F&F Filipowski L.P.
Konstantynowska 79/81, 95-200 Pabianice, POLAND
phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71
www.fif.com.pl; e-mail: biuro@fif.com.pl

PSR-463-AUTO

Automatic
4-track, rotary, modular,
network-aggregate switch 63 A

Do not dispose of this device in the trash along with other waste!
According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.

Purpose

The PSR-463-AUTO is an automatic, three-phase, 4-pole installation switch with a switching program I-0-II. The built-in motor drive and advanced mechanical design ensure safe disconnection and connection of loads up to a rated current of 63 A.
Input line monitoring systems and relay control outputs also enable the implementation of simple automatic transfer switch systems, switching power between two feeders, or the main line and a generator (with the option of issuing a signal to start the generator).

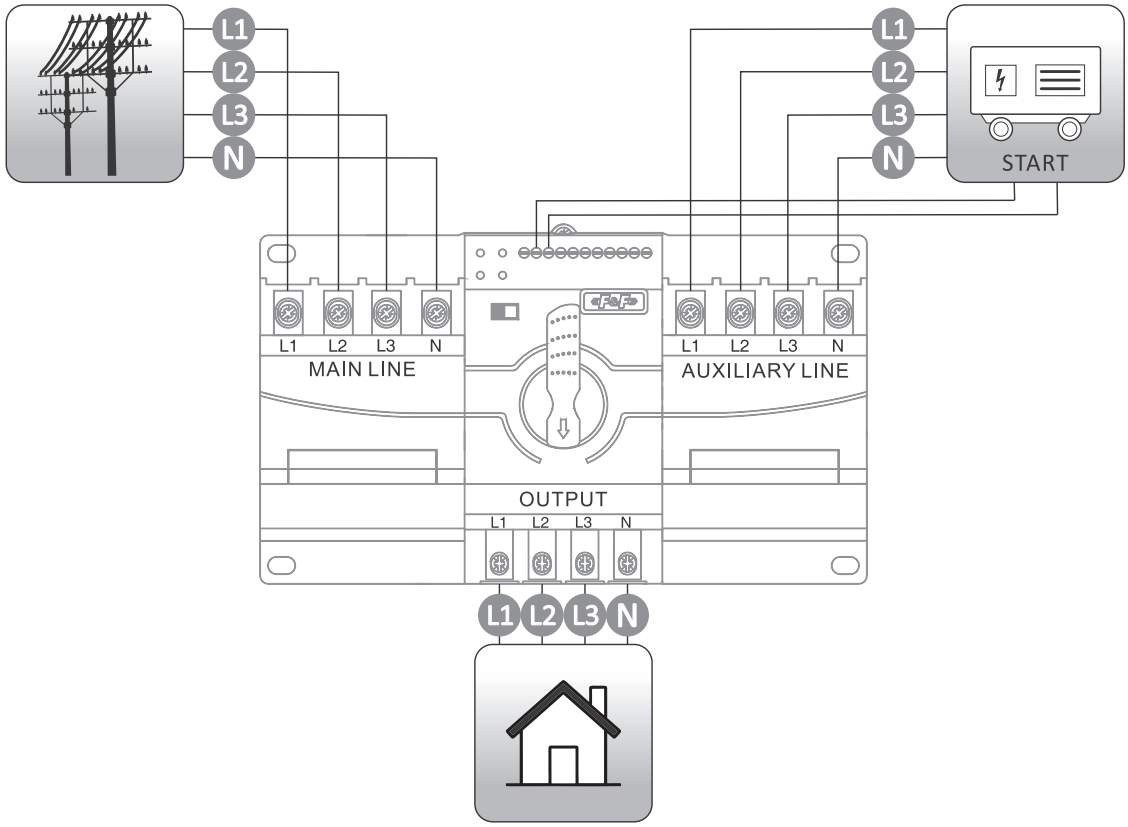
Characteristics

» Advanced and precise control system and motor-driven actuator;
» Mechanical protection prevents simultaneous;
» Switching on of both power sources or immediate switching from one line to the other without passing through the 0 position;
» Capable of operation in automatic and manual modes;
» Built-in overvoltage and undervoltage protection;
» Optical operating status indication;
» Safety input allows automatic power shutdown in the event of a danger or fire;
» Relay outputs signaling:
  – Main or auxiliary line activation;
  – Generator activation command;
  – Safety interlock activation.
» Mounted on an installation plate.

