

378T Emergency Opening (Temperature controlled) User Manual



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1 Product description

378T is an advanced emergency opening unit providing optimum safety in connection with technical failures. This is achieved by means of a separate temperature sensor and manual setting of the temperature limit for emergency opening

Thanks to its own outdoor temperature sensor 378T takes high summer temperatures into consideration. Therefore, 378T does not activate the emergency opening function when the house is already open due to high summer temperatures.

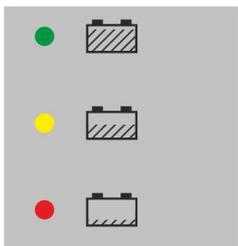
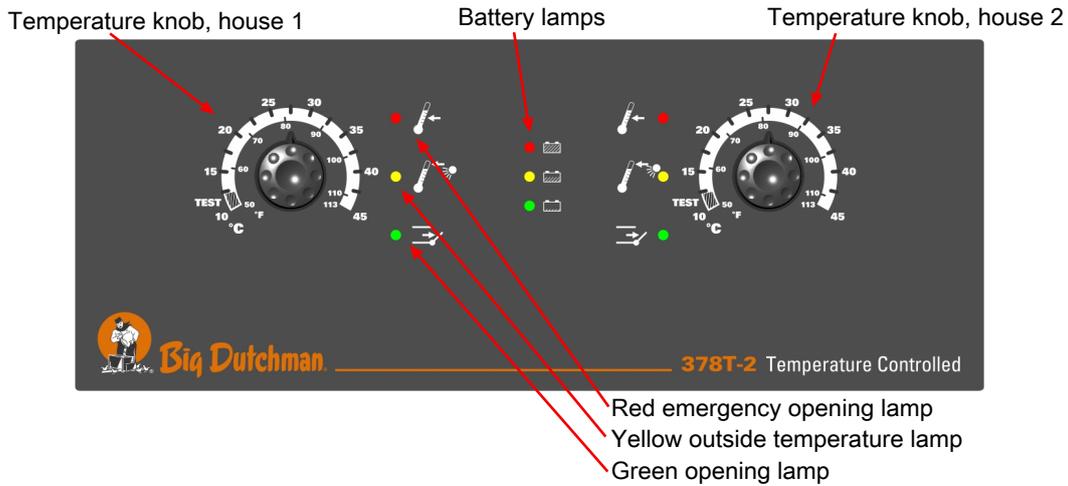
378T and its settings are monitored by the house controller. It triggers an alarm, for example if 378T's temperature button for emergency opening has been set too high or if the battery voltage is too low.

378T is available in the following variants:

- 378AMT-1 temperature controlled emergency opening, Medium (one-house)
- 378AMT-2 temperature controlled emergency opening, Medium (two-house)
- 378ALT-1 temperature controlled emergency opening, Large (one-house)
- 378ALT-2 temperature controlled emergency opening, Large (two-house)
- 378AXLT-1 temperature controlled emergency opening, XL (one-house)

2 User guide

2.1 Panel

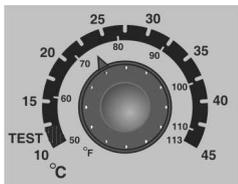


Battery lamps

Green: Enough voltage for > 18 V opening of flaps

Yellow: 18 – 16 V

Red: Battery is almost discharged and should be charged at least 20 min. before test or 4-14 hours for a complete charge.



Temperature knob

Sets the house temperature at which emergency opening must be activated.



Emergency opening lamp

Red lamp lit when current inside temperature is higher than temperature setpoint.



Outside temperature lamp

Yellow lamp lit when emergency opening is postponed because of summer temperature.



Opening lamp

Green lamp lit when the system opens.

2.2 Functions

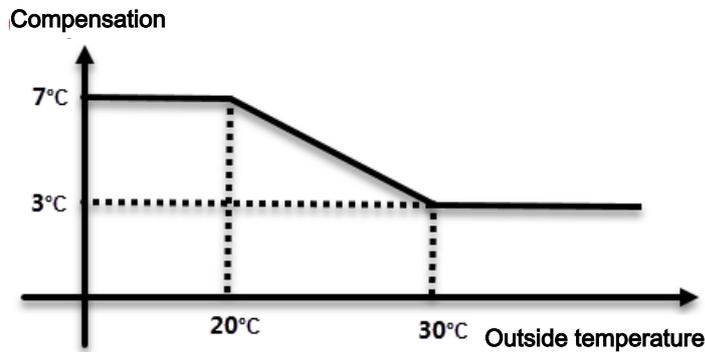
2.2.1 Temperature control

monitors the temperature in the house via its own temperature sensor. The temperature controlled emergency opening system will be released only when the inside temperature exceeds the temperature to which the emergency opening system has been set (Emergency opening temperature).

