

ROTO K 1050 H WKJR

143824

- Compact air handling unit with rotary heat exchanger
- Horizontal connections, version right
- Frameless, double wall housing made of galvanized steel sheet, insulated
- Constant air flow EC fans, integrated controls
- Warm water heating, cold water cooling
- Panel Filter F7/M5
- For indoor and outdoor installation (optional accessories)



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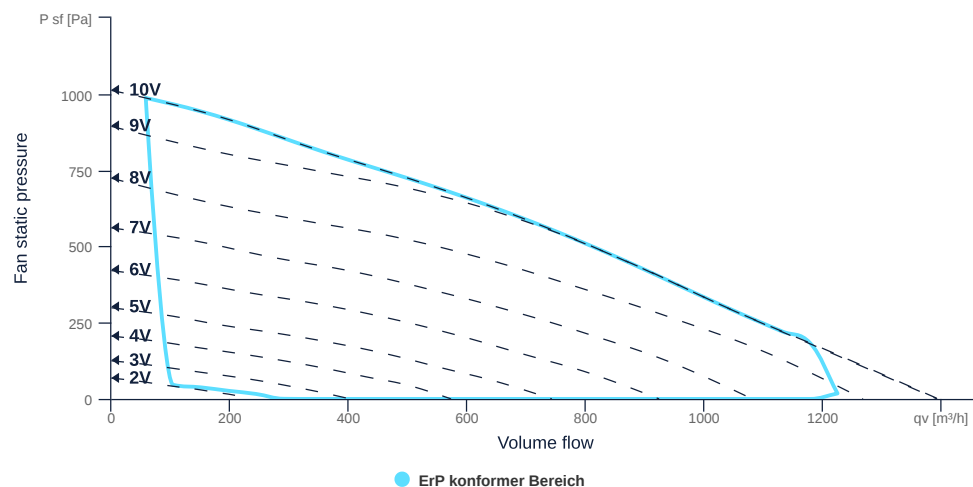
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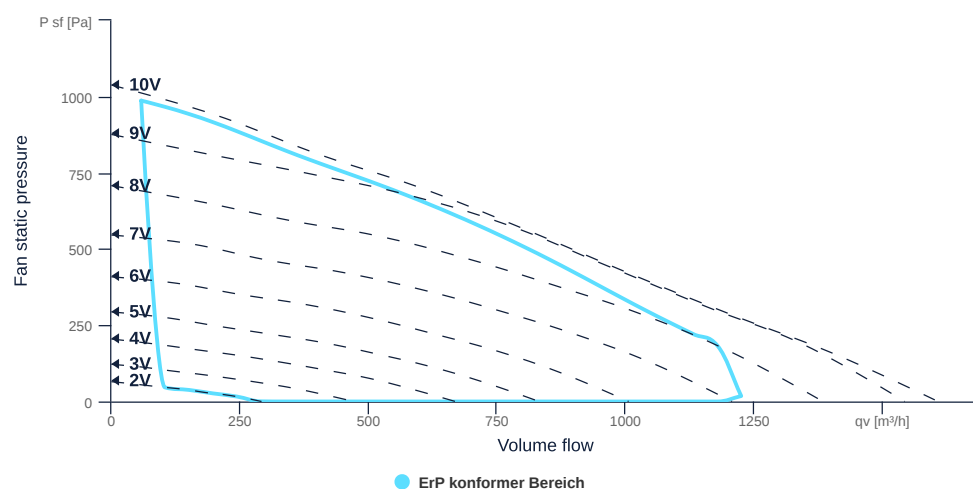
MAP

