

team mate

12,1 ÷ 307 kW

Air cooled condensers equipped with axial fans



technical catalogue

T_TMT_0713_GB



rcgroupairconditioning

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GENERAL CHARACTERISTICS

TEAM MATE: Remote air cooled condensers equipped with axial fans.

TEAM MATE HP: Remote air/gas exhaustion heat exchangers series with horizontal air flow, from coil to fan.

The machines are made with weather resistant materials and suitable for outdoor installation.

Design, assembly and test as per the Company Quality Assurance program in full compliance with ISO 9001:2008. RC Group has been the first Italian company in its segment to get the Company Quality Assurance in October 13th, 1991 with certificate ICIM 0018.

Environmental Management System Certification according to ISO 14001:2004.

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

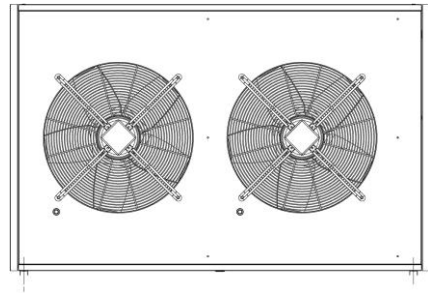
SERIES IDENTIFICATION

TEAM MATE remote air cooled condensers equipped with axial fans.

Nominal capacity: 12,1 ÷ 307,0 kW

The TEAM MATE series is available in 3 versions:

- TEAM MATE STD - No air flow and sound level reduction
- TEAM MATE LNO – Air flow reduction at 85% with consequent sound level reduction.
- TEAM MATE ELN – Air flow reduction at 70% with further sound level reduction.



TEAM MATE HP remote air/gas exhaustion heat exchanger series with horizontal air flow, from coil to fan.

Nominal capacity: 12,1 ÷ 307,0kW

The TEAM MATE series is available in 3 versions:

- TEAM MATE HP STD - No air flow and sound level reduction
- TEAM MATE HP LNO – Air flow reduction at 85% with consequent sound level reduction.
- TEAM MATE HP ELN – Air flow reduction at 70% with further sound level reduction.

MODEL IDENTIFICATION

TEAM MATE HP STD M 14

TEAM MATE Series identification

HP Machine type
HP for heat pump version only

STD Sound level
STD Standard
LNO Low noise
ELN Extremely low noise

M Power supply
M 230/1/50
T 400/3/50 + N

14 Nominal capacity (kW)

MAIN COMPONENTS

FRAMEWORK

- Base, self supporting frame and panelling in steel plate with protective surfaces treatment in compliance with UNI ISO 9227/ASTMB117 and ISO 7253, and painted with epoxy powders.
- Colour: RAL 9002

FANS SECTION – TEAM MATE

- Axial fans with sickle-shaped blades, fan guard and optimized for low noise levels.
- External rotor electric motor with stepless variable speed for condensing pressure control.
The motor rotation control is obtained according to the 0÷10V proportional signal coming from the internal unit microprocessor control.
- IP54 enclosure class.

AIR/GAS HEAT EXCHANGERS

- 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 combination of two factors, special tubes and fins, allow to optimally combine the following aspects:
 - Maximum capacity relative to the size of the exchanger.
 - Minimum charge of refrigerant.
 - Reduction of the air flow required for the heat exchange.
- Frame in galvanized steel.

REFRIGERANT CIRCUIT – TEAM MATE

- Valves on gas and liquid line for coupling to refrigerant pipe. The valves are supplied not installed. The condenser is supplied with nitrogen seal.

REFRIGERANT CIRCUIT – TEAM MATE HP

- Valves on gas and liquid line for coupling to refrigerant pipe. The valves are supplied not installed. The condenser is supplied with nitrogen seal.
- Thermostatic expansion valve.
- Liquid and moisture indicator.
- Dryer and anti-acid gas filter.
- Solenoid valve
- Non return valve

ELECTRICAL PANEL

In accordance with EN60204-1 norms, suitable for outdoor installation, IP54 enclosure class, complete with:

- Terminals for power supply (from network).
 - 400/3/50+N for models "T"
 - 230/1/50 for models "M".
- Terminals for 0÷10V signal for condensing control system (connect to indoor machine).
- Terminals for alarm signal (connect to indoor machine).
- Fans speed regulator for condensing control (only for TEAM MATE with axial fans).

OPTIONAL ACCESSORY

- Support legs for vertical air flow (not available for TEAM MATE HP).

TECHNICAL DATA – TEAM MATE

MODEL		M 11	M 14	M 17	M 20	M 25	M 30	M 35
TEAM MATE STD								
CAPACITY (1)								
With R410A refrigerant charge	kW	12,1	14,7	18,4	20,7	24,2	32,7	37,4
With R407C refrigerant charge	kW	12,0	14,7	18,2	20,4	24,2	32,3	37,1
With R134a refrigerant charge	kW	11,7	14,4	17,9	20,0	23,7	31,7	36,6
AXIAL FANS								
	n.	1	1	1	1	1	1	1
Air flow	m³/h	4900	4500	5200	6400	9600	9500	9100
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,25	0,25	0,25	0,39	0,53	0,53	0,53
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	63,0	63,0	63,0	65,0	67,0	67,0	67,0
TEAM MATE LNO								
CAPACITY (1)								
With R410A refrigerant charge	kW	10,9	13,1	16,4	18,5	21,8	29,1	32,9
With R407C refrigerant charge	kW	10,8	13,1	16,2	18,2	21,8	28,7	32,6
With R134a refrigerant charge	kW	10,6	12,9	15,9	17,9	21,3	28,3	32,3
AXIAL FANS								
	n.	1	1	1	1	1	1	1
Air flow	m³/h	4165	3825	4420	5440	8160	8075	7735
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,21	0,21	0,21	0,33	0,45	0,45	0,45
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	59,1	59,1	59,1	61,1	63,1	63,1	63,1
TEAM MATE ELN								
CAPACITY (1)								
With R410A refrigerant charge	kW	9,6	11,4	14,1	16,1	19,2	25,2	28,2
With R407C refrigerant charge	kW	9,5	11,4	14,0	15,8	19,2	24,9	27,9
With R134a refrigerant charge	kW	9,3	11,2	13,8	15,6	18,8	24,5	27,6
AXIAL FANS								
	n.	1	1	1	1	1	1	1
Air flow	m³/h	3430	3150	3640	4480	6720	6650	6370
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,18	0,18	0,18	0,27	0,37	0,37	0,37
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	54,5	54,5	54,5	56,5	58,5	58,5	58,5
COMMON DATA								
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
REFRIGERANT CHARGE (3)	kg	0,8	1,2	1,7	1,7	2,0	3,0	4,0
DIMENSIONS								
Length	mm	875	875	1200	1200	1400	1400	1400
Width	mm	540	540	540	540	665	665	665
Height	mm	727	727	727	727	1027	1027	1027
NET WEIGHT	kg	51	55	66	72	102	111	120

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
2. Average sound pressure level [L_{Pm}] 1m far according to ISO EN 3744.
3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.

TECHNICAL DATA – TEAM MATE

MODEL		M 45	M 50	M 60	M 70	M 95	M 110	M 130
TEAM MATE STD								
CAPACITY (1)								
With R410A refrigerant charge	kW	47,6	56,1	62,6	74,0	99,4	111,0	133,0
With R407C refrigerant charge	kW	47,1	55,5	62,0	73,3	98,3	110,0	132,0
With R134a refrigerant charge	kW	46,5	54,8	61,2	72,4	97,0	109,0	130,0
AXIAL FANS								
Air flow	m³/h	12000	17000	16000	18000	28200	27200	37800
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,78	1,08	1,08	1,08	1,59	1,59	2,12
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	67,4	69,4	69,4	69,4	70,5	70,5	71,1
TEAM MATE LNO								
CAPACITY (1)								
With R410A refrigerant charge	kW	42,0	50,1	55,3	65,1	88,3	97,7	118,0
With R407C refrigerant charge	kW	41,6	49,6	54,8	64,6	87,4	97,3	117,0
With R134a refrigerant charge	kW	41,1	48,9	54,2	63,8	86,3	96,2	116,0
AXIAL FANS								
Air flow	m³/h	10200	14450	13600	15300	23970	23120	32130
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,66	0,92	0,92	0,92	1,35	1,35	1,80
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	63,6	65,5	65,5	65,5	66,6	66,6	67,2
TEAM MATE ELN								
CAPACITY (1)								
With R410A refrigerant charge	kW	36,1	43,5	47,6	55,8	76,4	83,7	102,0
With R407C refrigerant charge	kW	35,7	43,1	47,2	55,3	75,7	83,3	101,0
With R134a refrigerant charge	kW	35,3	42,6	46,7	54,7	74,8	82,5	100,0
AXIAL FANS								
Air flow	m³/h	8400	11900	11200	12600	19740	19040	26460
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,55	0,76	0,76	0,76	1,11	1,11	1,48
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	58,9	60,8	60,8	60,8	61,9	61,9	62,5
COMMON DATA								
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
REFRIGERANT CHARGE (3)	kg	4,7	4,1	5,5	7,7	8,7	11,6	11,6
DIMENSIONS								
Length	mm	1600	1850	1850	2320	3490	3490	4540
Width	mm	665	665	665	665	665	665	665
Height	mm	1027	1027	1027	1140	1150	1150	1150
NET WEIGHT	kg	153	175	188	214	240	270	320

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
2. Average sound pressure level [L_{Pm}] 1m far according to ISO EN 3744.
3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.

TECHNICAL DATA – TEAM MATE

MODEL		M 140	T 185	T 210	T 250	T 280
TEAM MATE STD						
CAPACITY (1)						
With R410A refrigerant charge	kW	151,0	201,0	232,0	276,0	307,0
With R407C refrigerant charge	kW	150,0	198,0	231,0	273,0	304,0
With R134a refrigerant charge	kW	149,0	195,0	228,0	270,0	301,0
AXIAL FANS	n.	4	6	6	8	8
Air flow	m³/h	36000	56000	54000	74600	72000
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	2,12	3,18	3,18	4,24	4,24
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	71,1	71,5	71,5	72,2	72,2
TEAM MATE LNO						
CAPACITY (1)						
With R410A refrigerant charge	kW	133,0	179,0	205,0	245,0	270,0
With R407C refrigerant charge	kW	132,0	176,0	203,0	243,0	268,0
With R134a refrigerant charge	kW	131,0	174,0	201,0	240,0	265,0
AXIAL FANS	n.	4	6	6	8	8
Air flow	m³/h	30600	47600	45900	63410	61200
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	1,80	2,70	2,70	3,60	3,60
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	67,2	67,7	67,7	68,3	68,3
TEAM MATE ELN						
CAPACITY (1)						
With R410A refrigerant charge	kW	114,0	155,0	175,0	212,0	231,0
With R407C refrigerant charge	kW	113,0	153,0	173,0	210,0	229,0
With R134a refrigerant charge	kW	112,0	151,0	172,0	208,0	227,0
AXIAL FANS	n.	4	6	6	8	8
Air flow	m³/h	25200	39200	37800	52220	50400
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	1,48	1,48	2,23	2,23	2,97
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	62,5	63,0	63,0	63,7	63,7
COMMON DATA						
POWER SUPPLY	V/ph/Hz	230/1/50	400/3/50+N(*)	400/3/50+N(*)	400/3/50+N(*)	400/3/50+N(*)
REFRIGERANT CHARGE (3)	kg	15,4	20,8	27,7	27,7	37,0
DIMENSIONS						
Length	mm	4540	3490	3490	4540	4540
Width	mm	665	665	665	665	665
Height	mm	1150	2200	2200	2200	2200
NET WEIGHT	kg	350	470	520	630	690

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
 2. Average sound pressure level [L_{Pm}] 1m far according to ISO EN 3744.
 3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.
- (*) Available also with 230/1/50 power supply. Refer to the wiring diagram of the unit.

TECHNICAL DATA – TEAM MATE HP

MODEL		M 11	M 14	M 17	M 20	M 25	M 30	M 35
TEAM MATE HP STD								
CAPACITY (1)								
With R410A refrigerant charge	kW	12,1	14,9	18,4	20,7	24,7	32,7	37,4
With R407C refrigerant charge	kW	12,0	14,7	18,2	20,4	24,2	32,3	37,1
AXIAL FANS								
Air flow	m³/h	4900	4500	5200	6400	9600	9500	9100
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,25	0,25	0,25	0,39	0,53	0,53	0,53
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	63,0	63,0	63,0	65,0	67,0	67,0	67,0
TEAM MATE HP LNO								
CAPACITY (1)								
With R410A refrigerant charge	kW	10,8	13,1	16,2	18,2	21,8	28,7	32,6
With R407C refrigerant charge	kW	10,8	13,1	16,2	18,2	21,8	28,7	32,6
AXIAL FANS								
Air flow	m³/h	4165	3825	4420	5440	8160	8075	7735
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,21	0,21	0,21	0,33	0,45	0,45	0,45
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	59,1	59,1	59,1	61,1	63,1	63,1	63,1
TEAM MATE HP ELN								
CAPACITY (1)								
With R410A refrigerant charge	kW	9,6	11,5	14,1	16,1	19,5	25,2	28,2
With R407C refrigerant charge	kW	9,5	11,4	14,0	15,8	19,2	24,9	27,9
AXIAL FANS								
Air flow	m³/h	3430	3150	3640	4480	6720	6650	6370
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,18	0,18	0,18	0,27	0,37	0,37	0,37
Max operating current (FLA)	A	1,2	1,2	1,2	1,8	2,9	2,9	2,9
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	54,5	54,5	54,5	56,5	58,5	58,5	58,5
COMMON DATA								
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
REFRIGERANT CHARGE (3)	kg	0,8	1,2	1,7	1,7	2,0	3,0	4,0
DIMENSIONS								
Length	mm	875	875	1200	1200	1400	1400	1400
Width	mm	540	540	540	540	665	665	665
Height	mm	727	727	727	727	1027	1027	1027
NET WEIGHT	kg	54	58	70	76	107	116	125

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
2. Average sound pressure level [L_{pm}] 1m far according to ISO EN 3744.
3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.

TECHNICAL DATA – TEAM MATE HP

MODEL		M 45	M 50	M 60	M 70	M 95	M 110	M 130
TEAM MATE HP STD								
CAPACITY (1)								
With R410A refrigerant charge	kW	47,6	56,1	62,6	74,0	99,4	111,0	133,0
With R407C refrigerant charge	kW	47,1	55,5	62,0	73,3	98,3	110,0	132,0
AXIAL FANS								
	n.	2	2	2	2	3	3	4
Air flow	m³/h	12000	17000	16000	18000	28200	27200	37800
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,78	1,08	1,08	1,08	1,59	1,59	2,12
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	67,4	69,4	69,4	69,4	70,5	70,5	71,1
TEAM MATE HP LNO								
CAPACITY (1)								
With R410A refrigerant charge	kW	41,6	49,6	54,8	64,6	87,4	96,8	117,0
With R407C refrigerant charge	kW	41,6	49,6	54,8	64,6	87,4	96,8	117,0
AXIAL FANS								
	n.	2	2	2	2	3	3	4
Air flow	m³/h	10200	14450	13600	15300	23970	23120	32130
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,66	0,92	0,92	0,92	1,35	1,35	1,80
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	63,6	65,5	65,5	65,5	66,6	66,6	67,2
TEAM MATE HP ELN								
CAPACITY (1)								
With R410A refrigerant charge	kW	36,1	43,5	47,6	55,8	76,4	83,7	102,0
With R407C refrigerant charge	kW	35,7	43,1	47,2	55,3	75,7	83,0	101,0
AXIAL FANS								
	n.	2	2	2	2	3	3	4
Air flow	m³/h	8400	11900	11200	12600	19740	19040	26460
External static pressure	Pa	0	0	0	0	0	0	0
Operating power input	kW	0,55	0,76	0,76	0,76	1,11	1,11	1,48
Max operating current (FLA)	A	3,6	5,7	5,7	5,7	8,5	8,5	11,4
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	58,9	60,8	60,8	60,8	61,9	61,9	62,5
COMMON DATA								
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
REFRIGERANT CHARGE (3)	kg	4,7	4,1	5,5	7,7	8,7	11,6	11,6
DIMENSIONS								
Length	mm	1600	1850	1850	2320	3490	3490	4540
Width	mm	665	665	665	665	665	665	665
Height	mm	1027	1027	1027	1140	1150	1150	1150
NET WEIGHT	kg	158	181	194	222	250	280	330

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
2. Average sound pressure level [L_{PM}] 1m far according to ISO EN 3744.
3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.

TECHNICAL DATA –TEAM MATE HP

MODEL		M 140	T 185	T 210	T 250	T 280
TEAM MATE HP STD						
CAPACITY (1)						
With R410A refrigerant charge	kW	151,0	201,0	232,0	276,0	307,0
With R407C refrigerant charge	kW	150,0	198,0	231,0	273,0	304,0
AXIAL FANS						
Air flow	m³/h	36000	56000	54000	74600	72000
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	2,12	3,18	3,18	4,24	4,24
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	71,1	71,5	71,5	72,2	72,2
TEAM MATE HP LNO						
CAPACITY (1)						
With R410A refrigerant charge	kW	132,0	176,0	203,0	243,0	268,0
With R407C refrigerant charge	kW	132,0	176,0	203,0	243,0	268,0
AXIAL FANS						
Air flow	m³/h	30600	47600	45900	63410	61200
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	1,80	2,70	2,70	3,60	3,60
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	67,2	67,7	67,7	68,3	68,3
TEAM MATE HP ELN						
CAPACITY (1)						
With R410A refrigerant charge	kW	114,0	155,0	175,0	212,0	231,0
With R407C refrigerant charge	kW	113,0	153,0	173,0	210,0	229,0
AXIAL FANS						
Air flow	m³/h	25200	39200	37800	52220	50400
External static pressure	Pa	0	0	0	0	0
Operating power input	kW	1,48	2,23	2,23	2,97	2,97
Max operating current (FLA)	A	11,4	17,1	17,1	22,8	22,8
AVERAGE SOUND PRESSURE LEVEL (2)	dB(A)	62,5	63,0	63,0	63,7	63,7
COMMON DATA						
POWER SUPPLY	V/ph/Hz	230/1/50	400/3/50+N(*)	400/3/50+N(*)	400/3/50+N(*)	400/3/50+N(*)
REFRIGERANT CHARGE (3)	kg	15,4	20,8	27,7	27,7	37,0
DIMENSIONS						
Length	mm	4540	3490	3490	4540	4540
Width	mm	665	665	665	665	665
Height	mm	1150	2200	2200	2200	2200
NET WEIGHT	kg	360	484	534	644	704

1. Gross value - Referred to condensing temperature at 50°C and outdoor air temperature at 35°C.
 2. Average sound pressure level [L_{Pm}] 1m far according to ISO EN 3744.
 3. The condenser is supplied with nitrogen seal. For the refrigerant charge consider, in addition to the these value, even the refrigerant pipes for the connection to the indoor machine and lubricant oil in 10% ratio of charged refrigerant.
- (*) Available also with 230/1/50 power supply. Refer to the wiring diagram of the unit.

