Product data sheet

Specifications



pump control relay, Harmony Control Relays, 5A, 1CO, 208...480V AC

RM35BA10

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Harmony Control Relays
Relay Type	Pump control relays
Product or Component Type	Pump control relay
Product Specific Application	For 3-phase and single-phase pump
Relay name	RM35BA
Relay monitored parameters	Overcurrent and undercurrent control Phase sequence on 3-phase supply Phase failure on 3-phase supply
Time delay type	Adjustable 1...60 s, +/- 10 % Ti- inhibition time delay upon startup Adjustable 0.1...10 s, +/- 10 % Tt- time delay upon fault
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
Maximum power consumption in VA	5 VA AC
Measurement range	1...10 A 208...480 V AC
Utilisation category	AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1 AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-13 IEC 60947-5-1

Complementary

Reset time	2000 ms
Maximum switching voltage	250 V AC/DC
[Un] rated nominal voltage	208...480 V AC 50/60 Hz, non self-powered 230 V AC 50/60 Hz, non self-powered
Supply voltage limits	183…528 V AC
operating voltage tolerance	- 15 % + 10 % Un
Resistance across terminals	0.01 Ohm E1-L2 terminals
Width	1.4 in (35 mm)
Output contacts	1 C/O
nominal output current	5 A
Maximum measuring cycle	140 ms as true rms value
delay at power up	0.5 s

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Hysteresis	5 % threshold
Measurement accuracy	+/- 10 % of the full scale value
Repeat accuracy	+/- 1 % input and measurement circuit +/- 1 % time delay
Measurement error	1 % by volt over the whole range +/- 0.05 %/°C
Response time	< 300 ms (in the event of a fault)
overload input current	11 A permanent at 25 °C E1-L2 terminals 50 A non repetitive < 1 s at 25 °C E1-L2 terminals
Marking	CE : EMC 89/336/EEC CE : 73/23/EEC
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 500 MOhm 500 V DC between supply and relay output 60255-5 > 500 MOhm 500 V DC between measurement and relay output 60664-1 > 1 MOhm 500 V DC between supply and measurement 60255-5 > 500 MOhm 500 V DC between supply and relay output 60664-1 > 500 MOhm 500 V DC between measurement and relay output 60255-5 > 1 MOhm 500 V DC between supply and measurement 60664-1
[Ui] rated insulation voltage	400 V IEC 60664-1
Supply frequency	50/60 Hz +/- 10 %
Operating position	Any position
Connections - terminals	Screw terminals, 1 x 0.5...1 x 4 mm² 20 AWG...11 AWG) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...12 AWG) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² 24 AWG...16 AWG) flexible with cable end
Tightening torque	5.3…8.9 lbf.in (0.6…1 N.m) IEC 60947-1
Housing material	Polycarbonate
Status LED	1 LED Green power ON 1 LED Yellow fault 1 LED Yellow relay ON
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Control Type	Without test button

Environment

Immunity to microbreaks	500 ms
Electromagnetic compatibility	Emission standard for industrial environments IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments IEC 61000-6-3 Immunity for industrial environments NF EN/IEC 61000-6-2
Standards	IEC 60255-6
Product Certifications	C-tick CSA GOST UL GL
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C)
Ambient Air Temperature for Operation	-4…122 °F (-20…50 °C)
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30

Vibration resistance	0.35 mm (f= 5…57.6 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1 1 gn (f= 57.6…150 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1
Shock resistance	15 gn 11 ms IEC 60255-21-1
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
Pollution degree	3 IEC 60664-1
Dielectric strength	2 kV AC 50 Hz shock wave 4 kV)

Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3389119405195
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.1 in (8.0 cm)
Package 1 Width	1.8 in (4.6 cm)
Package 1 Length	3.8 in (9.7 cm)
Package weight(Lbs)	4.3 oz (123.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Height	11.8 in (30.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	14.387 lb(US) (6.526 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**102 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**8 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**94 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**5e3fdf99-611b-4d07-ad17-6eba84ab488b**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**

Use Again

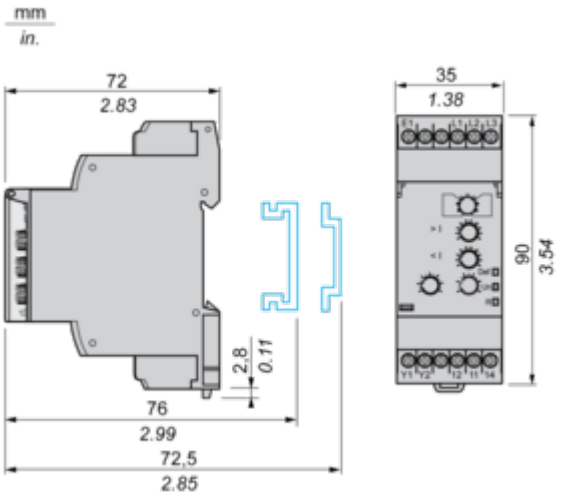
Repack and remanufacture

Recyclability potential, in %	**8**
Circularity Profile	**End of Life Information**
Take-back	**No**

