Pa



EXTRACT AIR MAP

Name	Value	Unit
Volume flow	4100	m³/h
Pressure	121	Pa



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HEAT RECOVERY SUMMER

Name	Value	Unit
Outside air temperature	32	°C
Temperature exhaust air	25	°C
Relative humidity outside air	40	%
Relative humidity exhaust air	50	%

HEAT RECOVERY WINTER

Name	Value	Unit
Outside air temperature	-12	°C
Temperature exhaust air	20	°C
Relative humidity outside air	90	%
Relative humidity exhaust air	50	%

HEAT RECOVERY

Name	Value		Unit	Formula symbol
	summer	winter		
Supply air temperature	26.22	17.53	°C	T_{sup}
Supply air relative humidity	56	10	%	ϕ_{sup}
Transferred power	8.02	40.64	kW	Q
Efficiency	82.6	92.3	%	η
Air pressure drop	212	212	Pa	Δp_v

HEATER ELECTRICAL

Name	Value	Unit
Height above sea level	0	m
Intake air temperature	-12	°C
Outlet air temperature	22	°C

Name	Value	Unit	Formula symbol
Supply air temperature	7.7	°C	T_{sup}
Transferred power	27.0	kW	Q
Power max.	27.0	kW	P_{max}
Air pressure drop	301	Pa	Δp_v



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volumetric flow (supply air)	4100	m³/h	QVsup
Volumetric flow (extract air)	4100	m³/h	qVeta
Static pressure (supply air)	200	Pa	dpSext sup
Static pressure (extract air)	121	Pa	dpSext eta
Control voltage (supply air)	9	V	Uctrl sup
Rotation speed (supply air)	3762	1/min	Nsup
Control voltage (extract air)	10	V	Uctrl eta
Rotation speed (extract air)	3792	1/min	Neta
SFP (entire device)	2534	W/(m³/s)	sfpdevice
Current consumption Electric	3	A	Ied
Electrical power consumption	2886	W	Pedk
Sound power level outdoor air	71	dB(A)	LWAoda
Sound power level supply air	93	dB(A)	LWAAsup
Sound power level extract air	70	dB(A)	LWAeta
Sound power level exhaust air	92	dB(A)	LWAeha
Sound power level housing	70	dB(A)	LWA casing

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
outside air	72	57	60	66	65	66	62	49	39	20	dB(A)	LWAoda
supply air	93	64	71	87	85	88	86	82	75	59	dB(A)	LWAAsup
exhaust air	71	55	60	65	65	65	58	48	40	21	dB(A)	LWAeta
exhaust air	93	63	72	85	86	88	86	81	75	59	dB(A)	LWAeha
housing	70	62	62	67	59	58	53	47	42	25	dB(A)	LWA casing

SOUND PRESSURE LEVEL CALCULATOR

Name	Value	Unit
Enveloping surface	Halphsphere	
Distance	3	m

Sound pressure	NR	mid-frequency tape										Unit	Formula symbol
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
outside air	48	54	40	42	48	47	49	44	32	21	3	dB(A)	LWAoda
supply air	71	76	46	54	69	68	70	69	65	58	42	dB(A)	LWAAsup
exhaust air	27	32	22	29	25	22	22	15	7	0	0	dB(A)	LWAeta
exhaust air	45	50	33	41	41	41	46	43	40	28	9	dB(A)	LWAeha
housing	46	50	43	41	47	37	37	32	25	20	5	dB(A)	LWA casing



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	700x400		WxH _{duct}
Rated voltage (entire device)	400	V	U _{rated}
Phases (entire device)	3-N		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat _{casing}
IP-protection class (casing)	IP41		IP _{casing}
IP-protection class (entire device)	IP41		IP _{compl}
IP-Protection class (terminal box)	IP44		IP _{ebox}
Weight	402	kg	m
Nominal air flow rate, nominal point m ³ /h	2930.4	m ³ /h	q _{vnom}
Nominal external pressure, static	200	Pa	p _{s,nom}
Connection side supply air	Right		L/R
Type of the ventilation-unit	BVU - supply air		AHU _{type}
Type of heat-recovery-system	recuperative		HRS _{type}
Type of the heater	Electrical		H _{type}
Type of cooler	No		C _{type}
Outdoor installation	No		outdoor
Leak class	L2		L _{class}
Speed control	variable speed control		VSD _{type}
Filter class extract air	ISO ePM10 50%		F _{class, eta}
Filter class supply air	ISO ePM1 55%		F _{class, sup}
Mechanical stability class	D2		D _{class}



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ERP DATA (LOT 6)