ACOUSTIC DATA – TEAM MATE / TEAM MATE HP

TEAM MATE STD, TEAM MATE HP STD

MODEL		M 11	M 14	M 17	M 20	M 25	M 30	M 35
Sound power level [Lw] (1)	dB(A)	76,8	76,8	77,1	79,1	81,8	81,8	81,8
Average sound pressure level								
at 1m [L _{Pm}] (2)	dB(A)	63,0	63,0	63,0	65,0	67,0	67,0	67,0
at 5m [L _{Pm}] (2)	dB(A)	51,3	51,3	51,5	53,5	56,1	56,1	56,1
at 10m [L _{Pm}] (2)	dB(A)	45,6	45,6	45,9	47,9	50,5	50,5	50,5

MODEL		M 45	M 50	M 60	M 70	M 95	M 110
Sound power level [Lw] (1)	dB(A)	82,4	84,5	84,5	85,0	86,9	86,9
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	67,4	69,4	69,4	69,4	70,5	70,5
at 5m [L _{Pm}] (2)	dB(A)	56,6	58,7	58,7	59,0	60,6	60,6
at 10m [L _{Pm}] (2)	dB(A)	51,1	53,2	53,2	53,6	55,3	55,3

MODEL		M 130	M 140	T 185	T 210	T 250	T 280
Sound power level [Lw] (1)	dB(A)	88,1	88,1	88,8	88,8	90,1	90,1
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	71,1	71,1	71,5	71,5	72,2	72,2
at 5m [L _{Pm}] (2)	dB(A)	61,6	61,6	62,3	62,3	63,3	63,3
at 10m [L _{Pm}] (2)	dB(A)	56,4	56,4	57,1	57,1	58,2	58,2

TEAM MATE LNO, TEAM MATE HP LNO

MODEL		M 11	M 14	M 17	M 20	M 25	M 30	M 35
Sound power level [Lw] (1)	dB(A)	72,9	72,9	73,2	75,2	77,9	77,9	77,9
Average sound pressure level								
at 1m [L _{Pm}] (2)	dB(A)	59,1	59,1	59,1	61,1	63,1	63,1	63,1
at 5m [L _{Pm}] (2)	dB(A)	47,4	47,4	47,7	49,7	52,2	52,2	52,2
at 10m [L _{Pm}] (2)	dB(A)	41,7	41,7	42	44	46,6	46,6	46,6

MODEL		M 45	M 50	M 60	M 70	M 95	M 110
Sound power level [Lw] (1)	dB(A)	78,5	80,7	80,7	81,1	83,0	83,0
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	63,6	65,5	65,5	65,5	66,6	66,6
at 5m [L _{Pm}] (2)	dB(A)	52,7	54,8	54,8	55,1	56,7	56,7
at 10m [L _{Pm}] (2)	dB(A)	47,2	49,3	49,3	49,7	51,4	51,4

MODEL		M 130	M 140	T 185	T 210	T 250	T 280
Sound power level [Lw] (1)	dB(A)	84,2	84,2	84,9	84,9	86,2	86,2
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	67,2	67,2	67,7	67,7	68,3	68,3
at 5m [L _{Pm}] (2)	dB(A)	57,7	57,7	58,4	58,4	59,4	59,4
at 10m [L _{Pm}] (2)	dB(A)	52,5	52,5	53,2	53,2	54,3	54,3

TEAM MATE ELN, TEAM MATE HP ELN

MODEL		M 11	M 14	M 17	M 20	M 25	M 30	M 35
Sound power level [Lw] (1)	dB(A)	68,2	68,2	68,6	70,6	73,3	73,3	73,3
Average sound pressure level								
at 1m [L _{Pm}] (2)	dB(A)	54,5	54,5	54,5	56,5	58,5	58,5	58,5
at 5m [L _{Pm}] (2)	dB(A)	42,8	42,8	43,0	45,0	47,5	47,5	47,5
at 10m [L _{Pm}] (2)	dB(A)	37,1	37,1	37,4	39,4	42,0	42,0	42,0

MODEL		M 45	M 50	M 60	M 70	M 95	M 110
Sound power level [Lw] (1)	dB(A)	73,9	76,0	76,0	76,5	78,4	78,4
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	58,9	60,8	60,8	60,8	61,9	61,9
at 5m [L _{Pm}] (2)	dB(A)	48,1	50,2	50,2	50,5	52,1	52,1
at 10m [L _{Pm}] (2)	dB(A)	42,6	44,7	44,7	45,1	46,8	46,8

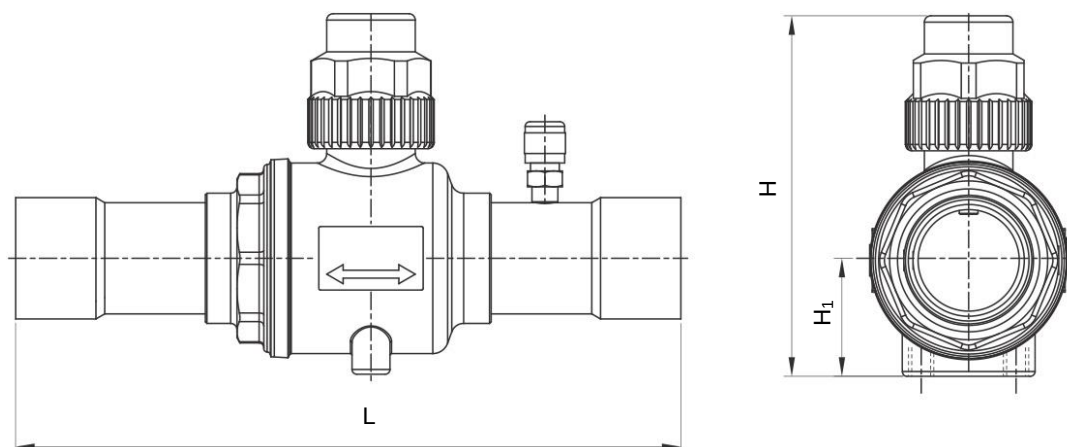
MODEL		M 130	M 140	T 185	T 210	T 250	T 280
Sound power level [Lw] (1)	dB(A)	79,6	79,6	80,3	80,3	81,5	81,5
Average sound pressure level							
at 1m [L _{Pm}] (2)	dB(A)	62,5	62,5	63,0	63,0	63,7	63,7
at 5m [L _{Pm}] (2)	dB(A)	53,1	53,1	53,7	53,7	54,8	54,8
at 10m [L _{Pm}] (2)	dB(A)	47,9	47,9	48,5	48,5	49,7	49,7

1. Sound power level [Lw] according to ISO EN 9614 - 2.
2. Average sound pressure level [L_{Pm}] according to ISO EN 3744

IMPORTANT

For further information about units acoustic data, please refer to “The Noise” bulletin of RC GROUP technical literature.

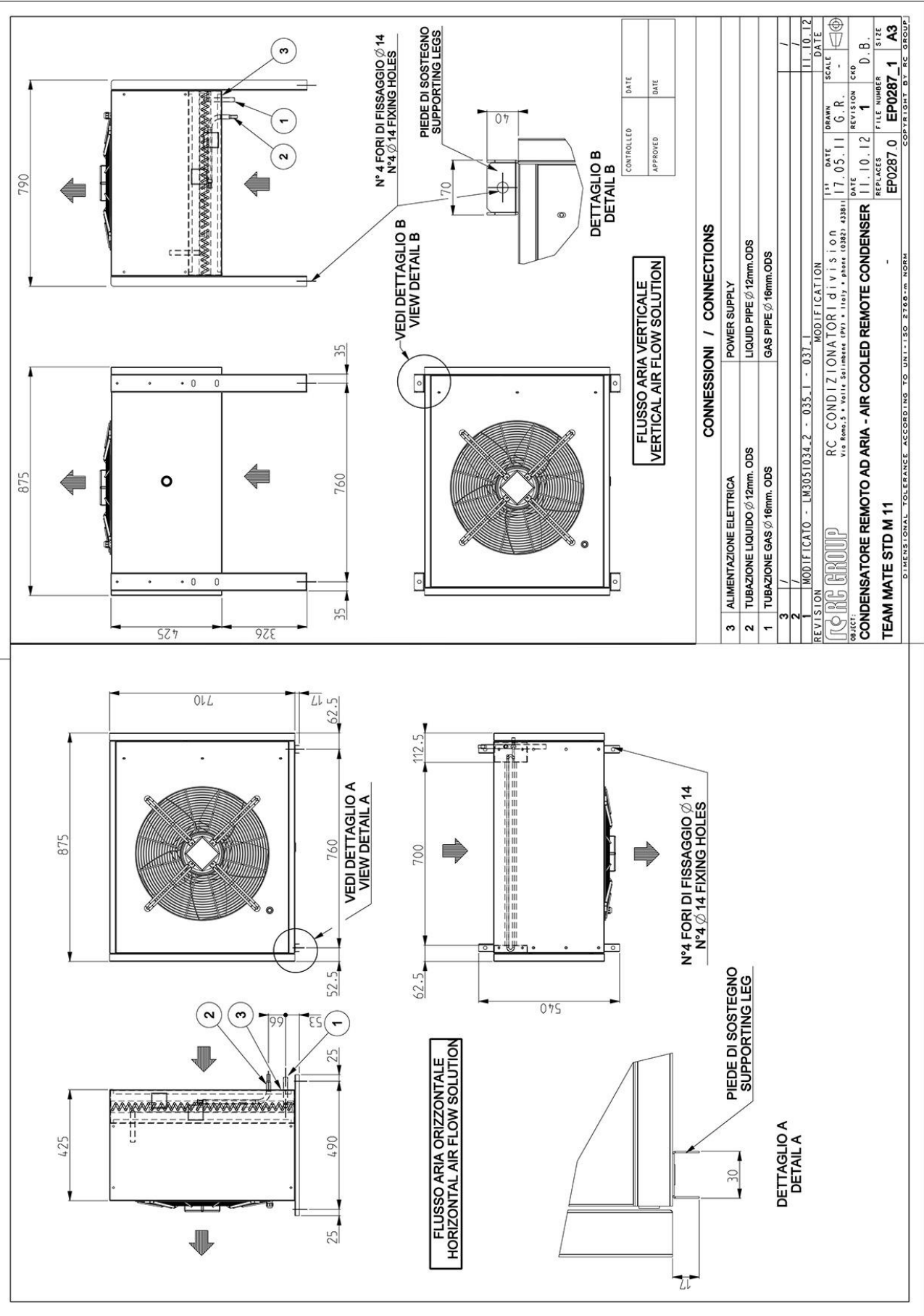
BALL VALVES - supplied in kit



Catalogue Number		Connections		Kv Factor [m³/h]	PS [bar]	Dimensions [mm]			Weight [g]
Without access fitting	With access fitting	ODS				H	H ₁	L	
		Ø [in.]	Ø [mm]						
6590/M6	–	–	6	0,8	45	73	20	121	260
6590/2		1/4"	–						
6590/3	6590/3A	3/8"	–	3					
6590/M10	6590/M10A	–	10						5
6590/M12	6590/M12A	–	12	138					
6590/4	6590/4A	1/2"	–						
6591/5	–	5/8"	16	14,5				80	24
6590/M15	6590/M15A	–	15			177	450		
6590/5	6590/5A	5/8"	16						
6590/M18	6590/M18A	–	18						
6590/6	6590/6A	3/4"	–			175	760		
6591/7	–	7/8"	22						
6590/7	6590/7A	7/8"	22			24	95,5	27,5	175
6591/M28	–	–	28	-					
6591/9		1.1/8"	–						
6590/M28	6590/M28A	–	28	40		101,5	30	206	1050
6590/9	6590/9A	1.1/8"	–						
6591/11	–	1.3/8"	35					68	117
6590/11	6590/11A	1.3/8"	35						
6591/13	–	1.5/8"	–						
6591/M42	–	–	42	100		127	44	239	2470
6590/13	6590/13A	1.5/8"	–						
6590/M42	6590/M42A	–	42					178	148
6591/17	–	2.1/8"	54						
6590/17	6590/17A	2.1/8"	54	178		148	54	275	4400
6591/M64	6591/M64A	–	64						
6591/21	6591/21A	2.5/8"	–						
-	6590/M64A	–	64	293	172,5	62	330	8120	
	6590/21A	2.5/8"	–					8090	
	6591/24A	3"					350	8310	
	6591/25A	3.1/8"						8350	
	6590/25A	3.1/8"	80	430	196,5	75	380	12400	
	6591/28A	3.1/2"	89					12450	
	6591/29A	3.5/8"	–				400	12500	
	6591/33A	4.1/8"	105						

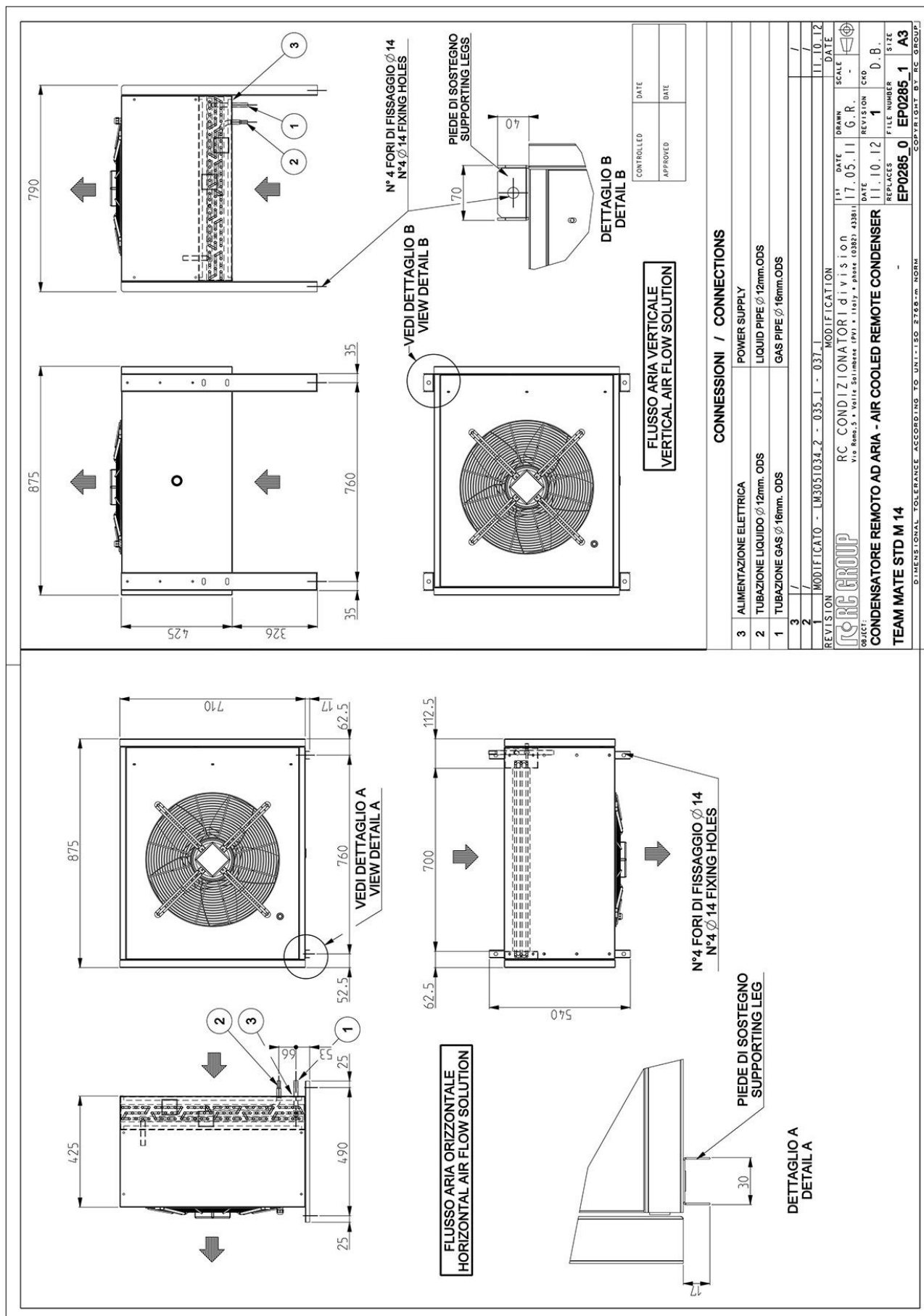
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 11



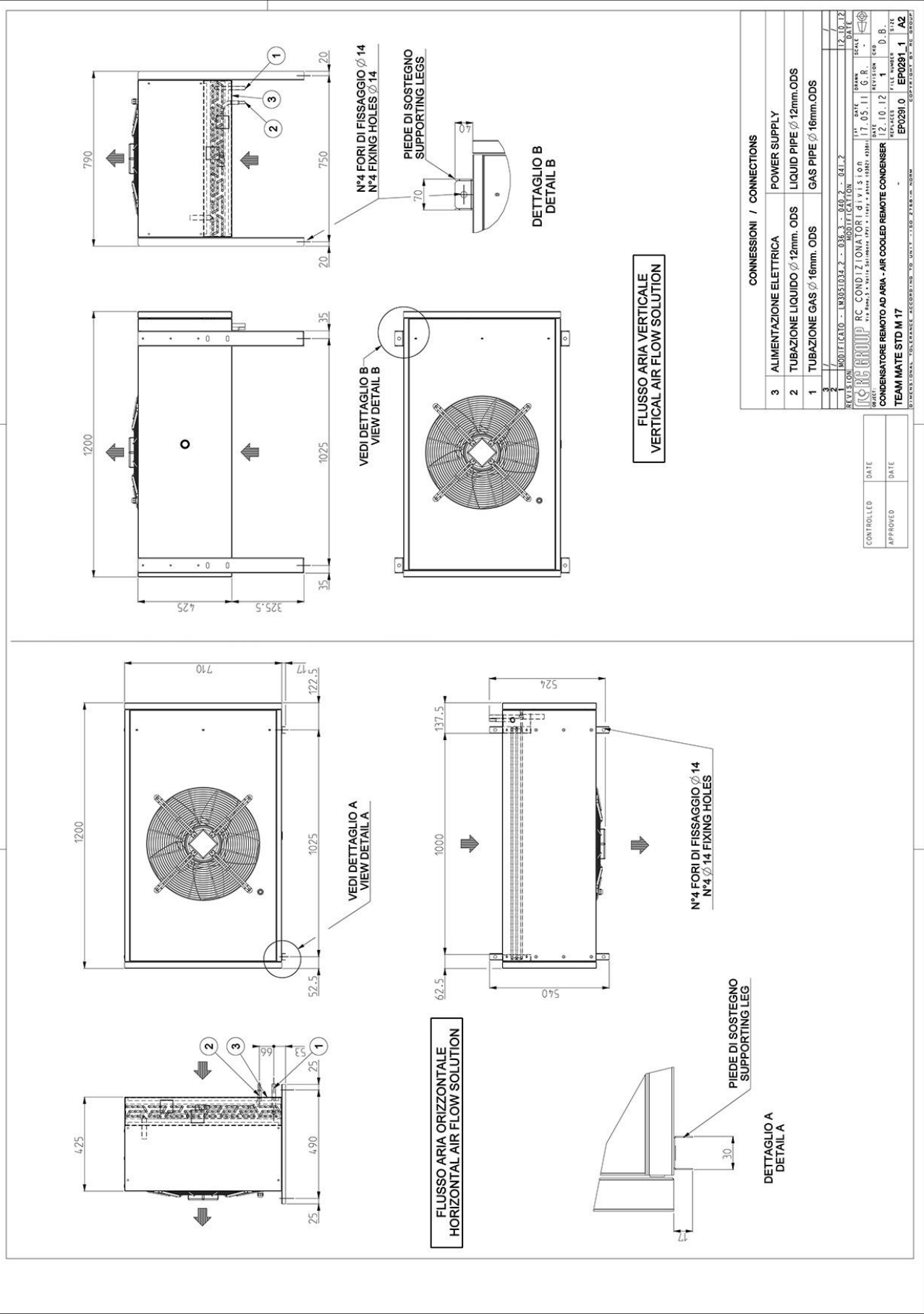
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 14

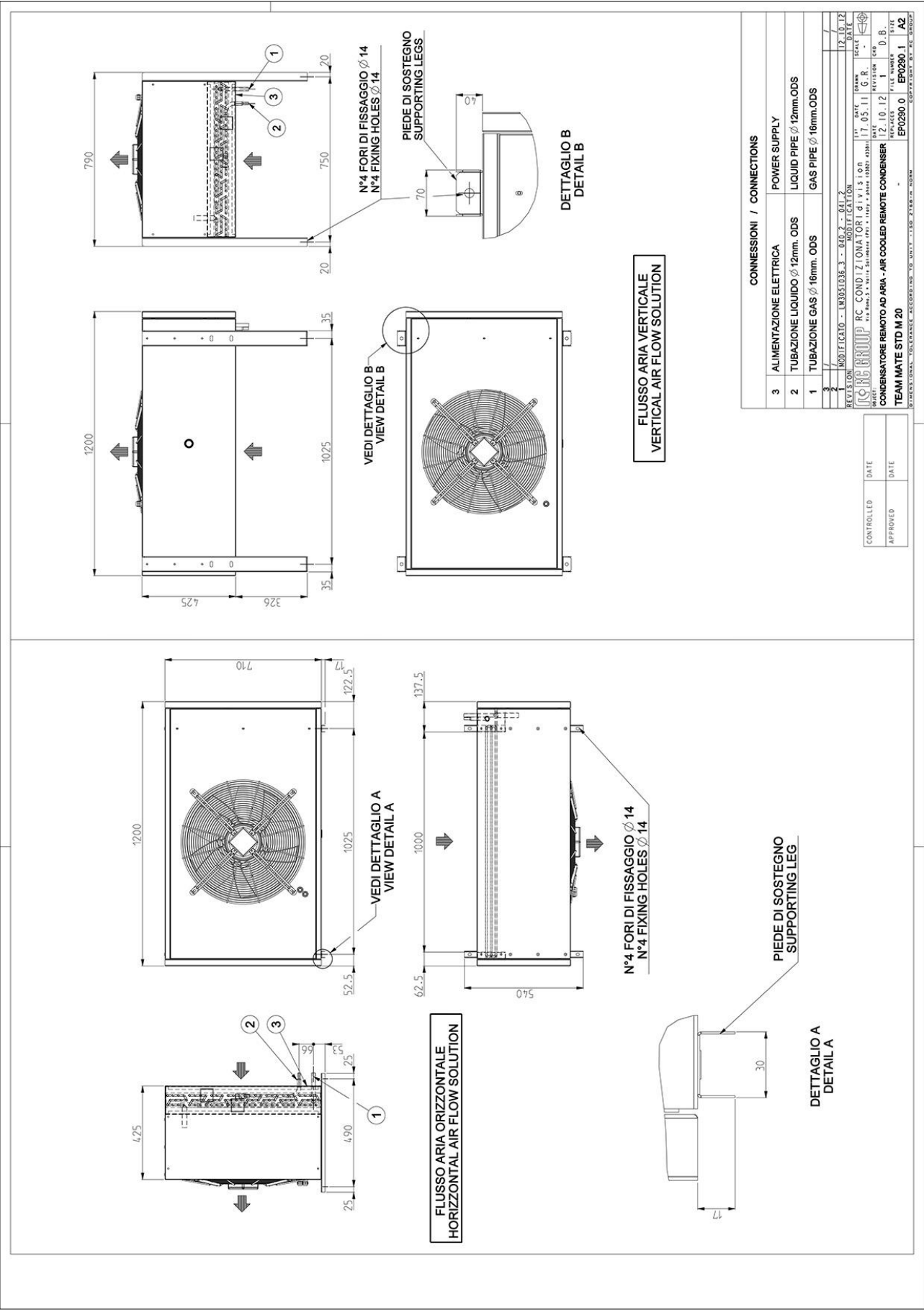


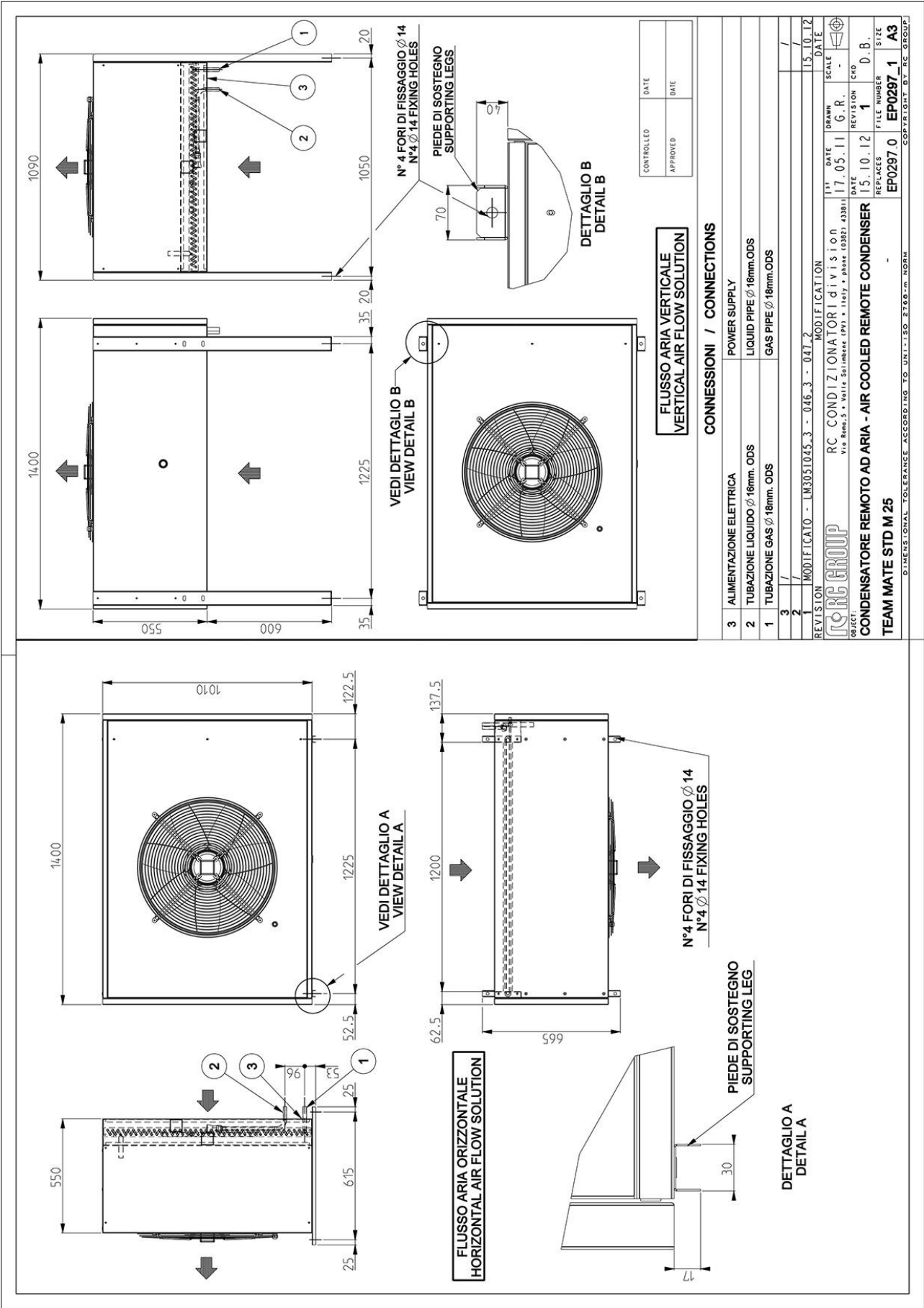
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 17



