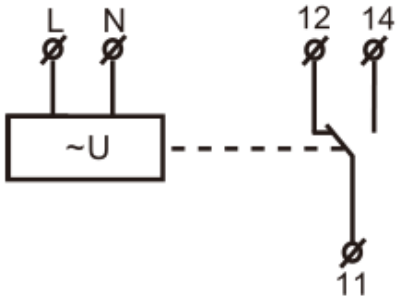
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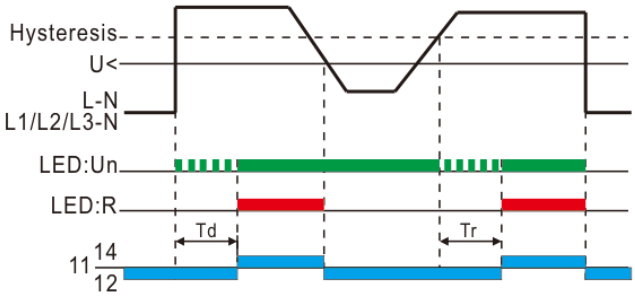
RV8-1UVR Single-Phase Undervoltage Monitoring Relay

NewTrend RV8-1UVR monitors its single-phase supply voltage using true-RMS measurement. The undervoltage threshold is 75% of nominal voltage, fixed. A 0.1-second trip delay disconnects the control output after undervoltage, while an adjustable 5-15 minute delay applies at power-up and after voltage recovery. One SPDT output rated 10A AC-1 controls a suitable external contactor.

Parameter	Specification
Model	RV8-1UVR
Function	Undervoltage monitoring
Phase system	Single-phase
Monitoring terminals	L-N
Supply terminals	L-N
Nominal voltage options	AC 220V / AC 230V / AC 240V
Supply frequency	45-65Hz
Measurement	True RMS
Measurement error	Maximum 1%
Undervoltage threshold	75% of nominal voltage, fixed
Trip delay Tu	0.1 seconds
Hysteresis	5V
Power-on delay Td	Adjustable 5-15 minutes
Recovery delay Tr	Adjustable 5-15 minutes; Td = Tr
Knob-setting accuracy	10% of scale value
Supply / delay indication	Green LED
Output indication	Red LED
Output contacts	1 SPDT
Contact rating	10A (AC-1)
Switching voltage	250VAC / 24VDC
Mechanical life	10,000,000 operations
Electrical life (AC-1)	100,000 operations
Operating temperature	-20 to +55 degrees C
Storage temperature	-35 to +75 degrees C
Mounting	DIN rail to EN/IEC 60715
Protection	IP40 front panel; IP20 terminals
Operating position	Any
Overvoltage category	III
Pollution degree	2
Maximum conductor size	Solid: 1 x 2.5mm2 or 2 x 1.5mm2; with sleeve: 1 x 2.5mm2 (AWG 12)
Terminal tightening torque	0.8Nm
Body dimensions	90 x 18 x 64mm
Referenced standards	EN 60255-1; IEC 60947-5-1

Connections and operation



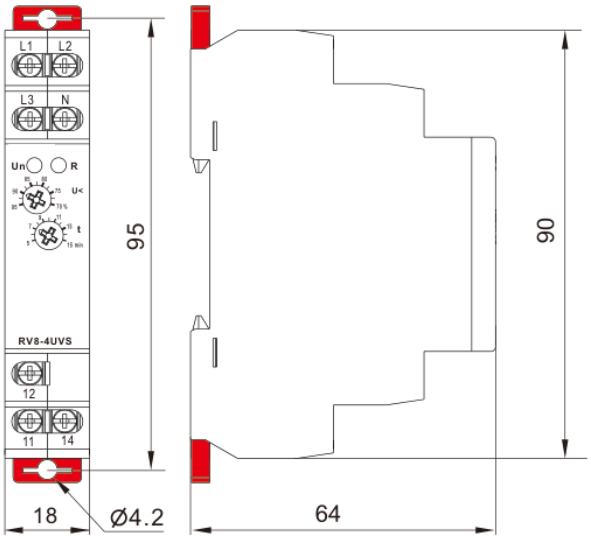


Td:Power on delay
Tr:Undervoltage recovery delay
Td = Tr

At power-up, the relay waits for the selected delay Td before enabling the output when voltage is normal.

