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fifty cool years

# team mate pf

## 12,1 ÷ 154 kW

Air cooled condensers equipped with plug-fans

**technical**catalogue
T_TMTPF_0713_GB

**rcgroup**airconditioning

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## GENERAL CHARACTERISTICS

**TEAM MATE PF:** Remote air cooled condensers equipped with plug fans.

**TEAM MATE HP PF:** Remote air/gas exhaustion heat exchangers equipped with plug fans.

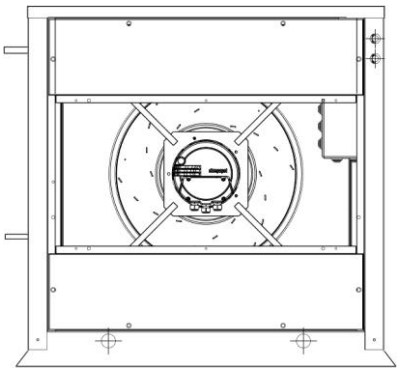
The machines are designed for indoor installation and ducting for air suction and discharge.
For outdoor installation the machine must be installed under a cover or anyway protected against atmospherics agent.

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 PF remote air cooled condensers equipped with plug fans.
*Nominal capacity*: 12,1 ÷ 154,0 kW

The TEAM MATE PF series is available in 3 versions:

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

TEAM MATE HP PF remote air/gas exhaustion heat exchanger series equipped with plug-fans.
*Nominal capacity*: 12,1 ÷ 154,0kW

The TEAM MATE HP PF series is available in 3 versions:

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

## MODEL IDENTIFICATION

**TEAM MATE HP PF STD T 14**

**TEAM MATE Series identification**

**HP Machine type**
HP for heat pump version only

**PF Machine equipped with plug-fan**

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

**M Power supply**
T 380-480/3/50-60

**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

- Centrifugal fans with backward curved blades with wing profile, single suction and without scroll housings (Plug-fans).
- Brushless type synchronous EC motor 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 according to the 0÷10V proportional signal coming from the internal unit microprocessor control.
- Maintenance-free bearings
- 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 PF

- 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 PF 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).
  - 380-480/3/50-60 for models “T”
- Terminals for 0÷10V signal for condensing control system (connect to indoor machine).
- Terminals for alarm signal (connect to indoor machine).

## TECHNICAL DATA – TEAM MATE PF

| MODEL | | T 11 | T 14 | T 17 | T 21 | T 24 |
|---|---|---|---|---|---|---|
| **TEAM MATE PF STD** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 12,1 | 15,6 | 18,2 | 21,6 | 25,0 |
| With R407C refrigerant charge | kW | 12,0 | 15,6 | 18,2 | 21,6 | 25,0 |
| With R134a refrigerant charge | kW | 11,7 | 15,3 | 17,9 | 21,3 | 24,7 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 4900 | 4900 | 4900 | 4900 | 6400 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,38 | 0,42 | 0,45 | 0,52 | 0,64 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 61,6 | 61,6 | 61,5 | 61,5 | 67,1 |
| **TEAM MATE PF LNO** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 10,8 | 13,7 | 15,9 | 18,8 | 21,6 |
| With R407C refrigerant charge | kW | 10,5 | 13,7 | 15,9 | 18,8 | 21,6 |
| With R134a refrigerant charge | kW | 10,2 | 13,3 | 15,5 | 18,4 | 21,0 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 4165 | 4165 | 4165 | 4165 | 5440 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,26 | 0,28 | 0,30 | 0,34 | 0,42 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 57,7 | 57,7 | 57,6 | 57,6 | 63,2 |
| **TEAM MATE PF ELN** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 9,5 | 11,9 | 13,7 | 16,0 | 18,7 |
| With R407C refrigerant charge | kW | 9,3 | 11,9 | 13,7 | 16,0 | 18,7 |
| With R134a refrigerant charge | kW | 9,1 | 11,6 | 13,4 | 15,7 | 18,2 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 3430 | 3430 | 3430 | 3430 | 4480 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,16 | 0,17 | 0,19 | 0,21 | 0,26 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 53,1 | 53,1 | 53,0 | 53,0 | 58,6 |
| **COMMON DATA** | | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 0,8 | 1,2 | 1,7 | 2,6 | 2,5 |
| **DIMENSIONS** | | | | | | |
| Length | mm | 890 | 890 | 890 | 890 | 1190 |
| Width | mm | 880 | 880 | 880 | 880 | 880 |
| Height | mm | 900 | 900 | 900 | 900 | 900 |
| **NET WEIGHT** | kg | 143 | 148 | 153 | 163 | 210 |

1. 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.

**IMPORTANT**

**For fans calculation at non nominal condition please contact RC Group.**

TECHNICAL DATA – TEAM MATE PF

| MODEL | | T 33 | T 38 | T 44 | T 58 | T 69 |
|---|---|---|---|---|---|---|
| **TEAM MATE PF STD** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 35,1 | 39,8 | 46,5 | 62,0 | 73,1 |
| With R407C refrigerant charge | kW | 35,1 | 39,8 | 46,5 | 62,0 | 73,1 |
| With R134a refrigerant charge | kW | 34,7 | 39,3 | 46 | 61,2 | 72,4 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 8000 | 10000 | 10000 | 16000 | 16000 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 1,30 | 1,14 | 1,24 | 2,18 | 2,39 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 72,0 | 71,1 | 71,3 | 77,3 | 77,4 |
| **TEAM MATE PF LNO** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 30,2 | 34,5 | 40,1 | 53,4 | 62,7 |
| With R407C refrigerant charge | kW | 30,2 | 34,5 | 40,1 | 53,4 | 62,7 |
| With R134a refrigerant charge | kW | 29,4 | 33,7 | 39,3 | 51,8 | 61,3 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 6800 | 8500 | 8500 | 13600 | 13600 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 0,83 | 0,74 | 0,80 | 1,40 | 1,51 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 68,1 | 67,2 | 67,4 | 73,4 | 73,5 |
| **TEAM MATE PF ELN** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 25,8 | 29,7 | 34,0 | 46,2 | 53,4 |
| With R407C refrigerant charge | kW | 25,8 | 29,7 | 34 | 46,2 | 53,4 |
| With R134a refrigerant charge | kW | 25,2 | 29,1 | 33,5 | 45 | 52,4 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 5600 | 7000 | 7000 | 11200 | 11200 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 0,50 | 0,49 | 0,48 | 0,84 | 0,92 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 63,5 | 62,6 | 62,8 | 68,8 | 68,9 |
| **COMMON DATA** | | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 3,8 | 4,3 | 6,4 | 5,9 | 8,8 |
| **DIMENSIONS** | | | | | | |
| Length | mm | 1190 | 1390 | 1390 | 1840 | 1840 |
| Width | mm | 880 | 880 | 880 | 880 | 880 |
| Height | mm | 900 | 1300 | 1300 | 1300 | 1300 |
| **NET WEIGHT** | kg | 222 | 284 | 310 | 387 | 421 |

1. 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.

**IMPORTANT**
**For fans calculation at non nominal condition please contact RC Group.**

TECHNICAL DATA – TEAM MATE PF

| MODEL | | T 86 | T108 | T114 | T144 |
|---|---|---|---|---|---|
| **TEAM MATE PF STD** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 91,0 | 113,0 | 122,0 | 154,0 |
| With R407C refrigerant charge | kW | 91,0 | 113,0 | 122,0 | 154,0 |
| With R134a refrigerant charge | kW | 89,9 | 111 | 121 | 152 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 24000 | 32000 | 28000 | 36000 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 3,34 | 4,74 | 5,63 | 7,40 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 80,3 | 81,8 | 83,7 | 84,5 |
| **TEAM MATE PF LNO** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 78,6 | 98,9 | 105,0 | 131,0 |
| With R407C refrigerant charge | kW | 78,6 | 98,9 | 105 | 131 |
| With R134a refrigerant charge | kW | 76,2 | 96,2 | 102,0 | 127,0 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 20400 | 27200 | 23800 | 30600 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 2,15 | 3,04 | 3,57 | 4,69 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 76,4 | 77,9 | 79,8 | 80,6 |
| **TEAM MATE PF ELN** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 68,1 | 85,9 | 89,8 | 113,0 |
| With R407C refrigerant charge | kW | 68,1 | 85,9 | 89,8 | 113 |
| With R134a refrigerant charge | kW | 66,4 | 83,8 | 87,9 | 110 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 16800 | 22400 | 19600 | 25200 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 1,29 | 1,82 | 2,10 | 2,76 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 71,8 | 73,3 | 75,2 | 76,0 |
| **COMMON DATA** | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 10,2 | 9,4 | 10,3 | 14,0 |
| **DIMENSIONS** | | | | | |
| Length | mm | 2290 | 1840 | 2290 | 1840 |
| Width | mm | 880 | 880 | 880 | 880 |
| Height | mm | 1300 | 1800 | 1300 | 1800 |
| **NET WEIGHT** | kg | 515 | 625 | 557 | 673 |

1. 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.

**IMPORTANT**

**For fans calculation at non nominal condition please contact RC Group.**

## TECHNICAL DATA – TEAM MATE HP PF

| MODEL | | T 11 | T 14 | T 17 | T 21 | T 24 |
|---|---|---|---|---|---|---|
| **TEAM MATE HP PF STD** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 12,1 | 15,8 | 18,4 | 21,9 | 25,3 |
| With R407C refrigerant charge | kW | 12,0 | 15,6 | 18,2 | 21,6 | 25,0 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 4900 | 4900 | 4900 | 4900 | 6400 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,38 | 0,42 | 0,45 | 0,52 | 0,64 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 61,6 | 61,6 | 61,5 | 61,5 | 67,1 |
| **TEAM MATE HP PF LNO** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 10,9 | 14,1 | 16,3 | 19,1 | 22,3 |
| With R407C refrigerant charge | kW | 10,8 | 13,9 | 16,1 | 18,9 | 22,1 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 4165 | 4165 | 4165 | 4165 | 5440 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,26 | 0,28 | 0,30 | 0,34 | 0,42 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 57,7 | 57,7 | 57,6 | 57,6 | 63,2 |
| **TEAM MATE HP PF ELN** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 9,6 | 12,3 | 14,1 | 16,3 | 19,2 |
| With R407C refrigerant charge | kW | 9,5 | 12,1 | 13,9 | 16,1 | 19,0 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 1 | 1 |
| Air flow | m³/h | 3430 | 3430 | 3430 | 3430 | 4480 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 375 | 350 | 332 | 290 | 748 |
| Operating power input | kW | 0,16 | 0,17 | 0,19 | 0,21 | 0,26 |
| Max operating current (FLA) | A | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 53,1 | 53,1 | 53,0 | 53,0 | 58,6 |
| **COMMON DATA** | | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 0,8 | 1,2 | 1,7 | 2,6 | 2,5 |
| **DIMENSIONS** | | | | | | |
| Length | mm | 890 | 890 | 890 | 890 | 1190 |
| Width | mm | 880 | 880 | 880 | 880 | 880 |
| Height | mm | 900 | 900 | 900 | 900 | 900 |
| **NET WEIGHT** | kg | 148 | 153 | 158 | 168 | 218 |

1. 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.

