

**Voltage Relay** 

# **USER'S MANUAL**





www.sven.fi

### **User's Manual**

### OVP-11F

#### Congratulations on your purchase of the Sven voltage relay!

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#### Technical support is on www.sven.fi.



#### 1. PRECAUTIONS

 Before using the device, please carefully read the following User's Manual and save it for the whole operation period.

 Before connecting the device to the mains, keep it within two hours in operating conditions.

• Do not use abrasive materials or organic compounds (alcohol, petrol, solvents, etc.) to clean the device.

• It is prohibited to open and repair the device on your own.

• It is prohibited to open and repair any protected equipment, if it is connected to the device socket.

- It is prohibited to use the device with mechanical damages of its case.
- It is prohibited to use the device in high humidity conditions.
- · Avoid ingress of water into the device.

### Attention

- The device must operate in the power network protected by an automatic circuit breaker with the interrupting current not more than 16 A.
- > The device is not designed for power-cut while short-circuited.

#### 2. PACKAGE CONTENTS

- Voltage relay 1 pc
- User's Manual 1 pc
- Warranty card 1 pc

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#### 3. APPLICATION

OVP-11F voltage relay is designed to protect household appliances (refrigerators, washing-machines, PCs, video and audio equipment, etc.) connected to it against inadmissible supply voltage deflections and impulse noises in the power supply network.

#### 4. FEATURES

 Protection of connected devices against high/low overvoltage in the power supply network

 Turn-on delay for protection against repeated failures in the power supply network

- · Fixed protection parameters for operation simplicity
- · Voltage relay status indication
- · Protective shutters in the output socket
- · Protective grounding contacts

#### 5. TECHNICAL DESCRIPTION

OVP-11F voltage relay presents a device with an electronic circuit with microprocessor control assembled in the case with a wall plug and socket. OVP-11F voltage relay has fixed settings and does not need programming. OVP-11F voltage relay provides the power supply disconnection of appliances connected to it, if the power supply voltage exceeds specified values, and automatically recovers the power supply within the specified time after voltage normalization, in such a manner, it protects the appliances connected to the power supply network against voltage swings dangerous for them. At that indicators of OVP-11F display the voltage relay status.



### Voltage Relay

#### Design description

 Задержка включения (Turn-on delay): delay mode / turn on condition indicator (green)

 Bысокое (High voltage): protection actuation indicator, when the power supply voltage is high (yellow)

 Низкое (Low voltage): protection actuation indicator, when the power supply voltage is low (yellow)

④ ⊕: turn-on delay cancel button

- Protective shutters
- ⑥ Grounding contacts

O Wall plug to connect the voltage relay to ~220 V power supply network socket

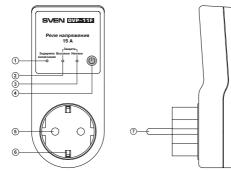


Fig. 1

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#### 6. CONNECTION

OVP-11F voltage relay is connected to a standard socket of 220 V / 50 Hz power supply network. The socket must be rated at the current 16 A. The power supply line of the socket must be protected by an automatic circuit breaker with current not more than 16 A to protect against short circuit and overload. The circuit breaker must be located in an electric service cabinet. Protected devices are connected to the output socket of OVP-11F. The long consumption current of devices being connected to the relay must not exceed 2/3 of the maximum load current indicated in its specification.

The voltage relay is designed for operation indoor only. The device operation is inadmissible in places with high humidity and where ingress of liquid on its case is possible. Ambient temperature during the voltage relay operation must be in the range +10 to +35 °C.

#### 7. PREPARATION TO OPERATION

OVP-11F voltage relay has fixed settings and does not need programming or additional settings.

#### 8. OPERATION

The voltage relay has the following operation modes:

- · normal operation;
- · protection mode;
- turn-on delay mode.

The voltage relay is in normal operation, when the active voltage of the power supply network is within 185-255 V limit and the turn-on delay time is over. In this mode the protected equipment connected to the relay is de-energized, the indicator ① lights continuously.

If the voltage exceeds the set thresholds, the relay enters the protection mode. In this mode the equipment connected to the relay is de-energized and one of protection indicators starts to light: (2) when high voltage protection is actuated or (3) when low voltage protection is actuated. The voltage relay will be in this mode as long as the supply voltage attains a value within 190 -250 V range.



The relay enters the turn-on delay mode after its connection to the power supply network or when it leaves the protection mode. In this mode the equipment connected to the relay remains de-energized till the end of delay time, and the indicator ① blinks during this time. The turn-on delay value for OVP-11F voltage relay is180 sec.

Force transition from the turn-on delay mode to the operation mode can be done by pressing the button ④.

#### 9. TECHNICAL SPECIFICATIONS

Parameters	Value
Rated voltage, V	~220
Maximum load current, A	15
Maximum power, kVA	3.3
Protection actuation time	not more than 0.3 sec
Operation threshold to decrease power supply voltage, V	185 ± 3 %
Operation threshold to increase power supply voltage, V	255 ± 3 %
Turn-on delay time, sec	180
Dimensions, mm	54 × 120 × 80

Notes:

• Technical specifications given in this table are supplemental information and cannot give occasion to claims.

• Technical specifications and package contents are subject to change without notice due to the improvement of SVEN production.

### Voltage Relay





#### Mogeль: OVP-11F

Импортер в России: ООО «СКАНДИТРЕЛ», 111024, РФ, г. Москва, ул. Авиамоторная, д. 65, стр. 1. Уполномоченная организация в России: ООО «РТ-Ф», 105082, г. Москва, ул. Фридриха Энгельса, д. 75, стр. 5.

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Manufacturer: SVEN PTE. LTD, 176 Joo Chiat Road, № 02-02, Singapore, 427447. Produced under the control of Oy Sven Scandinavia Ltd. 15, Kotolahdentie, Kotka, Finland, 48310. Made in China.

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