

# Rooftop Package Unit Catalog

8 kW to 500 kW





“Efficiency is possible  
with the quality of equipment and service.  
Whereas the highest efficiency  
depends on your habit of usage”

ACS Klima



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# Introduction



Rooftop units are one of the biggest and important production segment of the HVAC industry because of packaged type all-inclusive design, easy of installation, low cost, flexible application.

RTACS series rooftop unit are designed to meet the demands of heating or cooling of places such as cinema, shopping malls, restaurants, markets, e.t.c.

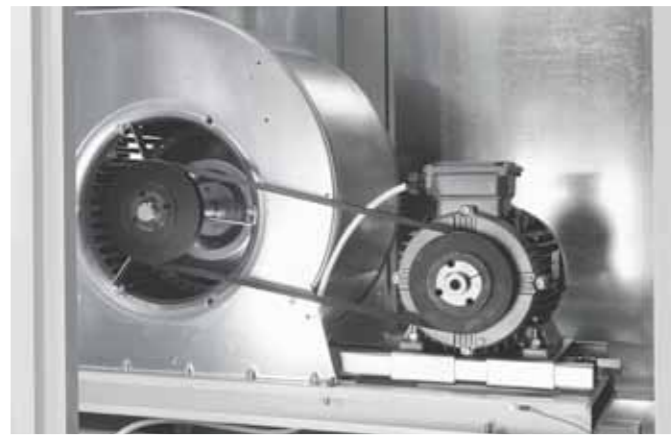
Controlling and conditioning air by the high technology control panel that is standard equipment of rooftop units. Rooftop units can be controlled any place with microprocessor and connect to building management systems.

Available in 27 main and 340 intermediate different models from 8 kw to 500 Kw cooling capacity. RATCS units are designed to operate in a wide ambient temperature range from 5 °C to 56 °C.



# Features and Benefits

- Frame with composed of specially rolled steel profiles.
- Panels with double layer sheets and insulation [optional polyurethane or rockwool insulation material and insulation thickness]
- Eurovent certified cabinet with 50 mm rockwool insulated panels. Interior surfaces of the profiles are designed be smooth and free of recess and protrusion.
- The outer surface of the panels is composed of electrostatic painted galvanized sheets.
- Special extruded rubber gaskets with air cushion used to avoid possible air leakage caused by the pressure difference.



- Made in Italy, NICOTRA-GEBHARDT fans are statically and dynamically balanced.
- For lower unit height, optional tandem fan configuration.
- Single speed, IP55 protection, F insulation, IC411(TEFC), IE2 efficiency class electric motors [optional IE3 high efficiency electric motors]



- The units are equipped with emergency stop button and safety switch will stop the operation in case of the access door is open. efficiency class electric motors [optional IE3 high efficiency electric motors]



- Standardly G-4 panel filter with 48 mm thickness and optional depending on requirements various types of filters like V-type or bag filter can use in the unit.

# Features and Benefits



- Evaporator and condenser coils, composed of either copper tube and aluminium fins [optional epoxy coated aluminium fins], tested under pressure 40 bar.
- Coils are installed on the studs arranged in a way to enable easy access and maintenance. Coils are equipped standardly with a stainless steel double sloped drain pan, drainage siphon and a specially formed drop eliminator for condensing water.



- Axial type statically and dynamically balanced, made in EUROPE condenser fans, high efficiency designed, pressed-on round sheet steel plate blades. Protected by steel guard grille fan blades and single speed, IP55 protection, F insulation motor.



- HMade in Europe. High efficiency scroll compressors with reduced noise and vibration and selected according to cooling capacity air flow requirements of area.
- Independent cooling circuits for bigger then 25 kw cooling capacity.
- Equipments of each cooling circuits including: expansion valve, receiver, solenoid valve, dryer, liquid valve, refrigerant filter, high and low pressure switches.
- Charged with R407C refrigerant.
- All copper pipes are painted after bending and welding to being cleaned for protected from external conditions.

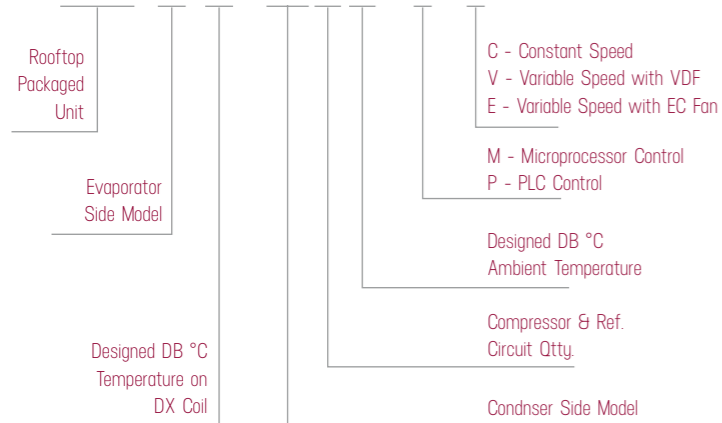
# Features Table

Evaporator Side		S: Standard Features - O: Optional Features	
<b>Casing</b>		S	O
<b>Insulation</b>	30 mm. Polyurethane	<input type="radio"/>	<input checked="" type="radio"/>
	50 mm. Rockwool	<input checked="" type="radio"/>	<input type="radio"/>
	50 mm. Polyurethane	<input type="radio"/>	<input checked="" type="radio"/>
<b>Inner Sheet</b>	Galvanized Steel	<input checked="" type="radio"/>	<input type="radio"/>
	304K Stainless Steel	<input type="radio"/>	<input checked="" type="radio"/>
	306K Stainless Steel	<input type="radio"/>	<input checked="" type="radio"/>
<b>Outer Sheet</b>	Electrostatic Powder Painted Galvanized Steel	<input checked="" type="radio"/>	<input type="radio"/>
	304K Stainless Steel	<input type="radio"/>	<input checked="" type="radio"/>
	306K Stainless Steel	<input type="radio"/>	<input checked="" type="radio"/>
<b>Color</b>	RAL 9002	<input checked="" type="radio"/>	<input type="radio"/>
<b>Vibration Isolator</b>	Rubber	<input checked="" type="radio"/>	<input type="radio"/>
	Spring	<input type="radio"/>	<input checked="" type="radio"/>
<b>Fan Type</b>	Radial Double Inlet	<input checked="" type="radio"/>	<input type="radio"/>
	Plug	<input type="radio"/>	<input checked="" type="radio"/>
<b>Motor Type</b>	IP 55 TEFC Class F IE2	<input checked="" type="radio"/>	<input type="radio"/>
	IP 55 TEFC Class F IE3	<input type="radio"/>	<input checked="" type="radio"/>
<b>Motor Speed</b>	Constant	<input checked="" type="radio"/>	<input type="radio"/>
	Variable	<input type="radio"/>	<input checked="" type="radio"/>
<b>Filter</b>	Pre Filter EU4 Panel	<input checked="" type="radio"/>	<input type="radio"/>
	Bag Filter	<input type="radio"/>	<input checked="" type="radio"/>
	Compact Filter	<input type="radio"/>	<input checked="" type="radio"/>
<b>Coil</b>	Copper Tubes Aluminium Fins	<input checked="" type="radio"/>	<input type="radio"/>
	Copper Tubes Epoxy Coated Aluminium Fins	<input type="radio"/>	<input checked="" type="radio"/>

Condenser Side		S: Standard Features - O: Optional Features		
<b>Compressor</b>	Scroll	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Refrigerant</b>	R407C	<input checked="" type="radio"/>	<input type="radio"/>	
	R410A	<input type="radio"/>	<input checked="" type="radio"/>	
<b>Cooling Equipment</b>	High Pressure Switch	<input checked="" type="radio"/>	<input type="radio"/>	
	Low Pressure Switch	<input checked="" type="radio"/>	<input type="radio"/>	
	Receiver Tank	<input checked="" type="radio"/>	<input type="radio"/>	
	Dryer	<input checked="" type="radio"/>	<input type="radio"/>	
	Solenoid Valve	<input checked="" type="radio"/>	<input type="radio"/>	
	Sight Glass	<input checked="" type="radio"/>	<input type="radio"/>	
	Return Gas Filter	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Coil</b>	Copper Tubes Aluminium Fins	<input type="radio"/>	<input checked="" type="radio"/>	
	Copper Tubes Epoxy Coated Aluminium Fins	<input checked="" type="radio"/>	<input type="radio"/>	
	304K Stainless Steel	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Drain Pan</b>	304K Stainless Steel	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Fan Type</b>	Axial	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Motor Type</b>	Direct Drive IP 54 Class F	<input checked="" type="radio"/>	<input type="radio"/>	
	IP 65 Control Panel Box	<input checked="" type="radio"/>	<input type="radio"/>	
<b>Electric</b>	Main Circuit Breaker	<input checked="" type="radio"/>	<input type="radio"/>	
	Start-Up Relay	<input checked="" type="radio"/>	<input type="radio"/>	
	Compressor Contactor	<input checked="" type="radio"/>	<input type="radio"/>	
	Condenser Fan Contactor	<input checked="" type="radio"/>	<input type="radio"/>	
	Compressor Circuit Braker	<input checked="" type="radio"/>	<input type="radio"/>	
	Condenser Fan Circuit Braker	<input checked="" type="radio"/>	<input type="radio"/>	
	Phase Protection Relay	<input checked="" type="radio"/>	<input type="radio"/>	
	Circuit Breakers Relay	<input checked="" type="radio"/>	<input type="radio"/>	
	Power Supply	<input checked="" type="radio"/>	<input type="radio"/>	
	Transverse Aux. Switch For Circuits Breakers	<input checked="" type="radio"/>	<input type="radio"/>	
	Power Plug	<input checked="" type="radio"/>	<input type="radio"/>	
	Panel Ventilation	<input checked="" type="radio"/>	<input type="radio"/>	
	<b>Automatic Control</b>	Microprocessor	<input checked="" type="radio"/>	<input type="radio"/>
		Filter Pressure Switch	<input checked="" type="radio"/>	<input type="radio"/>
Fan Pressure Switch		<input checked="" type="radio"/>	<input type="radio"/>	
Inlet Air Temperature		<input checked="" type="radio"/>	<input type="radio"/>	
Supply Air Temperature		<input checked="" type="radio"/>	<input type="radio"/>	
Fresh Air Temperature		<input checked="" type="radio"/>	<input type="radio"/>	
Cond.Fan Differential Pressure Transmitter		<input checked="" type="radio"/>	<input type="radio"/>	
Web Interface		<input type="radio"/>	<input checked="" type="radio"/>	
<b>Accessories</b>	Fan Flexible Connection	<input checked="" type="radio"/>	<input type="radio"/>	
	Door Safety Switch	<input checked="" type="radio"/>	<input type="radio"/>	
	Emergency Stop	<input checked="" type="radio"/>	<input type="radio"/>	
	Bulkhead Light	<input type="radio"/>	<input checked="" type="radio"/>	
	Observation Window	<input type="radio"/>	<input checked="" type="radio"/>	
	Drainage Siphon	<input checked="" type="radio"/>	<input type="radio"/>	

## Nomenclature

RTACS 182 27 / 106 2 46 / M - C



# Technical Data Sheets



Manufacturer may change in dimensions on production process regarding to custom made design  
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RTACS SERIES		RTACS 7127			RTACS 7227			RTACS 9127		
ACU MODEL		40135	40146	40152	72135	72146	72152	94135	94146	94152
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27	
	°F		80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5	
	°F		67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>										
Total Cooling Capacity	kw	10	8.58	7.73	17.9	15.5	14.2	24.9	21.5	19.2
	TR	2.85	2.44	2.20	5.09	4.41	4.04	7.08	6.12	5.46
Sensible Cooling Capacity	kw		5.47			9.96			13.86	
			1.56			2.83			3.94	
Air Volume	m³/h		1400			2.550			3.550	
	cmf		828			1509			2101	
ESP	Pa		220			320			250	
Fan Type			Centrifugal			Centrifugal			Centrifugal	
Motor Power	kw		0.37			0.75			1.10	
Motor Speed	rpm		1500			1500			1500	
Face Velocity	m/s		1.21			1.83			2.29	
<b>CONDENSER SIDE</b>										
Air Volume	m³/h		4900			9000			14000	
	cmf		2899			5325			8284	
Type			AXIAL			AXIAL			AXIAL	
Quantity	qty		1			1			1	
Total Fan Power	kw		0.34			0.60			1.97	
<b>COMPRESSOR</b>										
Compressor Type			SCROLL			SCROLL			SCROLL	
Quantity	qty		1			1			1	
Voltage	V		415			415			415	
Total Power	kw	2.38	3.13	3.63	4.15	5.35	6.14	5.55	7.22	8.38
Number of Circuit	qty		1			1			1	
Unit Airborne Sound Level	dbA		63			67			68	
Total Power Input	kw	3.09	3.84	4.34	5.50	6.70	7.49	8.62	10.29	11.45
EER		3.24	2.23	1.78	3.25	2.31	1.90	2.89	2.09	1.68
Unit Dimension [LxWxH]	mm	1900	1000	1320	2100	1150	1520	2150	1250	1520
Weight	kg		428			523			597	