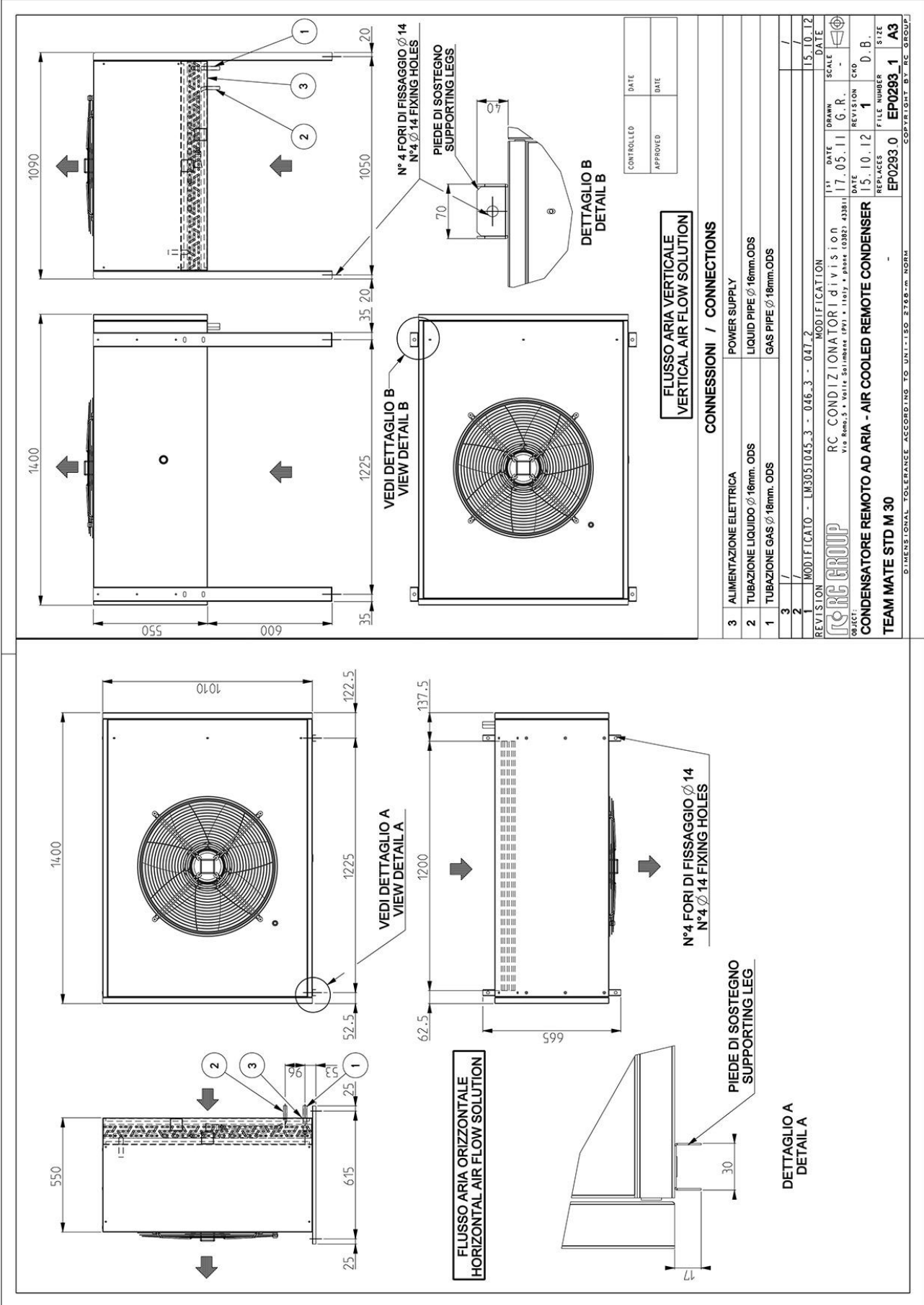
MACHINE DRAWINGS
Dimensions in mm
TEAM MATE M 20

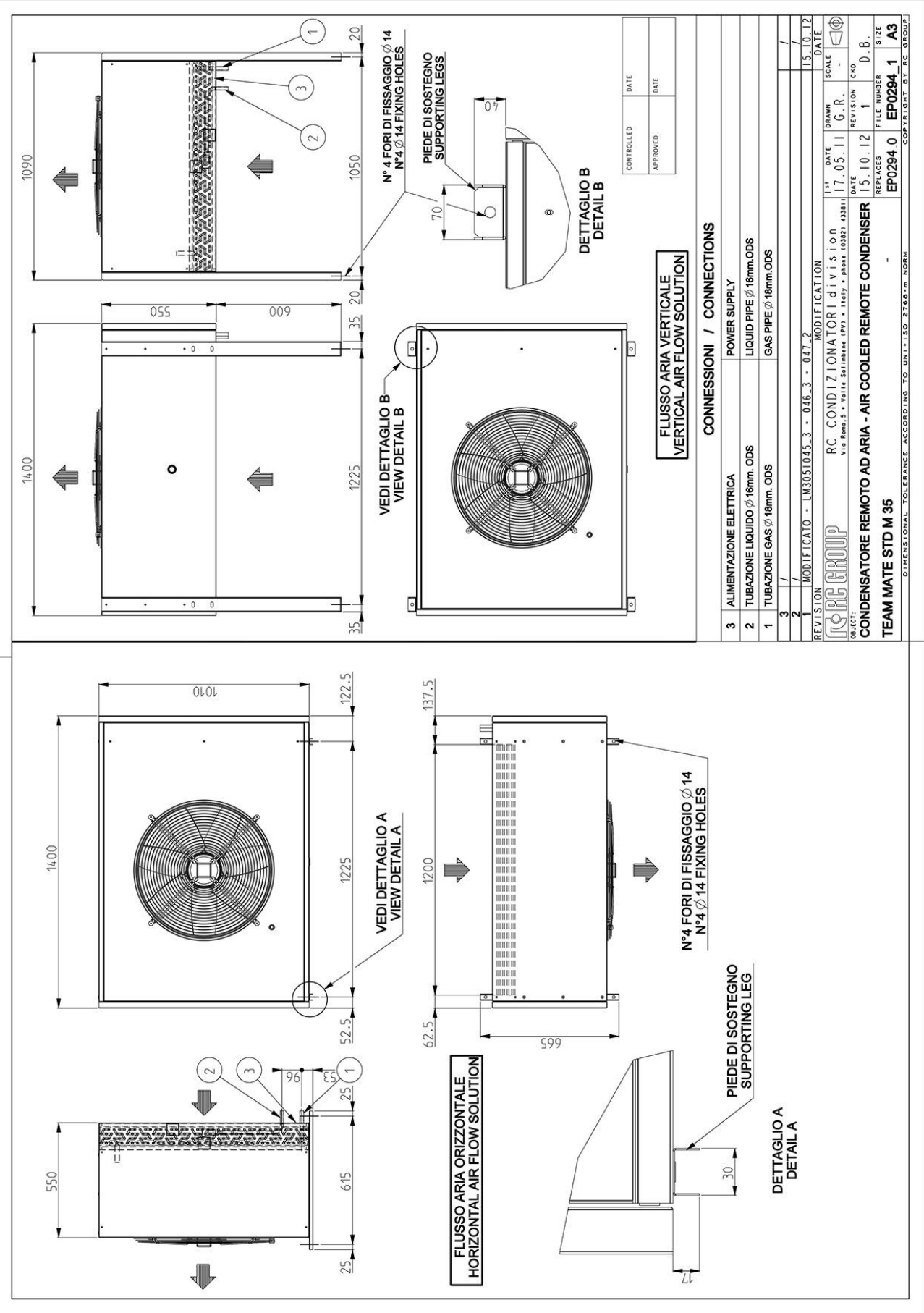




MACHINE DRAWINGS
Dimensions in mm

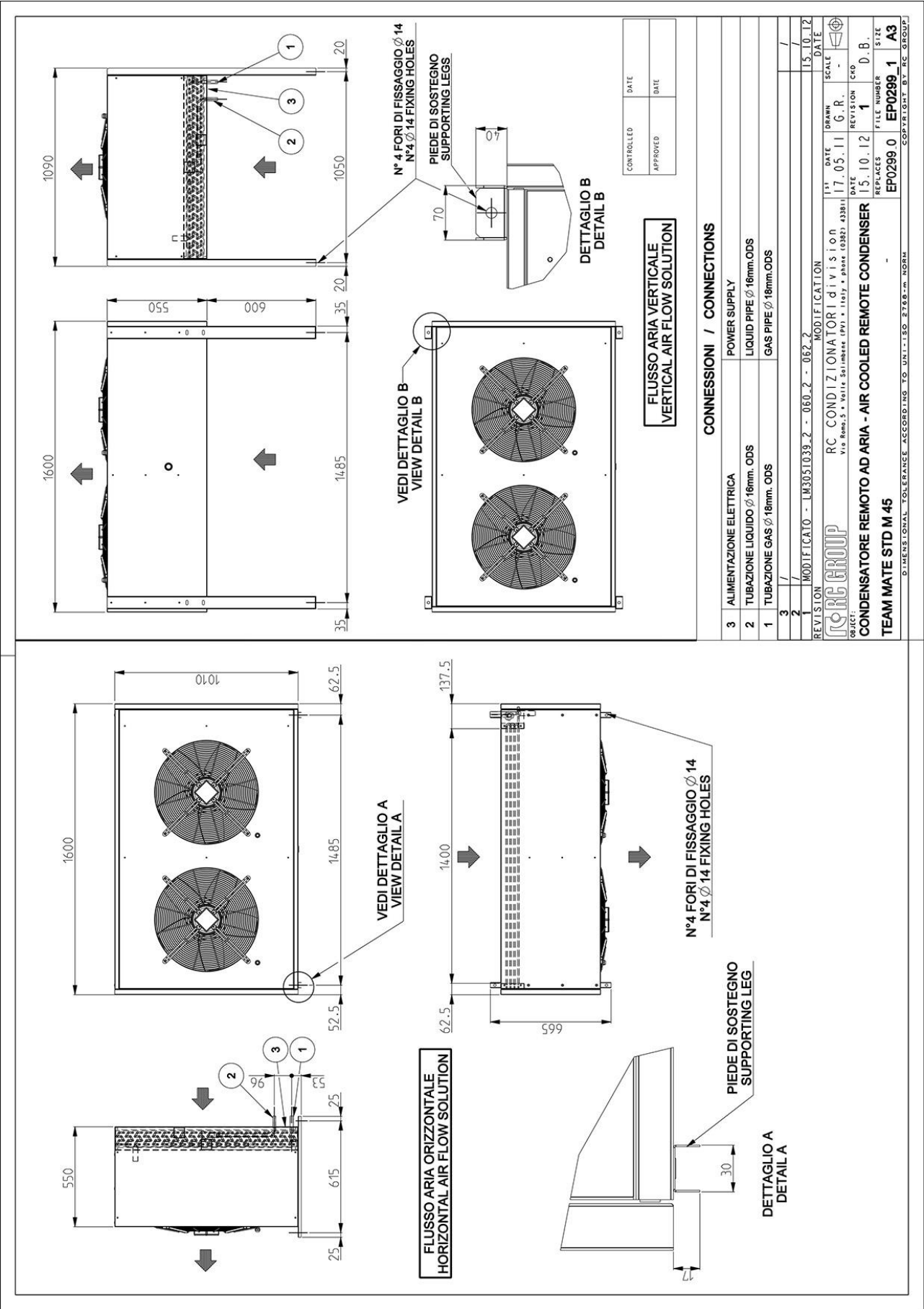
TEAM MATE M 30





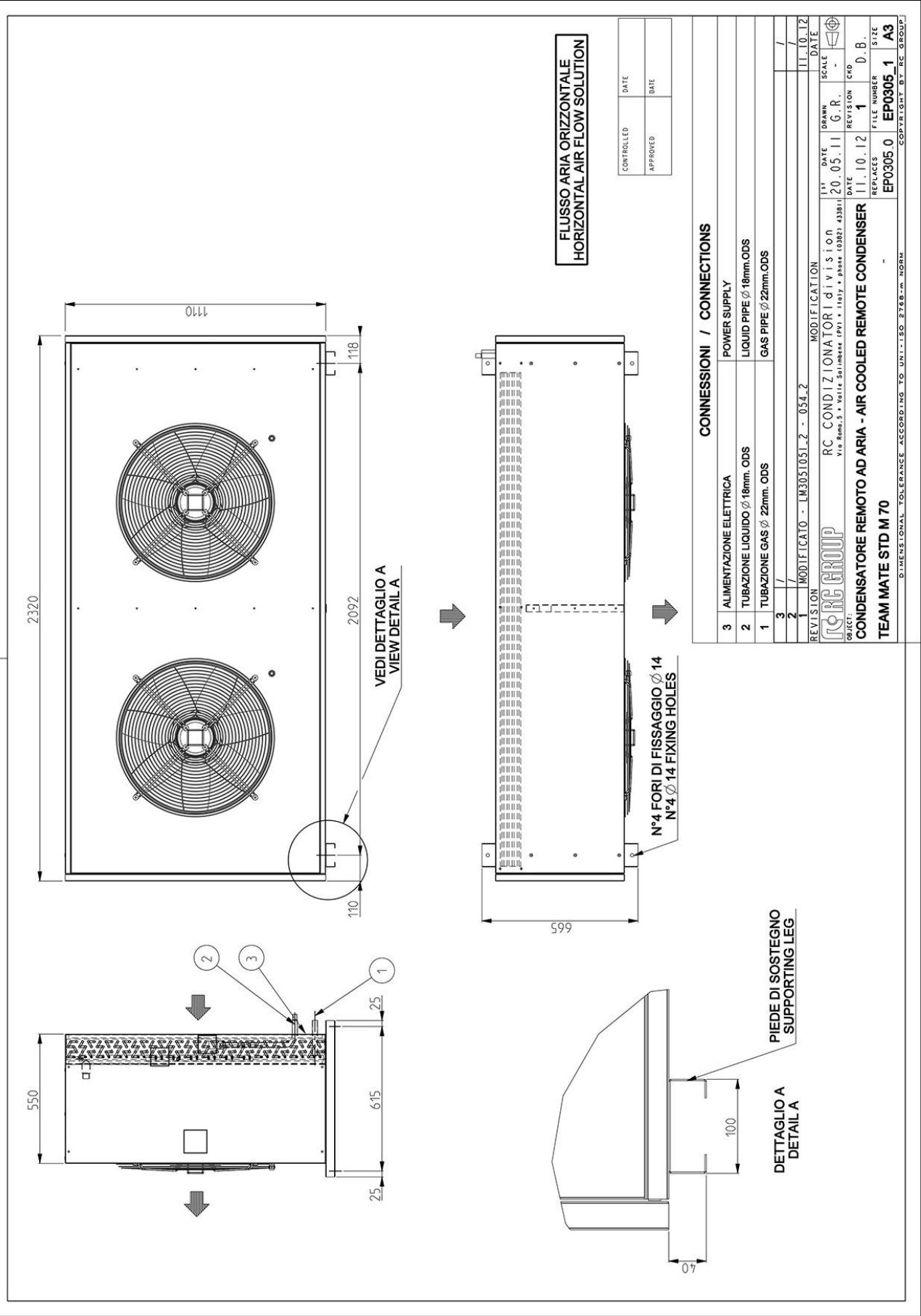
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 45



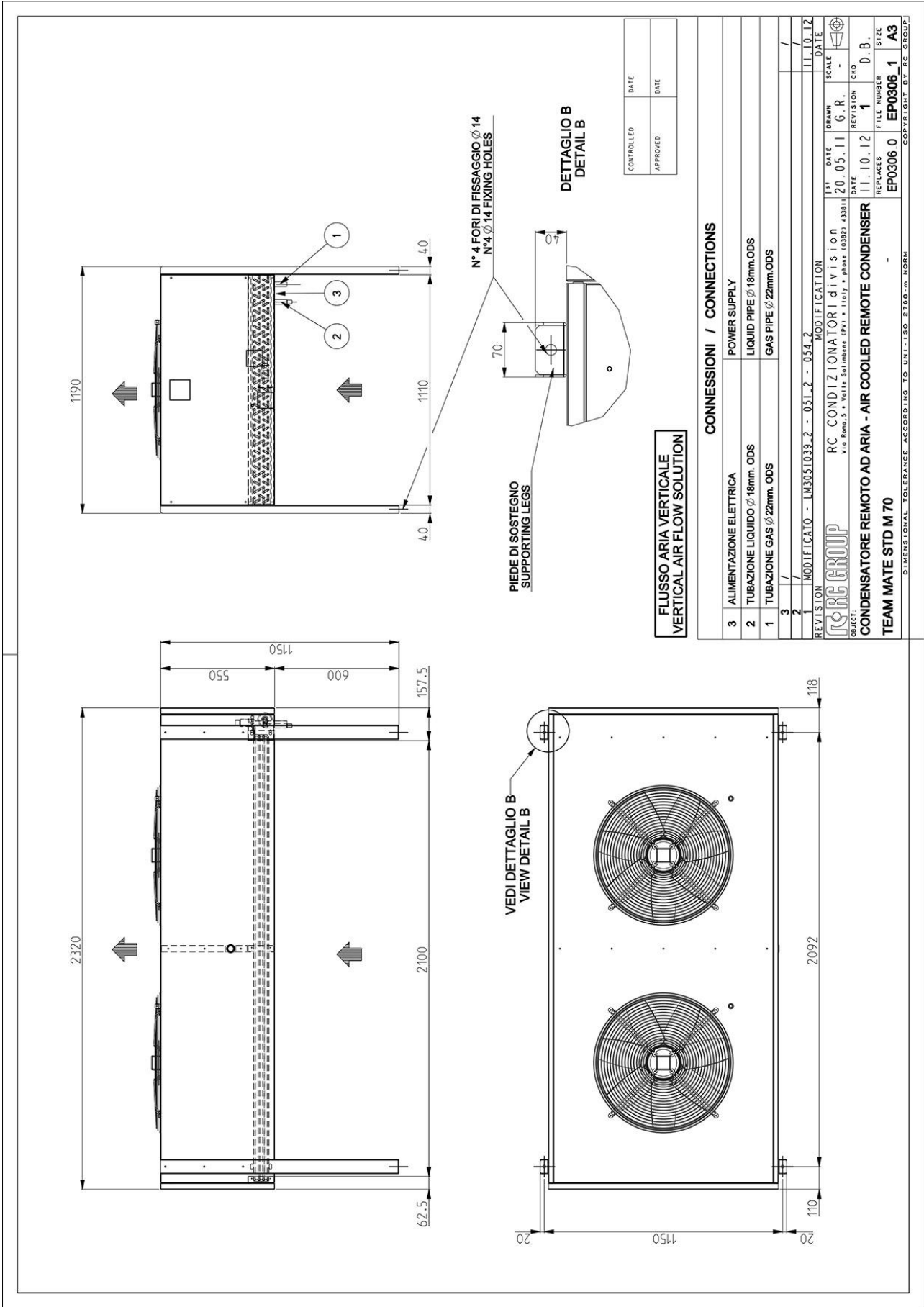
Dimensions in mm





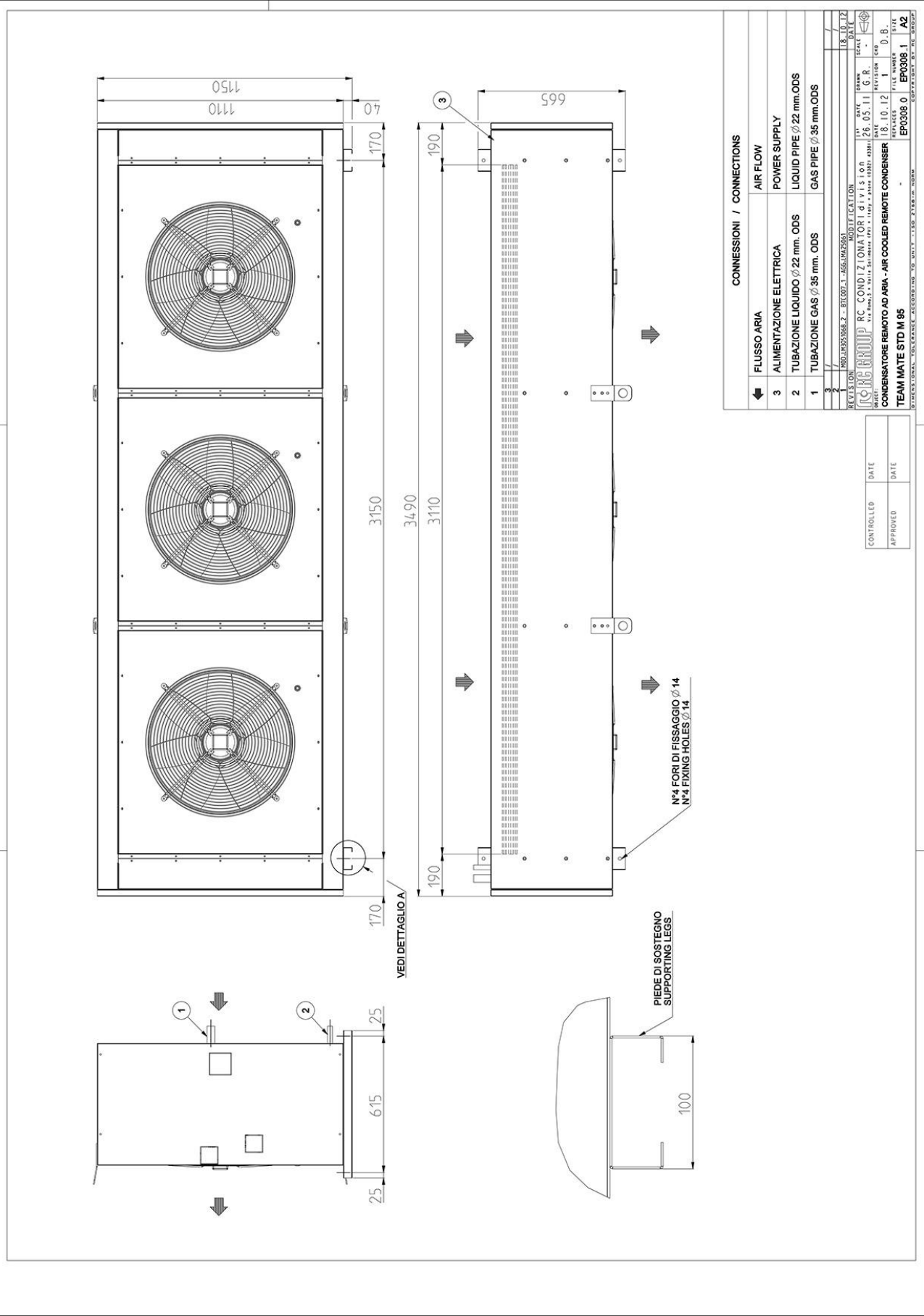
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 70 – VERTICAL AIR FLOW (OPTION)



