



next EVO CW

6 ÷ 248 kW

Close control air conditioners for chilled water feeding with upflow or downflow air delivery



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GENERAL CHARACTERISTICS

NEXT EVO CW: Close control air conditioners for chilled water feeding with upflow or downflow air delivery.

NEXT EVO CW PLUS: Close control air conditioners for chilled water feeding with separate fans section and downflow air delivery.

The machines are made for indoor installation.

The constructive solutions and the internal lay-out allow high application flexibility and the frontal access to the main components for the inspection and routine maintenance.

Machines supply fully assembled with control systems. The installation requires electrical and hydraulic connections only allowing high costs and time reduction.

Final assembly on all machines before shipment including running test, reading and monitoring of operating parameters, alarms simulation and visual check.

Design, assembly and test as per the Company Quality Assurance program in full compliance with ISO 9001. RC Group has been the first Italian company in its segment to get the ISO 9001 in October 13th, 1991 with certificate ICIM 0018.

The machines are in full compliance with European Norms 2006/42CE, 2006/95CE, 2004/108CE, 97/23CE and subsequent amendments.

SERIES IDENTIFICATION



OVER VERSION

Frontal air suction and upflow air delivery.

NEXT EVO CW OVER: Close control air conditioners for chilled water feeding and equipped with Plug-fans with brushless type EC electric motor.

Cooling capacity 6,2 ÷ 151,0 kW



UNDER VERSION

Air suction from the top and downflow air delivery.

NEXT EVO CW UNDER: Close control air conditioners for chilled water feeding and equipped with Plug-fans with brushless type EC electric motor.

Cooling capacity 6,2 ÷ 151,0 kW



UNDER VERSION

Air suction from the top and downflow air delivery.

NEXT EVO CW PLUS: Close control air conditioners for chilled water feeding with separate fans section and equipped with Plug-fans with brushless type EC electric motor.

Cooling capacity 114,0 ÷ 248,0 kW

MODEL IDENTIFICATION

NEXT EVO CW PLUS 140 E7 6R

NEXT EVO Series identification

CW Machine type
CW chiller water fed

PLUS Version
OVER = packaged version with upflow air delivery
UNDER = packaged version with downflow air delivery
PLUS = version in two section with downflow air delivery

140 Cooling capacity (kW) at nominal conditions (with 6R version cooling coil)

E7 Cabinet size

6R Cooling coil version

WORKING LIMITS

Room air temperature:

14°C minimum temperature with wet bulb.
24°C maximum temperature with wet bulb.
35°C maximum temperature with dry bulb.

Room air humidity:

20%RH minimum relative humidity.
70%RH maximum relative humidity.

STORING TEMPERATURE

If the machine is not installed on receipt and is stored for a long time, store it in a protected place, at temperatures ranging between -30°C and 50°C in absence of superficial condensation and direct sun light.

MAIN COMPONENTS

FRAMEWORK

- Base in aluminium extrusion, painted with epoxy powders.
- Frame in galvanized steel sheet.
- Galvanized steel sheet panels painted with epoxy powders, internally insulated with noise absorption material and seals to ensure air tight with the panels.
Hinged front panels with quick release removal system.
Total front access for routine maintenance.
Removable lateral and back side panels.
- Colour: RAL 9005 for base and frame (black)
RAL7016 for panels (anthracite gray)
- OVER version
 - Air intake from the front through honeycomb type grille and air delivery from the top.
 - Washable air pre-filters with G2 efficiency, with cells in synthetic fibre (size E0 excluded).
- UNDER version
Machine size E0:
 - Air intake from the front through honeycomb type grille and air delivery from the bottom.Machine size E1, E2, E3, E4, E5, E6, E7, E8, E9 and all PLUS series:
 - Air intake from the top and air delivery from the bottom.

FILTER SECTION

- Size E0:
 - Washable air filters with G3 efficiency, with cells in synthetic fibre and metallic frame (EN 779-2002).
- Size E1, E2, E3, E4, E5, E6, E7, E8, E9 and all PLUS series:
 - Washable air filters with G4 efficiency, with cells in synthetic fibre and metallic frame (EN 779-2002).

COOLING SECTION

- Heat exchanger coil with internally corrugated copper tubes and high efficiency aluminium fins, specifically developed to provide high heat transfer and lower pressure drops.
The heat exchanger is available in 4R, 6R or 8R version. The choice must be made when ordering.
The heat exchangers in 6R or 8R version are not available for size E0 units.
- 2-way motorized valve for water flow regulation with 0÷10 VDC control actuator and emergency manual control. Nominal operating pressure up to 1600 kPa and closing pressure (Δp_s) of 1400 kPa.
- Frame in galvanized steel.
- Condensate tray in peralluman with PVC flexible discharge pipe.

FANS SECTION

NEXT EVO CW OVER / UNDER

The fan section is contained within the machine and includes:

- The fan section is contained within the machine and includes Centrifugal fans with backward aerofoil curved blades, single suction and without scroll housings (Plug-fans), directly coupled to electric motor.
- Brushless type synchronous EC electric motor with external rotor with integrated electronic commutated system and continuous variation of the rotation speed.
The motor rotation control is obtained with the EC system (Electronic Commutation) that manage the motor through serial communication between electric motor interface and microprocessor control.
- Temperature sensors on air intake and delivery.
- Fan guard with rubber support (UNDER version)

NEXT EVO CW PLUS

The fan section is separated and is designed to be fixed under the machine.

The fan section provides the air discharge from the front and can be installed in the raised floor void or directly on the floor for downflow air delivery.

It is possible to provide the air flow towards the rear of the machine by moving the panels and the fan guard – see chapter “NEXT EVO CW PLUS installation diagram”.

The fans section includes:

- Height adjusting rubber holders.
- The fan section is contained within the machine and includes Centrifugal fans with backward aerofoil curved blades, single suction and without scroll housings (Plug-fans), directly coupled to electric motor.
- Brushless type synchronous EC electric motor with external rotor with integrated electronic commutated system and continuous variation of the rotation speed. The motor rotation control is obtained with the EC system (Electronic Commutation) that manage the motor through serial communication between electric motor interface and microprocessor control.
- Temperature sensors on air intake and delivery.
- Fan guard with rubber support on air intake and delivery

ELECTRICAL PANEL

In accordance with EN60204-1 norms complete with:

- Main switch with door lock safety.
- Magnetothermic switches for fans.
Contactors for each load. The supply fans equipped with EC electric motor and don't require contactors.
- Transformer for auxiliary circuit and microprocessor supply.
- Terminals:
OUTLETS
 - Voltage free deviating contact for General Alarm 1
 - Voltage free contact for supply fans status.INLETS
 - Emergency unit stop with signalling on display (external alarm).
 - External enabling.
- Power supply 230/1/50 for size E0.
- Power supply 400/3/50+N for other size.

CONTROL SYSTEM

- Microprocessor system with graphic display for control and monitor of operating and alarms status. The system includes:
 - Real time clock.
 - Predisposition for connectivity board housing (RCom MBUS/JBUS, LON, BACnet for ethernet (SNMP- TCP/IP), BACnet for MS/TP).
 - Main components hour-meter.
 - Non-volatile “Flash” memory for data storage in case of power supply faulty and for alarms status recording (2MB).
 - Menu with protection password.
 - LAN connection.

OPTIONAL ACCESSORIES

The descriptions of these additional components can be found in Chapter OPTIONAL ACCESSORIES.

- Condensate drain system including pump with activation float and 10 linear meters long discharge pipe. For machines size E0, E1, E2 and E3 the optional is supplied in mounting kit.
- EXTRA CIRCUIT system (Size E0 excluded).
Available only for 4R version:
Components:
 - Chilled water cooling coil with two symmetrical interlaced circuits, 8R version, with copper tubes, aluminium fins and galvanized steel frame. With this optional accessory it is not possible to install additional cooling coils).
 - 2-way motorized valve for water flow regulation with 0÷10 VDC control actuator and emergency manual control. Nominal operating pressure up to 1600 kPa and closing pressure (Δp s) of 1400 kPa.
 - Hydraulic pipes in copper with anticondensate insulation.
- 2-way motorized valve with 0÷10 VDC control actuator and emergency manual control for the third way (by-pass) of the hydraulic circuit. The valve is in combination with the main water flow control valve. Nominal operating pressure up to 1600 kPa and closing pressure (Δp s) of 1400 kPa.
Restriction:
 - The accessory is not compatible with the hot water heating system.
 - The accessory is not compatible with the Extra Circuit system.
- Unit floor stand with height adjusting rubber holders. It is not possible to match the unit floor stand with plenum installed under the machine. Not available for PLUS series.
- Unit base noise insulation with special bottom panel for OVER version (size E0 excluded).
- Sandwich panels with interposed mattress in soundproof material.
- Non-return air damper driven by electric servomotor for installation on the machine air delivery (size E0 excluded).
- Air distribution plenum with double row adjustable grilles on three sides for OVER version.
- Air distribution plenum with double row adjustable grilles on front side and noise absorption partitions for OVER version (size E0 excluded).
- Plenum with F6/F7/F9 efficiency filters on air delivery (size E0 and PLUS series excluded).
- Plenum with noise absorption partitions on air delivery (size E0 and PLUS series excluded).
- Plenum for direct free-cooling on air intake (size E0 excluded) . The optional foresee the combined Temperature / Humidity sensor on machine air suction and the combined Temperature / Humidity sensor for ambient air.

OTHER ACCESSORIES

- Immersed electrodes steam humidifier with electronic driver, connected to microprocessor control board via serial line.
Proportional steam production and fitted with safety and running accessories (the combined Temperature / Humidity sensor on air intake is included).
- Dehumidification system.
Available only for 4R version:
Components
 - Temperature / Humidity sensor on the air intake.
 - Temperature sensor on cooling coil water inlet / outlet.
 - Electronic control system of the dew point temperature for the combined intervention of cooling capacity and air flow.
- Electric heater consisting of aluminium armoured elements with integral fins and safety thermostat.
 - Size E0, E1, E2: On e working step.
 - Size E3: Two working steps.
 - Size E4, E5, E6, E7, E8, E9 and PLUS series: Three working steps.
- Hot water heating system:
NEXT EVO CW OVER / UNDER
Available only for 4R version:
Components:
 - Hot water 2 rows heating coil with copper tubes, aluminium fins and galvanized steel frame.
 - 2-way motorized valve with 0÷10 VDC control actuator and emergency manual control. Nominal operating pressure up to 1600 kPa and closing pressure (Δp s) of 1400 kPa.

NEXT EVO CW PLUS

Available only for 4R version:

Components:

- Hot water 2 rows heating coil with copper tubes, aluminium fins and galvanized steel frame.
- 2-way motorized valve with 0-10 VDC control actuator and emergency manual control. Nominal operating pressure up to 1600 kPa and closing pressure (Δp_s) of 1400 kPa.
- Automatic system for the air pressure control in the under floor / air delivery duct. The system controls the supply fans rotation speed in order to keep constant the air pressure in the under floor / air delivery duct, or in general, the air delivery of the machine, via a differential pressure transmitter connected to the microprocessor control.
- Automatic Summer/Winter changeover.
Components:
 - Ambient air temperature sensor.
 - Temperature sensor on coil heat exchanger water inlet / outlet.
- Washable air filter with F5 efficiency (size E0 excluded).
- Blind frontal panel for OVER version (size E0 excluded).
The accessory allows the intake air from the bottom of the machine.
- Differential pressure switch on the air side for clogged filters alarm signal.
- Under floor water alarm through sensor to be placed on the floor.
- Additional underfloor water sensor kit.
- Combined Temperature / Humidity sensor on air.
- Combined Temperature / Humidity sensor for outdoor installation.
- Combined Temperature / Humidity sensor for remote installation. The optional is added to the standard sensor on machine air suction.
- Temperature sensor on chilled water inlet / outlet.
- Microprocessor control accessories:
 - Remote terminal.
 - Serial port MBUS RS485/JBUS.
 - Serial port LON.
 - Serial port BACnet for Ethernet – SNMP – TCP/IP.
 - Serial port BACnet for MS/TP.
 - Double serial port MBUS RS485/JBUS + BACnet for Ethernet – SNMP – TCP/IP.
 - Double serial port MBUS RS485/JBUS + BACnet for MS/TP.
 - Temporary microprocessor power supply. The system guarantees the microprocessor power supply for a few minutes, in case of supply voltage failure.

WARNING

RC GROUP reserves the right to accept the matching of the optional installed on the machine.

TECHNICAL DATA - NEXT EVO CW Over / Under – 4R version

MODEL		006	015	023	033	060
SIZE		E0	E1	E2	E3	E4
VERSION		4R	4R	4R	4R	4R
COOLING CAPACITY (1)						
Total	kW	6,2	11,8	19,1	27,8	49,3
Sensible	kW	5,8	10,6	17,4	25,4	44,8
SUPPLY FANS						
Air flow	m ³ /h	1800	2700	4475	6600	12200
Nominal external static pressure Over	Pa	20	30	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20	20
Max external static pressure	Pa	80	52	175	474	131
Power input Over (2)	kW	0,10	0,30	0,73	1,05	1,90
Power input Under (2)	kW	0,10	0,29	0,67	0,98	1,77
Max power input	kW	0,15	0,35	0,97	2,70	2,77
Operating current Over [OA] (2)	A	0,81	1,87	1,28	1,58	3,06
Operating current Under [OA] (2)	A	0,81	1,79	1,19	1,47	2,85
Max operating current [FLA]	A	1,23	2,20	1,70	4,18	4,30
COOLING COIL						
Water flow rate	m ³ /h	1,06	2,02	3,27	4,77	8,47
dP coil + valve	kPa	46	25	66	53	50
Water volume	l	2,2	4,2	5,3	7,8	13,8
AIR FILTERS						
Efficiency	n.	G3	G4	G4	G4	G4
POWER SUPPLY						
	V/Ph/Hz	230/1/50	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)						
On air delivery Over	dB(A)	51,0	58,4	63,3	64,9	68,2
On air delivery Under	dB(A)	51,0	58,4	63,3	64,7	68,2
On air intake Over	dB(A)	39,8	44,9	49,8	51,4	54,7
Irradiated Over	dB(A)	32,9	40,3	45,2	46,8	50,1
On air intake Under	dB(A)	39,8	49,5	54,3	56,0	59,5
On front side Under	dB(A)	32,9	40,1	44,9	46,6	50,1
DIMENSIONS						
Length	mm	655	650	785	1085	1305
Width	mm	445	675	675	775	930
Height	mm	1680	1925	1925	1925	1980
NET WEIGHT Over	kg	150	196	230	290	332
NET WEIGHT Under	kg	150	209	248	313	366
ELECTRIC HEATER						
Capacity	kW	2,6	5,1	5,1	6,0	9,0
Operating current [OA]	A	11,0	7,4	7,4	8,7	13,0
Capacity steps	n.	1	1	1	2	3
HUMIDIFIER						
Steam capacity	Kg/h	2	3	3	3	8
Power input	kW	1,4	2,3	2,3	2,3	6,0
Operating current [OA]	A	6,1	3,2	3,2	3,2	8,7
Max operating current [FLA]	A	8,8	4,5	4,5	4,5	12,4
EXTRA CIRCUIT COIL (4)						
Total cooling capacity	kW	--	11,0	18,1	26,4	46,5
Sensible cooling capacity	kW	--	10,0	16,5	24,0	42,5
Water flow rate	m ³ /h	--	1,7	2,8	4,1	7,3
dP coil + valve	kPa	--	18	50	40	38
Water volume	l	--	4,2	5,3	7,8	13,8
HEATING COIL (5)						
Heating capacity	kW	12,6	24,1	36,2	53,8	95,1
Water flow rate	m ³ /h	0,74	1,41	2,12	3,15	5,58
dP coil + valve	kPa	15	28	27	33	20
Water volume	l	0,7	2,1	2,6	3,9	6,9
CONNECTIONS ISO 228/1-G						
Chiller water inlet/outlet	M Ø	3/4"	1"	1"	1+1/4"	1+1/2"
Extra Circuit inlet/outlet	M Ø	--	1"	1"	1+1/4"	1+1/2"
Hot water Inlet/outlet	M Ø	3/4"	3/4"	3/4"	1"	1+1/4"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field
4. Gross value - Characteristics referred to entering air at 24°C 50%RH with chiller water at 7-12,5 °C and 0% glycol
5. Gross value - Characteristics referred to entering air at 20°C with hot water at 75-60°C

TECHNICAL DATA - NEXT EVO CW Over / Under –4R version

MODEL		082	098	116	128	148
SIZE		E5	E6	E7	E8	E9
VERSION		4R	4R	4R	4R	4R
COOLING CAPACITY (1)						
Total	kW	67,5	73,7	89,3	106,0	123,0
Sensible	kW	60,9	66,8	81,5	95,5	112,0
SUPPLY FANS						
Air flow	m ³ /h	15500	18000	21100	24200	28680
Nominal external static pressure Over	Pa	50	50	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20	20
Max external static pressure	Pa	344	510	610	295	458
Power input Over (2)	kW	2,54	2,80	2,94	4,09	4,66
Power input Under (2)	kW	2,38	2,62	2,71	3,84	4,37
Max power input	kW	5,40	5,80	5,54	8,10	8,70
Operating current Over [OA] (2)	A	3,82	4,18	4,74	6,15	6,94
Operating current Under [OA] (2)	A	3,59	3,90	4,36	5,78	6,51
Max operating current [FLA]	A	8,36	8,86	8,60	12,54	13,29
COOLING COIL						
Water flow rate	m ³ /h	11,60	12,60	15,30	18,20	21,10
dP coil + valve	kPa	70	46	70	71	63
Water volume	l	18,1	21,2	24,6	28,5	33,8
AIR FILTERS						
Efficiency	n.	3	4	4	5	6
		G4	G4	G4	G4	G4
POWER SUPPLY						
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)						
On air delivery Over	dB(A)	70,7	67,8	68,3	73,3	70,9
On air delivery Under	dB(A)	70,6	67,9	68,2	73,2	71,0
On air intake Over	dB(A)	57,2	54,3	54,8	59,8	57,4
Irradiated Over	dB(A)	52,6	49,7	50,2	55,2	52,8
On air intake Under	dB(A)	62,0	59,2	59,5	64,5	62,3
On front side Under	dB(A)	52,5	49,8	50,1	55,1	52,9
DIMENSIONS						
Length	mm	1630	1875	2175	2499	2899
Width	mm	930	930	930	930	930
Height	mm	1980	1980	1980	1980	1980
NET WEIGHT Over						
	kg	410	465	515	578	656
NET WEIGHT Under						
	kg	452	513	569	640	730
ELECTRIC HEATER						
Capacity	kW	13,5	13,5	13,5	18,0	18,0
Operating current [OA]	A	19,5	19,5	19,5	26,0	26,0
Capacity steps	n.	3	3	3	3	3
HUMIDIFIER						
Steam capacity	Kg/h	8	8	15	15	15
Power input	kW	6,0	6,0	11,3	11,3	11,3
Operating current [OA]	A	8,7	8,7	16,2	16,2	16,2
Max operating current [FLA]	A	12,4	12,4	23,0	23,0	23,0
EXTRA CIRCUIT COIL (4)						
Total cooling capacity	kW	64,2	69,5	84,7	101,0	117,0
Sensible cooling capacity	kW	59,0	63,3	76,9	92,6	106,0
Water flow rate	m ³ /h	10,0	10,8	13,2	15,8	18,3
dP coil + valve	kPa	54	34	53	54	48
Water volume	l	18,1	21,2	24,6	28,5	33,8
HEATING COIL (5)						
Heating capacity	kW	126,0	148,0	166,0	193,0	232,0
Water flow rate	m ³ /h	7,37	8,66	9,72	11,30	13,60
dP coil + valve	kPa	38	38	20	28	42
Water volume	l	9,1	10,6	12,3	14,2	16,9
CONNECTIONS ISO 228/1-G						
Chiller water inlet/outlet	M Ø	2"	2"	2+1/2"	2+1/2"	3"
Extra Circuit inlet/outlet	M Ø	2"	2"	2+1/2"	2+1/2"	3"
Hot water Inlet/outlet	M Ø	1+1/2"	1+1/2"	2"	2"	2"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

- Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
- Corresponding to the nominal external static pressure
- Noise level at 1 meter in free field
- Gross value - Characteristics referred to entering air at 24°C 50%RH with chiller water at 7-12,5 °C and 0% glycol
- Gross value - Characteristics referred to entering air at 20°C with hot water at 75-60°C

TECHNICAL DATA - NEXT EVO CW Over / Under – 6R version

MODEL		015	023	033	060
SIZE		E1	E2	E3	E4
VERSION		6R	6R	6R	6R
COOLING CAPACITY (1)					
Total	kW	15,2	23,3	34,1	60,9
Sensible	kW	12,4	19,7	28,8	52,2
SUPPLY FANS					
Air flow	m ³ /h	2700	4475	6600	12200
Nominal external static pressure Over	Pa	30	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20
Max external static pressure	Pa	32	104	554	140
Power input Over (2)	kW	0,35	0,86	1,23	2,25
Power input Under (2)	kW	0,34	0,80	1,15	2,11
Max power input	kW	0,35	0,97	2,70	2,77
Operating current Over [OA] (2)	A	2,18	1,51	1,85	3,62
Operating current Under [OA] (2)	A	2,10	1,41	1,73	3,41
Max operating current [FLA]	A	2,20	1,70	4,18	4,30
COOLING COIL					
Water flow rate	m ³ /h	2,60	4,00	5,84	10,40
dP coil + valve	kPa	35	65	56	58
Water volume	l	6,3	7,9	11,7	20,8
AIR FILTERS					
Efficiency	n.	1	1	2	3
		G4	G4	G4	G4
POWER SUPPLY					
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)					
On air delivery Over	dB(A)	59,2	64,2	65,4	68,4
On air delivery Under	dB(A)	59,0	63,8	65,2	68,3
On air intake Over	dB(A)	45,7	50,7	51,9	54,9
Irradiated Over	dB(A)	41,1	46,1	47,3	50,3
On air intake Under	dB(A)	50,3	55,2	56,5	59,7
On front side Under	dB(A)	40,9	45,7	47,1	50,2
DIMENSIONS					
Length	mm	650	785	1085	1305
Width	mm	675	675	775	930
Height	mm	1925	1925	1925	1980
NET WEIGHT Over					
	kg	196	230	290	332
NET WEIGHT Under					
	kg	209	248	313	366
ELECTRIC HEATER					
Capacity	kW	5,1	5,1	6,0	9,0
Operating current [OA]	A	7,4	7,4	8,7	13,0
Capacity steps	n.	1	1	2	3
HUMIDIFIER					
Steam capacity	Kg/h	3	3	3	8
Power input	kW	2,3	2,3	2,3	6,0
Operating current [OA]	A	3,2	3,2	3,2	8,7
Max operating current [FLA]	A	4,5	4,5	4,5	12,4
CONNECTIONS ISO 228/1-G					
Chiller water inlet/outlet	M Ø	1"	1+1/4"	1+1/2"	2"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

TECHNICAL DATA - NEXT EVO CW Over / Under - 6R version

MODEL		082	098	116	128	148
SIZE		E5	E6	E7	E8	E9
VERSION		6R	6R	6R	6R	6R
COOLING CAPACITY (1)						
Total	kW	82,8	98,9	110,0	130,0	151,0
Sensible	kW	69,2	81,7	92,8	109,0	127,0
SUPPLY FANS						
Air flow	m ³ /h	15500	18000	21100	24200	28680
Nominal external static pressure Over	Pa	50	50	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20	20
Max external static pressure	Pa	447	439	250	403	386
Power input Over (2)	kW	2,94	3,25	3,53	4,70	5,37
Power input Under (2)	kW	2,78	3,06	3,29	4,44	5,07
Max power input	kW	5,40	5,80	5,54	8,10	8,70
Operating current Over [OA] (2)	A	4,42	4,85	5,69	7,06	8,00
Operating current Under [OA] (2)	A	4,17	4,56	5,29	6,68	7,56
Max operating current [FLA]	A	8,36	8,86	8,60	12,54	13,29
COOLING COIL						
Water flow rate	m ³ /h	14,20	17,00	18,90	22,40	25,90
dP coil + valve	kPa	65	70	45	66	66
Water volume	l	27,2	31,8	36,8	42,7	50,6
AIR FILTERS						
Efficiency	n.	3	4	4	5	6
		G4	G4	G4	G4	G4
POWER SUPPLY						
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)						
On air delivery Over	dB(A)	71,0	67,9	68,8	73,5	70,9
On air delivery Under	dB(A)	70,8	67,9	68,6	73,4	70,9
On air intake Over	dB(A)	57,5	54,4	55,3	60,0	57,4
Irradiated Over	dB(A)	52,9	49,8	50,7	55,4	52,8
On air intake Under	dB(A)	62,2	59,2	59,9	64,7	62,3
On front side Under	dB(A)	52,7	49,8	50,5	55,3	52,8
DIMENSIONS						
Length	mm	1630	1875	2175	2499	2899
Width	mm	930	930	930	930	930
Height	mm	1980	1980	1980	1980	1980
NET WEIGHT Over	kg	410	465	515	578	656
NET WEIGHT Under	kg	452	513	569	640	730
ELECTRIC HEATER						
Capacity	kW	13,5	13,5	13,5	18,0	18,0
Operating current [OA]	A	19,5	19,5	19,5	26,0	26,0
Capacity steps	n.	3	3	3	3	3
HUMIDIFIER						
Steam capacity	Kg/h	8	8	15	15	15
Power input	kW	6,0	6,0	11,3	11,3	11,3
Operating current [OA]	A	8,7	8,7	16,2	16,2	16,2
Max operating current [FLA]	A	12,4	12,4	23,0	23,0	23,0
CONNECTIONS ISO 228/1-G						
Chiller water inlet/outlet	M Ø	2"	2+1/2"	2+1/2"	3"	3"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

TECHNICAL DATA - NEXT EVO CW Over / Under – 8R version

MODEL		015	023	033	060
SIZE		E1	E2	E3	E4
VERSION		8R	8R	8R	8R
COOLING CAPACITY (1)					
Total	kW	10,5	16,8	25,2	44,2
Sensible	kW	9,7	16,1	23,9	42,3
SUPPLY FANS					
Air flow	m ³ /h	2575	4450	6600	11700
Nominal external static pressure Over	Pa	30	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20
Max external static pressure	Pa	30	50	485	135
Power input Over (2)	kW	0,35	0,97	1,41	2,27
Power input Under (2)	kW	0,34	0,94	1,33	2,13
Max power input	kW	0,36	0,97	2,68	2,77
Operating current Over [OA] (2)	A	2,20	1,70	2,13	3,65
Operating current Under [OA] (2)	A	2,12	1,66	2,01	3,44
Max operating current [FLA]	A	2,20	1,70	4,18	4,30
COOLING COIL					
Water flow rate	m ³ /h	1,81	2,88	4,33	7,60
dP coil + valve	kPa	18	27	26	28
Water volume	l	6,3	7,9	11,7	20,8
AIR FILTERS					
Efficiency	n.	1	1	2	3
		G4	G4	G4	G4
POWER SUPPLY					
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)					
On air delivery Over	dB(A)	59,1	64,9	66,0	67,8
On air delivery Under	dB(A)	58,9	64,8	65,8	67,7
On air intake Over	dB(A)	45,6	51,4	52,5	54,3
Irradiated Over	dB(A)	41,0	46,8	47,9	49,7
On air intake Under	dB(A)	50,2	56,1	57,1	59,0
On front side Under	dB(A)	40,8	46,7	47,7	49,6
DIMENSIONS					
Length	mm	650	785	1085	1305
Width	mm	675	675	775	930
Height	mm	1925	1925	1925	1980
NET WEIGHT Over					
	kg	214	252	321	385
NET WEIGHT Under					
	kg	218	258	330	393
ELECTRIC HEATER					
Capacity	kW	5,1	5,1	6,0	9,0
Operating current [OA]	A	7,4	7,4	8,7	13,0
Capacity steps	n.	1	1	2	3
HUMIDIFIER					
Steam capacity	Kg/h	3	3	3	8
Power input	kW	2,3	2,3	2,3	6,0
Operating current [OA]	A	3,2	3,2	3,2	8,7
Max operating current [FLA]	A	4,5	4,5	4,5	12,4
CONNECTIONS ISO 228/1-G					
Chiller water inlet/outlet	M Ø	1"	1+1/4"	1+1/2"	2"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 10-15°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

TECHNICAL DATA - NEXT EVO CW Over / Under - 8R version

MODEL		082	098	116	128	148
SIZE		E5	E6	E7	E8	E9
VERSION		8R	8R	8R	8R	8R
COOLING CAPACITY (1)						
Total	kW	60,7	71,6	81,4	95,1	108,0
Sensible	kW	56,8	66,3	76,8	88,8	103,0
SUPPLY FANS						
Air flow	m ³ /h	15500	18000	21100	24200	28680
Nominal external static pressure Over	Pa	50	50	50	50	50
Nominal external static pressure Under	Pa	20	20	20	20	20
Max external static pressure	Pa	375	368	175	330	315
Power input Over (2)	kW	3,35	3,71	4,16	5,32	6,09
Power input Under (2)	kW	3,18	3,51	3,90	5,05	5,78
Max power input	kW	5,36	5,80	5,50	8,04	8,70
Operating current Over [OA] (2)	A	5,04	5,55	6,69	7,99	9,09
Operating current Under [OA] (2)	A	4,78	5,25	6,27	7,59	8,63
Max operating current [FLA]	A	8,36	8,86	8,60	12,54	13,29
COOLING COIL						
Water flow rate	m ³ /h	10,40	12,30	14,00	16,30	18,50
dP coil + valve	kPa	29	27	20	29	28
Water volume	l	27,2	31,8	36,8	42,7	50,6
AIR FILTERS						
Efficiency	n.	3	4	4	5	6
		G4	G4	G4	G4	G4
POWER SUPPLY						
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)						
On air delivery Over	dB(A)	71,3	68,1	69,4	73,8	71,0
On air delivery Under	dB(A)	71,2	68,0	69,1	73,6	71,0
On air intake Over	dB(A)	57,8	54,6	55,9	60,3	57,5
Irradiated Over	dB(A)	53,2	50,0	51,3	55,7	52,9
On air intake Under	dB(A)	62,5	59,4	60,5	65,0	62,3
On front side Under	dB(A)	53,1	49,9	51,0	55,5	52,9
DIMENSIONS						
Length	mm	1630	1875	2175	2499	2899
Width	mm	930	930	930	930	930
Height	mm	1980	1980	1980	1980	1980
NET WEIGHT Over	kg	475	542	602	680	780
NET WEIGHT Under	kg	485	552	612	692	794
ELECTRIC HEATER						
Capacity	kW	13,5	13,5	13,5	18,0	18,0
Operating current [OA]	A	19,5	19,5	19,5	26,0	26,0
Capacity steps	n.	3	3	3	3	3
HUMIDIFIER						
Steam capacity	Kg/h	8	8	15	15	15
Power input	kW	6,0	6,0	11,3	11,3	11,3
Operating current [OA]	A	8,7	8,7	16,2	16,2	16,2
Max operating current [FLA]	A	12,4	12,4	23,0	23,0	23,0
CONNECTIONS ISO 228/1-G						
Chiller water inlet/outlet	M Ø	2"	2+1/2"	2+1/2"	3"	3"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 10-15°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