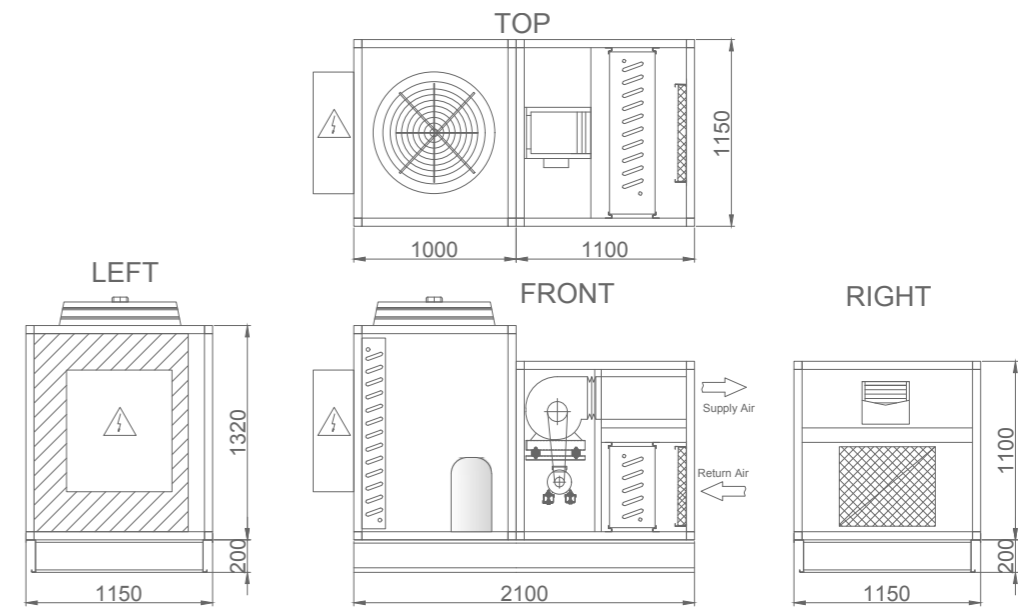
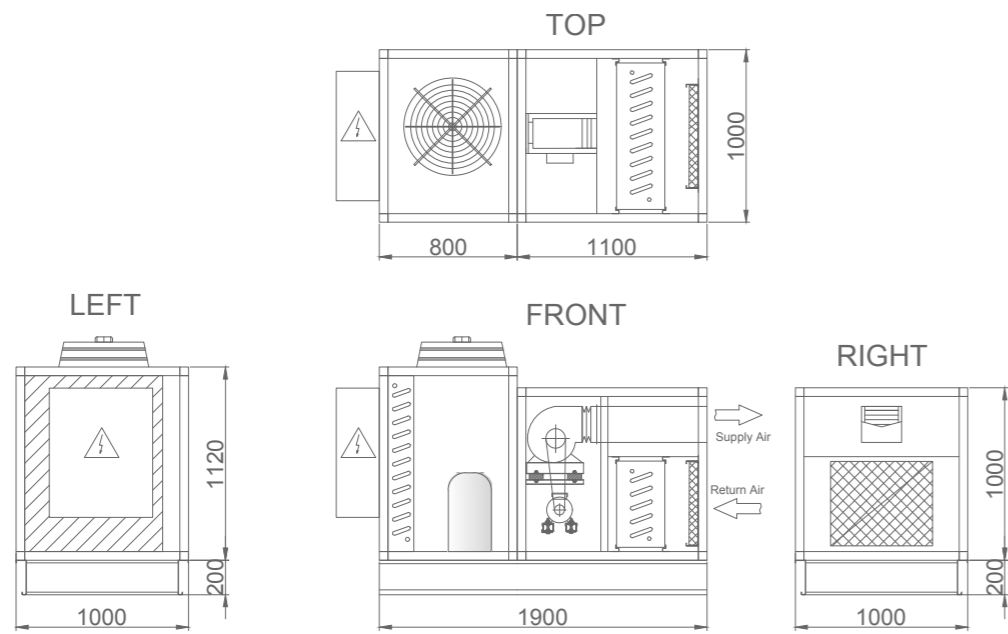
RTACS SERIES		RTACS 9227			RTACS 10127			RTACS 10227		
ACU MODEL		108135	108146	108152	125135	125146	125152	72235	72246	72252
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27	
	°F		80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5	
	°F		67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>										
Total Cooling Capacity	kw	27.9	24.1	21.9	32.6	28.2	25.5	35.8	31	28.4
	TR	7.94	6.86	6.23	9.27	8.02	7.25	10.19	8.82	8.08
Sensible Cooling Capacity	kw		15.62			18.16			20.11	
			4.44			5.17			5.72	
Air Volume	m³/h		4000			4650			5150	
	cmf		2367			2751			3047	
ESP	Pa		230			300			230	
Fan Type			Centrifugal			Centrifugal			Centrifugal	
Motor Power	kw		1.10			1.5			1.50	
Motor Speed	rpm		1500			1500			1500	
Face Velocity	m/s		2.10			1.92			2.52	
<b>CONDENSER SIDE</b>										
Air Volume	m³/h		15000			15000			18000	
	cmf		8876			8876			10651	
Type			AXIAL			AXIAL			AXIAL	
Quantity	qty		1			1			2	
Total Fan Power	kw		1.97			1.97			1.20	
<b>COMPRESSOR</b>										
Compressor Type			SCROLL			SCROLL			SCROLL	
Quantity	qty		1			1			2	
Voltage	V		415			415			415	
Total Power	kw	6.16	7.86	8.99	7.19	9.29	10.75	8.30	10.70	12.28
Number of Circuit	qty		1			1			2	
Unit Airborne Sound Level	dbA		69			70			70	
Total Power Input	kw	9.23	10.93	12.06	10.66	12.76	14.22	11.00	13.40	14.98
EER		3.02	2.20	1.82	3.06	2.21	1.79	3.25	2.31	1.90
Unit Dimension [LxWxH]	mm	2250	1350	1820	2250	1650	1820	2900	1150	1520
Weight	kg		684			788			1031	

RTACS SERIES		RTACS 12127			RTACS 1227			RTACS 1527		
ACU MODEL		81235	81246	81252	94235	94246	94252	125235	125246	125252
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27	
	°F		80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5	
	°F		67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>										
Total Cooling Capacity	kw	40.8	34.9	31.5	49.8	43	38.4	65.2	56.4	51
	TR	11.61	9.93	8.96	14.17	12.23	10.92	18.55	16.05	14.51
Sensible Cooling Capacity	kw		22.65			27.92			36.51	
			6.44			7.94			10.39	
Air Volume	m³/h		5.800			7.150			9.350	
	cmf		3.432			4.231			5.533	
ESP	Pa		320			300			320	
Fan Type			Centrifugal			Centrifugal			Centrifugal	
Motor Power	kw		2.20			2.20			3	
Motor Speed	rpm		1500			1500			1500	
Face Velocity	m/s		2.37			2.59			2.54	
<b>CONDENSER SIDE</b>										
Air Volume	m³/h		19.600			28.000			30.000	
	cmf		11.598			16.568			17.751	
Type			AXIAL			AXIAL			AXIAL	
Quantity	qty		4			2			2	
Total Fan Power	kw		1.36			3.94			3.94	
<b>COMPRESSOR</b>										
Compressor Type			SCROLL			SCROLL			SCROLL	
Quantity	qty		2			2			2	
Voltage	V		415			415			415	
Total Power	kw	9.40	12.20	14.10	11.10	14.44	16.76	14.38	18.58	21.50
Number of Circuit	qty		2			2			2	
Unit Airborne Sound Level	dbA		70			71			73	
Total Power Input	kw	12.96	15.76	17.66	17.24	20.58	22.90	21.32	25.52	28.44
EER		3.15	2.21	1.78	2.89	2.09	1.68	3.06	2.21	1.79
Unit Dimension [LxWxH]	mm	2900	1250	1600	3050	1300	1700	3200	1650	1900
Weight	kg		1046			1256			1385	

RTACS SERIES		RTACS 18127			RTACS 18227			RTACS 18327		
ACU MODEL		144235	144246	144252	160235	160246	160252	190235	190246	190252
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27	
	°F		80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5	
	°F		67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>										
Total Cooling Capacity	kw	75.2	64.4	57.8	82.6	69.8	62.4	95.6	82.04	73.4
	TR	21.39	18.32	16.44	23.50	19.86	17.75	27.20	23.34	20.88
Sensible Cooling Capacity	kw		41.79			45.30			53.11	
			11.89			12.89			15.11	
Air Volume	m³/h		10.700			11.600			13.600	
	cmf		6.331			6.864			8.047	
ESP	Pa		350			350			350	
Fan Type			Centrifugal			Centrifugal			Centrifugal	
Motor Power	kw		4.00			4.00			5.50	
Motor Speed	rpm		1500			1500			1500	
Face Velocity	m/s		2.39			2.31			2.71	
<b>CONDENSER SIDE</b>										
Air Volume	m³/h		36.000			42.000			56.000	
	cmf		21.302			24.852			33.136	
Type			AXIAL			AXIAL			AXIAL	
Quantity	qty		4			4			4	
Total Fan Power	kw		2.40			2.40			7.88	
<b>COMPRESSOR</b>										
Compressor Type			SCROLL			SCROLL			SCROLL	
Quantity	qty		2			2			2	
Voltage	V		415			415			415	
Total Power	kw	16.26	21.10	24.40	18.52	23.70	27.30	22.10	28.30	32.40
Number of Circuit	qty		2			2			2	
Unit Airborne Sound Level	dbA		74			77			80	
Total Power Input	kw	22.66	27.50	30.80	24.92	30.10	33.70	35.48	41.68	45.78
EER		3.32	2.34	1.88	3.31	2.32	1.85	2.69	1.97	1.60
Unit Dimension [LxWxH]	mm	3300	1750	2000	3300	1750	2100	3300	1750	2100
Weight	kg		1518			1961			2318	

RTACS SERIES		RTACS 45027			RTACS 56127			RTACS 63127			RTACS 71127		
ACU MODEL		250235	250246	250252	310235	310246	310252	380235	380246	380252	250435	250446	250452
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27			27	
	°F		80.6			80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5			19.5	
	°F		67.1			67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>													
Total Cooling Capacity	kw	126.4	109.4	99.4	159	135.4	122.2	195	167.4	150.4	252.8	218.8	198.8
	TR	35.96	31.12	28.28	45.24	38.52	34.77	55.48	47.63	42.63	42.79	71.92	62.25
Sensible Cooling Capacity	kw		71.07			87.87			108.56			130.82	
			20.22			25.00			30.89			37.22	
Air Volume	m <sup>3</sup> /h		18.200			22.500			27.800			33.500	
	cmf		10.769			13.314			16.450			19.822	
ESP	Pa		280			330			400			550	
Fan Type			Centrifugal			Centrifugal			Centrifuga			Centrifugal	
Motor Power	kw		5.5			7.50			11.00			15.00	
Motor Speed	rpm		1500			1500			1500			1500	
Face Velocity	m/s		2.22			2.45			2.63			2.55	
<b>CONDENSER SIDE</b>													
Air Volume	m <sup>3</sup> /h		70.000			87.000			104.000			140.000	
			41.420			51.479			61.538			82.840	
Type			AXIAL			AXIAL			AXIAL			AXIAL	
Quantity	qty		4			4			6			8	
Total Fan Power	kw		10.52			9.32			15.78			21.04	
<b>COMPRESSOR</b>													
Compressor Type			SCROLL			SCROLL			SCROLL			SCROLL	
Quantity	qty		2			2			2			4	
Voltage	V		415			415			415			415	
Total Power	kw	29.10	37.50	43.20	36.30	46.40	53.40	44.00	56.00	64.40	58.20	75.00	86.40
Number of Circuit	qty		2			2			2			4	
Unit Airborne Sound Level	dbA		81			83			86			84	
Total Power Input	kw	45.12	53.52	59.22	52.12	63.22	70.22	70.78	82.78	91.18	94.24	111.04	122.44
EER		2.80	2.04	1.68	2.99	2.14	1.74	2.76	2.02	1.65	2.68	1.97	1.62
Unit Dimension [LxWxH]	mm	3500	1900	2200	3900	2100	2200	4550	1900	2200	5900	2100	2200
Weight	kg					3797			5221			6960	

