USER’S MANUAL

TT-M
TT-MD
TT-MD EC
TT Silent-M
TT Silent-MD
TT Silent-MD EC

Inline mixed-flow fan
SAFETY REQUIREMENTS

Read the user's manual carefully prior to installing and operating the unit.

Fulfil the user's manual requirements as well as the provisions of all the applicable local and national construction, electrical and technical norms and standards.

The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information. Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.

After a careful reading of the manual, keep it for the entire service life of the unit.

While transferring the unit control the user's manual must be turned over to the receiving operator.

Symbol legend:

| WARNING! | DO NOT! |

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS

- Disconnect the unit from power mains prior to any installation operations.
- The unit must be grounded!
- Do not lay the power cable of the unit in close proximity to heating equipment.
- While installing the unit follow the safety regulations specific to the use of electric tools.
UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS

• Do not allow children to operate the unit.
• Do not store any explosive or highly flammable substances in close proximity to the unit.
• Do not open the unit during operation.
• Do not block the air duct when the unit is switched on.
• Do not sit on the unit and avoid placing foreign objects on it.

• Disconnect the unit from power mains prior to any technical maintenance.
• When the unit generates unusual sounds, odour or emits smoke disconnect it from power supply and contact the Seller.
• Do not direct the air flow produced by the unit towards open flame or ignition sources.
• In case of continuous operation of the unit periodically check the security of mounting.
• Use the unit only for its intended purpose.

• Do not change the power cable length at your own discretion.
• Do not bend the power cable.
• Avoid damaging the power cable.
• Do not put any foreign objects on the power cable.

• Unpack the unit with care.
• Do not operate the unit outside the temperature range stated in the user’s manual.
• Do not operate the unit in aggressive or explosive environments.
• Do not wash the unit with water.
• Protect the electric parts of the unit against ingress of water.

• Do not touch the unit controls with wet hands.
• Do not carry out the installation and maintenance operations with wet hands.

• Do not use damaged equipment or cables when connecting the unit to power mains.

• Do not sit on the unit and avoid placing foreign objects on it.

• Do not wash the unit with water.
• Protect the electric parts of the unit against ingress of water.
**PURPOSE**

The fan is designed for ventilation of various industrial premises, swimming pools, apartment houses, offices, hospitals, restaurants and other premises. The Silent models are intended for supply and exhaust ventilation systems of different commercial and industrial premises with high demands on noise level (libraries, conference halls, educational institutions, kindergartens etc.)

The unit is a component part and is not designed for independent operation.

---

**THE UNIT MAY NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL OR SENSORY CAPACITIES, OR LACKING THE APPROPRIATE TRAINING.**

**THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.**

**THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.**

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The fan is designed for floor, suspended or ceiling mounting.

The unit is rated for continuous operation.

Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

---

**DELIVERY SET**

<table>
<thead>
<tr>
<th>Name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan</td>
<td>1 item</td>
</tr>
<tr>
<td>User’s manual</td>
<td>1 item</td>
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<td>Packing box</td>
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---

**DESIGNATION KEY**

**Fans with AC-motors**

**Fans with EC-motors**
The fan is designed for indoor application with the ambient temperature ranging from +1 °C up to +40 °C and relative humidity up to 80 %.
The transported air temperature depends on the fan model (see the table with technical data).
Ingress Protection (IP) rating from solid objects and liquids IPX4.
The fan design is constantly being improved, so some models can slightly differ from those ones described in this manual.

**TECHNICAL DATA**

The transported air temperature depends on the fan model (see the table with technical data).
Ingress Protection (IP) rating from solid objects and liquids IPX4.
The fan design is constantly being improved, so some models can slightly differ from those ones described in this manual.

**TECHNICAL DATA OF TT (SILENT) M FANS**

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>B1</th>
<th>D</th>
<th>DK</th>
<th>H</th>
<th>K</th>
<th>L</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>Weight [kg]</th>
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**OVERALL DIMENSIONS OF THE FAN, MM**

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<th>DK</th>
<th>H</th>
<th>K</th>
<th>L</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>Weight [kg]</th>
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<td>397</td>
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<td>815</td>
<td>705</td>
<td>770</td>
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<td>-</td>
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<td>815</td>
<td>720</td>
<td>785</td>
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<td>90</td>
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<td>497</td>
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<td>720</td>
<td>785</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>90</td>
<td>43</td>
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</table>

