

SSU31

Phase sequence monitoring | 400 V AC

Power supply

| | |
|-------------------------|---------------|
| Nominal voltage | 400 V AC |
| Operating voltage range | 320 ... 480 V |
| Power consumption AC/DC | 10 VA |
| Rated frequency | 45 ... 65 Hz |

Measuring circuit

| | |
|--|--------------------------------------|
| Measured parameters | U |
| Monitoring functions | Under, phase failure, phase sequence |
| Number of voltage measurement inputs | 3 (L1 / L2 / L3) |
| Rated AC voltage L-N / L-L | - / 400 V |
| AC voltage measurement range L-N / L-L | 320 ... 400 V |
| Undervoltage setting range | ≤ 320 V |
| Rated base frequency | 45 ... 65 Hz |

Main circuit

| | |
|--|---------------------|
| Number of contacts | 1 CO |
| Contact Material | AgNi |
| Rated voltage | 250 V |
| Rated current | 6 A |
| Minimum load | 10 mA, 5 V |
| Inrush current | 15 A, 20 ms |
| Rated load DC | fig. 2 |
| Rated load AC-1 | 1500 VA |
| Mechanical endurance (cycles) | 3 x 10 ⁷ |
| Electrical endurance at rated load AC-1 (cycles) | fig. 3 |

Insulation

| | |
|---|------------------|
| Rated test voltage measuring / measuring circuit | 2 kV rms / 1 min |
| Rated test voltage measuring circuit / main circuit | 2 kV rms / 1 min |
| Rated test voltage open contact | 1 kV rms / 1 min |
| Pollution degree | 2 |
| Overvoltage category | III |

General data

| | |
|-------------------------------|---------------|
| Ambient temperature storage | -40 ... 85 °C |
| Ambient temperature operation | -25 ... 60 °C |
| Module width | fig. 4 |
| Weight | 300 g |
| Protection degree | IP 20 |
| Housing material | PC |

Product references

| Types | Product reference | 400 |
|------------------------|-------------------|-----|
| Three phase monitoring | SSU31/AC...V | ✓ |

"..." list control circuit voltage to complete product references.

Other voltages on request. Please contact support@comatreleco.com.

Accessories

| | |
|--------------------------|-------|
| Socket | S3-M |
| Retaining clip | HF-24 |
| Transparent front cover | FS-23 |
| Front panel mounting set | FZ-23 |



fig. 1. Wiring diagram

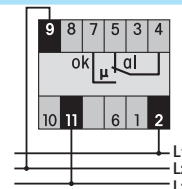


fig. 2. DC load limit curve

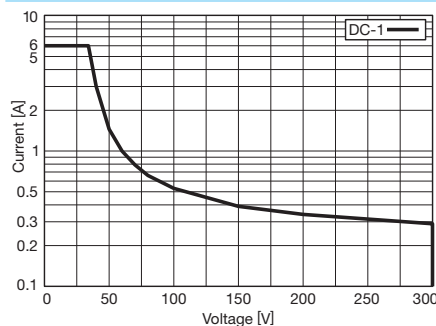


fig. 3. AC voltage endurance

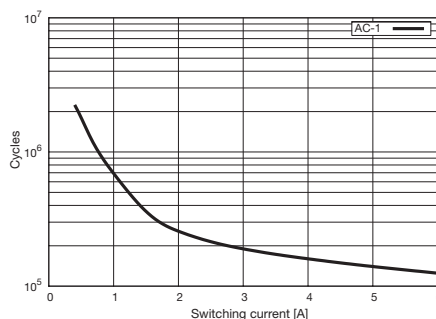
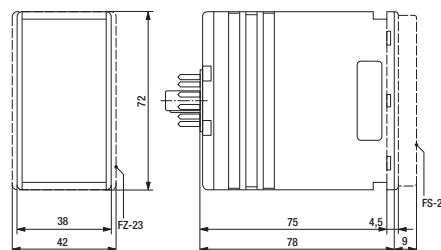