If the monitored voltage falls below U<, the output trips after 0.1 second. After the voltage recovers through the hysteresis band, the selected recovery delay Tr runs before output re-enabling; Td = Tr.

Dimensions and adjustment





Body: 90 x 18 x 64mm. Overall height: 95mm. Fixing holes: 4.2mm.

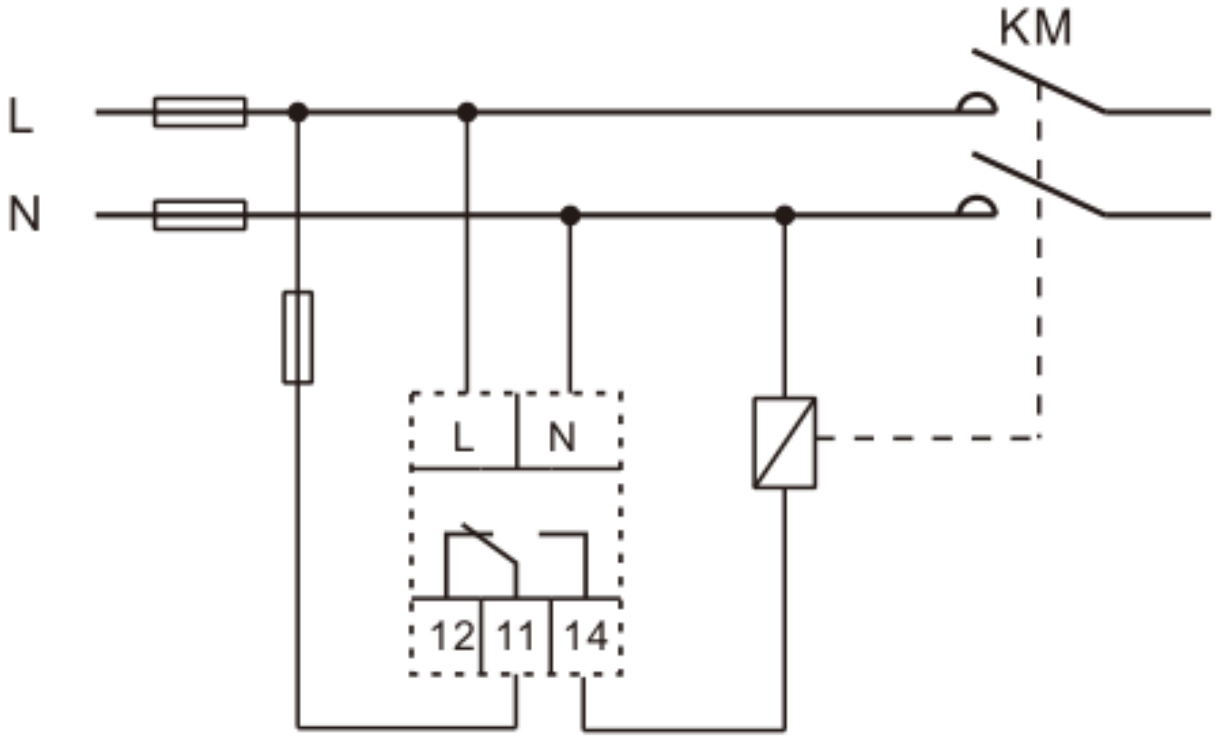
Common housing dimensions; RV8-4UVS front view shown.

Set the common power-on/recovery delay t from 5 to 15 minutes; Td equals Tr. The undervoltage threshold is fixed at 75% of nominal voltage. The native waveform shows the 5V hysteresis and relay behavior during a voltage dip.

Installation

Installation and wiring must be performed by qualified electricians in accordance with applicable safety standards. Isolate the circuit before wiring and use the appropriate electrical-waste collection route.

Single-phase contactor-control reference



Reference contactor-control circuit. Select contactors, protection, wiring and interlocking to suit the controlled loads.