

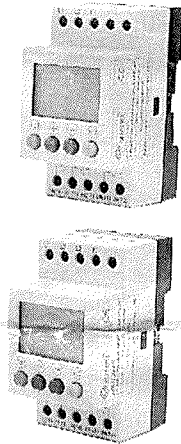
Three-phase Voltage Monitoring Relay

JVR1000-A/JVR1000-AN

V2.0

■ Features

- Compact modular 43mm housing
- Greater resistance to inverter noise
- Microprocessor technology provides highly accurate and repeatable protection
- Built-in LCD and keypad afford a precise digital setting
- Adjustable over- and undervoltage, phase unbalance threshold
- Independent adjustable delay time for overvoltage, undervoltage, voltage unbalance, phase loss and phase sequence
- Neutral loss monitoring (for JVR1000-AN)
- Adjustable reset method: automatic reset or manual reset
- 1 CO & 1NC contacts
- Fault recording with last 3 faults



■ Protective Functions

- Phase Loss (Failure)
- Phase Sequence (Reversal)
- Voltage Unbalance (Asymmetry)
- Undervoltage
- Overvoltage
- Neutral loss (only for JVR1000-AN)

■ Applications

- Pumps
- Fans
- Refrigeration Units
- Blowers
- Motors
- Compressors
- Lifts, Elevators
- Cranes
- Mining excavators and conveyors

-1-

■ Ordering Information

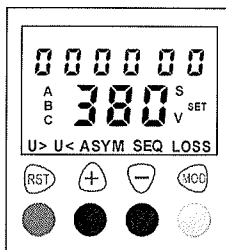
| Model | Input Circuit | Rated Voltage |
|------------|---------------|-----------------------|
| JVR1000-A | L1, L2, L3 | 208...480VAC, 50/60Hz |
| JVR1000-AN | L1, L2, L3, N | 115...277VAC, 50/60Hz |

■ Technical data

| Model | JVR1000-A | JVR1000-AN |
|------------------------|---------------------------------------|---------------|
| Input Circuit | L1, L2, L3 | L1, L2, L3, N |
| Rated supply voltage | 208...480VAC | 115...277VAC |
| Operating Range | 150-600VAC | 80-330VAC |
| Operating frequency | 45-65Hz | |
| Measurement error | ≤ 1% with adjustable voltage range | |
| Output type | 1CO & 1NC | |
| Contact capacity | 6A, 250VAC/30VDC (resistive load) | |
| Degree of protection | IP 20 | |
| Working conditions | -25°C ~ 65°C, ≤ 85%RH, non-condensing | |
| Mechanical durability | 1000000 cycles | |
| Dielectric strength | > 2kVAC 1min | |
| Weight | 130g | |
| Dimensions (H x W x D) | 80X43X54mm | |
| Mounting | 35mm DIN rail | |

-2-

■ Front Panel View



- Reset/Test
- Digit +/line voltage shift
- Digit -/line voltage shift
- Parameters setting

| LCD Indication | Description |
|------------------|---|
| 000000 | function code(refer to Parameter Setting Method) |
| 380 _V | Measured voltage |
| A B C | phase indication,shift by |
| SET | parameters setting indication |
| U> | Overvoltage fault indication or overvoltage setting indication |
| U< | Undervoltage fault indication or Undervoltage setting indication |
| ASYM | Voltage unbalance(Asymmetry) fault indication or phase unbalance setting indication |
| SEQ | Phase sequence fault indication or phase sequence setting indication |
| LOSS | Phase loss fault indication or phase loss setting indication |

■ Parameter Setting Method

Press and hold key for 3 seconds to get into parameter setting interface, then press to shift to next parameter,press to set up the values. Long press could accelerate increase or decrease.Press to exit setting.

| LCD indication | Parameters | Setting range | Default |
|----------------|---|--------------------------------|--------------|
| | overvoltage threshold JVR1000-A JVR 1000-AN | 200-600V,OFF *1 80-330V,OFF | 437V 253V |
| | overvoltage delay time | 0.1-999s | 5s |
| | undervoltage threshold JVR 1000-A JVR 1000-AN | OFF,150-500V OFF,80-330V | 323V 187V |
| | undervoltage delay time | 0.1-999s | 5s |
| | voltage hysteresis | 1-20V | 5V |
| | voltage unbalance ratio | 1-50%,OFF *2 | 15% |
| | voltage unbalance delay time | 0.1-999s | 5s |
| | voltage unbalance hysteresis | 1-10% | 2% |
| | phase loss delay time | 0.1-30.0s,OFF | 0.5s |

Following next page...

