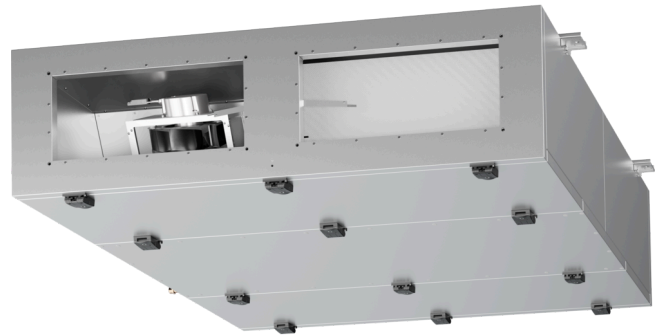


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- Flat air handling unit with counter flow heat exchanger
- Ceiling mounting, version right
- Frameless, double wall housing made of galvanized steel sheet, insulated
- Constant air flow EC fans, integrated controls
- Automatic summer bypass
- Mitgeliefertes E-Heizregister für externe Montage im Kanal, ohne Kühlung, Paneelfilter F7/M5
- Constructed acc. to VDI 6022



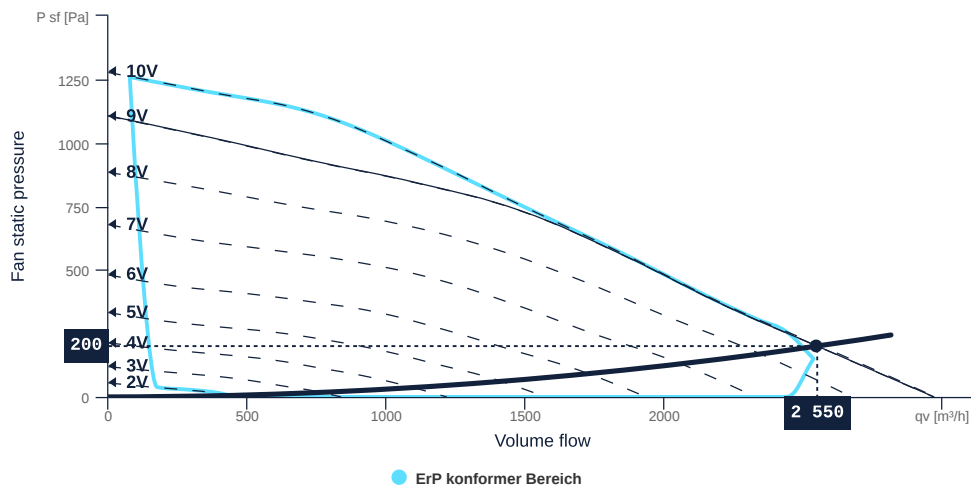
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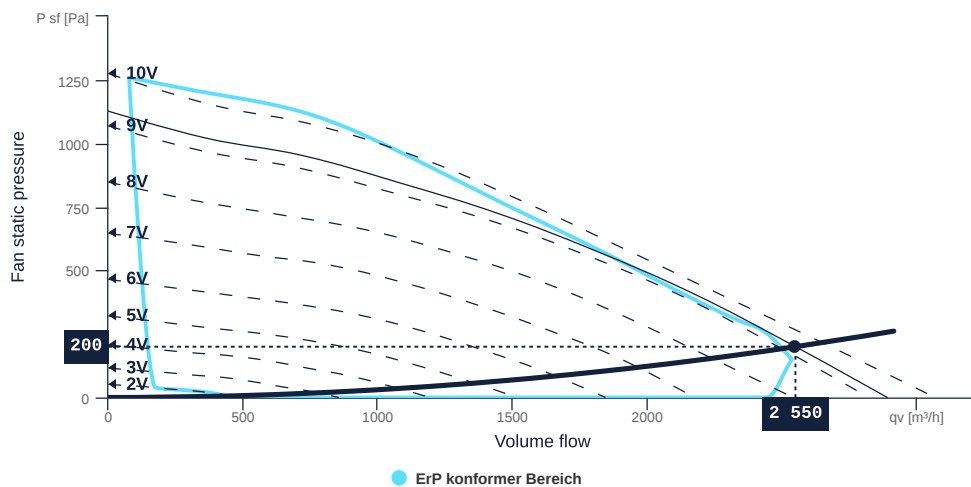
MAP