Wiring diagram

The device must be installed by qualified installers with knowledge and experience in electrical installations. Before installation, read the instruction manual.

All installation work must be performed with the power supply disconnected. Ensure that the wires are properly tightened – loose wires can cause sparking or, in extreme cases, cause the device to catch fire.



The main contacts (L1, L2, L3, N) are switched on/off simultaneously!

Do not install a damaged or incomplete switch!

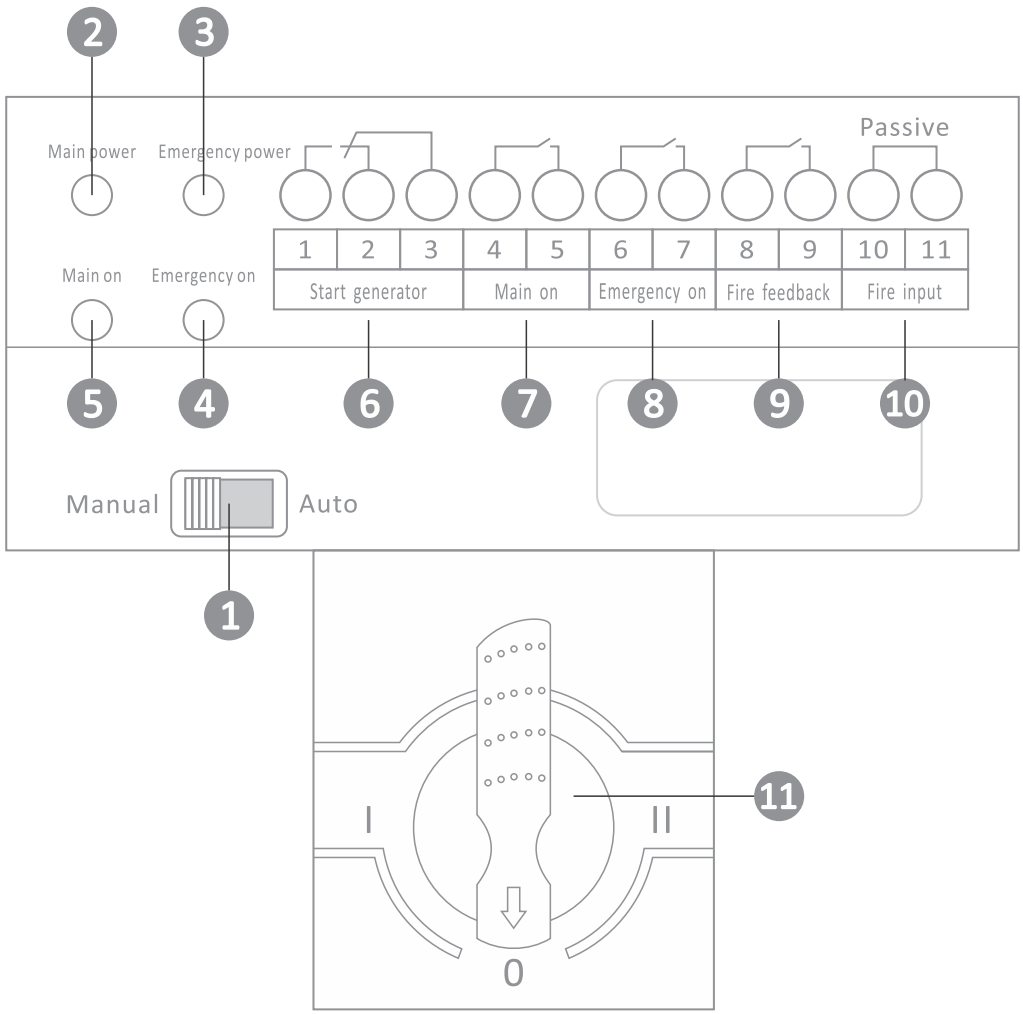
Before first use, check several times to ensure that the switch lever rotates smoothly and there are no noticeable jams.

