

# ETA K 2800 H EOJL

165430

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- Compact air handling unit with counter flow heat exchanger
- Horizontal connections, version left
- Frameless, double wall housing made of galvanized steel sheet, insulated
- Constant air flow EC fans, integrated controls
- Supplied with electric heater for external installation in duct, without cooling, panel filter F7/M5
- For indoor and outdoor installation (optional accessories)
- Constructed acc. to VDI 6022



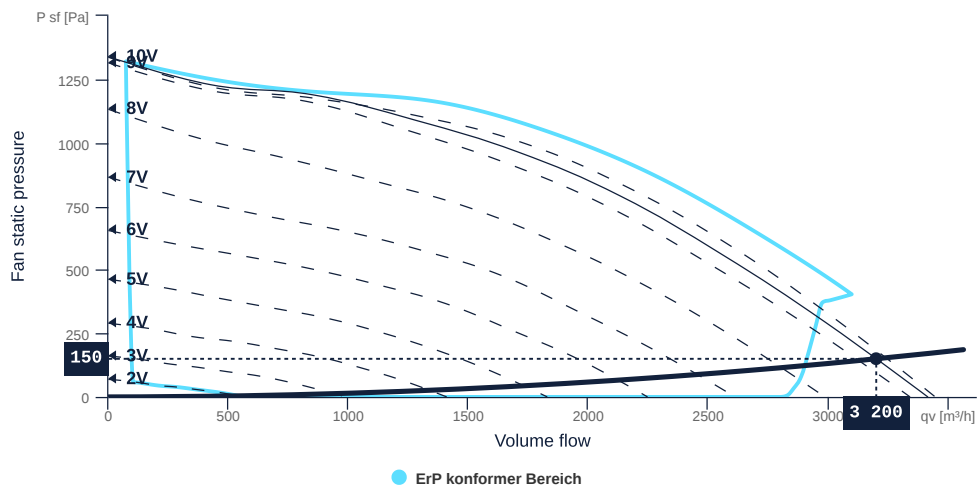
to the product detail page

# ETA K 2800 H EOJL

165430

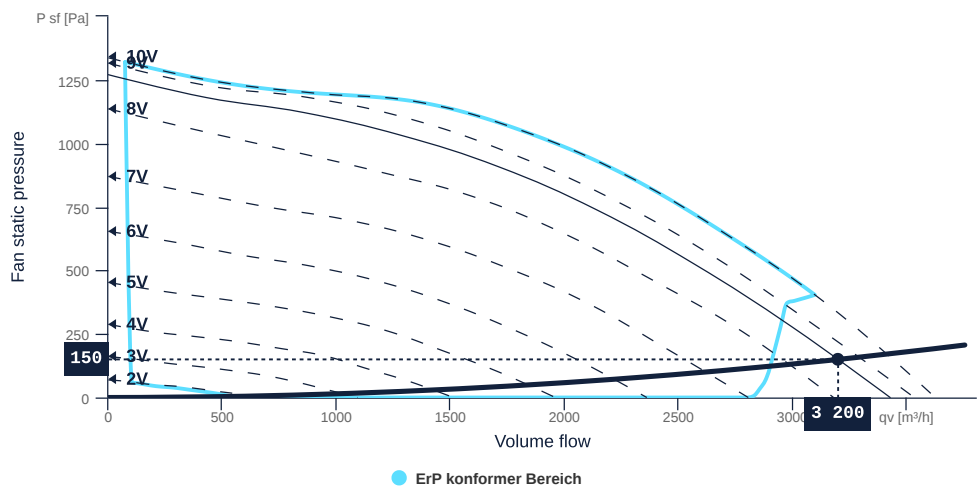
## MAP

Name	Value	Unit
Volume flow	3200	m³/h
Pressure	150	Pa



## EXTRACT AIR MAP

Name	Value	Unit
Volume flow	3200	m³/h
Pressure	150	Pa



to the product detail page

# ETA K 2800 H EOJL

165430

## 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	25.44	18.29	°C	T <sub>sup</sub>
Supply air relative humidity	59	9	%	φ <sub>sup</sub>
Transferred power	7.11	32.53	kW	Q
Efficiency	82	89.1	%	η
Air pressure drop	276	276	Pa	Δp <sub>v</sub>