Name	Value	Unit
Volume flow	2550	m³/h
Pressure	200	Pa



EXTRACT AIR MAP

Name	Value	Unit
Volume flow	2550	m³/h
Pressure	200	Pa



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HEAT RECOVERY SUMMER

Name	Value	Unit
Outside air temperature	32	°C
Temperature exhaust air	24	°C
Relative humidity outside air	40	%
Relative humidity exhaust air	40	%

HEAT RECOVERY WINTER

Name	Value	Unit
Outside air temperature	-12	°C
Temperature exhaust air	22	°C
Relative humidity outside air	90	%
Relative humidity exhaust air	40	%

HEAT RECOVERY

Name	Value		Unit	Formula symbol
	summer	winter		
Supply air temperature	25.66	17.53	°C	T_{sup}
Supply air relative humidity	58	10	%	ϕ_{sup}
Transferred power	5.47	25.27	kW	Q
Efficiency	79.3	86.9	%	η
Air pressure drop	136	136	Pa	Δp_v

HEATER ELECTRICAL

Name	Value	Unit
Height above sea level	0	m
Intake air temperature	10	°C
Outlet air temperature	22	°C

Name	Value	Unit	Formula symbol
Supply air temperature	22.0	°C	T_{sup}
Transferred power	10.2	kW	Q
Power max.	18.0	kW	P_{max}
Air pressure drop	119	Pa	Δp_v



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volumetric flow (supply air)	2550	m³/h	QVsup
Volumetric flow (extract air)	2550	m³/h	qVeta
Static pressure (supply air)	200	Pa	dpSext sup
Static pressure (extract air)	200	Pa	dpSext eta
Control voltage (supply air)	9	V	Uctrl sup
Rotation speed (supply air)	2791	1/min	Nsup
Control voltage (extract air)	9	V	Uctrl eta
Rotation speed (extract air)	2899	1/min	Neta
SFP (entire device)	2009	W/(m³/s)	sfpdevice
Current consumption Electric	5	A	Ied
Electrical power consumption	1423	W	Pedk
Sound power level outdoor air	64	dB(A)	LWAoda
Sound power level supply air	85	dB(A)	LWAsup
Sound power level extract air	67	dB(A)	LWAeta
Sound power level exhaust air	87	dB(A)	LWAeha
Sound power level housing	62	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	64	41	46	60	58	56	58	48	41	13	dB(A)	LWAoda
supply air	85	50	59	80	77	79	78	74	75	52	dB(A)	LWAsup
exhaust air	68	52	51	61	64	58	61	50	43	16	dB(A)	LWAeta
exhaust air	87	54	62	81	79	81	81	76	76	53	dB(A)	LWAeha
housing	62	44	50	61	53	50	48	42	42	16	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	42	47	23	29	42	41	38	41	31	24	0	dB(A)	LWAoda
supply air	64	68	33	41	62	59	61	61	57	57	35	dB(A)	LWAsup
exhaust air	31	36	29	33	25	25	25	24	18	11	0	dB(A)	LWAeta
exhaust air	43	48	29	40	37	39	43	41	34	26	8	dB(A)	LWAeha
housing	39	42	26	32	40	32	30	28	22	21	3	dB(A)	LWA casing



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	700x300		WxDuct
Rated voltage (entire device)	230	V	U _{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	10 A		fuse
Housing material	Galvanized steel		mat _{casing}
IP-protection class (casing)	IP41		IP _{casing}
IP-protection class (entire device)	IP41		IP _{compl}
Weight	355	kg	m
Nominal air flow rate, nominal point m ³ /h	1494	m ³ /h	q _{v,nom}
Nominal external pressure, static	713.2	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
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}

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	82.6	%	tNRVU
Nominal air flow rate, nominal point m ³ /s	0.42	m ³ /s	q _{v,nom}
Actual electrical input power, nominal point	1.27	kW	P _{e,nom}
Internal specific fan power, nominal point	625.1	Ws/m ³	SFP _{int}
Face velocity, nominal point	1.1	m/s	V _{nom}
Nominal external pressure, static	713.2	Pa	p _{s,nom}
supply air fan static efficiency, nominal point	65.8	%	η _{es,SUP}
static efficiency of the extract fan, nominal point	65.8	%	η _{es,EHA}
Highest external air leakage rate	0.64	%	
Highest internal air leakage rate	7.76	%	
Enclosure sound level, nominal point	63	dB(A)	LWA2
Rating	Product is compliant 2018		