**TECHNICAL DATA OF TT (SILENT) M FANS**

<table>
<thead>
<tr>
<th>Unit voltage [V/50-60 Hz]</th>
<th>1~ 230</th>
<th>3~ 400</th>
<th>1~ 230</th>
<th>3~ 400</th>
<th>1~ 230</th>
<th>3~ 400</th>
<th>1~ 230</th>
<th>3~ 400</th>
<th>1~ 230</th>
<th>3~ 400</th>
<th>1~ 230</th>
<th>3~ 400</th>
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</thead>
<tbody>
<tr>
<td>Power [W]</td>
<td>578</td>
<td>585</td>
<td>580</td>
<td>590</td>
<td>1200</td>
<td>1230</td>
<td>578</td>
<td>585</td>
<td>580</td>
<td>590</td>
<td>1200</td>
<td>1230</td>
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<td>Current [A]</td>
<td>3.42</td>
<td>3.43</td>
<td>1.78</td>
<td>1.72</td>
<td>3.43</td>
<td>3.42</td>
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<td>1.72</td>
<td>3.43</td>
<td>3.42</td>
<td>1.78</td>
<td>1.72</td>
</tr>
<tr>
<td>Maximum air capacity [m³/h]</td>
<td>3310</td>
<td>3430</td>
<td>3545</td>
<td>3670</td>
<td>6260</td>
<td>6510</td>
<td>3340</td>
<td>3480</td>
<td>3610</td>
<td>3740</td>
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<td>RPM</td>
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<td>1475</td>
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<td>Sound pressure level at 3 m distance (dB(A))</td>
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<tr>
<td>Maximum transported air temperature [°C]</td>
<td>from -25 up to +60</td>
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<td>Ingress protection rating</td>
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<td>IPX4</td>
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<td>IPX4</td>
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### TECHNICAL DATA OF TT (SILENT) MD FANS

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<th>TT Silent-MD 450-4E</th>
<th>TT-MD 355-4E</th>
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<tbody>
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<td>1~ 230</td>
<td>1~ 230</td>
<td>1~ 230</td>
<td>1~ 230</td>
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<td>Sound pressure level at 3 m distance [dBA]</td>
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#### Technical data at maximum efficiency:

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<td>0.385</td>
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<td>1.13</td>
<td>1.7</td>
<td>3.45</td>
<td>5.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Maximum air capacity [m³/h]</td>
<td>3250</td>
<td>4400</td>
<td>6200</td>
<td>3250</td>
<td>4400</td>
<td>6200</td>
<td>6750</td>
<td>9540</td>
</tr>
<tr>
<td>RPM</td>
<td>1390</td>
<td>1340</td>
<td>1330</td>
<td>1390</td>
<td>1340</td>
<td>1330</td>
<td>1330</td>
<td>1310</td>
</tr>
<tr>
<td>Specific ratio</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA OF TT (SILENT) MD EC FANS

<table>
<thead>
<tr>
<th>Model</th>
<th>TT Silent-MD 355-1 EC</th>
<th>TT Silent-MD 400-1 EC</th>
<th>TT Silent-MD 450-1 EC</th>
<th>TT Silent-MD 450-3 EC</th>
<th>TT-MD 355-1 EC</th>
<th>TT-MD 400-1 EC</th>
<th>TT-MD 450-1 EC</th>
<th>TT-MD 450-3 EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit voltage [V /50-60 Hz]</td>
<td>1~ 200-277</td>
<td>1~ 200-277</td>
<td>1~ 200-277</td>
<td>3~ 380-480</td>
<td>1~ 200-277</td>
<td>1~ 200-277</td>
<td>1~ 200-277</td>
<td>3~ 380-480</td>
</tr>
<tr>
<td>Power [W]</td>
<td>460</td>
<td>380</td>
<td>1250</td>
<td>2100</td>
<td>460</td>
<td>380</td>
<td>1250</td>
<td>2100</td>
</tr>
<tr>
<td>Current [A]</td>
<td>2.5</td>
<td>2.1</td>
<td>6.3</td>
<td>3.5</td>
<td>2.5</td>
<td>2.1</td>
<td>6.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Maximum air capacity [m³/h]</td>
<td>4900</td>
<td>4500</td>
<td>7650</td>
<td>8920</td>
<td>4900</td>
<td>4500</td>
<td>7650</td>
<td>8920</td>
</tr>
<tr>
<td>RPM</td>
<td>1700</td>
<td>1290</td>
<td>1530</td>
<td>1900</td>
<td>1700</td>
<td>1290</td>
<td>1530</td>
<td>1900</td>
</tr>
<tr>
<td>Sound pressure level at 3 m distance [dBA]</td>
<td>52</td>
<td>55</td>
<td>54</td>
<td>57</td>
<td>61</td>
<td>63</td>
<td>69</td>
<td>65</td>
</tr>
<tr>
<td>Maximum air transport [°C]</td>
<td>from -25 up to +40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingress protection rating</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
<td>IPX4</td>
</tr>
</tbody>
</table>