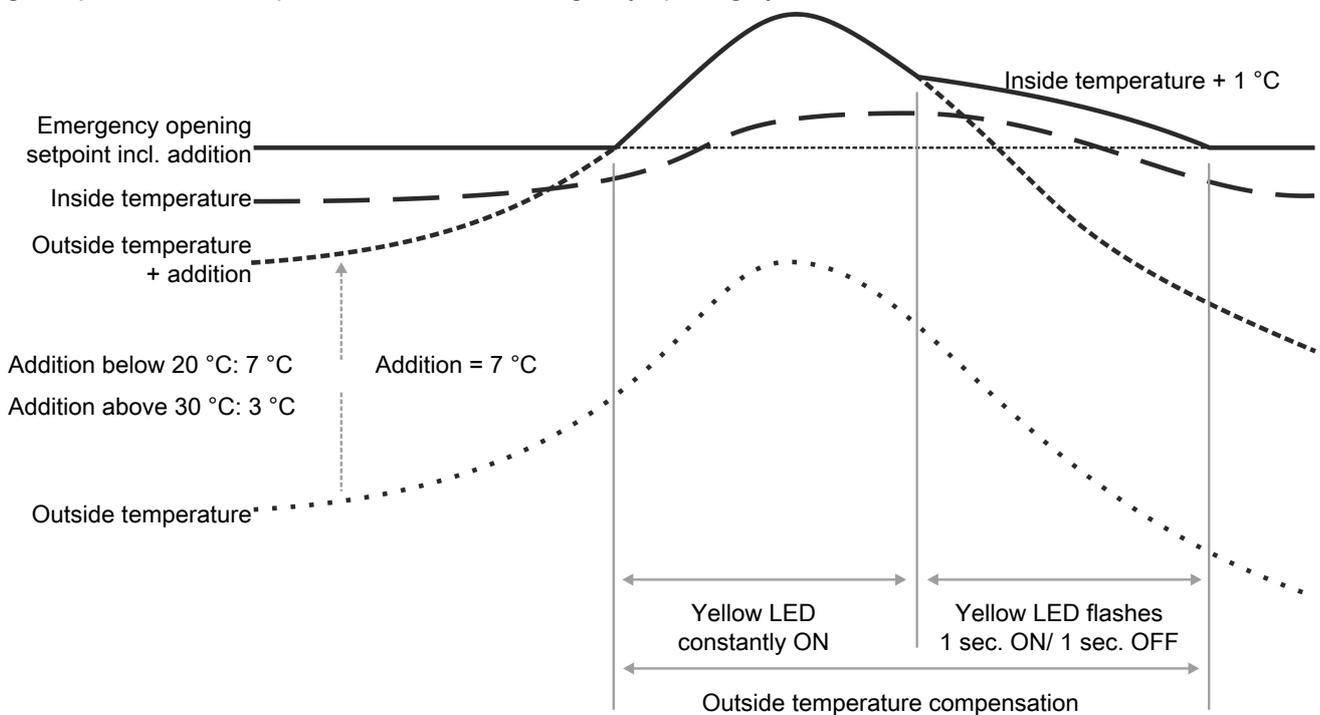
“Temperature controlled” means that a slight overtemperature results in slow opening. This prevents undercooling of the house. Similarly, a higher overtemperature results in faster opening.

2.2.2 Outside temperature compensation

If the outside temperature is high, an addition will be added to the **Emergency opening setpoint**. If the outside temperature + the addition (compensation) goes above the **Emergency opening setpoint**, the outside temperature + the addition is used as limit instead.



If the current inside temperature is above the **Emergency opening setpoint**, it will not trigger emergency opening as long as the inside temperature is decreasing. However, if the inside temperature rises by more than 1°C during this process, the temperature-controlled emergency opening system will take over.



The outside temperature compensation is indicated by constant light on the yellow LED.

Emergency opening blocked by falling inside temperature is indicated by slow flashing with yellow LED.

2.2.3 Battery and power supply

378T's built-in battery and charger ensure that the winches also open temperature controlled, emergency-wise, in case of overtemperature in connection with power failure.

During normal operation 378T also supplies 24 V DC to the climate controller. The controller itself cannot supply many or powerful winch motors, such as CL 75.

2.2.4 Emergency operation

If the supply voltage disappears while it is cold outside, the 378T will keep regulating the shutters three minutes after current has returned to the climate controller. This is to prevent heat loss when the climate computer opens the shutters during start-up.

If the supply voltage disappears while it is warm outside, the climate controller will, however, start the fans again as soon as possible.

2.3 Weekly testing



The emergency opening system **MUST** be tested once a week in order to ensure that the emergency opening system works faultlessly.

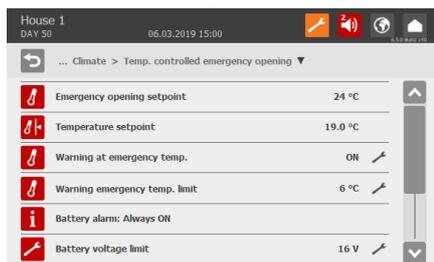
During the summer season, the test is carried out early in the morning when the flaps have not yet opened completely.

Procedure:

1. Note the setting of the temperature knob.
2. Turn the knob to TEST.
3. Check that the red and green lamp switch on.
4. Check that the system opens in the correct house.
5. Disconnect the mains voltage for 378T and climate controller.
6. Check that the system opens completely.
The green battery lamp remains on during the entire test as a sign that the battery voltage is sufficient (i.e. > 16 V).
7. Connect the mains voltage again, and turn the temperature knob back to the starting point.
8. Check that the system closes again.
9. Repeat the test to make sure that the battery voltage is ample.