## 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 <sub>sup</sub>
Transferred power	12.8	kW	Q
Power max.	18.0	kW	P <sub>max</sub>
Air pressure drop	185	Pa	Δp <sub>v</sub>



to the product detail page

# ETA K 2800 H EOJL

165430

## TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volumetric flow (supply air)	3200	m³/h	QVsup
Volumetric flow (extract air)	3200	m³/h	QVeta
Static pressure (supply air)	150	Pa	dpSext sup
Static pressure (extract air)	150	Pa	dpSext eta
Control voltage (supply air)	9	V	Uctrl sup
Rotation speed (supply air)	3365	1/min	Nsup
Control voltage (extract air)	8	V	Uctrl eta
Rotation speed (extract air)	3203	1/min	Neta
SFP (entire device)	2166	W/(m³/s)	sfpdevice
Current consumption Electric	2	A	Ied
Electrical power consumption	1925	W	Pedk
Sound power level outdoor air	70	dB(A)	LWAoda
Sound power level supply air	87	dB(A)	LWAsup
Sound power level extract air	70	dB(A)	LWAeta
Sound power level exhaust air	89	dB(A)	LWAeha
Sound power level housing	67	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	71	45	50	68	65	62	57	49	39	13	dB(A)	LWAoda
supply air	87	53	59	81	79	82	81	76	71	50	dB(A)	LWAsup
exhaust air	71	54	56	64	67	64	59	48	37	16	dB(A)	LWAeta
exhaust air	89	57	67	83	81	84	83	78	74	55	dB(A)	LWAeha

## SOUND PRESSURE LEVEL CALCULATOR

Name	Value	Unit
Enveloping surface	Halpsphere	
Distance	3	m

Sound pressure	NR	mid-frequency tape										Unit	Formula symbol
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
outside air	50	53	27	33	51	47	45	40	31	22	0	dB(A)	LWAoda
supply air	65	70	36	42	63	62	64	64	59	54	33	dB(A)	LWAsup
exhaust air	23	30	25	26	17	20	22	16	6	0	0	dB(A)	LWAeta
exhaust air	37	43	32	36	32	33	38	36	27	24	11	dB(A)	LWAeha



to the product detail page

# ETA K 2800 H EOJL

165430

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## GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	600x400		WxH <sub>duct</sub>
Rated voltage (entire device)	400	V	U <sub>rated</sub>
Phases (entire device)	3-N		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat <sub>casing</sub>
IP-protection class (casing)	IP44		IP <sub>casing</sub>
IP-protection class (entire device)	IP41		IP <sub>compl</sub>
Weight	383	kg	m
Nominal air flow rate, nominal point m <sup>3</sup> /h	2631.6	m <sup>3</sup> /h	q <sub>v,nom</sub>
Nominal external pressure, static	200	Pa	p <sub>s,nom</sub>
Connection side supply air	Left		L/R
Type of the ventilation-unit	BVU - supply air		AHU <sub>type</sub>
Type of heat-recovery-system	recuperative		HRS <sub>type</sub>
Type of the heater	Electrical		H <sub>type</sub>
Type of cooler	No		C <sub>type</sub>
Outdoor installation	Yes, up to -20°C		outdoor
Speed control	variable speed control		VSD <sub>type</sub>
Filter class extract air	ISO ePM10 50%		F <sub>class, eta</sub>
Filter class supply air	ISO ePM1 55%		F <sub>class, sup</sub>

## 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	83.61	%	t <sub>NRVU</sub>
Nominal air flow rate, nominal point m <sup>3</sup> /s	0.73	m <sup>3</sup> /s	q <sub>v,nom</sub>
Actual electrical input power, nominal point	1.35	kW	P <sub>e,nom</sub>
Internal specific fan power, nominal point	1078.7	Ws/m <sup>3</sup>	SFP <sub>int</sub>
Face velocity, nominal point	1.75	m/s	V <sub>nom</sub>
Nominal external pressure, static	200	Pa	p <sub>s,nom</sub>
supply air fan static efficiency, nominal point	64.95	%	η <sub>es,SUP</sub>
static efficiency of the extract fan, nominal point	60.33	%	η <sub>es,EHA</sub>
Highest external air leakage rate	0.28	%	
Enclosure sound level, nominal point	66.35	dB(A)	LWA <sub>2</sub>
Rating	Product is compliant 2018		
Internal pressure drop of ventilation components supply air, nominal point	360.06	Pa	dp <sub>vent,nom,int,SUP</sub>
Internal pressure drop of ventilation components extract air, nominal point	316.33	Pa	dp <sub>vent,nom,int,EHA</sub>