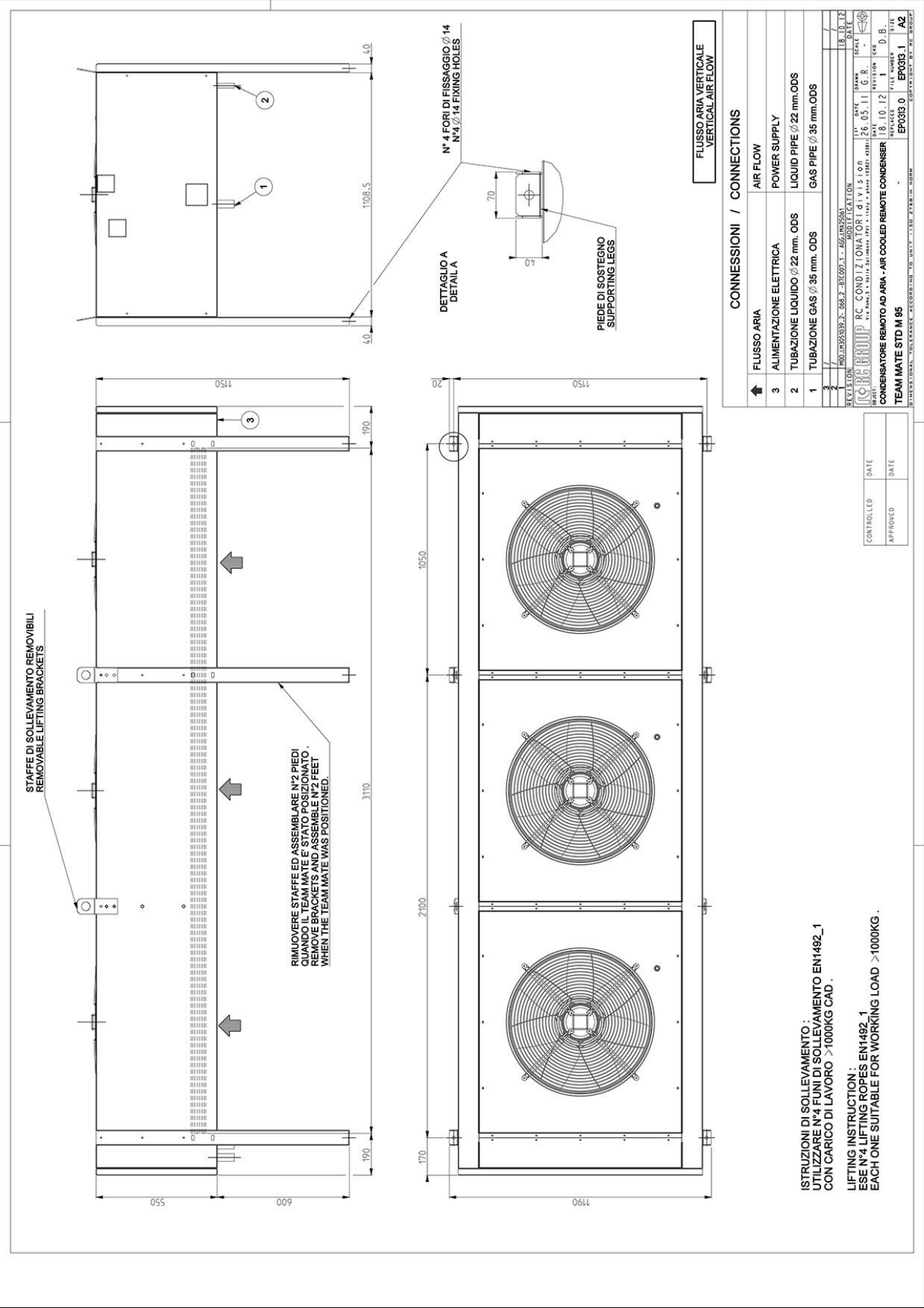
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 95 – HORIZONTAL AIR FLOW



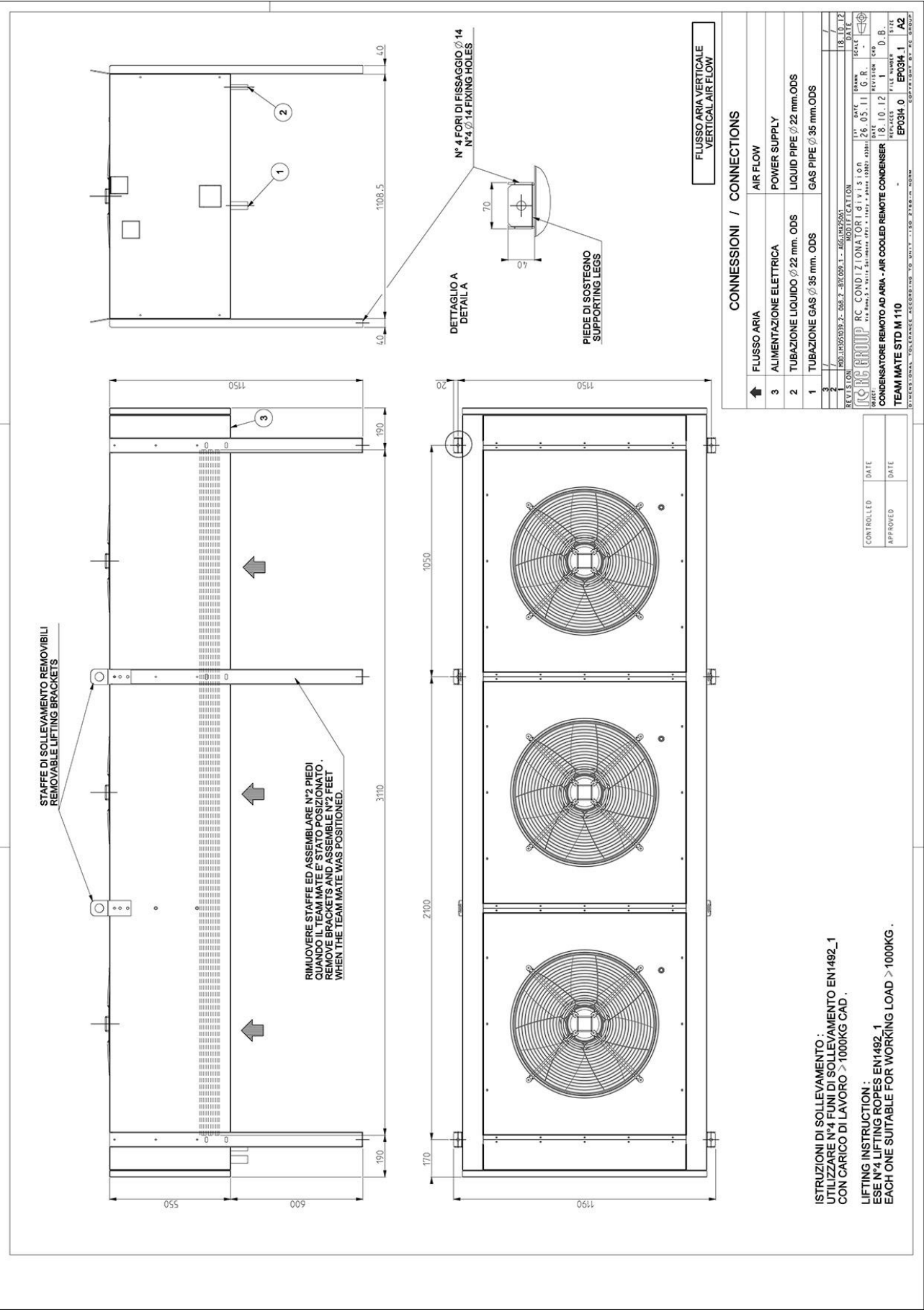
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 95 – VERTICAL AIR FLOW (OPTION)



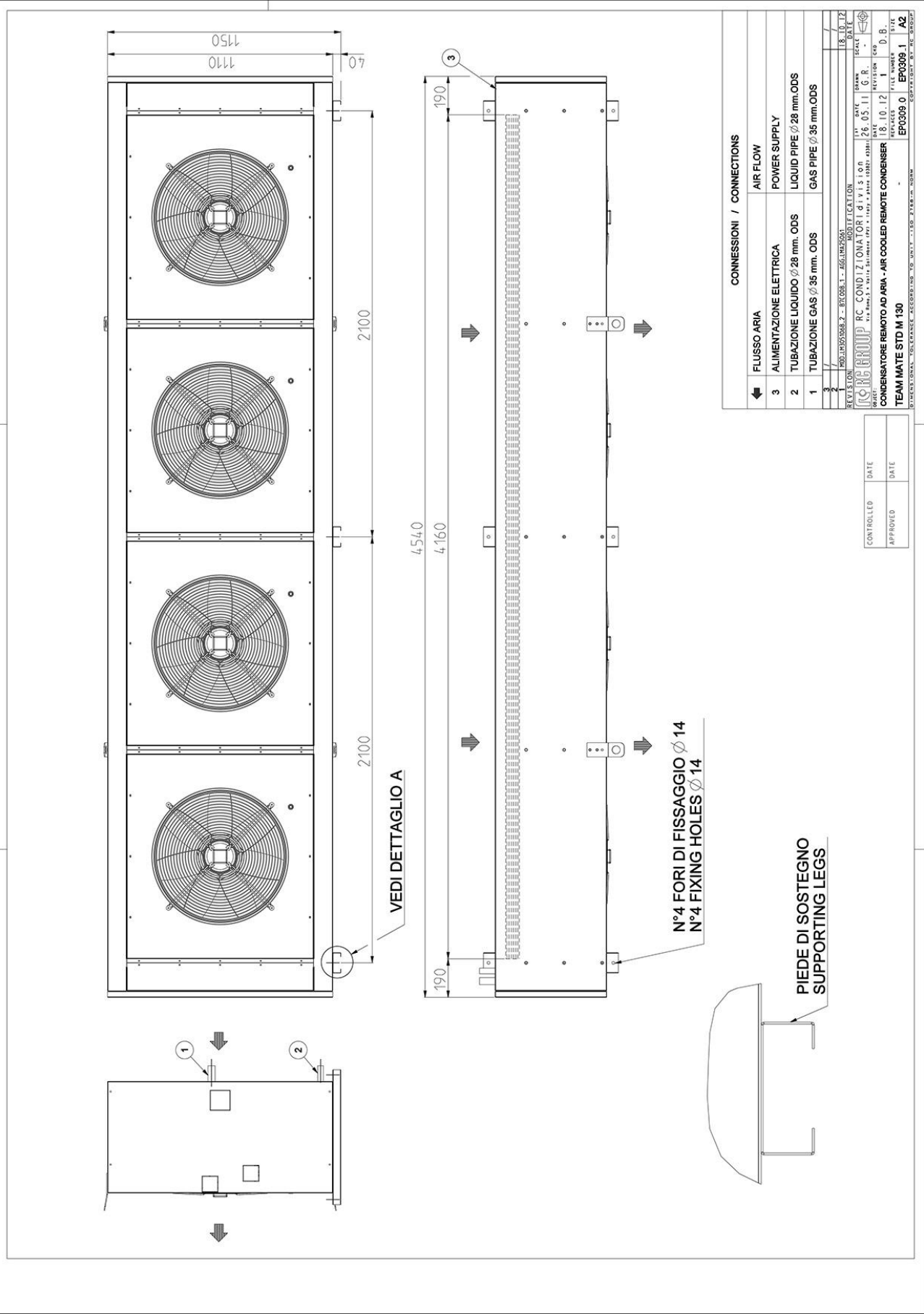
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 110 – VERTICAL AIR FLOW (OPTION)



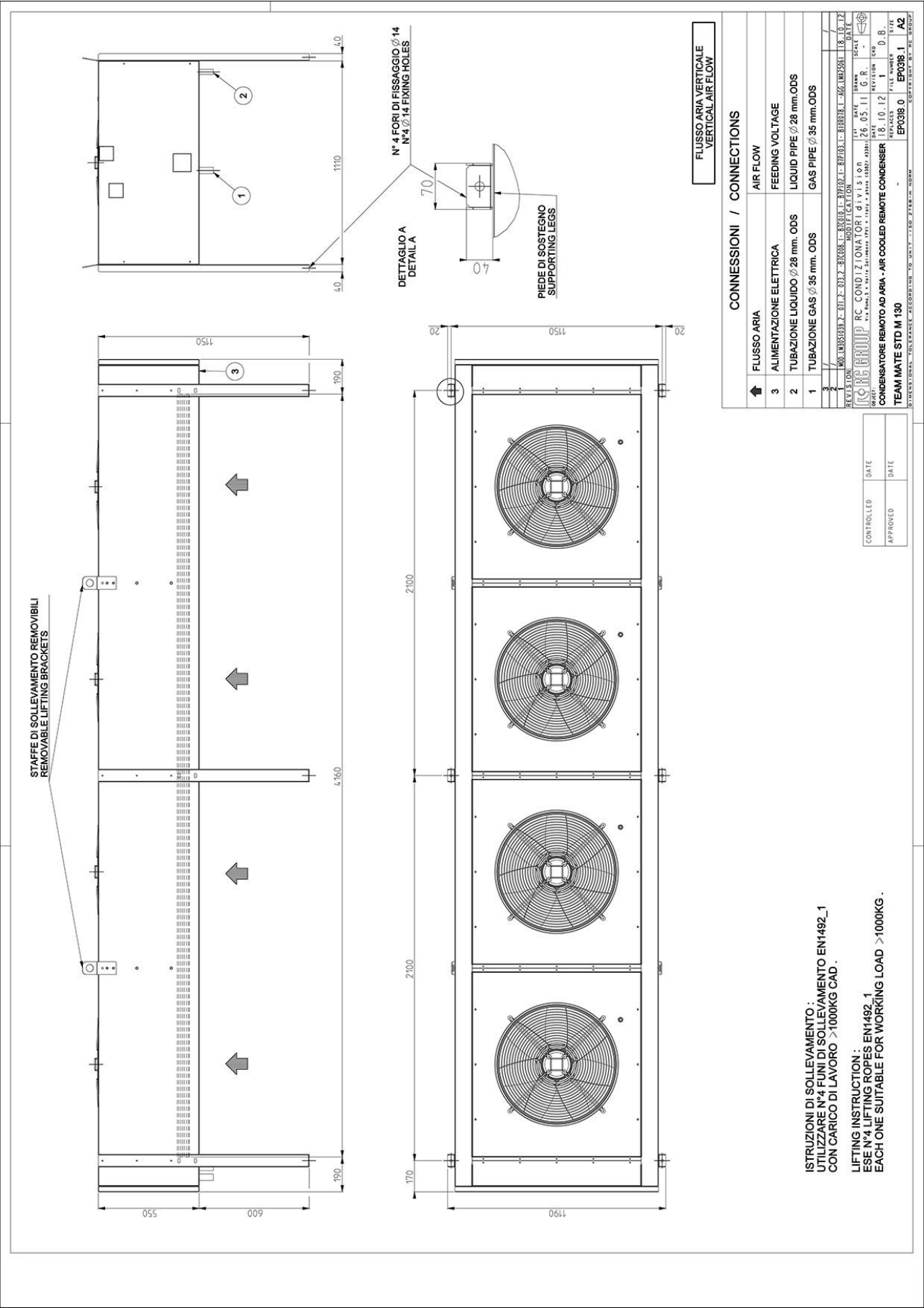
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 130 – HORIZONTAL AIR FLOW



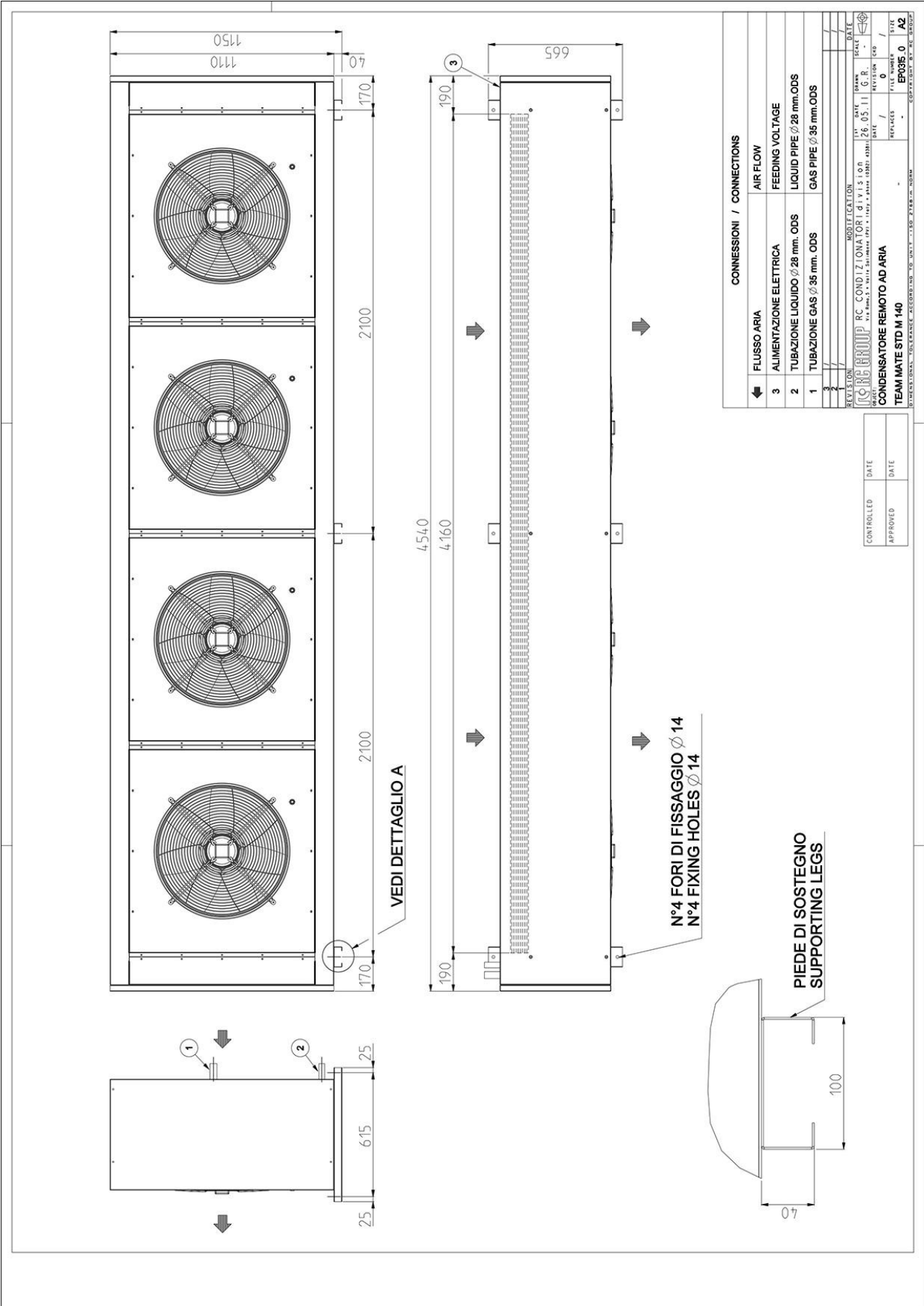
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 130 – VERTICAL AIR FLOW (OPTION)



