

Project	LLU Pils
AHU	AHU14 PL
Size	300 5540/4290 m³/h

Handing side R=Right, L=Left

Product	Product code	Quant
Support	EMMT-05-300-3-3640	1
1 Fan section	ENF-300-00-D-00	1
Mode of delivery 41		
Connection kit	ENFT-01-300-00-01	1
Filter supply air	ELEF-300-F7	1
Class F7, Dim: 2x592x592 L=535, 1x592x287 L=535		
U-tube manometer	MIET-FB-01	1
Fan extract air		
EC-motor with integrated revolution control 1.62 kW, EC		
2 Plate heat exchanger	EXC-300-00-A-NP	1
Mode of delivery V-N1		
3 Fan section	ENF-300-00-E-00	1
Mode of delivery 34		
Connection kit	ENFT-01-300-00-02	1
Fan supply air		
EC-motor with integrated revolution control 2.82 kW, EC		
Filter extract air	ELEF-300-F6	1
Class F6, Dim: 2x592x592 L=535, 1x592x287 L=535		
U-tube manometer	MIET-FB-01	1
4 Module section	EMM-300-10-00	1
Mode of delivery V		
Air heater water	ELEV-300-02	1
Connection gable outlet	EMMT-01-300-00	1
Connection frame outlet	EMMT-02-300-1	1
Coil fitting	MIE-CL-300-10-00	1
Damper	EMT-01-300	1
Damper	EMT-01-300	1
Control system Climatix	CSF-V310-P-CX	1
El. connection	ESEK-300-12-U-P-U-U-U	1
ECO Optimized energy control	STA-00	1
Fixed fan speed, 1- to 3-speeds	STB-01	1
Outdoor air damper actuator ON/OFF spring return	STC-01-1	1
Exhaust air damper actuator ON/OFF, spring return	STC-02-1	1
Water heating immersion detector	STD-02	1
Control valve incl. actuator for heating coil	STD-03-2V-15-0400	1
2-vägsventil		
Water cooling	STE-03	1
Control valve incl. actuator for cooling coil	STE-04-3V-32-1600	1
3-vägsventil		



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Material specification detailed

Project

LLU Pils

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Size

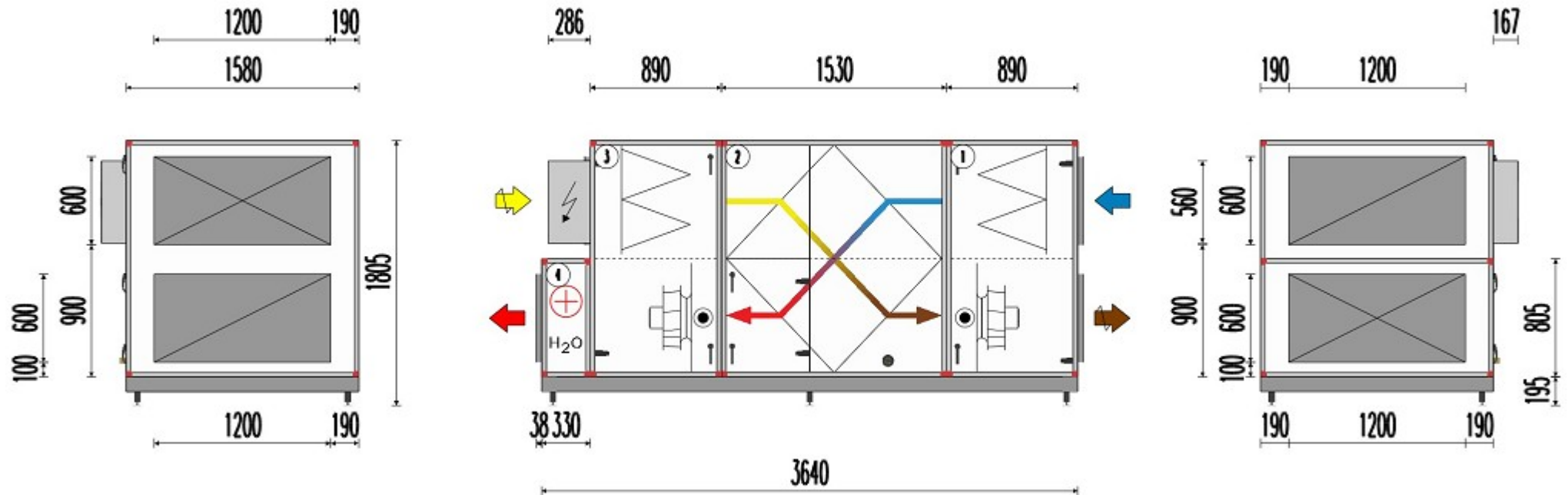
300 5540/4290 m³/h



Product	Product code	Quant
Modbus TCP/IP standard		1
Web server in text format by TCP/IP standard		1

Total for AHU

Width	1580 mm	1) 268 kg
Height	1805 mm	2) 345 kg
Length	3640 mm	3) 278 kg
Weight	1028 kg	4) 87 kg



Note! Consider the required space needed to open inspection doors and for plumbing.
Access door with largest radius 880 mm is in module 1;3