#### Technical data at maximum efficiency:

<table>
<thead>
<tr>
<th>Overall efficiency (η) [%]</th>
<th>43.1</th>
<th>40.4</th>
<th>40.9</th>
<th>44.1</th>
<th>43.3</th>
<th>41.8</th>
<th>41.5</th>
<th>44.9</th>
<th>42.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement category</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Efficiency category</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
<td>Static</td>
</tr>
<tr>
<td>Efficiency grade</td>
<td>58.7</td>
<td>55.8</td>
<td>50.7</td>
<td>51.6</td>
<td>58.7</td>
<td>57.1</td>
<td>51.2</td>
<td>52.2</td>
<td>53.2</td>
</tr>
<tr>
<td>Variable speed drive</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Power [kW]</td>
<td>0.325</td>
<td>0.341</td>
<td>1.158</td>
<td>1.948</td>
<td>0.339</td>
<td>0.352</td>
<td>1.195</td>
<td>2.016</td>
<td>1.005</td>
</tr>
<tr>
<td>Current [A]</td>
<td>1.45</td>
<td>1.51</td>
<td>5.84</td>
<td>3.45</td>
<td>1.46</td>
<td>1.52</td>
<td>5.85</td>
<td>3.47</td>
<td>5.2</td>
</tr>
<tr>
<td>Maximum air capacity [m³/h]</td>
<td>1756</td>
<td>2054</td>
<td>3844</td>
<td>5514</td>
<td>1785</td>
<td>2091</td>
<td>3157</td>
<td>4710</td>
<td></td>
</tr>
<tr>
<td>RPM</td>
<td>1405</td>
<td>1350</td>
<td>1365</td>
<td>1410</td>
<td>1360</td>
<td>1360</td>
<td>1380</td>
<td>1350</td>
<td></td>
</tr>
<tr>
<td>Specific ratio</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

www.ventilation-system.com
UNIT DESIGN AND OPERATING LOGIC

The unit is an inline mixed-flow fan. The fan casing is made of sheet steel (using heat- and sound-insulation material for the Silent models). Connection spigots are round. The fan is equipped with a motor which has an impeller with diagonal blades. The motor has thermal relays built into the motor winding for overheating protection (TW). The relays must always be connected. Use of the motor with ball bearings with specially selected grease ensures low-noise, maintenance-free operation of the fan. The air flow direction is indicated by the arrow on the fan casing.

UNIT DESIGN AND OPERATING LOGIC

MOUNTING AND SET-UP

The TT M(D) fan is suspended to the mounting surface through the threaded rod fixed inside the expansion anchor. The TT Silent M(D) is suitable both for horizontal and vertical installation using a fixing bracket. The fan is intended for mounting to round air ducts. The fans are installed between the air ducts. While installing the unit ensure convenient access for subsequent maintenance and repair. Fasteners for fan mounting are not included in the delivery set and should be ordered separately. While choosing fasteners consider the material of the mounting surface as well as the weigh of the unit, refer to the Technical Data section. Fasteners for unit mounting should be selected by the service technician.

READ THE USER'S MANUAL PRIOR TO MOUNTING THE UNIT.

THE UNIT MUST BE MOUNTED BY A QUALIFIED EXPERT ONLY, PROPERLY TRAINED AND HAVING THE REQUIRED TOOLS AND MATERIALS.
To attain the best performance of the fan and to minimise turbulence-induced air pressure losses connect the straight air duct section to the spigots on both sides of the unit while mounting.

Minimum straight air duct length:
- equal to 1 air duct diameter on intake side
- equal to 3 air duct diameters on outlet side

If the air ducts are too short or not connected, protect the unit parts from ingress of foreign objects.