MACHINE DRAWINGS
Dimensions in mm

TEAM MATE M 140 – HORIZONTAL AIR FLOW

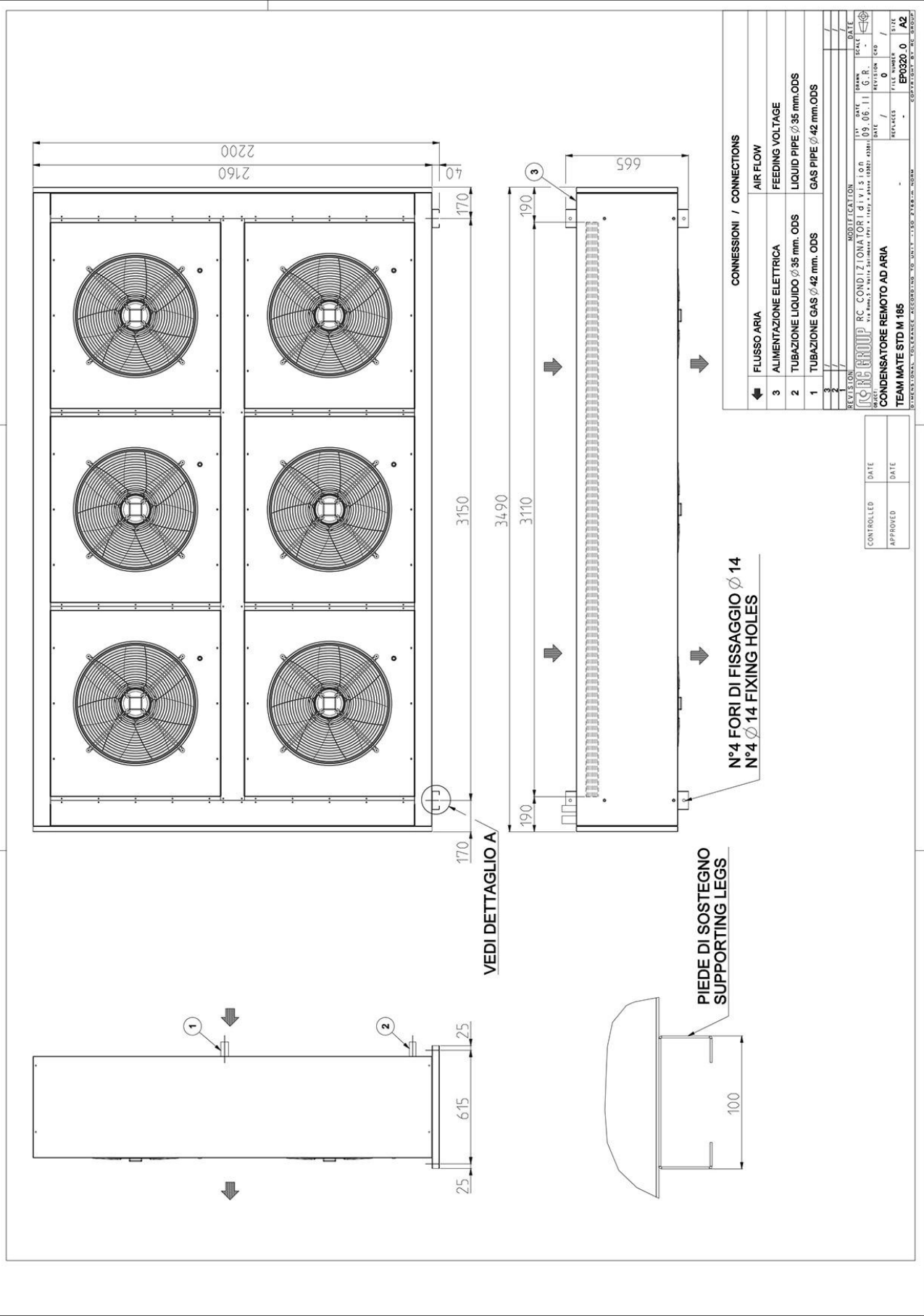


TEAM MATE M 140 – VERTICAL AIR FLOW (OPTION)



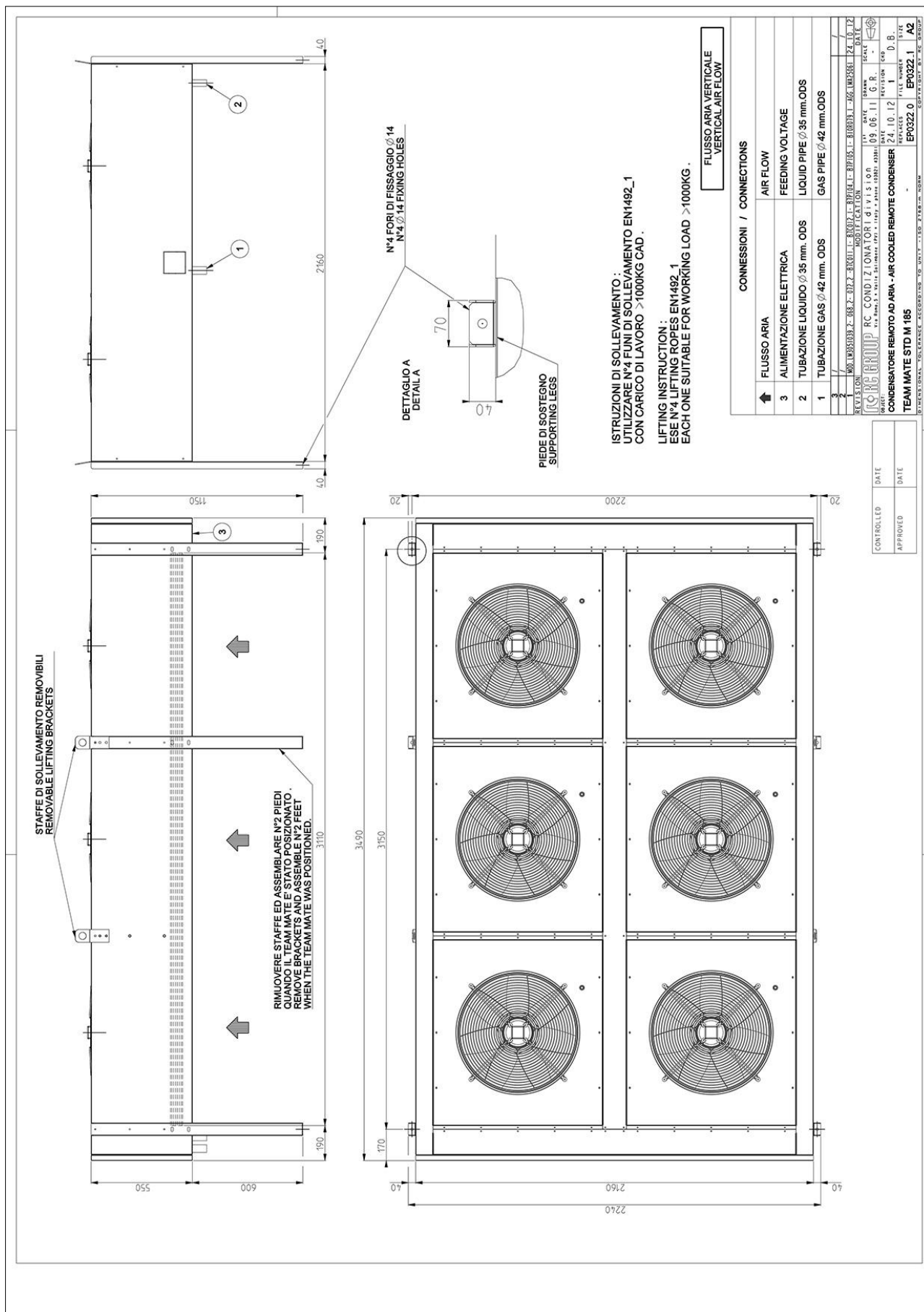
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE T 185 – HORIZONTAL AIR FLOW



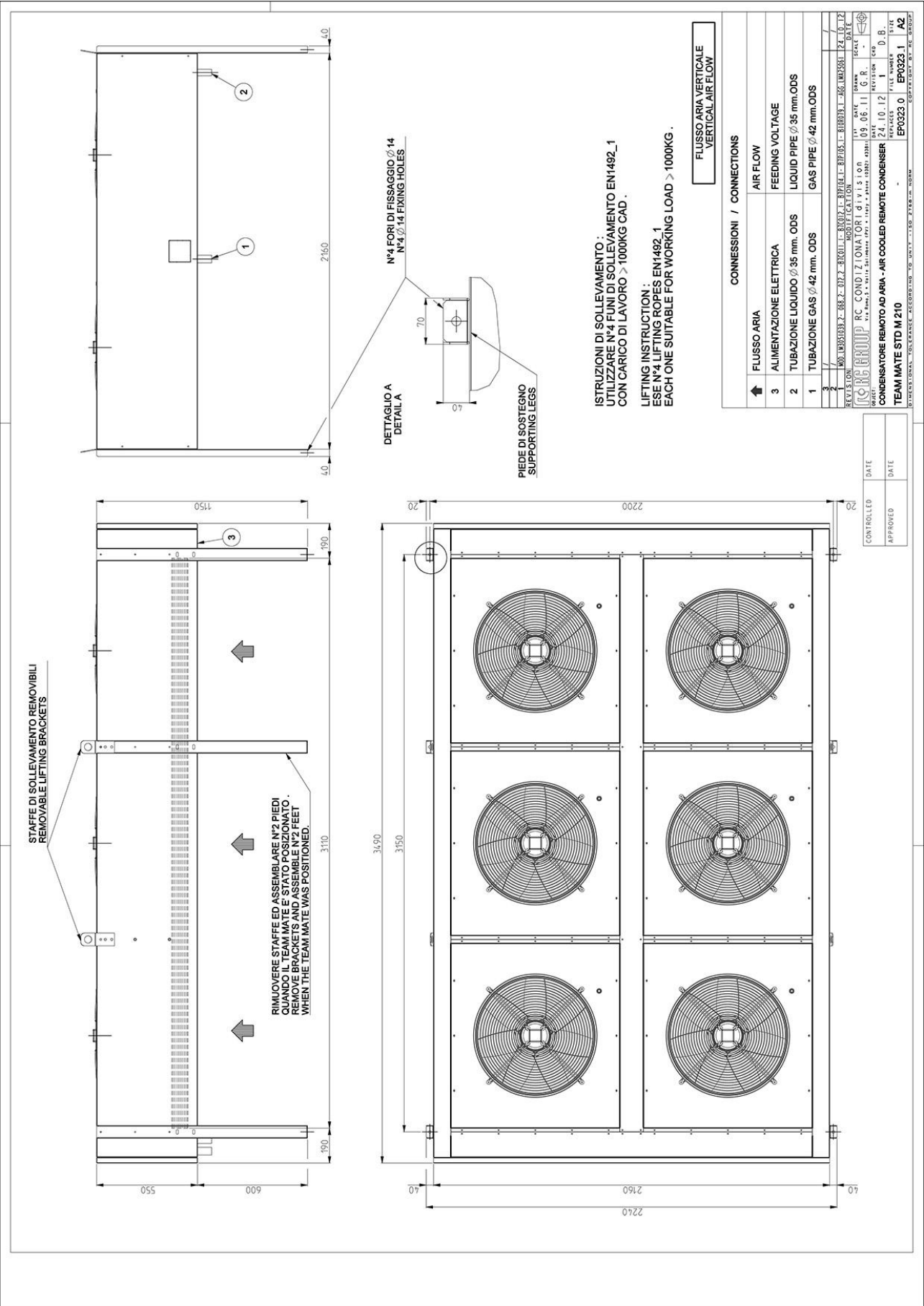
Dimensions in mm

35



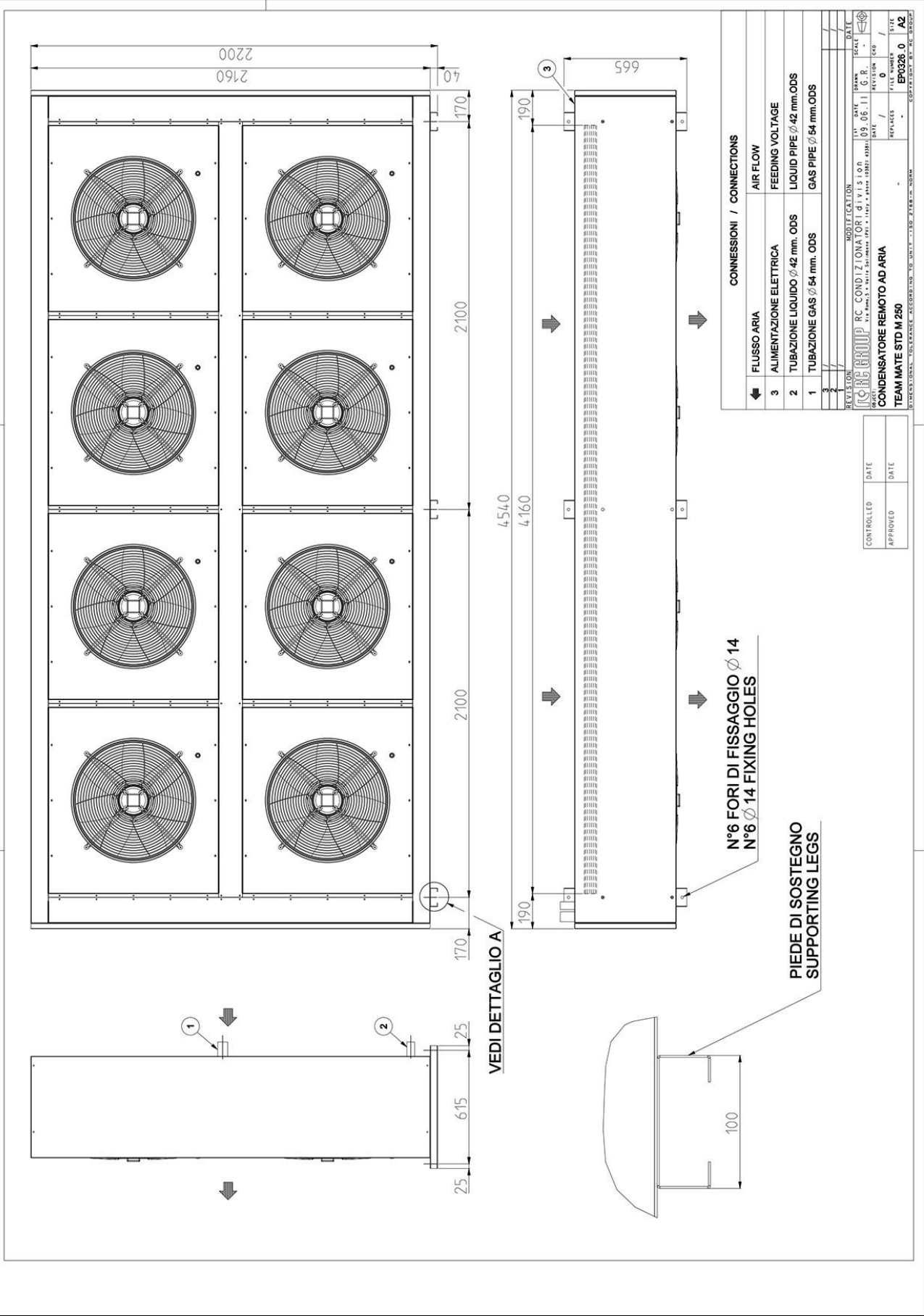
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE T 210 – VERTICAL AIR FLOW (OPTION)



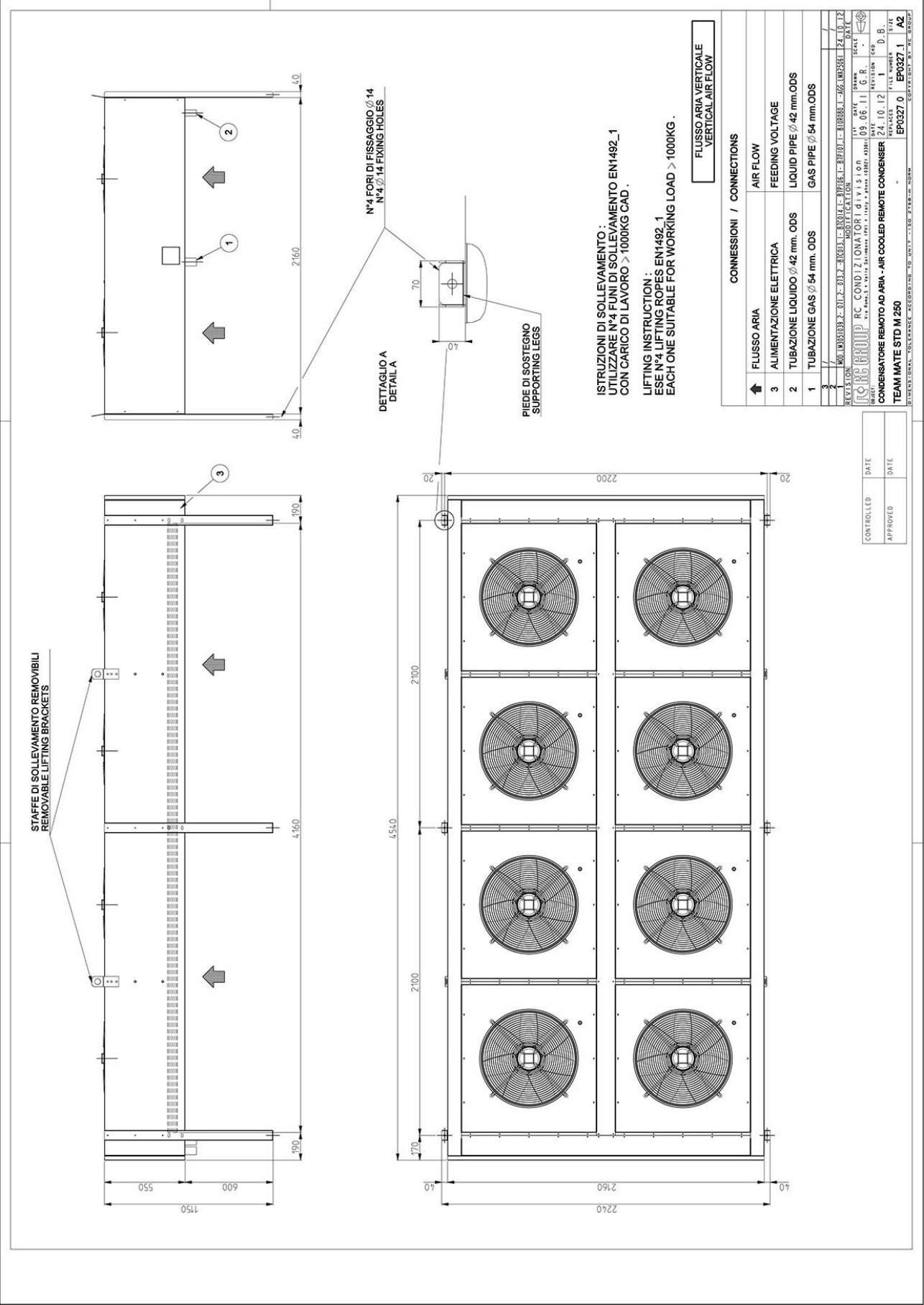
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE T 250 – HORIZONTAL AIR FLOW



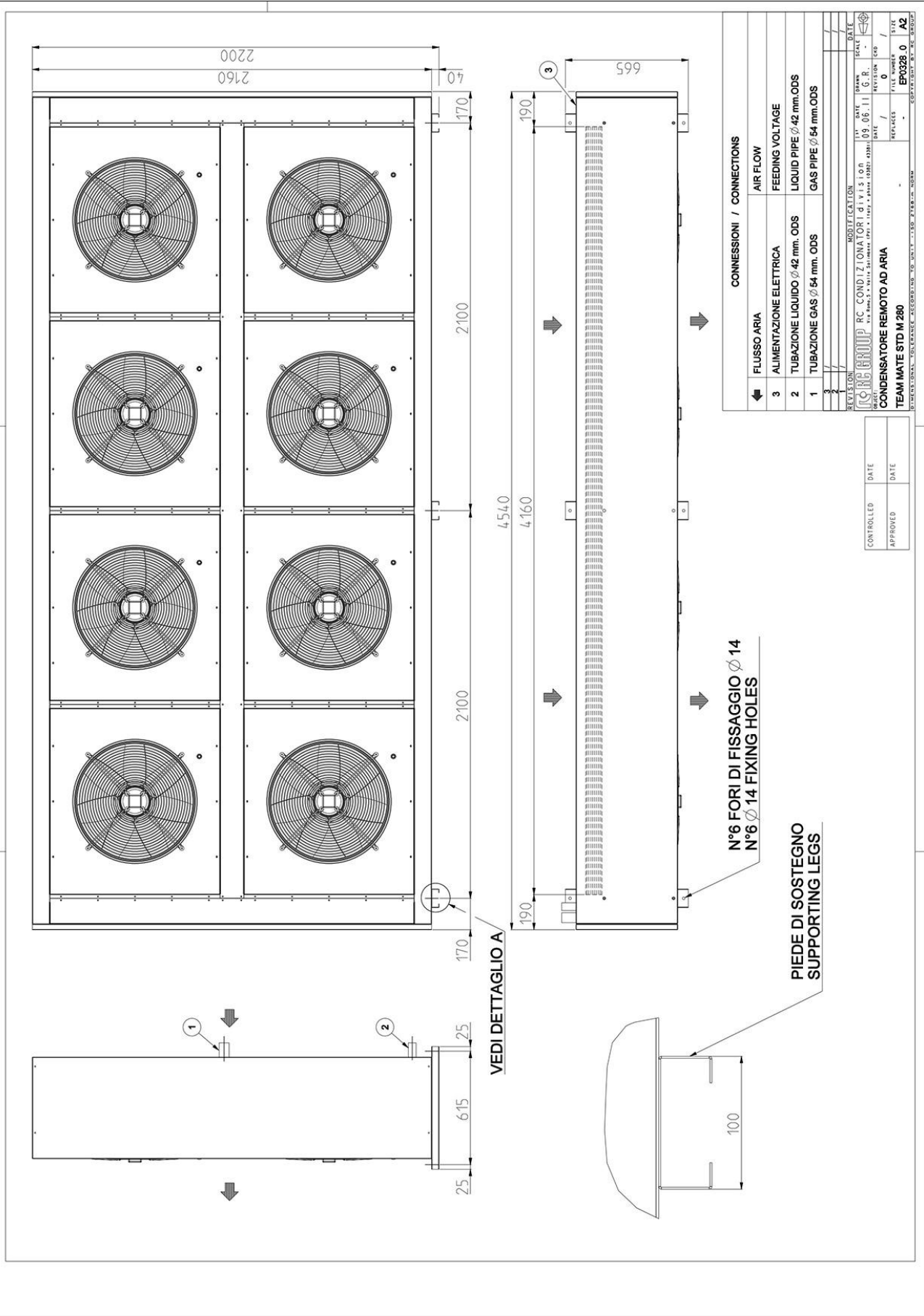
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE T 250 – VERTICAL AIR FLOW (OPTION)