TECHNICAL DATA - NEXT EVO CW PLUS – 4R version

MODEL		140	160	190	240
SIZE		E7	E8	E9	E10
VERSION		4R	4R	4R	4R
COOLING CAPACITY (1)					
Total	kW	114	136	157	202
Sensible	kW	104	122	143	181
SUPPLY FANS					
Air flow	m ³ /h	27000	30950	36700	45500
Nominal external static pressure	Pa	20	20	20	20
Max external static pressure	Pa	330	382	237	285
Power input (2)	kW	4,68	4,96	5,08	6,01
Max power input	kW	8,10	8,70	8,31	11,08
Operating current [OA] (2)	A	7,07	7,39	8,21	9,71
Max operating current [FLA]	A	12,54	13,29	12,90	17,20
COOLING COIL					
Water flow rate	m ³ /h	19,6	23,3	27,0	34,6
dP coil + valve	kPa	56	84	80	83
Water volume	l	31,4	36,4	43,2	53,0
AIR FILTERS					
Efficiency	n.	G4	G4	G4	G4
POWER SUPPLY					
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)					
On air delivery	dB(A)	75,5	72,8	73,0	72,7
On air intake	dB(A)	66,8	64,1	64,4	64,1
On front side	dB(A)	57,4	54,7	54,9	54,6
UNIT DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	930	930	930	930
Height	mm	1980	1980	1980	1980
SUPPLY FANS SECTION DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	905	905	905	905
Height	mm	600	600	600	600
UNIT NET WEIGHT					
	kg	495	555	635	755
FANS SECTION NET WEIGHT					
	kg	200	240	275	348
ELECTRIC HEATER					
Capacity	kW	18	18	27	27
Operating current [OA]	A	26	26	39	39
Capacity steps	n.	3	3	3	3
HUMIDIFIER					
Steam capacity	Kg/h	15	15	15	15
Power input	kW	11,3	11,3	11,3	11,3
Operating current [OA]	A	16,2	16,2	16,2	16,2
Max operating current [FLA]	A	23	23	23	23
EXTRA CIRCUIT COIL (4)					
Total cooling capacity	kW	109	129	150	193
Sensible cooling capacity	kW	98,8	118,0	136,0	176,0
Water flow rate	m ³ /h	17,0	20,2	23,3	30,2
dP coil + valve	kPa	43	64	60	64
Water volume	l	31,4	36,4	43,2	53,0
HEATING COIL (5)					
Heating capacity	kW	212	247	297	-
Water flow rate	m ³ /h	12,4	14,5	17,4	-
dP coil + valve	kPa	29	21	31	-
Water volume	l	15,7	18,2	21,6	-
CONNECTIONS ISO 228/1-G					
Chiller water inlet/outlet	M Ø	2+1/2"	3"	3"	3"
Extra Circuit inlet/outlet	M Ø	2+1/2"	3"	3"	3"
Hot water Inlet/outlet	M Ø	2"	2"	2+1/2"	-
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

- Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
- Corresponding to the nominal external static pressure
- Noise level at 1 meter in free field
- Gross value - Characteristics referred to entering air at 24°C 50%RH with chiller water at 7-12,5 °C and 0% glycol
- Gross value - Characteristics referred to entering air at 20°C with hot water at 75-60°C

TECHNICAL DATA - NEXT EVO CW PLUS – 6R version

MODEL		140	160	190	240
SIZE		E7	E8	E9	E10
VERSION		6R	6R	6R	6R
COOLING CAPACITY (1)					
Total	kW	141	167	193	248
Sensible	kW	119	139	162	206
SUPPLY FANS					
Air flow	m ³ /h	27000	30950	36700	45500
Nominal external static pressure	Pa	20	20	20	20
Max external static pressure	Pa	248	303	165	208
Power input (2)	kW	5,43	5,78	6,00	7,28
Max power input	kW	8,10	8,70	8,31	11,08
Operating current [OA] (2)	A	8,17	8,61	9,69	11,74
Max operating current [FLA]	A	12,54	13,29	12,90	17,20
COOLING COIL					
Water flow rate	m ³ /h	24,2	28,6	33,1	42,5
dP coil + valve	kPa	59	86	41	73
Water volume	l	31,4	36,4	43,2	53,0
AIR FILTERS					
Efficiency	n.	8	10	12	12
		G4	G4	G4	G4
POWER SUPPLY					
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)					
On air delivery	dB(A)	75,6	72,6	73,1	72,9
On air intake	dB(A)	66,9	63,9	64,4	64,3
On front side	dB(A)	57,5	54,5	55,0	54,8
UNIT DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	930	930	930	930
Height	mm	1980	1980	1980	1980
SUPPLY FANS SECTION DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	905	905	905	905
Height	mm	600	600	600	600
UNIT NET WEIGHT					
	kg	495	555	635	755
FANS SECTION NET WEIGHT					
	kg	200	240	275	348
ELECTRIC HEATER					
Capacity	kW	18	18	27	27
Operating current [OA]	A	26	26	39	39
Capacity steps	n.	3	3	3	3
HUMIDIFIER					
Steam capacity	Kg/h	15	15	15	15
Power input	kW	11,3	11,3	11,3	11,3
Operating current [OA]	A	16,2	16,2	16,2	16,2
Max operating current [FLA]	A	23	23	23	23
CONNECTIONS ISO 228/1-G					
Chiller water inlet/outlet	M Ø	2+1/2"	3"	3"	3"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 7-12°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

TECHNICAL DATA - NEXT EVO CW PLUS – 8R version

MODEL		140	160	190	240
SIZE		E7	E8	E9	E10
VERSION		8R	8R	8R	8R
COOLING CAPACITY (1)					
Total	kW	104	122	139	180
Sensible	kW	98,3	114	130	167
SUPPLY FANS					
	n.	3	3	3	4
Air flow	m ³ /h	27000	30950	35600	45500
Nominal external static pressure	Pa	20	20	20	20
Max external static pressure	Pa	164	232	135	135
Power input (2)	kW	6,21	6,54	6,37	8,55
Max power input	kW	8,10	8,70	8,31	11,08
Operating current [OA] (2)	A	9,33	9,74	10,26	13,77
Max operating current [FLA]	A	12,54	13,29	12,90	17,20
COOLING COIL					
Water flow rate	m ³ /h	17,9	20,9	23,8	30,9
dP coil + valve	kPa	28	39	17	30
Water volume	l	62,9	72,9	86,4	105,9
AIR FILTERS					
	n.	8	10	12	12
Efficiency		G4	G4	G4	G4
POWER SUPPLY					
	V/Ph/Hz	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
SOUND LEVEL – ISO 3744 (3)					
On air delivery	dB(A)	75,8	72,6	72,7	73,3
On air intake	dB(A)	67,1	63,9	64,0	64,7
On front side	dB(A)	57,7	54,5	54,6	55,2
UNIT DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	930	930	930	930
Height	mm	1980	1980	1980	1980
SUPPLY FANS SECTION DIMENSIONS					
Length	mm	2175	2499	2899	3510
Width	mm	905	905	905	905
Height	mm	600	600	600	600
UNIT NET WEIGHT					
	kg	550	620	710	850
FANS SECTION NET WEIGHT					
	kg	200	240	275	348
ELECTRIC HEATER					
Capacity	kW	18	18	27	27
Operating current [OA]	A	26	26	39	39
Capacity steps	n.	3	3	3	3
HUMIDIFIER					
Steam capacity	Kg/h	15	15	15	15
Power input	kW	11,3	11,3	11,3	11,3
Operating current [OA]	A	16,2	16,2	16,2	16,2
Max operating current [FLA]	A	23	23	23	23
CONNECTIONS ISO 228/1-G					
Chiller water inlet/outlet	M Ø	2+1/2"	3"	3"	3"
Humidifier filling	F Ø	3/4"	3/4"	3/4"	3/4"
Condensate discharge – rubber pipe	F Ø	1/2"	1/2"	1/2"	1/2"

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

1. Gross value - Characteristics referred to entering air at 24°C-50%RH with chilled water temperature 10-15°C - 0% glycol
2. Corresponding to the nominal external static pressure
3. Noise level at 1 meter in free field

ELECTRICAL DATA

MAXIMUM ELECTRICAL ABSORPTION

The maximum current absorbed by the machine corresponds to the sum of the current input of:

- Supply fans
- Electric heaters (if present)
- Humidifier (if present)

The condition of maximum electric absorption of the machine is in heating mode

Example for unit NEXT EVO CW 23 E2

HEATING

- Main fans (FLA)	A	1.85	+
- Electric heaters (OA)	A	7.40	+
- Humidifier (FLA)	A	4.50	=
Absorbed current	A	13,75	

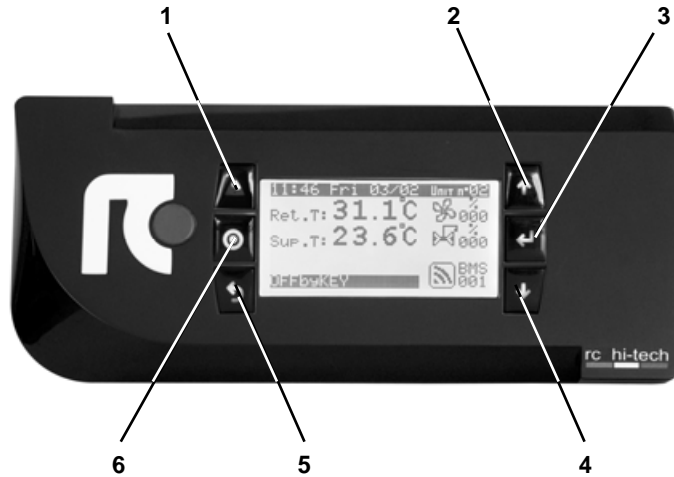
IMPORTANT

For the fans, the current nominal values have been considered equal to the data plate values. For this reason, the nominal current and the data plate current are the same. Actually, the real absorbed current is normally lower than the data plate value. These values depend on the unit working conditions and on the type of control of the plant.

MICROPROCESSOR CONTROL SYSTEM

The microprocessor control system is equipped with 6 keys terminal and back lighted graphic display on which all information in different languages or easily identifiable symbols are displayed.

The system disposes of a “flash” memory that preserves the information even in absence of power supply.



KEYBOARD FUNCTIONS

- KEY 1** Stops the alarm acoustic signal and displays the alarms screen.
By pressing "2" or "4" keys all the alarms that may be present will be displayed.
The flashing red backlighting of the key indicates the presence of an alarm.
- KEY 2** Scrolls the pages of each menu and allows the modification of the numeric and/or alphanumeric values of the control.
By pressing "2" or "4" key, from the main screen, the information screen of the installed software is displayed.
- KEY 3** Shifts the cursor in the editable fields of the screen.
Confirm the new value and leave the menu.
- KEY 4** Scrolls the pages of each menu and allows the modification of the numeric and/or alphanumeric values of the control.
By pressing "2" or "4" key, from the main screen, the information screen of the installed software is displayed.
- KEY 5** Home key – displays the main screen.
- KEY 6** Allows the access to the screen scrolling menu. Scrolling menu by pressing keys "2" or "4". Confirm the selection by pressing key "3".

Manu and control list:

- Machine working status
- Set-points
- Alarms reset (protected by password)
- Service parameter sets (protected by password)
- Intervened alarms history
- Manual operation of the main components (protected by password)
- Date and time set
- Communication system set
- Machine switch On/Off
- LAN network set

REMOTE CONTROLS/ALARMS

INLETS

1 External enabling	•
2 Heating enabling	•
3 Extra circuit enabling	•
4 Emergency machine stop with external alarm signalling	•
5 Power supply from UPS	•
6 Set-point compensation	•

OUTLETS

1 Configurable general alarm – deviating contact	••
2 Supply fans status	••

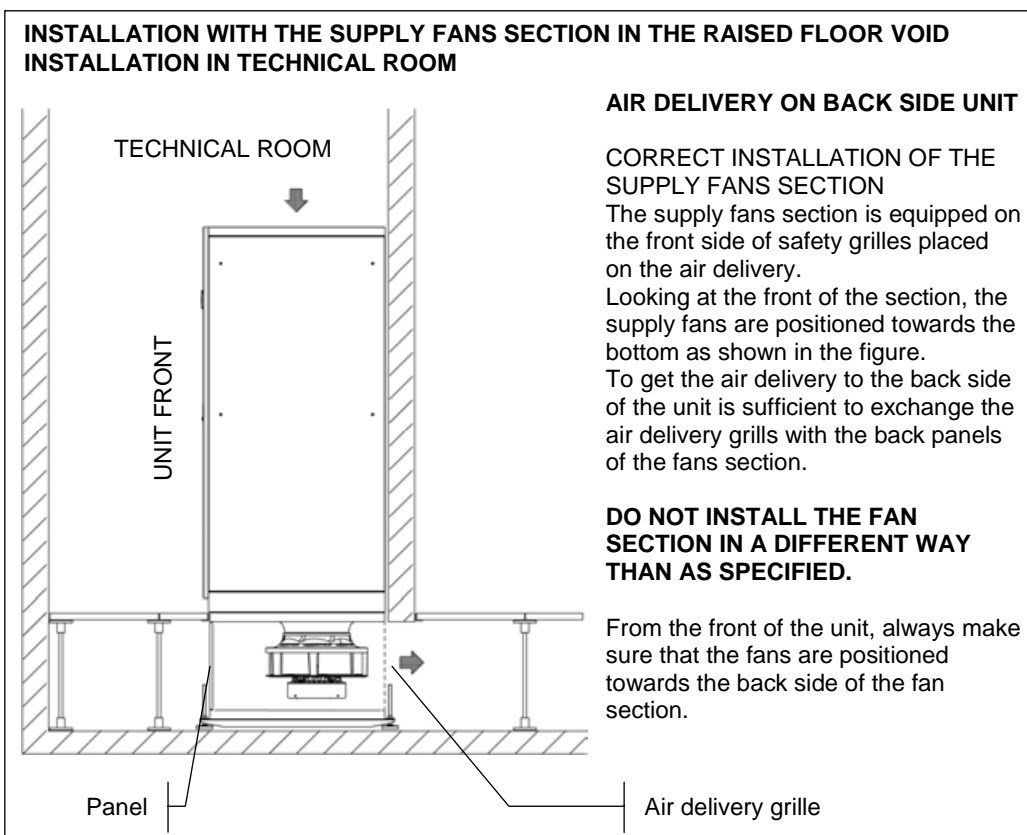
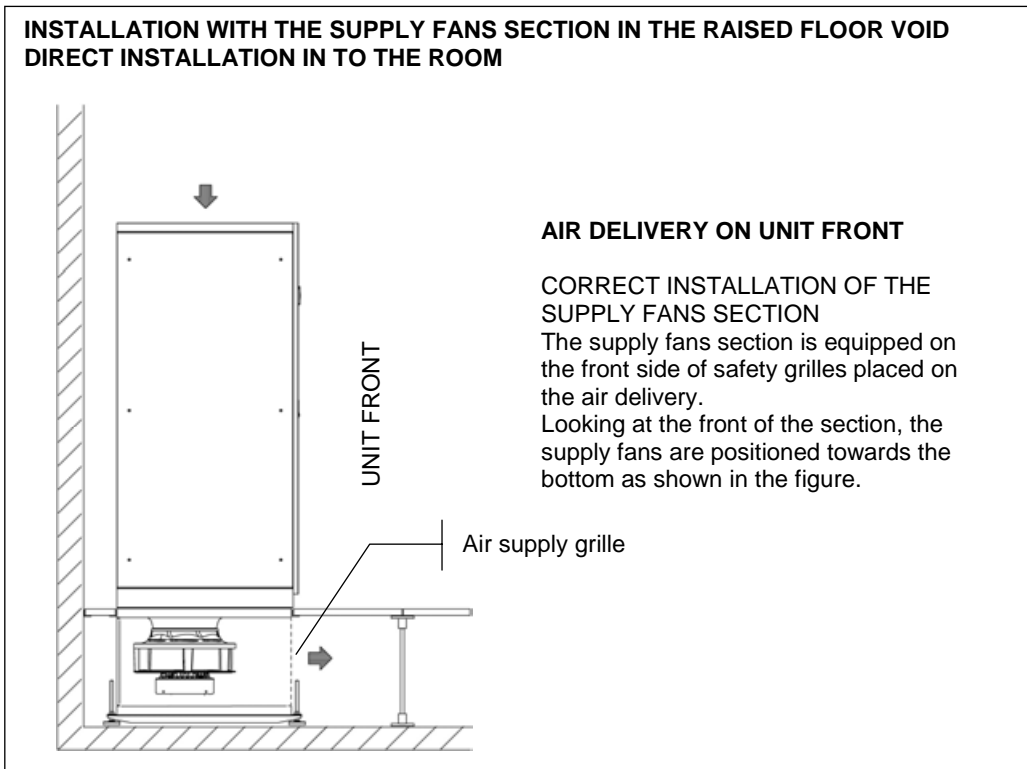
- controls/alarms for remotization
- voltage free controls/alarms for remotization

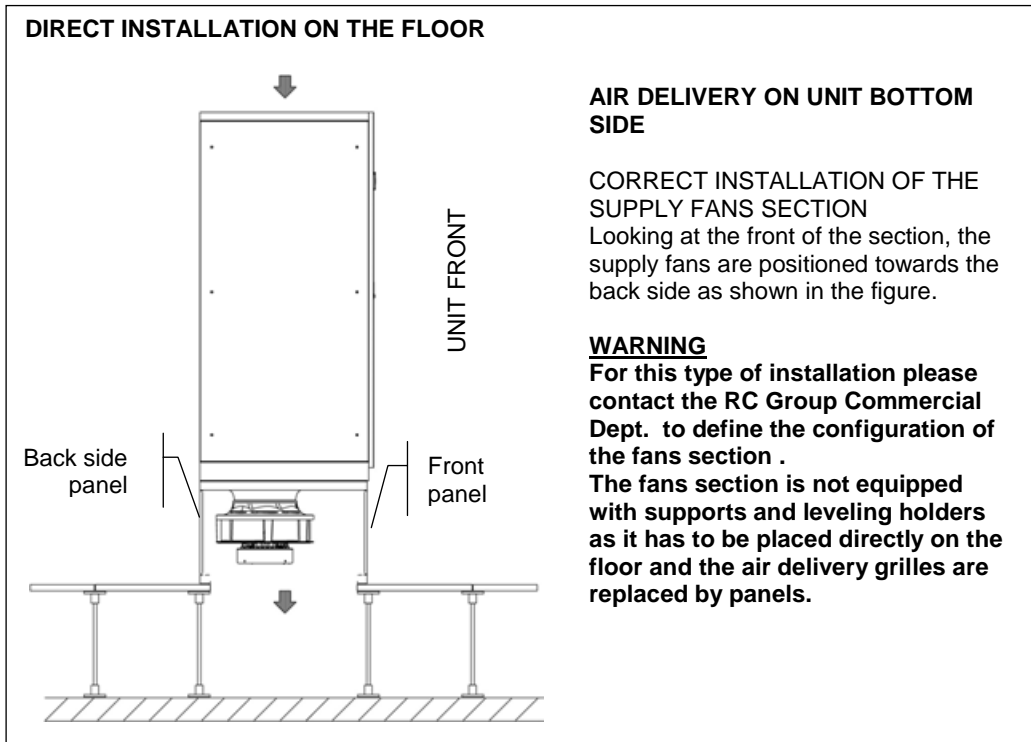
NEXT EVO CW PLUS INSTALLATION DIAGRAMS

The machine can be installed with the fan section in the raised floor void or on the floor.

Air flow direction:

- on unit front
- on unit back side
- on unit bottom side





WARNING

It is not possible to obtain air delivery on the right end/or left side of the unit.

OPTIONAL ACCESSORIES - CONDENSATE DISCHARGE PUMP

A plastic case contains the vertical type pump, the water tank with float plus safety switch and hydraulic and electric connection.

Together the pump 10 linear meters anti-crushing plastic discharge spiral tube is supplied

The optional has to be installed as shown in the documentation delivered together with the unit. Wiring includes power supply and an alarm, displayed on microprocessor, that includes motor pump thermal protection and tank overflow.

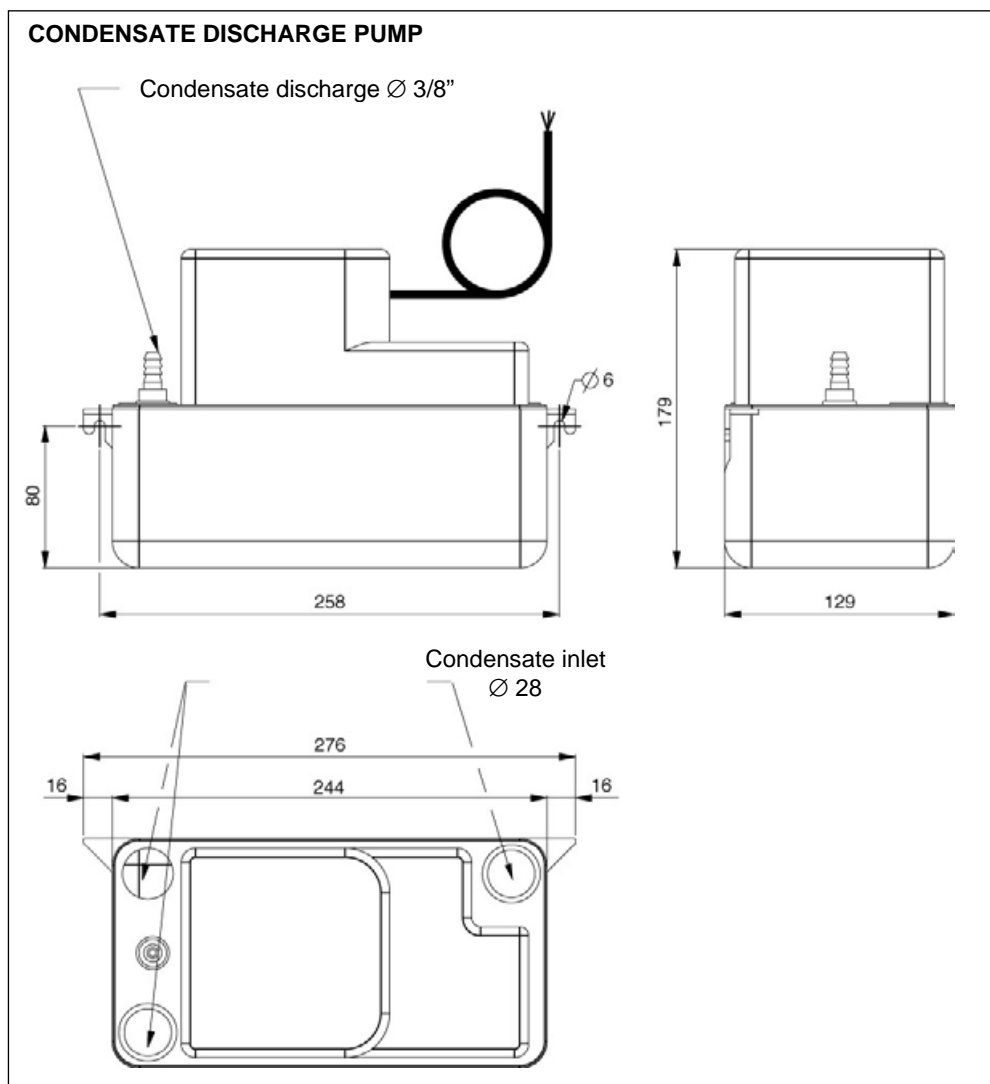
The condensate discharge pump operation is fully automatic.

WARNING

For machines size E0, E1, E2 and E3 in OVER / UNDER version, the optional is supplied in mounting kit.

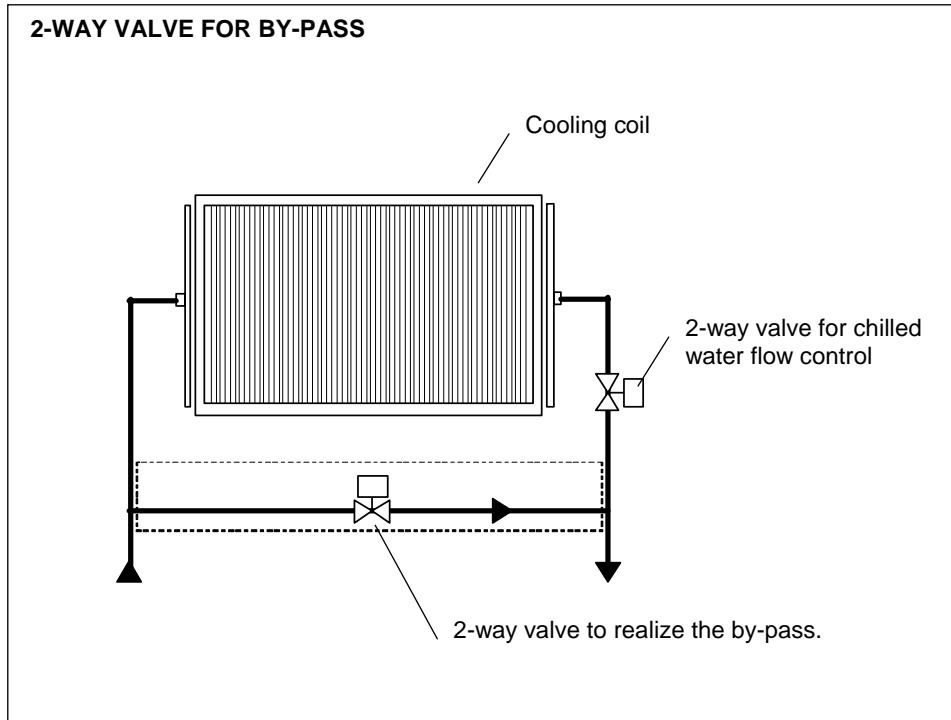
TECHNICAL DATA

Power supply		230/1/50
Power input	W	75
Absorbed current	A	0,5
Capacity tank	l	2
Discharge pipe	Ø mm	10/16
Maximum water flow	l/h	300
Minimum water flow	l/h	3
Discharge head		
- with min. water flow	mH ₂ O	4,5
- with max. water flow	mH ₂ O	0,3



OPTIONAL ACCESSORIES – 2-WAY VALVE FOR BY-PASS

The optional is not compatible with the hot water heating system and Extra Circuit system.
2-way motorized valve with 0÷10 VDC control actuator and emergency manual control for the third way (by-pass) of the hydraulic circuit.
The valve is in combination with the main water flow control valve.
Nominal operating pressure up to 1600 kPa and closing pressure (Δps) of 1400 kPa.
The optional accessory is factory installed and don't modify the overall dimensions of the unit.



The coupling to the main 2-way control valve of a second modulating valve, connected in by-pass, allows to obtain the same control system of a 3-way mixing valve for plant with constant water flow.
At the same time the appropriate sizing of these valves allows hydraulic balancing of the by-pass way.

OPTIONAL ACCESSORIES – EXTRA/CIRCUIT SYSTEM

(size E0 excluded)

The optional is not available for 6R and 8R versions.

This system consists of an interlaced chilled water cooling coil with two symmetric and independent hydraulic circuits.

WORKING LOGIC

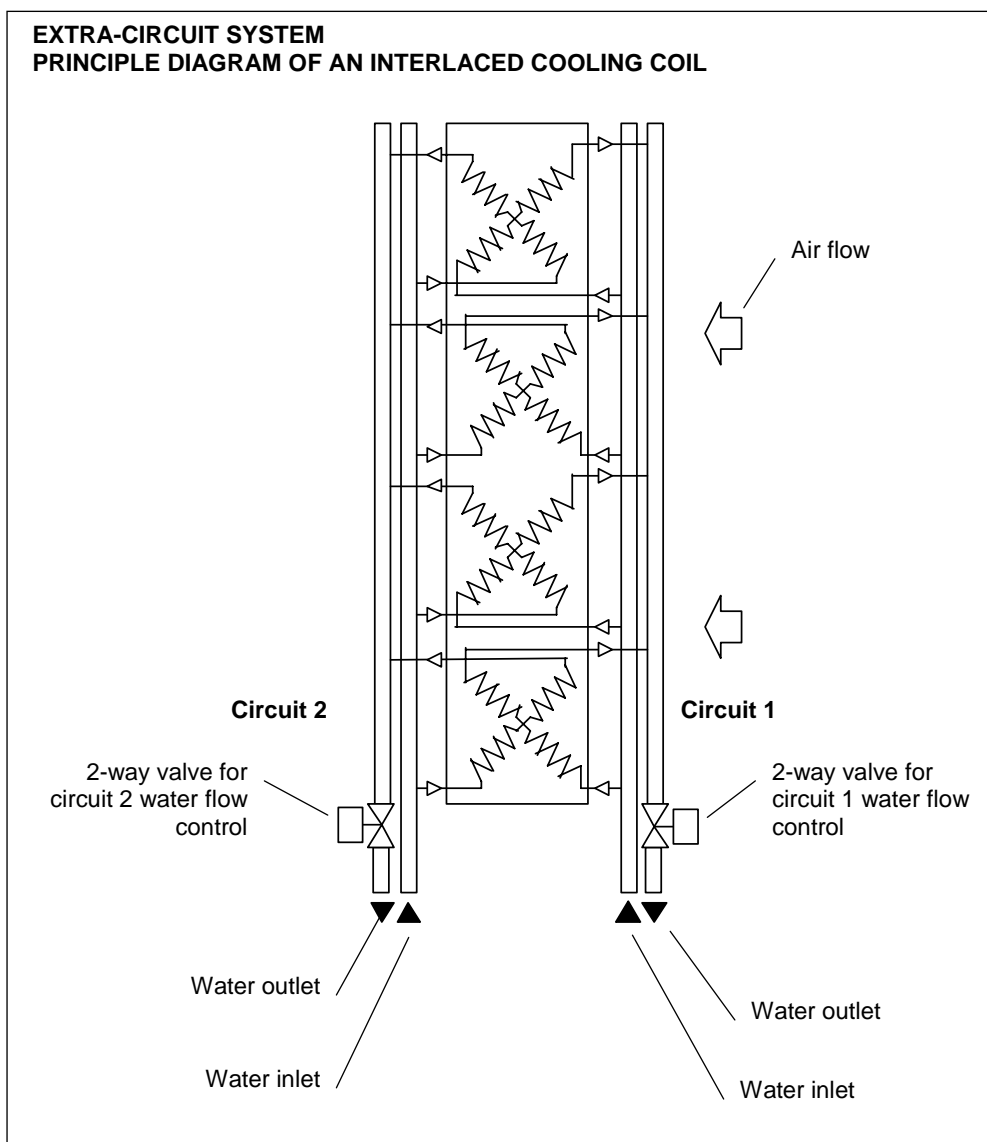
The installation of the EXTRA/CIRCUIT on the machine allows to obtain two independent cooling systems.