Name	Value	Unit
Volume flow	0	m³/h
Pressure	0	Pa



EXTRACT AIR MAP

Name	Value	Unit
Volume flow	0	m³/h
Pressure	0	Pa



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE, UKCA		
Duct size	500x200		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)	IP44		IP _{compl}
Weight	211	kg	m
Nominal air flow rate, nominal point m³/h	856.8	m³/h	q _{v,nom}
Nominal external pressure, static	461	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	regenerative		HRS _{type}
Type of the heater	Hot water		H _{type}
Type of cooler	Cold water		C _{type}
Outdoor installation	Yes, up to -20°C		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	75.8	%	t _{NRVU}
Nominal air flow rate, nominal point m³/s	0.24	m³/s	q _{v,nom}
Actual electrical input power, nominal point	0.7	kW	P _{e,nom}
Internal specific fan power, nominal point	1146.2	Ws/m³	SFP _{int}
Face velocity, nominal point	1.3	m/s	V _{nom}
Nominal external pressure, static	461	Pa	p _{s,nom}
supply air fan static efficiency, nominal point	56.1	%	η _{es,SUP}
static efficiency of the extract fan, nominal point	56.1	%	η _{es,EHA}
Highest external air leakage rate	2.72	%	
Enclosure sound level, nominal point	64	dB(A)	LWA2
Rating	Product is compliant 2018		



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MAXIMAL DATA

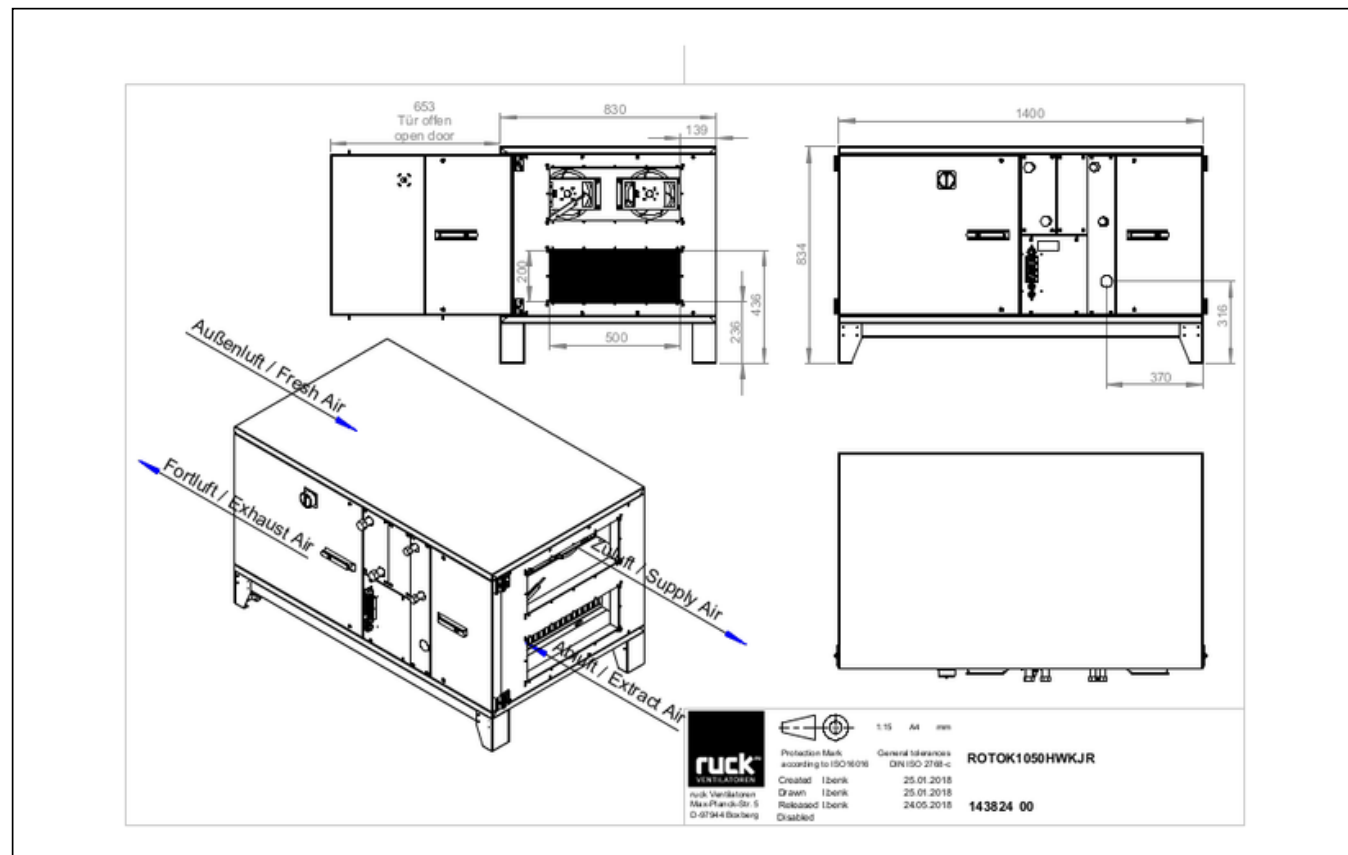
Name	Value	Unit	Formula symbol
Max. power consumption (device)	760	W	$P_{ed, max}$
Max. operating current (device)	2.81	A	$I_{ed, max}$
Max. speed	4600	1/min	n_{max}
Max. stat. efficiency	30.7	%	η_{es}
Max. fan efficiency	30.8	%	η_e
Max. flowrate	1390	m ³ /h	$q_{v, max}$
Max. stat pressure	1010	Pa	$p_{sf, max}$
Max. medium temperature	40	°C	T_m, max
Max. environment temperature	40	°C	$T_{amb, max}$
Min. environment temperature	-25	°C	$T_{amb, min}$
Min. voltage	230	V	U_{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		