**IMPORTANT**
**For fans calculation at non nominal condition please contact RC Group.**

TECHNICAL DATA – TEAM MATE HP PF

| MODEL | | T 33 | T 38 | T 44 | T 58 | T 69 |
|---|---|---|---|---|---|---|
| **TEAM MATE HP PF STD** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 35,5 | 40,2 | 46,9 | 62,6 | 73,7 |
| With R407C refrigerant charge | kW | 35,1 | 39,8 | 46,5 | 62,0 | 73,1 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 8000 | 10000 | 10000 | 16000 | 16000 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 1,30 | 1,14 | 1,24 | 2,18 | 2,39 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 72,0 | 71,1 | 71,3 | 77,3 | 77,4 |
| **TEAM MATE HP PF LNO** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 31,1 | 35,5 | 40,9 | 55,3 | 64,4 |
| With R407C refrigerant charge | kW | 30,8 | 35,1 | 40,6 | 54,8 | 63,9 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 6800 | 8500 | 8500 | 13600 | 13600 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 0,83 | 0,74 | 0,80 | 1,40 | 1,51 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 68,1 | 67,2 | 67,4 | 73,4 | 73,5 |
| **TEAM MATE HP PF ELN** | | | | | | |
| **CAPACITY (1)** | | | | | | |
| With R410A refrigerant charge | kW | 26,4 | 30,4 | 34,6 | 47,6 | 54,6 |
| With R407C refrigerant charge | kW | 26,2 | 30,1 | 34,3 | 47,2 | 54,2 |
| **AXIAL FANS** | n. | 1 | 1 | 1 | 2 | 2 |
| Air flow | m³/h | 5600 | 7000 | 7000 | 11200 | 11200 |
| External static pressure | Pa | 50 | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 474 | 298 | 268 | 552 | 512 |
| Operating power input | kW | 0,50 | 0,49 | 0,48 | 0,84 | 0,92 |
| Max operating current (FLA) | A | 4,3 | 3,6 | 3,6 | 8,6 | 8,6 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 63,5 | 62,6 | 62,8 | 68,8 | 68,9 |
| **COMMON DATA** | | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 3,8 | 4,3 | 6,4 | 5,9 | 8,8 |
| **DIMENSIONS** | | | | | | |
| Length | mm | 1190 | 1390 | 1390 | 1840 | 1840 |
| Width | mm | 880 | 880 | 880 | 880 | 880 |
| Height | mm | 900 | 1300 | 1300 | 1300 | 1300 |
| **NET WEIGHT** | kg | 230 | 292 | 318 | 397 | 431 |

1. 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.

**IMPORTANT**
**For fans calculation at non nominal condition please contact RC Group.**

TECHNICAL DATA – TEAM MATE HP PF

| MODEL | | T 86 | T108 | T114 | T144 |
|---|---|---|---|---|---|
| **TEAM MATE HP PF STD** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 91,9 | 114,0 | 123,0 | 155,0 |
| With R407C refrigerant charge | kW | 91,0 | 113,0 | 122,0 | 154,0 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 24000 | 32000 | 28000 | 36000 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 3,34 | 4,74 | 5,63 | 7,40 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 80,3 | 81,8 | 83,7 | 84,5 |
| **TEAM MATE HP PF LNO** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 81,4 | 102,0 | 108,0 | 136,0 |
| With R407C refrigerant charge | kW | 80,6 | 100,0 | 107,0 | 135,0 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 20400 | 27200 | 23800 | 30600 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 2,15 | 3,04 | 3,57 | 4,69 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 76,4 | 77,9 | 79,8 | 80,6 |
| **TEAM MATE HP PF ELN** | | | | | |
| **CAPACITY (1)** | | | | | |
| With R410A refrigerant charge | kW | 70,1 | 88,1 | 92,0 | 116,0 |
| With R407C refrigerant charge | kW | 69,5 | 87,0 | 91,3 | 115,0 |
| **AXIAL FANS** | n. | 3 | 3 | 3 | 4 |
| Air flow | m³/h | 16800 | 22400 | 19600 | 25200 |
| External static pressure | Pa | 50 | 50 | 50 | 50 |
| Max esternal static pressure | Pa | 542 | 515 | 204 | 237 |
| Operating power input | kW | 1,29 | 1,82 | 2,10 | 2,76 |
| Max operating current (FLA) | A | 12,9 | 17,2 | 12,9 | 17,2 |
| **AVERAGE SOUND PRESSURE LEVEL (2)** | dB(A) | 71,8 | 73,3 | 75,2 | 76,0 |
| **COMMON DATA** | | | | | |
| **POWER SUPPLY** | V/ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| **REFRIGERANT CHARGE (3)** | kg | 10,2 | 9,4 | 10,3 | 14,0 |
| **DIMENSIONS** | | | | | |
| Length | mm | 2290 | 1840 | 2290 | 1840 |
| Width | mm | 880 | 880 | 880 | 880 |
| Height | mm | 1300 | 1800 | 1300 | 1800 |
| **NET WEIGHT** | kg | 529 | 641 | 571 | 689 |

1. 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.

**IMPORTANT**
**For fans calculation at non nominal condition please contact RC Group.**

## ACOUSTIC DATA – TEAM MATE PF / TEAM MATE HP PF

**TEAM MATE PF STD, TEAM MATE HP PF STD**

| MODEL | | T 11 | T 14 | T 17 | T 21 | T 24 | T 33 | T 38 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **76,2** | **76,2** | **76,1** | **76,1** | **82,5** | **87,4** | **86,6** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 61,6 | 61,6 | 61,5 | 61,5 | 67,1 | 72,0 | 71,1 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 50,5 | 50,5 | 50,4 | 50,4 | 56,5 | 61,4 | 60,7 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 44,9 | 44,9 | 44,8 | 44,8 | 51,1 | 56,0 | 55,2 |

| MODEL | | T 44 | T 58 | T 69 | T 86 | T108 | T114 | T144 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **86,8** | **93,4** | **93,5** | **96,9** | **98,7** | **100,3** | **101,4** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 71,3 | 77,3 | 77,4 | 80,3 | 81,8 | 83,7 | 84,5 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 60,9 | 67,2 | 67,3 | 70,6 | 72,3 | 74,0 | 75,0 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 55,4 | 61,9 | 62,0 | 65,3 | 67,0 | 68,7 | 69,7 |

**TEAM MATE PF LNO, TEAM MATE HP PF LNO**

| MODEL | | T 11 | T 14 | T 17 | T 21 | T 24 | T 33 | T 38 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **72,3** | **72,3** | **72,2** | **72,2** | **78,6** | **83,5** | **82,7** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 57,7 | 57,7 | 57,6 | 57,6 | 63,2 | 68,1 | 67,2 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 46,6 | 46,6 | 46,5 | 46,5 | 52,7 | 57,6 | 56,8 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 41,0 | 41,0 | 40,9 | 40,9 | 47,2 | 52,1 | 51,3 |

| MODEL | | T 44 | T 58 | T 69 | T 86 | T108 | T114 | T144 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **82,9** | **89,5** | **89,6** | **93,0** | **94,8** | **96,4** | **97,5** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 67,4 | 73,4 | 73,5 | 76,4 | 77,9 | 79,8 | 80,6 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 57,0 | 63,4 | 63,5 | 66,7 | 68,4 | 70,1 | 71,1 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 51,5 | 58,0 | 58,1 | 61,4 | 63,1 | 64,8 | 65,8 |

**TEAM MATE PF ELN, TEAM MATE HP PF ELN**

| MODEL | | T 11 | T 14 | T 17 | T 21 | T 24 | T 33 | T 38 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **67,6** | **67,6** | **67,5** | **67,5** | **73,9** | **78,8** | **78,1** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 53,1 | 53,1 | 53,0 | 53,0 | 58,6 | 63,5 | 62,6 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 42,0 | 42,0 | 41,9 | 41,9 | 48,0 | 52,9 | 52,2 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 36,4 | 36,4 | 36,3 | 36,3 | 42,6 | 47,5 | 46,7 |

| MODEL | | T 44 | T 58 | T 69 | T 86 | T108 | T114 | T144 |
|---|---|---|---|---|---|---|---|---|
| Sound power level [Lw] (1) | dB(A) | **78,3** | **84,8** | **84,9** | **88,3** | **90,2** | **91,7** | **92,9** |
| Average sound pressure level | | | | | | | | |
| at 1m [$L_{Pm}$] (2) | dB(A) | 62,8 | 68,8 | 68,9 | 71,8 | 73,3 | 75,2 | 76,0 |
| at 5m [$L_{Pm}$] (2) | dB(A) | 52,4 | 58,7 | 58,8 | 62,1 | 63,8 | 65,5 | 66,5 |
| at 10m [$L_{Pm}$] (2) | dB(A) | 46,9 | 53,3 | 53,4 | 56,8 | 58,5 | 60,2 | 61,2 |