The microprocessor control system automatically manages the system, by activating the cooling circuit more convenient according to the parameters set.

The control system does not allow the simultaneous operation of the two hydraulic circuits.

With this system it is possible, with a limited use of space, to solve several plant problems such as:

- EXTRA/CIRCUIT fed with chilled water or mains water as a stand-by of the main cooling circuit.
- Double chilled water feeding with two independent circuit (circuit 1 and circuit 2). This solution is used when you need to ensure redundancy of the cooling system.

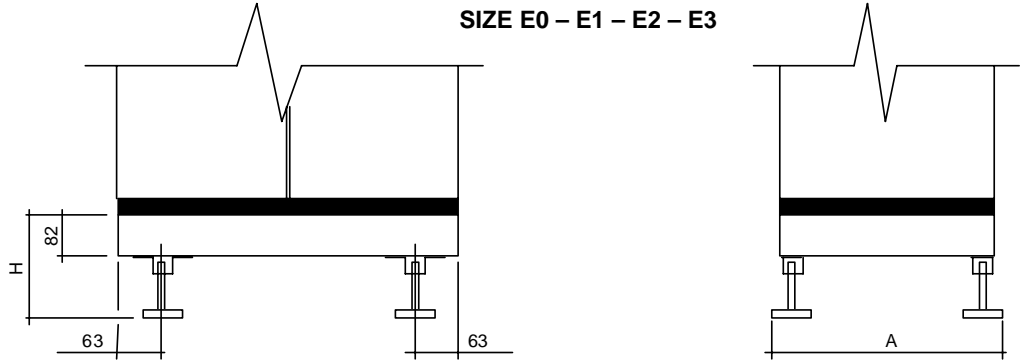


OPTIONAL ACCESSORIES - FLOOR STAND

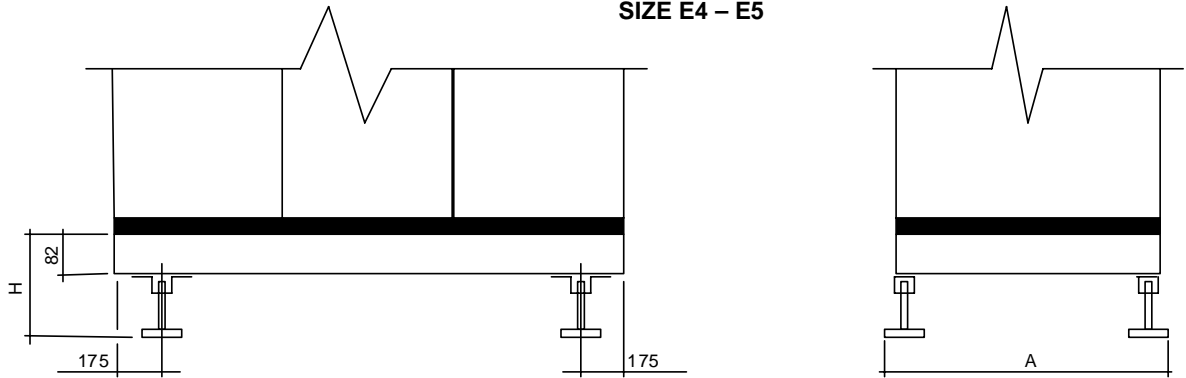
It is not possible to match the unit floor stand with plenum installed under the machine.
 For a correct installation of the air conditioner we suggest you to utilize a gasket between the floor stand and the unit base.
 The floor stand is available in 3 different heights.

FLOOR STAND

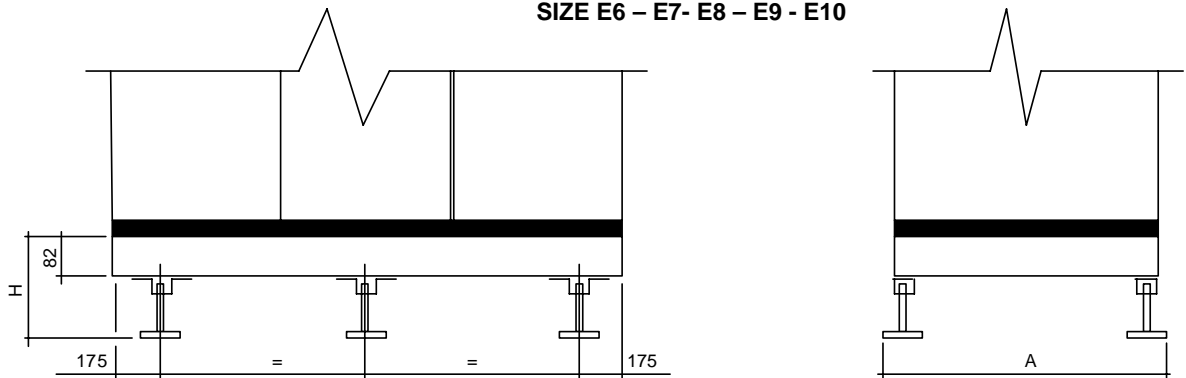
SIZE E0 – E1 – E2 – E3



SIZE E4 – E5



SIZE E6 – E7- E8 – E9 - E10



SIZE	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
A mm	460	690	690	790	945	945	945	945	945	945	945

MODEL		230	330	390
H minimum height	mm	255	355	400
H maximum height	mm	350	450	510

OPTIONAL ACCESSORIES – OVER VERSION - BOTTOM PANEL

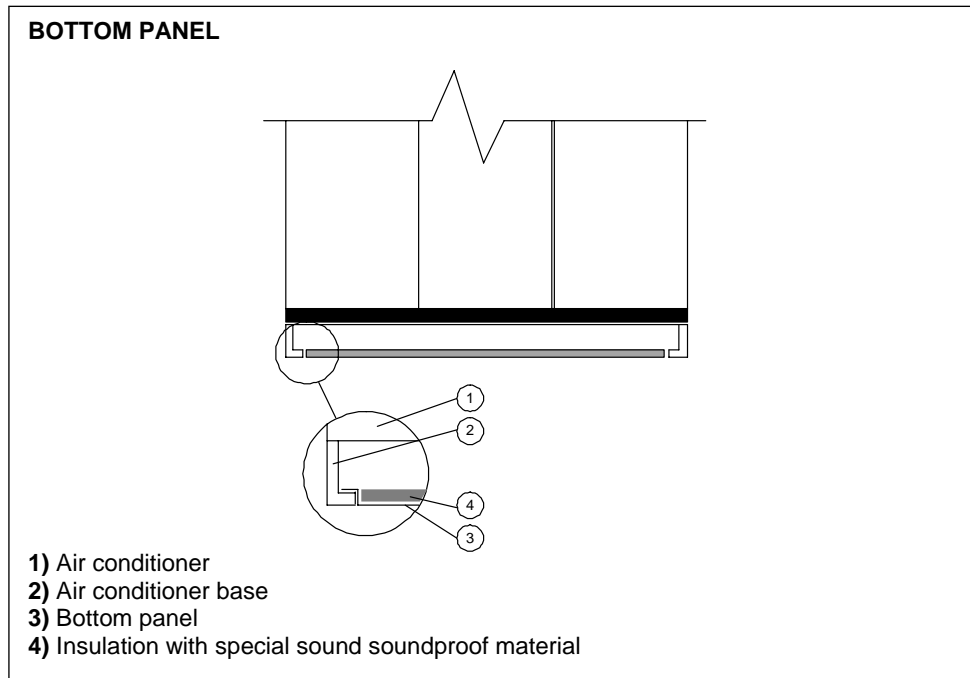
Available for OVER units (size E0 excluded).

With this accessory it is possible a noise insulation of the machine base, when the machine is installed directly on particular floor as raised floor, wood floor etc.

The accessory includes:

- Panel in galvanized steel sheet.
- Noise insulation with special soundproof material.

The bottom panel is supplied assembled inside the unit base and does not modify the unit dimensions.



OPTIONAL ACCESSORIES - SANDWICH PANEL

With this accessory it is possible a noise insulation of the panels of the air conditioner

The accessory includes:

- External part as standard panel.
- Internal part in galvanized steel sheet.
- Noise insulation with special soundproof material.

The accessory increase the unit weight:

OVER											
SIZE	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Weight increasing (1) kg	25	30	42	48	64	72	86	100	115	130	160

UNDER											
SIZE	SIZE	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Weight increasing (1) kg	25	26	48	55	70	86	110	130	145	165	190

1. Add this value to the total unit weight

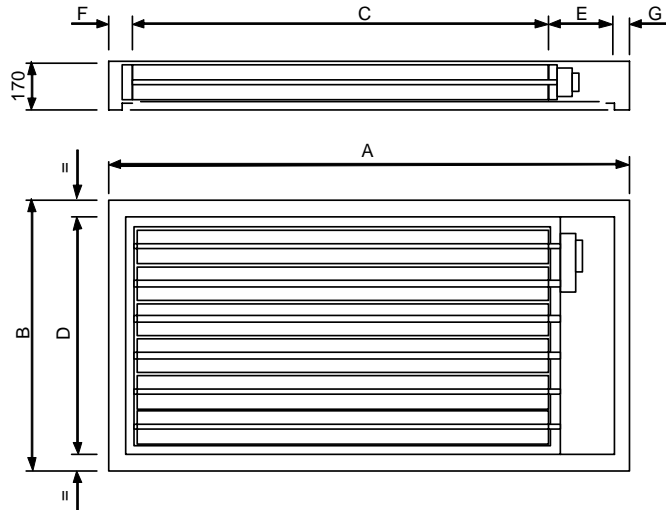
OPTIONAL ACCESSORIES – UNDER VERSION - NON RETURN MOTORIZED DAMPER

(size E0 excluded)

Accessory to install on units air delivery and it can be matched to air conditioner, plenums and floor stand.

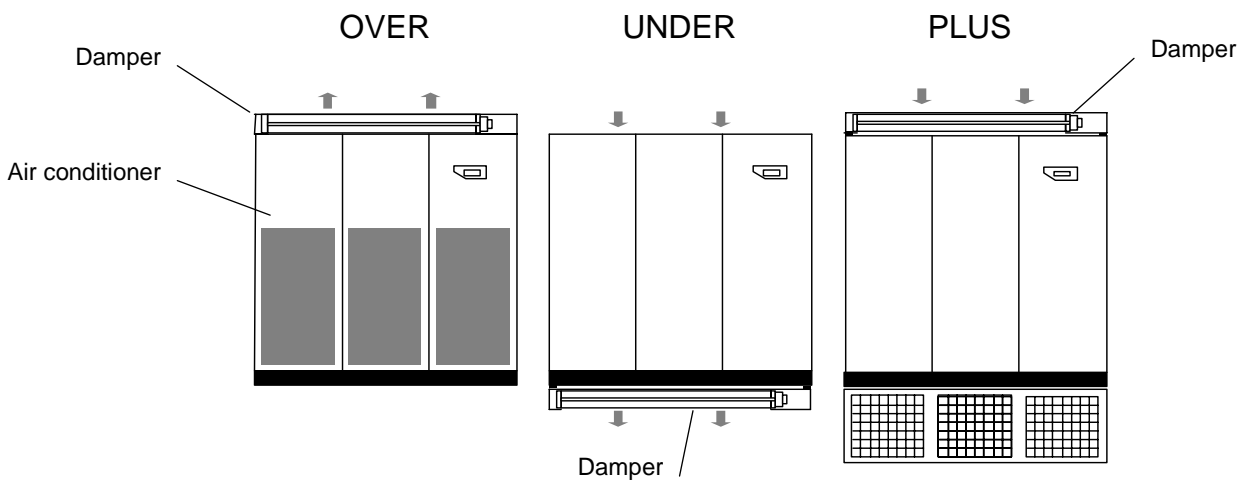
For a correct installation we suggest you to utilize a gasket between the damper and the unit or the plenum or the floor stand..

NON RETURN MOTORIZED DAMPER



Size	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
A	mm --	650	785	1085	1305	1630	1873	2175	2499	2899	3510
B	mm --	650	650	750	905	905	905	905	905	905	905
C	mm --	300	450	750	850	1100	1250	1600	1900	2200	2800
D	mm --	510	510	610	710	710	710	710	710	710	710
E	mm --	231	216	216	167	204	250,5	226,5	236,6	288,5	294
F	mm --	73	73	73	228	265	311,5	287,5	299,5	349,5	355
G	mm --	46	46	46	61	61	61	61	61	61	61
Weight (1) kg	--	20	23	30	40	50	58	65	75	90	115

(1) Add this value to the total unit weight



OPTIONAL ACCESSORIES - UNDER VERSION - AIR DELIVERY/INTAKE PLENUM

The optional is not available for size E0 and PLUS series

The plenums have same technical characteristics and base dimensions of the machine cabinet.

The plenum can contain:

- Noise absorption partitions
- F6/F7/F9 high efficiency filters

It is not possible to foresee both optional accessories in the same plenum

UNDER PLENUM

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
Plenum (1)	kg	18	20	21	20	30	40	45	50	60	70
Plenum with filters (1)	kg	--	26	27	27	45	55	65	85	90	100
Plenum with partitions (1)	kg	--	25	27	30	45	50	65	80	90	100

1. Add this value to the total unit weight

FOR ALL PLENUMS

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
A	mm	490	490	490	490	510	510	510	510	510	510

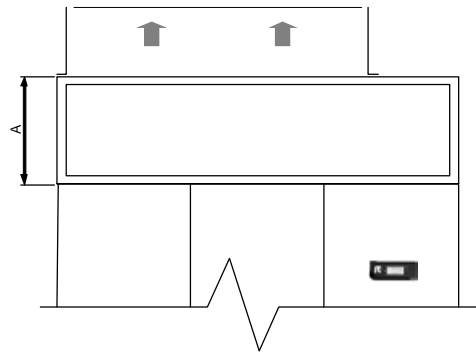
WARNING

In **UNDER** version units the hydraulic and/or cooling piping and inside the machine. The air delivery plenums sometime don't allow the extension of the pipes downwards. In special cases, to keep the connections inside the machine, a plenum 200mm higher than the standard one is necessary.

OPTIONAL ACCESSORIES - OVER VERSION - AIR DELIVERY PLENUM

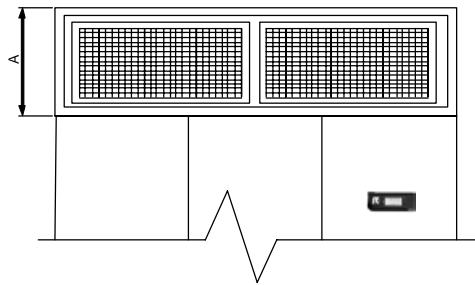
The plenums have same technical characteristics and base dimensions of the machine cabinet.

OVER PLENUM



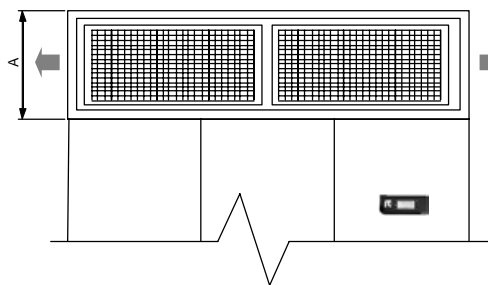
- Plenum for ducting
- Plenum for ducting with F6/F7/F9 efficiency filters
- Plenum for ducting with noise absorption partitions

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
Plenum (1)	kg	18	20	21	20	30	45	55	65	85	100
Plenum with filters (1)	kg	--	26	27	27	45	60	70	80	75	88
Plenum with partitions (1)	kg	--	25	27	30	45	60	70	78	72	85



- Plenum with grille for frontal air distribution into the room and noise absorption partitions

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
Plenum with grilles (1)	kg	15,5	23	26	28	39	50	65	75	90	110
Plenum with grilles and partitions (1)	kg	--	30	30	37	67	72	78	88	110	130



- Plenum with grilles on 3 sides, for direct air distribution into the room.

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
Plenum with grilles (1)	kg	15	21	23	30	45	50	65	75	90	100

1. Add this value to the total unit weight

FOR ALL PLENUMS

Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
A	mm	490	490	490	490	510	510	510	510	510	510

OPTIONAL ACCESSORIES – DIRECT FREE-COOLING PLENUM

(size E0 excluded)

The plenums have same technical characteristics and base dimensions of the machine cabinet. The optional allow to obtain free-cooling by direct ambient air intake into the room. The dampers are proportionally managed by the microprocessor control, that regulates the quantity of the ambient air to put in the room according to the set-point.

COMPONENTS:

- Housing consisting of painted aluminium profile frame, jointed with reinforced PVC corners and galvanized steel sheet panels externally coated with PVC film.
- Motorized dampers on room air / ambient air intake with safety nets.
- Terminals for electric connection to the unit.
- Combined Temperature / Humidity sensor on machine air suction.
- Combined Temperature / Humidity sensor for outdoor installation..

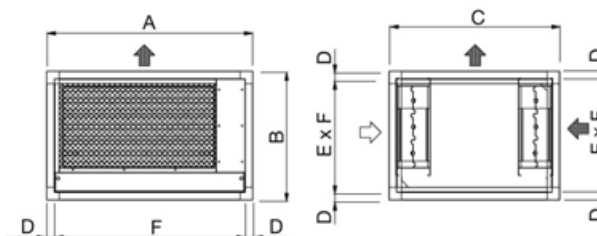
WARNING

For a correct installation we suggest you to utilize a gasket between the plenum and the unit.

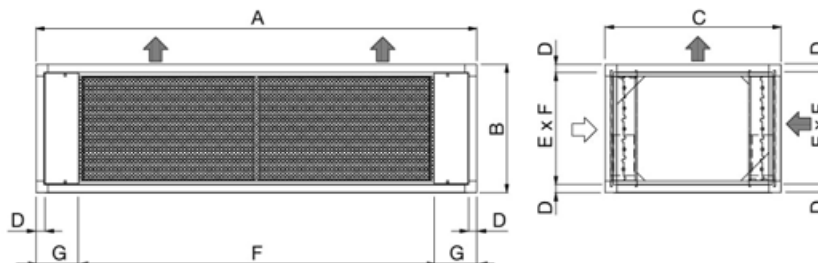
IT IS COMPULSORY TO INSTALL INTO THE ROOM AN APPROPRIATELY SIZED OVERPRESSURE DAMPER TO ALLOW THE ROOM AIR EXHAUSTION DURING FREE-COOLING WORKING MODE.

NEXT OVER: FREE-COOLING PLENUM

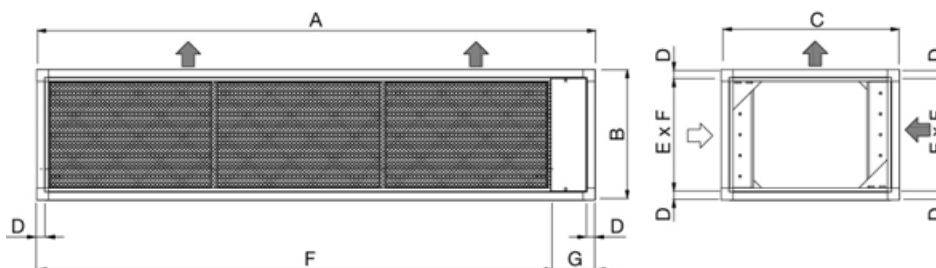
NEXT OVER E1 / E2 / E3



NEXT OVER E4 / E5 / E6 / E7



NEXT OVER E8 / E9

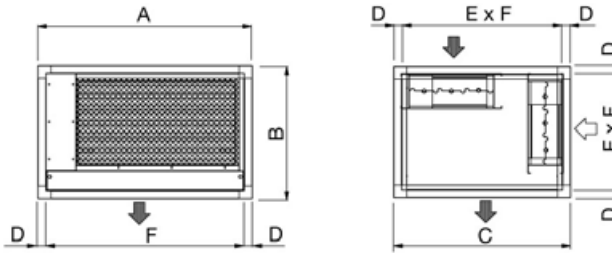


Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9
A	mm	--	650	785	1085	1305	1630	1873	2175	2499	2899
B	mm	--	490	490	490	630	630	630	630	630	630
C	mm	--	650	650	750	905	905	905	905	905	905
D	mm	--	30	30	30	40	40	40	40	40	40
E	mm	--	430	430	430	550	550	550	550	550	550
F	mm	--	590	725	1025	835	1135	1435	1735	2185	2535
G	mm	--	--	--	--	235	235	219	220	314	364
Weight (1)	kg	--	24	27	35	53	61	78	90	110	130

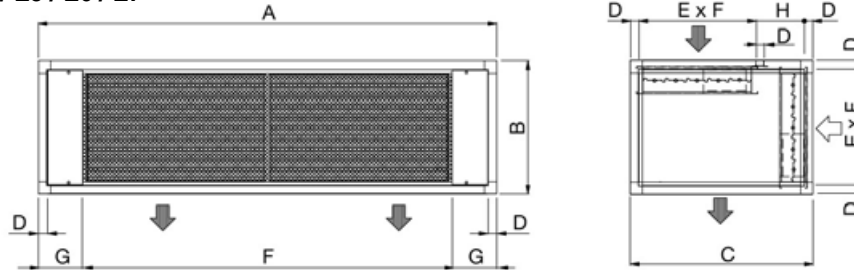
1. Add this value to the total unit weight

NEXT UNDER: FREE-COOLING PLENUM

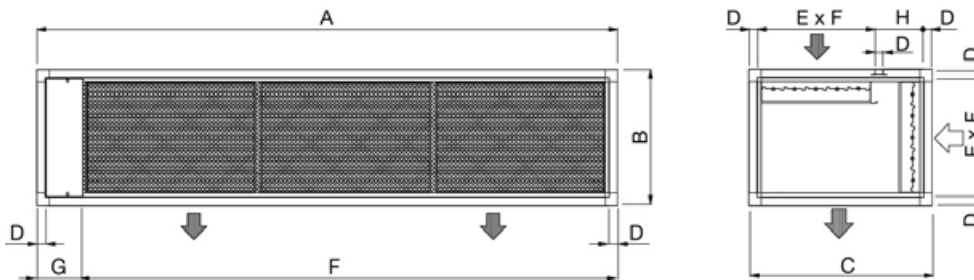
NEXT UNDER E1 / E2 / E3



NEXT UNDER E4 / E5 / E6 / E7



NEXT UNDER E8 / E9 / E10



Size		E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
A	mm	--	650	785	1085	1305	1630	1873	2175	2499	2899	3510
B	mm	--	490	490	490	630	630	630	630	630	630	630
C	mm	--	650	650	750	905	905	905	905	905	905	905
D	mm	--	30	30	30	40	40	40	40	40	40	40
E	mm	--	430	430	430	550	550	550	550	550	550	550
F	mm	--	590	725	1025	835	1135	1435	1735	2185	2535	3135
G	mm	--	--	--	--	235,5	247,5	219	220	314	364	375
H	mm	--	--	--	--	275	275	275	275	275	275	275
Weight (1)	kg	--	24	27	35	53	61	78	90	110	130	155

1. Add this value to the total unit weight

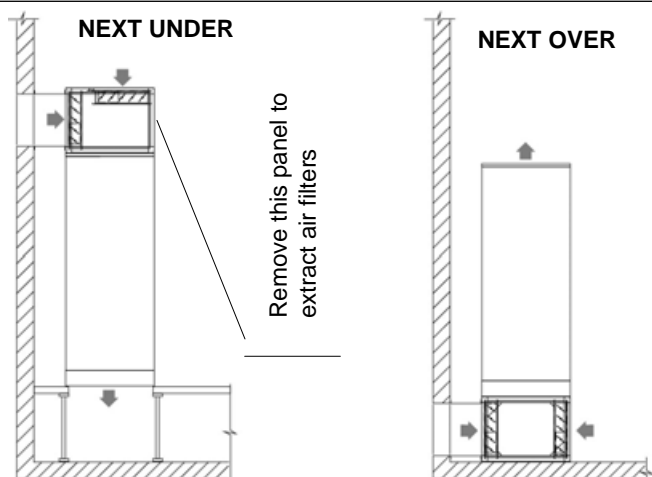
INSTALLATION EXAMPLE

NOTE:

Ducting are at Customer care.

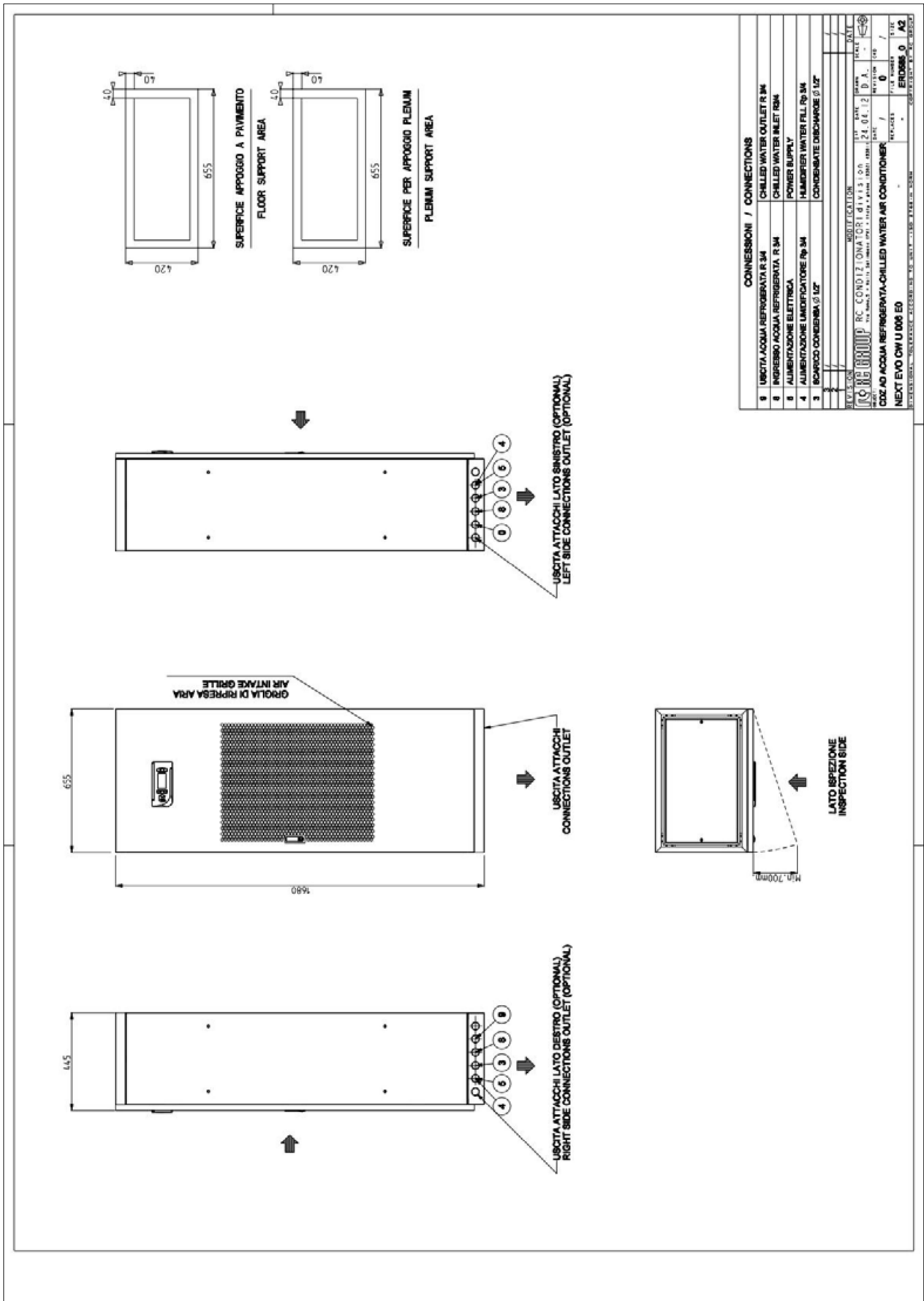
We suggest you to install a rain-proof grille on ambient air intake.

IT IS COMPULSORY TO INSTALL AN OVERPRESSURE DAMPER TO ALLOW THE ROOM AIR EXHAUSTION DURING FREE-COOLING WORKING MODE.