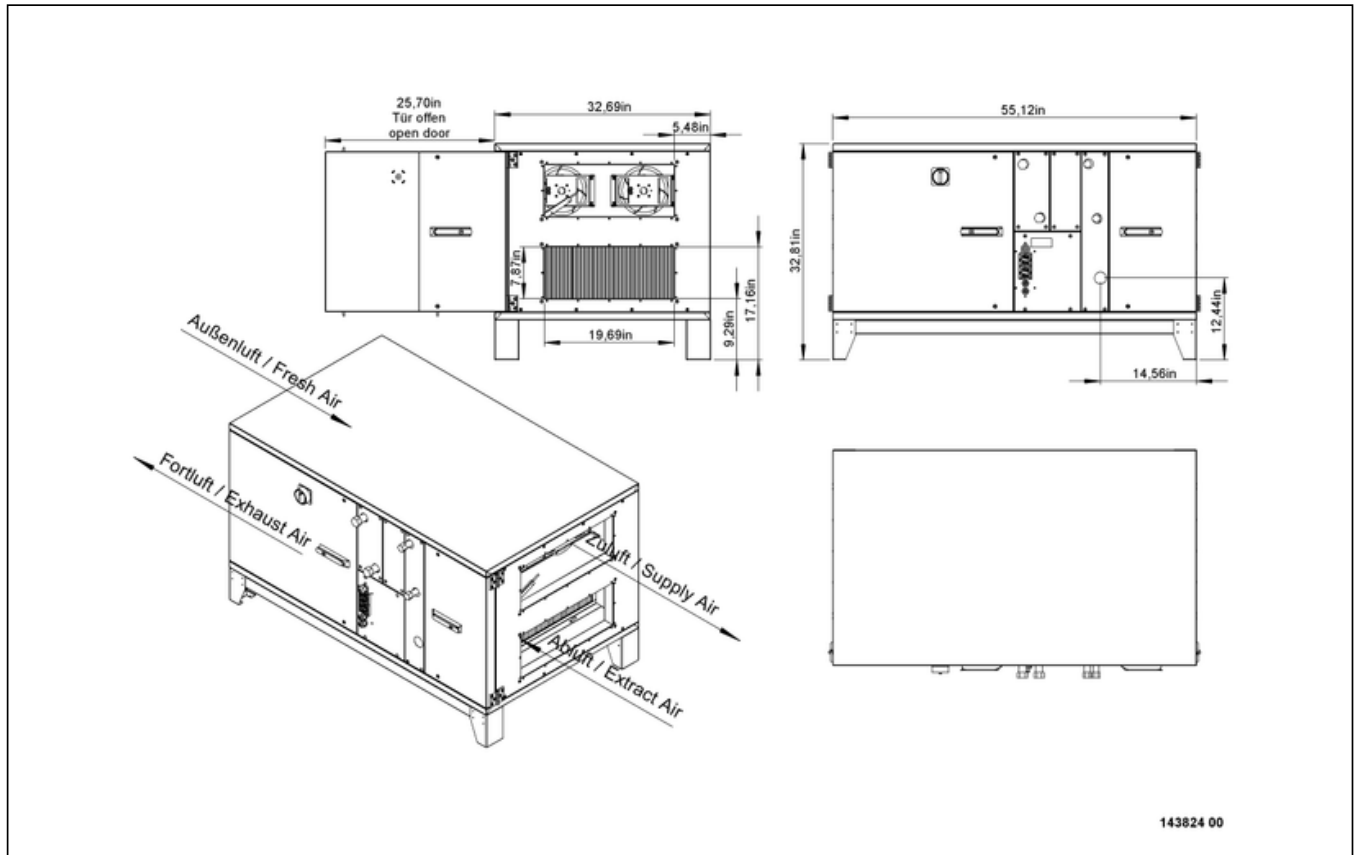
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