Name	Value	Unit	Formula symbol
Energy performance supply air filter		E	
Energy performance extract air filter		E	
Thermal efficiency HRS, Nominal-point	84.83	%	tNRVU
Nominal air flow rate, nominal point m ³ /s	0.81	m ³ /s	q _{v,nom}
Actual electrical input power, nominal point	1.45	kW	P _{e,nom}
Internal specific fan power, nominal point	1081.95	Ws/m ³	SFP _{int}
Face velocity, nominal point	3.18	m/s	V _{nom}
Nominal external pressure, static	200	Pa	p _{s,nom}
supply air fan static efficiency, nominal point	54.67	%	η _{es,SUP}
static efficiency of the extract fan, nominal point	61.07	%	η _{es,EHA}
Highest external air leakage rate	0.67	%	
Enclosure sound level, nominal point	66.76	dB(A)	LWA2
Rating	Product is compliant 2018		
Internal pressure drop of ventilation components supply air, nominal point	282.54	Pa	dp _{vent,nom,int,SUP}
Internal pressure drop of ventilation components extract air, nominal point	345.17	Pa	dp _{vent,nom,int,EHA}

MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	3000	W	P _{ed,max}
Max. operating current (device)	4.7	A	I _{ed,max}
Max. speed	3800	1/min	n _{max}
Max. stat. efficiency	43.6	%	η _{es}
Max. fan efficiency	43.8	%	η _e
Max. flowrate	4450	m ³ /h	q _{v,max}
Max. stat pressure	1430	Pa	p _{sf,max}
Max. medium temperature	40	°C	T _{m,max}
Max. environment temperature	40	°C	T _{amb,max}
Min. environment temperature	-20	°C	T _{amb,min}

FILTER DATA

Name	Value	Unit	Formula symbol
Degree of separation (supply air)	55	%	
Degree of separation (extract air)	50	%	
Filter group (extract air)	ISO ePM10		
Fitter group (supply air)	ISO ePM1		