Strictly observe the operating conditions of the device!

The user is responsible for selecting the installation connected to the switch, including: the type and diameter of the wires, overcurrent protection, differential circuit breaker, and surge protection.

The manufacturer shall not be liable for faults and damage caused by incorrect installation or improper use of the device.

Control and signaling



1. Operating mode switch: **Manual** – operation in manual mode, **Auto** – operation in automatic mode.
2. Indication of voltage presence on the main power line.
3. Indication of power presence on the auxiliary power line.
4. Indication of auxiliary power line activation.
5. Indication of main power line activation.

Contacts 1-11 of the PSR-463-AUTO switch are **push-in** spring terminals. This means that to insert the wire into the terminal, you must slightly press down on the terminal pin visible from the front.

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6. Relay output (NO/NC changeover contact). In the event of a power failure on the main line, the contact between terminals 2-3 closes, which can be used as a start command for a generator connected to the auxiliary line.
7. Relay output (NO contact) indicating the activation of the main line.
8. Relay output (NO contact) indicating the activation of the auxiliary line.
9. Relay output (NO contact) indicating the activation of the alarm input and the switch being locked in the off position.
10. Input for alarm power off. Closing the contact between terminals 10-11 removes voltage from the output line and sets the device to the 0 position (also works in manual mode).
11. Lever for switching the device in manual mode.

In **Auto** mode, the lever is automatically adjusted using a built-in motor drive. **Do not manually adjust the lever position when the camera is set to manual mode!**

Service

Operating mode

The PSR-463-AUTO operating mode allows for automatic or manual operation. The operating mode is selected using a switch located on the front of the device.

In manual mode, the switch remains permanently in the position set by the user.

In automatic mode, the line selection is based on line voltage parameters:

» If the voltage on all phases of the main line is correct, the main line will be connected to the output (device in position I);
» If the voltage on the main line is not correct and if the voltages on all phases of the secondary line are correct, the secondary line will be connected to the output (device in position II);
» If the voltage on both lines is not correct, the switch does not change position;
» In the event of operation on power from the auxiliary line (device in position II) and the correct power supply parameters of line I returning, the output will automatically switch to power from line I (line I has priority over line II).

The switch only monitors the phase voltages (L-N). The presence of different phases or phase sequence are not monitored.

Alarm input

The PSR-463-AUTO switch is equipped with a signal input (terminals 10-11) enabling remote power off (se□ng the device to the 0 position) in the event of a hazard or fire. The alarm will be triggered when the contact between terminals 10-11 is closed.

To activate the alarm input, the device must be set to manual or automatic operation and power must be available on the main or auxiliary line to enable the switch's motor drive to operate.

When an alarm is triggered, the switch is forced to the 0 position. If the user manually changes the switch position, it will return to the 0 position.

Removing the threat signal (opening the contact between terminals 10-11) will not disable the alarm and automatically turn off the power. In this case, ensure that the threat that caused the alarm has been removed and set the operating mode switch to manual mode, then set it back to automatic mode.