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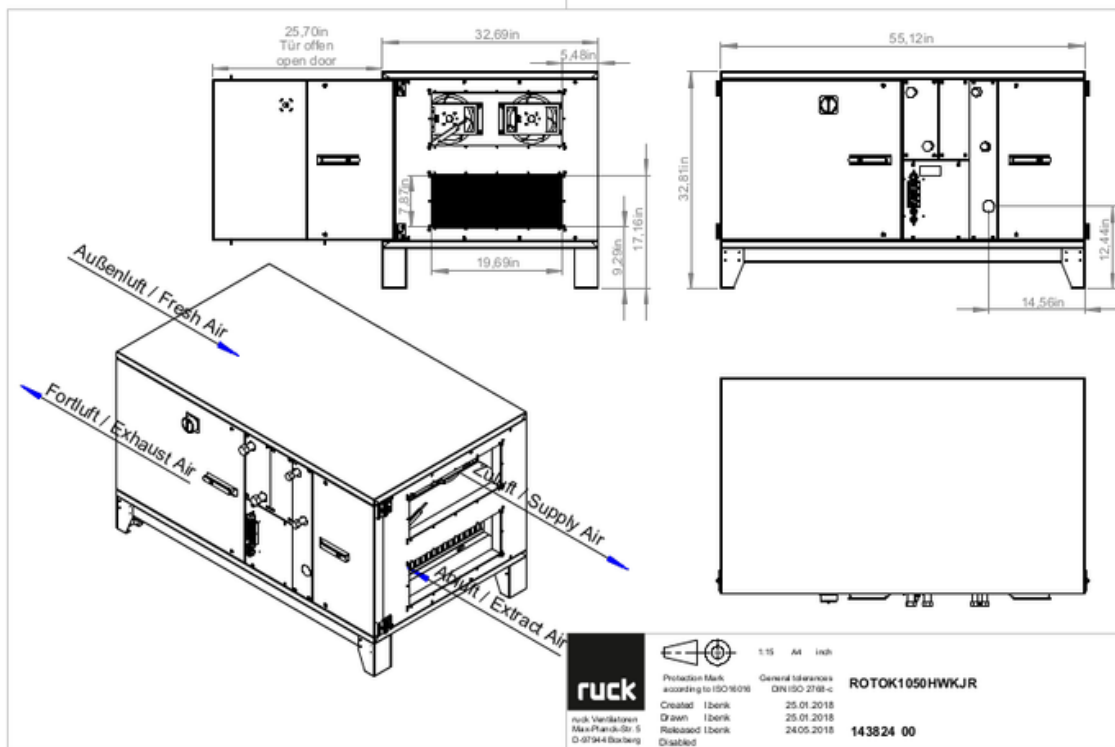
