





PROTECTION + AUTOMATION + CONTROL

FREQUENCY RELAY HAVING TWO INDEPENDENT STAGES OF OVER / UNDER FREQUENCY WITH DEFINITE TIME DELAY JRF 014

JVS ELECTRONICS PVT. LTD.

#121,Manchanayakanahalli, Bangalore Mysore Highway, Bidadi, Ramanagara District - 562 109, Karnataka, India +91 94808 26272, +91 94808 26260 bangalore@jvselectronics.in, www.jvselectronics.in

FEATURES

- Two stage of frequency protection
- Digital display of line frequency
- Draw out case 144x144 mm

APPLICATION

The relay provides time graded over / under frequency protection. Used in industrial plants having captive power generators requiring under frequency protection.

PRINCIPLE OF OPERATION

The Realy, JRF 014, is a Microprocessor based frequency relay The relay can be configured for 2 stage under frequency relay, two stage over frequency relay or Under / Over frequency relay. The relay's operating time can be programmed. The relay measures line frequency and if it exceeds the set threshold in case of over frequency or if it is less than set threshold then relay extends a trip signal after an operating time.



TECHNICAL DATA RATINGS

Frequency rating : 50 Hz
Voltage rating : 63.5V AC
110V AC

Aux. Supply : 20 to 60V DC

75 to 150V AC / DC 175 to 265V AC/DC

SETTINGS

Definite time : 0.1 to 20.0s in steps of 0s Setting range CH1 : 45 to 55Hz in steps of

Setting range CH2 : 45 to 55Hz in steps of 0.01Hz Dropout frequency : 0.1 to 1.5Hz in steps of 0.1 Hz

Low voltage blocking : 75% of rated voltage

Evaluation time : 5 Cycles

OVER LOAD RATINGS

Voltage input : 2 times Rated continuous

BURDEN

Voltage input : 0.2 VA

DC Aux. Supply : Less than 10 W

ACCURACY

Operating value : ±0.01Hz

Operating time : ±2% or ±50ms whichever high

CONTACTS : 2 N/O Separte for Stage 1&2

CONTACT RATINGS

Make & carry : 10A at 230V AC / 24V DC

Maximum voltage: 440V AC / 220V DC

Break capacity : 2300VA

CONTACT DURABILITY

Unloaded contact : 10,000 operations minimum Loaded contact : 100,000 operations minimum

INSULATION

1. 2KV RMS, 50 Hz for 1 minute / 2.5 KV for 1s . Between all terminals and cases .

2. 1KV RMS, 50 Hz for 1 minute across open contacts as per IEC 60255-5

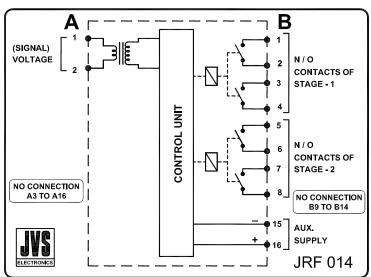
MECHANICAL DESIGN

Weight : 3 kgs.(Approx)

Case Size : Fascia 144sq mm, depth 232mm

Installation : Flush mounting
Panel cutout : 138mm x 138mm

TERMINAL DIAGRAM



ORDERING INFORMATION

Relay rating type : JRF 014
Voltage rating : 1) 63.5V AC

2) 110V AC

Aux. Supply : 1) 20 to 60V DC or

2) 75 to 150V AC / DC 3) 175 to 265V AC / DC