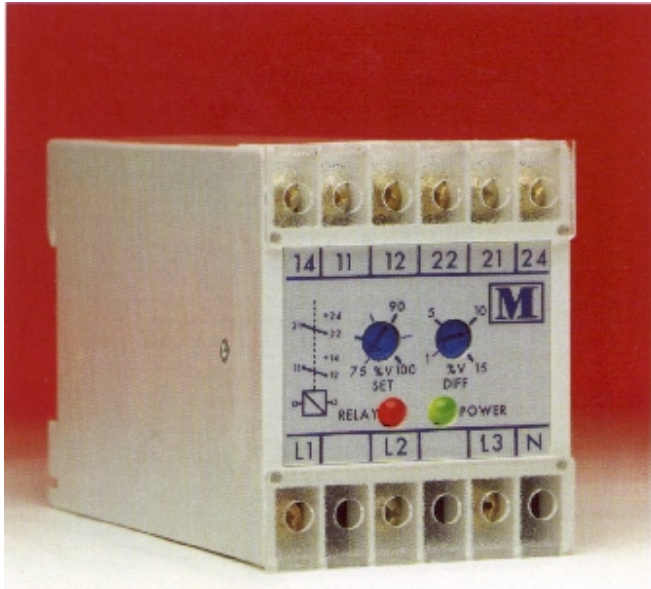




AC VOLTAGE



TECHNICAL SPECIFICATION

INPUT

Rated value U_n	Single phase 57.8 <500 V Three phase 100 <500 V
Frequency	50/60/400 Hz
Burden	<2.5 VA per phase single units <3 VA per phase combined units
Overload	1.5x U_n continuous 2 x U_n for 3 seconds

SETPOINT

Range under	Adjustable 75% to 100% U_n
Range over	Adjustable 100% to 125% U_n
Repeatability	Better than 0.5% of full span
Differential	Adjustable 1 to 15%
Operating time	Typically 200ms

AUXILIARY

All units self powered.

WEIGHT & CASE SIZE

Single units	Approx. 0.4kg. 55mm case
Combined units	Approx. 0.6kg. 100 mm case

SELECTION GUIDE

M200-V1U	Single phase under voltage
M200-V1O	Single phase over voltage
M200-V1C	Single phase combined voltage
M200-V33U	3 phase 3 wire under voltage
M200-V33O	3 phase 3 wire over voltage
M200-V33C	3 phase 3 wire combined
M200-V34U	3 phase 4 wire under voltage
M200-V34O	3 phase 4 wire over voltage
M200-V34C	3 phase 4 wire combined voltage

ORDERING INFORMATION

Product Code	Input	Freq	Options
M200-V34U/D	230V	50Hz	5 sec t/d

OPTIONS

1. On all of the above units, except the combined, an internally set time delay is available for any value between 1 & 10 seconds. To order use the above codes adding a D at the end of the code, e.g. M200-V34U/D 5 seconds (state the fixed delay period).

2. To prevent nuisance tripping when there is a slight variation in the voltage supply the following option is available. The external differential is replaced on the following products with an externally adjustable time delay. On these units the time delay is adjustable from 200ms to 10 seconds, and the differential is fixed at 1%.

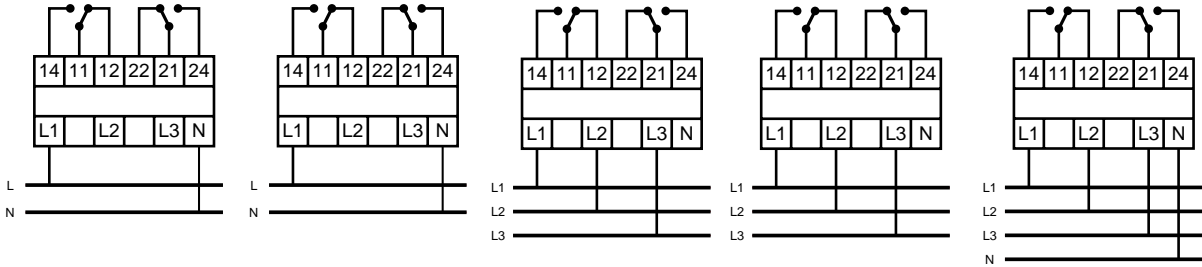
M200-V1X	Single phase under voltage
M200-V1Y	Single phase over voltage
M200-V1W	Single phase combined voltage
M200-V33X	3 phase 3 wire under voltage
M200-V33Y	3 phase 3 wire over voltage
M200-V33W	3 phase 3 wire combined voltage
M200-V34X	3 phase 4 wire under voltage
M200-V34Y	3 phase 4 wire over voltage
M200-V34W	3 phase 4 wire combined voltage