2.4 Setting of emergency opening in climate controller

2.4.1 Emergency opening temperature



Set the temperature at which the emergency opening system is to open directly on the 378T temperature knob.

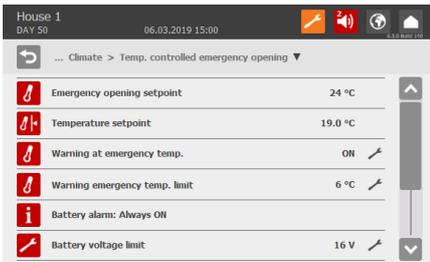
The setting can be read in the display of the climate controller with the **Temperature setpoint** in the **Alarm settings | Climate | Temp. controlled emergency opening** menu.

The **Emergency opening setpoint** should be set approx. 5° C above the **Temperature setpoint**.

2.4.2 Warning at emergency temperature

The climate controller can give a warning, which will flash in the display if **Emergency opening setpoint** is set too high compared to the **Temperature setpoint** (inside temperature). This is particularly relevant in houses with batch production and a decreasing temperature curve. Here you must continuously make a downward adjustment of **Emergency opening setpoint**.

However, too high a setting can also be caused by an error.

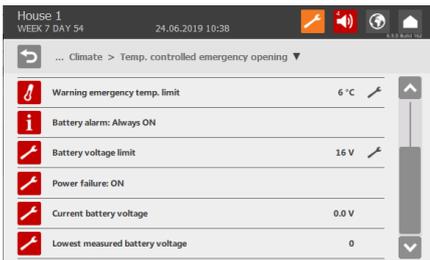


It must be set with the number of degrees that **Emergency opening setpoint** is allowed to exceed the **Temperature setpoint** before the controller is to give a warning.

The warning function can be connected and disconnected.

2.4.3 Battery alarm and battery voltage

The temperature controlled emergency opening system has a battery, which ensures that the emergency opening system will operate in spite of power failure when the inside temperature exceeds the setting of the **Emergency opening setpoint**.



The climate controller can generate an alarm when the battery, which powers the emergency opening system, does not function. This function can be connected or disconnected.

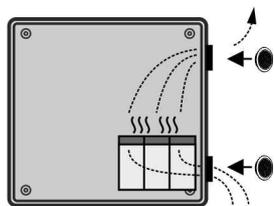
You can read off the current and the lowest measured voltage on the battery. These readings indicate whether you need to replace the battery or whether there may be a technical fault causing the battery alarm.



Be careful not to set the **Battery voltage limit** too low, as this will actually deactivate the alarm.

3 Maintenance instructions

Replace the battery module at least every 3 years.



Replace the two ventilation plugs at the same time as the battery.

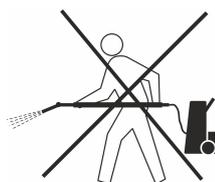
3.1 Battery voltage check

Battery voltage can be measured by carrying out “Weekly testing” several consecutive times until the battery can no longer open the system. This way, a realistic measurement is achieved of how many times the connected houses can be opened emergency-wise using the battery. It should be possible to open the houses at least twice in a row using the battery when it is fully charged (large battery). Charging the battery fully takes approx. 4-14 hours.

3.2 Cleaning

As for all electronic equipment, it is best for 378T to be connected all the time as this will keep it dry and free from condensation.

If power is to be switched off for several hours, disconnect the battery, as otherwise it will be damaged.



Clean the product with a cloth that has been wrung out almost dry in water and avoid using:

- high-pressure cleaner
- solvents
- corrosive/caustic agents

3.3 Recycling/Disposal



Products suitable for recycling are marked with a pictograph showing a garbage can that has been crossed out. See illustration.

It must be possible for customers to deliver the products to local collection sites/recycling stations in accordance with local instructions. The recycling station will then arrange for further transport to a certified plant for reuse, recovery and recycling.

EU - Declaration of Conformity

Manufacturer: **SKOV A/S**
Address: Hedelund 4, DK-7870 Roslev
Telephone: +45 72 17 55 55

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product: 378
Type, model: Emergency opening
EU directives: 2014/35/EU (Low Voltage Directive (LVD))
2014/30/EU (Electromagnetic Compatibility (EMC))
2011/65/EU (RoHS Directive)
2001/95/EC (General Product Safety Directive (GPSD))

On general product safety

Standards: EN 60950-1:2006:
EN 60950-1:2006/AC:2011
EN 60950-1:2006/A11:2009
EN 60950-1:2006/A12:2011
EN 60950-1:2006/A1:2010
EN 60950-1:2006/A2:2013
EN 61000-6-2:2005 + AC:2005:
EN 61000-6-4:2007 + A1:2011:
EN 50581:2012:
EN 50272-1:2010:
EN 50272-2:2001:

We declare as manufacturer

that the products meet the requirements of the listed directives and standards.

Location: Hedelund 4, DK-7870 Roslev

Date: 2019.06.12



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