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

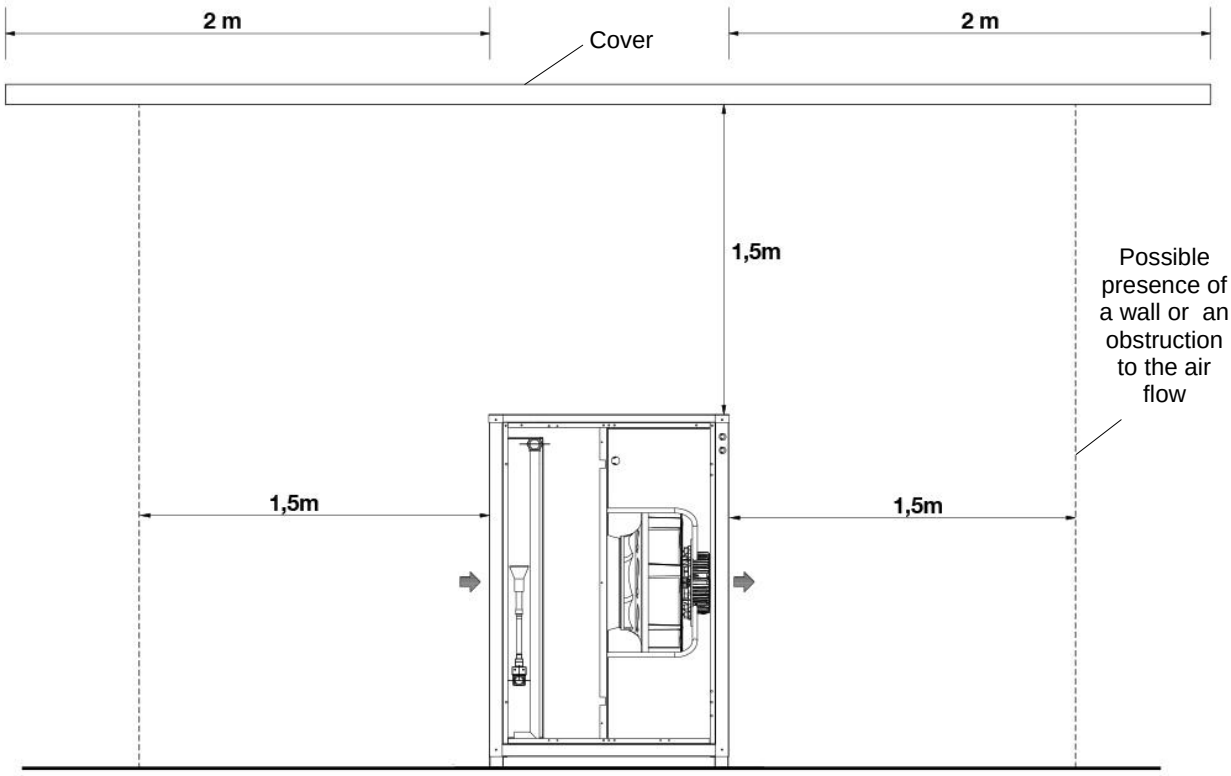
**IMPORTANT**

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

## OUTDOOR INSTALLATION

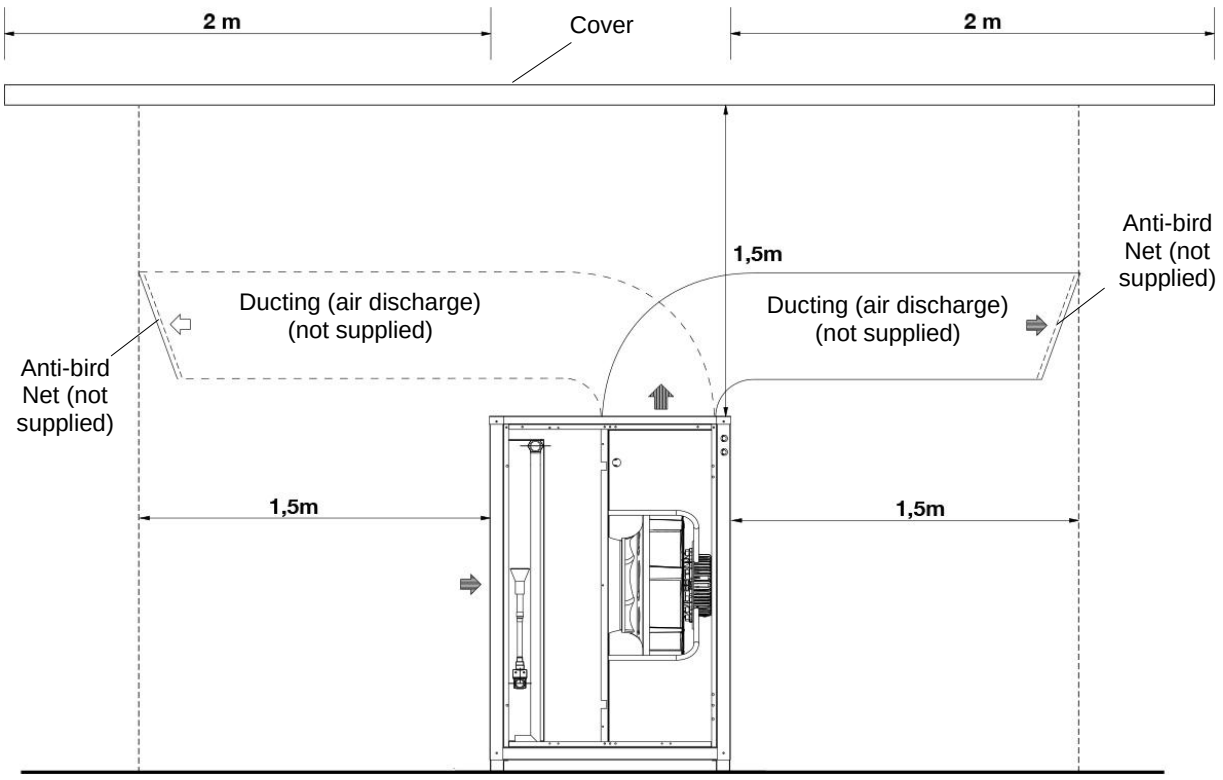
The machine must be installed under a cover or anyway protected against atmospherics agent. The dimensions of the cover must consider the possibility of transversal rain, characterized by an higher inclination of the rainfall caused by the wind. Only the installations with horizontal air discharge flow are permitted without ducting.

**OUTDOOR INSTALLATION – HORIZONTAL AIR DISCHARGE**



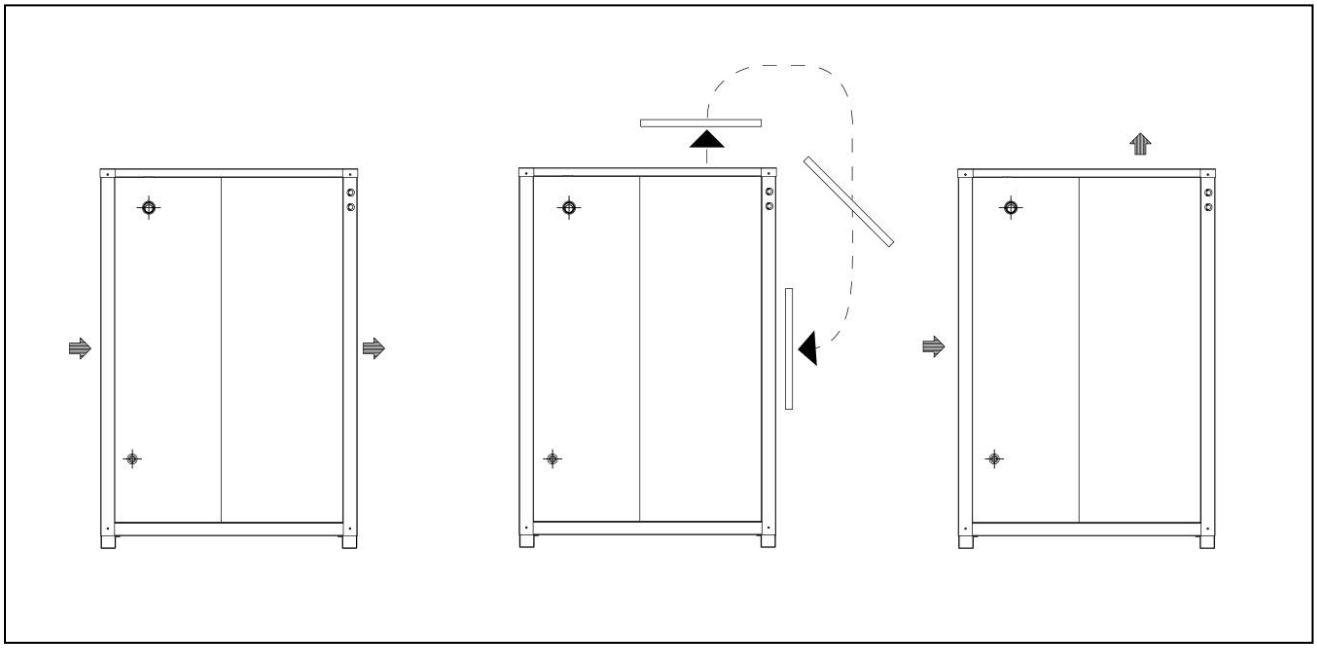
In case of vertical air discharge, ducting is mandatory.

**OUTDOOR INSTALLATION – VERTICAL AIR DISCHARGE**




**IMPORTANT**
**Plug fan must be protected from direct rain and atmospherics agents.**

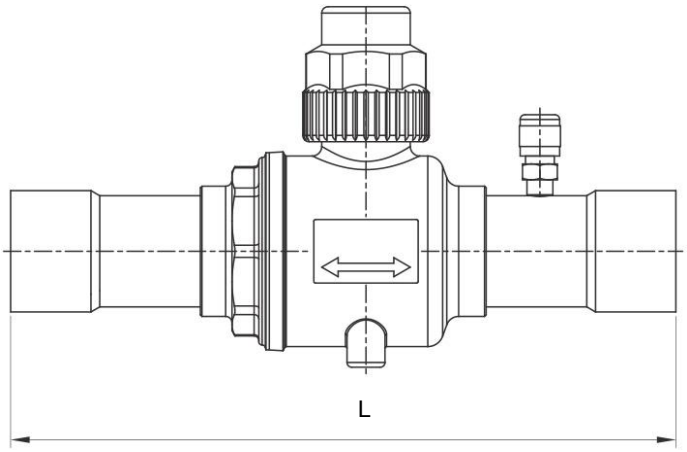
## HORIZONTAL / VERTICAL AIR DELIVERY

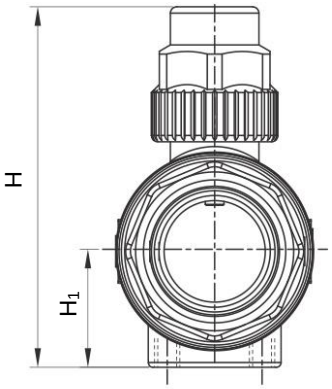


To change air delivery mode, from vertical to horizontal air delivery:

- Remove the panel on the top of the unit;
- riposizionare il pannello rimosso sul fronte dell'unità.

## BALL VALVES - supplied in kit



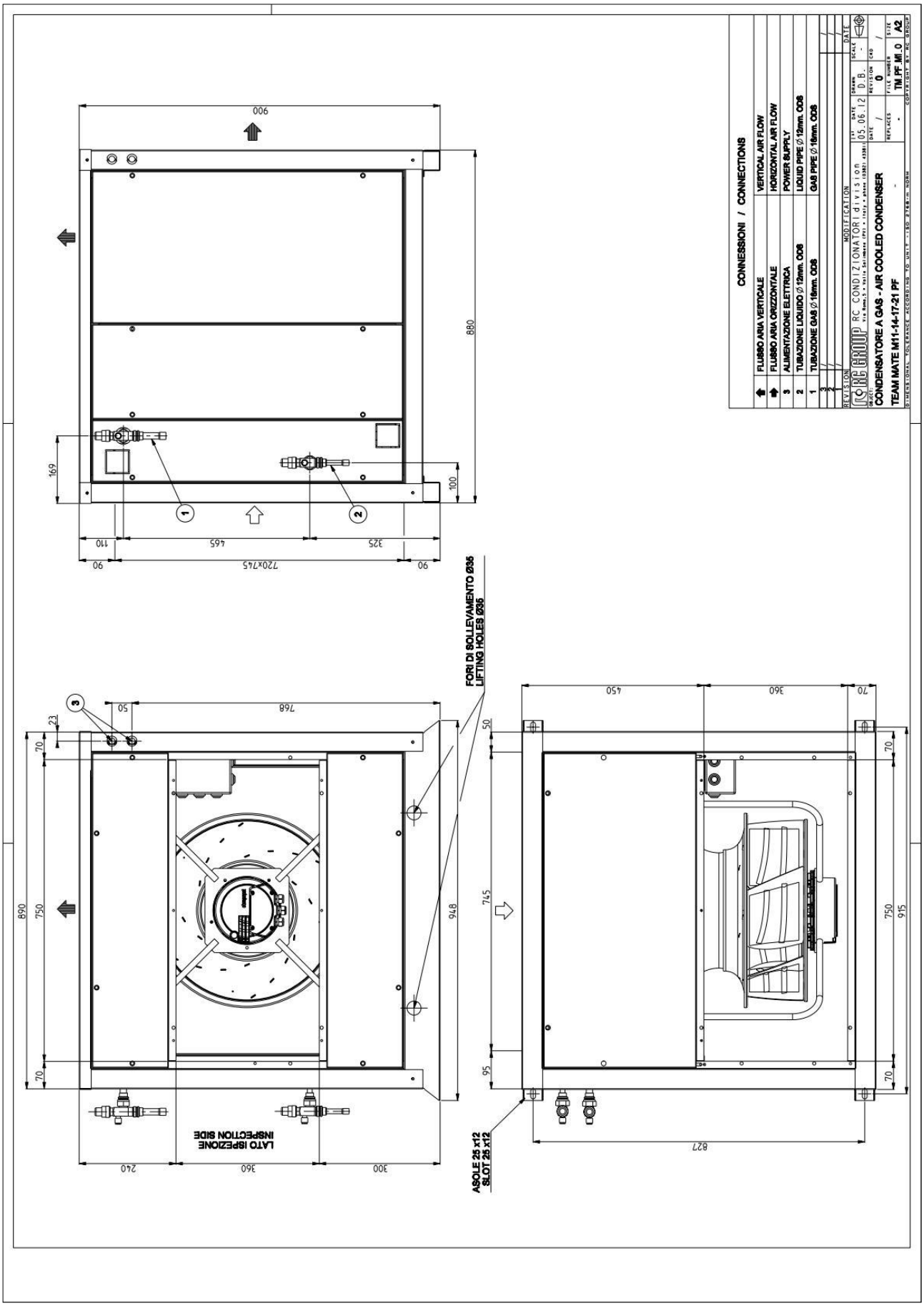




| Catalogue Number | | Connections | | Kv Factor [$m^3$/h] | PS [bar] | Dimensions [mm] | | | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|
| | | ODS | | | | | | | |
| Without access fitting | With access fitting | Ø [in.] | Ø [mm] | | | H | $H_1$ | L | |
| 6590/M6 | – | – | 6 | 0,8 | 45 | 73 | 20 | 121 | 260 |
| 6590/2 | | 1/4" | – | | | | | | |
| 6590/3 | 6590/3A | 3/8" | – | 3 | | | | | 300 |
| 6590/M10 | 6590/M10A | – | 10 | | | | | | |
| 6590/M12 | 6590/M12A | – | 12 | 5 | | | | | |
| 6590/4 | 6590/4A | 1/2" | – | | | | | | |
| 6591/5 | – | 5/8" | 16 | | | | | 138 | 290 |
| 6590/M15 | 6590/M15A | – | 15 | 14,5 | | 80 | 24 | 141 | 410 |
| 6590/5 | 6590/5A | 5/8" | 16 | | | | | | |
| 6590/M18 | 6590/M18A | – | 18 | | | | | | |
| 6590/6 | 6590/6A | 3/4" | – | | | | | | |
| 6591/7 | – | 7/8" | 22 | | | | | 177 | 450 |
| 6590/7 | 6590/7A | 7/8" | 22 | 24 | | 95,5 | 27,5 | 175 | 760 |
| 6591/M28 | – | – | 28 | | | | - | 206 | 800 |
| 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 | | | | | 248 | |
| 6590/11 | 6590/11A | 1.3/8" | 35 | 68 | | 117 | 37 | 210 | 1518 |
| 6591/13 | – | 1.5/8" | – | | | | | | |
| 6591/M42 | | – | 42 | | | | | | |
| 6590/13 | 6590/13A | 1.5/8" | – | 100 | | 127 | 44 | 239 | 2470 |
| 6590/M42 | 6590/M42A | – | 42 | | | | | | |
| 6591/17 | – | 2.1/8" | 54 | | | | | 253 | 2520 |
| 6590/17 | 6590/17A | 2.1/8" | 54 | 178 | | 148 | 54 | 275 | 4360 |
| 6591/M64 | 6591/M64A | – | 64 | | | | | | 4400 |
| 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 | 42 | 196,5 | 75 | 380 | 12400 |
| | 6591/28A | 3.1/2" | 89 | | | | | | 12450 |
| | 6591/29A | 3.5/8" | – | | | | | | |
| | 6591/33A | 4.1/8" | 105 | | | | | 400 | 12500 |