RTACS SERIES		RTACS 80127			RTACS 90127			RTACS 90327			RTACS 100327		
ACU MODEL		310435	310446	310452	380435	380446	380452	310635	310646	310652	380635	380646	380652
Ambient Temperature	°C	35	46	52	35	46	52	35	46	52	35	46	52
	°F	95	115	126	95	115	126	95	115	126	95	115	126
Air Inlet Temperature DB	°C		27			27			27			27	
	°F		80.6			80.6			80.6			80.6	
Air Inlet Temperature WB	°C		19.5			19.5			19.5			19.5	
	°F		67.1			67.1			67.1			67.1	
<b>EVAPORATOR SIDE</b>													
Total Cooling Capacity	kw	318	270.8	244.4	390	334.8	300.8	477	406.2	366.6	585	502.2	451.2
	TR	90.47	77.04	69.53	110.96	95.25	85.58	135.71	115.56	104.30	166.43	142.88	128.37
Sensible Cooling Capacity	kw		175.73			214.78			263.99			312.41	
			50.00			61.11			75.10			88.88	
Air Volume	m <sup>3</sup> /h		45.000			55.000			67.600			80.000	
	cmf		26.627			32.544			40.000			47.337	
ESP	Pa		500			450			550			460	
Fan Type			Centrifugal			Centrifugal			Centrifugal			Centrifugal	
Motor Power	kw		18.5			22.00			30.00			30.00	
Motor Speed	rpm		1500			1500			1500			1500	
Face Velocity	m/s		2.58			2.35			2.43			2.45	
<b>CONDENSER SIDE</b>													
Air Volume	m <sup>3</sup> /h		174.000			208.000			261.000			312.000	
			102.959			123.077			154.438			184.615	
Type			AXIAL			AXIAL			AXIAL			AXIAL	
Quantity	qty		8			12			12			18	
Total Fan Power	kw		18.64			31.56			27.96			47.34	
<b>COMPRESSOR</b>													
Compressor Type			SCROLL			SCROLL			SCROLL			SCROLL	
Quantity	qty		4			4			6			6	
Voltage	V		415			415			415			415	
Total Power	kw	72.60	92.80	106.80	88.00	112.00	128.80	108.90	139.20	160.20	132.00	168.00	193.20
Number of Circuit	qty		4			4			6			6	
Unit Airborne Sound Level	dbA		86			89			88			91	
Total Power Input	kw	109.74	129.94	143.94	141.56	165.56	182.36	166.86	197.16	218.16	209.34	245.34	270.54
EER		2.90	2.08	1.70	2.76	2.02	1.65	2.86	2.06	1.68	2.79	2.05	1.67
Unit Dimension [LxWxH]	mm	7100	2200	2250	9100	2100	2200	10900	2100	2200	13000	2200	2250
Weight	kg		7280			7360			8383			8550	

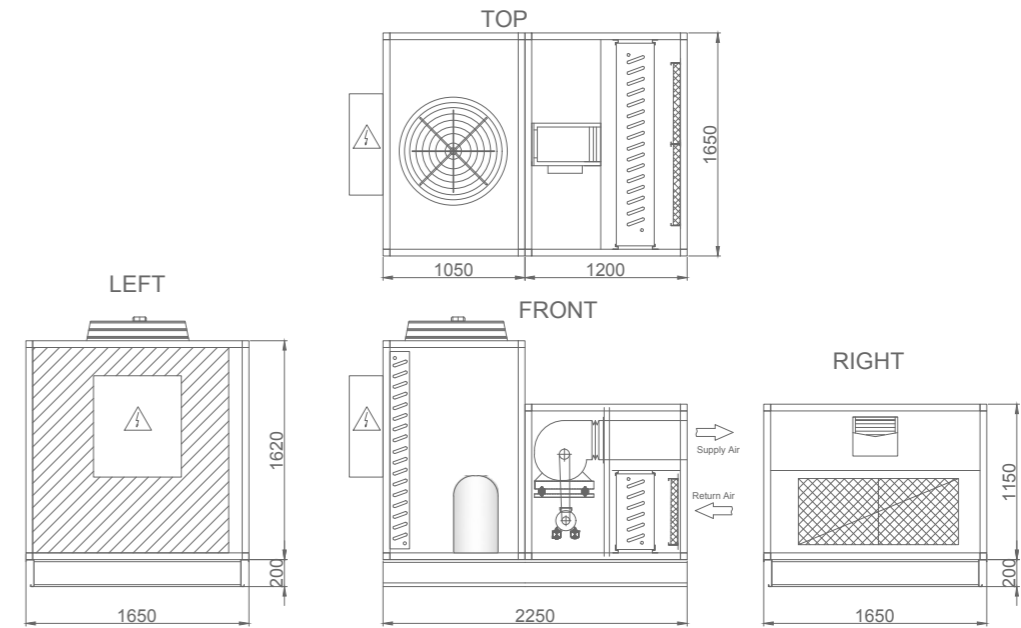
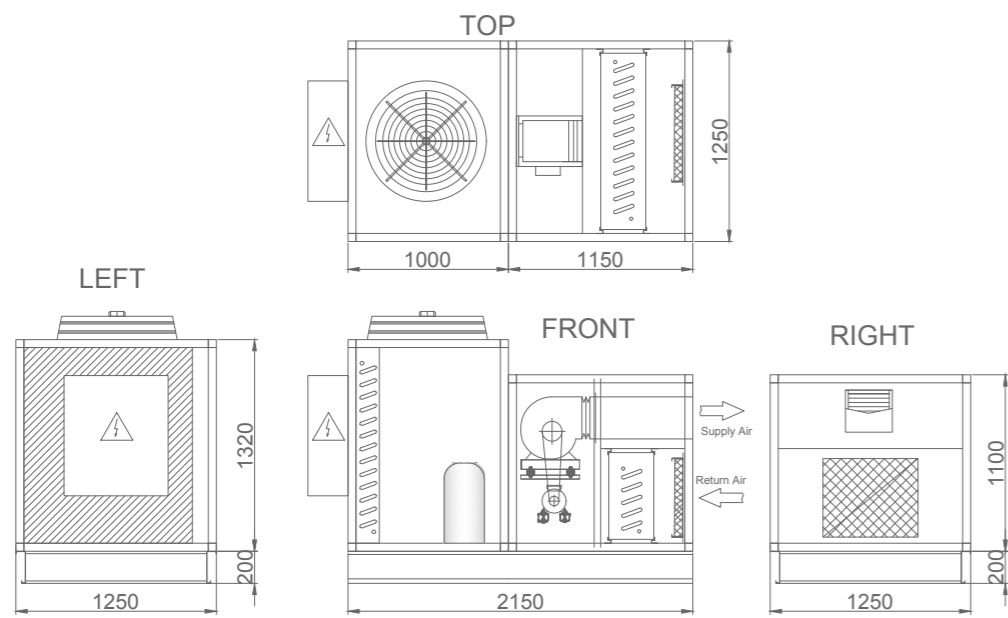


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 8.58	Quantity	1
Sensible Cooling Capacity	kw 5.47	Refrigeration Circuits	1
Air Inlet Temperature DB	°C 27	Power Input	kw 3.13
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 5.57
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 1400	Air flow	m <sup>3</sup> /h 4900
Evaporator Fan Quantity	1	Condenser Fan Quantity	1
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 0.37	Fan Motor Power	kw 0.34
Motor Nominal Current	A 12	Fan Motor Nominal Current	A 0.49
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 1.18	Face Velocity	m/s 2.06
Fin space	mm 3.2	Fin space	mm 1.8
Heat transfer surface area	m <sup>2</sup> 17.35	Heat transfer surface area	m <sup>2</sup> 44.59
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	3.84	<b>Unit Dimensions W*H*L</b>	mm	1000*1320*1900
<b>Total Nominal Current</b>	A	7.3	<b>Unit operating weight</b>	kg	428
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 15.5	Quantity	1
Sensible Cooling Capacity	kw 9.96	Refrigeration Circuits	1
Air Inlet Temperature DB	°C 27	Power Input	kw 5.35
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 9.37
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 2550	Air flow	m <sup>3</sup> /h 9000
Evaporator Fan Quantity	1	Condenser Fan Quantity	1
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 0.75	Fan Motor Power	kw 0.6
Motor Nominal Current	A 2	Fan Motor Nominal Current	A 2.04
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.07	Face Velocity	m/s 2.56
Fin space	mm 2	Fin space	mm 1.8
Heat transfer surface area	m <sup>2</sup> 27.94	Heat transfer surface area	m <sup>2</sup> 65.85
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	6.7	<b>Unit Dimensions W*H*L</b>	mm	1150*1520*2100
<b>Total Nominal Current</b>	A	13.4	<b>Unit operating weight</b>	kg	523
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

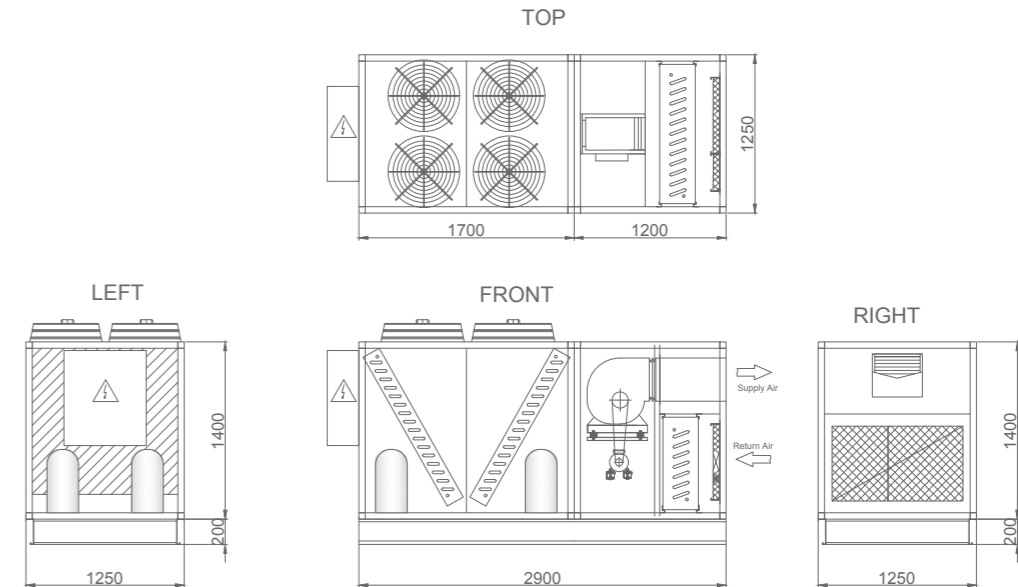
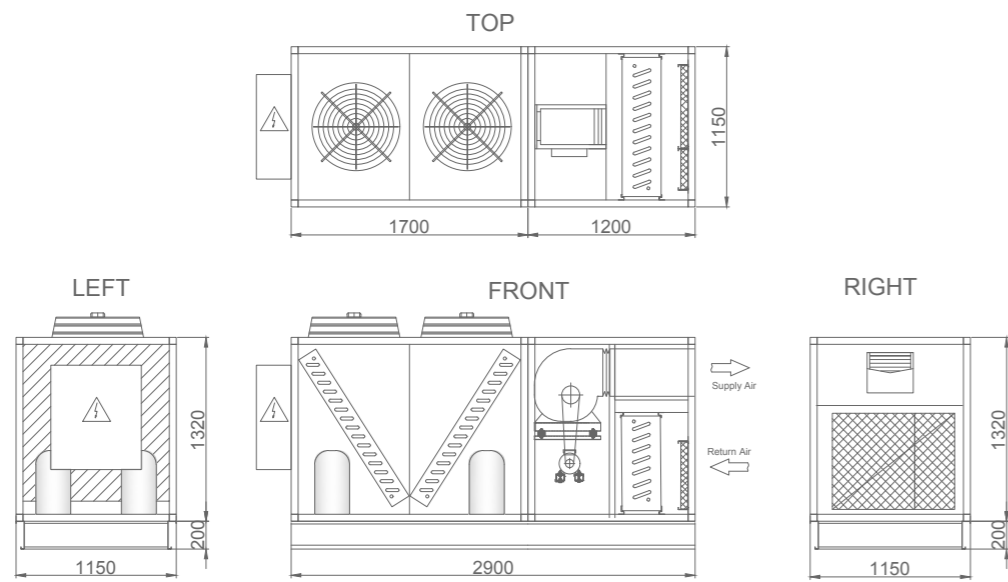