3. Calibration at temperatures other than 23° C

TYPICAL APPLICATIONS

The M200 AC voltage relay provides voltage monitoring and protection in both single and 3 phase systems. Used in applications such as mains failure, regulation of power supplies and to protect voltage sensitive equipment. Under, over and combined under/over units are available. The relay operates when the externally adjustable trip point is reached. An external differential control is provided with adjustment 1-15%. The differential ensures that the parameter being measured returns to % set above or below (depending on whether it is under or over unit) the trip point before the relay returns to its original state. As is common with all the M200 relays; on over units the relay energises when the input signal exceeds the trip point. On under units the relay de-energises when the input signal goes below the trip point. A red LED indicates the state of the relay, whilst a green LED indicates the condition of the power supply.

AC VOLTAGE CONNECTION DIAGRAMS



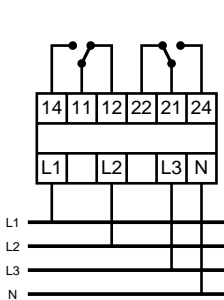
M200V10

M200V1U

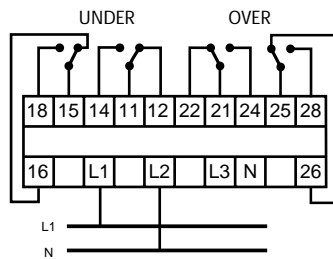
M200V33O

M200V33U

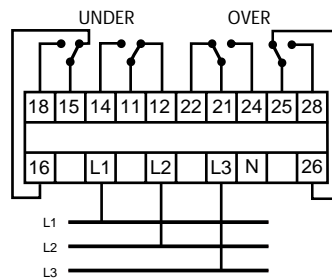
M200V34O



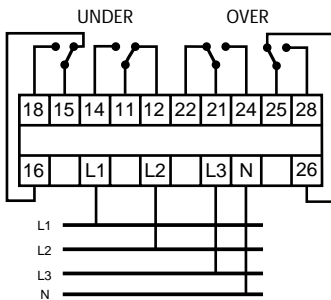
M200V34U



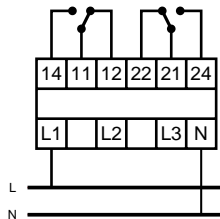
M200V1C



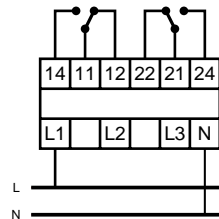
M200V33C



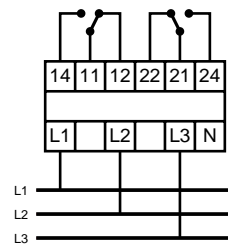
M200V34C



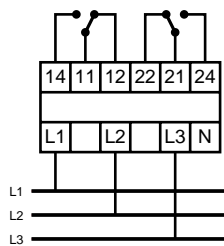
M200V1X



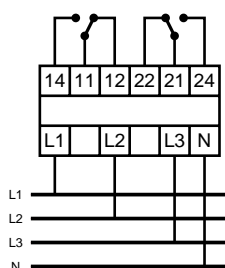
M200V1Y



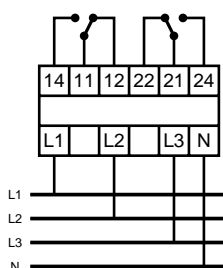
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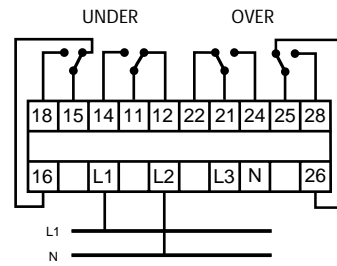
M200V33Y



