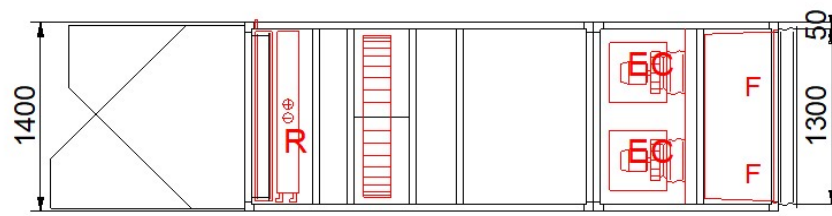
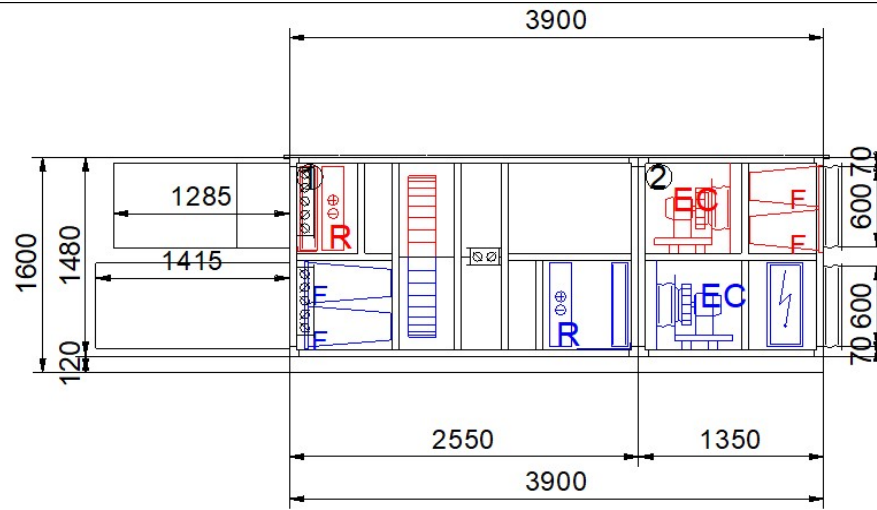


	S-supply	E-exhaust
type	BD-3-BIS (50)	BD-3-BIS (50)
Execution	Right	Left
Insulation thickness [mm]	50	50
Output [m3/h]	5530	5530
Avail. pres. [Pa]	257	258
enclosure type	frame-supported	



For:	Offer No.:	Object:	Mark:
	008/24		PN6

Notice
If not specified otherwise, exchanger connections at execution side, and condensate drainage at far side.

v 4. 10. 127



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P2_PR1-F06

Elaborated by:
SS
Date
14.06.2024

Page:
1/1

AHU selection technical data

For:	Offer No.:	008/24												
Object:	Symbol:	PN6												
Elaborated by: SS	Date	14.06.2024												
Supply:	AHU type	BD	Size	3-BIS	Insulation	50	Service	Right	Output [m3/h]	5530	Avail.pres. [Pa]	257	Int. resistance [Pa]	331
Exhaust:	AHU type	BD	Size	3-BIS	Insulation	50	Service	Left	Output [m3/h]	5530	Avail.pres. [Pa]	258	Int. resistance [Pa]	348
Supply	FB-7	Pocket filter F7												
Class	F 7 Air flow speed											0,2	m/s	
Air flow resistance	113 Pa Filter set											FK-490x592x590-F7/2pcs		
												FK-287x592x590-F7/1pc		
Filter class	ISO ePM1 50%											163		
Supply	RR	Rotary heat exchanger												
Air flow	5530 m3/h		Inlet air temperature		-20 °C									
Air humidity in	90 %		Coil Manufacturer		Klingenburg									
Exchanger type	RRT-P-E20-1200		Effective power		0 kW									
Air flow resistance	86 Pa		Outlet air temperature		12,6 °C									
Air humidity out	45 %		Power		76,6 kW									
Efficiency	74 %													
Supply	DRM2	Vertical mixing box with re-circulation												
Air flow	5530 m3/h		Inlet air temperature		12,6 °C									
Air humidity	45 %		Recirculation		1-floating									
Recirculation damper	PW-1000 x 212		Air flow speed		1,8 m/s									
Air humidity	45 %		Outlet air temperature		12,6 °C									
Air flow resistance	30 Pa													
Supply	WPC	Cooling system exchanger												
Evaporator														
Inlet air temperature	28 °C		Air humidity		50 %									
Medium type	R410A		Refrigerant evaporation temperature		11,5 °C									
Exchanger type	4R		Power		20,87 kW									
Outlet air temperature	17,2 °C		Air humidity		95 %									
Air flow resistance	84 Pa		Air flow speed		2,6 m/s									
Medium pressure drop	25,8 kPa		Connections		1*16/1*22									
Condenser														
Inlet air temperature	12,6 °C		Air humidity		45 %									
Medium type			Refrigerant Condensation temperature		31 °C									
Exchanger type	4R		Power		17,06 kW									
Outlet air temperature	21,7 °C		Air humidity		25 %									
Air flow resistance	80 Pa		Air flow speed		2,6 m/s									
Medium pressure drop	3,3 kPa		Connections		1*16/1*22									
Supply	ODK	Drop eliminator												
Air flow speed	2,6 m/s		Air flow resistance		18 Pa									
Supply	WEC	Plug fan section												
Air flow	5530 m3/h		Available pressure		257 Pa									
Inverter	2-wiele wydatków		well-matched EC fan		2xRH31C-ZID.DC.CR									
Air flow resistance	38 Pa		Fan efficiency		62,3 %									
Power consumption	2x0,8 kW													