fig. 4. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947

Approvals

| | Description | MRE-44S | MRM11 | MRM11R | MRM32 | MRM32R | MRU11 | MRU32 | MV53 | SSU34 | SSU31 | SSU33L | MRT11 | MRT32 | TSR19 | ESU-D2R | CT515R | CT524R |
|-----------------------------|---|--|-------|--------|-------|--------|-------|-------|------|-------|-------|--------|-------|-------|-------|---------|--------|--------|
| Monitoring | One phase voltage monitoring | | ● | ● | | | ● | | ● | | | | | | | | | |
| | Three phase voltage monitoring | | | | ● | ● | | ● | | ● | | ● | | | | | | |
| | Four channel voltage measuring | ● | | | | | | | | | | | | | | | | |
| | DC Voltage monitoring | | ● | ● | ● | ● | ● | ● | | | ● | | | | | | | ● |
| | One phase current monitoring | | ● | ● | | | | | | | | | ● | | | | | |
| | Three phase current monitoring | | | | ● | ● | | | | | | | | ● | | | | |
| | Four channel current measuring | ● | | | | | | | | | | | | | | | | |
| | DC current monitoring | | ● | ● | ● | ● | | | | | | | ● | ● | | | | ● |
| | Phase failure | | | | ● | ● | | ● | | ● | ● | ● | | | | | | |
| | Phase sequence monitoring | ● | | | ● | ● | | ● | | ● | ● | ● | | | | | | |
| | Phase angle monitoring / measuring* | ● | | | ● | ● | | ● | | ● | | ● | | | | | | |
| | Differential voltage monitoring / measuring* | ● | | | | | | | | | ● | ● | | | | | | |
| | Neutral failure monitoring | ● | | | | | | | | | ● | ● | | | | | | |
| | Frequency monitoring / measuring* | ● | ● | ● | ● | ● | ● | ● | | ● | | ● | ● | ● | | | | |
| | Apparent power monitoring / measuring* | ● | ● | ● | ● | ● | | | | | | | | | | | | |
| | Active power monitoring / measuring* | ● | ● | ● | ● | ● | | | | | | | | | | | | |
| | Power factor monitoring / measuring* | ● | ● | ● | ● | ● | | | | | | | | | | | | |
| | Active energy measuring | ● | | | | | | | | | | | | | | | | |
| | THDI / THDU measuring | ● | | | | | | | | | | | | | | | | |
| | PTC monitoring | | | | | | | | | | | | | | | ● | | |
| Earth failure monitoring | | | | | | | | | | | | | | | | ● | | |
| Functions | Threshold exceeded "over" fig. 3. | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ● | | ● | ● |
| | Threshold undershot "under" fig. 4. | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Window function "inside" fig. 2. | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | | | ● | ● |
| | Window function "outside" fig.1. | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | | | ● | ● |
| | Alarm on-delay | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | ● | ● | ● |
| | Alarm off-delay | ● | ● | ● | ● | ● | ● | ● | ● | | | | ● | ● | | | | |
| | Error storage function | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | ● | | | |
| | Threshold selectable | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | ● | ● | ● | ● | ● | ● |
| | Threshold fixed | | | | | | | | | | ● | ● | | | ● | | | |
| | Power supply | Supply isolated from measuring circuit | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | ● | ● | |
| Supply from measure circuit | | | | | | | | | ● | ● | ● | ● | | | | | ● | ● |
| Mounting | DIN rail mounting | ● | ● | ● | ● | ● | ● | ● | ● | | | | ● | ● | | ● | | |
| | Housing according IEC/EN 43880 (electrical distribution mounting) | ● | ● | ● | ● | ● | ● | ● | | | | | | ● | ● | | | |
| | Plug-in (socket mounting) | | | | | | | | | | | ● | ● | | ● | | ● | ● |

*Measuring: MRE-44S only