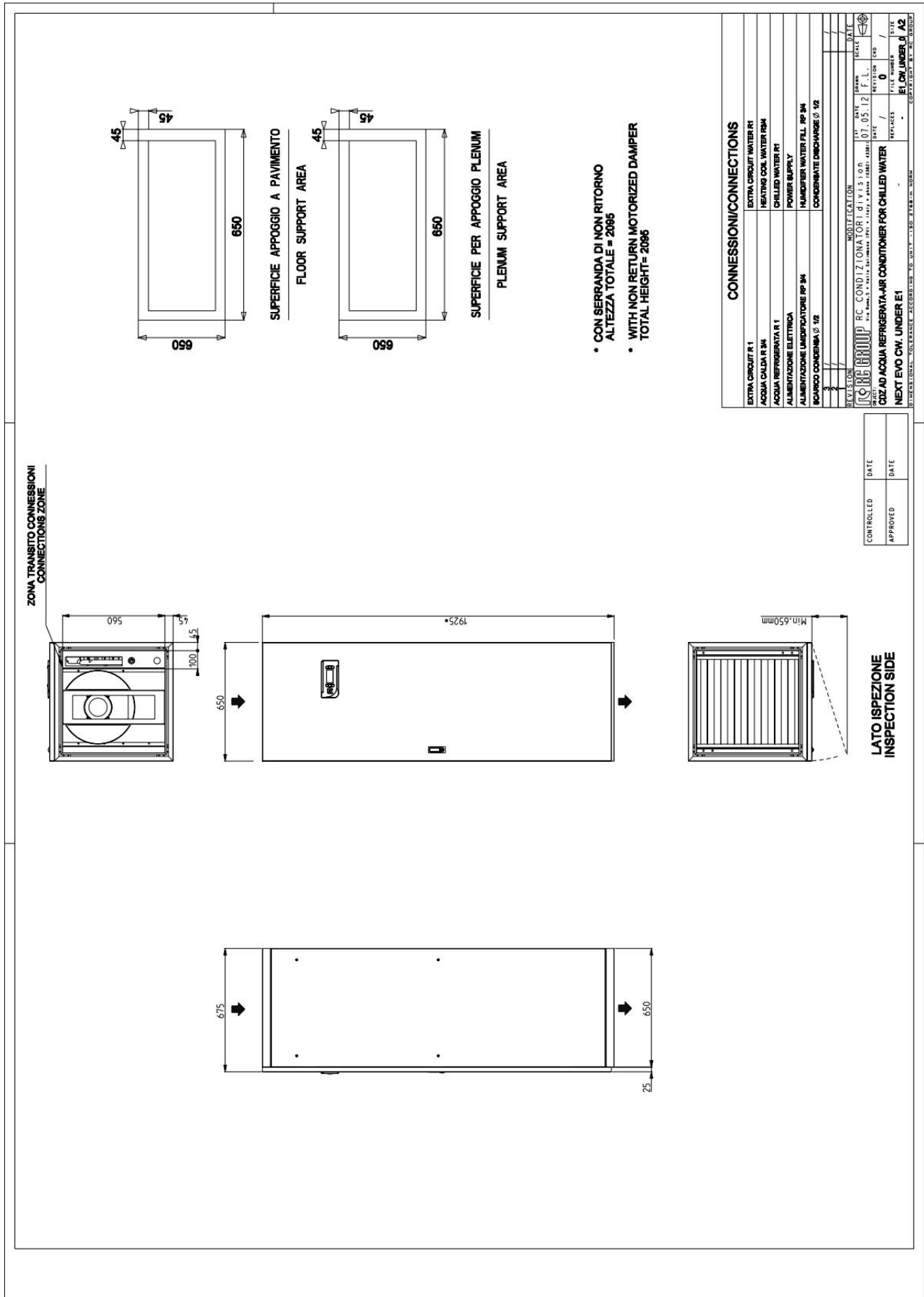
MACHINE DRAWINGS
 Dimensions in mm

NEXT EVO CW UNDER E0



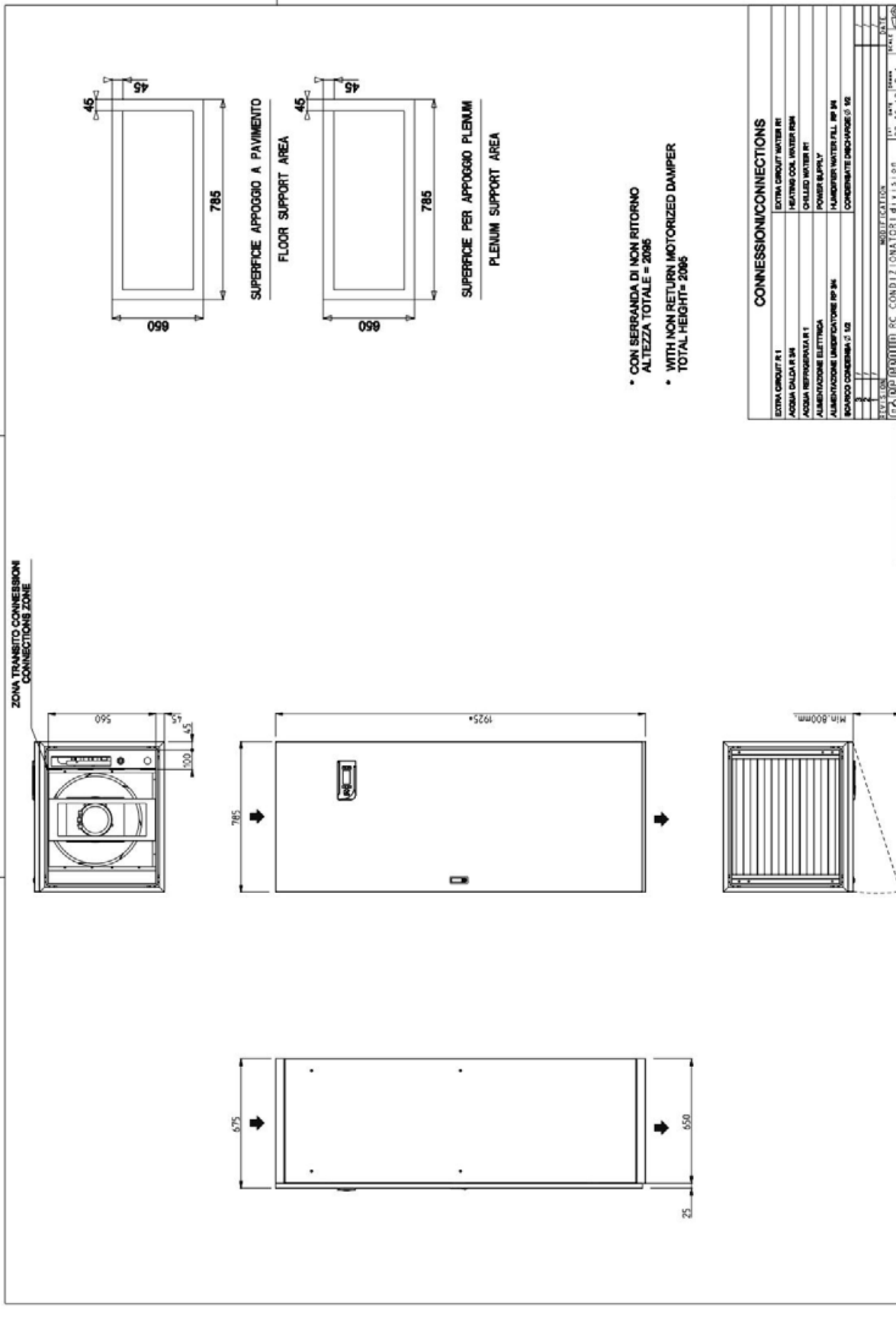
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E1



MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E2



**ZONA TRAMBITO CONNESSIONI
CONNECTIONS ZONE**

Dimensions:
675 x 550 x 25 (depth)
1925 (width)
785 (height)

**LATO ISPEZIONE
INSPECTION SIDE**

Min. 800mm

- CON SERRANDA DI NON RITORNO
ALTEZZA TOTALE = 2095
- WITH NON RETURN MOTORIZED DAMPER
TOTAL HEIGHT= 2095

CONNESSIONI/CONNECTIONS	
EXTRA CIRCUIT WATER RT	
ACQUA CALDA RT RH	
HEATING COOL WATER RH	
ACQUA FREDDATA RT	
CHILLED WATER RT	
ALIMENTAZIONE ELETTRICA	POWER SUPPLY
ALIMENTAZIONE IRRADIAZIONE RT RH	HEATING WATER RT RH
SORCO CONDENSATI C. SE	CONDENSATE DISCHARGE C. SE

CONTROLLED		DATE

APPROVED		DATE

MULTIPLICATION

REV.	DATE	BY	APP.
0	22.06.12	B.A.	

RC GROUP
RC CONDIZIONATORI s.p.a.
Via S. Felice, 3
20132 Milano, Italy
Tel. 02.2509.1111 - Fax 02.2509.1112
www.rcgroup.it

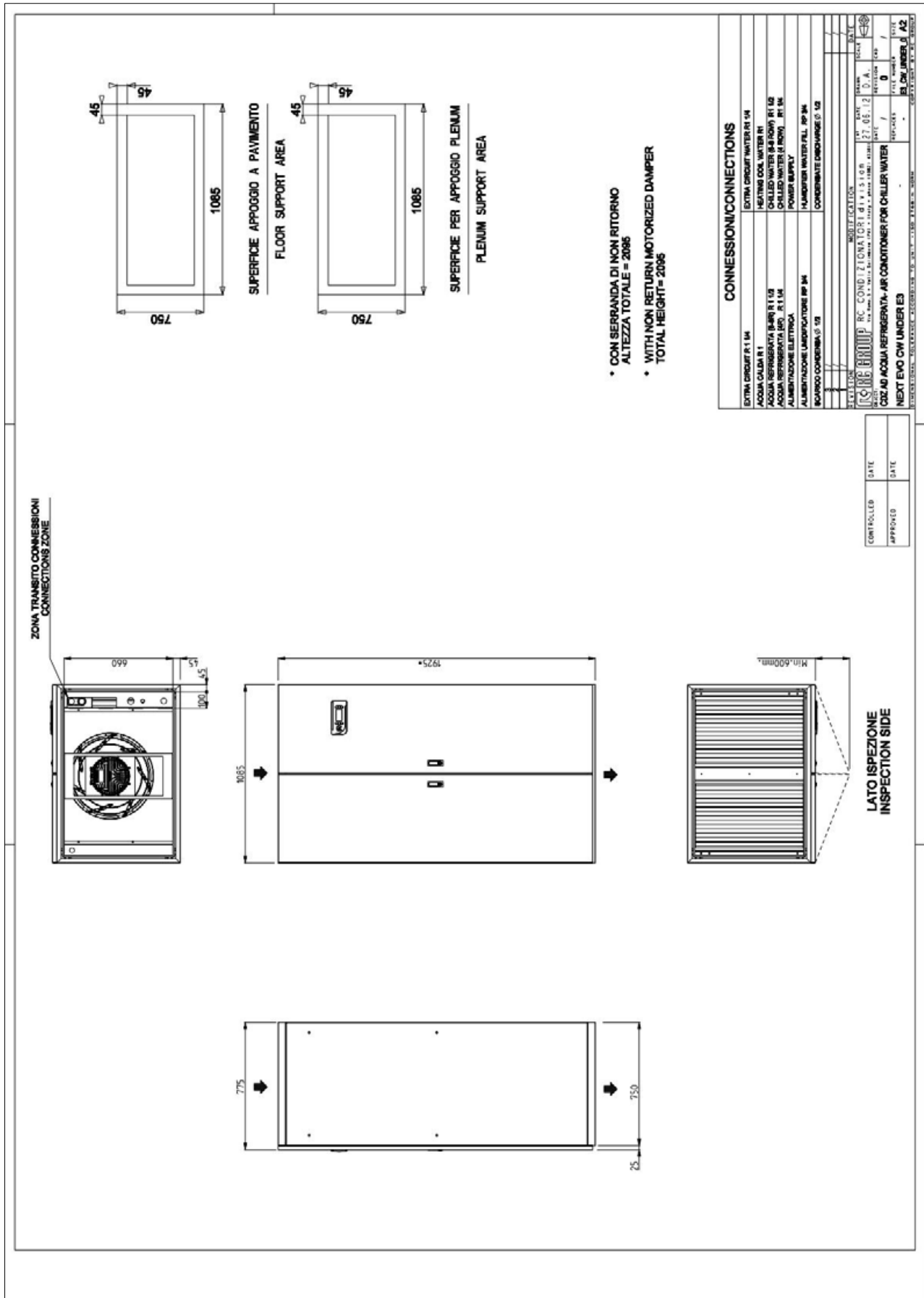
CIC AD ACQUA REFRIGERATA - AIR CONDITIONER FOR CHILLER WATER

NEXT EVO CW. UNDER E2

REVISIONI - REVISIONS

MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E3 – 4R



MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E3 – 6R / 8R

**ZONA TRAMBITO CONNESSIONI
CONNECTIONS ZONE**

**SUPERFICIE APPOGGIO A PAVIMENTO
FLOOR SUPPORT AREA**

**SUPERFICIE PER APPOGGIO PLENUM
PLENUM SUPPORT AREA**

- CON SERRANDA DI NON RITORNO
ALTEZZA TOTALE = 2086
- WITH NON RETURN MOTORIZED DAMPER
TOTAL HEIGHT= 2086

**LATO ISPEZIONE
INSPECTION SIDE**

CONNESSIONI/CONNECTIONS	
EXTRA CIRCUIT WATER R1 1/4	
HEATING COOL WATER R1	
CHILLED WATER (BAR ROOM) R1 1/2	
CHILLED WATER (R1 ROOM) R1 1/4	
POWER SUPPLY	
HUMIDIFIER WATER FILL RP 3/4	
CONDENSATE DRAINAGE G 1/2	

CONTROLLED	DATE	DATE
APPROVED	DATE	DATE

RC CONDIZIONATORI division RC GROUP RC AIR WATER-REFRIGERANT AIR CONDITIONER FOR CHILLER WATER	MODEL LOCATION 27.05.12 01A 01A 01A
NEXT EVO CW UNDER E3	FILE NUMBER 0
PROJECT 01A	DATE 01A
REVISION 01A	DATE 01A

MACHINE DRAWINGS
Dimensions in mm

NEXT EVO CW UNDER E4 - 4R

• CON BERRANDA DI NON RTORNO
 ALTEZZA TOTALE = 2160

• WITH NON RETURN MOTORIZED DAMPER
 TOTAL HEIGHT = 2160

CONNESSIONI / CONNECTIONS	
14	LIVELLO ALTA QUALITÀ DI IMPIANTO
13	IMPIANTO ACQUA FREDDA DI 1° QUALITÀ
9	LIVELLO ACQUA FREDDA DI 1° QUALITÀ
8	IMPIANTO ACQUA FREDDA DI 1° QUALITÀ
7	IMPIANTO ACQUA FREDDA DI 2° QUALITÀ
6	IMPIANTO ACQUA FREDDA DI 3° QUALITÀ
5	IMPIANTO ACQUA FREDDA DI 4° QUALITÀ
4	IMPIANTO ACQUA FREDDA DI 5° QUALITÀ
3	IMPIANTO ACQUA FREDDA DI 6° QUALITÀ
2	IMPIANTO ACQUA FREDDA DI 7° QUALITÀ

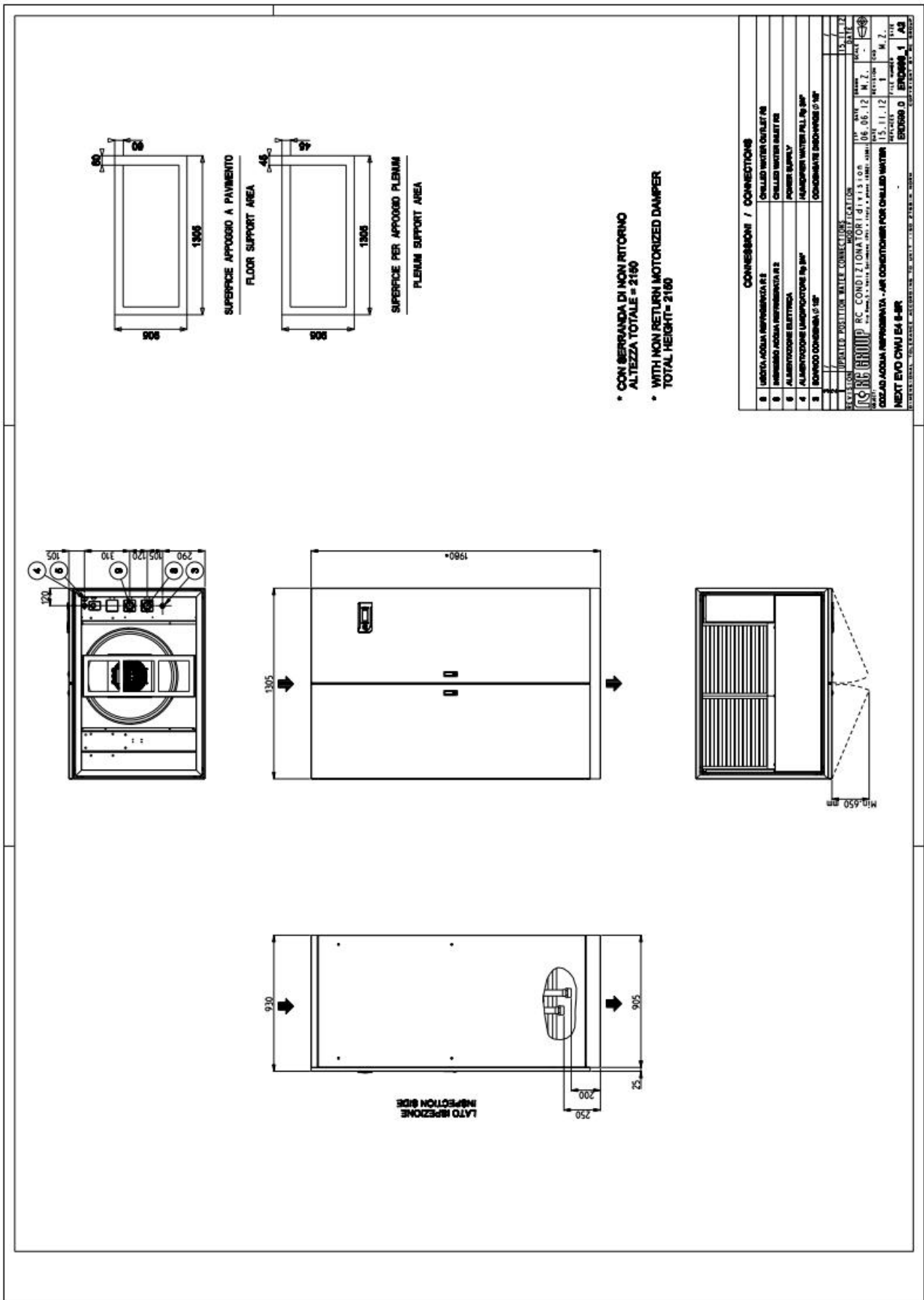
SPECIFICAZIONI TECNICHE	
15	GRUPPO RC CONDIZIONE TOP
14	1500
13	1200
12	21.06.12
11	M. Z.
10	REVISIONE
9	15.11.12
8	1000
7	M. Z.
6	REVISIONE
5	15.11.12
4	1000
3	M. Z.
2	REVISIONE
1	15.11.12

LATO RIFRESCO
 INSPECTION SIDE

Min. 650 mm

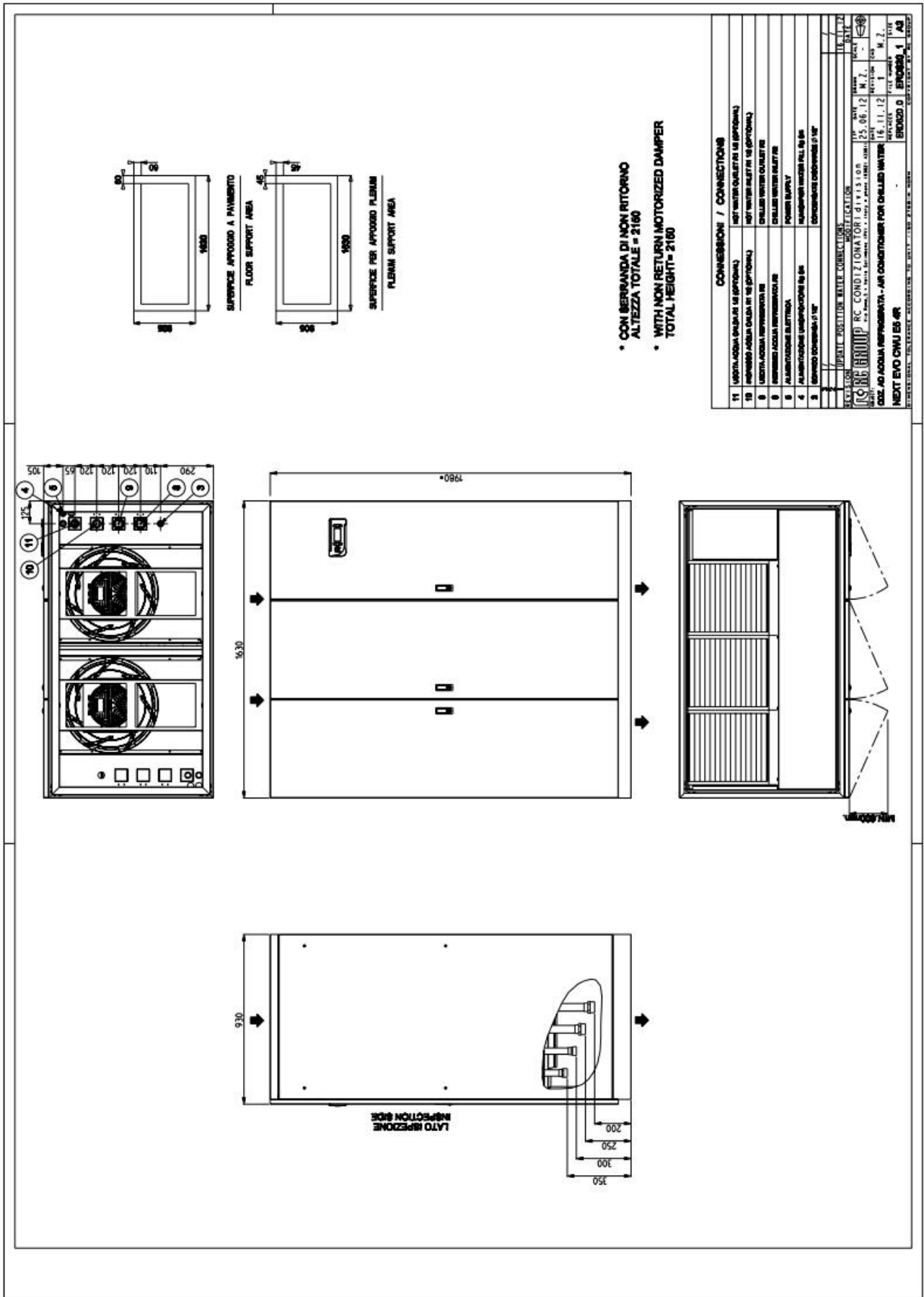
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E4 – 6R / 8R



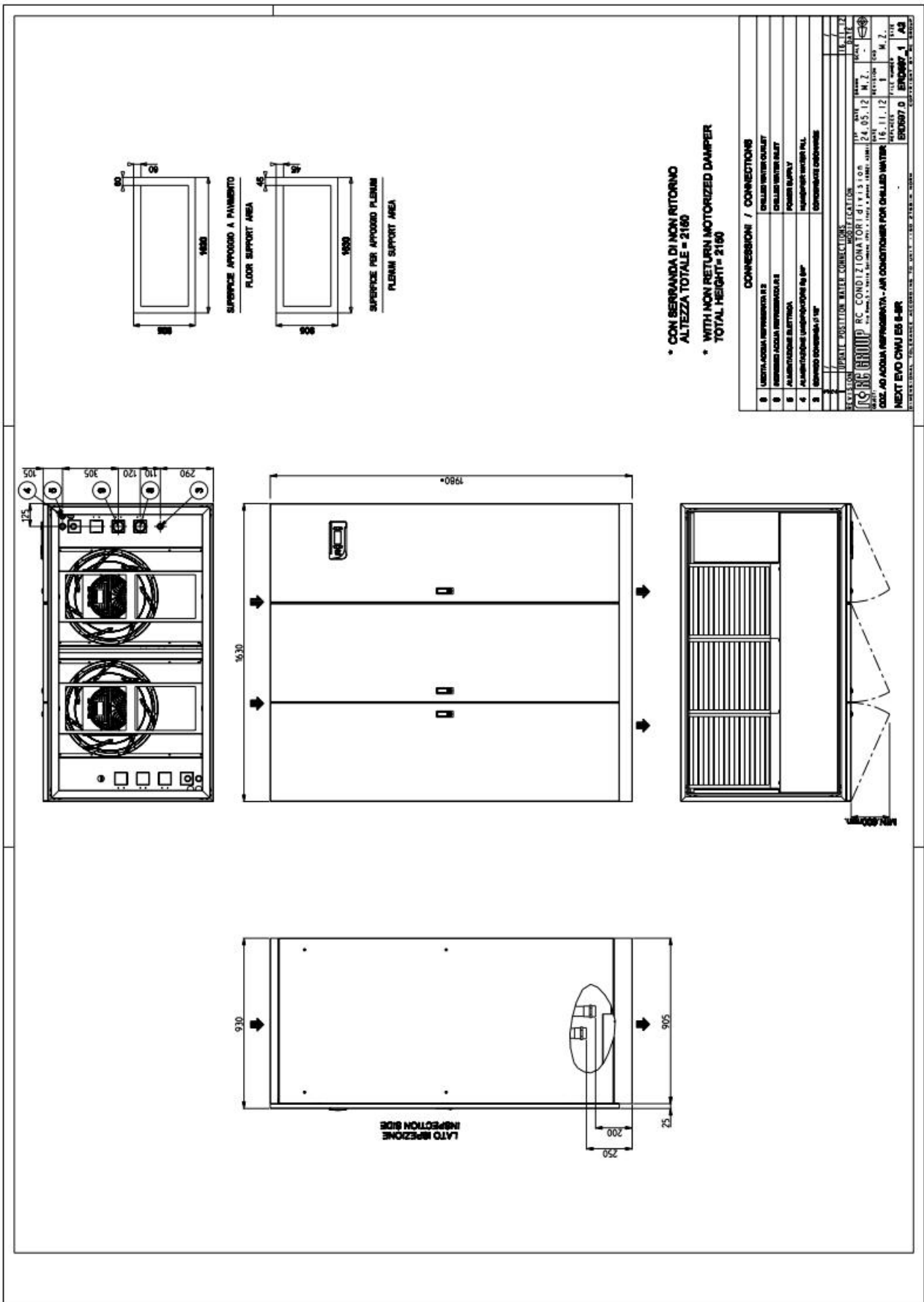
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E5 - 4R



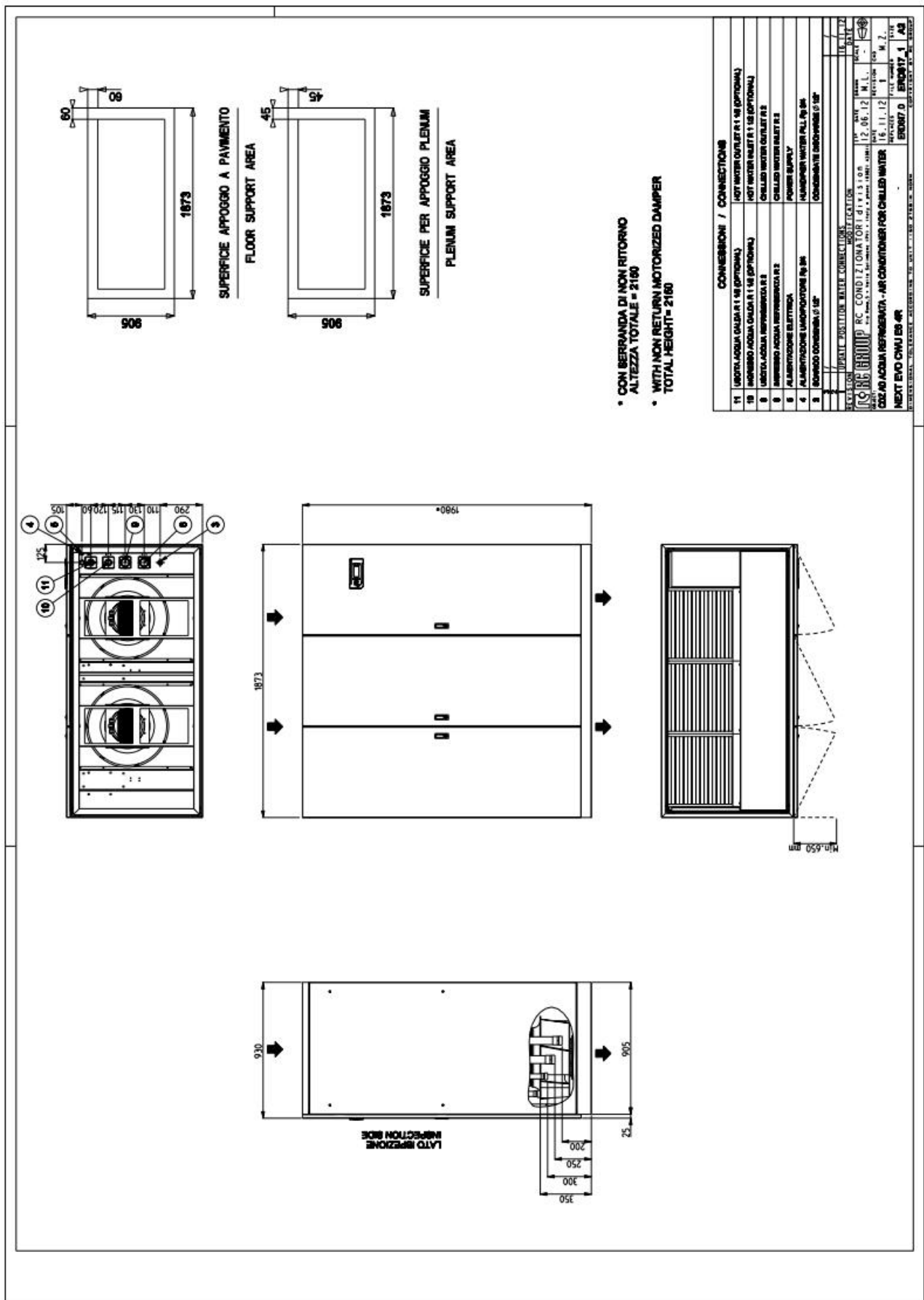
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E5 – 6R / 8R