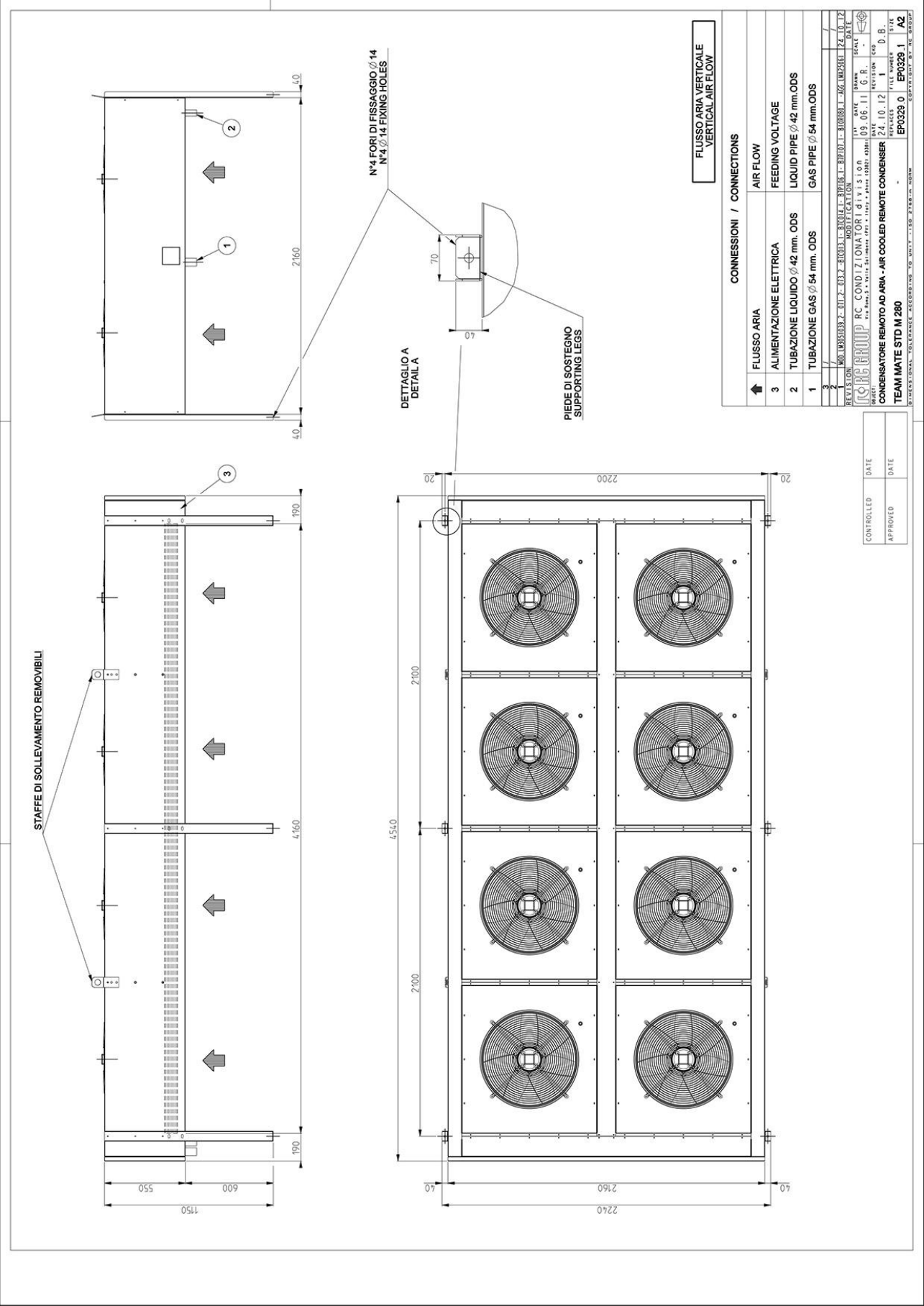
MACHINE DRAWINGS
Dimensions in mm

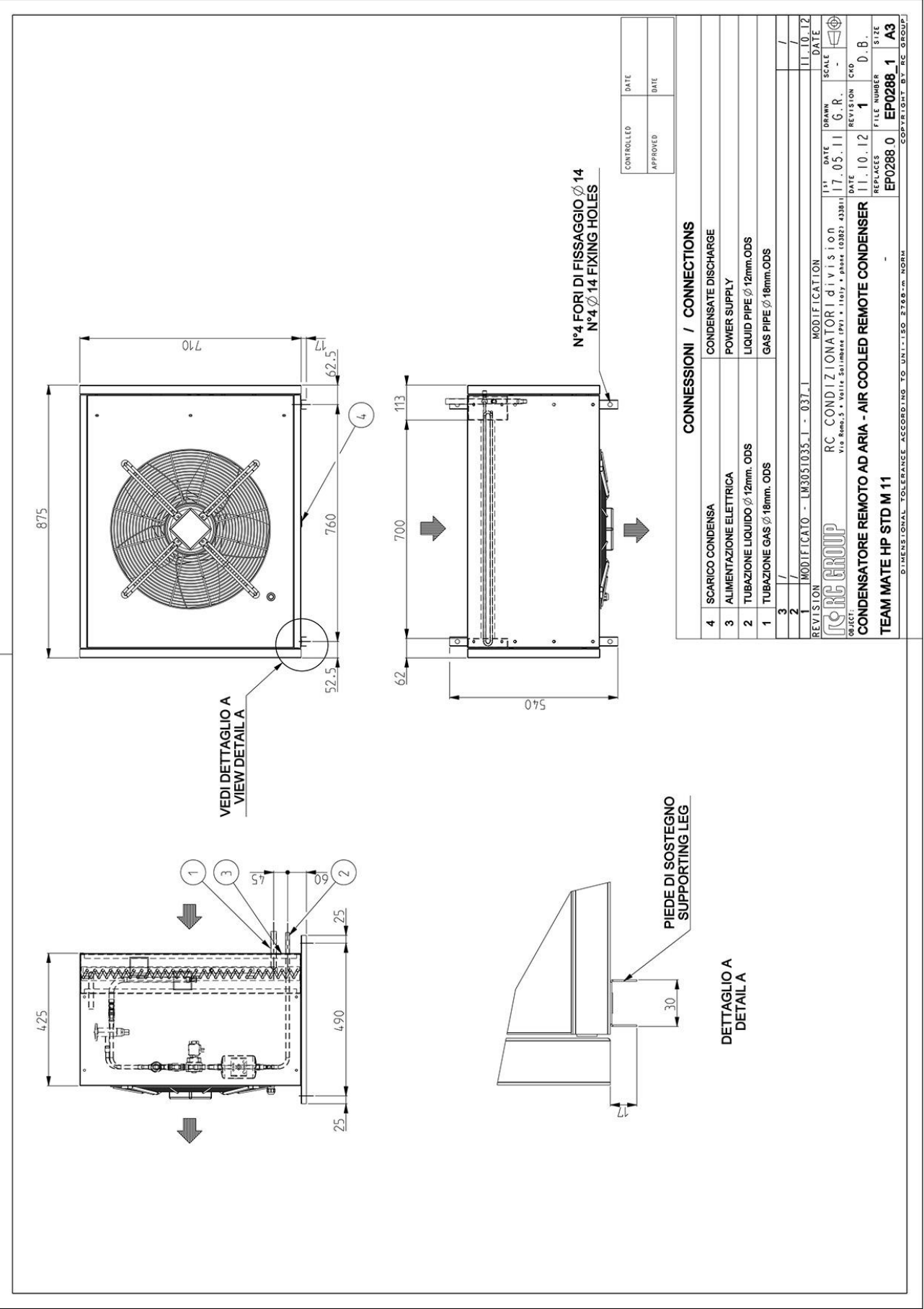
TEAM MATE T 280 – HORIZONTAL AIR FLOW



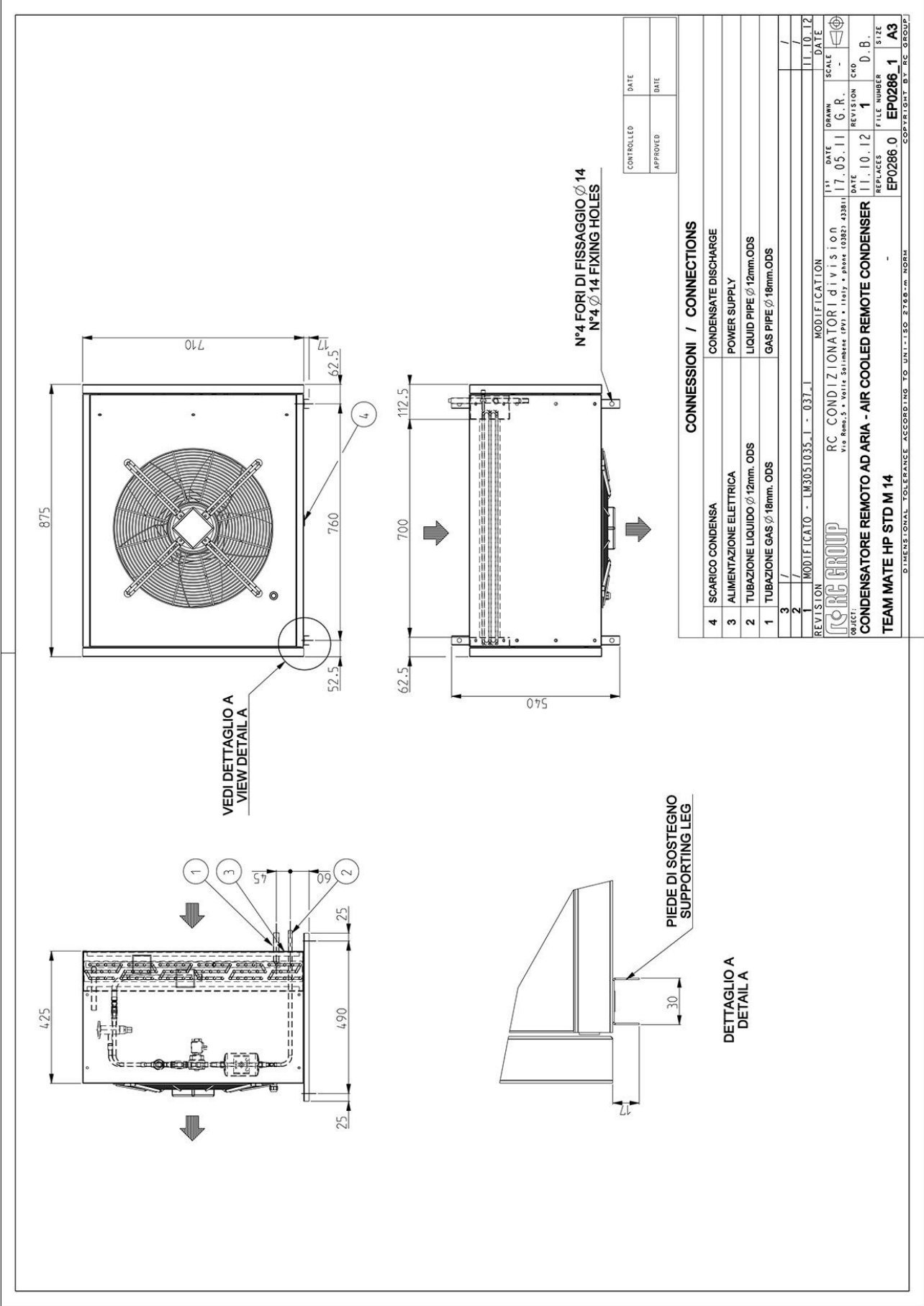
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE T 250 – VERTICAL AIR FLOW (OPTION)



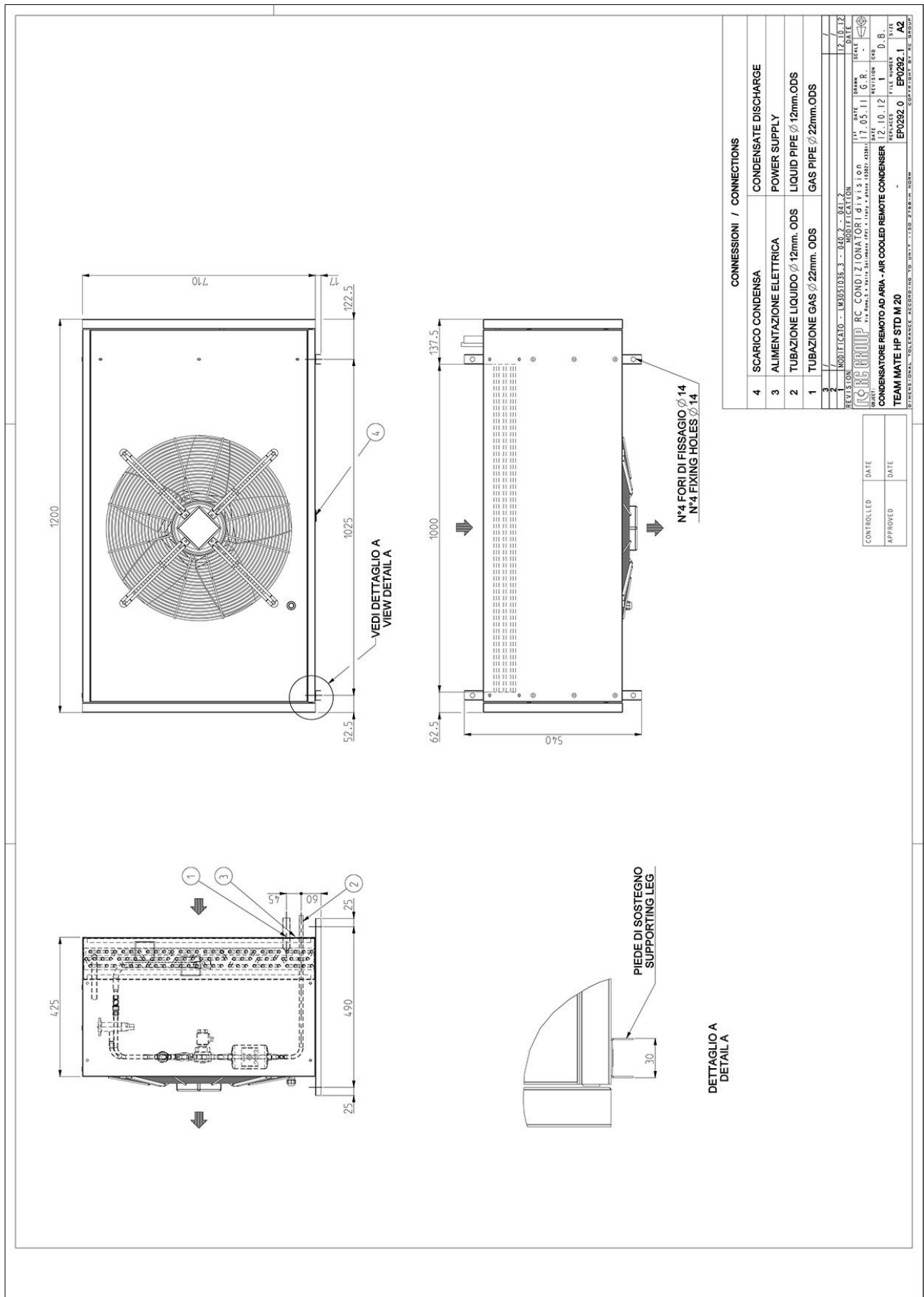


MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP M 14



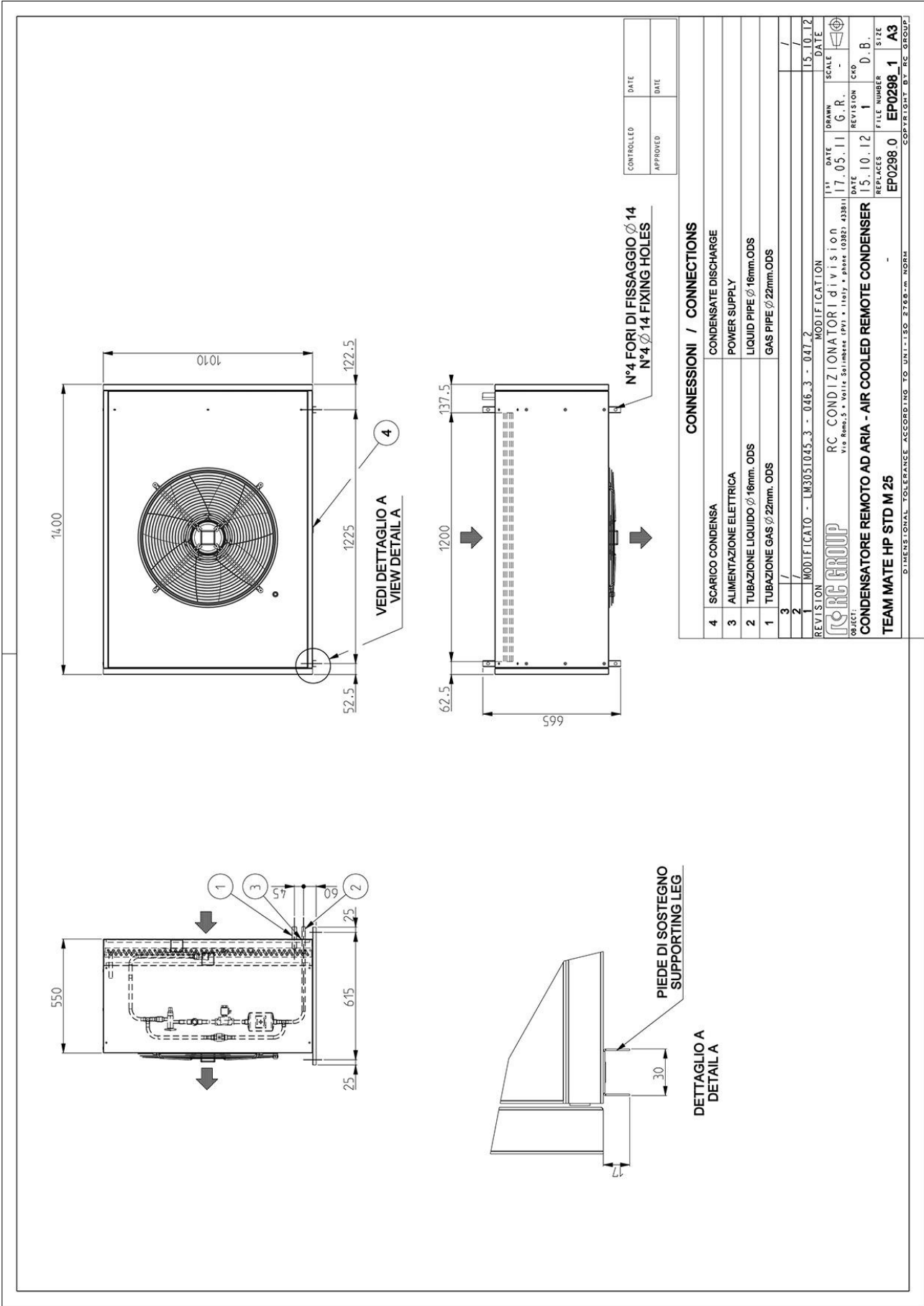
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE HP M 20

