

**AUTOMATIC
 PHASE SWITCH**

PF-431

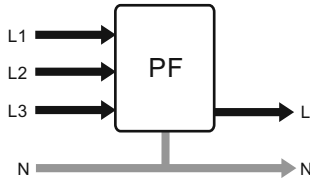
WARRANTY. The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us. More information how to make a complaint can be found on the website: www.fif.com.pl/reklamacje



Do not dispose of this device to a garbage bin with other unsorted waste! In accordance with the Waste Electrical and Electronic Equipment Act any household electro-waste can be turned in free of charge and in any quantity to a collection point established for this purpose, as well as to the store in the event of purchasing new equipment (as per the old for new rule, regardless of brand). Electro-waste thrown in the garbage bin or abandoned in the bosom of nature pose a threat to the environment and human health.

Purpose

Automatic phase switch is used to maintain the power supply continuity of the single-phase receiver in case of power supply phase loss or drop in its parameters below standard.



- 1 -

Specifications

input current	3×230V+N
output current	230V AC
current load AC-1*	<16A
L1 activation threshold	<195V
L2, L3 activation threshold	<190V
hysteresis	5V
voltage measurement error	±1%
switching time	0.5÷0.8s
indication of input voltages	3×LED
power consumption	0.8÷1.0W
working temperature	-25÷50°C
terminal	2,5mm ² screw terminals
dimensions	3 modules (52.5mm)
mounting	on TH-35 rail
protection level	IP20

* The actual allowable load capacity depends on the nature of the receivers. If the power supply is intended for large household appliances, heating, lighting (LED, floodlight, ESL light bulbs), it is recommended to use the PF-441 switch with additional contactors.

- 3 -

Functioning

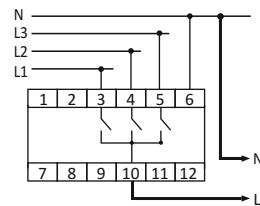
A three-phase voltage (3 × 230 V + N) is applied at the input of the switch. A single-phase voltage (230 V AC) is applied at the output of the switch, i.e. the phase voltage of one of the phases. The electronic system of the switch controls values of the applied phase voltages so that the output voltage is not lower than 195 V. Phase with the correct parameters is directed at the output of the switch. Corresponding green LED signals the activation of the given phase at the output of the switch. L1 phase is the priority phase, i.e. that if its parameters are correct, this phase will be always switched to the output. If a voltage in L1 phase would drop below 190 V or in a case of total power failure (the green L1 LED goes off), the electronic system will switch phase L2 to the output (if its parameters are correct). In the case of a simultaneous lack of correct voltages in phases L1 and L2 (L3 and L2 green LEDs go off), the L3 phase will be switched to the output. When the correct supply voltage returns to the L1 phase (above 195 V), the system switches this phase to the output.

Installation

1. Turn off the power.
2. Connect the input voltages to terminals 3, 4, 5 and neutral wire to terminal 6. Phase with the most volatile parameters connect to terminal 5, while the phase with stable parameters to terminal 3 as the priority phase.
3. Powered single-phase circuit connect to terminal 10 (phase) and neutral wire.
4. Turn on the power supply and check the continuity of the voltage of the connected single-phase circuit by the consecutive disconnections of voltage in L1 phases followed by the L2 phases.

- 2 -

Connection scheme



D150413/150917

- 4 -