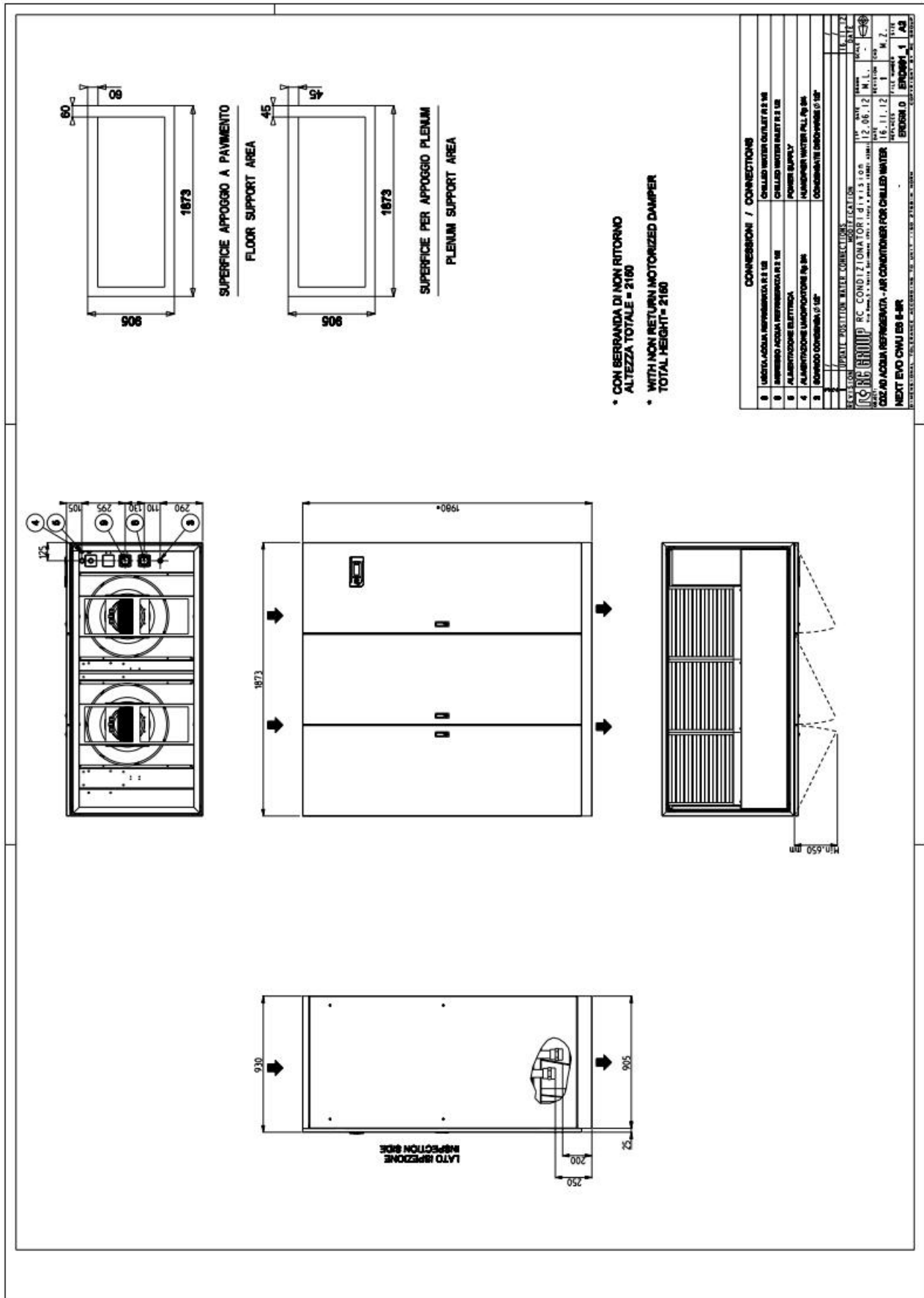
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E6 – 4R



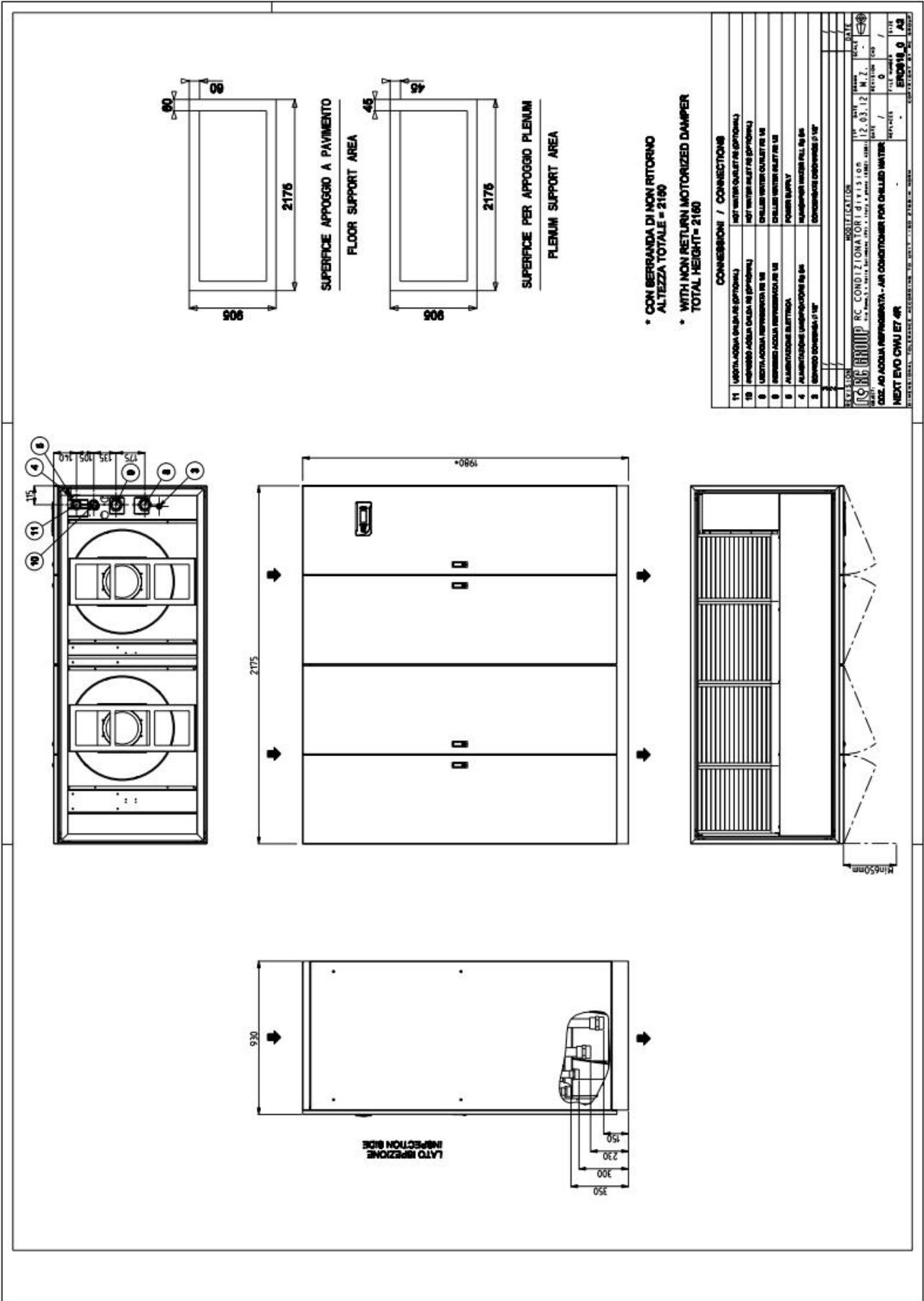
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E6 – 6R / 8R



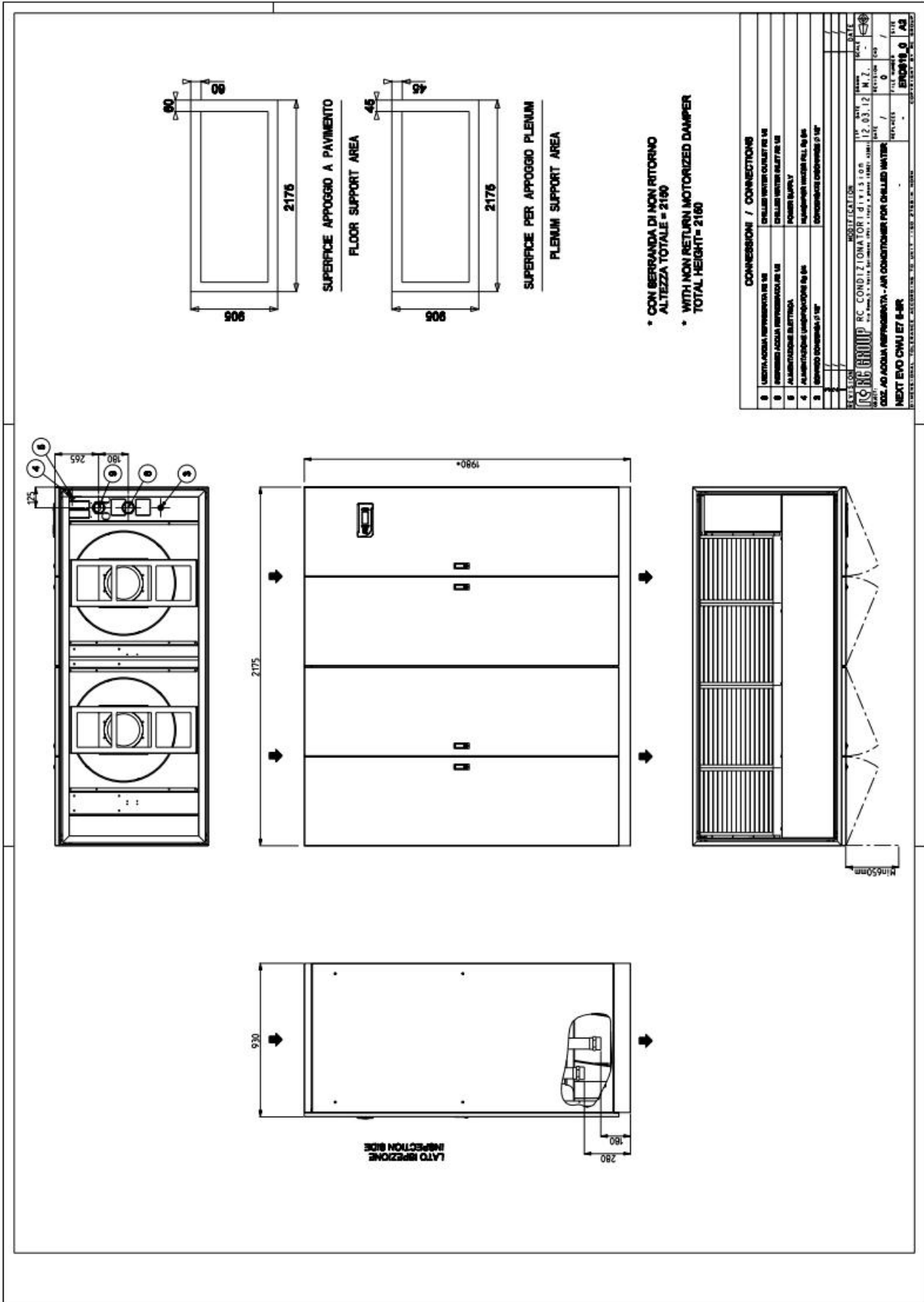
MACHINE DRAWINGS
Dimensions in mm

NEXT EVO CW UNDER E7 – 4R



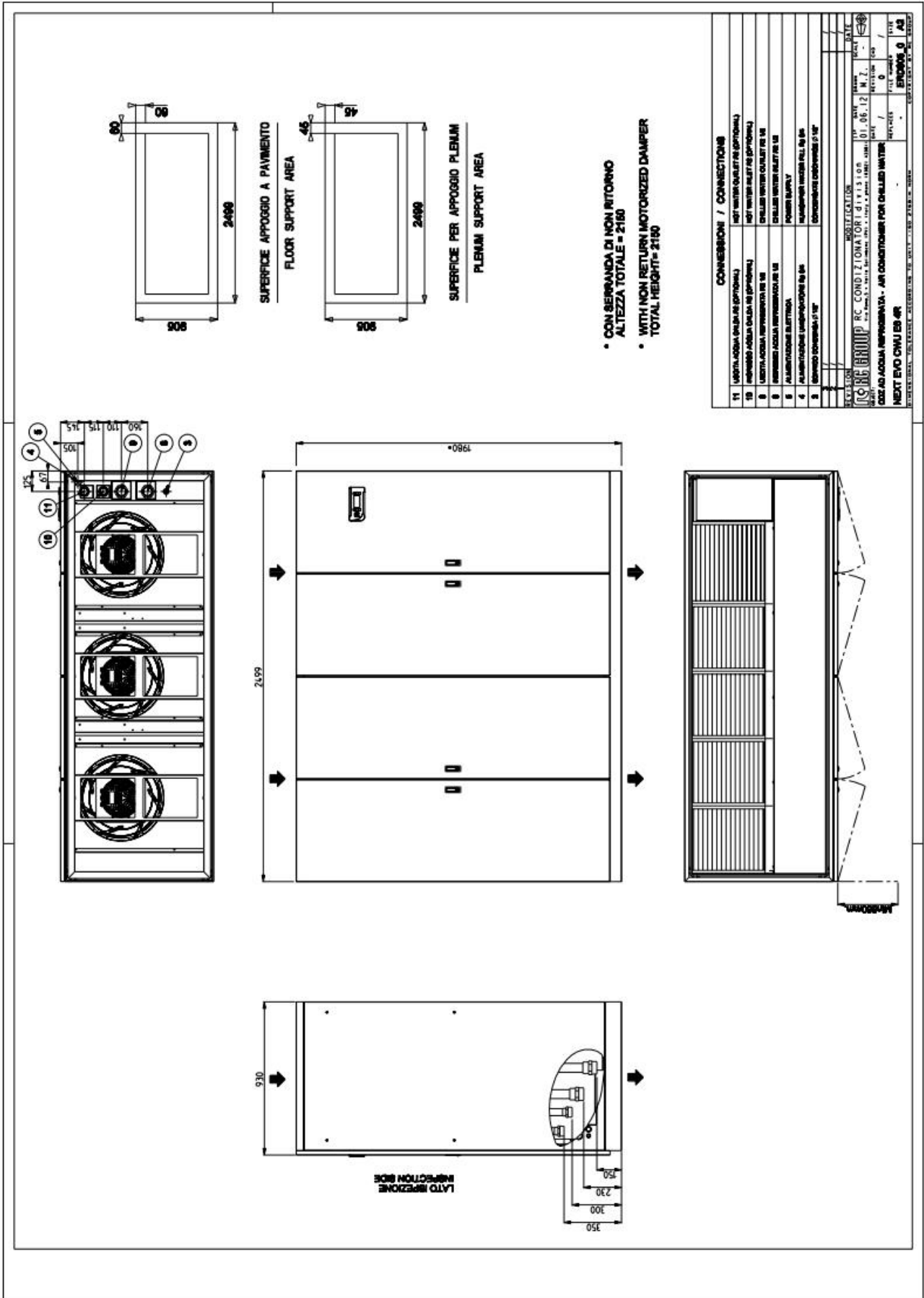
MACHINE DRAWINGS
Dimensions in mm

NEXT EVO CW UNDER E7 – 6R / 8R



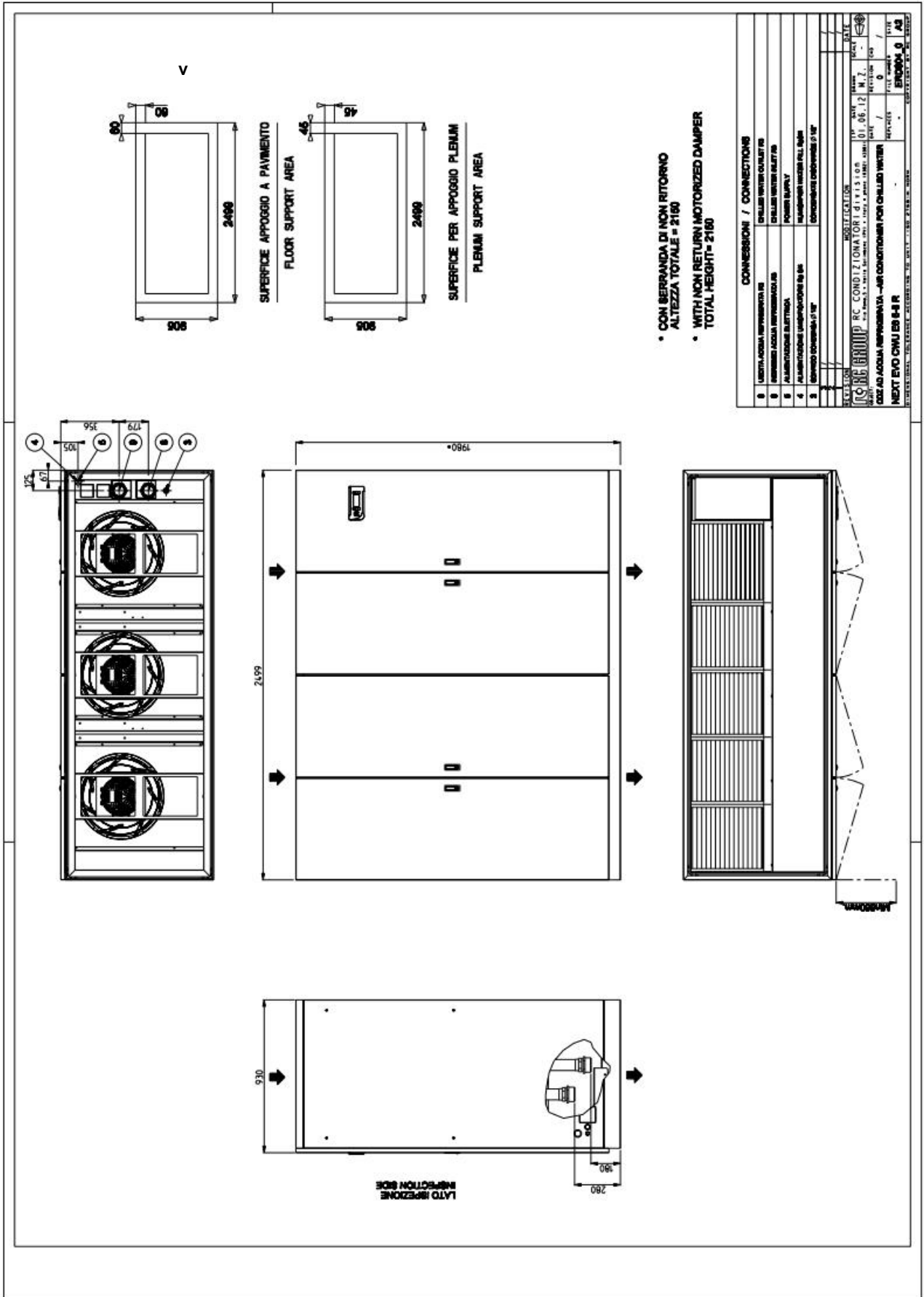
MACHINE DRAWINGS
 Dimensions in mm

NEXT EVO CW UNDER E8 – 4R



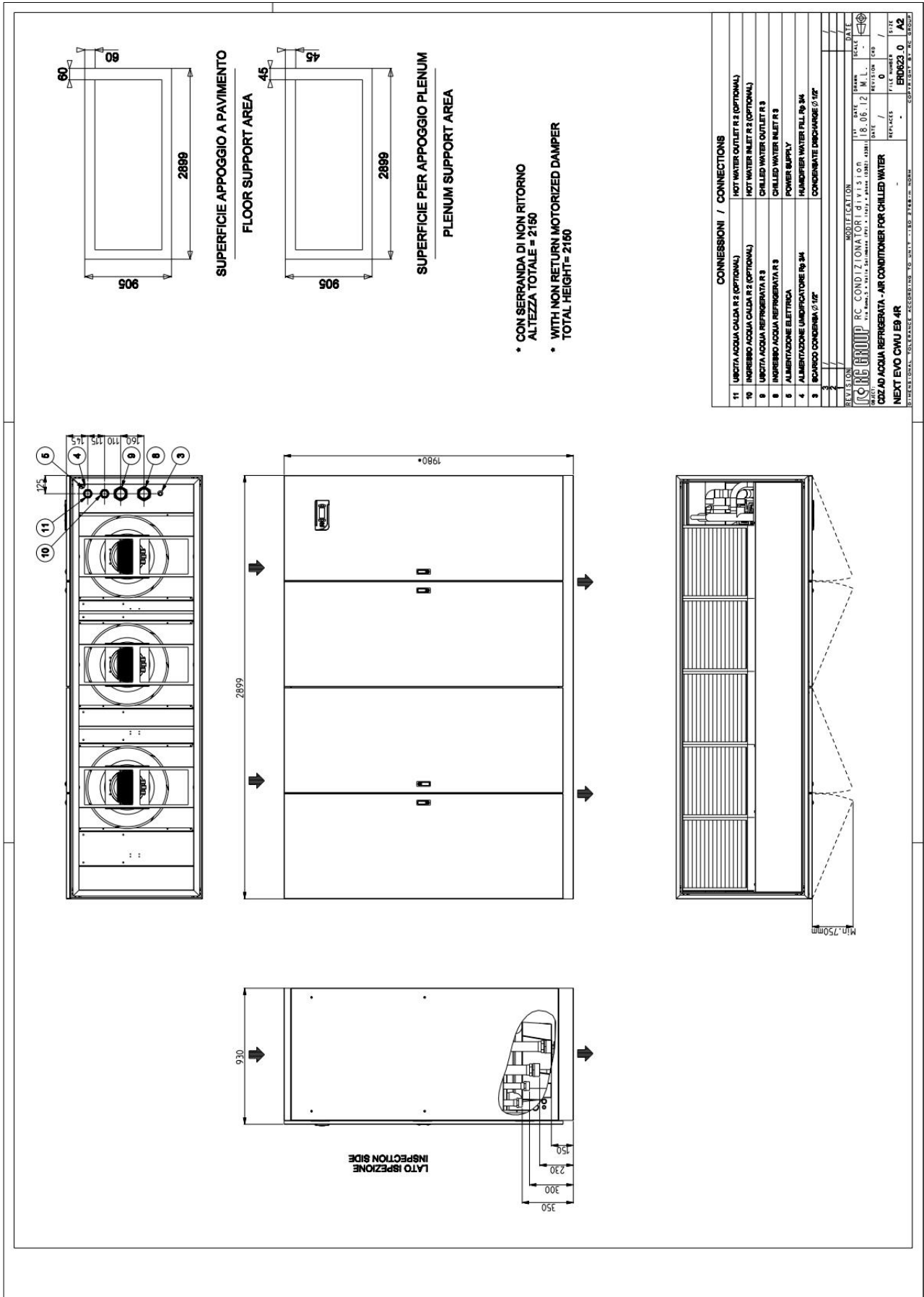
MACHINE DRAWINGS
Dimensions in mm

NEXT EVO CW UNDER E8 – 6R / 8R



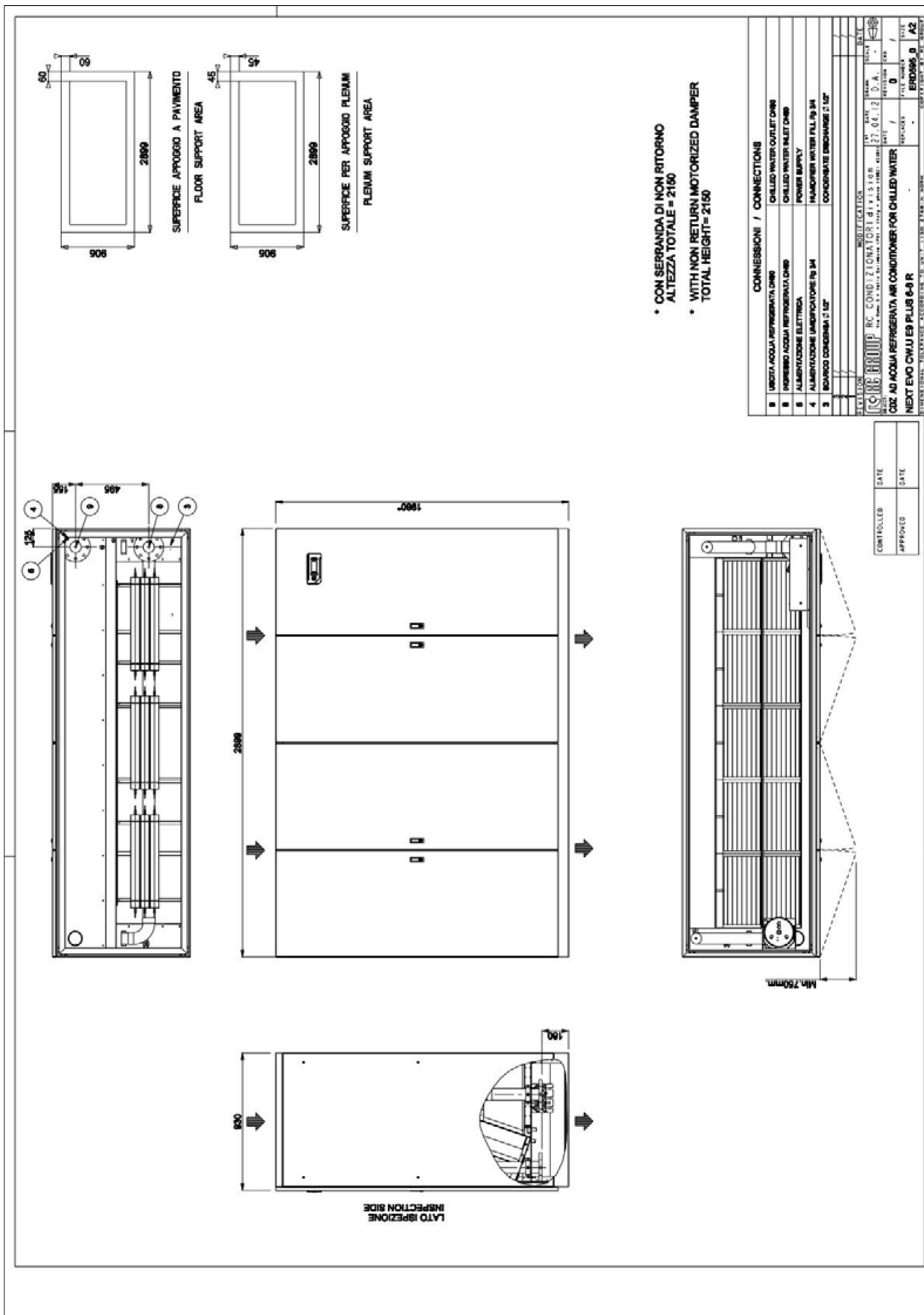
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E9 – 4R



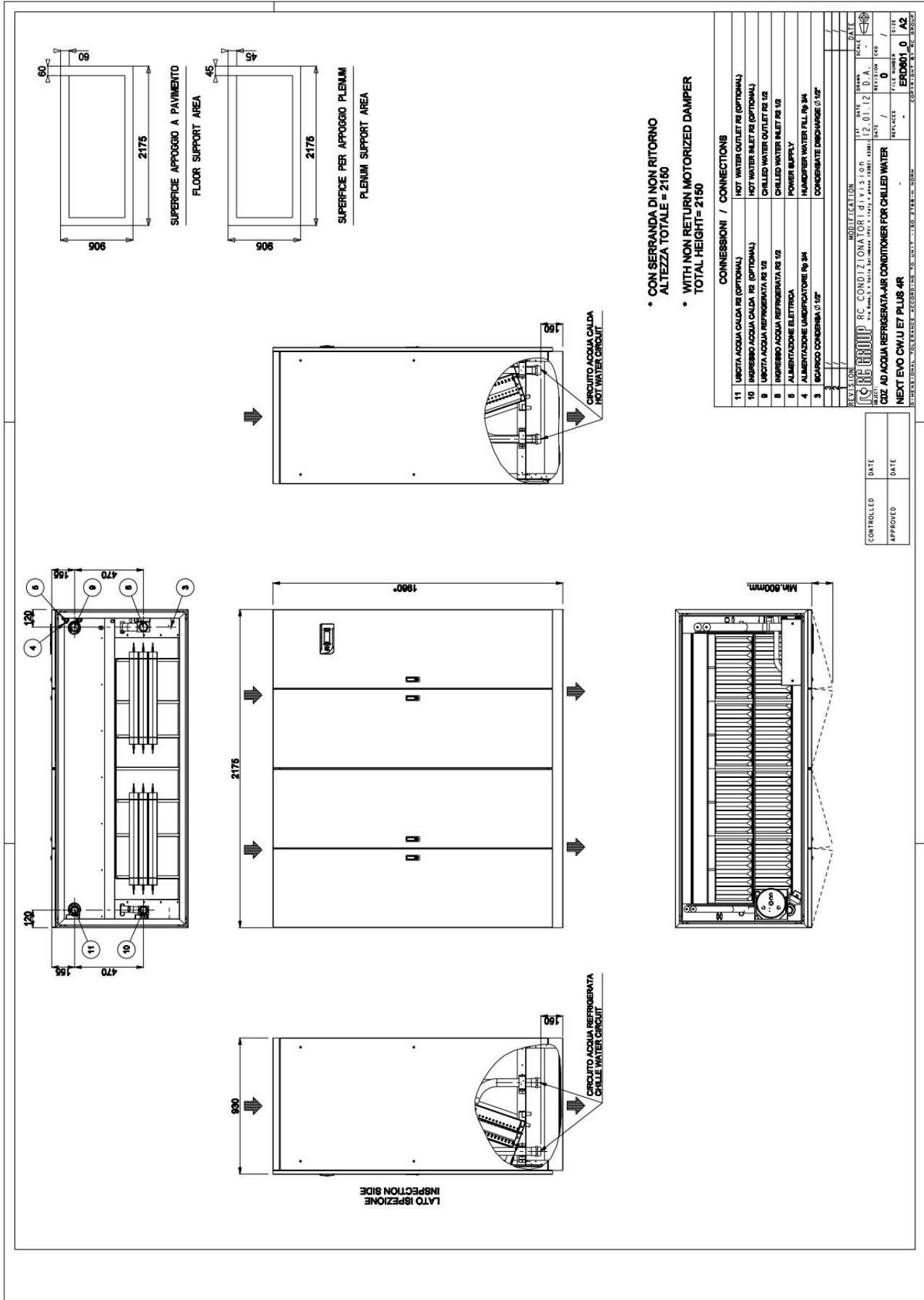
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW UNDER E9 – 6R / 8R