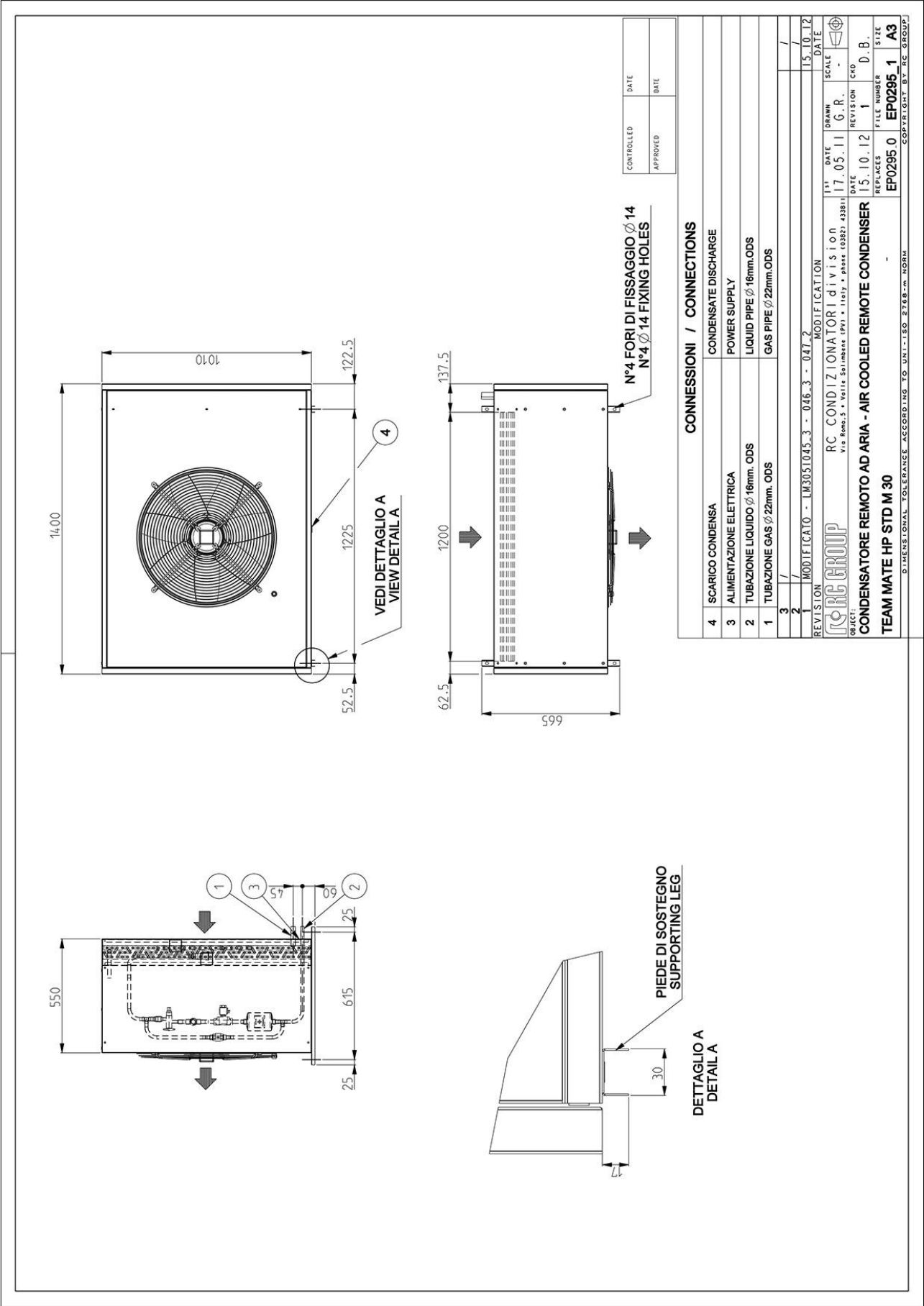


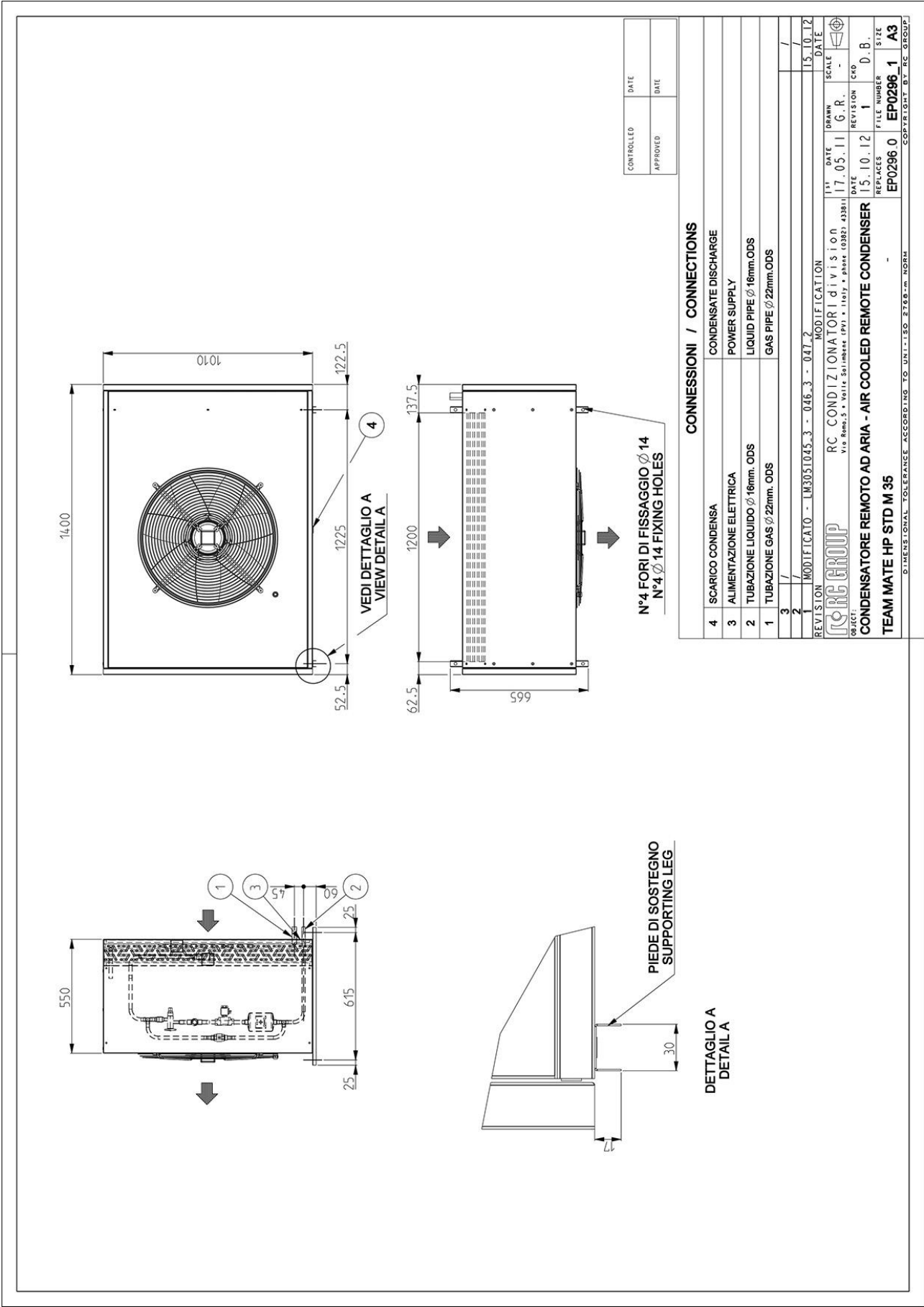
MACHINE DRAWINGS
Dimensions in mm

TEAM MATE HP M 25



MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP M 30



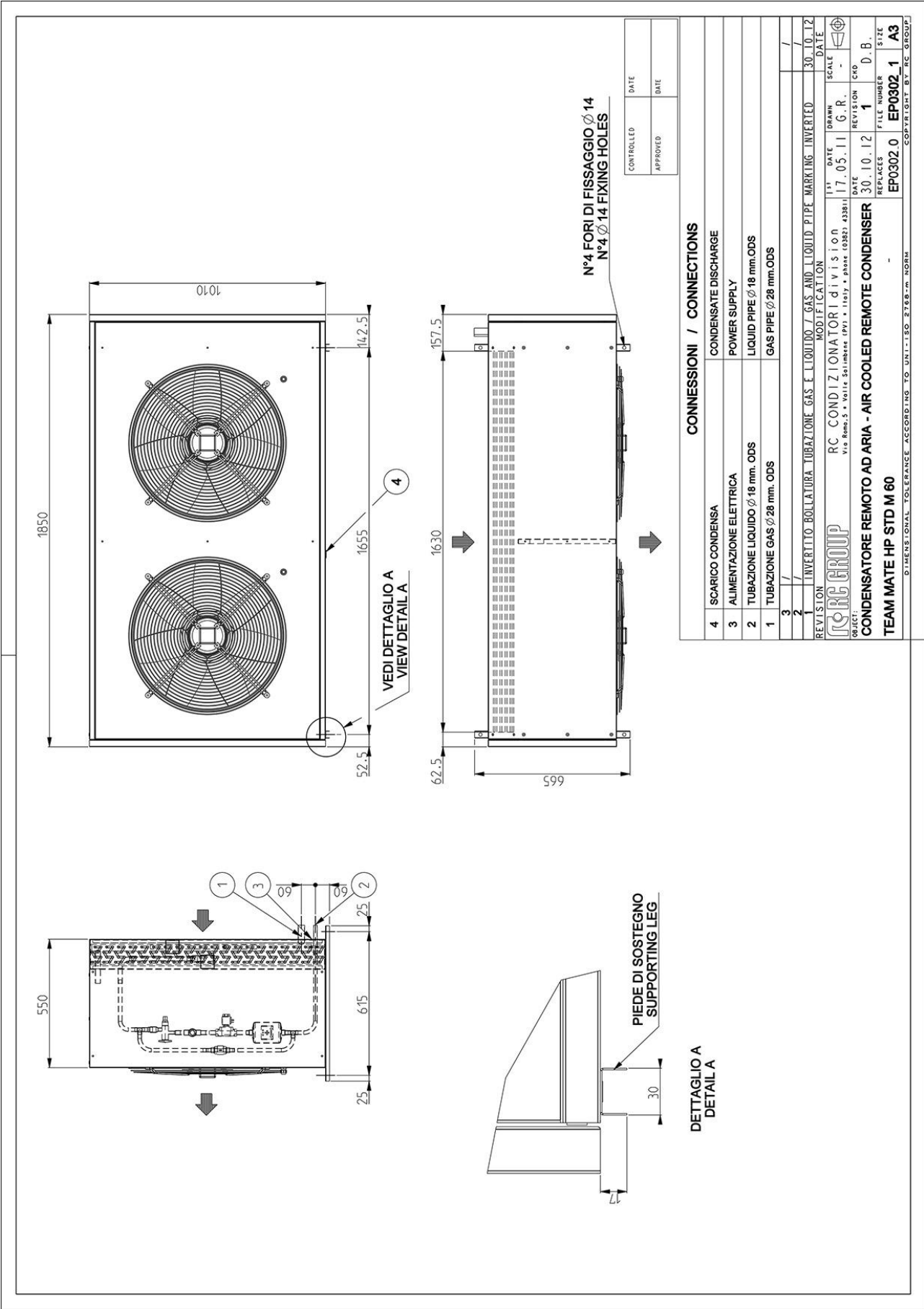


Dimensions in mm

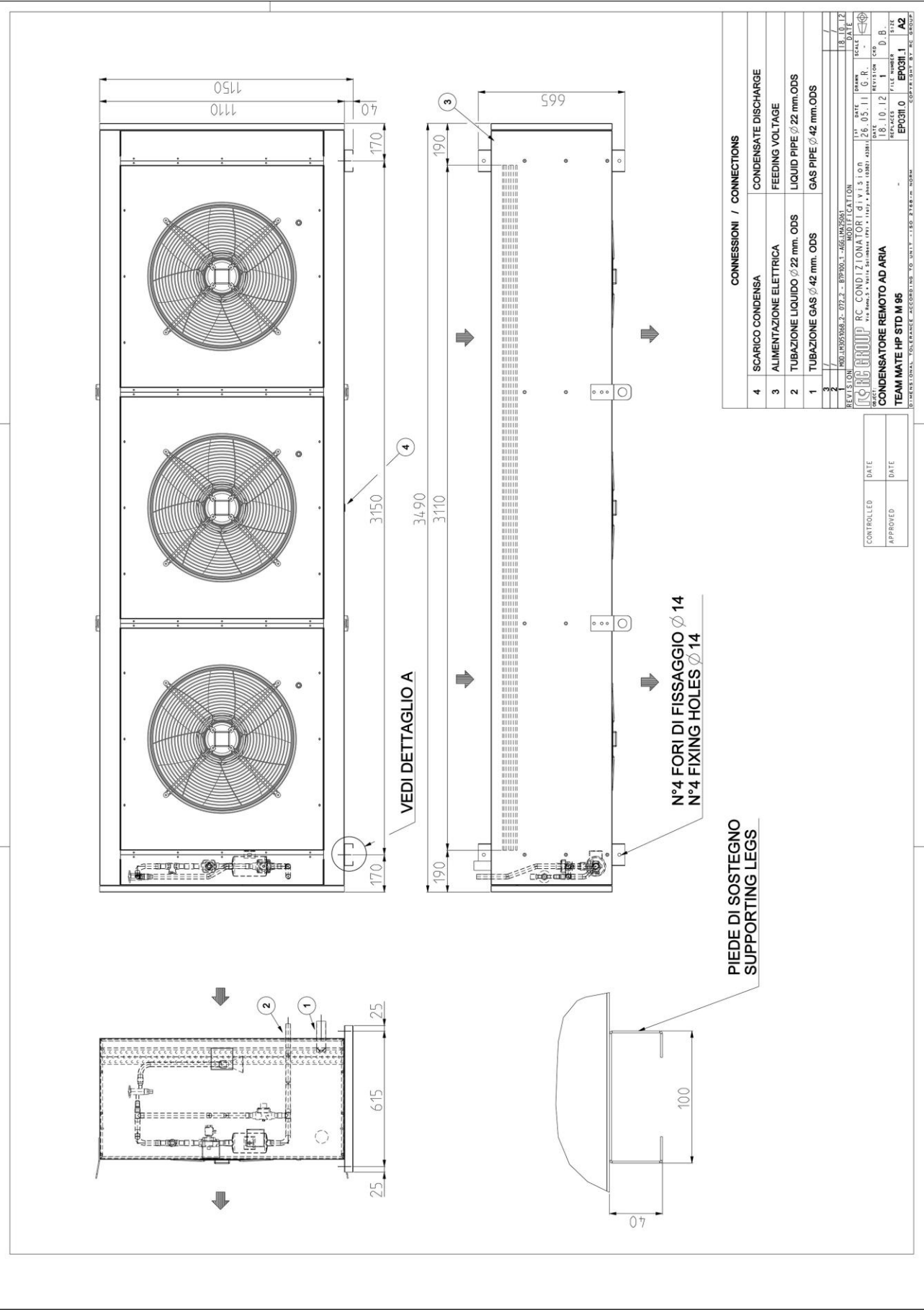
TEAM MATE HP M 45



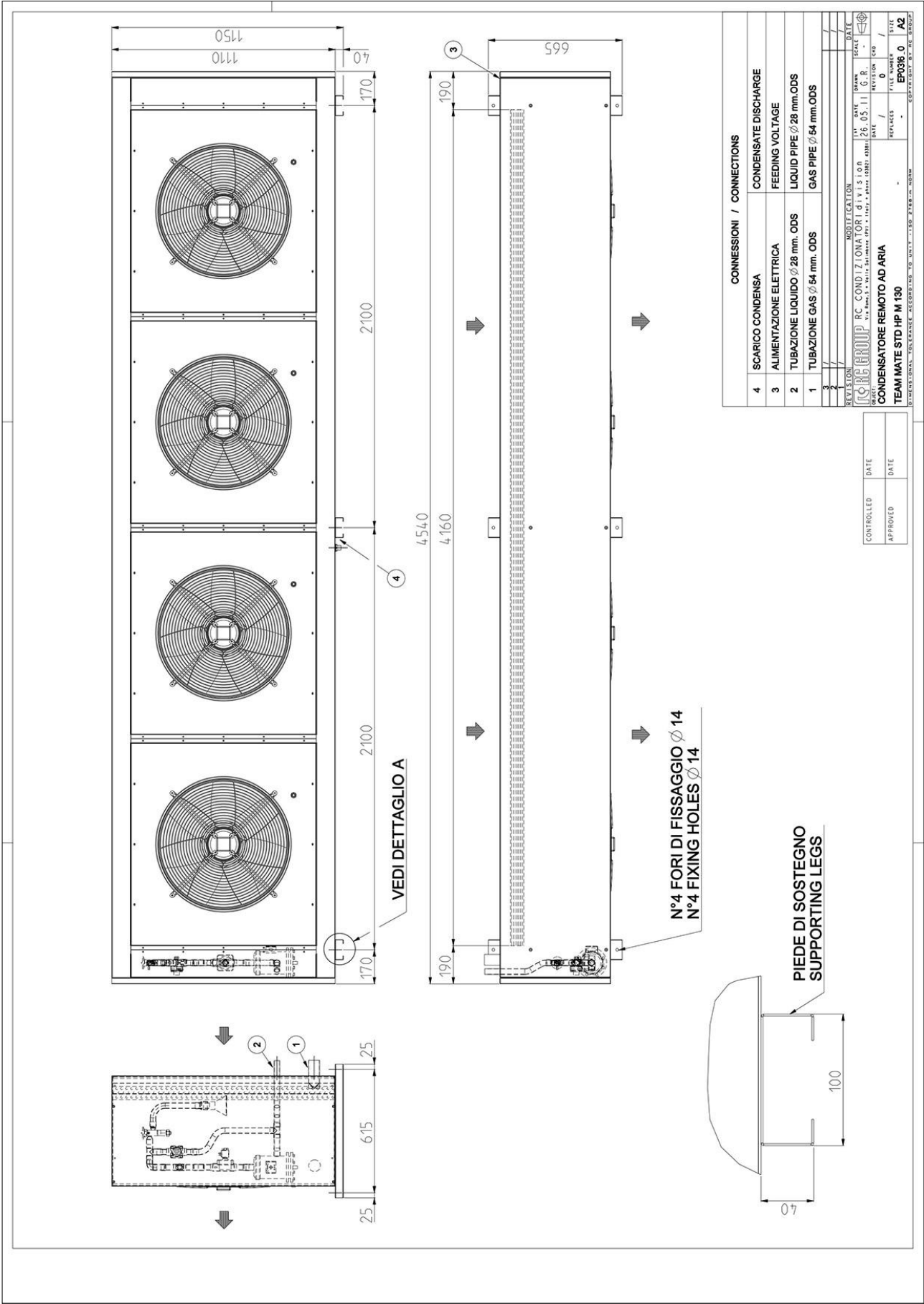
MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP M 60



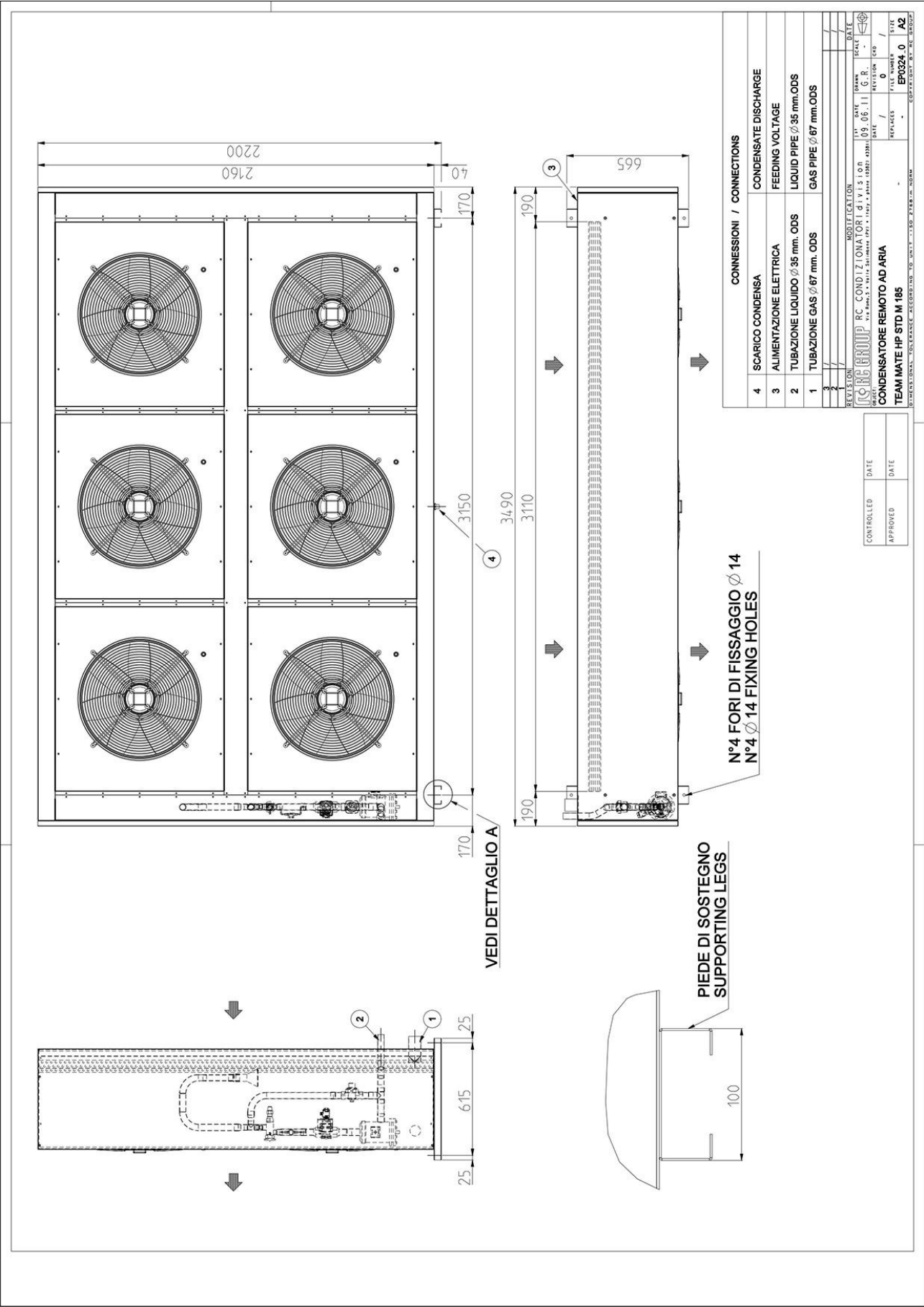
MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP M 95