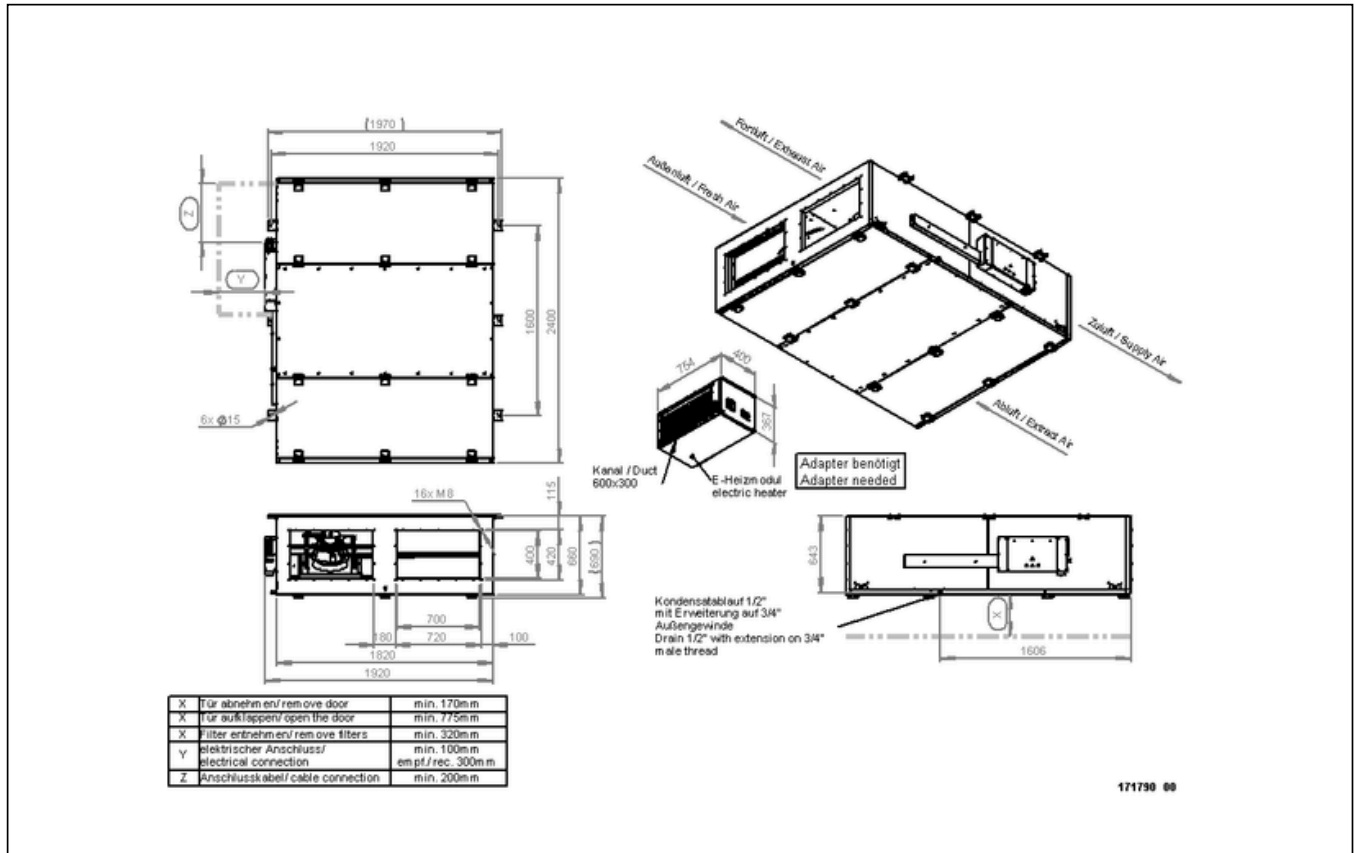


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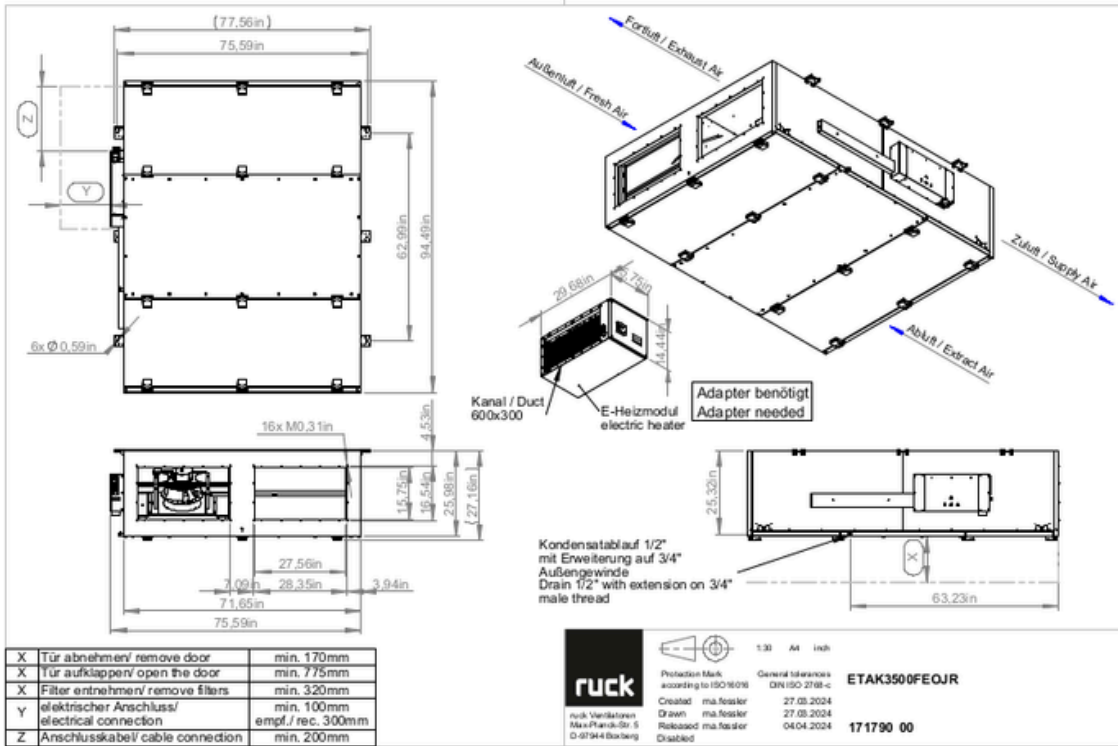
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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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Technical drawing of the ETA K 3500 F EOJR unit. The drawing includes a front view with dimensions (1970, 1920, 1600, 2400, 6x Ø15), a side view with dimensions (16x M8, 115, 180, 700, 720, 100, 1820, 1920, 600, 690), and a perspective view showing air flow directions: Forluft / Exhaust Air, Außenluft / Fresh Air, Zuluft / Supply Air, and Abluft / Extract Air. A detail of the E-Heizmodul (electric heater) is shown with dimensions (754, 400, 367). A note states 'Adapter benötigt / Adapter needed'. A detail of the condensate drain is shown with dimensions (64.3, 1606) and the text 'Kondensatablauf 1/2" mit Erweiterung auf 3/4" Außengewinde / Drain 1/2" with extension on 3/4" male thread'. A table at the bottom left lists installation instructions for points X, Y, and Z. The bottom right contains the ruck logo, protection mark, general tolerances, and product information.

X	Tür abnehmen/ remove door	min. 170mm
X	Tür aufklappen/ open the door	min. 775mm
X	Filter entnehmen/ remove filters	min. 320mm
Y	elektrischer Anschluss/ electrical connection	min. 100mm empf./ rec. 300mm
Z	Anschlusskabel/ cable connection	min. 200mm

ruck Protection Mark according to ISO 9006 General tolerances DIN ISO 2768-c
 Created: ma.fessler 27.03.2024
 Drawn: ma.fessler 27.03.2024
 Released: ma.fessler 04.04.2024
 Disabled:

1:30 A4 mm
 ETAK3500FEOJR
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