Fan speed	2421	rpm	Motor rated power	2x1,35	kW
Current intensity/voltage	2x3,44 / 230	A; V	Control voltage	8,3	V
SFP for clean filters	1,05	kW/m3/s			

Supply	HE	Electric heater			
Air flow	5530	m3/h	Inlet air temperature	12,6	°C
Air humidity	45	%	Required outlet temperature	22	°C
Control		0-floating	Air flow resistance	0	Pa
Air flow speed	2,2	m/s	Air humidity	25	%
Theoretical power	18	kW	Installed power	18	kW
Exchanger type		T18			

Exhaust	FB-5	Pocket filter F5			
Class		F 5	Air flow speed	0,3	m/s
Air flow resistance	70	Pa	Filter set	FK-490x592x360-F5/2pcs	
				FK-287x592x360-F5/1pc	
Filter class	ISOePM10 65%				105

Exhaust	WEC	Plug fan section			
Air flow	5530	m3/h	Available pressure	258	Pa
Inverter	2-wiele wydatków		well-matched EC fan	2xRH31C-ZID.DC.CR	
Air flow resistance	38	Pa	Fan efficiency	62,3	%
Power consumption	2x0,8	kW	Fan speed	2444	rpm
Motor rated power	2x1,35	kW	Current intensity/voltage	2x3,53 / 230	A; V
Control voltage	8,4	V	SFP for clean filters	1,21	kW/m3/s

Exhaust	L	Empty box			
Air flow	5530	m3/h	Air flow speed	1,8	m/s

Notis: INVERTER COMPRESSOR
Number of compressor: 1 pcs

Winter:
Cooling capacity 13,37 kW
Electric power 3,69 kW
COP 3,62

Summer:
Cooling capacity 21,51 kW
Electric power 3,96 kW
COP 5,42

Exhaust	DRM2	Vertical mixing box with re-circulation			
Air flow	5530	m3/h	Inlet air temperature	24	°C
Air humidity	40	%	Recirculation	1-floating	
Recirculation damper			Air flow speed	1,8	m/s
Air humidity	40	%	Outlet air temperature	24	°C
Air flow resistance	30	Pa			

Exhaust	RR	Rotary heat exchanger			
Air flow	5530	m3/h	Inlet air temperature	24	°C
Air humidity in	40	%	Air flow resistance	115	Pa
Outlet air temperature	-4,8	°C	Air humidity out	95	%
Amount of condensate	10	kg/h	Condensation temperature		°C
Efficiency	65,4	%			

Exhaust	WPC	Cooling system exchanger			
Evaporator					
Inlet air temperature	-4,8	°C	Air humidity	95	%
Medium type		R410A	Refrigerant evaporation temperature	-13	°C
Exchanger type		5R			



In connection with stable development of products, the manufacturer is informing about possibility of technical changes and elements of appliances without earlier informing.

Power	12,97	kW	Outlet air temperature	-9,9	°C
Air humidity	98	%	Air flow resistance	115	Pa
Air flow speed	2,6	m/s	Medium pressure drop	16,6	kPa
Connections	1*16/1*28				
Condenser			Inlet air temperature	24	°C
Air humidity	40	%	Medium type		
Refrigerant Condensation temperature	45	°C	Exchanger type		5R
Power	25,47	kW	Outlet air temperature	37,6	°C
Air humidity	18	%	Air flow resistance	103	Pa
Air flow speed	2,6	m/s	Medium pressure drop	10,3	kPa
Connections	1*16/1*28				

Exhaust	ODK	Drop eliminator			
Air flow speed	2,6	m/s	Air flow resistance	18	Pa

Acoustic power distribution within particular frequencies

[Hz]	dB								dB(A)
	63	125	250	500	1000	2000	4000	8000	
Supply suction	60	59,9	65,4	65,3	57,1	51	42	32,7	64,5
Supply pumping	68,5	69,4	78,1	77,1	80,4	79,7	73,5	69,6	84,8
Exhaust suction	65,2	65,1	71,7	70,5	66,3	65,3	56,3	50,9	72,2
Exhaust pumping	63,8	64,6	72,6	72,3	73,7	69	59,8	51,9	76,6

The sound pressure level

(AHU surroundings - 1m distance for AHUs)

Distance	1	m
Level	54,5	dB(A)

Sound power level suction / discharge across the air inlet / outlet. Environment - emitted by the device to the environment without taking into account the inlet / outlet.

Lwa - sound power level

Level	74	dB(A)
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ORIENTATION VALUE - without taking into account the openings (inlet / outlet), related to the temperature of 20 °C, where the medium impedance is $q_c = 407 \text{ [kg} \cdot \text{m}^2 \cdot \text{s}^{-1}]$. Correction K1 = 0; background level > 10 dB

Dimensions

Block	Width [mm]	Height [mm]	length [mm]	frame[mm]	Weight [kg]
1	1400	1480	2550	120	735,22
2	1400	1480	1350	120	318

Total 1 053