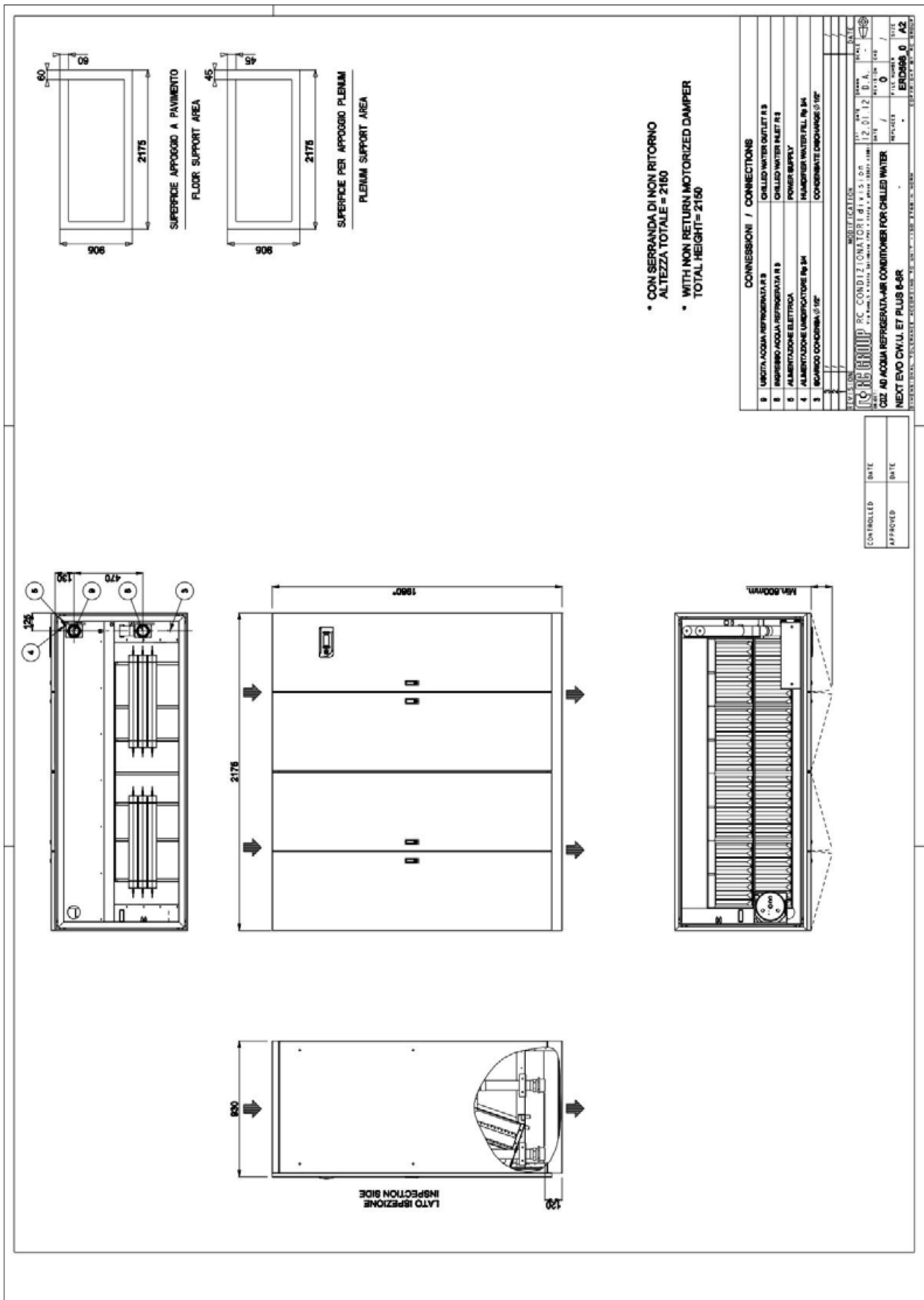
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E7 – 4R



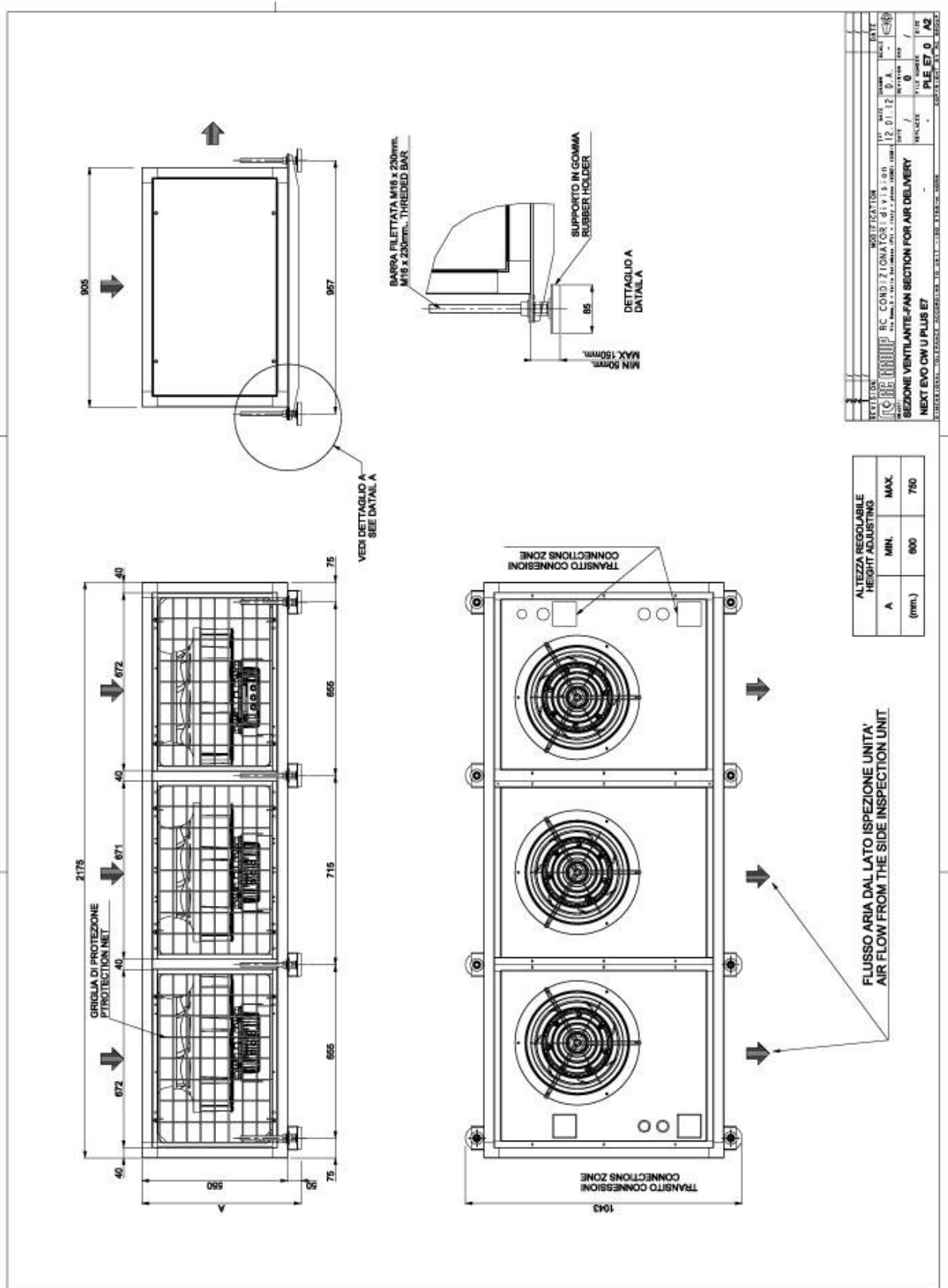
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E7 – 6R / 8R



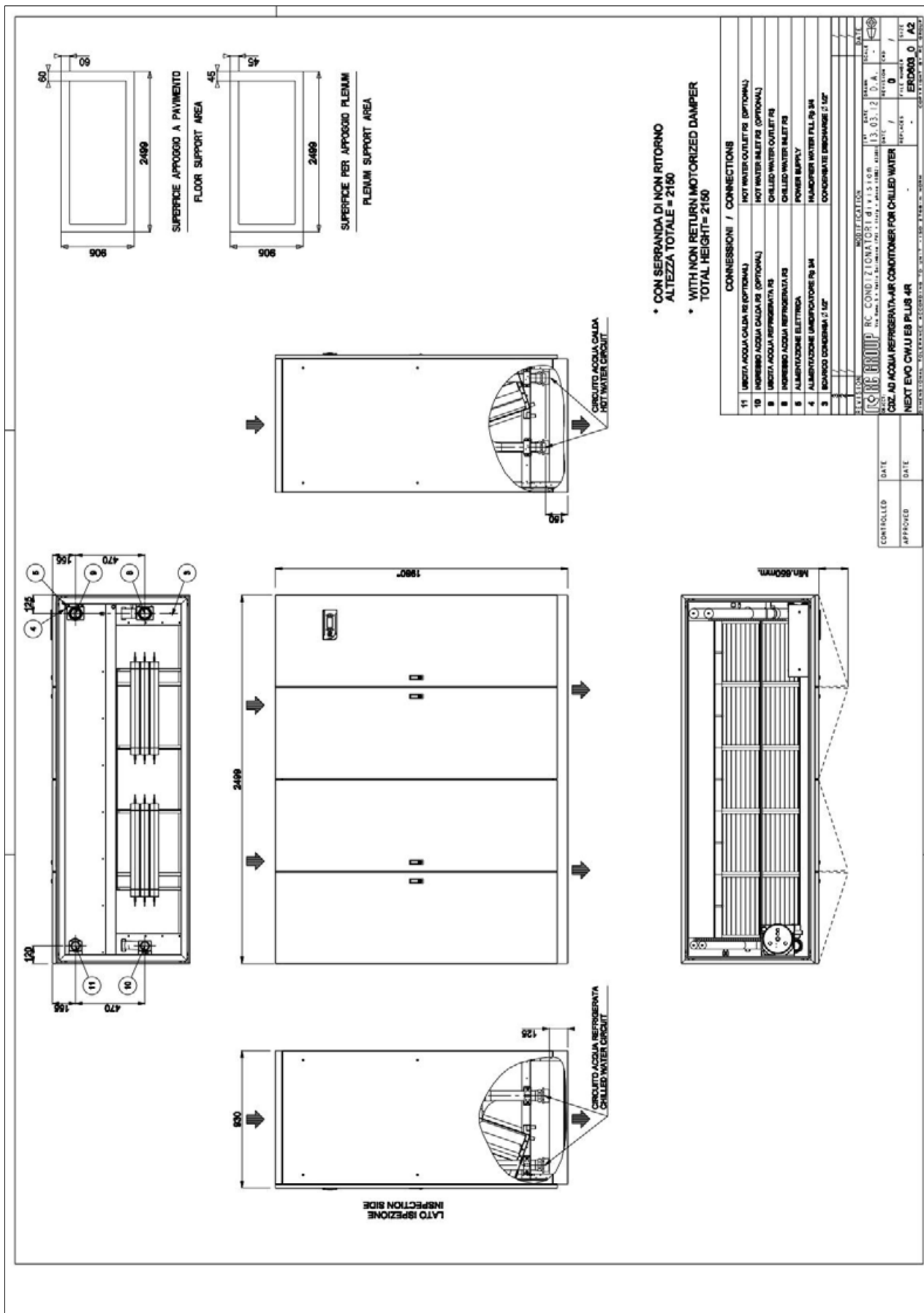
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E7 – FANS SECTION



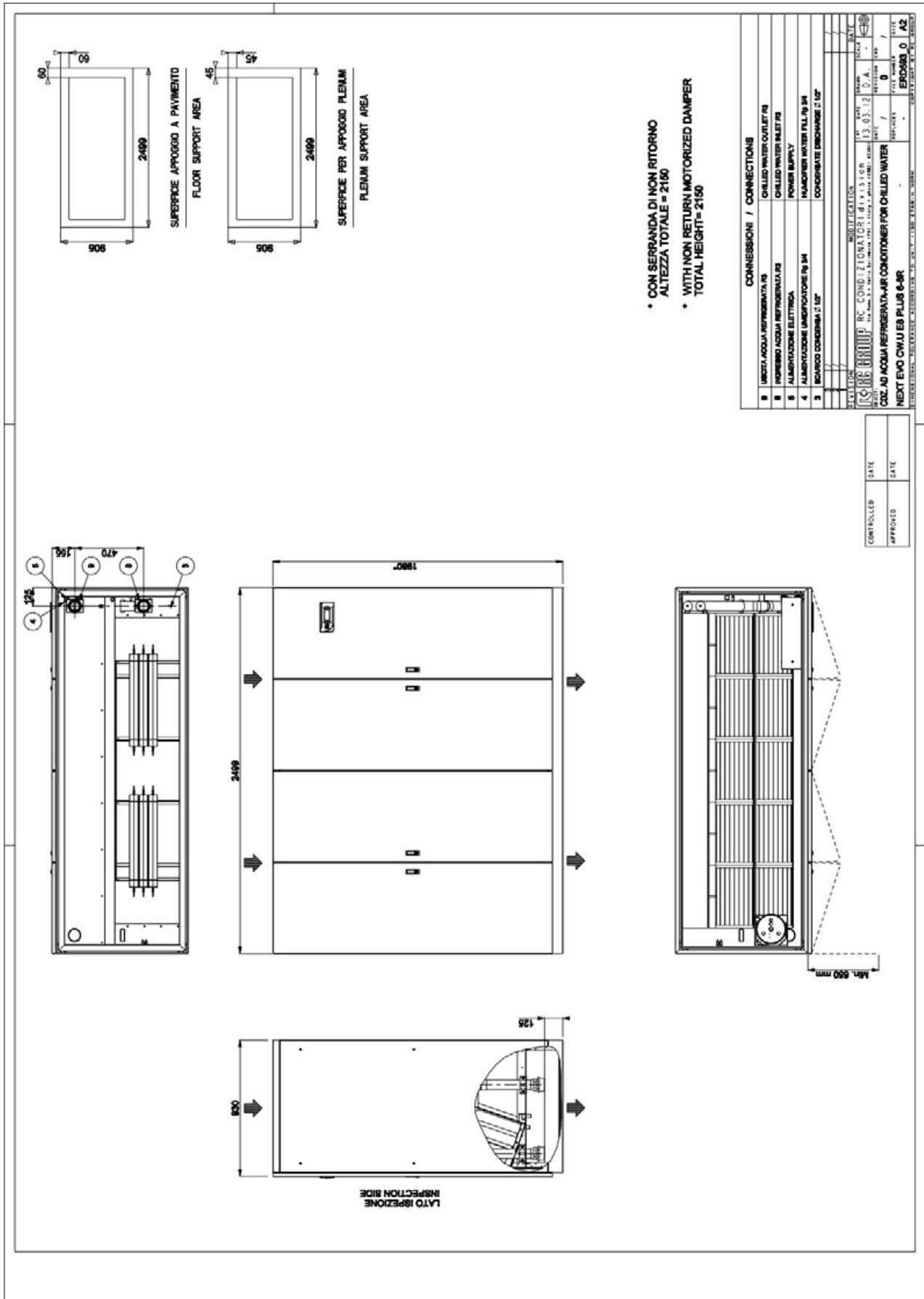
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E8 – 4R



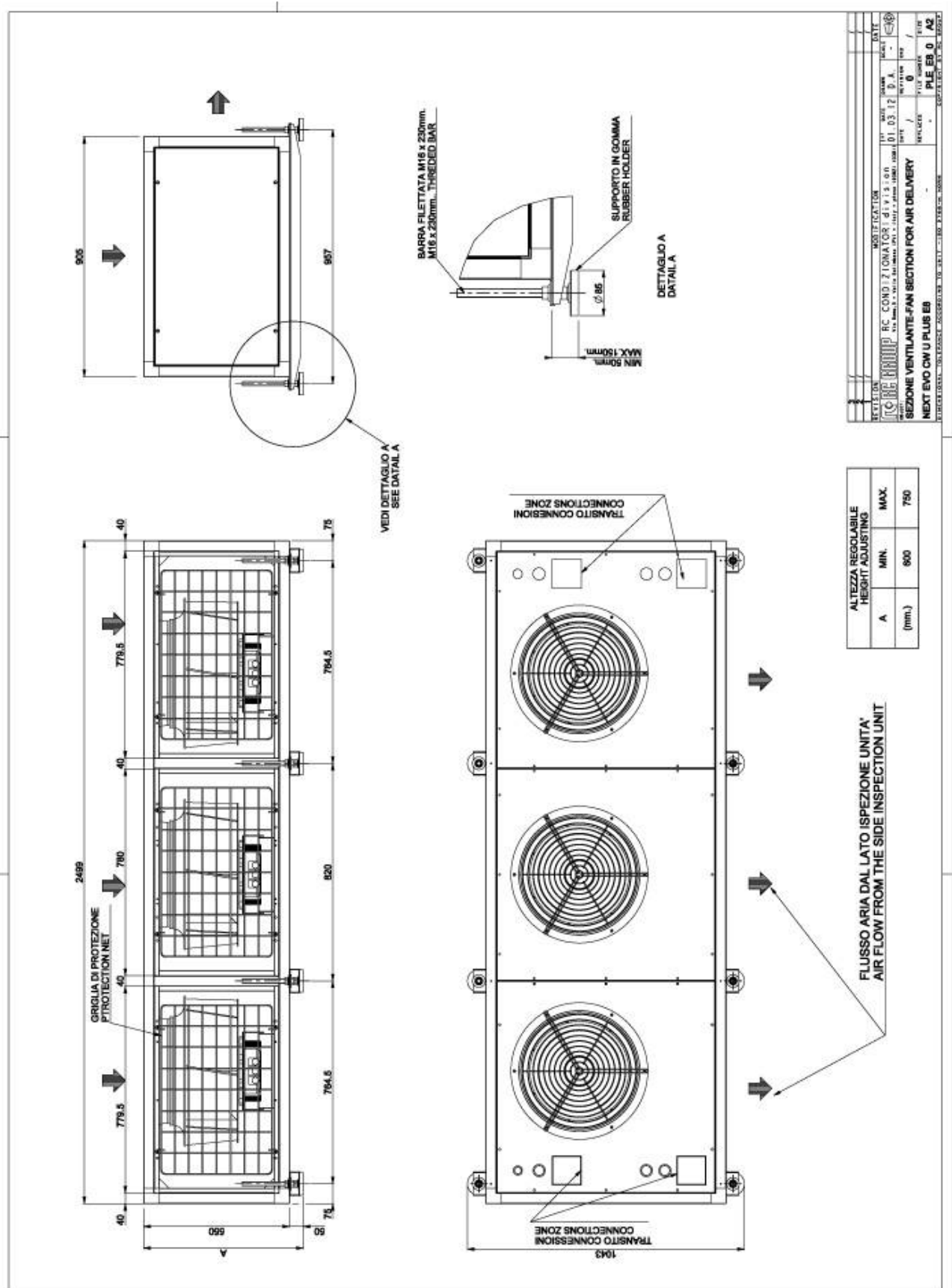
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E8 - 6R / 8R



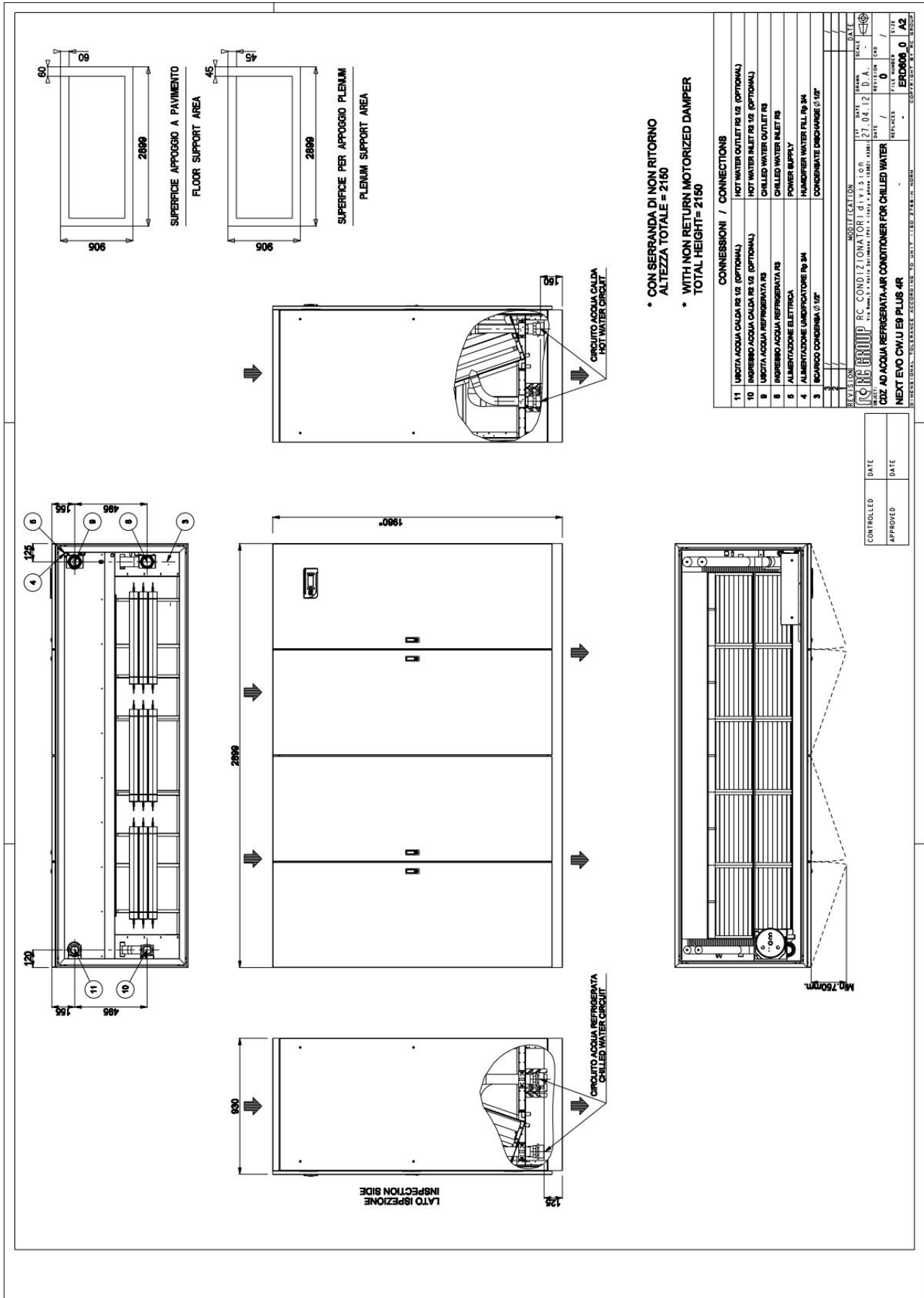
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E8 – FANS SECTION



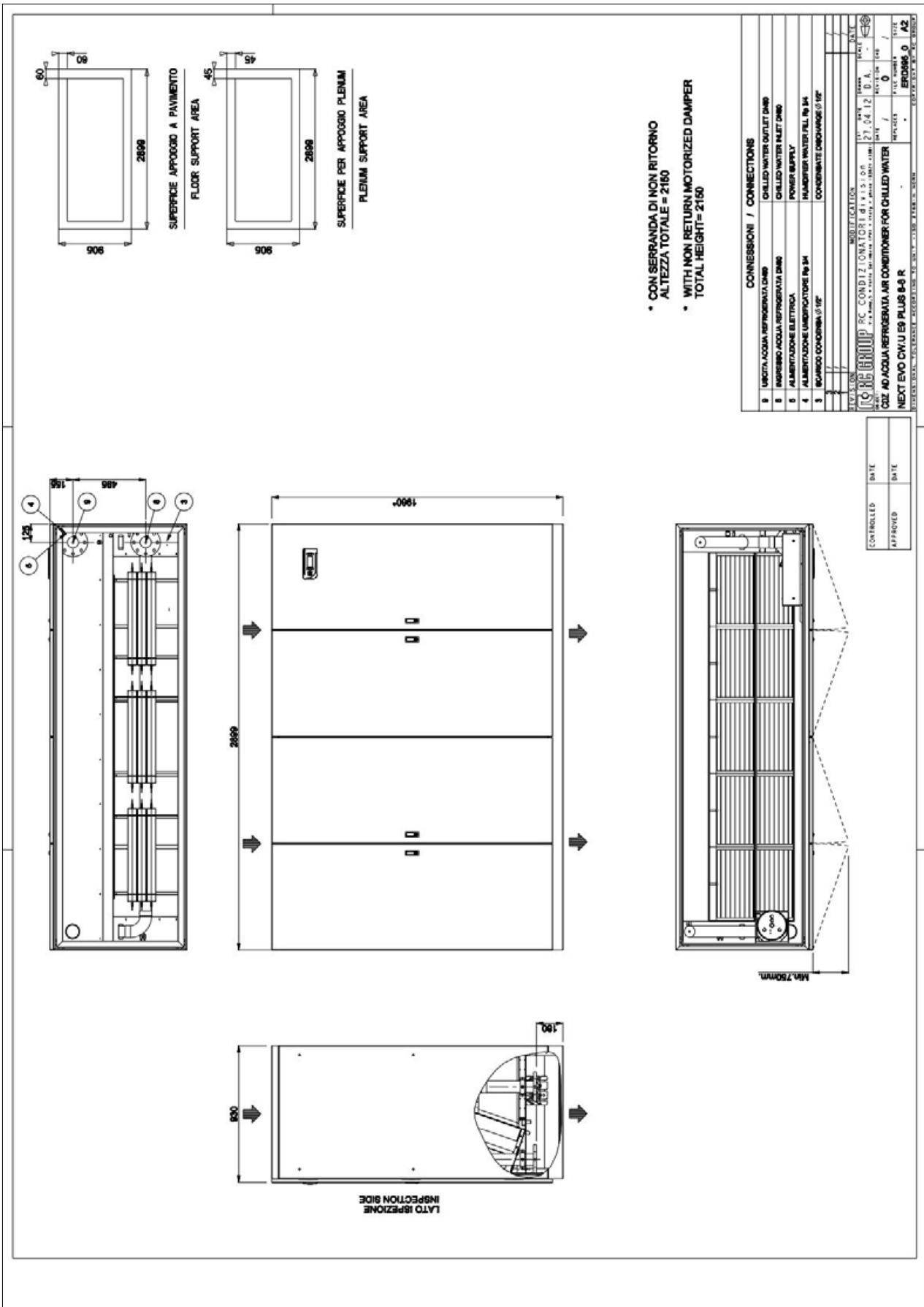
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E9 – 4R



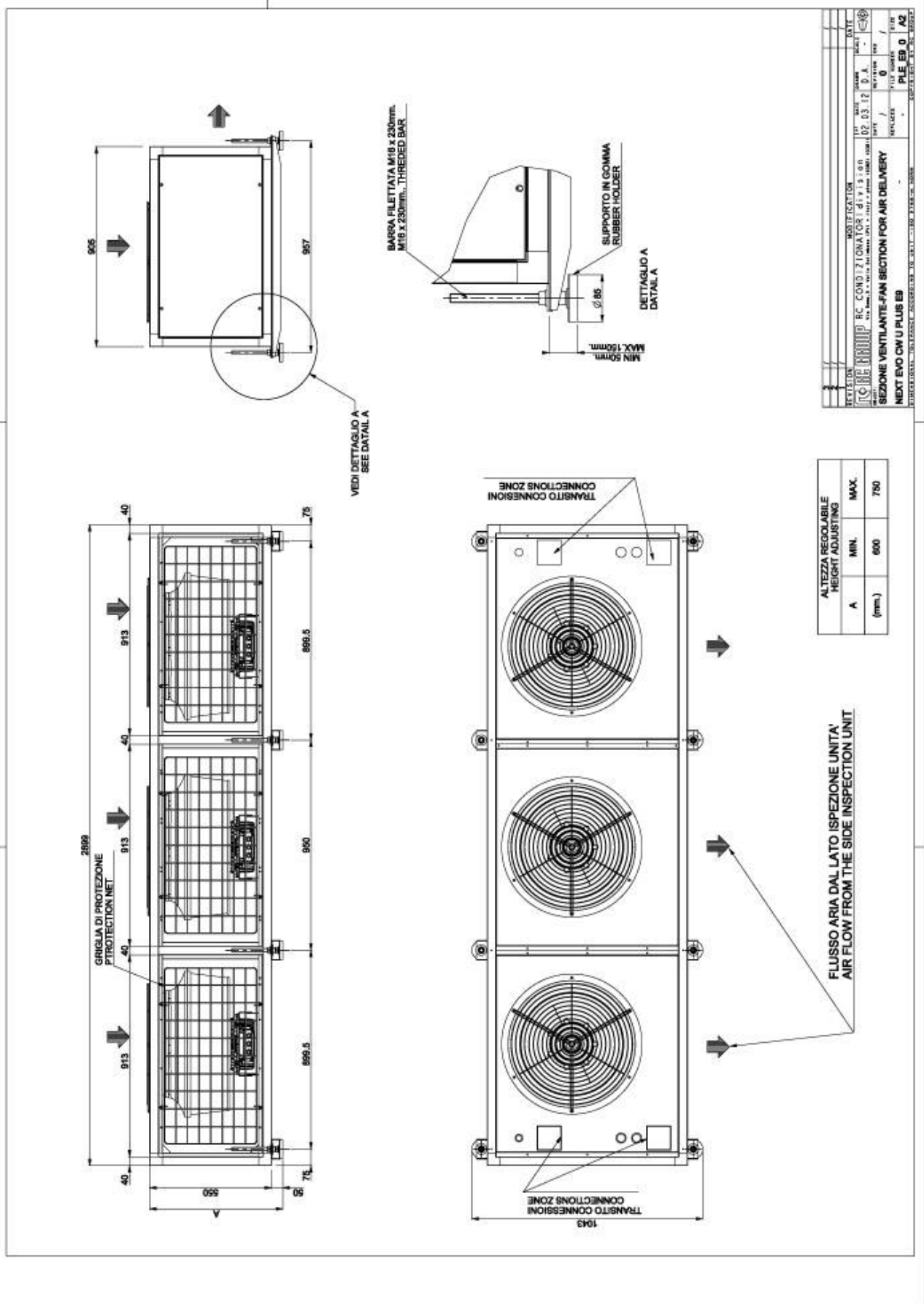
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E9 – 6R / 8R