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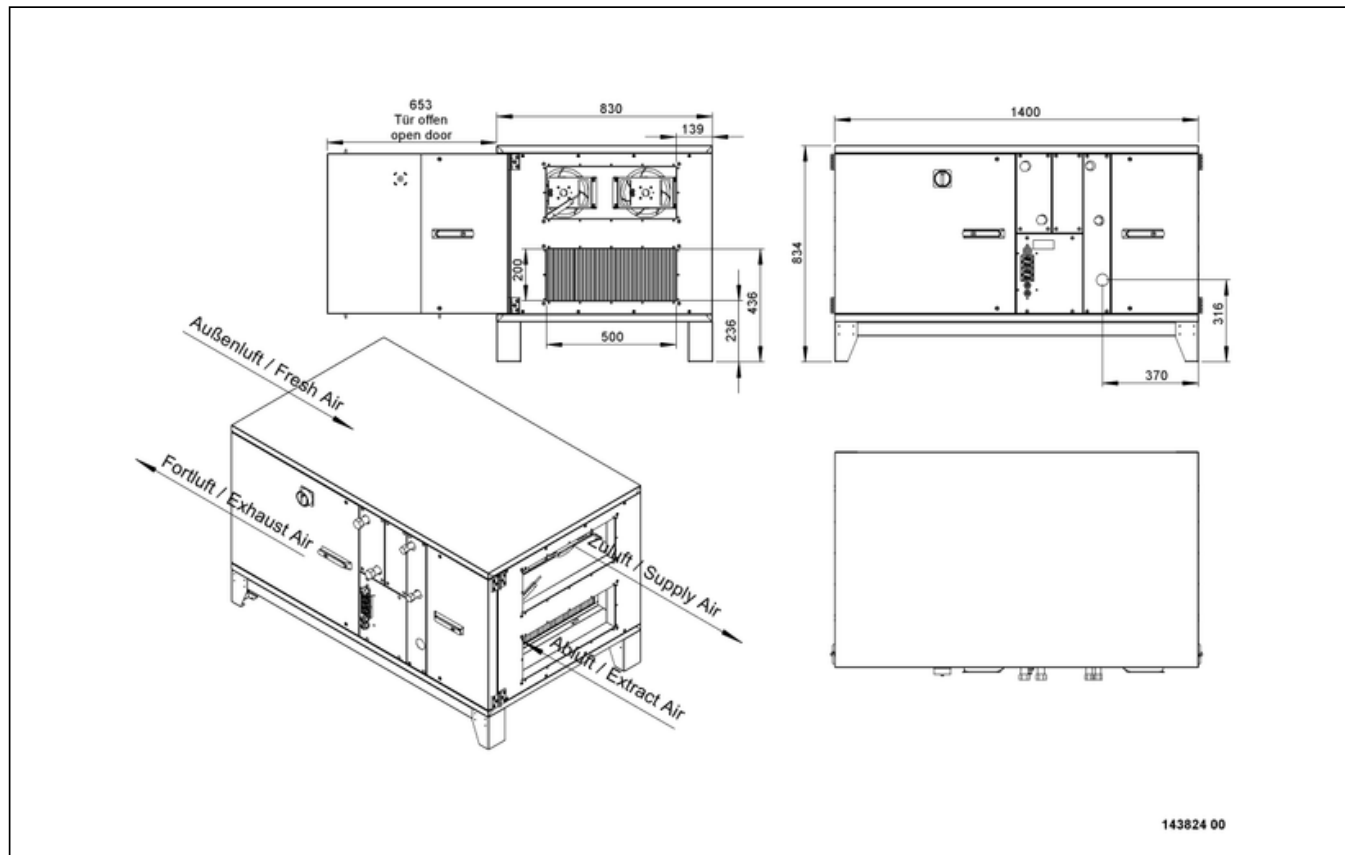