to the product detail page

# ETA K 2800 H EOJL

165430

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## MAXIMAL DATA

Name	Value	Unit	Formula symbol
Max. power consumption (device)	2200	W	$P_{ed, max}$
Max. operating current (device)	3.34	A	$I_{ed, max}$
Max. speed	3480	1/min	$n_{max}$
Max. stat. efficiency	44.7	%	$\eta_{es}$
Max. fan efficiency	44.8	%	$\eta_e$
Max. flowrate	3440	m <sup>3</sup> /h	$q_{v, max}$
Max. stat pressure	1340	Pa	$p_{sf, max}$
Max. medium temperature	40	°C	$T_{m, max}$
Max. environment temperature	40	°C	$T_{amb, max}$
Min. environment temperature	-25	°C	$T_{amb, min}$

## FILTER DATA

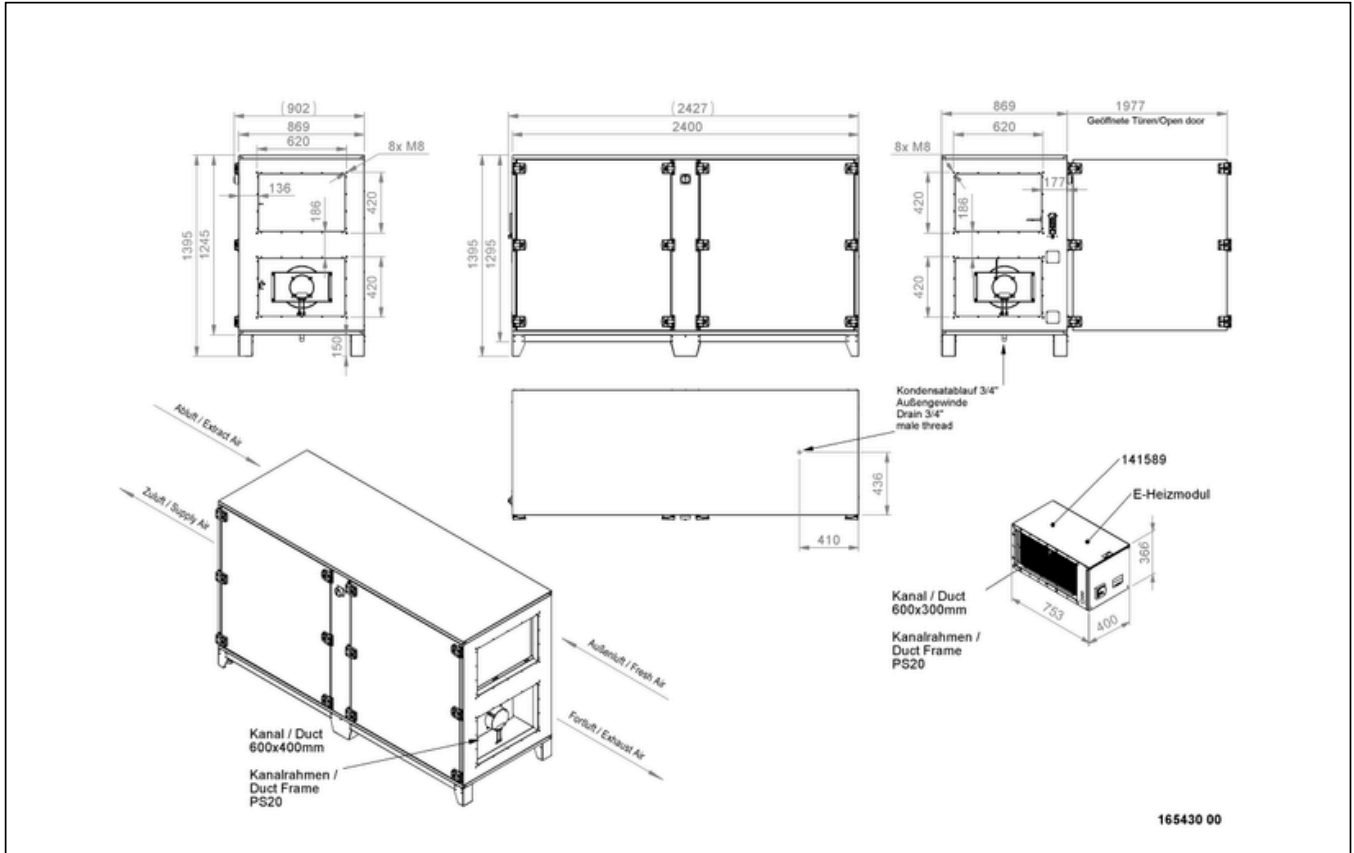
Name	Value	Unit	Formula symbol
Degree of separation (supply air)	55	%	
Degree of separation (extract air)	50	%	
Filter group (extract air)	ISO ePM10		
Filter group (supply air)	ISO ePM1		