■ Parameter Setting Method

(Continued)

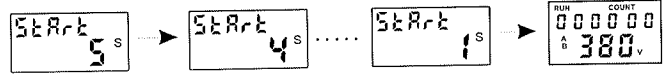
| LCD indication | Parameters | Setting range | Default |
|----------------|--|----------------|---------|
| | phase sequence delay time | 0.1-30.0s, OFF | 0.5s |
| | start delay time (power-on delay time) | 0-999s *3 | 0s |
| | auto reset mode | ON/OFF | ON |
| | auto reset time | 0.1-999s | 5s |
| | restore factory default | YES/NO | NO |
| | item version | ver 5.0 | ---- |
| | exit | ---- | ---- |

Note:

1. "ON" means enable the function, "OFF" means disable the function.
2. Voltage unbalance factor (%) = $(| U_{input\ voltage} - U_{input\ average} | \max / U_{input\ average}) \times 100\%$.
3. Start delay time is equivalent to power-on delay time, see page 6 for detail.
4. The relay would automatically exit setting interface if any key is not pressed for consecutive 30 seconds.

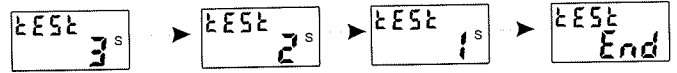
■ Start Delay /Power-on Delay

If start delay time is set, start delay will be active when power is turned on, the display shows "Start" and countdown. The display will get into the voltage display when countdown expires.

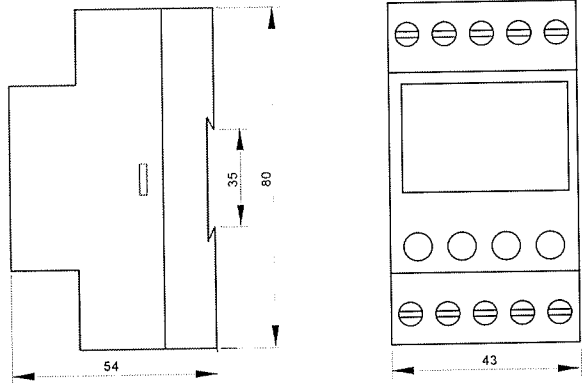


■ Test Trip

Pressing (RST) more than 3sec to active the test trip mode, all the output contacts will trip when 3s expires. The display shows "test" and countdown, when the test is done, the display shows "End". By pressing (RST), returns to the voltage display mode. Before 3s expires, pressing (RST) blocks the test trip and return to the voltage display.

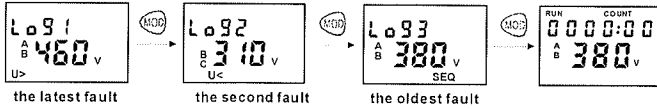


■ Dimensions(mm)

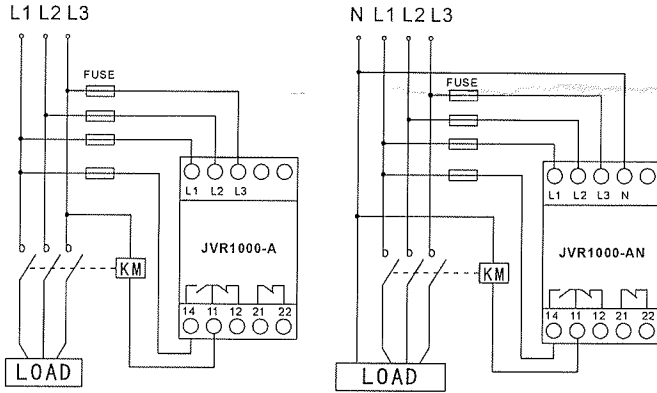


■ Fault History Check

Pressing Δ more than 3sec, it displays the latest fault cause and the fault voltage. Press Δ to check later fault continually. Press Δ or Δ to shift the display of other two line voltage. Press Δ after Log3 to exit or press Δ directly to exit. The oldest fault record is over written when the number of fault to record exceeds three.



■ Wiring Diagram



Relay contact position shown in 'Power off' (Fault) condition

Note: specifications are subject to change without notice.

GENERAL SAFETY
 POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE RELAYS.
 ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.
 THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.



Ginri Power Automation Co., Ltd.

No.337,Kaichuang Road,Baitawang Industrial Distrit,
 Beibaixiang Town,Yueqing,Zhejiang,China
 Tel: +86-577-57198185 Fax:+86-577-62982268
 E-mail: info@ginri.com http:www.ginri.com