## MACHINE DRAWINGS

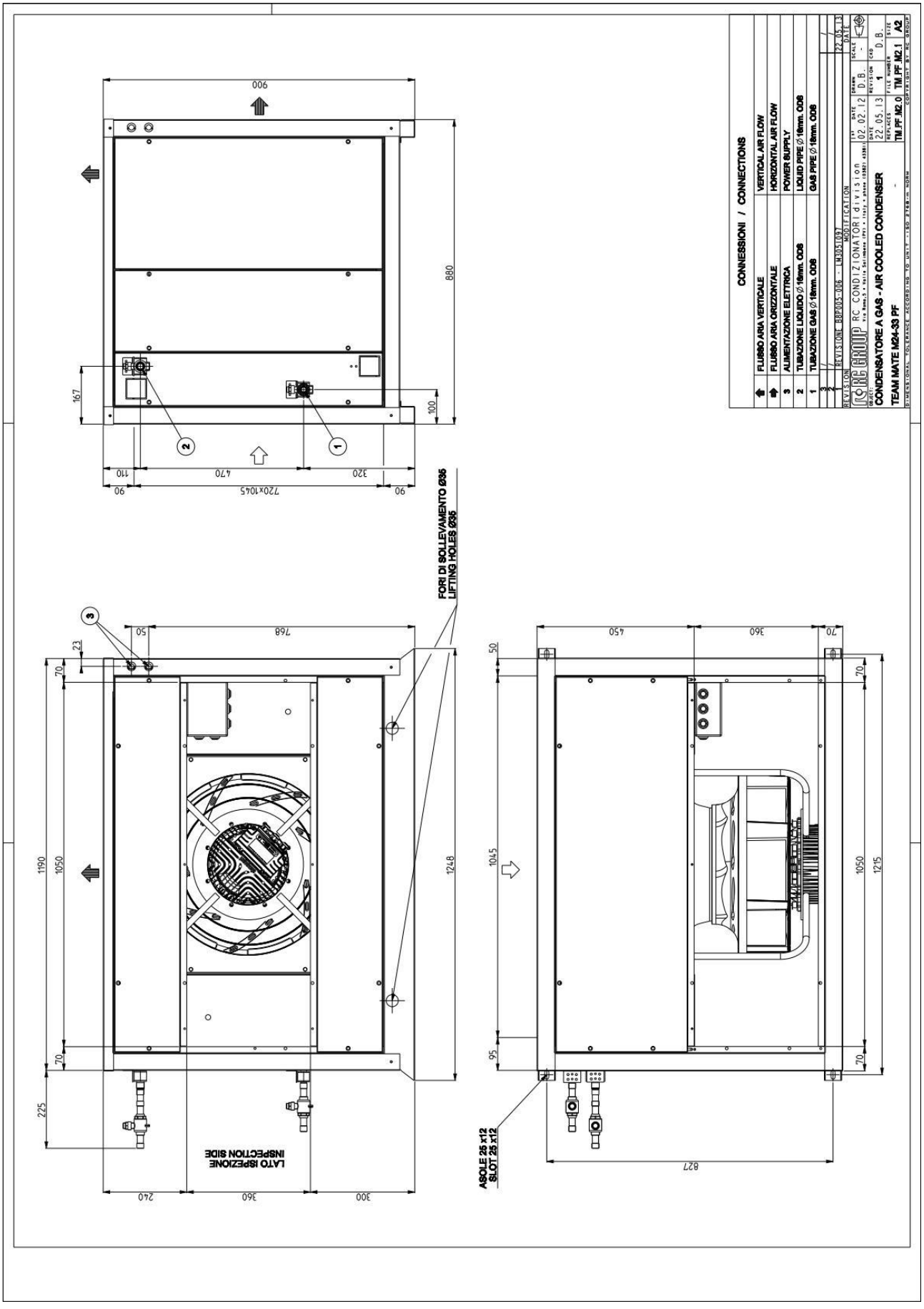
**Dimensions in mm**

**TEAM MATE PF T 11, T 14, T 17, T 21**



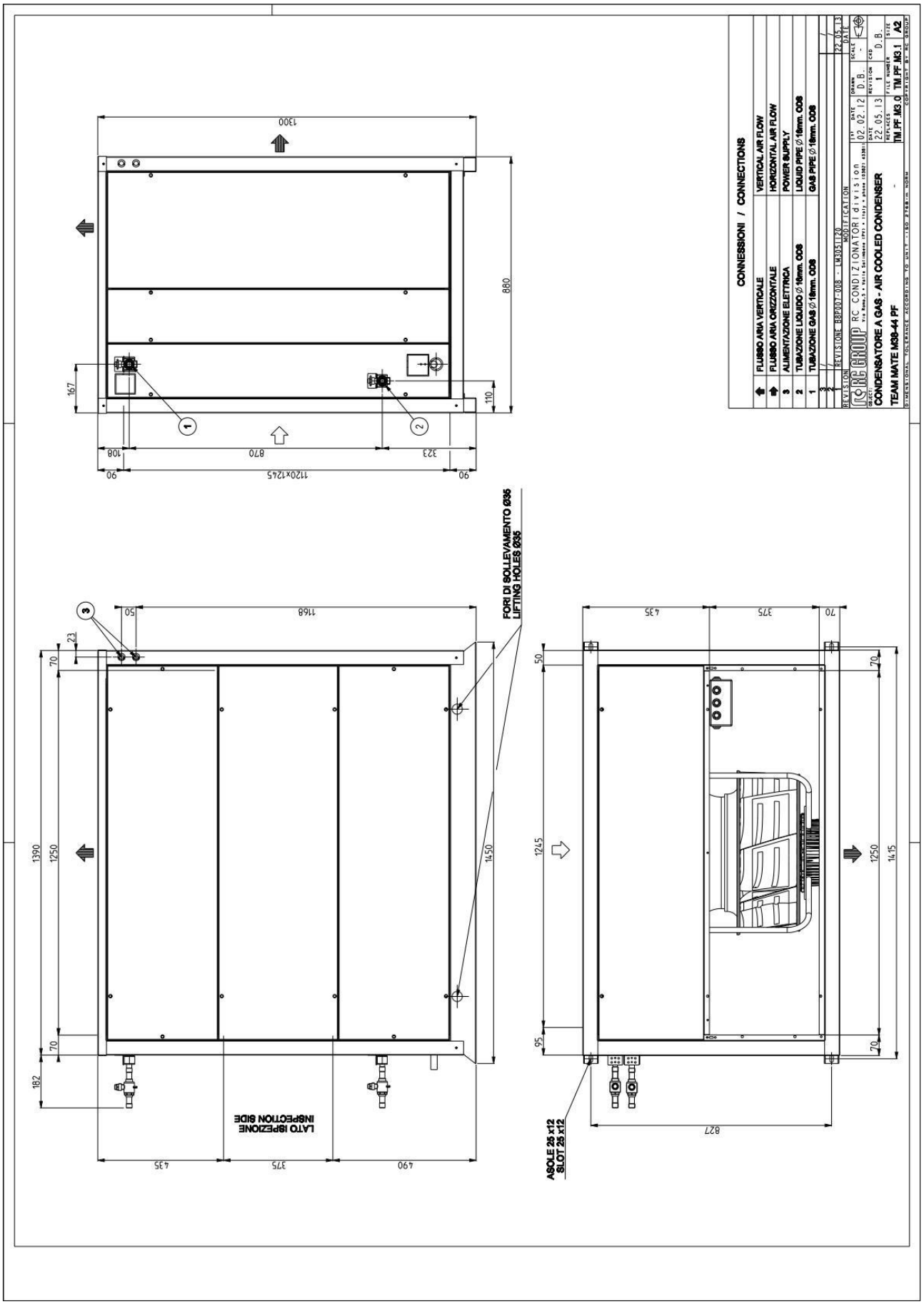
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE PF T 24, T 33**



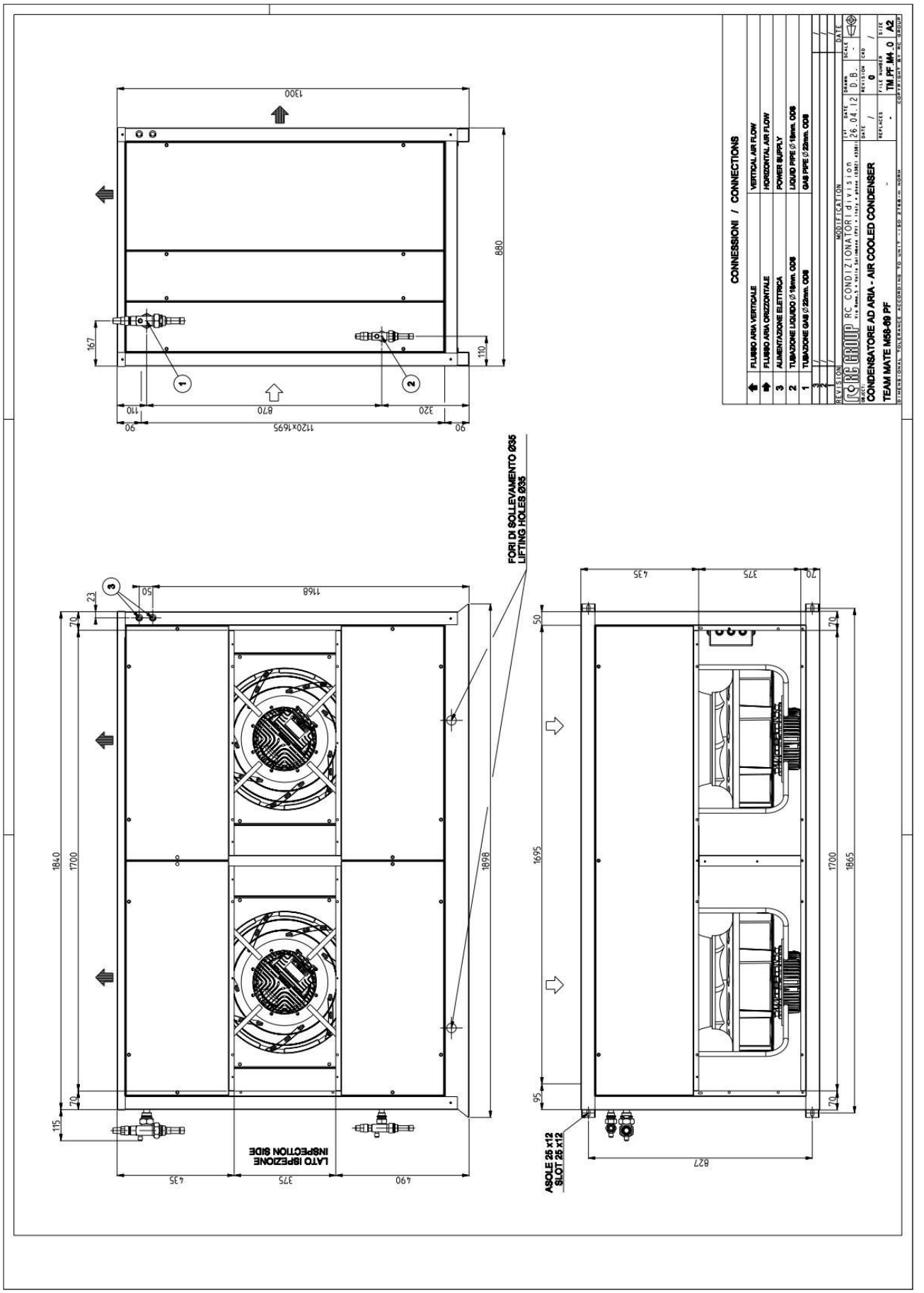
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE PF T 38, T 44**