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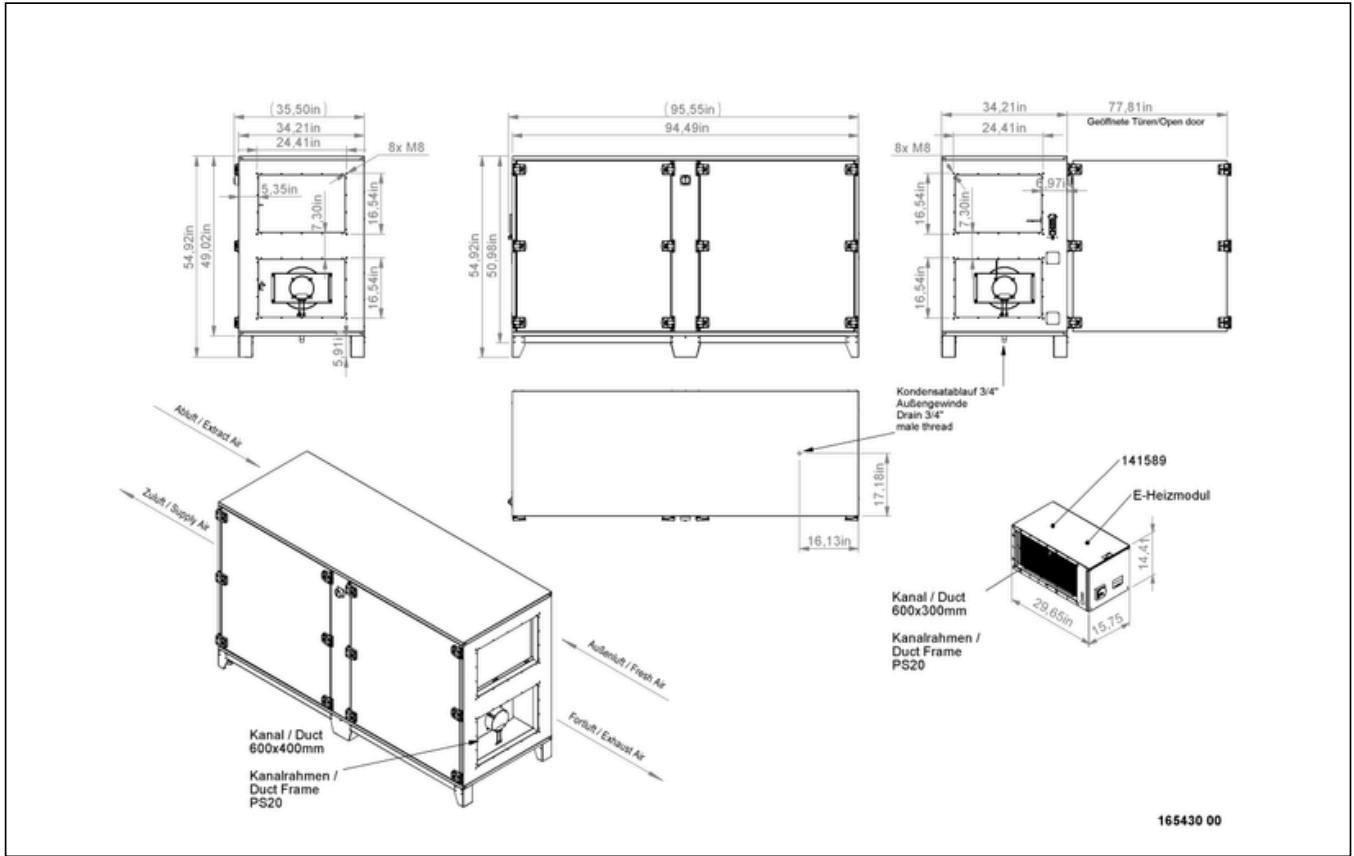
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## CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