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 21.5	Quantity	1
Sensible Cooling Capacity	kw 13.86	Refrigeration Circuits	1
Air Inlet Temperature DB	°C 27	Power Input	kw 7.22
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 13.17
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 3.55	Air flow	m <sup>3</sup> /h 14000
Evaporator Fan Quantity	1	Condenser Fan Quantity	1
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 1.1	Fan Motor Power	kw 1.97
Motor Nominal Current	A 2.6	Fan Motor Nominal Current	A 2.72
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.49	Face Velocity	m/s 3.54
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 35.62	Heat transfer surface area	m <sup>2</sup> 74.08
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	10.29	<b>Unit Dimensions W*H*L</b>	mm	1250*1520*2150
<b>Total Nominal Current</b>	A	18.5	<b>Unit operating weight</b>	kg	597
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 28.2	Quantity	1
Sensible Cooling Capacity	kw 18.16	Refrigeration Circuits	1
Air Inlet Temperature DB	°C 27	Power Input	kw 9.29
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 16.45
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 4.650	Air flow	m <sup>3</sup> /h 15000
Evaporator Fan Quantity	1	Condenser Fan Quantity	1
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 1.5	Fan Motor Power	kw 1.97
Motor Nominal Current	A 2.6	Fan Motor Nominal Current	A 2.72
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.42	Face Velocity	m/s 2.1
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 48.02	Heat transfer surface area	m <sup>2</sup> 133.76
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	12.76	<b>Unit Dimensions W*H*L</b>	mm	1650*1820*2250
<b>Total Nominal Current</b>	A	21.8	<b>Unit operating weight</b>	kg	788
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor



Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 31	Quantity	2
Sensible Cooling Capacity	kw 20.11	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 10.70
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 18.74
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 5.150	Air flow	m <sup>3</sup> /h 18.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	2
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 1.5	Fan Motor Power	kw 1.2
Motor Nominal Current	A 3.7	Fan Motor Nominal Current	A 4.08
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.5	Face Velocity	m/s 2.56
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 51.45	Heat transfer surface area	m <sup>2</sup> 131.7
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	10.29	<b>Unit Dimensions W*H*L</b>	mm	1150*1520*2900
<b>Total Nominal Current</b>	A	26.5	<b>Unit operating weight</b>	kg	1031
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

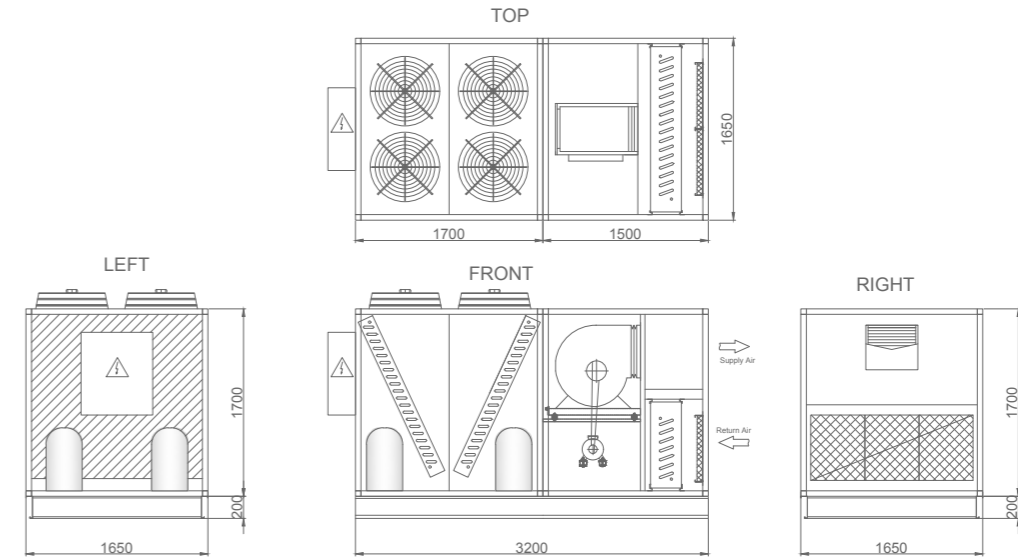
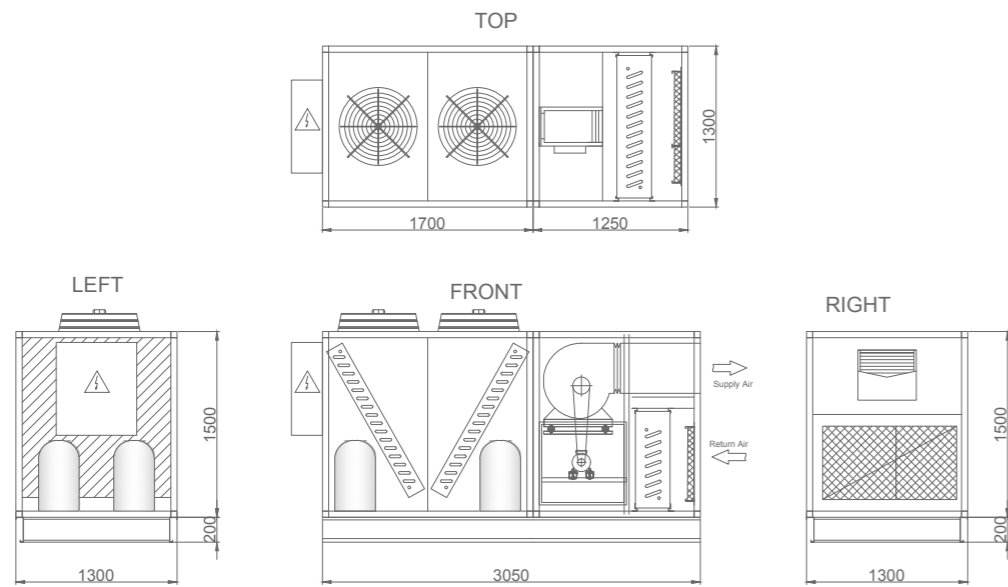
Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 34.9	Quantity	2
Sensible Cooling Capacity	kw 22.65	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 12.2
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 22.42
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 5.800	Air flow	m <sup>3</sup> /h 19.600
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 2.2	Fan Motor Power	kw 1.36
Motor Nominal Current	A 4.7	Fan Motor Nominal Current	A 1.96
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.45	Face Velocity	m/s 2.29
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 59.27	Heat transfer surface area	m <sup>2</sup> 160.52
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	15.76	<b>Unit Dimensions W*H*L</b>	mm	1250*1600*2900
<b>Total Nominal Current</b>	A	29.1	<b>Unit operating weight</b>	kg	1046
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

# ACS designs for whom seeks *the excellence...*

Our never ending ambition for excellence comes from the integrity of our product quality and customer satisfaction!



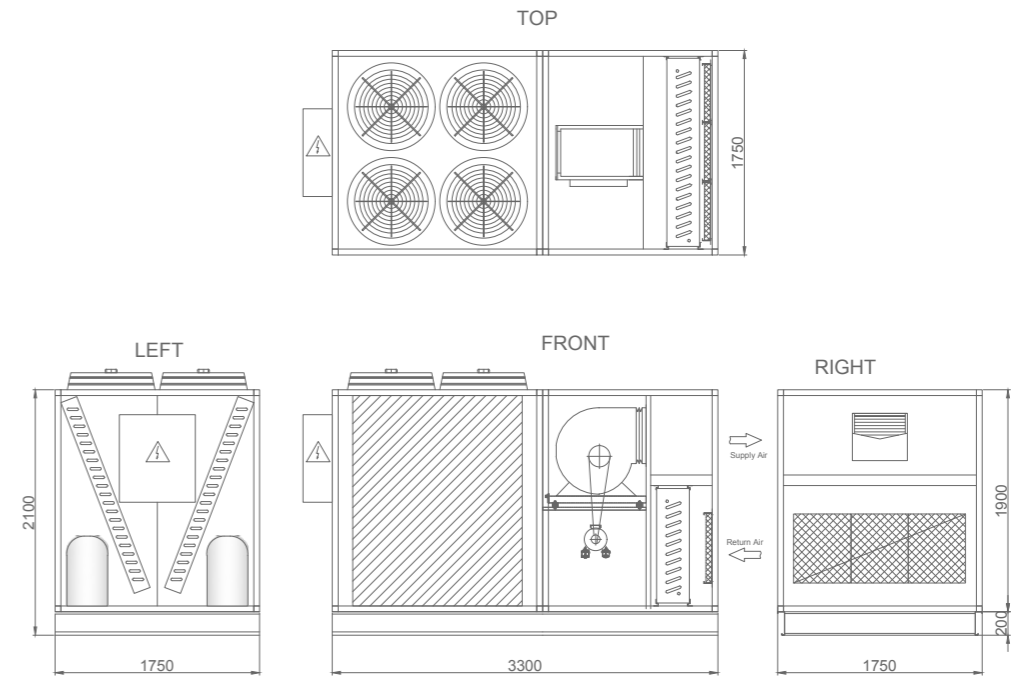
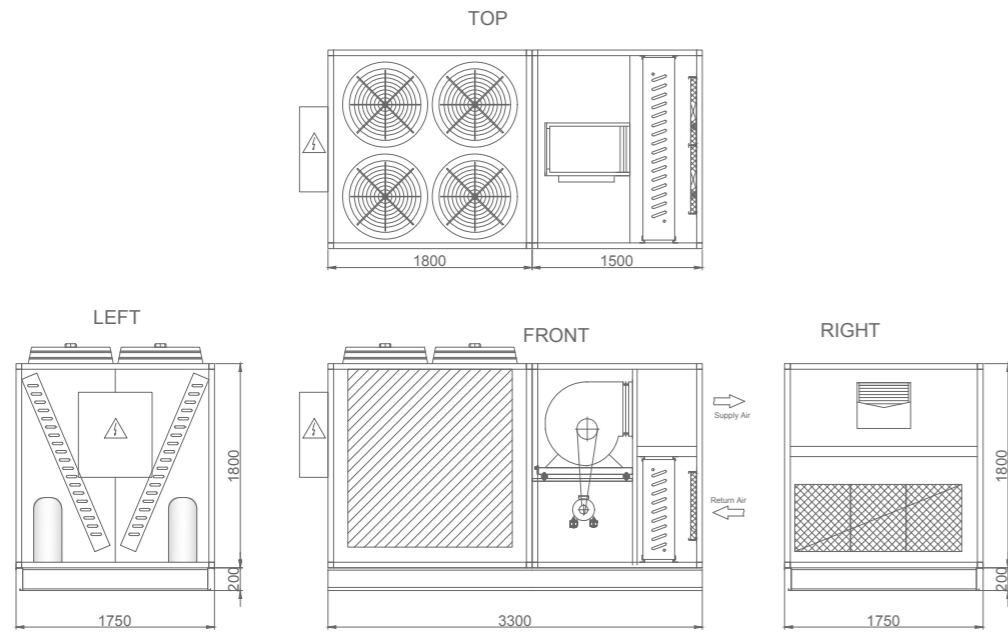