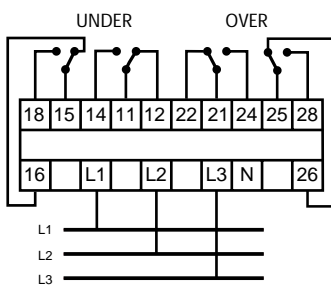
M200V34X



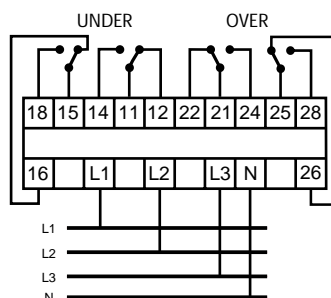
M200V34Y



M200V1W



M200V33W



M200V34W



Power Measurement
Specialists
800-523-9194

GENERAL SPECIFICATIONS

ENVIRONMENTAL

Working temperature	0 to +60 deg C
Functional temperature	-25 to + 70 deg C
Storage temperature	-40 to +85 deg C
Temperature Coefficient	0.03% per deg C (300ppm/°C)
Relative humidity	95% non condensing
Class of climate	HSE complying with DIN 40040 -3 complying with VDE/VDJ 3540

INSULATION

Test voltage	4kV RMS 50Hz 1min between Input / Case /Auxiliary
Impulse test	EMC 5kV transient complying with IEC 801 / EN55020
HF interference test	EHF 2.5kv 1MHz complying with IEC 255-4
Protection class	II complying with IEC 348

APPLIED STANDARDS

General	IEC 144/ BS 5420/ VDE/ VDI 0435/ IEC 947/ EN60947
Safety	BS EN 61010 DIN 57411 / VDE 0411 ANSI C37
Surge withstand	IEC 801 / EN 55020 ANSI C37-90a
Radio screening	RFI degree N complies with VDE087S
EMC	Emissions EN50081-2 Immunity EN50082-1

RELAY OUTPUT

Relay type	dual pole change over
Material	Silver / Cadmium
Contact resistance	200mOhm max Typically <50m Ohm
Rating AC	250V 5A non resistive 1200VA
Rating DC	125V 1A resistive 120 watts
Electrical life	1 x 10 ⁶ at above load
Mechanical life	5 x 10 ⁶
Operating time approx.	7ms (20ms max)
Dielectric strength	Between coil and contacts 5kV RMS 1min Between open contacts 1kV RMS 1min Between adjacent contacts 1kV RMS 1min
Insulation resistance	1000M Ohm at 500V DC
Operating temperature	-30 to + 75 deg C
Approval	UL and CSA recognised

ENCLOSURE

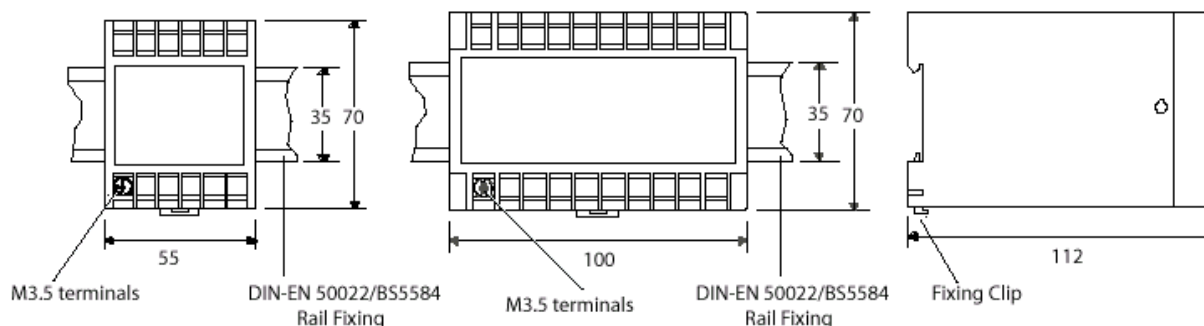
Fixing	Snap on to DIN rail 35 x7.5 mm complies with DIN-EN 50022 BS 5584
Mounting	Any position
Enclosure Code	Case IP 50/ terminals IP 30 Complies with IEC 529 BS 5490 DIN 40050
Material	Complying with UL 94 VO

APPROVALS

U.L. Approval File No E157034

CASE DIMENSIONS

All Dimensions in mm



Panel Components & Systems