Operating status indication

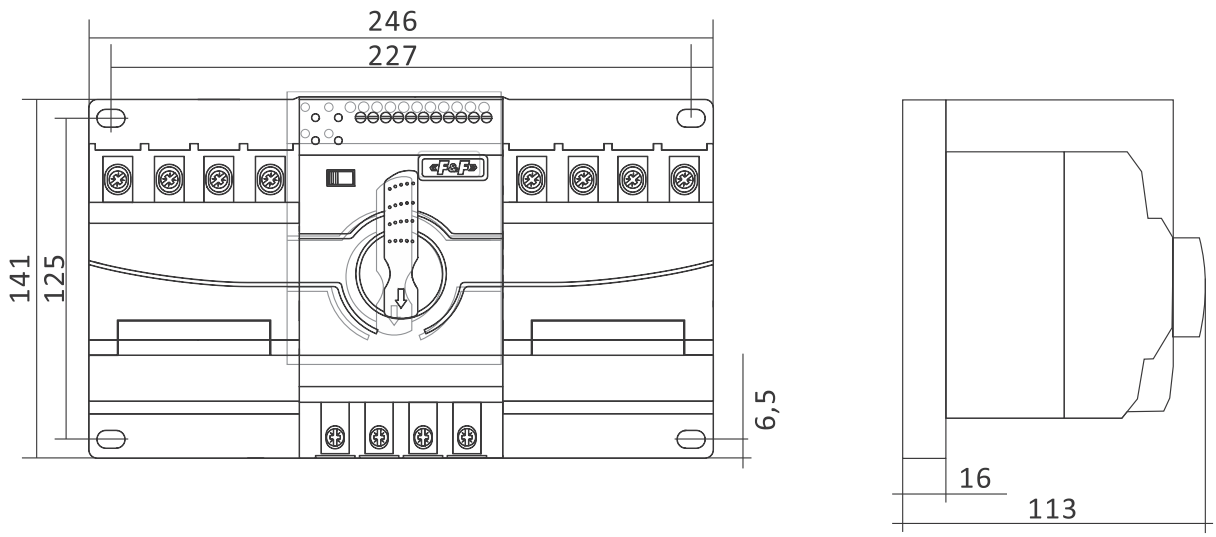
Voltage presence indication on the main and auxiliary lines:

» LED is steady on – voltage is normal;
» LED is off – no voltage;
» LED flashes rapidly (10 times per second) – voltage is too high;
» LED flashes slowly (2 times per second) – voltage is too low.

Indication of main or auxiliary line activation:

» LED illuminates continuously – line connected to the switch output;
» Alternate flashing of the voltage indicator on the main and auxiliary lines indicates that the security alarm has been activated.

Dimensions



Technical data

number of poles	4P
rated voltage (AC)	400 V
insulation voltage	500 V
surge voltage	4 kV
switching capacity	5 kA
short-circuit breaking capacity (Icm)	7.5 kA (0.1 s)
rated short-circuit breaking capacity (Icn)	5 kA
rated frequency	50÷60 Hz
current carrying capacity AC-21 (category A and B)	63 A
current carrying capacity AC-22 (category B)	63 A
current carrying capacity AC-23 (category B)	63 A
voltage protection	
overvoltage	270 V (±5 V)
undervoltage	165 V (±5 V)
switching power	42 kW
mechanical endurance	10.000 cycles
electrical endurance	6.000 cycles
switching time	≤5 s
lockable in 0 position	no
power loss (for rated current)	
1 pole	<5 W
total	<15 W
working temperature	-5÷40°C
humidity (non-condensing)	≤95%
mounting altitude	up to 2000 m a.s.l.
control outputs	4
type	relay
capacity	2 A/250 V AC

control input	1
type	potential-free
power circuit connection	
minimum wire diameter	1.5 mm² screw terminals
maximum wire diameter	25 mm² screw terminals
control circuit connection	
maximum wire diameter	1.5 mm² push-in terminals
dimensions	246×141×113 mm
mounting	mounting plate
ingress protection	IP20

Warranty

F&F products are covered by a 24-month warranty from the date of purchase. The warranty is only valid with proof of purchase. Contact your dealer or contact us directly.

CE declaration

F&F Filipowski L.P. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found www.fif.com.pl on the product subpage.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