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MECHANICAL ACCESSORIES

VS 5020 | 146079



- Duct connector, flexible
- Standard profile flange P20
- Galvanized steel sheet, plastic band (PVC)
- Temperature resistant up to 70 °C

146011 | 146011



- Motor shut-off flap
- With spring return (VDI 6022)
- Combined outdoor and exhaust air multileaf damper
- Galvanized steel sheet housing

MAK R 1050 H02 | 146019



- Motor shut-off flap
- With actuator 3-point-control, connection cable 1 m long
- Combined outdoor and exhaust air multileaf damper
- Galvanized steel sheet housing

WSH ROTO K 1050 H | 148014



- Weather protection hood
- Galvanized steel sheet

SYS 02 | 125204



- Ball siphon
- Type suction side

RD ROTO 1050 H | 145816



- Rain cover for outdoor installation
- Galvanized steel sheet

LFP 65 ISO ePM10 50% | 168793



- Air filter panel
- ISO ePM10 50%
- 725x262x96 mm

LFP 65 ISO ePM1 55% | 168797



- Air filter panel
- ISO ePM1 55%
- 725x262x96 mm



ELECTRICAL ACCESSORIES

112934 | 112934



- 3-way ball-valve with actuator 230 V
- With actuator: Control 3-punct or ON/OFF
- Connections internal thread 1/2 "
- Temperature range 0 °C...+50 °C

STK 02 | 112935



- 3-way ball-valve with actuator 230 V
- With actuator: Control 3-punct or ON/OFF
- Connections internal thread 3/4 "
- Temperature range 0 °C...+50 °C

EHM 5025 R09 01 | 121419



- Electric heating module 50/25, 9 kW
- Steady temperature control
- Automatic device detection
- Connection side in supply air direction right

EHM 5025 L09 01 | 121420



- Electric heating module 50/25, 9 kW
- Steady temperature control
- Automatic device detection
- Connection side in supply air direction left

COM 02-OPTION | 128549



- Extension board
- For connecting several ventilation units via Modbus
- Switchable terminating resistor
- Switchable pull-up and pull-down resistor

SEN RAUCH 02 | 148637



- Duct smoke sensor
- Contamination display in % and message at 70 %
- 1 Switching contact, 8 A, 250 V AC 1 nc, 8 A, 250 V AC
- Supply flow 1 - 20 m/s

SEN TEMP | 148639



- Duct temperature sensor
- Measuring range -50...+150 °C
- NTC 5k
- Incl. mounting clip, mounting screws

SEN P1000 | 126080



- Differential pressure sensor
- P-control, PV-control
- P = 2 pcs. required, PV = 1 pcs. required

SEN RH | 148636



- Humidity sensor
- Humidity 0...100 % rH
- Output 2 x 0-10V
- 15...24Vdc, max 0,3 W

SEN RAUCH 01 | 148638



- Duct smoke sensor
- Contamination display in % and message at 70 %

SEN CO2 03 | 168178



- CO2 sensor for demand based volume flow control
- Supply voltage 24 V
- Output 0-10 V DC
- Protection class IP 20

STK 02 | 168737



- 3-way ball-valve with actuator 230 V
- With actuator: Control 3-punct or ON/OFF
- Connections internal thread 3/4"
- Temperature range 0 °C...+50 °C

SEN CO2 02 | 168750



- Sensor for demand-based volume flow control
- 24 V AC $\pm$ 20 %, 15 - 35 V DC or 15 - 29 V AC
- Output 0 - 10 V DC
- Measurement 0 - 2000 ppm CO2



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