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MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	1600	W	$P_{ed, max}$
Max. operating current (device)	7	A	$I_{ed, max}$
Max. speed	3400	1/min	n_{max}
Max. stat. efficiency	42	%	η_{es}
Max. fan efficiency	42.1	%	η_e
Max. flowrate	2975	m ³ /h	$q_{v, max}$
Max. stat pressure	1280	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		
Filter group (supply air)	ISO ePM1		

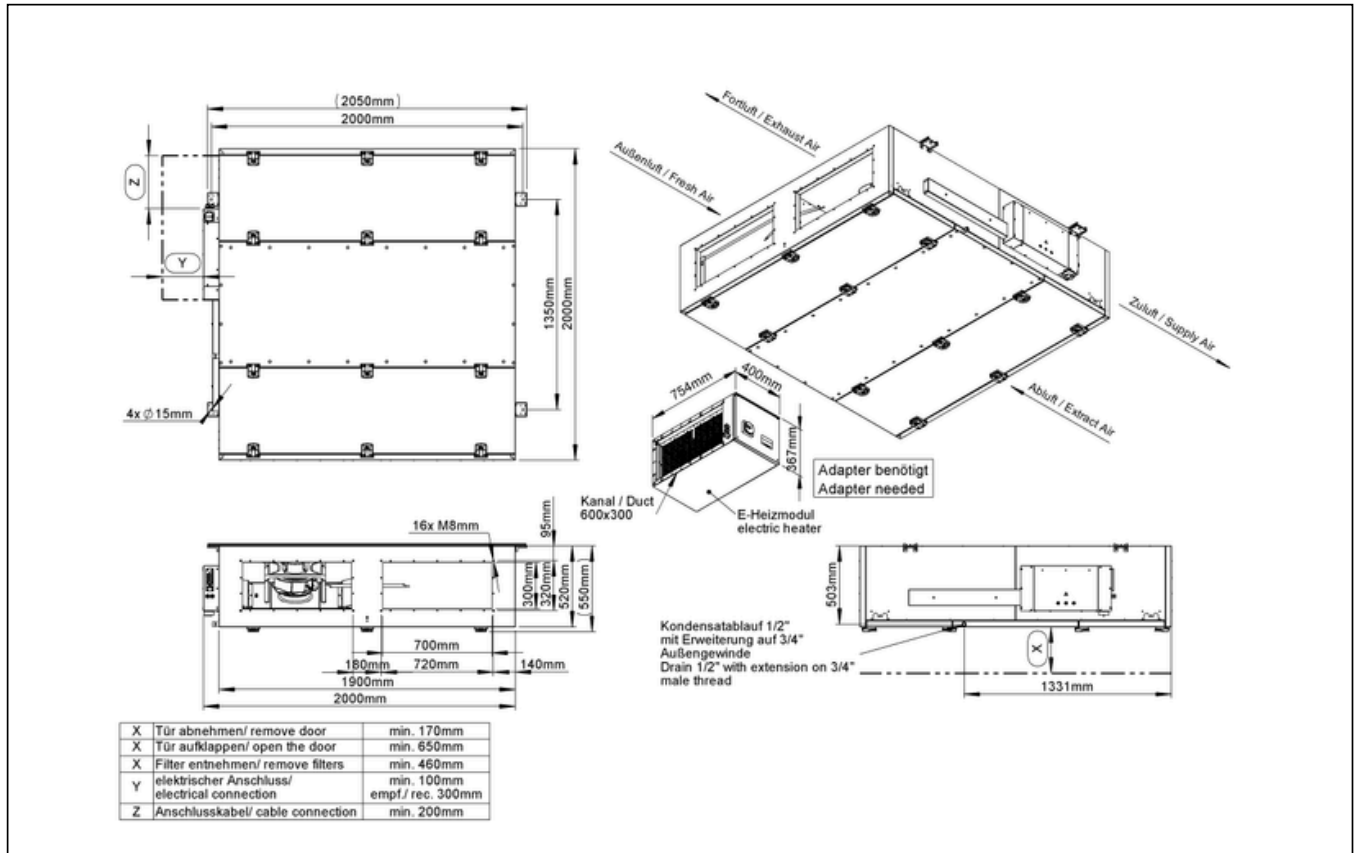
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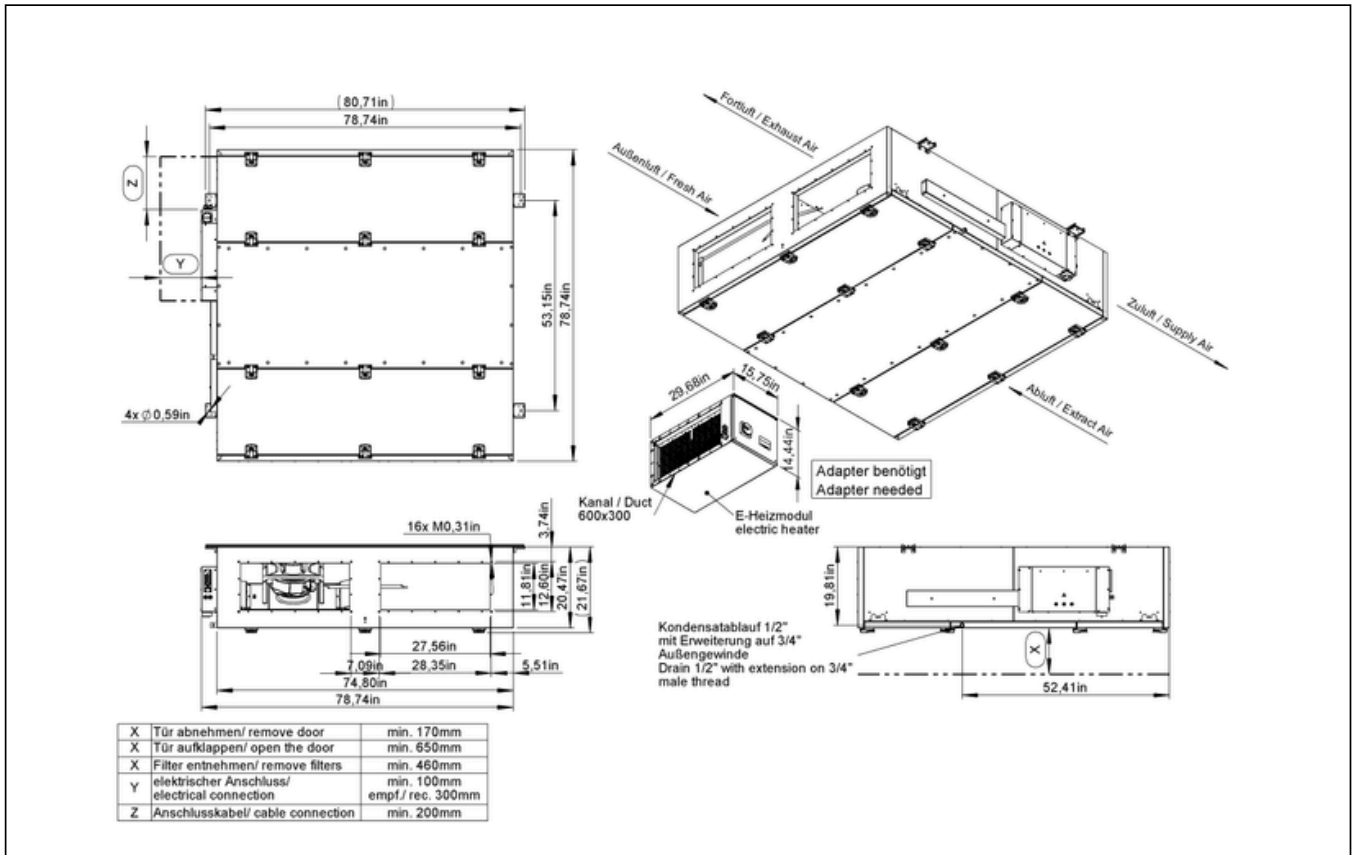
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CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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Technical drawing of the ETA K 2500 F EOJR unit. The drawing includes a top view with dimensions (2050mm, 2000mm, 1350mm, 2000mm) and a note '4x Ø 15mm'. A side view shows dimensions (16x M8mm, 65mm, 30mm, 30mm, 520mm, 550mm, 180mm, 700mm, 720mm, 140mm, 1900mm, 2000mm). A perspective view shows air flow directions: 'Forluft / Exhaust Air', 'Außenluft / Fresh Air', 'Zuluft / Supply Air', and 'Abluft / Extract Air'. A detail of the 'E-Heizmodul electric heater' shows dimensions (75mm, 400mm, 567mm) and a note 'Adapter benötigt Adapter needed'. Another detail shows a 'Kanal / Duct 600x300' and a note '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 requirements 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. 650mm
X	Filter entnehmen/ remove filters	min. 460mm
Y	elektrischer Anschluss/ electrical connection	min. 100mm empf./ rec. 300mm
Z	Anschlusskabel/ cable connection	min. 200mm