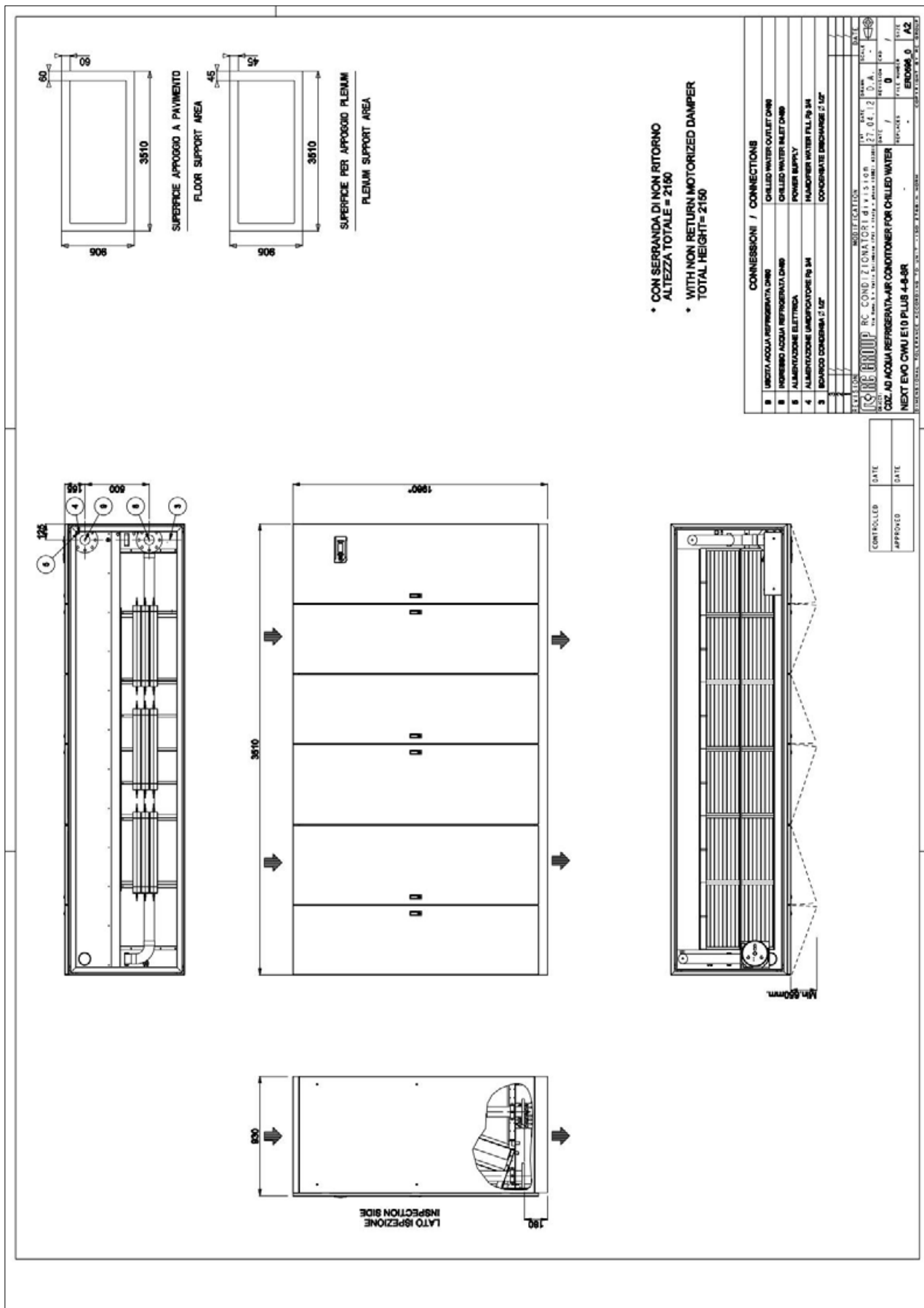
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E9 – FANS SECTION



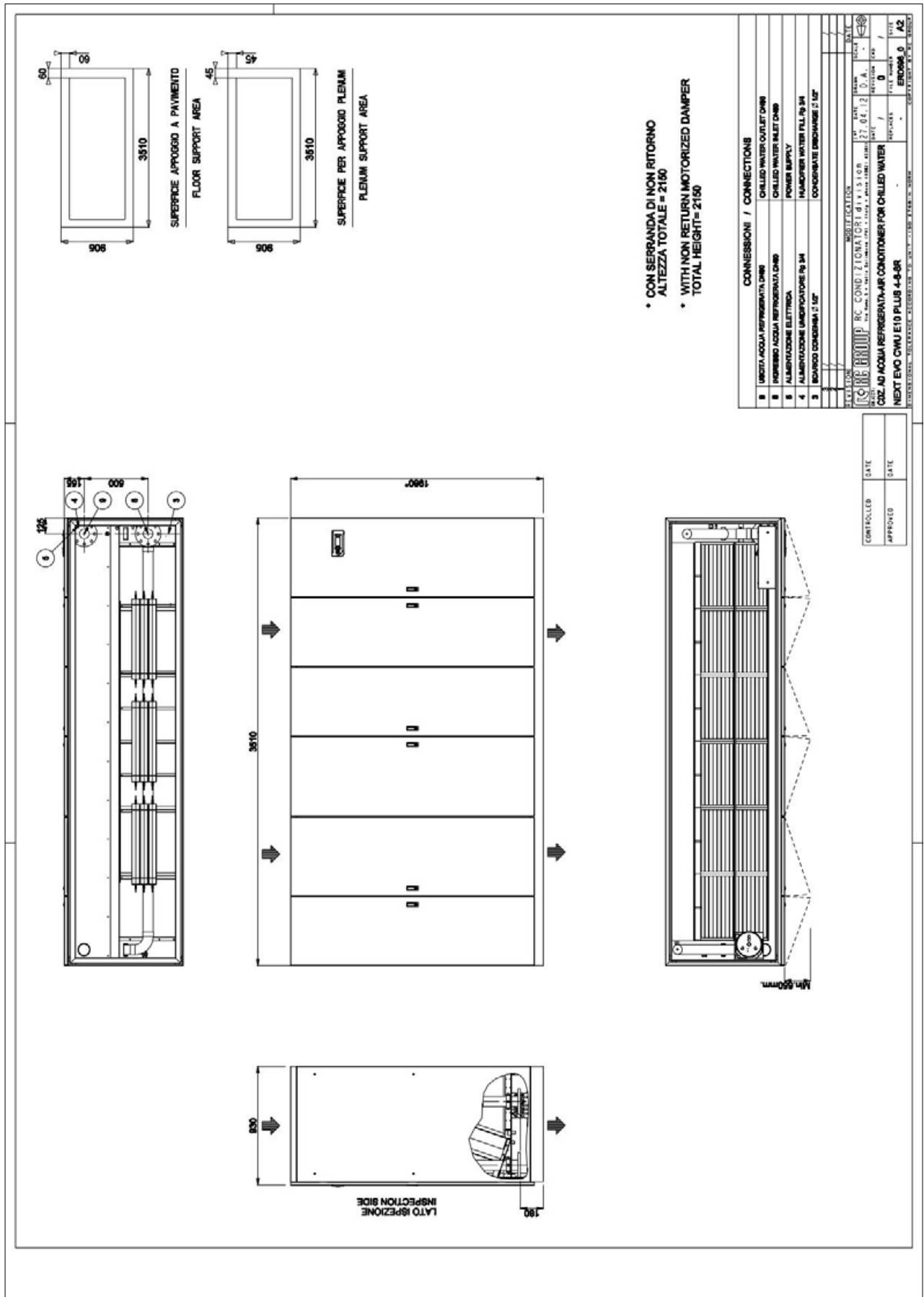
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E10 – 4R



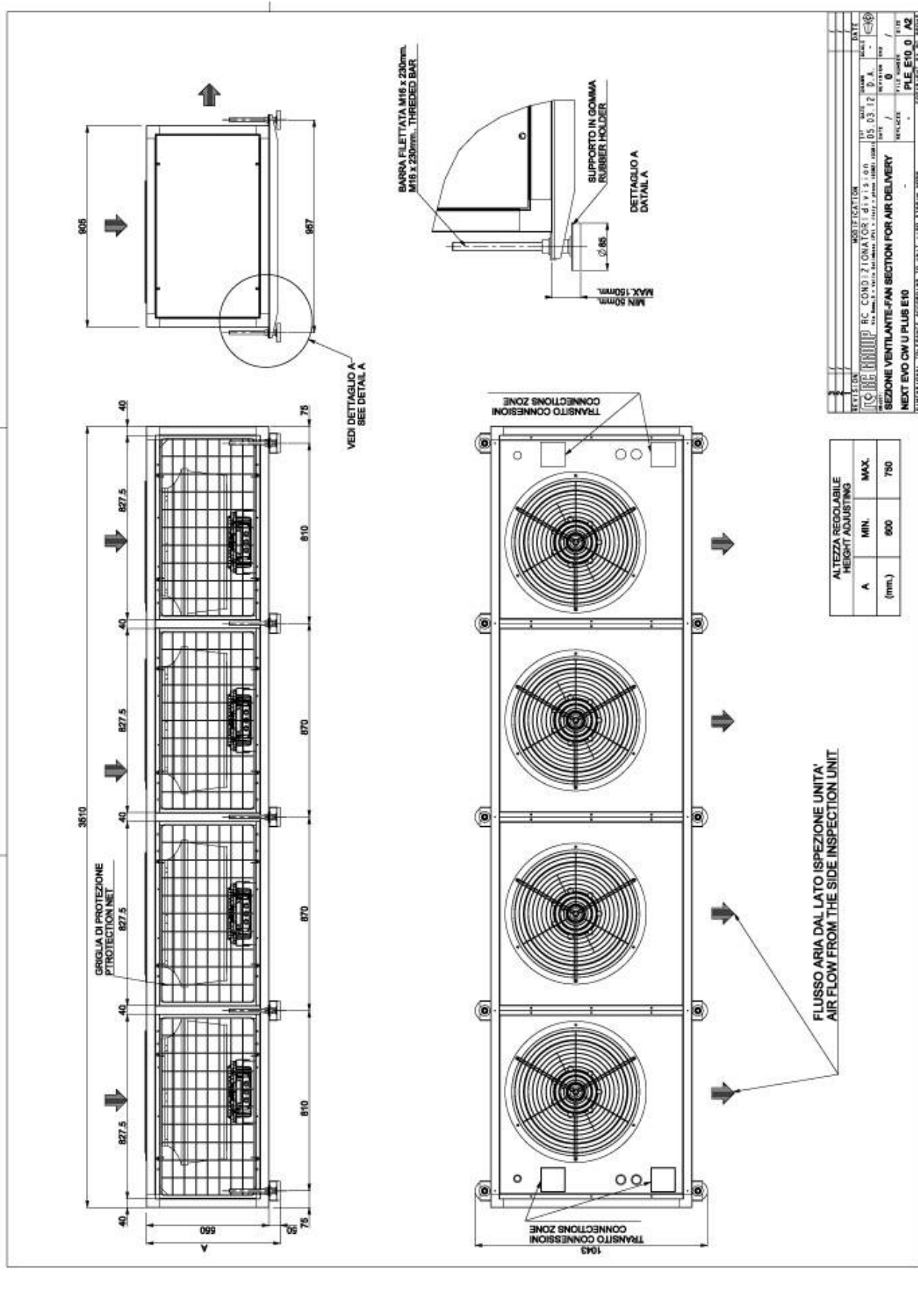
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E10 – 6R / 8R



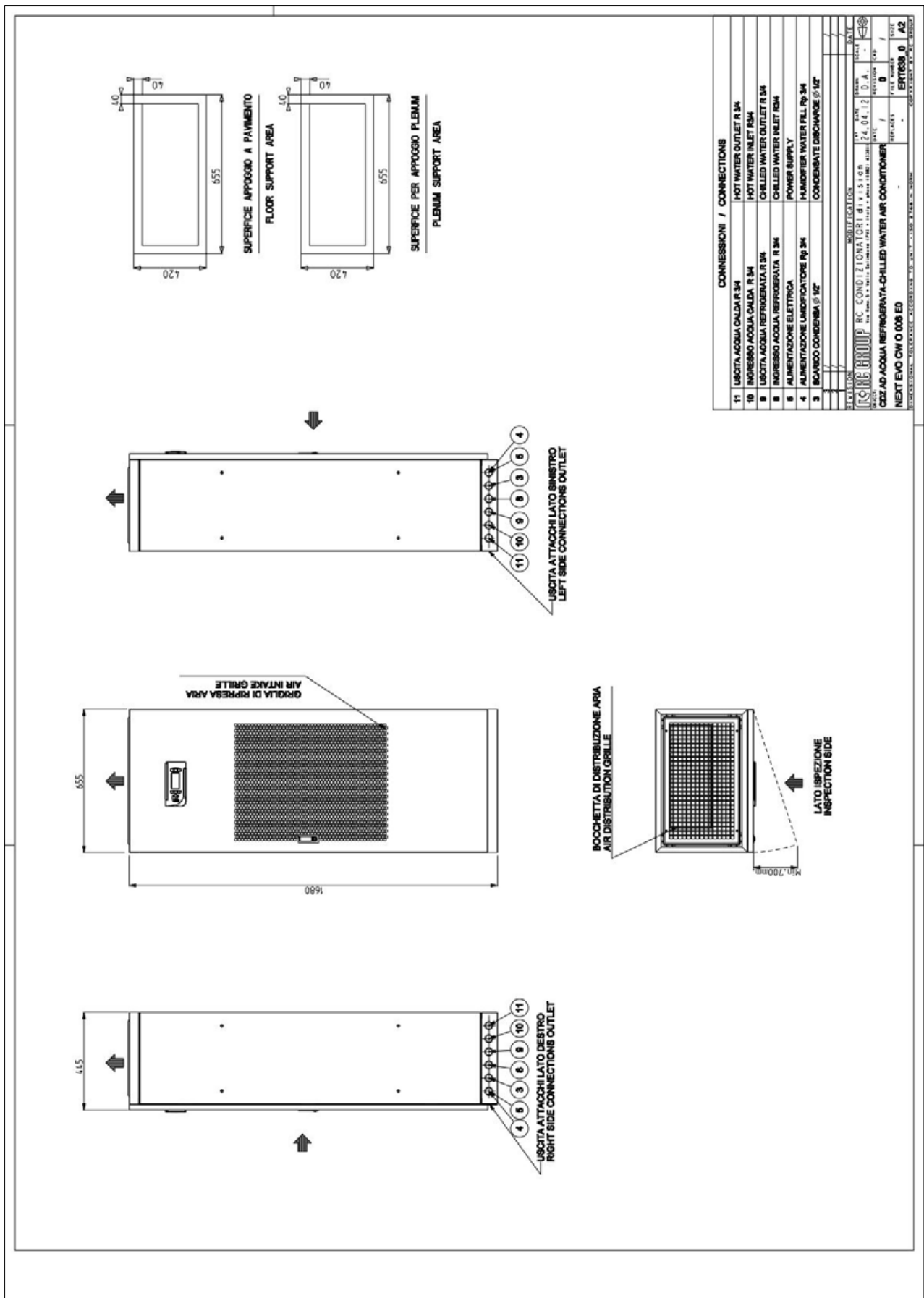
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW PLUS E10 – FANS SECTION



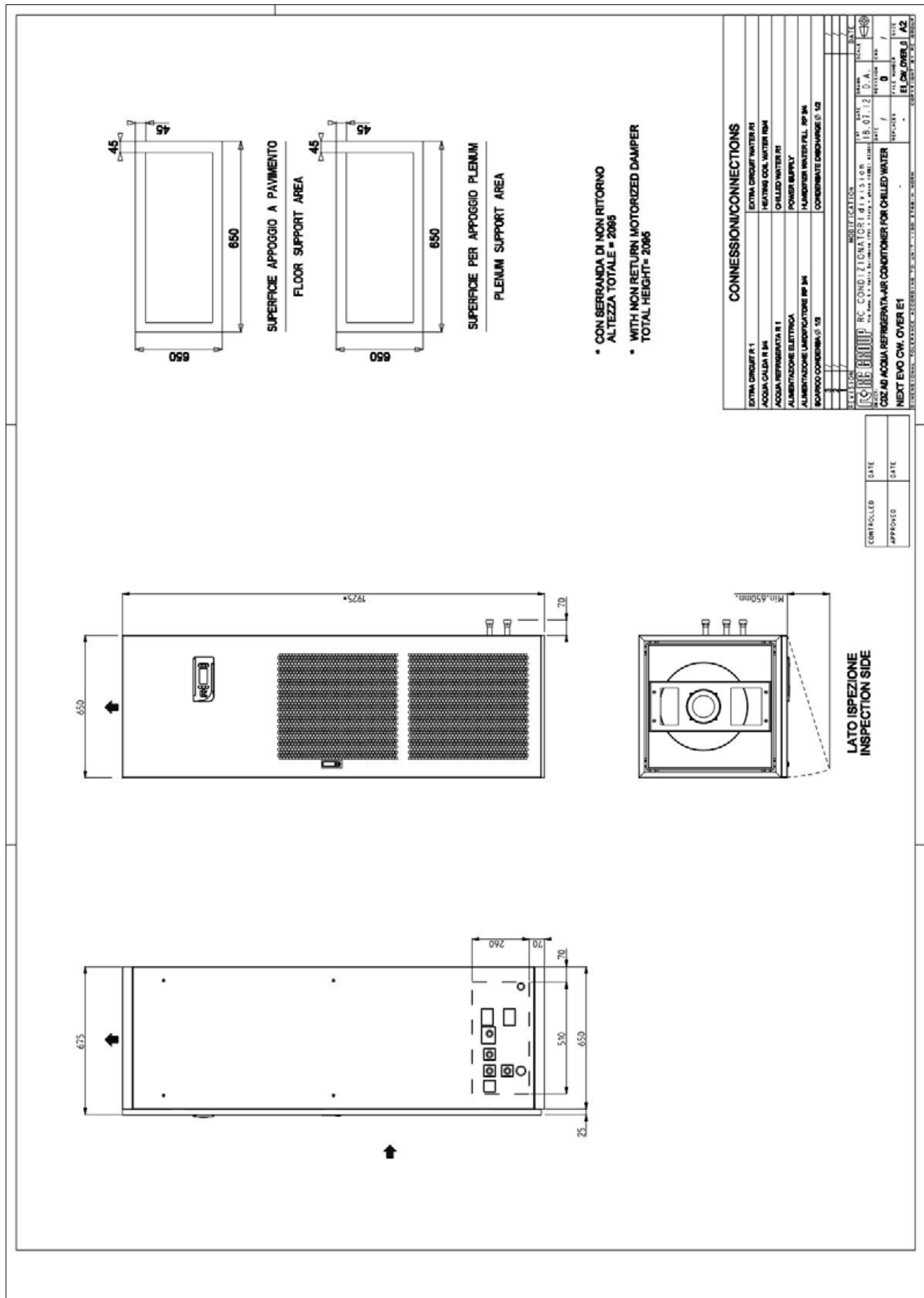
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW OVER E0



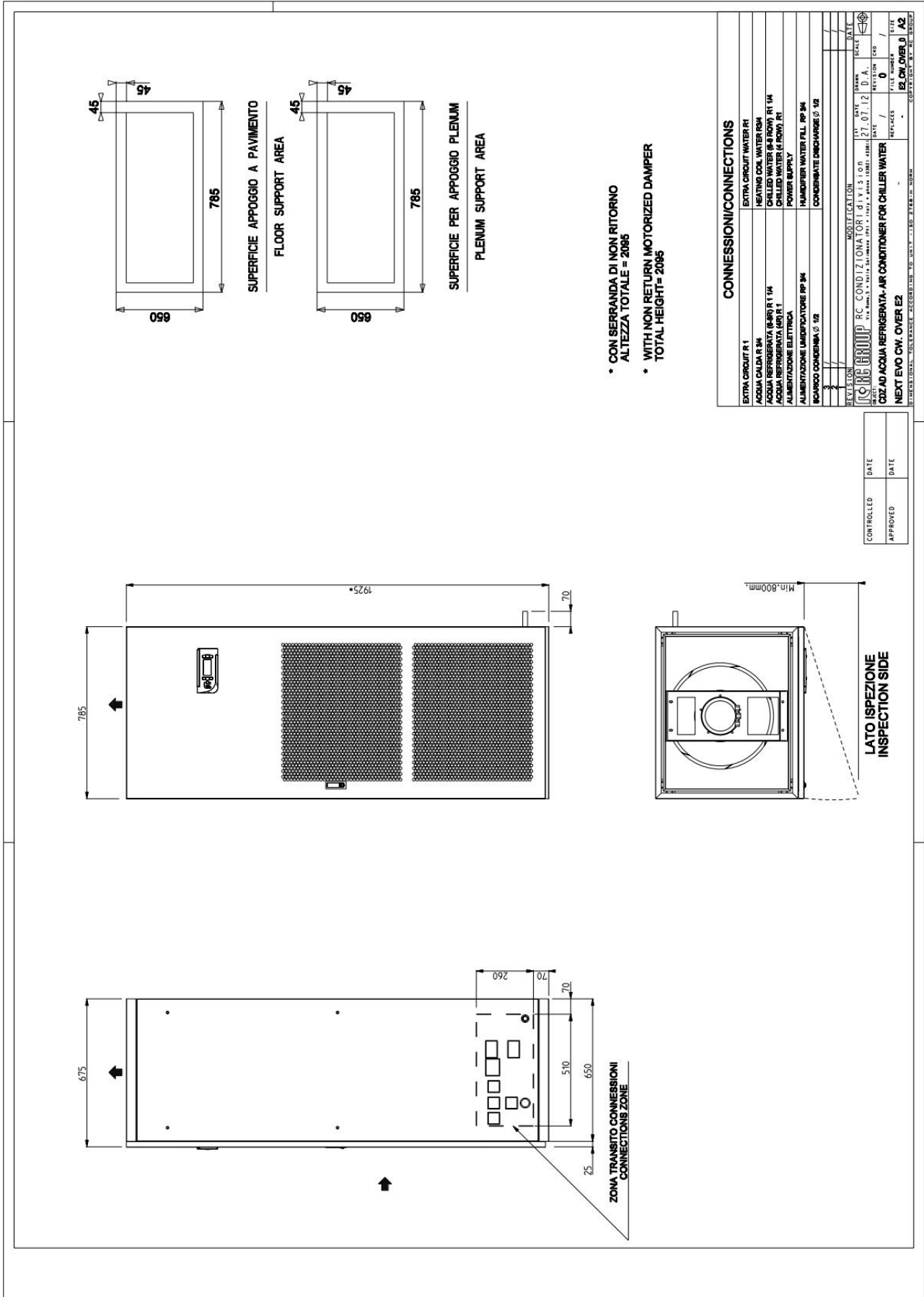
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW OVER E1



MACHINE DRAWINGS
 Dimensions in mm

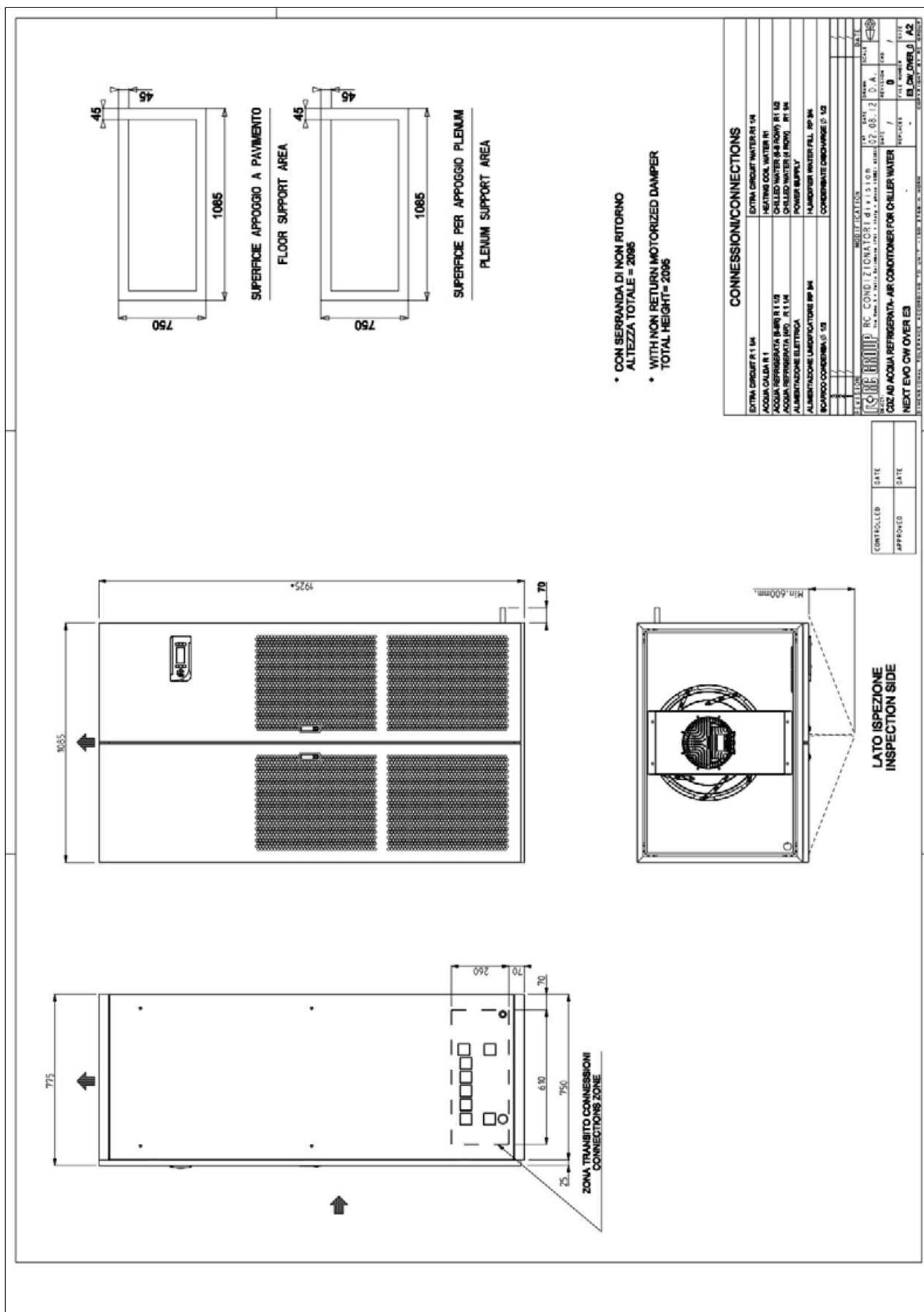
NEXT EVO CW OVER E2



MACHINE DRAWINGS

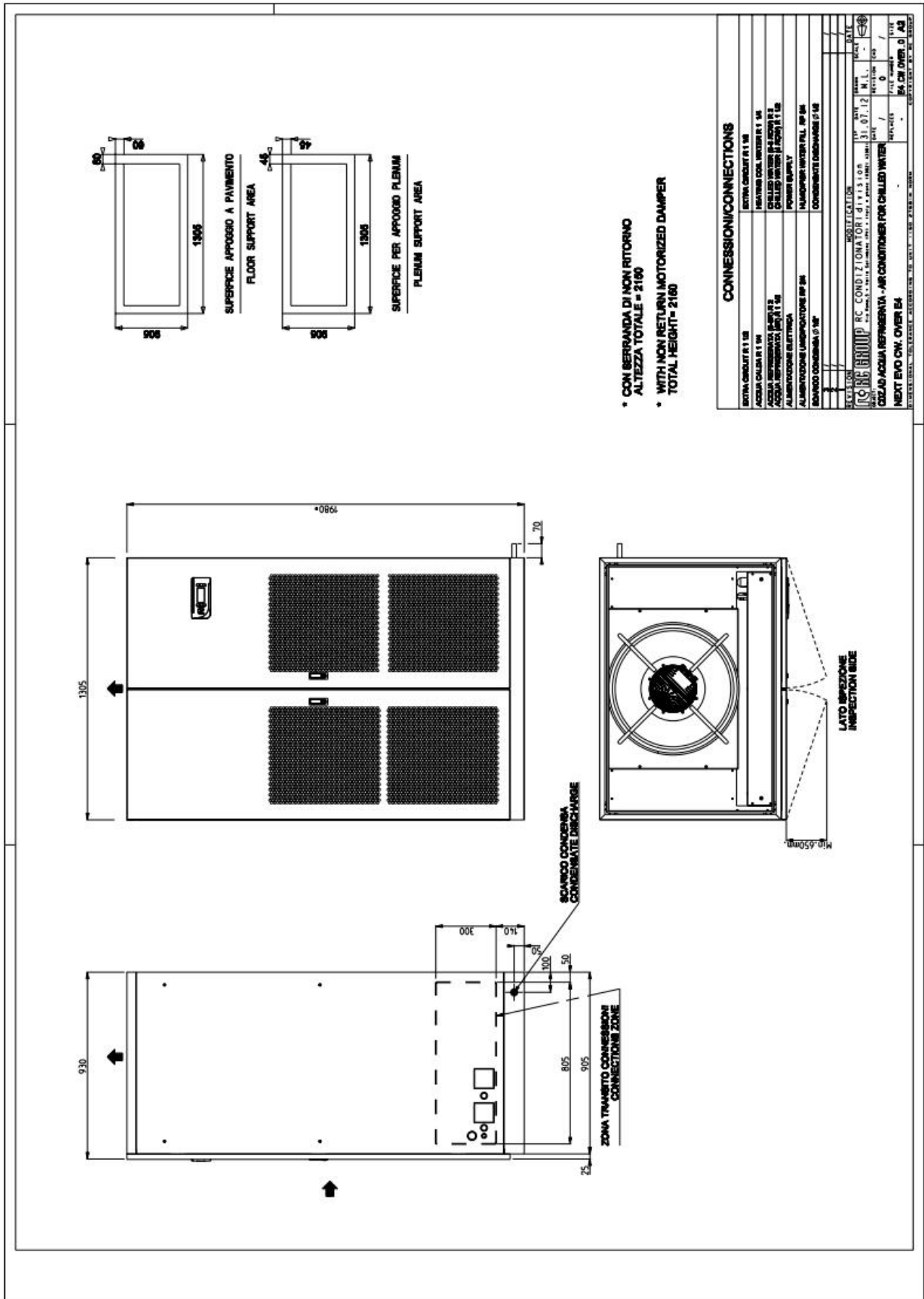
Dimensions in mm

NEXT EVO CW OVER E3



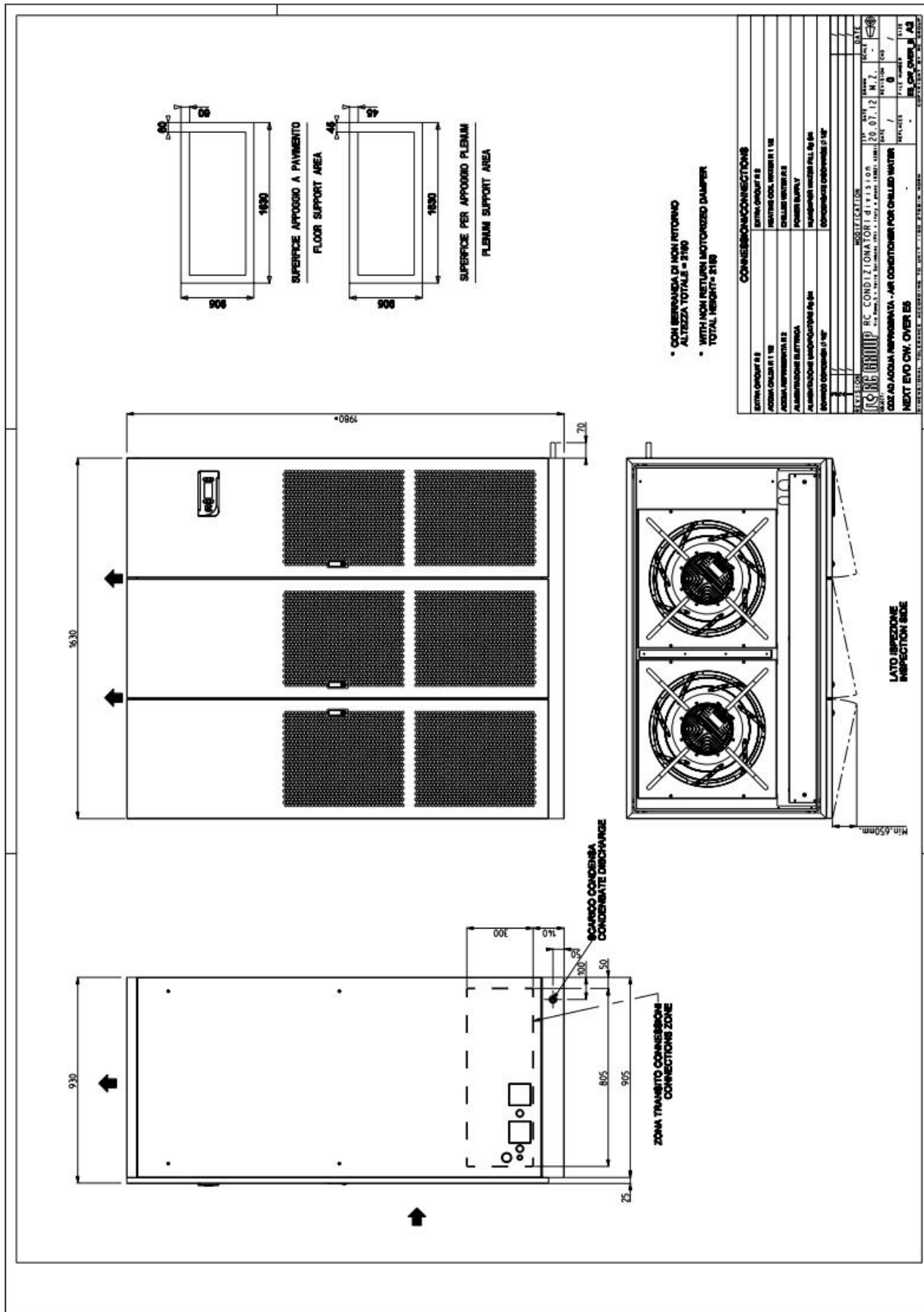
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW OVER E4