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Dimension drawing

Project

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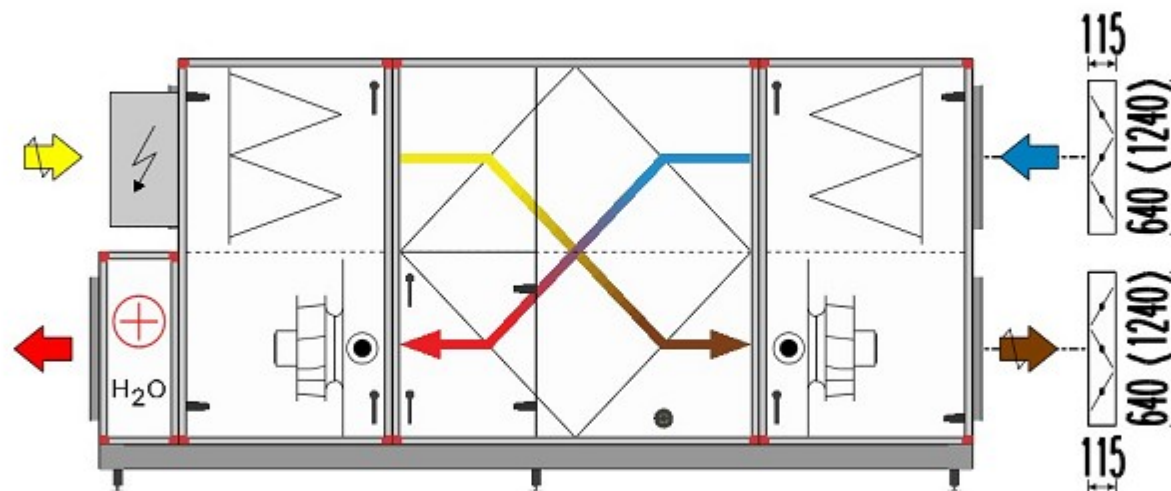


Total for AHU

Width	1580 mm
Height	1805 mm
Length	3640 mm
Weight	1028 kg

Duct accessories

EMT-01 13 kg



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The system's Specific Fan Power (SFP) calculation is based on clean filters. When using rotor heat recovery, the rotor cleaning air flow, and any pressure reducing damper is included.

Specific fan power

Output	Total for AHU	1.42	kW/m³/s
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Dimension and weight

Width	1,580	mm
Height	1,805	mm
Length	3,640	mm
Weight	1,028	kg

BASIC DATA

		<i>Supply air</i>	<i>Extract air</i>
Input	Flow	5,540	4,290 m³/h
Output	Cross sectional velocity	1.3	1.0 m/s
	Damper	2	1 Pa
	Filter F7 / F6	85	65 Pa
	Initial pressure drop	(45)	(25) Pa
	Final press. drop	(125)	(105) Pa
	Plate heat exchanger	71	40 Pa
	Air heater water	22	Pa
	Built-in losses	18	13 Pa
	Total internal pressure	198	119 Pa
	External pressure drop	350	350 Pa

Fans

		<i>Supply air</i>	<i>Extract air</i>
Output	Total pressure	548	469 Pa
	Fan rpm	1,388	1,418 r/m
	Total efficiency	59.4	60.1 %
	Fan power at dim press	1.42	0.93 kW
	Fan power clean filter	1.32	0.86 kW
	Motor output Power	2.82	1.62 kW
	Motor current at 400V, 3-fase	4.3	2.5 A
	Max rpm	1,780	1,750 r/m
	Capacity reserve	53	47 %
	Fan type	EC500R63D	EC450R63D
	K-factor for air flow measuring	12.81	15.00



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Sound data (sound power)

Frequency band	63	125	250	500	1k	2k	4k	8k		Tota	
Supply air:										82	dB
To surroundings	69	73	63	49	42	38	31	23	dB	59	dB(A)
Outdoor air	66	76	74	65	56	52	50	43	dB	68	dB(A)
Supply air	73	80	81	76	71	68	63	59	dB	78	dB(A)
Extract air:										81	dB
To surroundings	68	74	60	47	41	38	28	18	dB	59	dB(A)
Extract air	66	76	72	63	54	50	47	38	dB	67	dB(A)
Exhaust air	72	82	79	75	72	70	63	57	dB	78	dB(A)
Total:											
To surroundings	72	77	65	51	45	41	33	24	dB	62	dB(A)

PLATE HEAT EXCHANGER

	Exchanger type	NP	
Input	Air temperature in	-22.3	°C
	RH Outdoor Air	90	%
	Return air temp	22.0	°C
	RH Return Air	30	%
Output	Supply air temp. after exch.	-6.6	°C
	Temperature efficiency dry	54.0	%
	Temperature efficiency wet	57.5	%
	Frost risk temp	-7.0	°C

AIR HEATER WATER

Input	Air temperature in	-6.6	°C
	Requested air temp out	16.0	°C
	Liquid temp in	80.0	°C
	Liquid temp out requested	60.0	°C
	Frost protection concentration	35	%
	Frost protection	Ethylene glycol	
Output	Air temperature out	16.0	°C
	Air speed	1.6	m/s
	Liquid flow	0.26	l/s
	Pressure drop liquid	0.6	kPa
	Power variant	02	
	Heating power	42.2	kW
	Fin pitch	2.5	mm
	Tube connection	32	
	Primary side with 2-wayvalve		
	Liquid temp in	80.0	°C
	Liquid temp out	36.7	°C
	Liquid flow	0.26	l/s
	Primary side with 3-wayvalve		
	Liquid temp in	80.0	°C
	Liquid temp out	60.0	°C
	Liquid flow	0.55	l/s



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RECOMMENDED FUSE

AHU

16 AT 3x400 V