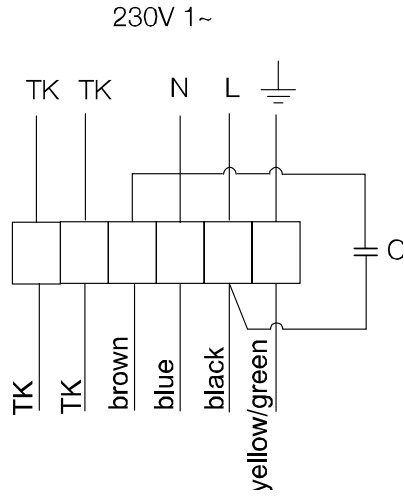


## Fans and Air Handling Units



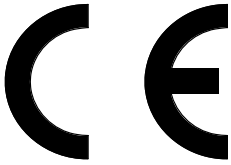
Operating and maintenance instructions

**Fan Type**  
Fan wiring diagram



# Declaration of Conformity

## Manufacturer



Systemair AB  
 Industrivägen 3  
 SE-739 30 Skinnskatteberg SWEDEN  
 Office: +46 222 440 00 Fax: +46 222 440 99  
[www.systemair.com](http://www.systemair.com)

hereby confirms that the following products:

**Air handling unit:** TLPW 125-315

(The declaration applies only to product in the condition it was delivered in and installed in the facility in accordance with the included installation instructions. The insurance does not cover components that are added or actions carried out subsequently on the product)

Comply with all applicable requirements in the following directives

- **Machinery Directive 2006/42/EC**
- **Low Voltage Directive 2006/95/EC**
- **EMC Directive 2004/108/EC**

The following harmonized standards are applied in applicable parts:

- EN ISO 12100-1** Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology
- EN ISO 12100-2** Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles
- EN 14121-1:2007** Safety of machinery – Risk assessment – Part 1: Principles
- EN 13857** Safety of machinery – Safety distances to prevent hazard zones being reached by upper or lower limbs
- EN 60 335-1** Household and similar electrical appliances – Safety Part 1: General requirements
- EN 60 335-2-80** Household and similar electrical appliances – Safety – Part 2-80: Particular requirements for fans
- EN 50 366-1** Household and similar electrical appliances – Electromagnetic fields – Methods for evaluations and measurement
- EN 50 106:2007** Safety of household and similar appliances – Particular rules for routine tests referring to appliances under the scope of EN 60 335-1 and EN 60967
- EN 60 034-5** Rotating electrical machines – Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code)
- EN 61000-6-2** Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
- EN 61000-6-3** Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standards for residential, commercial and light-industrial environments

Skinnskatteberg 20-01-2012



Mats Sándor  
 Technical Director

## Safety Information

This machinery must not be put into operation until prior to reading mounting instructions and safety information.

All fans are intended for transportation of air in air handling systems. They are meant to be used after building them into or duct systems or after contact protection grid has been installed. (SS-EN 294). Fans with duct connections must be connected to ducts on both sides (inlet/outlet). When there is a risk of water entering the motor, via the ducts, external protection is required. No moving parts shall be accessible after installation. The fans are not to be used in hazardous environments or connected to flue ducts.

Safety accessories (i.e. motor protection, safety grille) may not be dismantled, short cut or disconnected. CAUTION Before servicing or maintenance, switch off power, (all-pole circuit breaker), and make sure the impeller has come a standstill. CAUTION The fans can have sharp edges and corners which may cause injuries.

## Transportation and Storage

All fans are packaged at the factory to withstand normal transport handling. When handling the goods use suitable lifting equipment in order to avoid damage to fans and personnel. Do not lift the fans by the connecting cable, connection box, impeller or inlet cone. Avoid blows and shock loads. Store the fans in a dry place protected from weather and dirt until final installation.

## Installation

Refer to Safety information above. Installation, electrical connection and commissioning are only to be carried out by authorised personnel and in accordance with requirements and demands. Electrical connection according to the wiring diagram in the terminal box, markings on terminal blocks or on cable.

CAUTION Do not use metal compression gland fittings with plastic terminal boxes. Use a dummy plug seal for the compression gland fitting as well.

Fans with thermal contacts with external leads (TK) must always be connected to external motor protection.

Assemble the fan in the direction of airflow (see arrow on unit). The fan must be installed so that vibrations are not transmitted to duct systems or frame of building

Make sure the assembly of the fan is firmly fixed and stable.

The fans must be assembled so that service and maintenance can be performed easily and safely. Disturbing noise can be avoided by installing silencer (available accessory).

For frequency regulation an all pole sinus filter must be mounted between motor and frequency controller (version

all poles: phase to phase, phase to earth). Fans are meant for continuous use within the temperature range stated.

## Operation

Before initial operation, check the following:

- Electrical connection has been properly completed.
- Protective conductor has been connected.
- Motor protection installed.
- Safety devices in place (protection grid)
- Leftover installation materials and foreign materials have been removed from the casing.

When putting into operation, check the following:

- Connection data corresponds to the specifications on the nameplate: Maximum voltage +6%, -10%, according to IEC 38. Rated current must not be exceeded with more than 5% at rated voltage.

CAUTION When speed regulating by reducing the voltage the motor current may exceed the rated current at a lower voltage. In this case the motor windings are protected by the thermal contact. The minimum static fall of pressure must be observed.

- That the motor protection is functional.
- Smoothness of motor operation, (no abnormal noises).
- Fans must only be operated by a person that has sustainable knowledge or education within this field or handling must be carried out with the supervision of such person.

## Maintenance, Service and Repair

Before maintenance, service or repair make sure that:

- Power supply is interrupted (all-pole circuit breaker).
- Fan impeller has come to a complete standstill
- Observe personnel safety regulations!

The fan should be cleaned when necessary, at least 1/year to avoid imbalance and unnecessary damage to the bearings. A filter will prolong the time interval between each cleaning of the fan. (It is sometimes recommended to install a filter guard). The fan bearings are maintenance free and should only be replaced if damaged. Do not use a high-pressure cleaner (steam jet) when cleaning the fan. Make sure the fan impeller's balance weights are not moved or the fan impeller distorted. Listen for abnormal operating noise.

### Resetting of the thermal trips

Fans with external leads for thermal trips (TK) are reset from the external motor protection. This protection may not have automatic resetting.

Make sure the fan has not been blocked or that the motor protection has tripped. Contact the supplier if the motor does not start after controlling and/or resetting the motor protection.



Systemair AB  
Industrivägen 3  
SE-739 30 Skinnskatteberg  
Phone +46 222 440 00  
Fax +46 222 440 99  
[www.systemair.com](http://www.systemair.com)

202341 (20-01-2012)