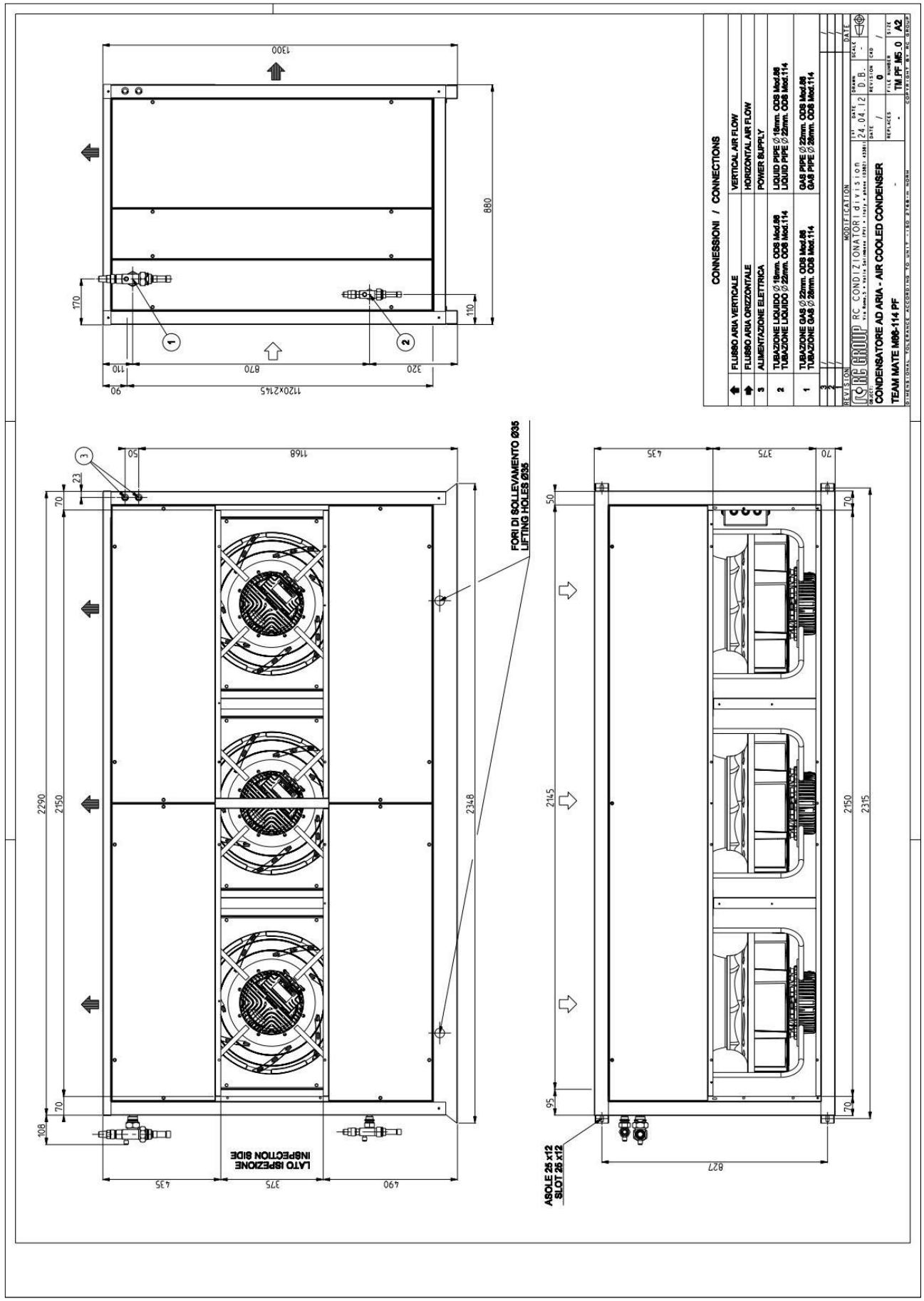
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE PF T 58, T 69**



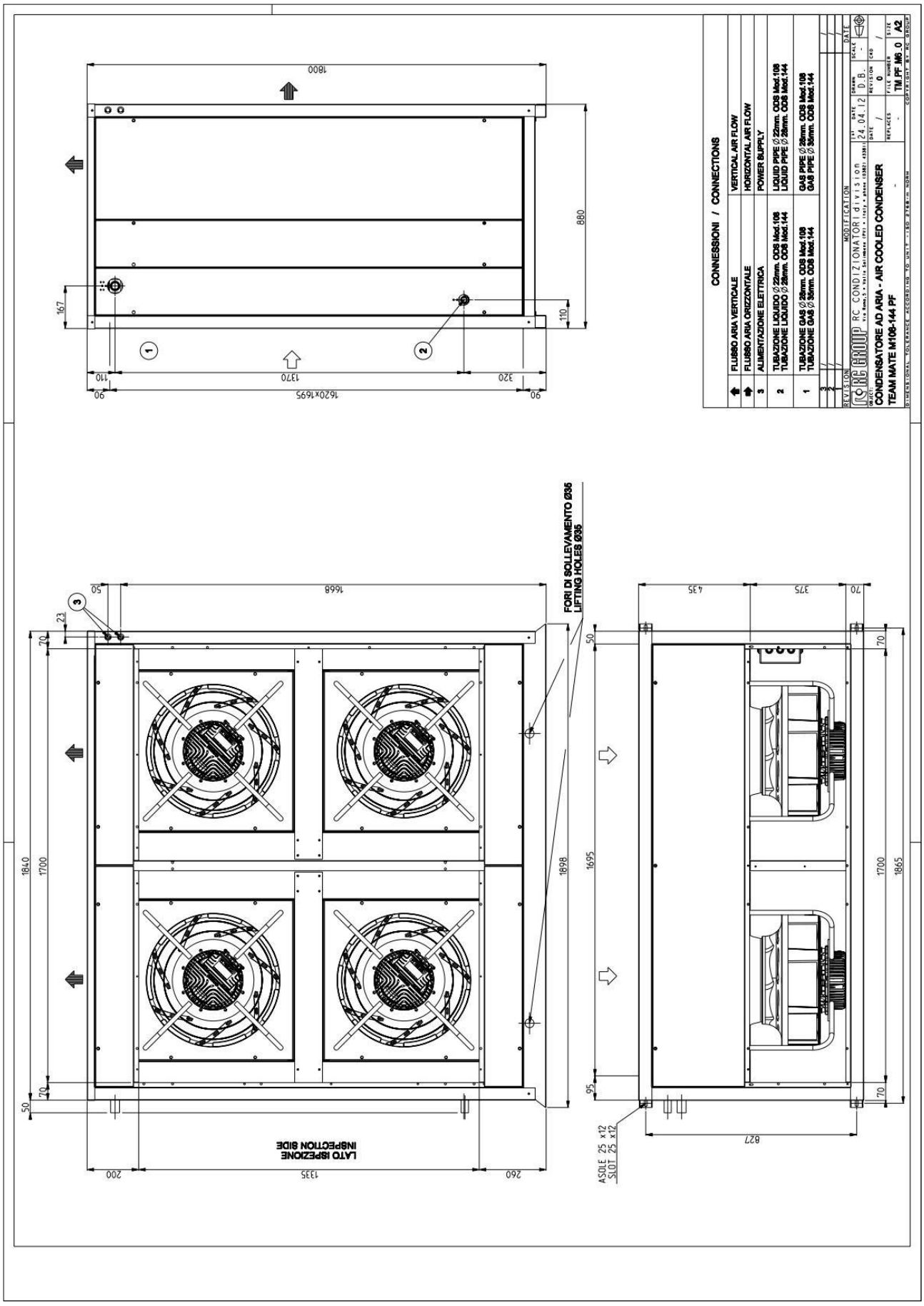
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE PF T 86, T 114**



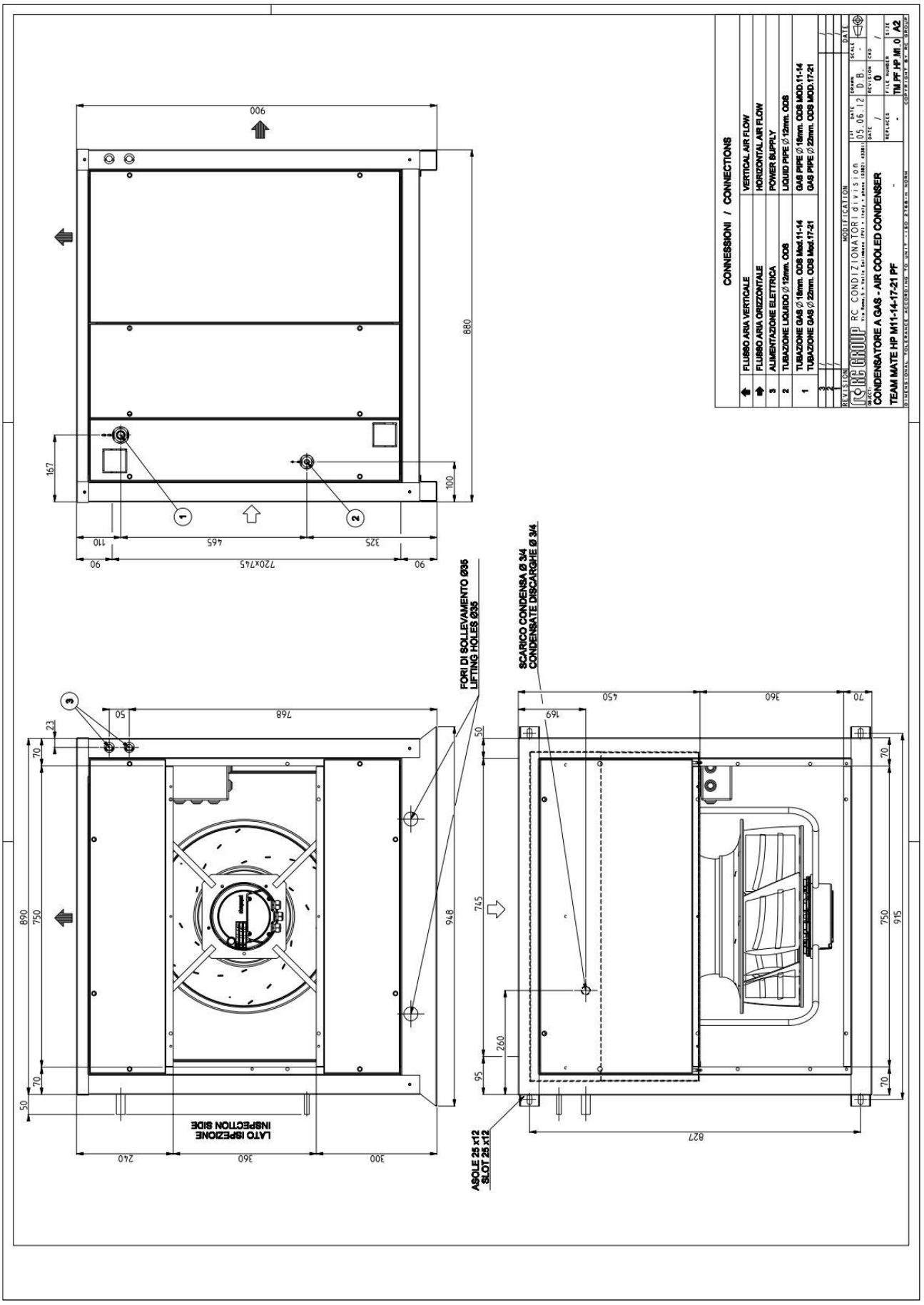
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE PF T 108, T 144**