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 43	Quantity	2
Sensible Cooling Capacity	kw 27.92	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 14.44
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 26.34
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 7150	Air flow	m <sup>3</sup> /h 28.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	2
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 2.2	Fan Motor Power	kw 3.94
Motor Nominal Current	A 4.7	Fan Motor Nominal Current	A 5.44
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.48	Face Velocity	m/s 3.54
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 72.03	Heat transfer surface area	m <sup>2</sup> 142.16
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	20.58	<b>Unit Dimensions W*H*L</b>	mm	1300*1700*3050
<b>Total Nominal Current</b>	A	36.5	<b>Unit operating weight</b>	kg	1256
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 56.4	Quantity	2
Sensible Cooling Capacity	kw 36.51	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 18.58
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 32.9
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 9.350	Air flow	m <sup>3</sup> /h 30.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	2
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 3	Fan Motor Power	kw 3.94
Motor Nominal Current	A 6.5	Fan Motor Nominal Current	A 5.44
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.52	Face Velocity	m/s 2.1
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 92.83	Heat transfer surface area	m <sup>2</sup> 267.52
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	25.52	<b>Unit Dimensions W*H*L</b>	mm	1650*1900*3200
<b>Total Nominal Current</b>	A	44.8	<b>Unit operating weight</b>	kg	1385
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

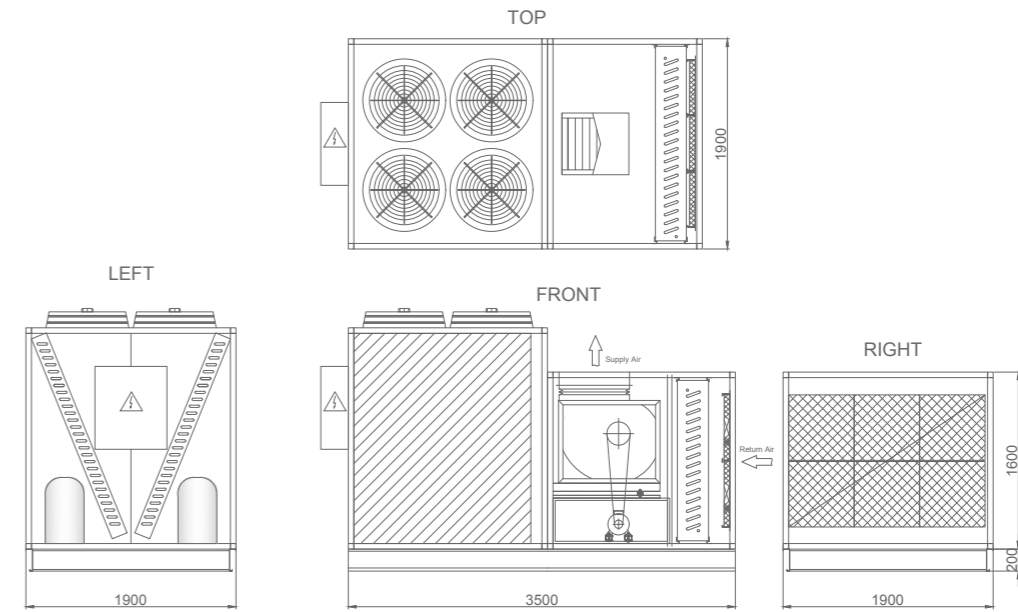
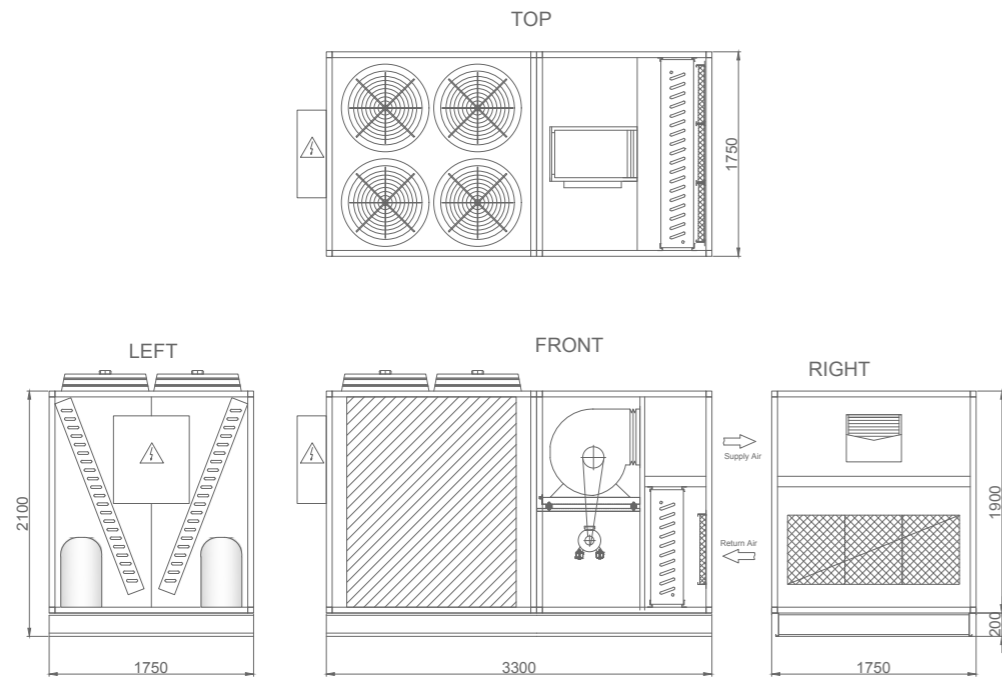


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 64.4	Quantity	2
Sensible Cooling Capacity	kw 41.79	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 211
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 36.38
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 10.700	Air flow	m <sup>3</sup> /h 36.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 4	Fan Motor Power	kw 2.4
Motor Nominal Current	A 8.1	Fan Motor Nominal Current	A 8.16
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.45	Face Velocity	m/s 2.37
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 109.41	Heat transfer surface area	m <sup>2</sup> 285.36
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	27.5	<b>Unit Dimensions W*H*L</b>	mm	1750*2000*3200
<b>Total Nominal Current</b>	A	52.6	<b>Unit operating weight</b>	kg	1518
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 69.8	Quantity	2
Sensible Cooling Capacity	kw 45.3	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 123.7
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 42.06
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 11.600	Air flow	m <sup>3</sup> /h 42.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 4	Fan Motor Power	kw 2.4
Motor Nominal Current	A 8.1	Fan Motor Nominal Current	A 8.16
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.38	Face Velocity	m/s 2.6
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 121.83	Heat transfer surface area	m <sup>2</sup> 303.2
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	30.1	<b>Unit Dimensions W*H*L</b>	mm	1750*2100*3300
<b>Total Nominal Current</b>	A	58.3	<b>Unit operating weight</b>	kg	1961
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor



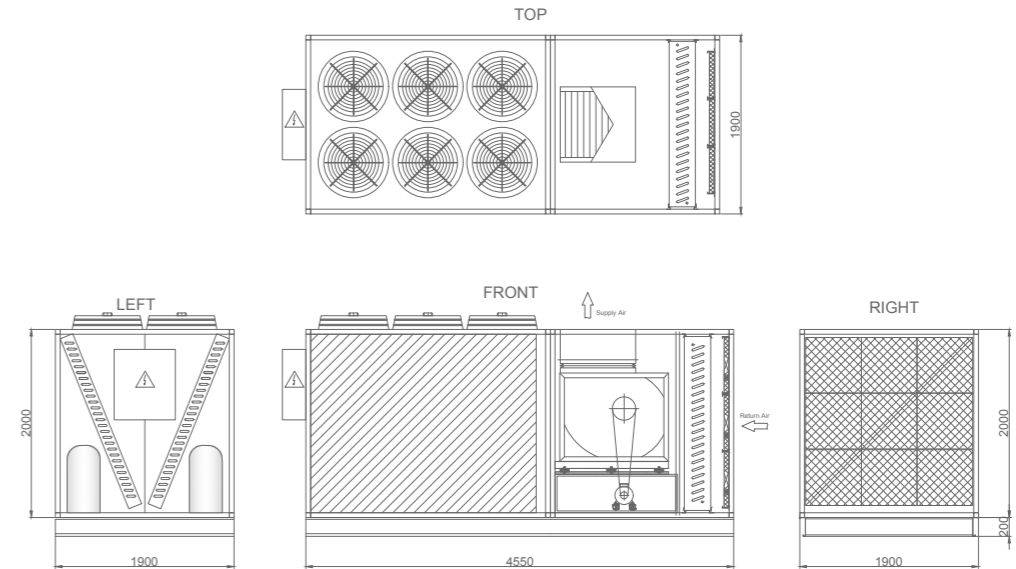
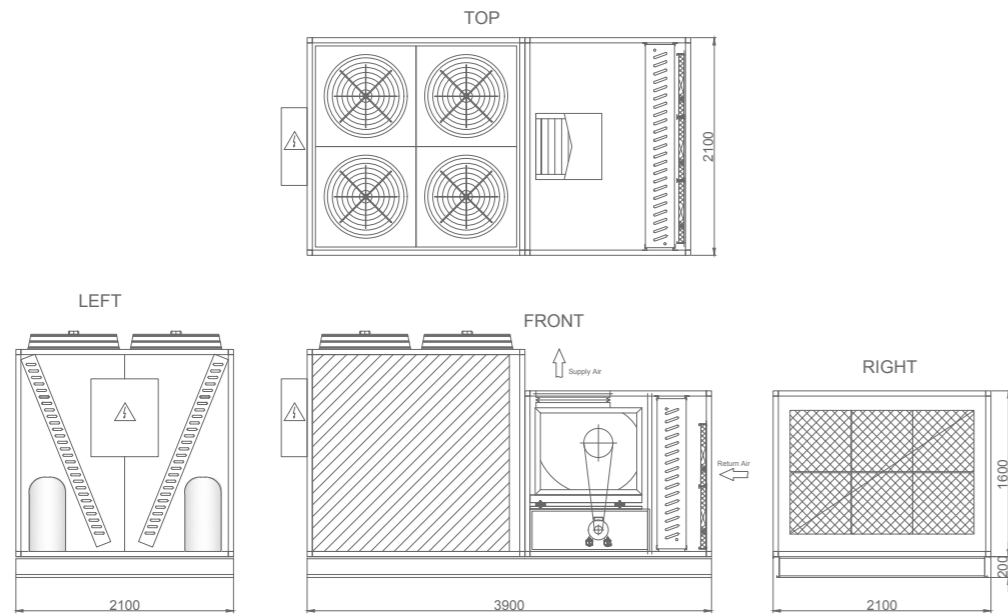
Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 82.04	Quantity	2
Sensible Cooling Capacity	kw 53.11	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 2.3
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 54.1
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 13.600	Air flow	m <sup>3</sup> /h 56.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 5.5	Fan Motor Power	kw 7.88
Motor Nominal Current	A 10.9	Fan Motor Nominal Current	A 10.88
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.61	Face Velocity	m/s 3.46
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 130.33	Heat transfer surface area	m <sup>2</sup> 303.2
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	41.68	<b>Unit Dimensions W*H*L</b>	mm	1750*2100*3300
<b>Total Nominal Current</b>	A	75.9	<b>Unit operating weight</b>	kg	2318
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 109.4	Quantity	2
Sensible Cooling Capacity	kw 71.07	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 37.5
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 62.1
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 18.200	Air flow	m <sup>3</sup> /h 70.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 5.5	Fan Motor Power	kw 10.52
Motor Nominal Current	A 10.9	Fan Motor Nominal Current	A 16.28
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.46	Face Velocity	m/s 3.6
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 185.21	Heat transfer surface area	m <sup>2</sup> 364.94
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	53.52	<b>Unit Dimensions W*H*L</b>	mm	1900*2200*3500
<b>Total Nominal Current</b>	A	89.3	<b>Unit operating weight</b>	kg	2397
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor



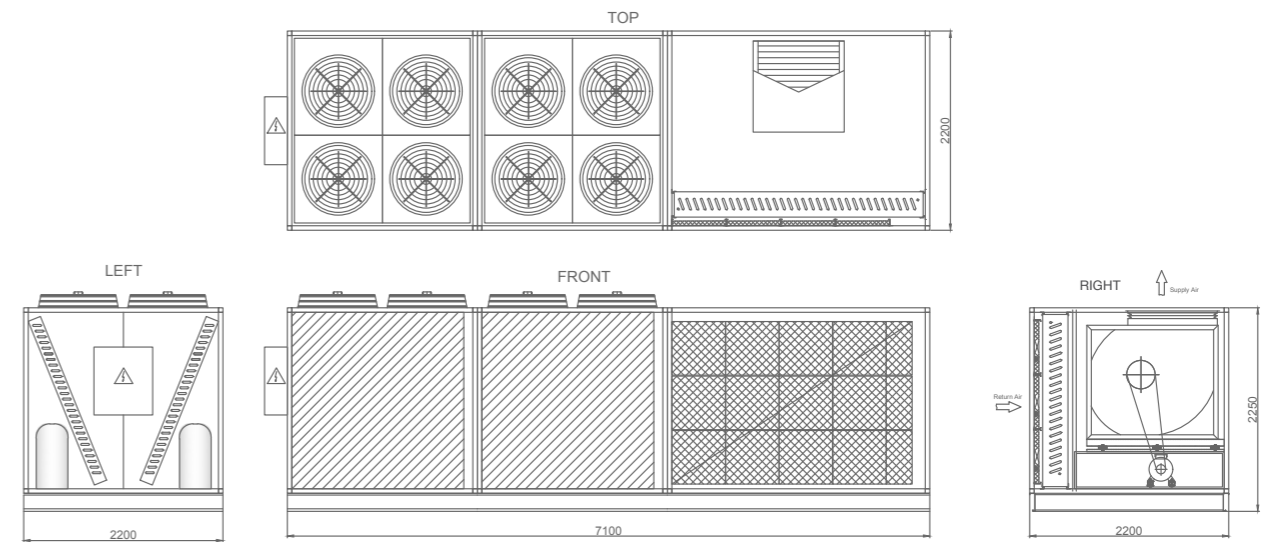
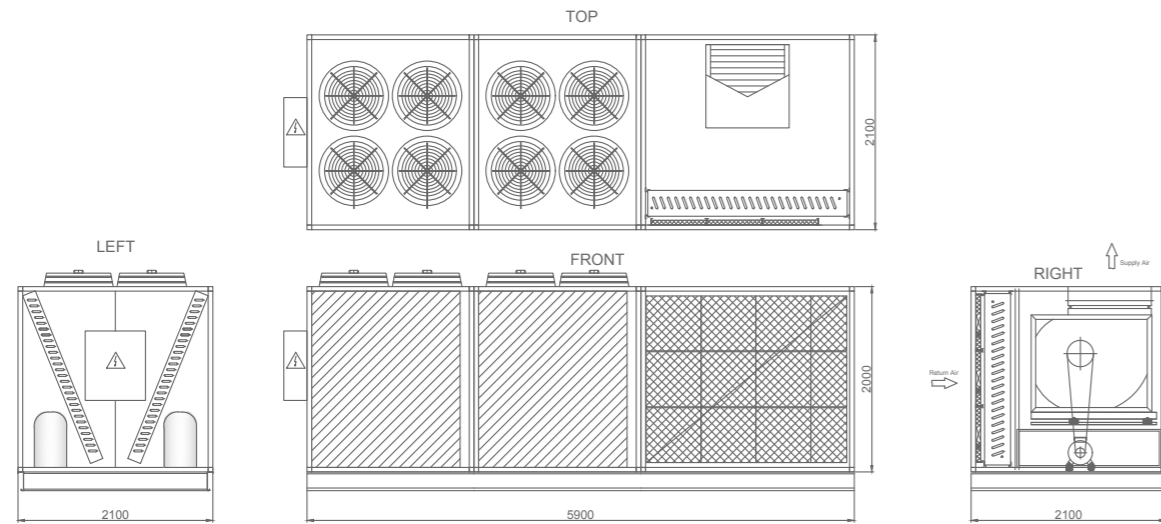


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 135.4	Quantity	2
Sensible Cooling Capacity	kw 87.87	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 46.4
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 77.96
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 22500	Air flow	m <sup>3</sup> /h 87.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	4
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 7.5	Fan Motor Power	kw 9.32
Motor Nominal Current	A 15.1	Fan Motor Nominal Current	A 18
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.53	Face Velocity	m/s 3.68
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 222.2	Heat transfer surface area	m <sup>2</sup> 443.14
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	63.22	<b>Unit Dimensions W*H*L</b>	mm	2100*2200*3900
<b>Total Nominal Current</b>	A	111.1	<b>Unit operating weight</b>	kg	3797
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 167.4	Quantity	2
Sensible Cooling Capacity	kw 108.56	Refrigeration Circuits	2
Air Inlet Temperature DB	°C 27	Power Input	kw 56
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 95.36
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 27800	Air flow	m <sup>3</sup> /h 104.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	6
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 11	Fan Motor Power	kw 15.78
Motor Nominal Current	A 21.1	Fan Motor Nominal Current	A 24.42
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	4	Number of rows	3
Face Velocity	m/s 2.46	Face Velocity	m/s 3.4
Fin space	mm 18	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 256.09	Heat transfer surface area	m <sup>2</sup> 573.46
Coil Quantity	1	Coil Quantity	2
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	82.78	<b>Unit Dimensions W*H*L</b>	mm	1900*2200*4550
<b>Total Nominal Current</b>	A	104.9	<b>Unit operating weight</b>	kg	5221
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

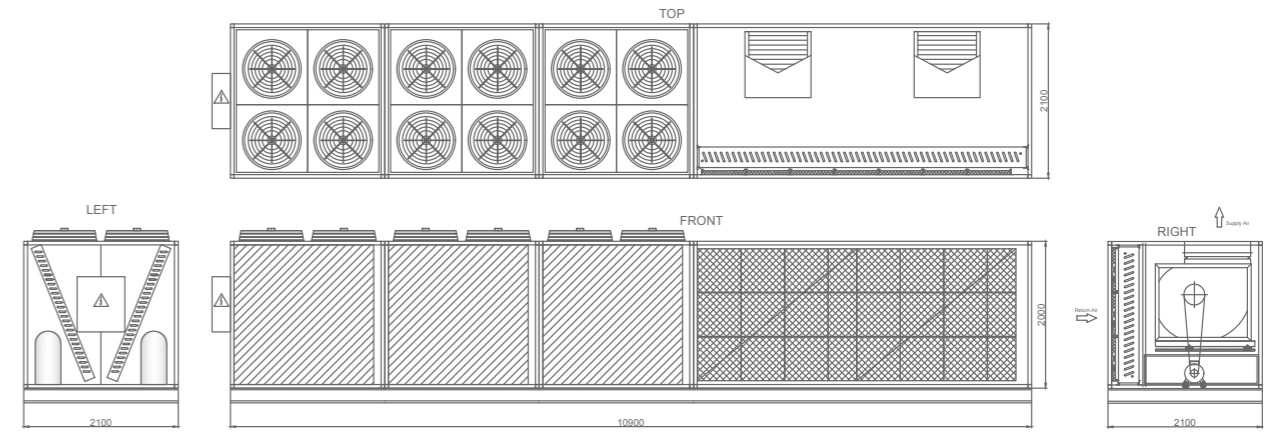
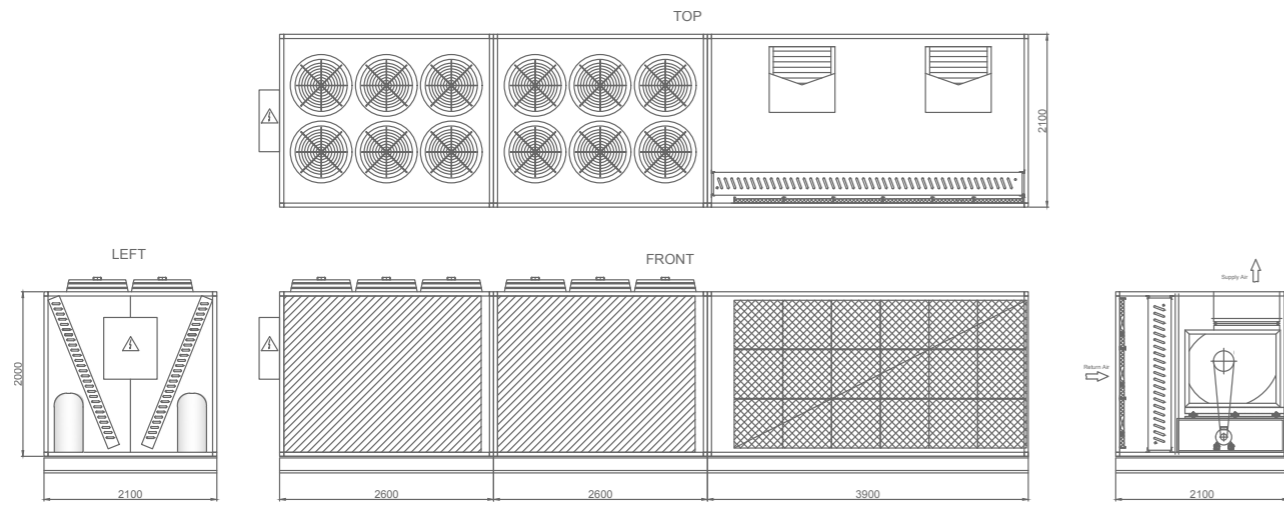


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 218.8	Quantity	4
Sensible Cooling Capacity	kw 130.82	Refrigeration Circuits	4
Air Inlet Temperature DB	°C 27	Power Input	kw 75
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 124.2
Refrigerant	R407C	Control	Expansion valve
Air flow	m³/h 33.500	Air flow	m³/h 140.000
Evaporator Fan Quantity	1	Condenser Fan Quantity	8
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 15	Fan Motor Power	kw 21.04
Motor Nominal Current	A 28.7	Fan Motor Nominal Current	A 32.56
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	5	Number of rows	3
Face Velocity	m/s 2.55	Face Velocity	m/s 3.6
Fin space	mm 21	Fin space	mm 18
Heat transfer surface area	m² 354.6	Heat transfer surface area	m² 729.88
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	111.04	<b>Unit Dimensions W*H*L</b>	mm	2100*2200*5900
<b>Total Nominal Current</b>	A	185.5	<b>Unit operating weight</b>	kg	6960
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 270.8	Quantity	4
Sensible Cooling Capacity	kw 175.73	Refrigeration Circuits	4
Air Inlet Temperature DB	°C 27	Power Input	kw 92.8
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 155.92
Refrigerant	R407C	Control	Expansion valve
Air flow	m³/h 45.000	Air flow	m³/h 174.000
Evaporator Fan Quantity	2	Condenser Fan Quantity	8
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55. TEFC. Class F	Axial Fan Motor Type	IP54. Class F
Motor Power	kw 18.5	Fan Motor Power	kw 18.64
Motor Nominal Current	A 34.5	Fan Motor Nominal Current	A 36
Coil	Copper Tubes. Aluminium Fins	Coil	Copper Tubes. Aluminium Fins
Number of rows	5	Number of rows	3
Face Velocity	m/s 2.54	Face Velocity	m/s 3.68
Fin space	mm 2.3	Fin space	mm 18
Heat transfer surface area	m² 439.81	Heat transfer surface area	m² 886.28
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm. Rockwool	Insulation	N / A
Air filter	EU4. Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	129.94	<b>Unit Dimensions W*H*L</b>	mm	2200*2250*7100
<b>Total Nominal Current</b>	A	226.4	<b>Unit operating weight</b>	kg	7280
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