To prevent uncontrollable access to the fan the spigots may be covered with a protecting grille or other protecting device with mesh width not more than 12.5 mm.

**WARNING! fastening elements are not included in the scope of delivery!**
1. Unscrew the bolts that connect the clamp to the fixing bracket using the wrench of the appropriate size.

2. Secure the brackets to the surface using screws with dowels of the appropriate size (not included in the scope of delivery).

3. Secure the fan on the bracket with clamps and bolts removed earlier. Suspend the fan carefully. Make sure the fan is fastened securely prior to operation.
## CONNECTION TO POWER MAINS AND CONTROL

**DISCONNECT THE UNIT FROM POWER MAINS PRIOR TO ANY OPERATIONS. THE FAN MUST BE CONNECTED TO POWER MAINS BY A QUALIFIED ELECTRICIAN. THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE MANUFACTURER’S LABEL.**

**ANY INTERNAL CONNECTION MODIFICATIONS ARE NOT ALLOWED AND RESULT IN WARRANTY LOSS.**

The fan is rated for connection to single-phase or three-phase AC power mains with a voltage of 230 V or 400 V according to the wiring diagrams below. The terminal designation is placed inside of the terminal box. The terminal clamp marking corresponds to the marking on the wiring diagram. Connect the fan to power mains by means of insulated, durable and thermal-resistant cords (cables, wires) with appropriate cross section. The cables are routed into the terminal box through a sealed lead-in for electrical hazard class compliance. The fan shall be connected to power supply through the external circuit breaker with a thermal-magnetic trip. The rated current of the circuit breaker must be not below the rated current consumption.

<table>
<thead>
<tr>
<th>FAN MODEL</th>
<th>EXTERNAL CONNECTIONS DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT Silent-M 355-4E</td>
<td><img src="tt_silent_m_355_4e_power_1_230v_50hz.png" alt="Diagram" /></td>
</tr>
<tr>
<td>TT Silent-M 400-4E</td>
<td><img src="tt_silent_m_400_4e_power_3_400v_50hz.png" alt="Diagram" /></td>
</tr>
<tr>
<td>TT Silent-M 450-4E</td>
<td><img src="tt_silent_m_450_4e_power_3_400v_50hz.png" alt="Diagram" /></td>
</tr>
<tr>
<td>TT - M 355-4E</td>
<td><img src="tt_md_355_4e_power_1_230v_50hz.png" alt="Diagram" /></td>
</tr>
<tr>
<td>TT - M 400-4E</td>
<td><img src="tt_md_400_4e_power_1_230v_50hz.png" alt="Diagram" /></td>
</tr>
<tr>
<td>TT - M 450-4E</td>
<td><img src="tt_md_450_4e_power_1_230v_50hz.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

- **PE** – protective grounding.
- **N** – power supply neutral.
- **L** – power supply phase.
- **QF** – circuit breaker.

---

![Diagram](tt_md_355_4e_power_1_230v_50hz.png)

**Power** 1~230 V / 50 Hz

**QF**

**PE**

**N**

**L**

**S2** «OFF»

**S1** «ON»

**KM1**

**TW1**

**SW2**

**N**

**L**

**QF**

**PE**

**N**

**L**

**T1**

**T2**

**S1** – «Start» button.

**S2** – «Stop» button.

**TW1**, **TW2** – thermal contacts of the motor.

**KM1** – motor starter.
TT Silent-MD 355-1 EC
TT Silent-MD 400-1 EC
TT - MD 355-1 EC
TT - MD 400-1 EC

10V – 10 V DC power supply for a speed control potentiometer.
GND – DC power supply grounding.
E1 – 0-10 V input direct current signal for speed setting.
D1 – digital enable signal.
A1 – status / tacho output.
A – MODBUS communication interface (RS-485).
B – MODBUS communication interface (RS-485).
RC – NO-contact is closed in case of alarm (switching parameters: 250 V AC, 2 A).
PE – protective grounding.
N – power supply neutral.
L1 – power supply phase.
QF – circuit breaker.
R1/010 – speed controller.

TT Silent MD 450-3 EC
TT - MD 450-3 EC
TT - MD 500-3 EC

24V – 24 V DC power supply.
10V – 10 V DC power supply for a speed control potentiometer.
GND – DC power supply grounding.
D1 – analogue input for speed setting compatible with 0-10 V signal or external potentiometer.
E1 – 0-10 V input direct current signal for speed setting.
RC – NO-contact closes in case of alarm (switching parameters: 250 V AC, 2 A).
PE – protective grounding.
L1, L2, L3 – power supply phase.
QF – circuit breaker.
R1/010 – speed controller.

