

Sodeca CJTX-C-7/7-0,75

Sodeca CJTX-C-7/7-0,75 Industrial Box Fan User Manual

Model: CJTX-C-7/7-0,75 (Reference: 1027931)

Brand: Sodeca

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Sodeca CJTX-C-7/7-0,75 Industrial Box Fan. Please read it thoroughly before installation, operation, or maintenance. This unit is designed for demanding industrial applications, specifically for smoke extraction at high temperatures.

2. SAFETY INFORMATION

Safety is paramount when operating industrial machinery. Adhere to all local and national electrical and safety codes. Only qualified personnel should perform installation, maintenance, and repairs.

- The unit is designed for 400°C/2h extraction, with the motor and transmission located inside the casing, intended for operation outside fire risk zones.
- Ensure proper electrical connections are made by a certified electrician. The fan operates on three-phase power: 230/400V-50Hz (up to 4kW) and 400/690V-50Hz (above 4kW).
- The motor has IP55 protection. Ensure the installation environment is suitable for this rating.
- This product is approved according to EN 12101-3 standard, with certification No: 0370-CPR-0468. Compliance with this standard is crucial for fire safety applications.
- Always disconnect power before performing any inspection, cleaning, or maintenance.
- Do not operate the fan if any part is damaged or missing.

3. PRODUCT OVERVIEW AND COMPONENTS

The Sodeca CJTX-C-7/7-0,75 is a robust industrial box fan designed for high-temperature air extraction. Its construction ensures durability and reliable performance in challenging environments.

Key Features:

- Structure:** Constructed from galvanized steel sheet for corrosion resistance.
- Impeller:** Forward-curved blades, made of galvanized steel sheet, ensuring efficient airflow.

- **Motor:** Class F motors with ball bearings, IP55 protection. Available in 1 or 2 speeds depending on the model. IE3 efficiency motors for powers equal to or greater than 0.75kW (except single-phase, 2-speed, and 8-pole models).
- **Air Flow Direction:** Linear.
- **Temperature Range:** S1 service: -20°C to +120°C continuous. S2 service: 300°C/2h and 400°C/2h.
- **Finish:** Anticorrosive galvanized steel.



Figure 1: Sodeca CJTX-C-7/7-0,75 Industrial Box Fan. This image shows the robust, galvanized steel casing of the industrial fan, with the air inlet visible on the front face.

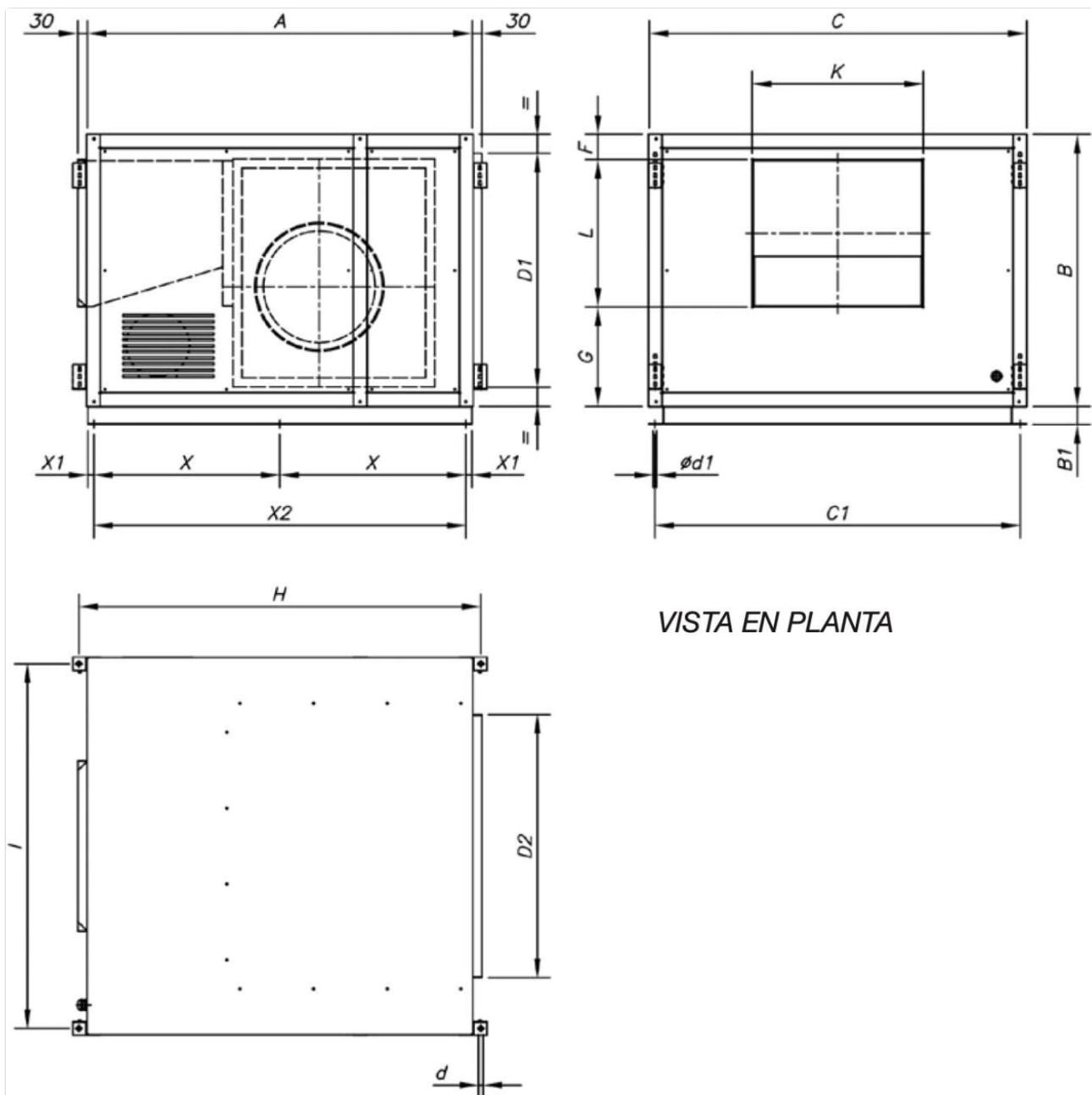


Figure 2: Technical Diagram with Dimensions of the Sodeca CJTX-C-7/7-0,75 Fan. This diagram provides detailed measurements and a top-down view for installation planning.