ruck VENTILATOREN
 ruck Ventilatoren
 Max-Planck-Str. 5
 D-97944 Boxberg

Protection Mark according to ISO 9106
 Created: ma.fessler
 Drawn: ma.fessler
 Released: ma.fessler
 Disabled

General tolerances
 DIN ISO 2768-c
 1:25 A4 mm

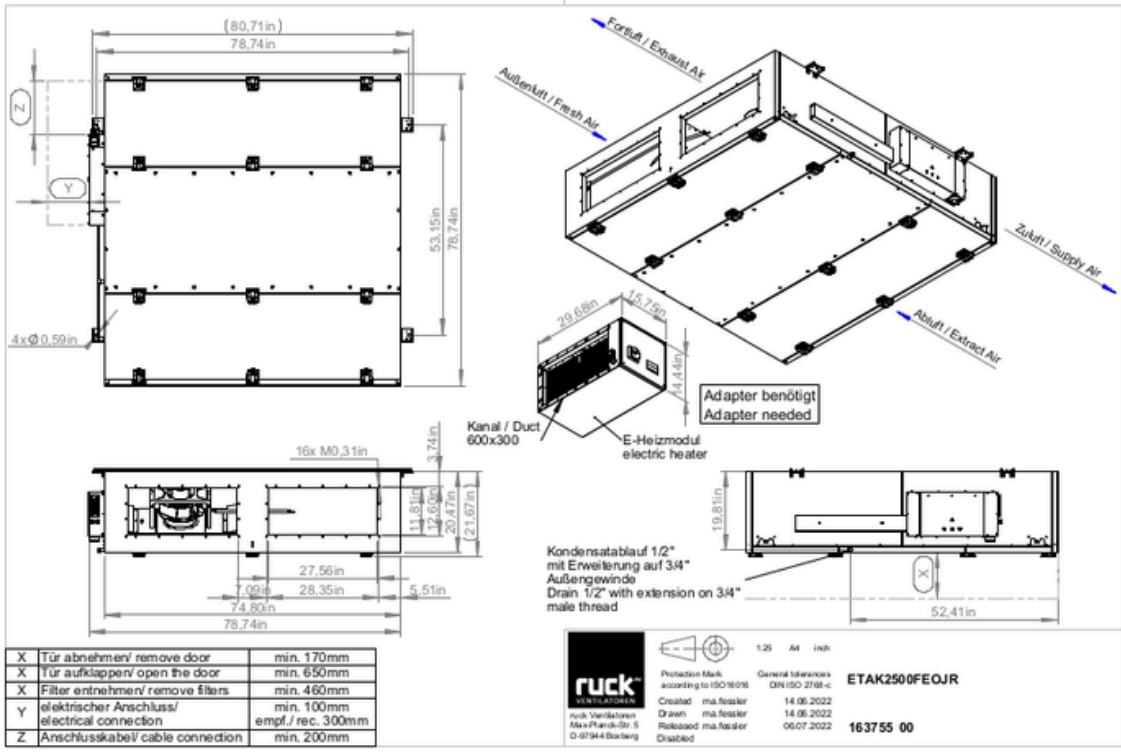
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 14.06.2022
 06.07.2022
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