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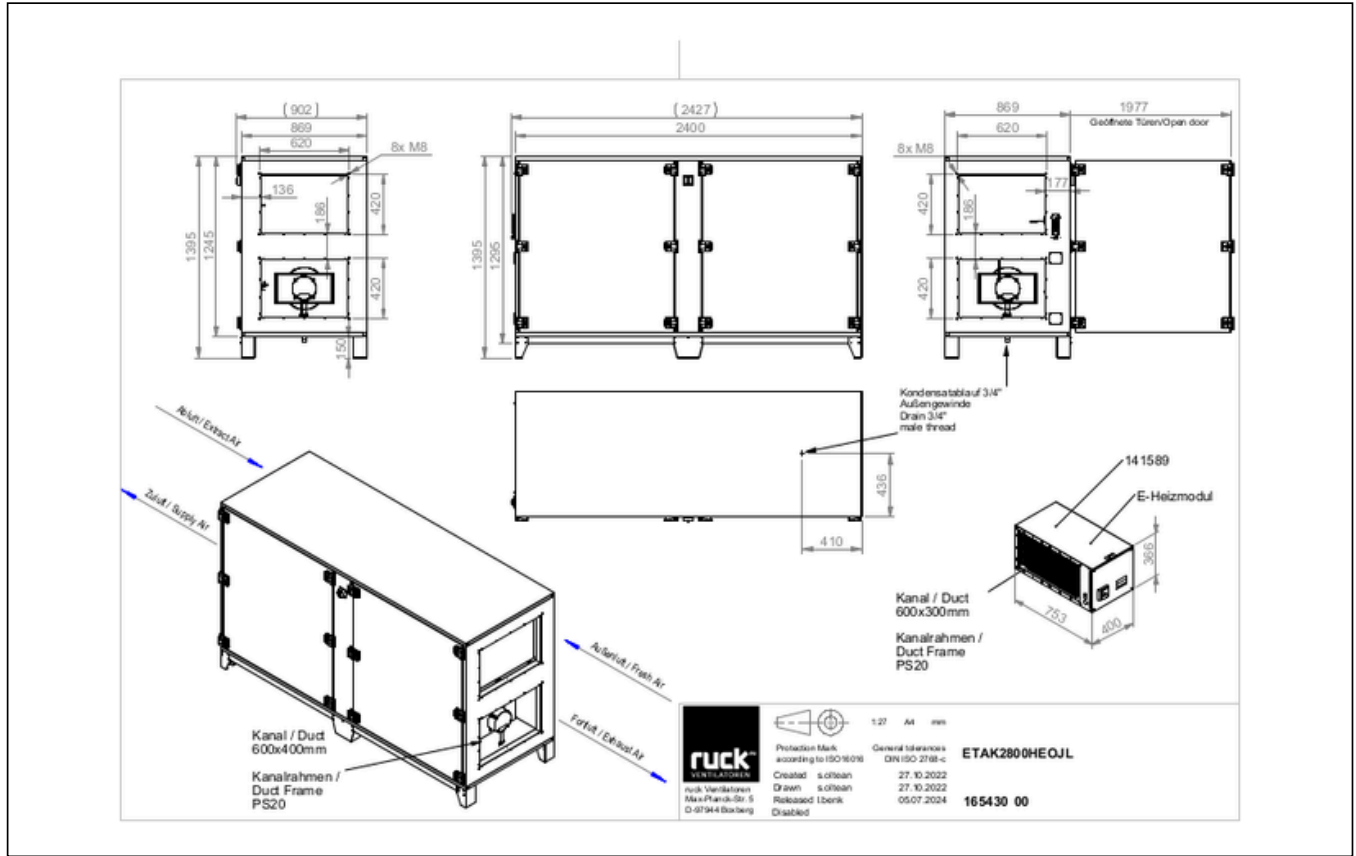
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165430



to the product detail page

# ETA K 2800 H EOJL

165430