4. SETUP AND INSTALLATION

Proper installation is critical for the fan's performance and safety. This unit must be installed by qualified professionals in accordance with all applicable local and national codes.

1. **Location:** Position the fan in a stable, level location, ensuring it is outside the fire risk zone as per its design.
2. **Mounting:** Secure the unit firmly to the mounting surface using appropriate fasteners. Refer to the technical diagram (Figure 2) for mounting points and overall dimensions (70 x 73 x 48 cm).
3. **Ductwork Connection:** Connect the inlet and outlet ductwork. Ensure all connections are airtight to prevent air leakage and maintain optimal performance. Verify the linear air flow direction.
4. **Electrical Connection:** Connect the fan to the appropriate three-phase power supply (230/400V-50Hz or 400/690V-50Hz) via a dedicated circuit breaker. Ensure proper grounding. All wiring must comply with local electrical codes.
5. **Pre-Operation Check:** Before starting, visually inspect all connections, ensure no foreign objects are inside

the casing or ductwork, and confirm the impeller rotates freely.

5. OPERATING INSTRUCTIONS

The Sodeca CJTX-C-7/7-0,75 fan is designed for continuous operation within its specified temperature ranges.

- **Starting the Fan:** Once installation is complete and all safety checks are performed, activate the power supply to the fan.
- **Speed Control:** Depending on the specific model, the fan may have 1 or 2 operating speeds. Adjust the speed as required for your ventilation needs.
- **Monitoring:** During operation, periodically monitor the fan for unusual noises, vibrations, or changes in performance.
- **Temperature Management:** The fan is capable of handling air temperatures from -20°C to +120°C continuously (S1 service) and up to 300°C/2h or 400°C/2h for emergency smoke extraction (S2 service). Ensure the operating conditions do not exceed these limits.
- **Stopping the Fan:** To stop the fan, deactivate the power supply. For extended periods of non-use, it is recommended to disconnect the main power.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Sodeca fan. All maintenance procedures should be carried out by qualified technicians.

- **Power Disconnection:** Always ensure the fan is completely disconnected from the power supply and locked out before beginning any maintenance.
- **Impeller Cleaning:** Periodically inspect and clean the impeller blades to prevent dust and debris buildup, which can reduce efficiency and cause imbalance.
- **Bearing Inspection:** Check motor bearings for signs of wear or unusual noise. Lubricate if necessary, following manufacturer guidelines for the specific motor.
- **Electrical Connections:** Verify that all electrical connections are secure and free from corrosion.
- **Casing Integrity:** Inspect the galvanized steel casing for any signs of damage or corrosion. The anticorrosive finish helps protect the unit.
- **Vibration Check:** Monitor for excessive vibration, which could indicate an unbalanced impeller or worn bearings.

7. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For complex problems, contact Sodeca technical support or a certified technician.

Problem	Possible Cause	Solution
Fan does not start	No power supply; tripped circuit breaker; faulty wiring; motor protection activated.	Check power supply; reset circuit breaker; inspect wiring (by qualified personnel); check motor overload protection.
Reduced airflow	Blocked inlet/outlet; dirty impeller; incorrect speed setting.	Clear obstructions; clean impeller; adjust speed setting.

Problem	Possible Cause	Solution
Excessive noise or vibration	Unbalanced impeller; worn bearings; loose mounting; foreign object in casing.	Inspect impeller for damage/debris; check bearings; tighten mounting bolts; remove foreign objects. Contact technician if problem persists.
Overheating motor	Insufficient ventilation; motor overload; faulty motor.	Ensure adequate ventilation around motor; check for obstructions; consult technician for motor inspection.

8. SPECIFICATIONS

Attribute	Value
Model	CJTX-C-7/7-0,75
Reference Number	1027931
Dimensions (L x W x H)	70 x 73 x 48 cm
Weight	58 kg
Turbine Type	7/7 inch, forward-curved blades
Motor Class	F
Motor Protection	IP55
Motor Efficiency	IE3 (for powers $\geq 0.75\text{kW}$, except single-phase, 2-speed, and 8-pole)
Electrical Supply	Three-phase 230/400V-50Hz (up to 4kW), 400/690V-50Hz (above 4kW)
Maximum Air Flow	2450 m ³ /h
RPM	1400 rpm
Continuous Operating Temperature (S1)	-20°C to +120°C
Emergency Operating Temperature (S2)	300°C/2h and 400°C/2h
Certification	EN 12101-3, No: 0370-CPR-0468
Finish	Anticorrosive galvanized steel

9. WARRANTY AND SUPPORT

For warranty information, technical support, or spare parts, please contact Sodeca customer service or your authorized dealer. Keep your purchase receipt and the product's model number (1027931) handy for faster service.

Sodeca is a specialist in the design and manufacture of fans and their accessories for industrial applications, ensuring high-quality products and support.