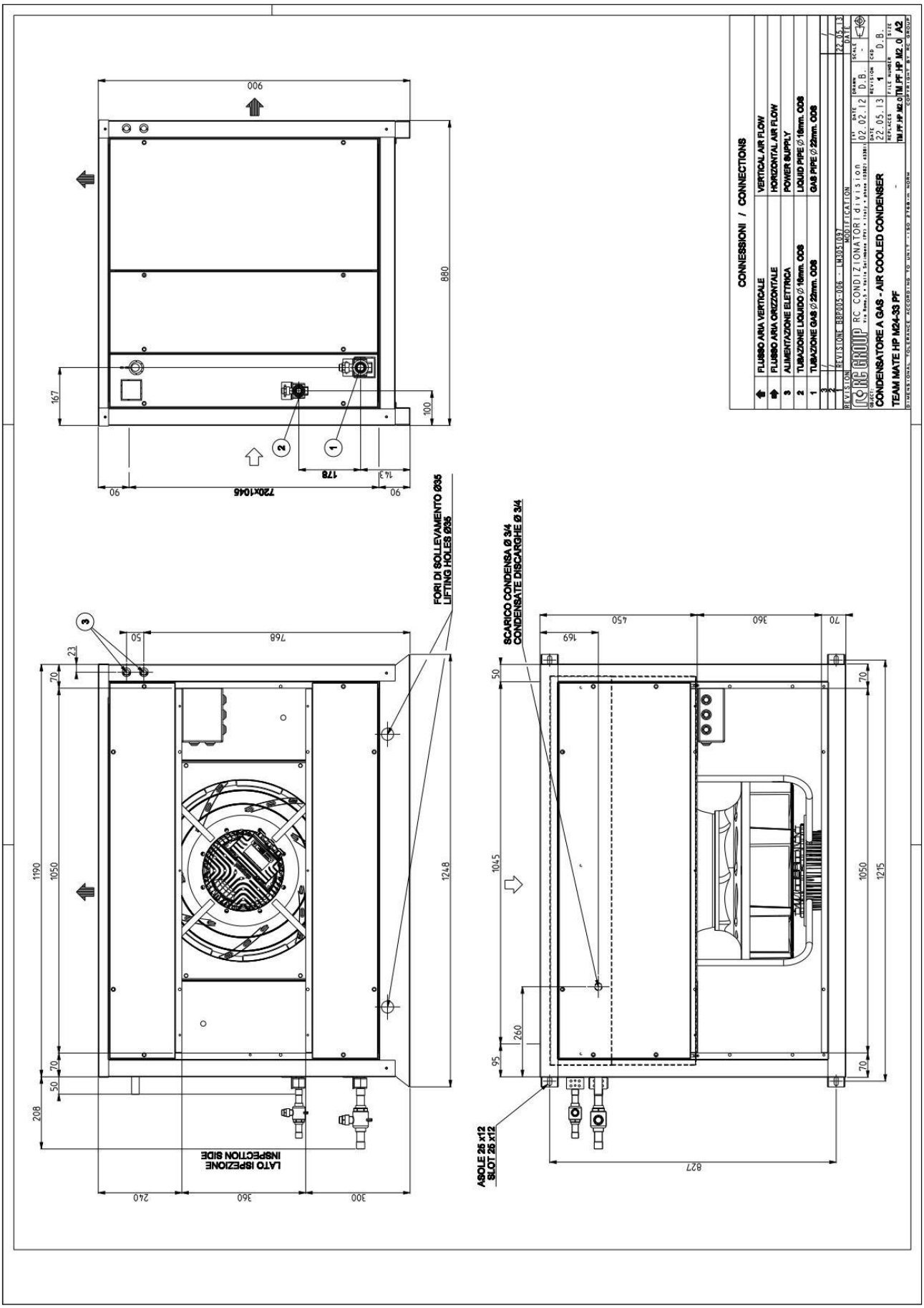
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 14, T 17, T 21**



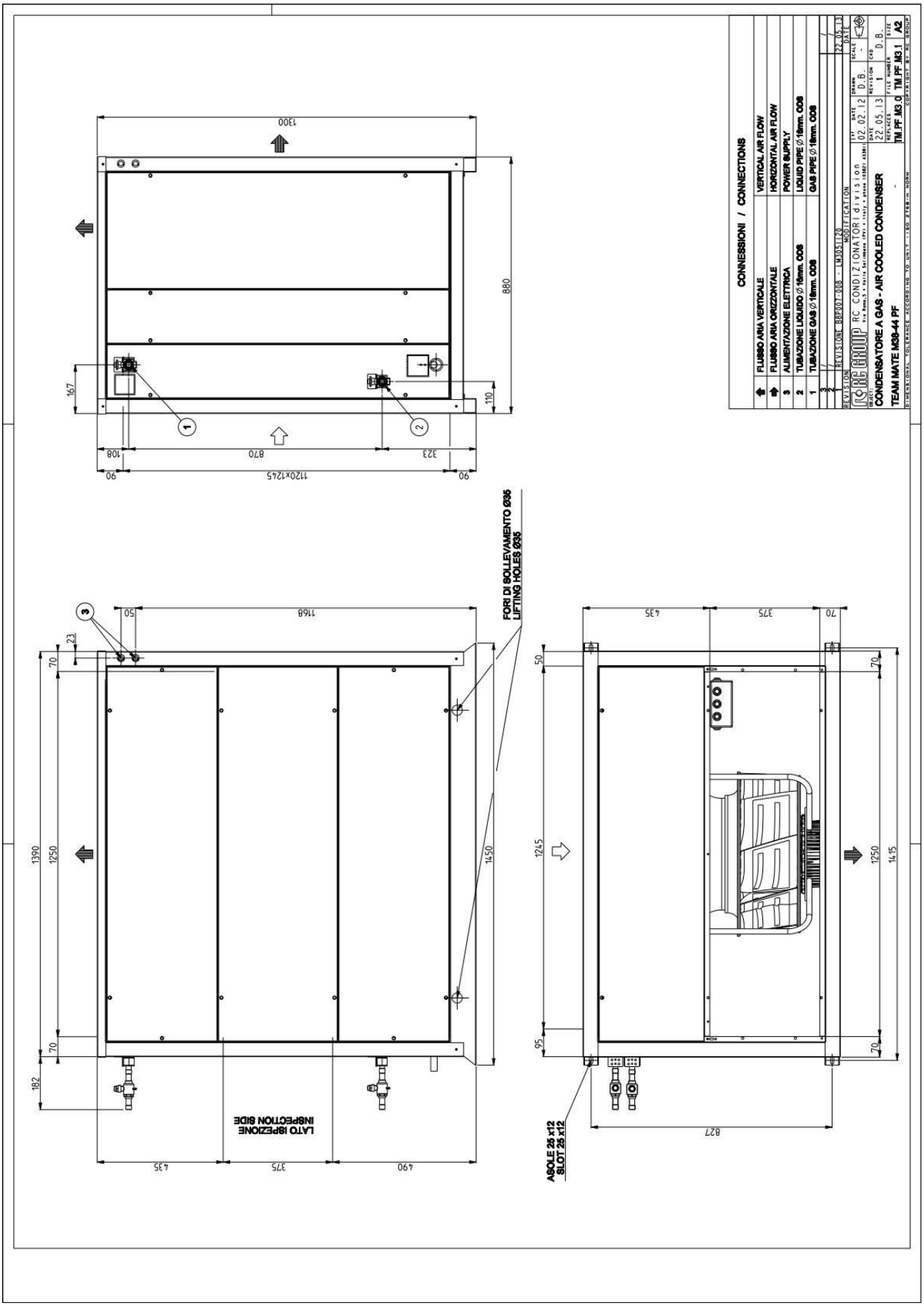
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 24, T 33**



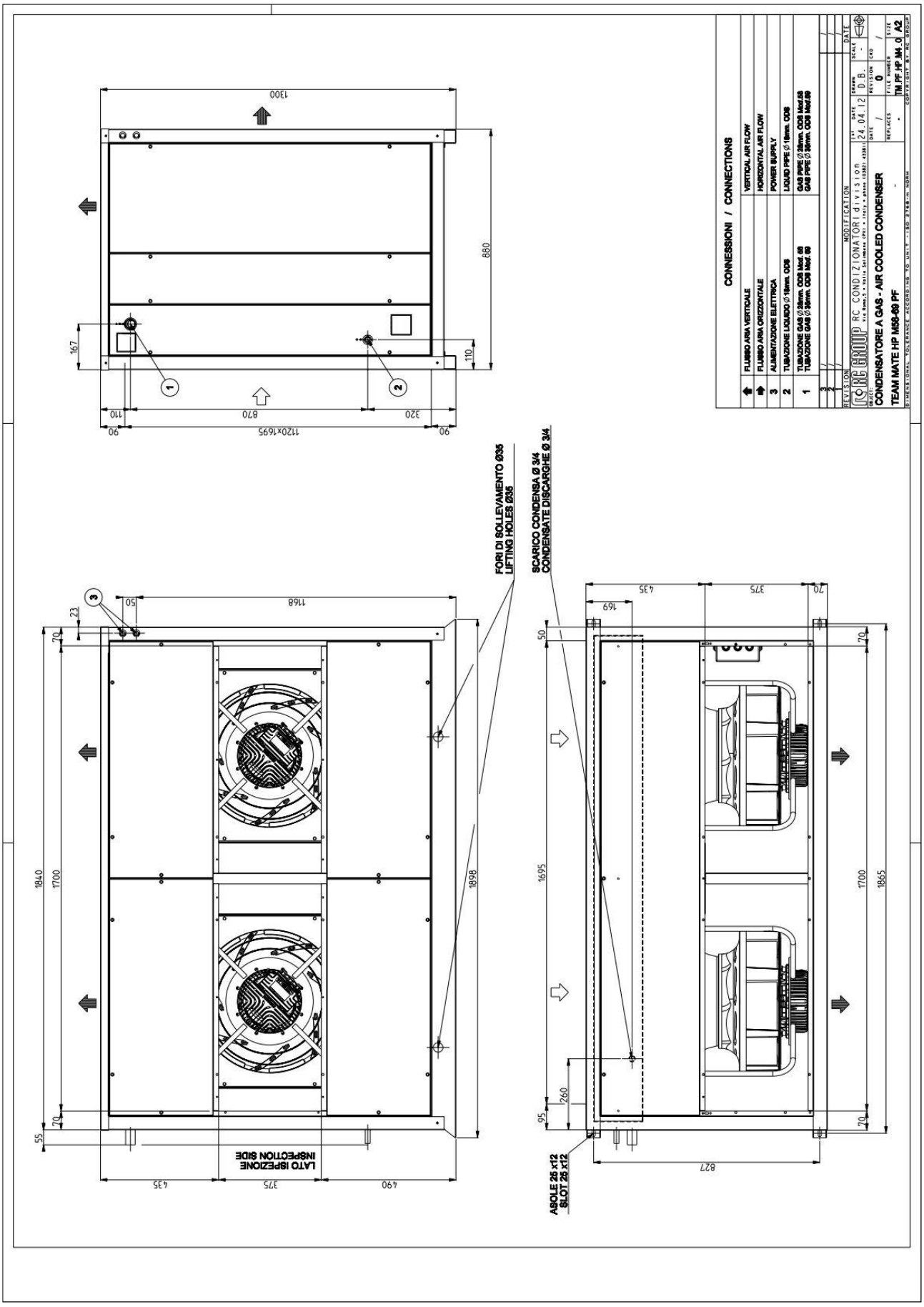
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 38, T 44**