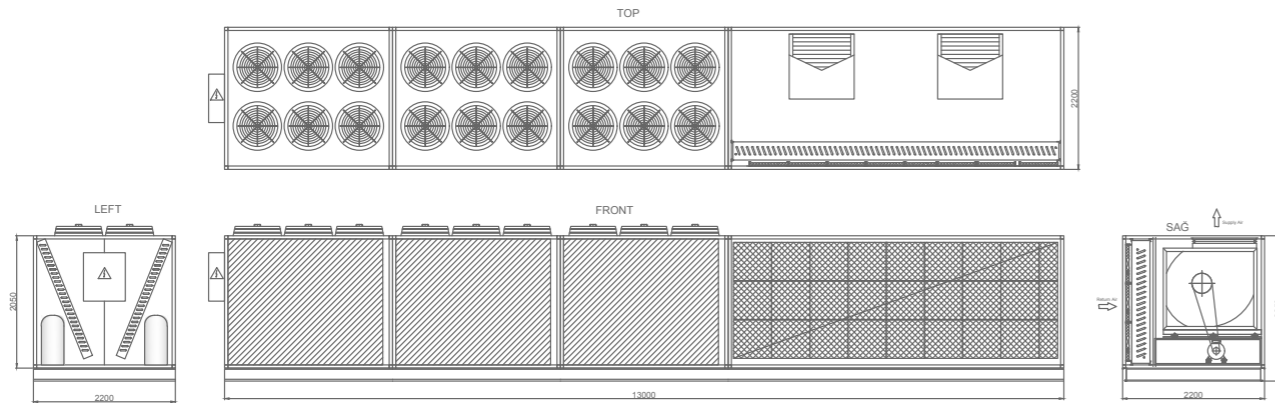


Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 224.8	Quantity	4
Sensible Cooling Capacity	kw 214.78	Refrigeration Circuits	4
Air Inlet Temperature DB	°C 27	Power Input	kw 112
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 190.72
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 55.000	Air flow	m <sup>3</sup> /h 208.000
Evaporator Fan Quantity	2	Condenser Fan Quantity	12
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 22	Fan Motor Power	kw 31.56
Motor Nominal Current	A 42.2	Fan Motor Nominal Current	A 48.84
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	5	Number of rows	3
Face Velocity	m/s 2.53	Face Velocity	m/s 3.4
Fin space	mm 2.3	Fin space	mm 1.8
Heat transfer surface area	m <sup>2</sup> 539.2	Heat transfer surface area	m <sup>2</sup> 1146.92
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	165.56	<b>Unit Dimensions W*H*L</b>	mm	2100*2200*9100
<b>Total Nominal Current</b>	A	281.8	<b>Unit operating weight</b>	kg	7360
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor

Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 406.2	Quantity	6
Sensible Cooling Capacity	kw 264	Refrigeration Circuits	6
Air Inlet Temperature DB	°C 27	Power Input	kw 139.2
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 233.9
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 67.600	Air flow	m <sup>3</sup> /h 261.000
Evaporator Fan Quantity	2	Condenser Fan Quantity	12
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 30	Fan Motor Power	kw 27.96
Motor Nominal Current	A 57.4	Fan Motor Nominal Current	A 54
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	5	Number of rows	3
Face Velocity	m/s 2.5	Face Velocity	m/s 3.68
Fin space	mm 2.3	Fin space	mm 1.8
Heat transfer surface area	m <sup>2</sup> 669.9	Heat transfer surface area	m <sup>2</sup> 1329.42
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A

<b>Total Power Input</b>	kw	197.16	<b>Unit Dimensions W*H*L</b>	mm	2100*2200*10900
<b>Total Nominal Current</b>	A	345.3	<b>Unit operating weight</b>	kg	8383
<b>Power Supply</b>	V-Hz-ph	415-50-3	<b>Control</b>		Microprocessor



Evaporator side		Condenser side	
Ambient Temperature	°C 46	Compressor	Scroll
Total Cooling Capacity	kw 502.2	Quantity	6
Sensible Cooling Capacity	kw 312.4	Refrigeration Circuits	6
Air Inlet Temperature DB	°C 27	Power Input	kw 168
Air Inlet Temperature WB	°C 19.5	Nominal Current	A 286.08
Refrigerant	R407C	Control	Expansion valve
Air flow	m <sup>3</sup> /h 80.000	Air flow	m <sup>3</sup> /h 312.000
Evaporator Fan Quantity	2	Condenser Fan Quantity	18
Evaporator Fan	Radial double inlet	Condenser Fans	Axial
Type of drive	Belt Drive	Type of drive	Direct Drive
Fan Motor Type	IP55, TEFC, Class F	Axial Fan Motor Type	IP54, Class F
Motor Power	kw 30	Fan Motor Power	kw 47.34
Motor Nominal Current	A 57.4	Fan Motor Nominal Current	A 73.26
Coil	Copper Tubes, Aluminium Fins	Coil	Copper Tubes, Aluminium Fins
Number of rows	5	Number of rows	3
Face Velocity	m/s 2.52	Face Velocity	m/s 3.4
Fin space	mm 2.3	Fin space	mm 18
Heat transfer surface area	m <sup>2</sup> 789.29	Heat transfer surface area	m <sup>2</sup> 1720.38
Coil Quantity	1	Coil Quantity	3
Case Profile	steel profiles	Case Profile	steel profiles
Panel Design	galvanized double skin	Panel Design	galvanized single skin
Painting	electrostatic polyester powder	Painting	electrostatic polyester powder
Insulation	50 mm, Rockwool	Insulation	N / A
Air filter	EU4, Panel filter	Air filter	N / A
Thickness	mm 48	Thickness	mm N / A
<b>Total Power Input</b>	kw 245.34	<b>Unit Dimensions W*H*L</b>	mm 2100*2250*1300
<b>Total Nominal Current</b>	A 416.7	<b>Unit operating weight</b>	kg 8550
<b>Power Supply</b>	V-Hz-ph 415-50-3	<b>Control</b>	Microprocessor



To us,  
we have two important assets  
that deserves constant investment,  
**human and technology!**

# Control Systems



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# Control System Software Features

## Controlling

- ✓ Multiple circuits DX system possibility
- ✓ Scroll Compressors
- ✓ Compressors for each independent cooling circuits
- ✓ Condensers and axial fans for each independent cooling circuits

## Hardware

- ✓ Mpc Small, Medium control boards
- ✓ PGDI or PLD screen
- ✓ User friendly menu control in English
- ✓ P/PI/PID controlling
- ✓ Based on an optional temperature prob

## Set Point Options

- ✓ Comfort, pre-comfort, economic set points
- ✓ Set point limitations

## Protections & Alarms

- ✓ Automatic /manual/ semi automatic alarm management
- ✓ Adjustable alarm timer parameters
- ✓ Alarm history
- ✓ Air flow switch
- ✓ Circuit Breakers Alarms for Compressor and Fans
- ✓ Low and high pressure switches
- ✓ Dirty Filter Alarm
- ✓ Phase Protection Alarm
- ✓ High pressure protection
- ✓ Low pressure protection
- ✓ Blowing air temperature limitation

## Date Based Plannig

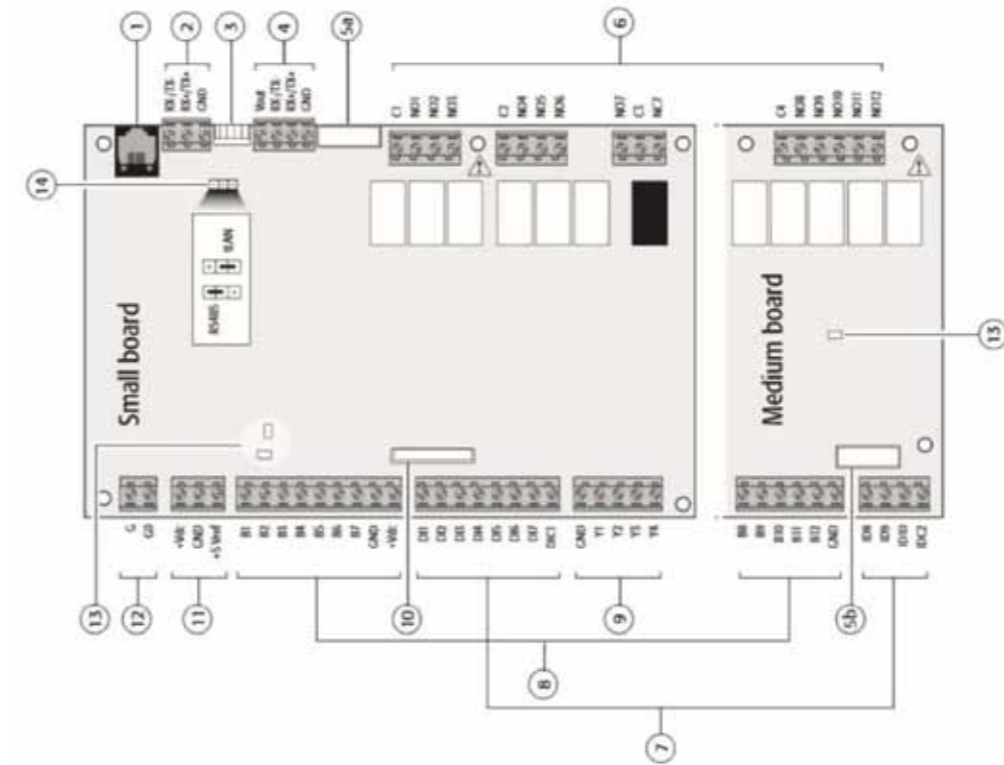
- ✓ 4 different time zones
- ✓ Option to assign 5 different special days
- ✓ Option to assign 10 different holiday periods
- ✓ Seasonal timer

Timer functions  
Identification of seasonal variations and active set points

## Seasonal Variations

- ✓ Through the keyboard
- ✓ Timer based
- ✓ Fresh air temperature based
- ✓ Fresh air temperature and timer based

# Control System Hardware Features

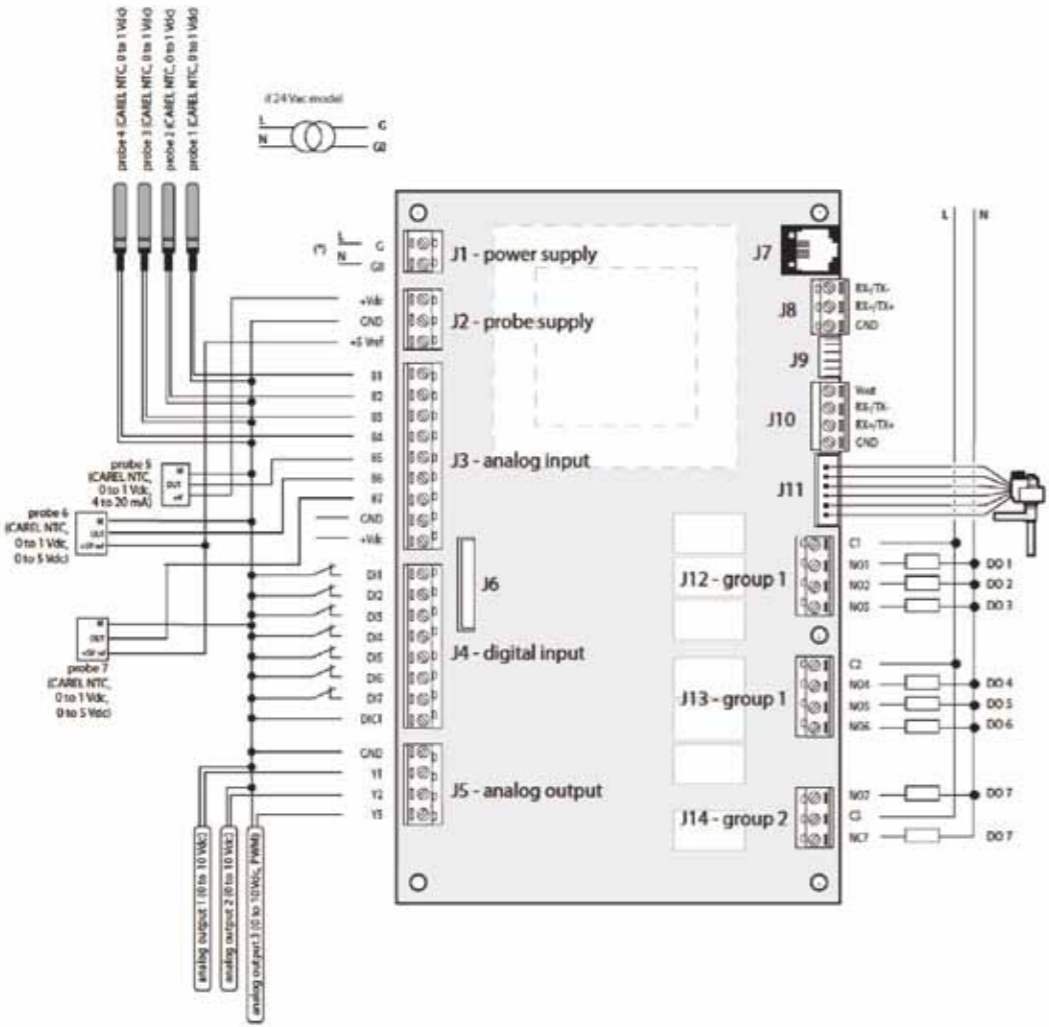


## mPC Small & Medium

- ✓ User interface terminal [pLD, PGDI] connection
- ✓ mPC Bus, pLAN line
- ✓ PLD terminal connection
- ✓ RS485/ tLAN connection
- ✓ ExV connection – Only available on compatible models
- ✓ Exv connection 2 - Only available on compatible models
- ✓ Digital output relays
- ✓ Digital inputs
- ✓ Analog inputs
- ✓ Analog outputs
- ✓ Serial card slot
- ✓ Power supply for probes
- ✓ Power supply 24 Vac in UPCB models
- ✓ LED – Orange: Power status of the card. Green: BIOS status
- ✓ tLAN/ RS485 jumper









# Control System Input / Output Connections



# Control System User Screens



-  Alarm button: Used for receiving information regarding the system alarms. It alarms as red light flashes if there are any active alarms on the system.
-  PRG Button: Used for logging in to the system settings.
-  ESC Button: Used for heading back to the home page from any other page.
-  Down Arrow Button: Used for proceeding to the next page and decreasing the number as one.
-  Up Arrow Button: Used for getting back to the previous page and increasing the number as one.
-  Enter Button: Used for applying the changes.



