

www.itmikro.com



MU 250

# MU250 150

#### **Product Description**

MU150 and MU250 are voltage relays that combine various protections and starting delay.

MU150 is used for single-phase monitoring while MU250 is used for 3-phase monitoring.

#### **Features**

- · Microprocessor based numerical relay
- Undervoltage
- Overvoltage
- Delay-on
- 2 voltage-free output contacts
- Voltage and frequency display
- ANSI Code : 27, 47, 59, 60

#### Features For MU 250 only

- 3-Phase
- Unbalance
- · Phase loss
- Phase sequence
- With or without neutral connection
- Phase to phase or phase to neutral monitoring

#### **Technical Data**

#### **SETTING RANGES**

Undervoltage :1% to 25%
Time delay for undervoltage :0.1s to 30s
Overvoltage :1% to 20%
Time delay for overvoltage :0.1s to 30s
Start time delay :0s to 999s

#### For MU250 only:

Unbalance :3% to 20%
Time delay for unbalance :0.5s to 30s
Phase loss :Fixed time <0.5s
Phase sequence :Fixed time <0.5s

# POWER SUPPLY INPUT Input voltage:

MU150-110V & MU250-110V

:100 V (-25%) to 120 V (+20%) AC MU150-240V & MU250-220V

:220 V (-25%) to 240 V (+20%) AC

Mikro

MU 250

MU250-415V

:380 V (-25%) to 415 V (+20%) Supply frequency :45 Hz to 65 Hz

#### **Maximum power consumption:**

MU250 :3VA MU150 :2.5VA

#### **OUTPUT CONTACTS**

Rated voltage :250 V AC Contact rating :5 A

Expected electrical life :100,000 operations

at rated current

Expected mechanical life: 5 x 106 operations

#### **INDICATORS**

Auxiliary supply
Pickup indicator
Trip
: Green indicator
: Red indicator
: 7-segment display
and red LED indicators

#### **ACCURACY**

Protection thresholds: ± 3%

Time delay : 0 to 0.5s,  $\pm$  15% with

minimum 40ms

: 0.6s and above,  $< \pm 3\%$ 

Measurements : ± 3%

#### **ENVIRONMENTAL CONDITIONS**

Temperature :-10°C to 55°C Humidity :5% to 95%, non-condensing

#### **MECHANICAL**

Mounting : DIN rail

Dimension (mm) : 71(w) x 85(h) x 70(d)

Approximate weight : 0.4 kg



www.itmikro.com

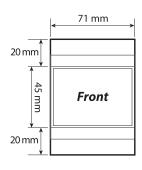
### **Typical Application Diagrams**

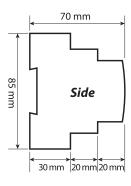
# 

# MU150 L N 1 2 3 4 5 6 7 R1 Q R2 Q R2 Q R1 COM NO NC COM NO NC MU150

# **Case Dimensions**

(Neutral connection is optional)





# Ordering Information

MODEL	DESCRIPTION
MU150-110V	Single-Phase, 100/110/120 V AC, 45-65 Hz power supply
MU150-240V	Single-Phase, 220/230/240 V AC, 45-65 Hz power supply
MU250-110V	3-phase, 100/110/120 V AC 45-65 Hz power supply
MU250-220V	3-phase, 220/230/240 V AC 45-65 Hz power supply
MU250-415V	3-Phase, 380/400/415 V AC, 45-65 Hz power supply