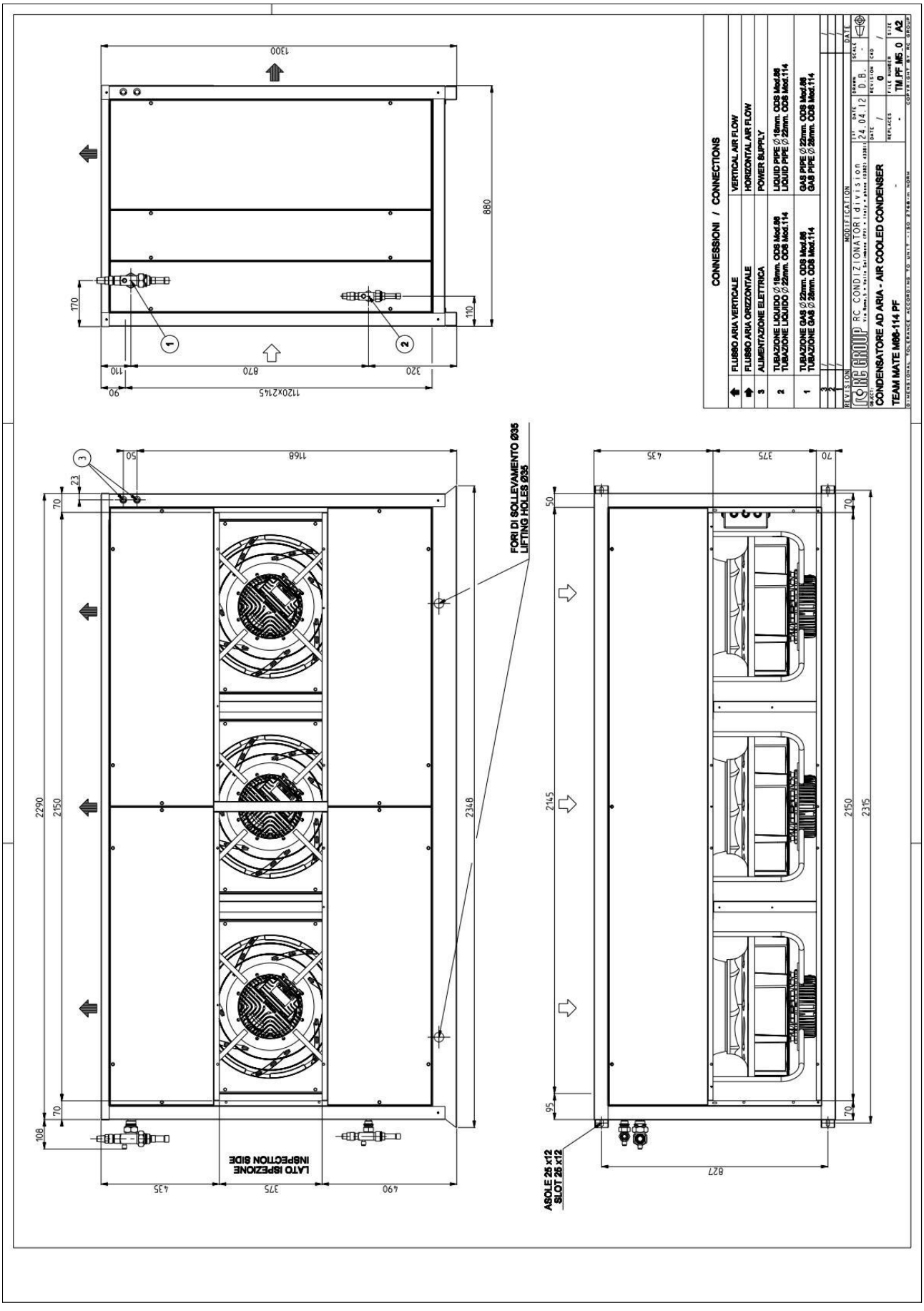
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 58, T 69**



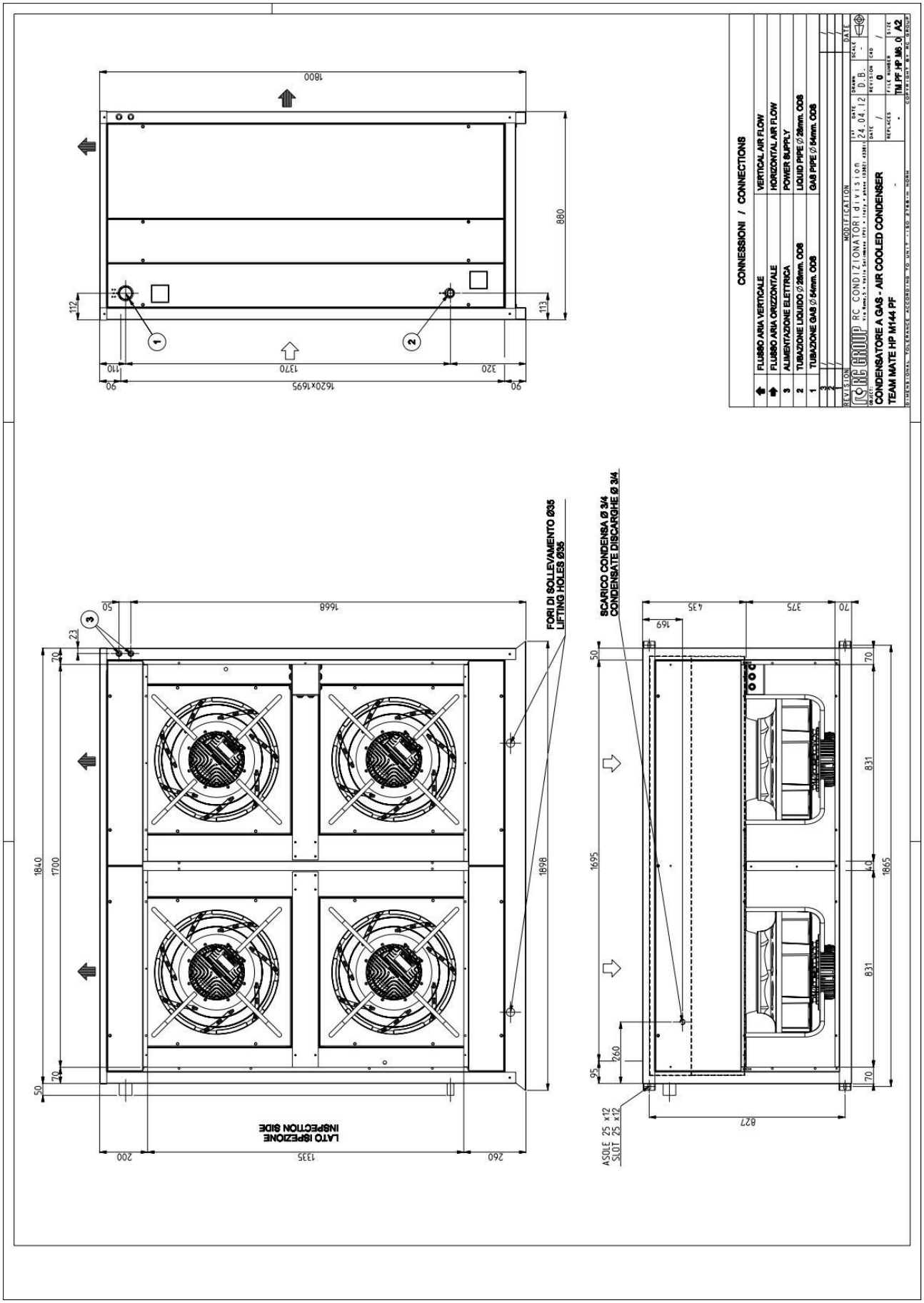
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 86, T 114**



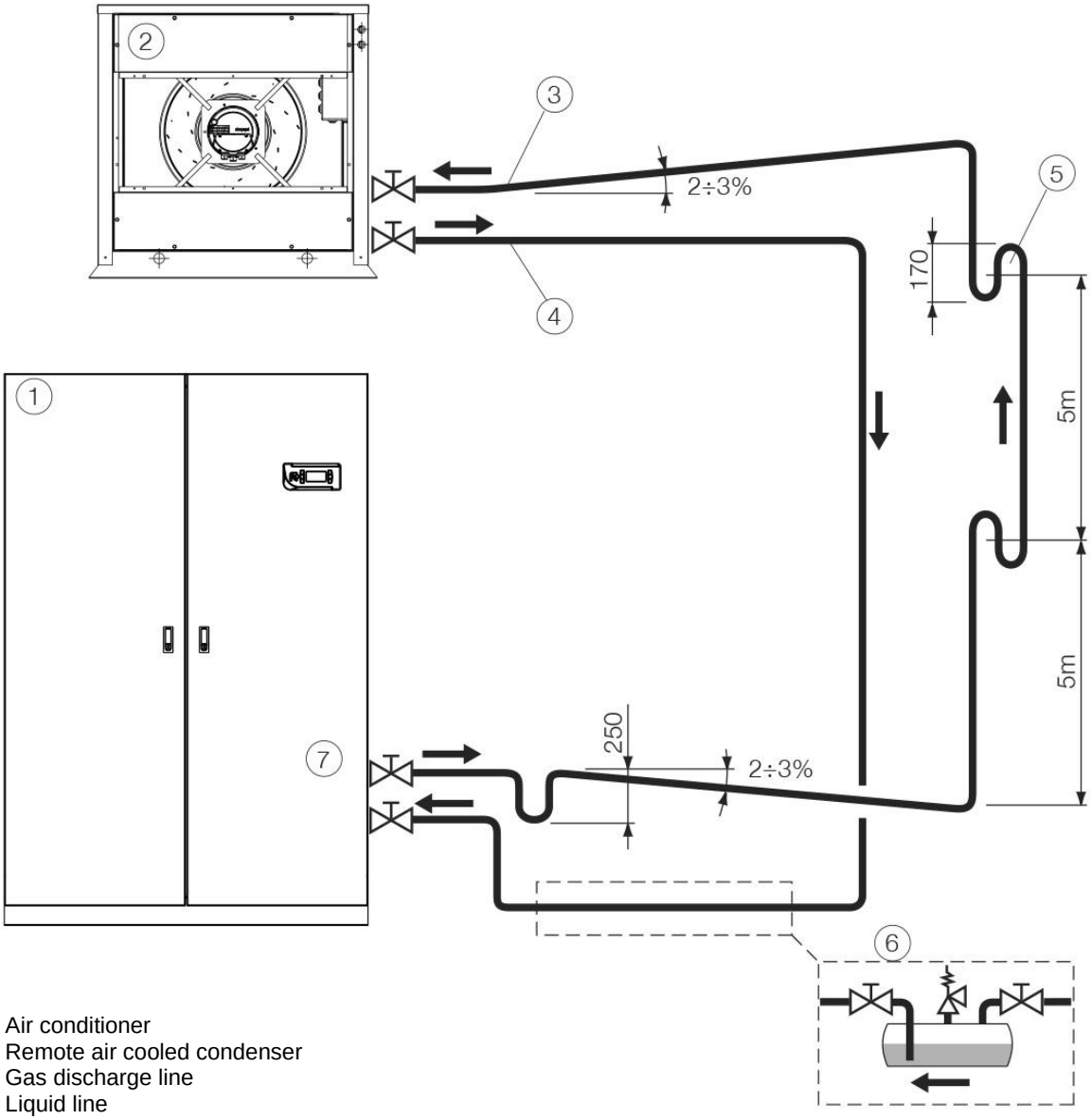
**MACHINE DRAWINGS**
**Dimensions in mm**