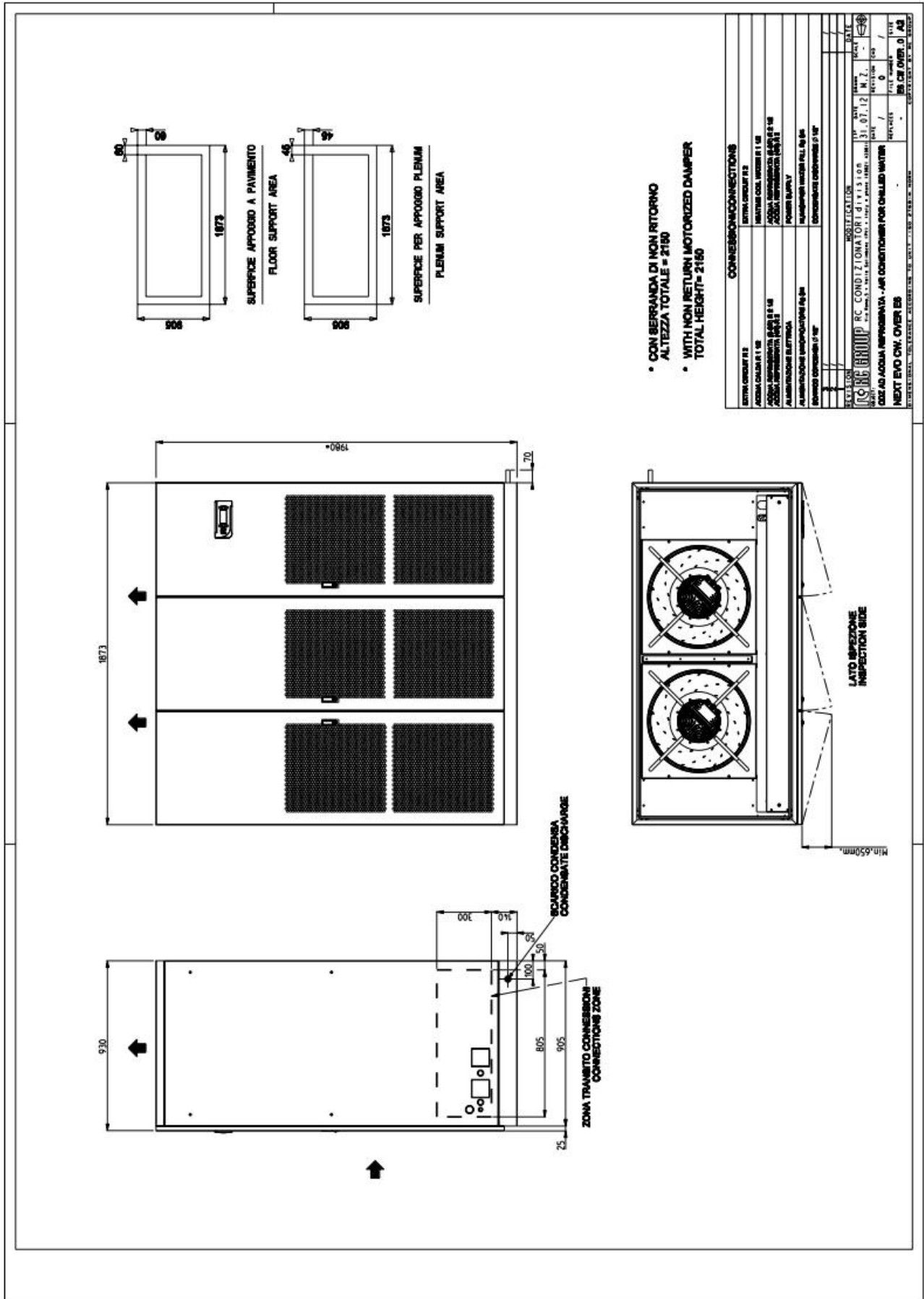
MACHINE DRAWINGS Dimensions in mm

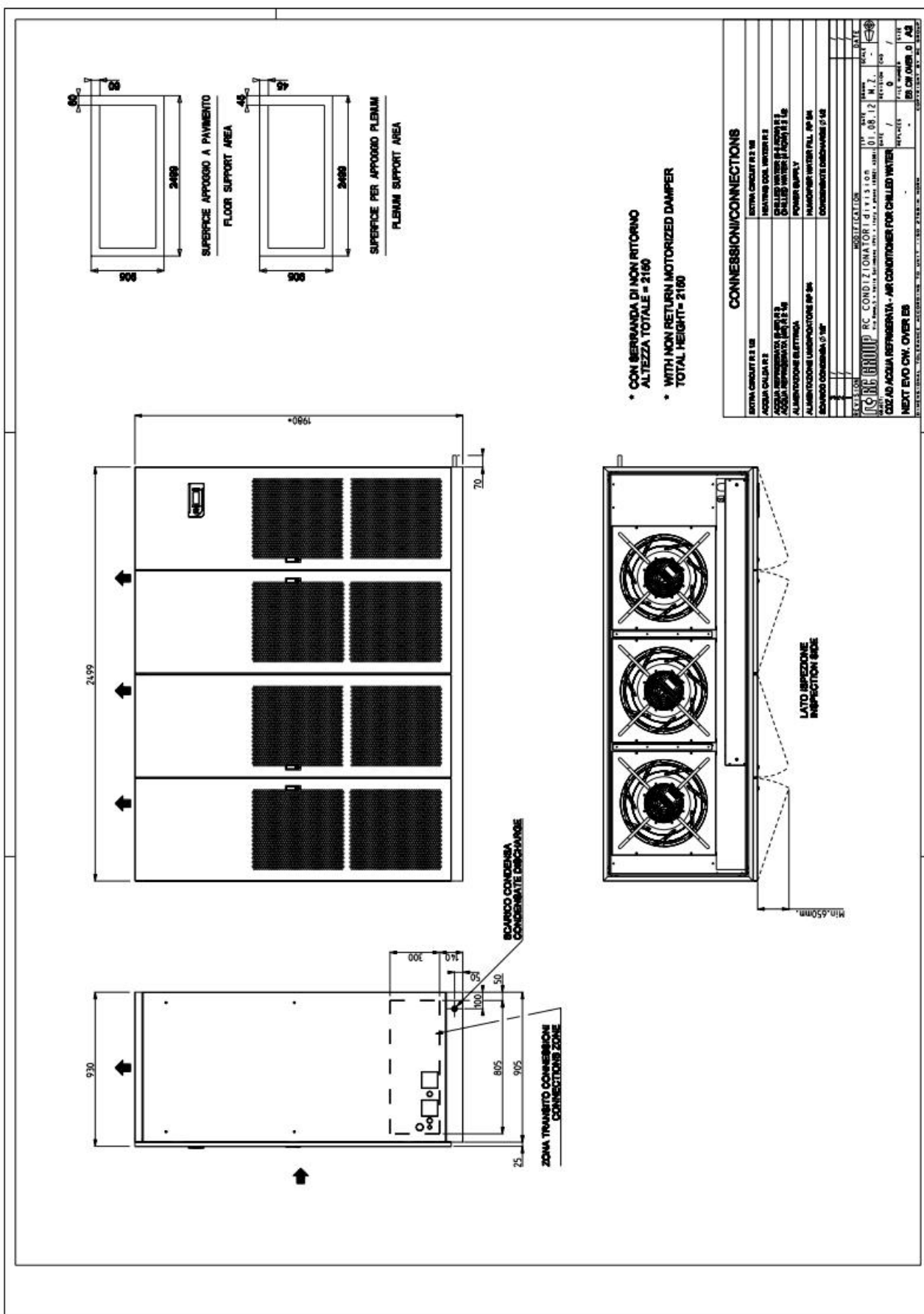
NEXT EVO CW OVER E5



MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW OVER E6





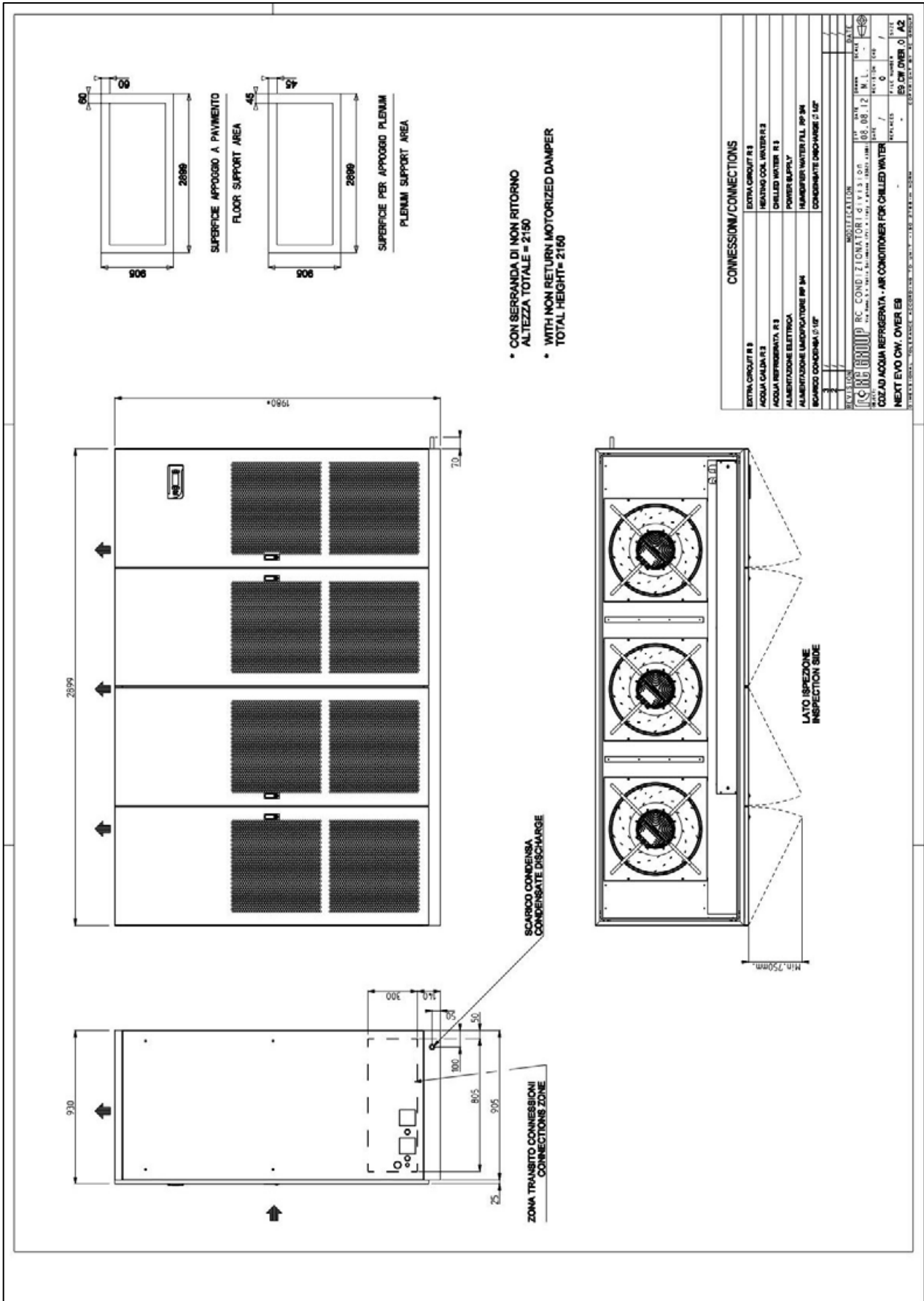
- * CON BERRANDA DI NON RITORNO
- * ALTEZZA TOTALE = 2160
- * WITH NON RETURN MOTORIZED DAMPER
- * TOTAL HEIGHT = 2100

CONNESSIONI/CONNECTIONS			
SETTA CIRCUIT R. 12	SETTA CIRCUIT R. 12		
ACQUA CALDA R. 2	HEATING COOL. WATER R. 2		
ACQUA REFRIGERATA R. 1	CHILLED WATER R. 1		
ACQUA REFRIGERATA R. 2	CHILLED WATER R. 2		
ALIMENTAZIONE ELETTRICA	POWER SUPPLY		
ALIMENTAZIONE UMIDIFICAZIONE R. 2	HUMIDIFIER WATER R. 2		
SCARICO CONDENSATA R. 2	CONDENSATE DRAINAGE R. 2		

SPECIFICATION			
RC GROUP	RC COND. 1.000	01.08.12	
MODEL	RC COND. 1.000	01.08.12	
DATE			
DESIGN			
REVISION			
DATE			
BY			
CHK			
APP			
REV			
REV. 0			
REV. 1			
REV. 2			
REV. 3			
REV. 4			
REV. 5			
REV. 6			
REV. 7			
REV. 8			
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REV. 10			
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REV. 96			
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REV. 98			
REV. 99			
REV. 100			

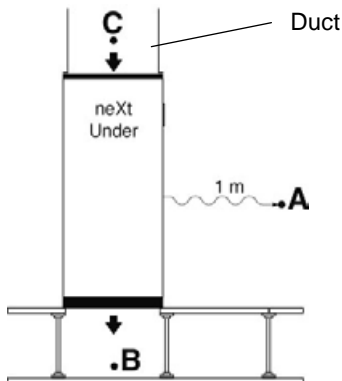
MACHINE DRAWINGS Dimensions in mm

NEXT EVO CW OVER E9



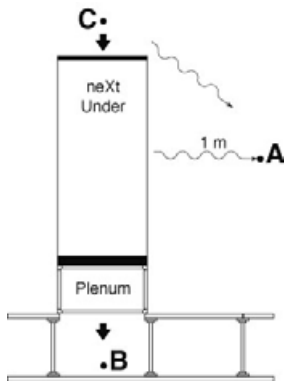
EXAMPLE FOR MACHINES NOISE EMISSION CALCULATION

NEXT UNDER WITH DUCT ON AIR INTAKE



- Lp **A** = Front side Under catalogue value
- Lp **B** = Air delivery Under catalogue value
- Lp **C** = Air intake Under catalogue value
- The points **B** and **C** do not influence the point **A**

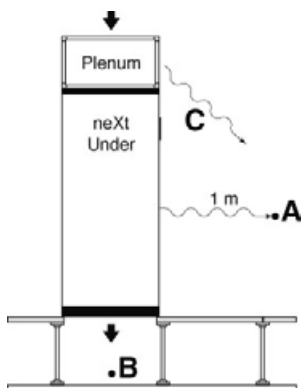
NEXT UNDER WITH PLENUM ON AIR DELIVERY



- Lp **A** = Front side Under catalogue value
- Lp **B** = Air delivery Under catalogue value –plenum noise reduction
- Lp **C** = Air intake Under catalogue value
- Lp **A+C** = $10 \log_{10} \left(10^{\frac{LpA}{10}} + 10^{\frac{LpC}{10}} \right)$

The point **B** do not influence the point **A**

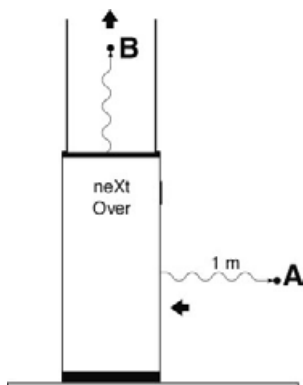
NEXT UNDER WITH PLENUM ON AIR INTAKE



- Lp **A** = Front side Under catalogue value
- Lp **B** = Air delivery Under catalogue value
- Lp **C** = Air intake Under catalogue value – plenum noise reduction
- Lp **A+C** = $10 \log_{10} \left(10^{\frac{LpA}{10}} + 10^{\frac{LpC}{10}} \right)$

The point **B** do not influence the point **A**

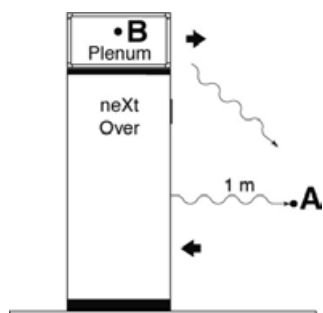
NEXT OVER WITH DUCT



- Lp **A** = Air intake Over catalogue value
- Lp **B** = Air delivery Over catalogue value
- The point **B** do not influence the point **A**

EXAMPLE FOR MACHINES NOISE EMISSION CALCULATION

NEXT OVER WITH PLENUM ON AIR DELIVERY

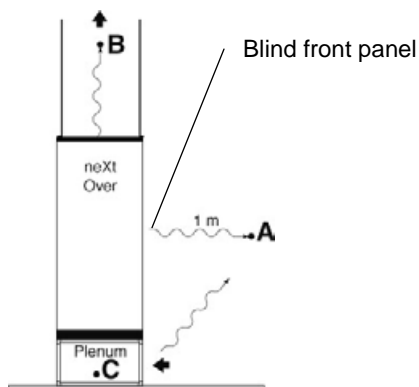


Lp A = Air intake Over catalogue value

Lp B = Air delivery Over catalogue value – plenum noise reduction

$$Lp A+B = 10 \log_{10} \left(10^{\frac{LpA}{10}} + 10^{\frac{LpC}{10}} \right)$$

NEXT OVER WITH DUCT AND PLENUM ON AIR DELIVERY



Lp A = Radiated Over catalogue value

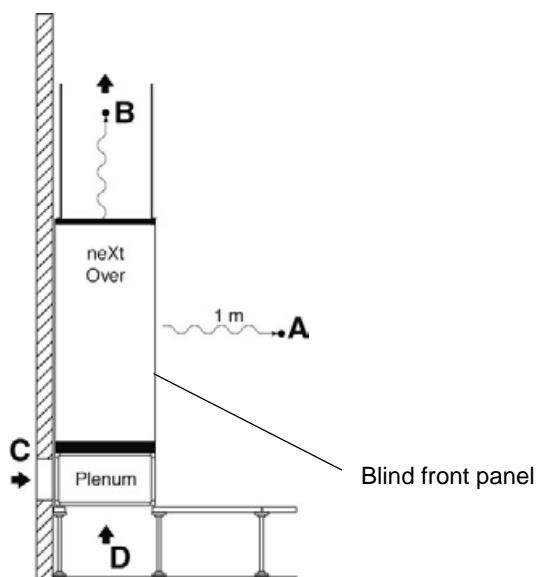
Lp B = Air delivery Over catalogue value

Lp C = Lp A + 6dB(A) – plenum noise reduction

$$Lp A+C = 10 \log_{10} \left(10^{\frac{LpA}{10}} + 10^{\frac{LpC}{10}} \right)$$

The point B do not influence the point A+C

NEXT OVER WITH DUCT AND PLENUM ON AIR DELIVERY



Lp A = Radiated Over catalogue value

Lp B = Air delivery Over catalogue value

Lp C = Lp D = Lp A + 6 dB(A) – plenum noise reduction

The points B, C and D do not influence the point A

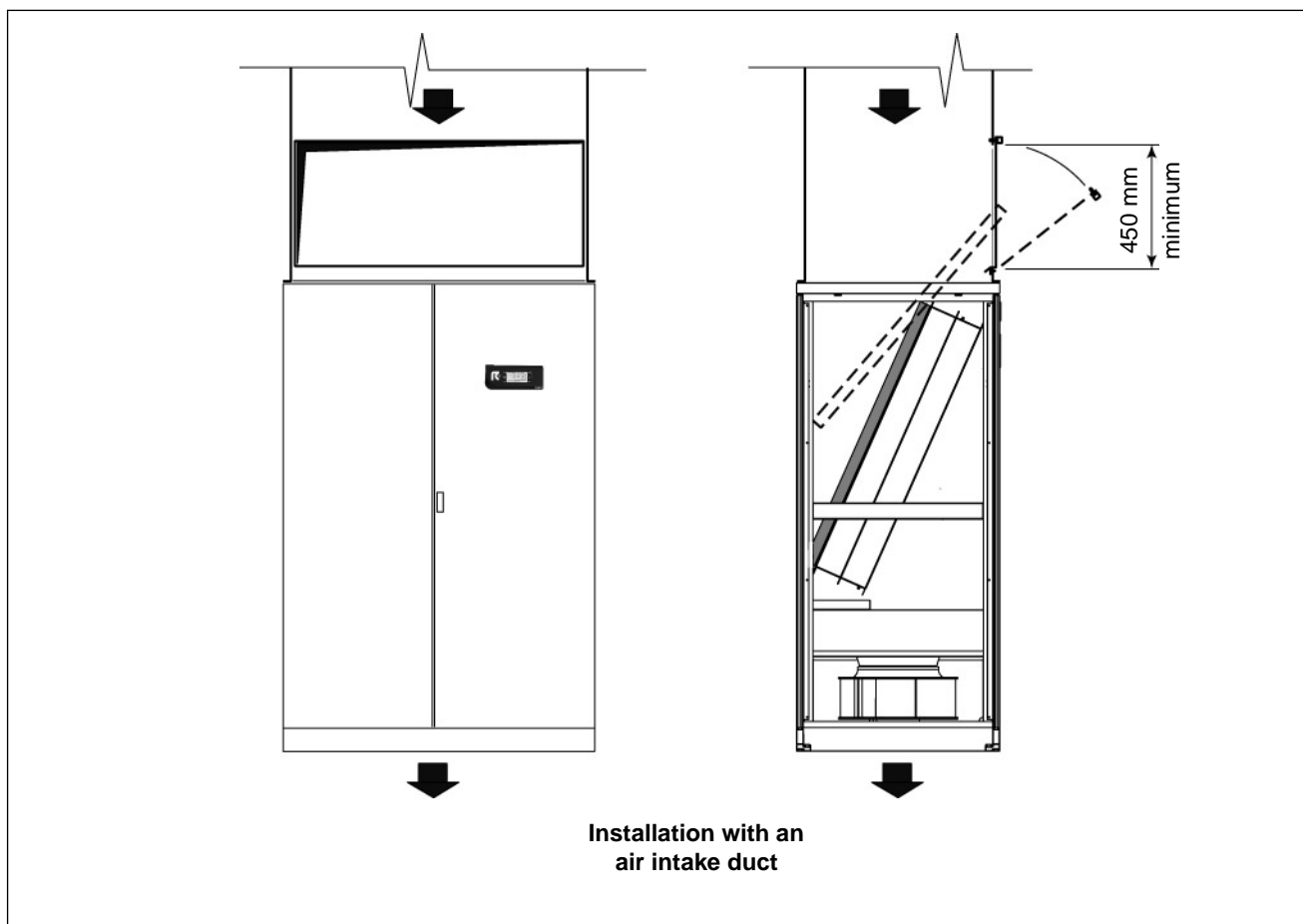
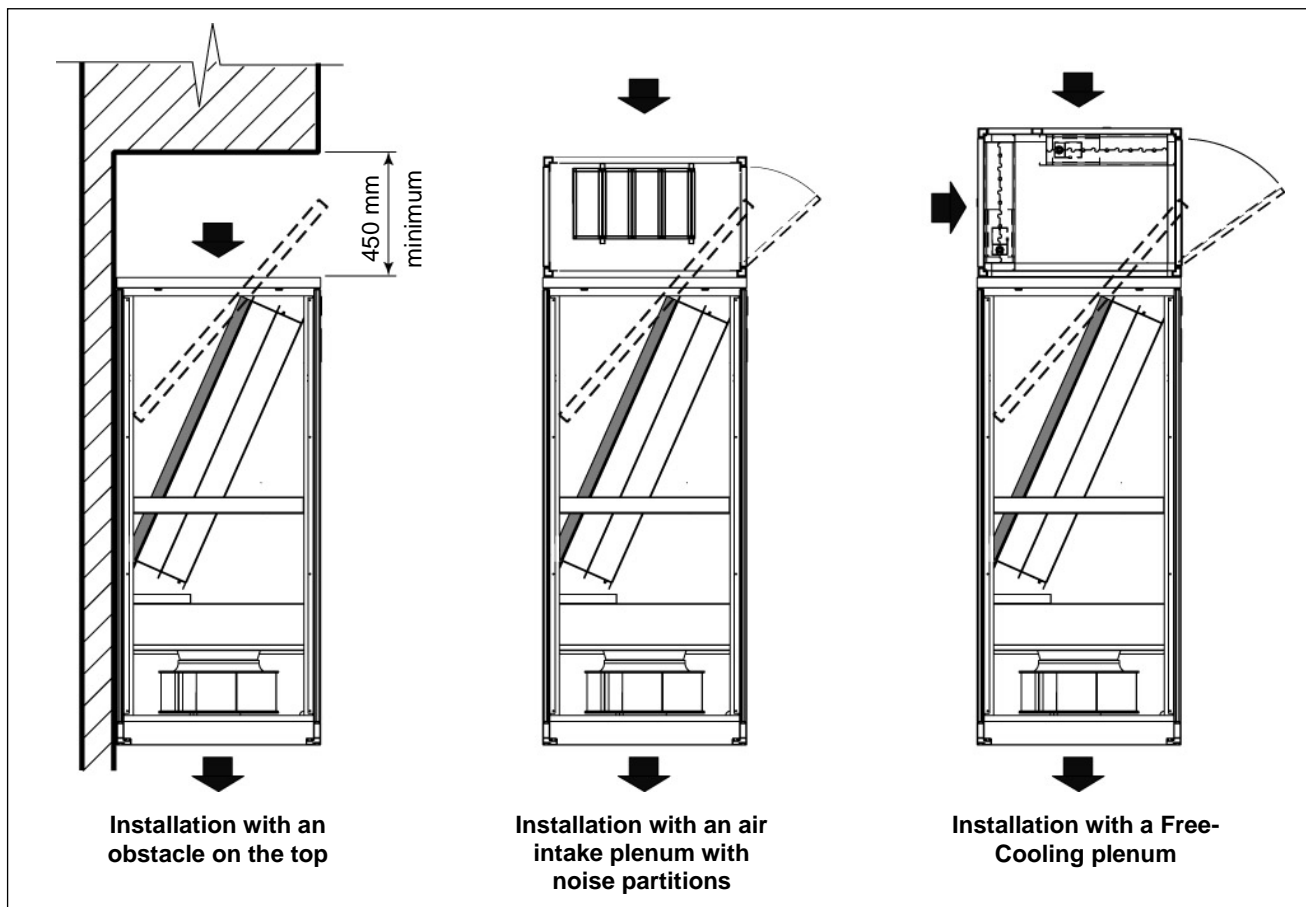
IMPORTANT

The declared noise levels are intended in free field conditions.

The noise pressure level of an installed unit is affected by the room acoustic characteristics.

Please consider an average noise increase of +4/+6 dB(A).

AIR FILTERS REPLACEMENT FOR UNDER VERSION MACHINES



The continuous improvement of products may imply changes in the data shown in this catalogue.



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