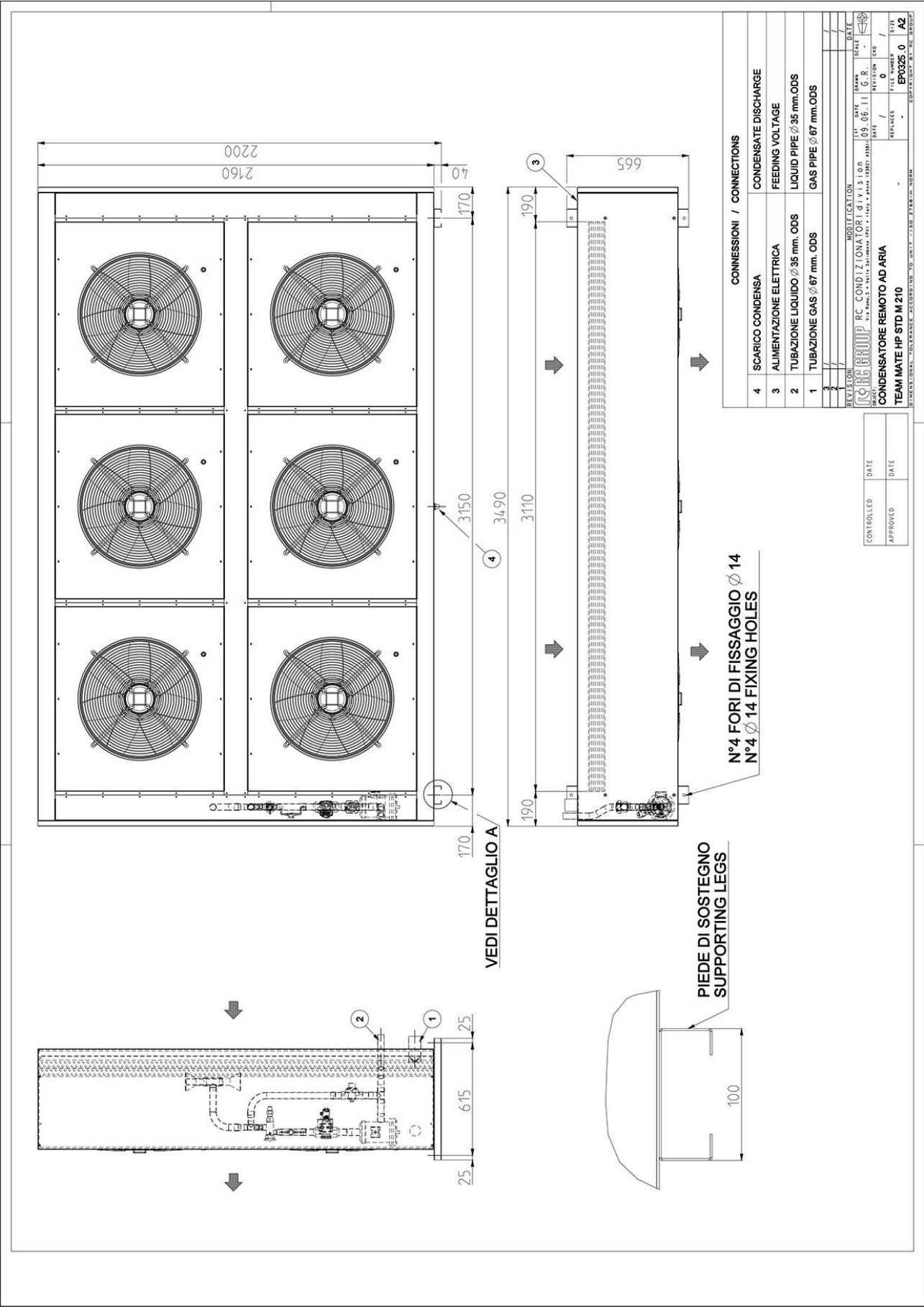
MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP M 130



MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP T 185

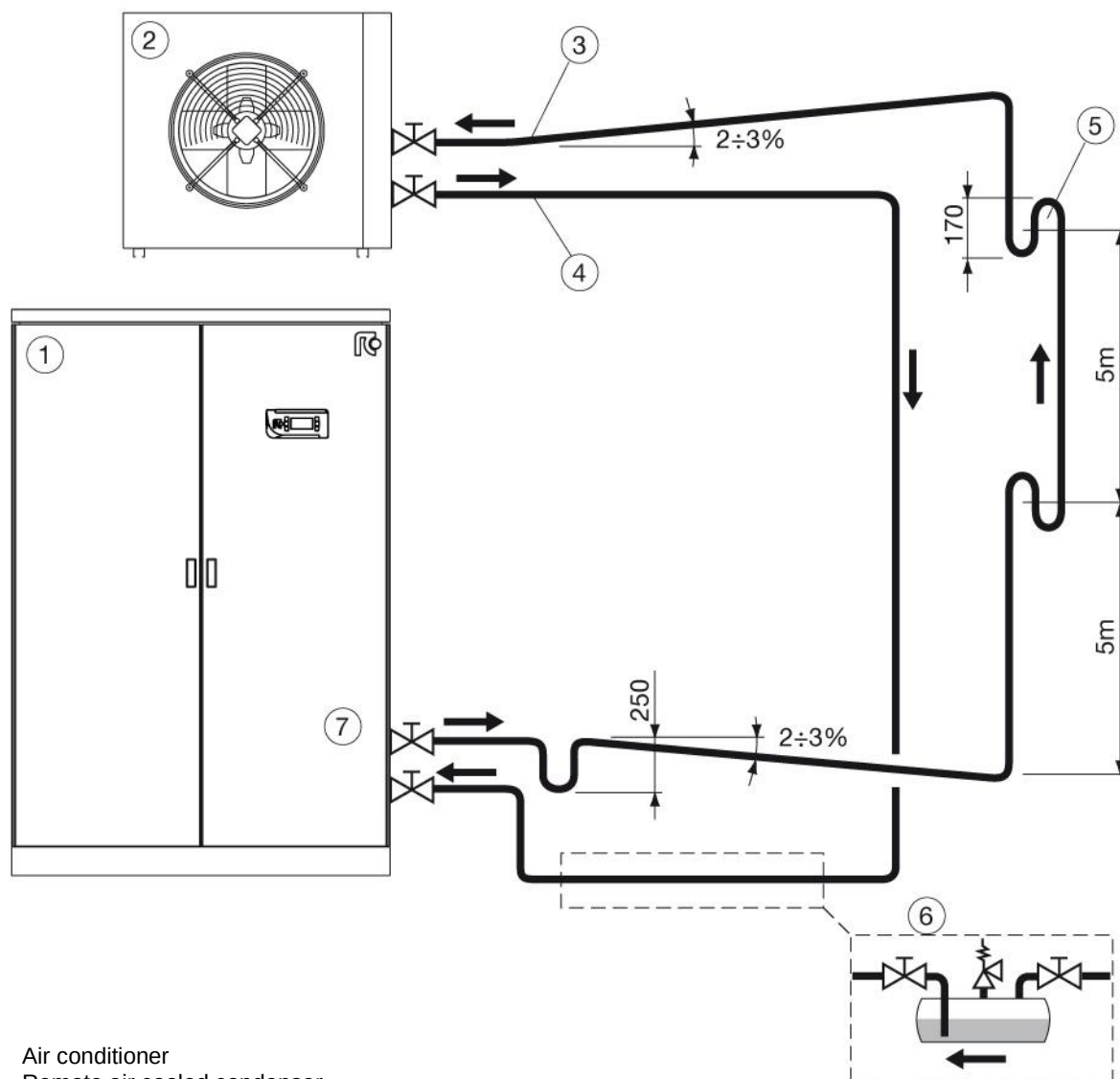


MACHINE DRAWINGS
Dimensions in mm
TEAM MATE HP T 250



TYPICAL INSTALLATION DIAGRAMS FOR DIRECT EXPANSION MACHINES WITH REMOTE AIR COOLED CONDENSER

Example of connection to air conditioner – only cooling



- 1) Air conditioner
- 2) Remote air cooled condenser
- 3) Gas discharge line
- 4) Liquid line
- 5) Trap. Foresee a trap every 5m of the rising pipe.
- 6) Additional liquid receiver external to the conditioner with valves and safety valve.
Suggested part in the following cases:
 - a) refrigerant line longer than 25-30m
 - b) plant operation with ambient temperature lower than 0°C with refrigerant line any length
 Install the liquid receiver close to the air conditioner.
- 7) Solenoid valve of the liquid line. It is an optional accessory of the air conditioner for refrigeration plants with refrigerant pipe longer than 10m

THIS DIAGRAM APPLIES TO EACH REFRIGERANT CIRCUIT OF THE UNIT.

WARNING

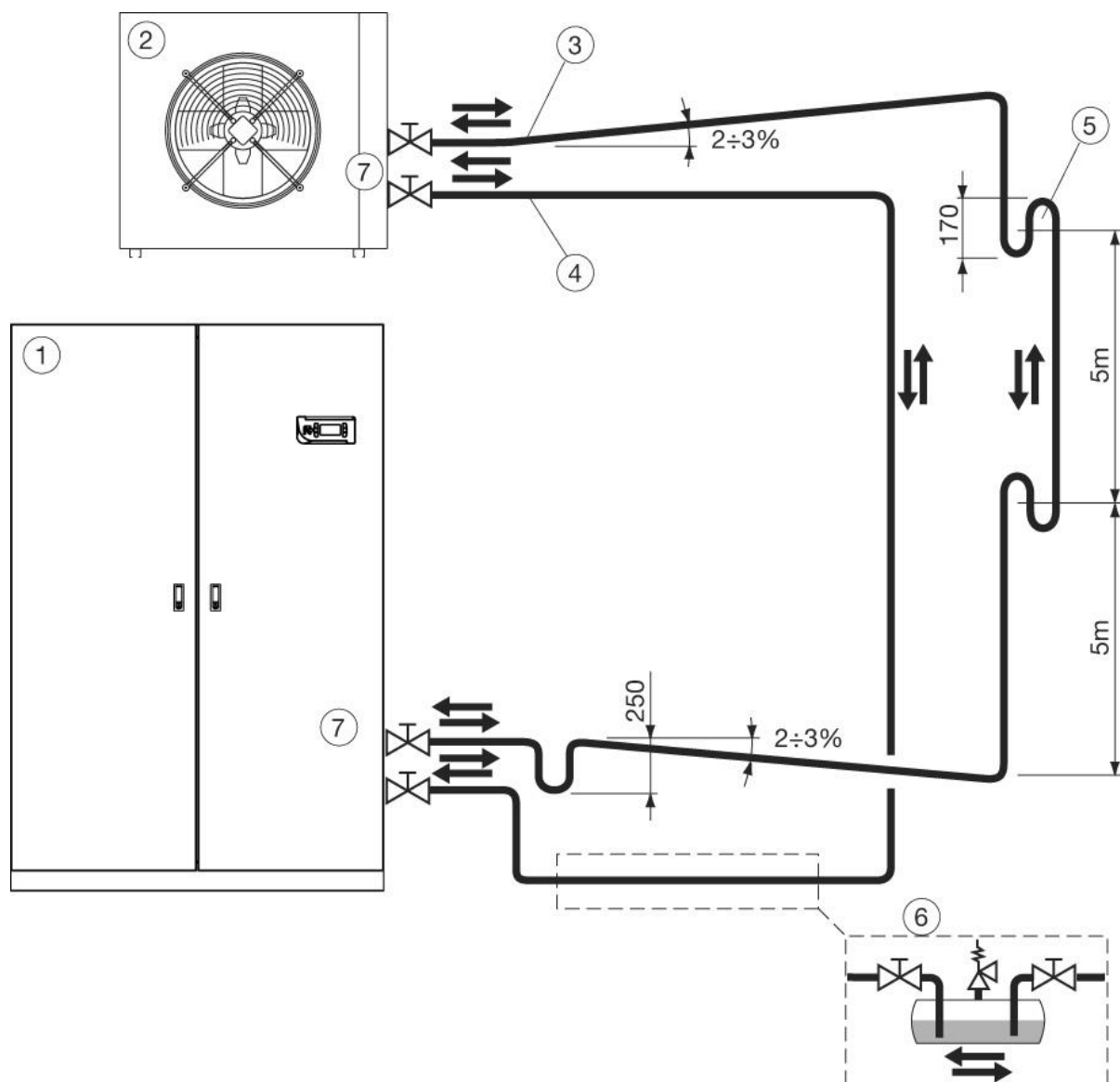
It is necessary to provide the refrigerant charge for the connection pipes and for the remote air cooled condenser.

Charge refrigerant in the suitable quantity and lubricant oil in 10% ratio of charged refrigerant.

Lubricant oil must be the same type as the charged one as shown on the compressor plate.

TYPICAL INSTALLATION DIAGRAMS FOR DIRECT EXPANSION MACHINES WITH REMOTE AIR COOLED CONDENSER

Example of connection to air conditioner – heat pump



- 1) Air conditioner
- 2) Remote air cooled condenser
- 3) Gas discharge line
- 4) Liquid line
- 5) Trap. Foresee a trap every 5m of the rising pipe.
- 6) Additional liquid receiver external to the conditioner with cocks and safety valve. Suggested part in the case of refrigerant line longer than 25-30m. Install the liquid receiver close to the air conditioner.
- 7) Solenoid valve of the liquid line. It is an optional accessory of the air conditioner for refrigeration plants with refrigerant pipe longer than 10m

THIS DIAGRAM APPLIES TO EACH REFRIGERANT CIRCUIT OF THE UNIT.

AVVERTENZE

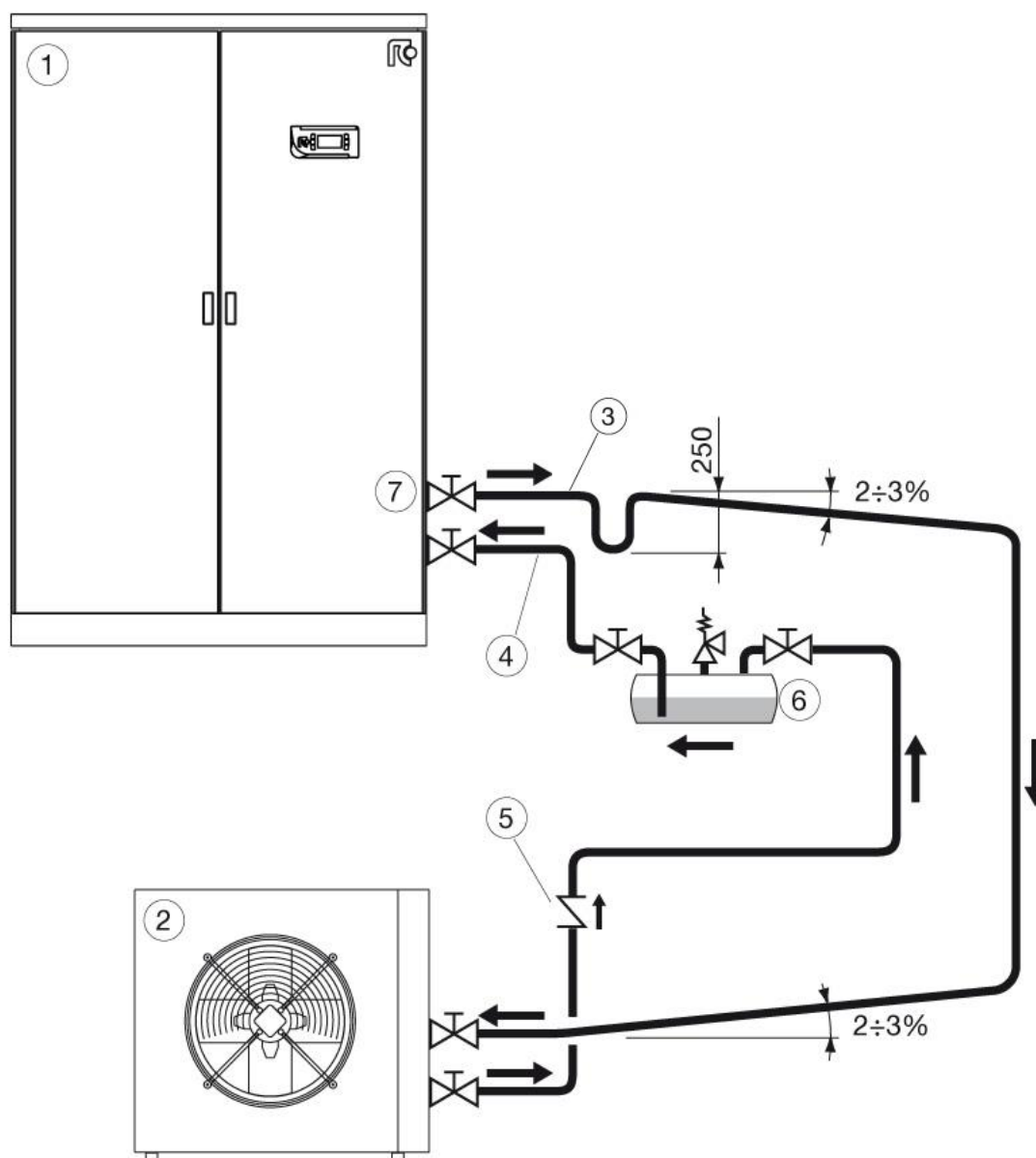
E' necessario integrare la carica refrigerante e olio lubrificante per le tubazioni di collegamento e per il condensatore ad aria remoto.

Procedere con le operazioni di carica refrigerante nelle quantità opportune e carica olio lubrificante nella proporzione del 10% sul refrigerante immesso.

L'olio deve essere dello stesso tipo di quello già presente nella macchina come indicato nella targhetta del compressore.

TYPICAL INSTALLATION DIAGRAMS FOR DIRECT EXPANSION MACHINES WITH
REMOTE AIR COOLED CONDENSER

Example of connection to air conditioner – only cooling



- 1) Air conditioner
- 2) Remote air cooled condenser
- 3) Gas discharge line
- 4) Liquid line
- 5) Non - return valve.
- 6) Additional liquid receiver external to the conditioner with valves and safety valve.
Install the liquid receiver close to the air conditioner.
- 7) Solenoid valve of the liquid line. It is an optional accessory of the air conditioner for refrigeration plants with refrigerant pipe longer than 10m

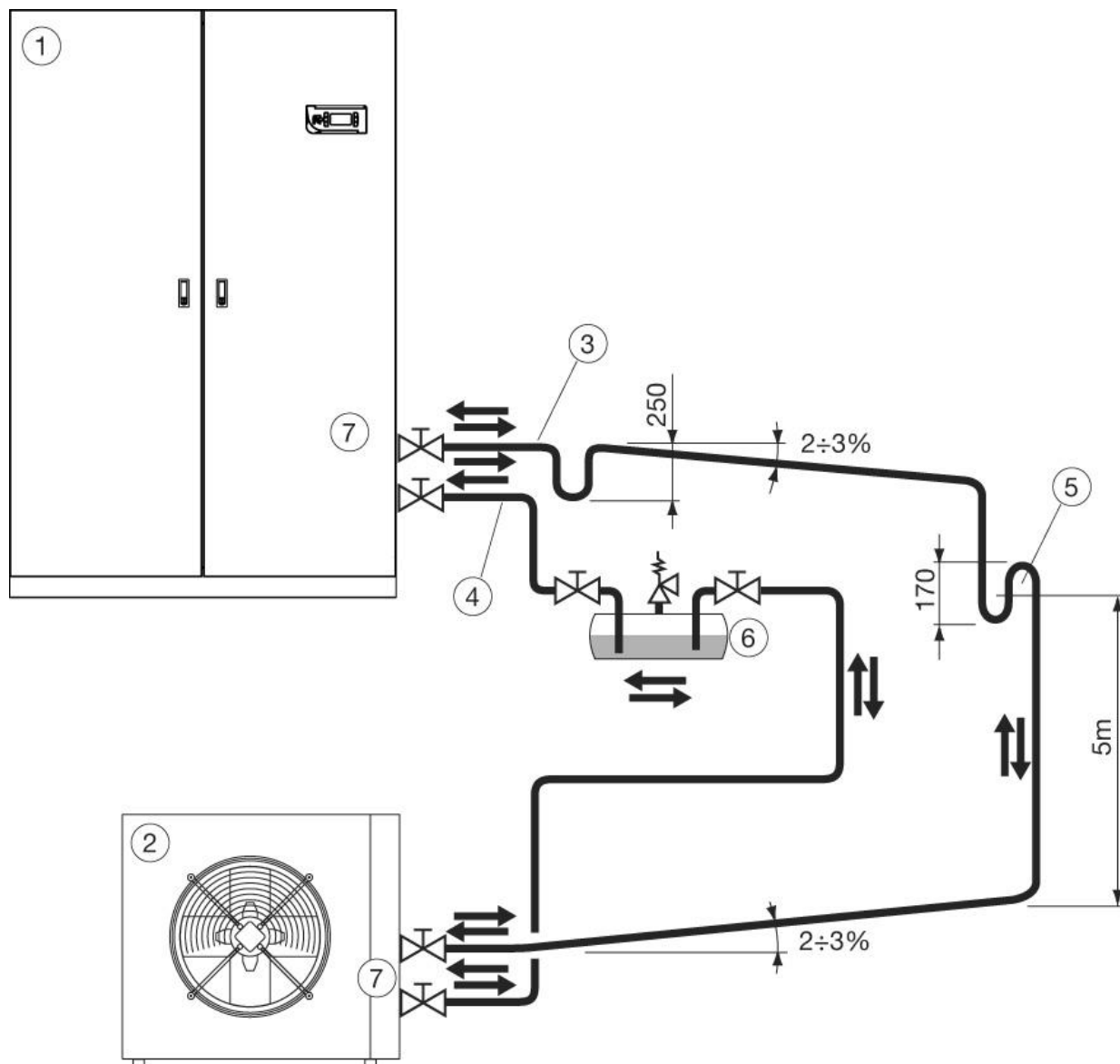
THIS DIAGRAM APPLIES TO EACH REFRIGERANT CIRCUIT OF THE UNIT.

WARNING

It is necessary to provide the refrigerant charge for the connection pipes and for the remote air cooled condenser.
Charge refrigerant in the suitable quantity and lubricant oil in 10% ratio of charged refrigerant.
Lubricant oil must be the same type as the charged one as shown on the compressor plate.

TYPICAL INSTALLATION DIAGRAMS FOR DIRECT EXPANSION MACHINES WITH REMOTE AIR COOLED CONDENSER

Example of connection to air conditioner – heat pump



- 1) Air conditioner
- 2) Remote air cooled condenser
- 3) Gas discharge line
- 4) Liquid line
- 5) Trap. Foresee a trap every 5m of the rising pipe.
- 6) Additional liquid receiver external to the conditioner with cocks and safety valve. Install the liquid receiver close to the air conditioner.
- 7) Solenoid valve of the liquid line. It is an optional accessory of the air conditioner for refrigeration plants with refrigerant pipe longer than 10m

THIS DIAGRAM APPLIES TO EACH REFRIGERANT CIRCUIT OF THE UNIT.

WARNING

It is necessary to provide the refrigerant charge for the connection pipes and for the remote air cooled condenser.

Charge refrigerant in the suitable quantity and lubricant oil in 10% ratio of charged refrigerant.

Lubricant oil must be the same type as the charged one as shown on the compressor plate.

team mate

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team mate

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



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