TT - MD 500-4D

W1, W2, U1,U2, V1, V2 – contacts for motor connection.
TW1, TW2 – motor thermal contacts.
PE – protective grounding.
L1, L2, L3 – power supply phase.
QF - circuit breaker.
**TECHNICAL MAINTENANCE**

The unit must undergo technical maintenance once a year. Technical maintenance includes regular cleaning of the unit.

1. **Fan maintenance (once a year).**
   - Some dust may accumulate on the impeller blades or on the fan motor which reduces the unit capacity.
   - Clean the fans with a soft brush, cloth, vacuum cleaner or compressed air.
   - Do not use water, aggressive solvents or sharp objects as they may damage the impeller.

2. **Supply air flow control (twice per year).**
   - The supply duct grille may get clogged with leaves and other objects reducing the unit performance and supply air delivery. Check the supply grille twice per year and clean it as required.

3. **Technical maintenance of air duct system (every 5 years).**
   - Some dust may accumulate inside the air ducts which reduces the unit capacity.
   - Duct maintenance means regular cleaning or replacement.

---

**TROUBLESHOOTING**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible reasons</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>The fan(s) do(es) not get started.</td>
<td>No power supply.</td>
<td>Make sure the power supply line is connected correctly, otherwise troubleshoot a connection error.</td>
</tr>
<tr>
<td></td>
<td>Jammed motor.</td>
<td>Turn off the fan. Troubleshoot the motor jamming. Restart the fan.</td>
</tr>
<tr>
<td>Automatic circuit breaker tripping following the fan turning on</td>
<td>High current consumption due to short circuit in power line.</td>
<td>Turn off the fan. Contact the Seller.</td>
</tr>
<tr>
<td>Noise, vibration</td>
<td>The fan impeller is soiled.</td>
<td>Clean the impellers.</td>
</tr>
<tr>
<td></td>
<td>The fan or casing screw connection is loose.</td>
<td>Tighten the screw connection of the fan or the casing against stop.</td>
</tr>
<tr>
<td></td>
<td>The ventilation system components (air ducts, diffusers, louver shutters, grilles) are clogged or damaged.</td>
<td>Clean or replace the ventilation system components (air ducts, diffusers, louver shutters, grilles).</td>
</tr>
</tbody>
</table>

---

**24 V – 24 V DC power supply.**

**10 V – 10 V DC power supply for a speed control Potentiometer.**

**GND – DC power supply grounding.**

**D1 – analogue input for speed setting compatible with 0-10 V signal or external potentiometer.**

**E1 – 0-10 V input direct current signal for speed setting.**

**RC – NO-contact closes in case of alarm (switching parameters: 250 V AC, 2 A).**

**PE – protective grounding.**

**L1 – power supply phase.**

**QF – circuit breaker.**

**R1/010 – the speed controller.**
The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, mounting and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation the user is entitled to elimination of faults by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair shall include work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair the user must provide the unit, the user's manual with the purchase date stamp and the payment document certifying the purchase.

The unit model must comply with the one stated in the user's manual.

Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismounted by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packing and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- User's violation of the unit installation regulations.
- User's violation of the unit control regulations.
- Unit connection to the power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in the power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- User's violation of the unit transportation regulations.
- User's violation of the unit storage regulations.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment document certifying the unit purchase.

FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.

USERS' WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.
ACCEPTANCE CERTIFICATE

Unit type: Inline mixed-flow fan
Model: TT
Serial Number
Manufacture Date


Quality Inspector’s Stamp

SELLER INFORMATION

Seller
Address
Phone Number
E-mail
Purchase Date

This is to certify acceptance of the complete unit delivery with the user’s manual. The warranty terms are acknowledged and accepted.

Customer’s Signature

INSTALLATION CERTIFICATE

Inline mixed-flow fan
Model: TT

has been connected to power mains pursuant to the requirements stated in the present user’s manual.

Company Name
Address
Phone Number
Installation Technician’s Full Name
Installation Date: Signature:

The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.

Signature:

WARRANTY CARD

Unit type: Inline mixed-flow fan
Model: TT
Serial Number
Manufacture Date
Purchase Date
Warranty Period
Seller