**TEAM MATE HP PF T 108, T 144**



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

**Example of connection to air conditioner – only cooling**



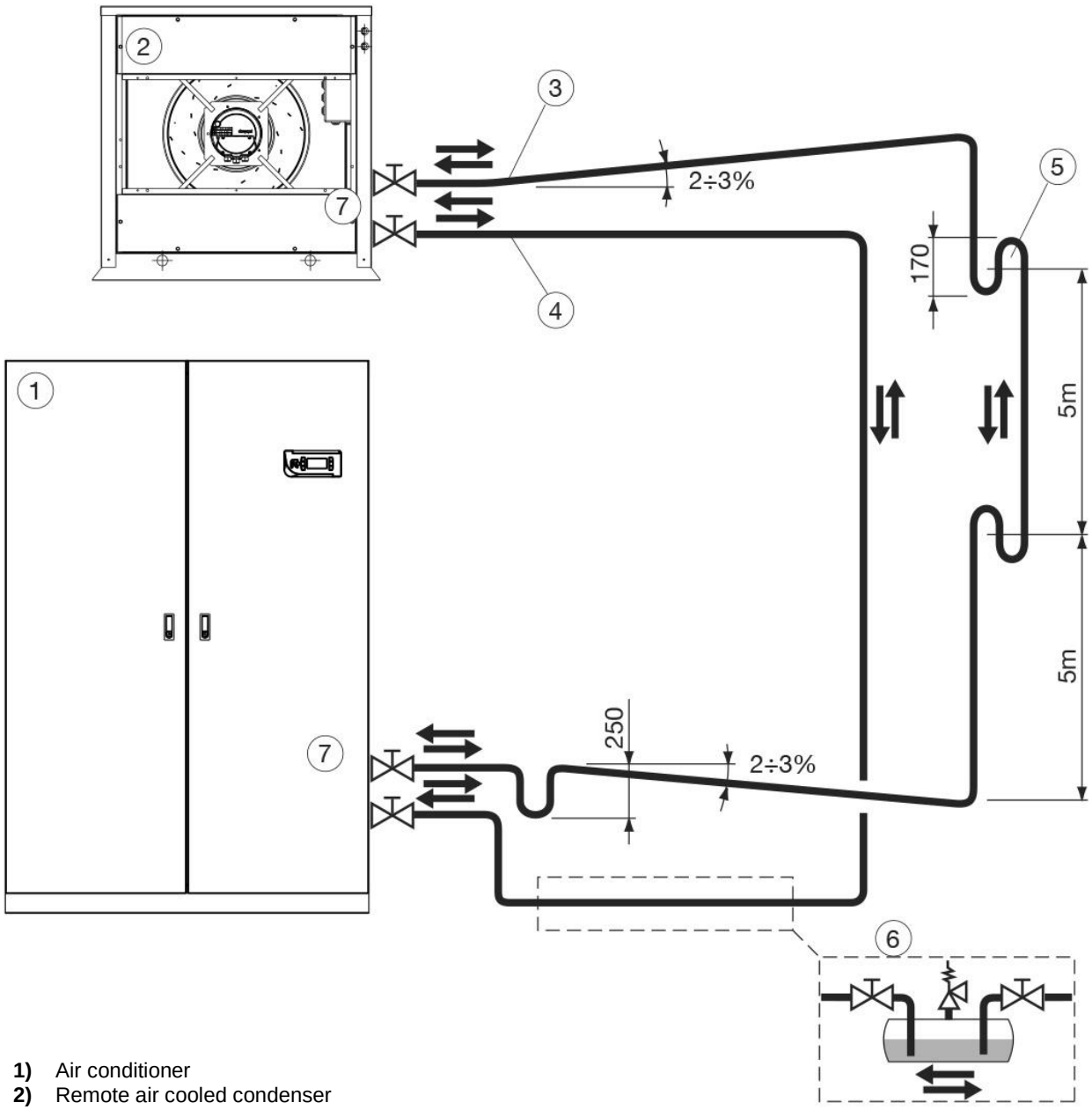

**1)** Air conditioner
**2)** Remote air cooled condenser
**3)** Gas discharge line
**4)** Liquid line
**5)** Trap. Foresee a trap every 5m of the rising pipe.
**6)** Additional liquid receiver external to the conditioner with valves and safety valve.
Suggested part in the following cases:
a) refrigerant 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

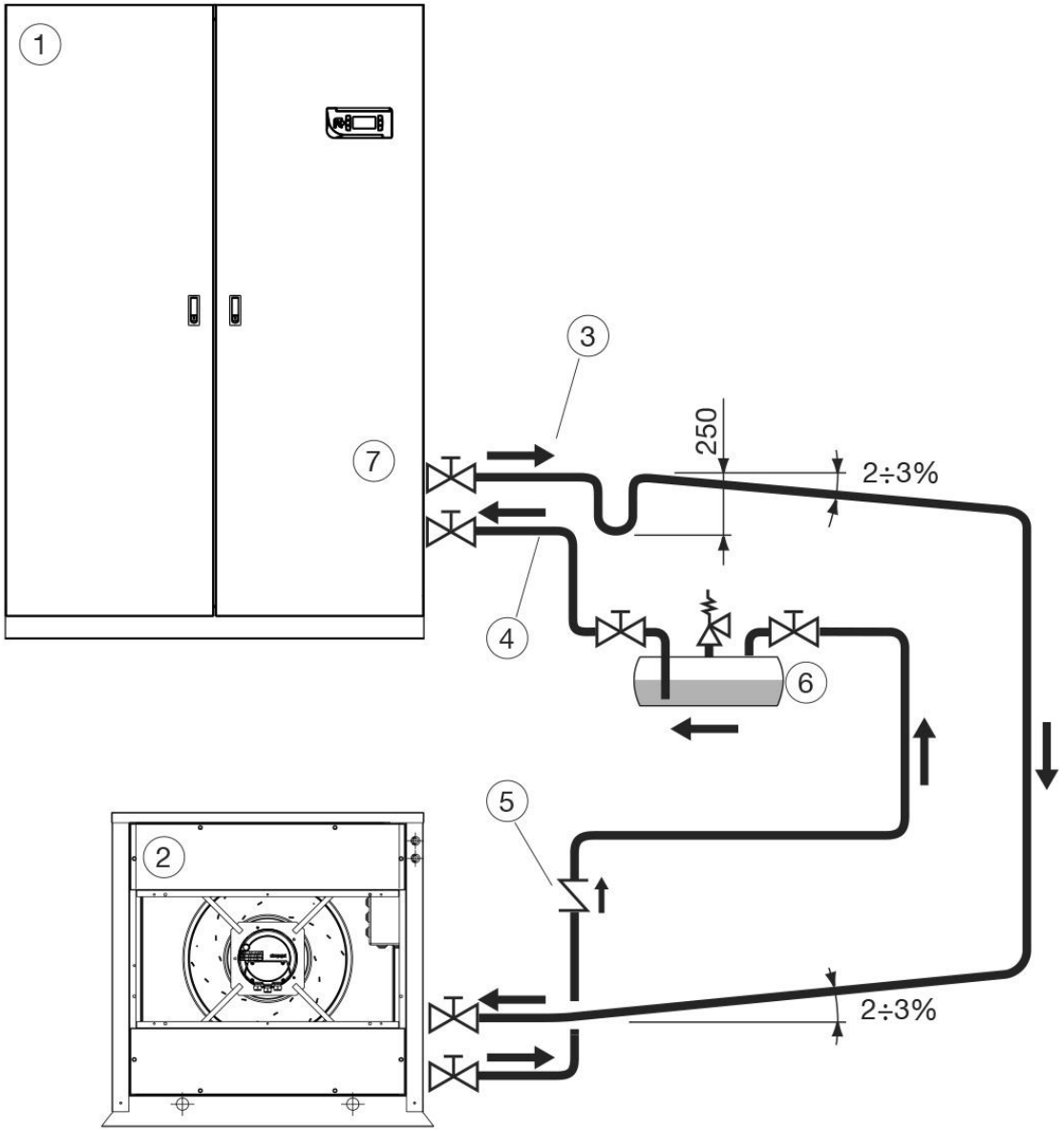
**THIS DIAGRAM APPLIES TO EACH REFRIGERANT CIRCUIT OF THE UNIT.**

**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**



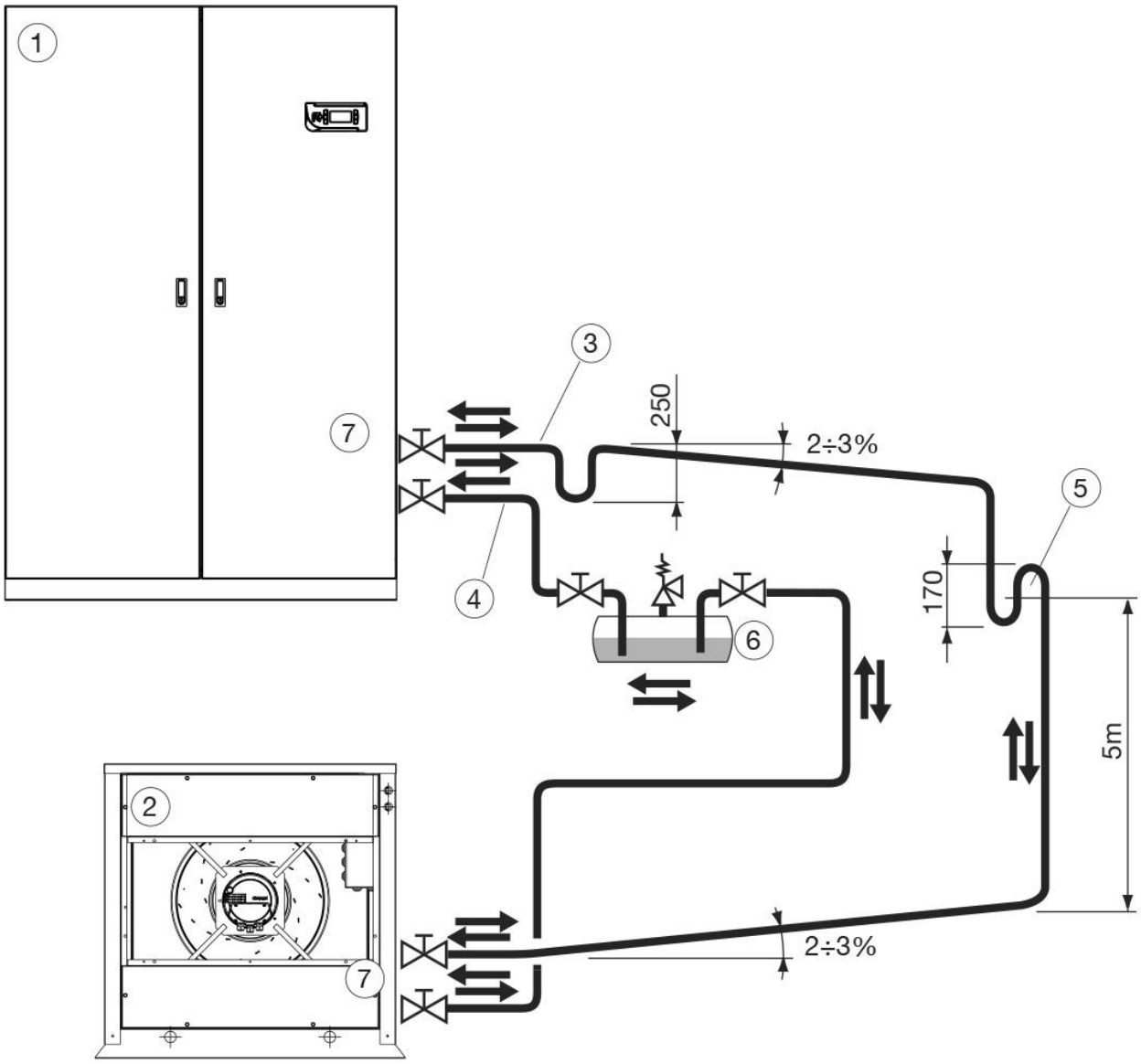

**1)** Air conditioner
**2)** Remote air cooled condenser
**3)** Gas discharge line
**4)** Liquid line
**5)** Non - return valve.
**6)** Additional liquid receiver external to the conditioner with valves and safety valve.
Install the liquid receiver close to the air conditioner.
**7)** Solenoid valve 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.**

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

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