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# Control System Home Screen



Respectively: Date, day of the week, time information.

One of the system probes. The probe displayed changes as you hit the "ESC" button. The probes that are going to be displayed can be adjusted through the Gc01 screen.

The line which displays the currently working devices in the system. From left to right respectively: Ventilator fan status, compressor status. The images have animations indicating that the devices are in operation.

symbol shows at least one compressor is active.

shows the return air temperature is in accordance with the reference value.

### Unit Status

Unit ON: Indicates the unit is in operation.

OFF by ALARM: Indicates the unit is shut down due to alarm.

OFF by SPV: Indicates the unit is shut down due to supervisor.

OFF by Blackout: Indicates the unit is shut down due to power outage.

OFF by KEYBOARD: Indicates the unit is shut down through the screen.

MANUAL: Indicates the unit is manually operational.

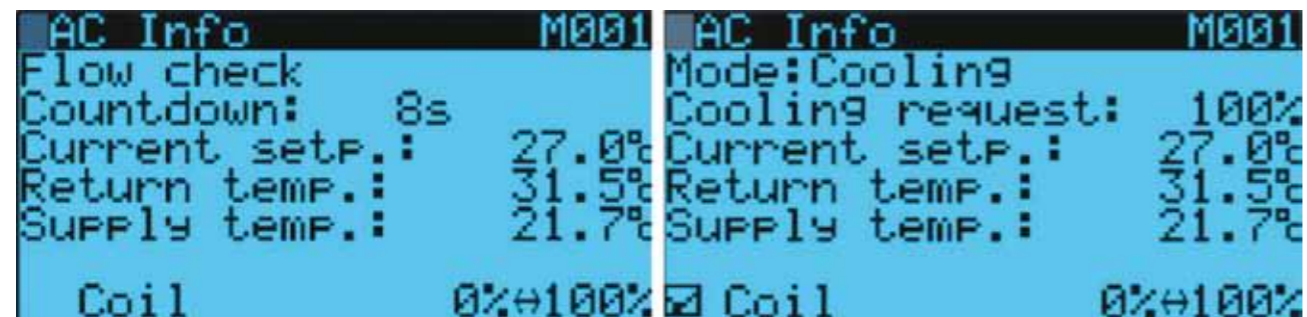
Comfort: Indicates the unit is operational in comfort mode.

The information which will be displayed here can be adjustable through Gc02 screen.

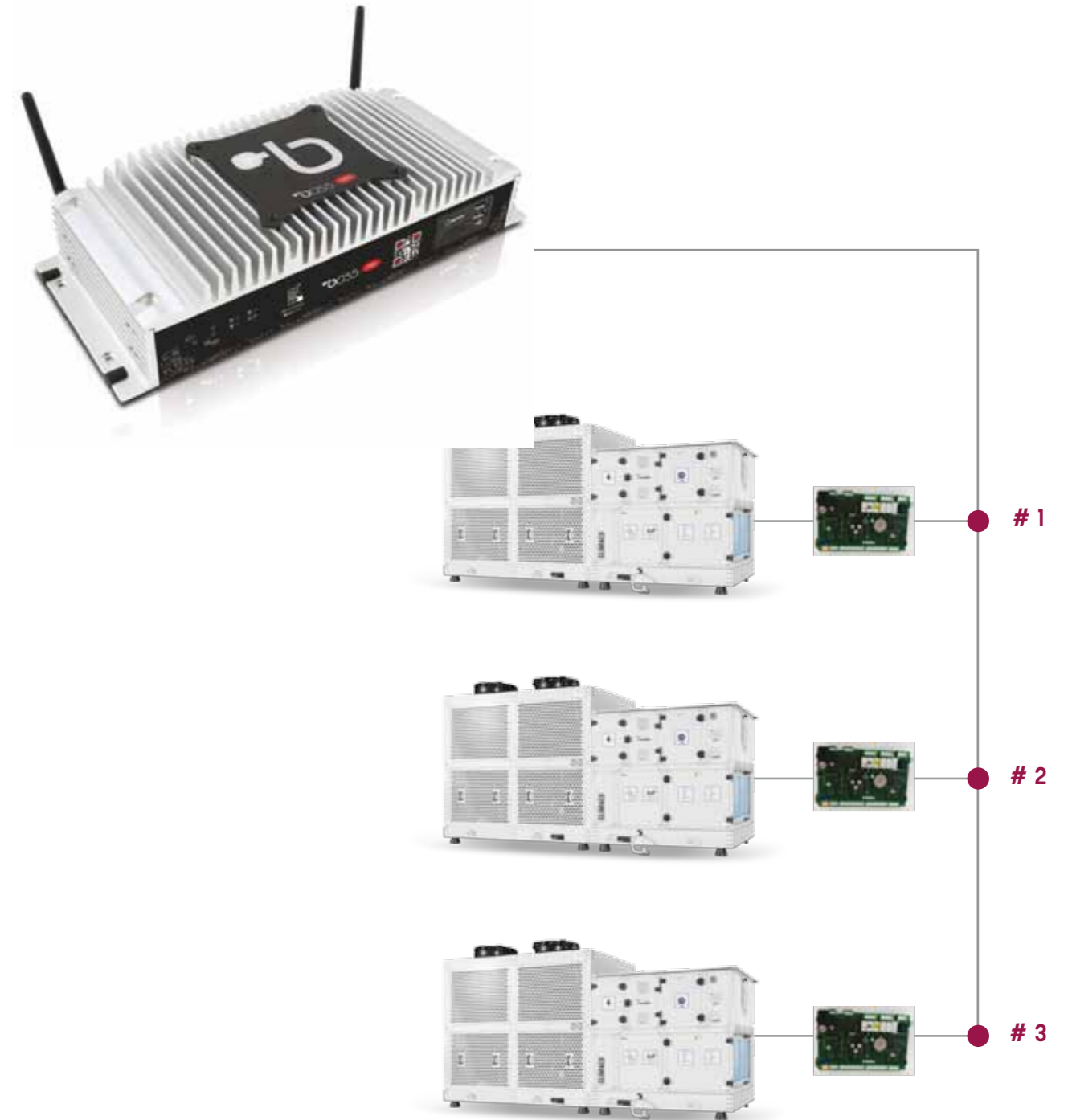
User menu. You can explore between the tabs of the menu by hitting "DOWN" and "UP" arrow buttons in the home screen. The selected tab is accessible by hitting the "ENTER" button.

**Note:** The menu which contains the detailed system settings is accessible by entering the password through this screen as hitting "PRG" button.

### System Information Screens



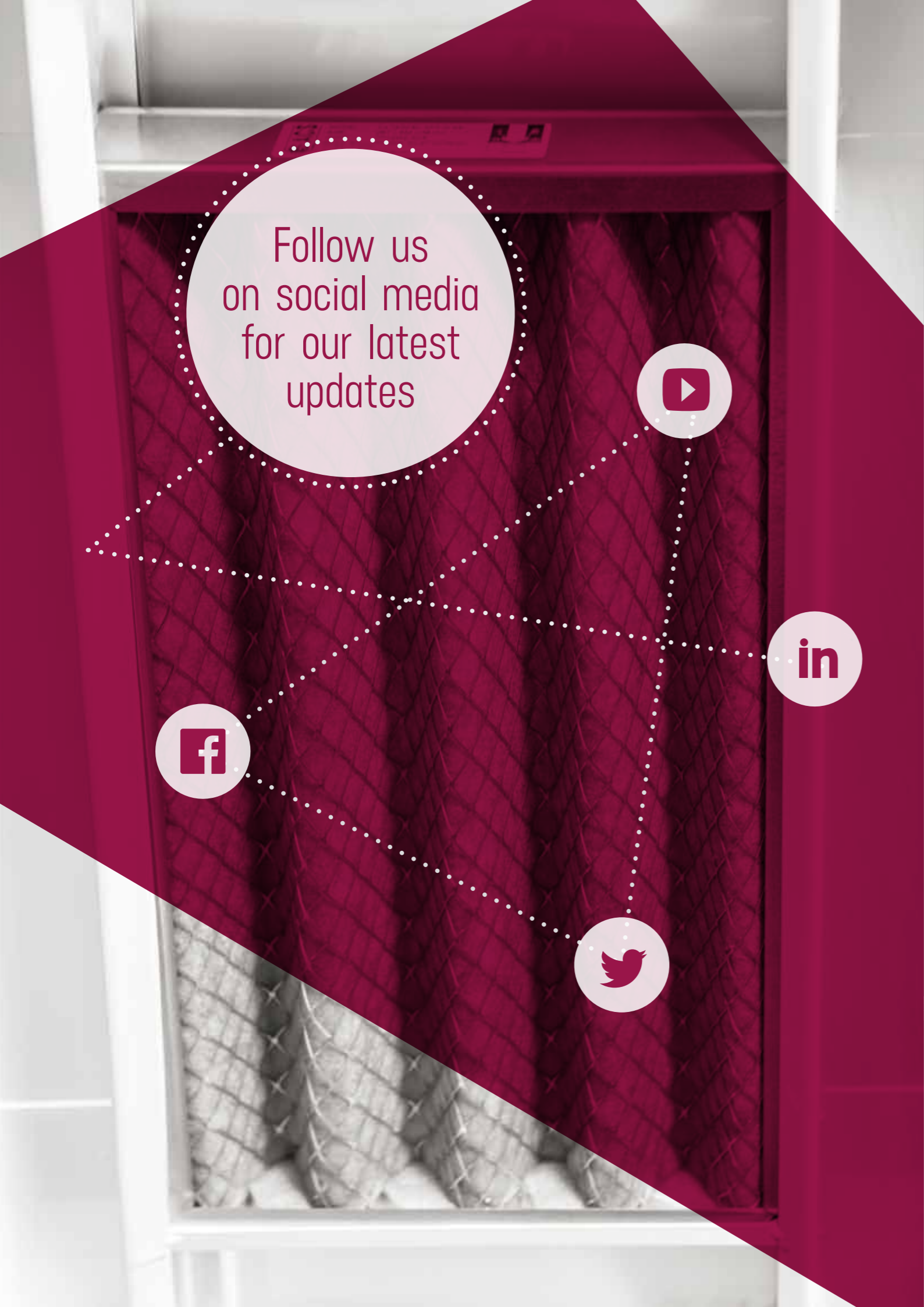
# Local Supervisor System BOSS



### Multiple Units can be connected BOSS for supervisory control

BOSS is a new local supervisor for multiple unit systems. Multiple units can be connected BOSS for supervisory control. Web interface can be accessed by smartphone, tablet and PC. It supports all browsers. Modbus RTU, Modbus TCP/IP, Bacnet protocols are supported.

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