

General

DFK-XXX phase sequence and protection relays are designed to prevent the failures originated from motor heats and 3 phases loads..

Use of Device and Working Principle

Please connect the device according to the schema as shown.

To adjust the Asymmetry set value: While looking at the display which is located on the left side, please adjust the (Asm%) button as requested. When the user moves the button the values are going to be seen on the screen.

To adjust the waiting time: Please move the (t) button while looking at the display which located on the left side. The values which has adjusted can be seen on the left side on the display. After 4sec.that you stop moving the button voltage values can be seen on the displays.

When the device is loaded with energy the set values can be seen and after 2 sec. Voltage values can be seen accordingly. When voltage values between phases 180V and 460V, if the difference between voltages are lower than adjusted relay LED turns on and contact output (NO)3.

If any of the phase sequence voltage values descend under 180V or increase up to 460V voltage error led turns on and after 2 sec. later relay led turns off and contact out put assigns to (NC)1. When the voltages turns into the normal values waiting time counts according to (t) and voltage failure led turns off and contact output becomes (NC)3. If the difference between voltages are over than the asymmetry set value, asymmetry failure led turns on (Asm Err), it counts as the settled waiting time. Relay led turns off and contact out put becomes (NC) 1. If Difference between voltages descend under settled value, asymmetry failure led turns off, it counts the waiting time, after the waiting time is up relay led turns on and the contact out put becomes (NO) 3.

DFK-05 F / 05 PF – Device provides phase sequence speciality..When the phase sequence is reversed, (P) led turns on , Relay led turns off ve contact becomes (NC) 1 output.

DFK-05PF – Device has PTC speciality. In PTC types ,when the warmth value of the motor gets over the nominal values PTC led turns on after 2sec. relay led turns off and contact output becomes (NC) 1. When the warmth value of the motor gets under the expected range PTC led turns off it counts as same as the waiting time, after the time is up relay led turns on and contact output becomes (NO) 3. relay output is in (NC) 1 when PTC resistance value 1600R-2000R, Relay out put is in (NO) 3 when PTC resistance value 1000R-1400R.

Asymmetry Calculation: Asymmetry set value Mac Phase-Phase (MAX FF) between minimum phase phase (Min-FF) adjusts the difference..(Asymmetry set value = ((MAXFF - MinFF) x100/ 380

Maintenance

Switch off the device and release from connections. clean the trunk of device with a swab. Don't use any conductor or chemical might damage the device. make sure device works after cleaning.

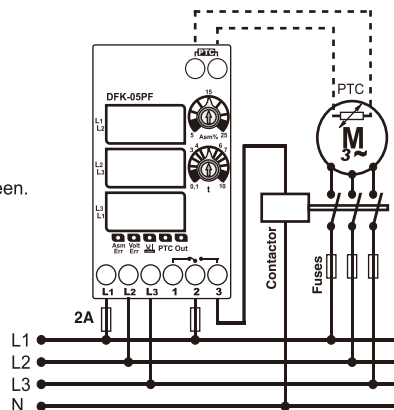
Warnings

- Please use the device according to the manual.
- Don't use the device in wet.
- Include a switch and circuit breaker in the assembly.
- Put the switch and circuit breaker nearby the device, operator can reach easily.
- Mark the switch and circuit breaker as releasing connection for device.

Technical Specification:

Working Voltage.....:	3x380V AC
Working Frequency.....:	50/60 Hz.
Working Range.....:	Phase-Phase (170V - 470V)
Working Power.....:	<6VA
Working Temperature.....:	-20°C.....+55°C
Asymmetry Set.....:	%5 - %25
High-Low Voltage Set.....:	180V- 460V (fixed)
Waiting(t).....:	0,1sec. - 10sec.
Display.....:	3x3digit display + led
Connection Diagrams:	Vertical assembled in the panel or assembled on the din rail.
Weight.....:	DFK-XXX=220gr.
Contact.....:	5A 250V AC Resistive Load
Working Altitude.....:	<2000m
Cable Diameter.....:	2,5mm ²

Connection diagram forDFK-XXX



Dimensions for DFK-XXX