Dimensions Drawings

3-Phase and Single-Phase Pump Control Relays

Dimensions and Mounting

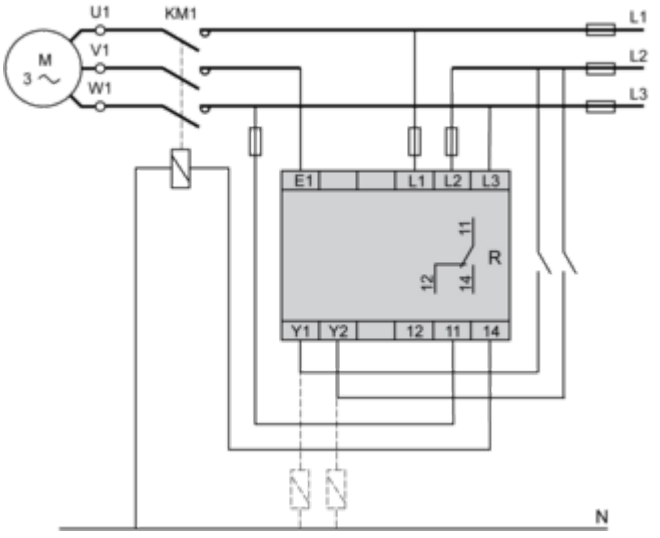


Connections and Schema

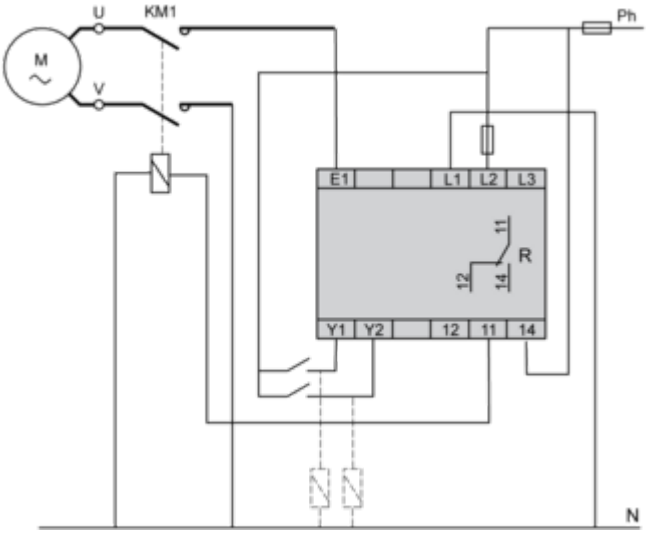
3-Phase and Single-Phase Pump Control Relays

Wiring Diagrams

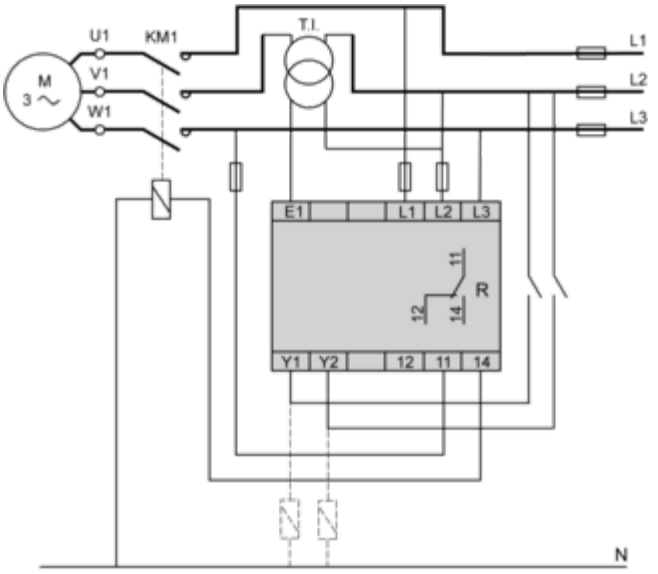
3-phase < 10 A



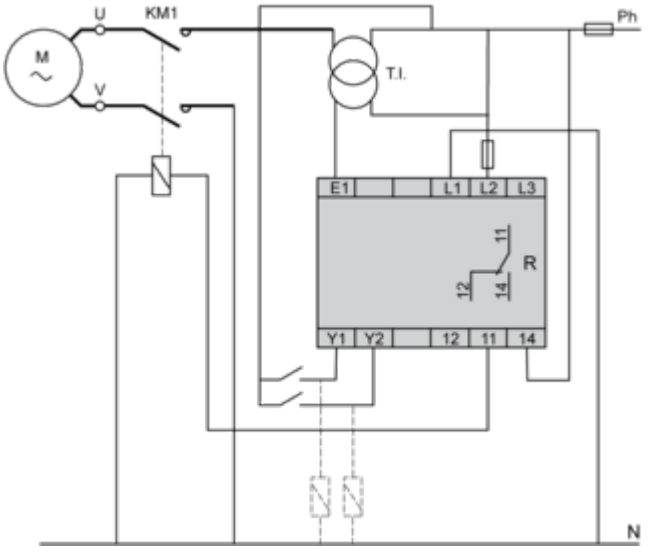
Single-phase ~ 230 V < 10 A



3-phase > 10 A



Single-phase ~ 230 V > 10 A
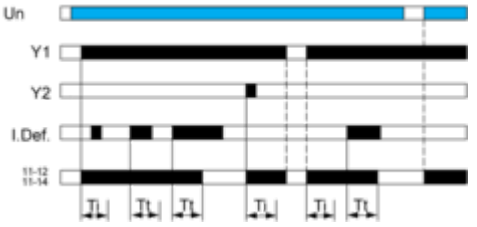


Technical Description

Function Diagrams
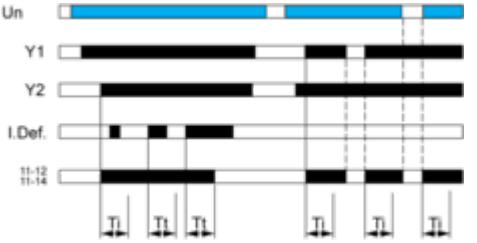
Single Control Mode

This mode is designed to control a pump via an external signal. The relay output is closed when the signal is present at Y1 (contact closed). Y2 can be used to reset the relay after a current fault.



Double Control Mode

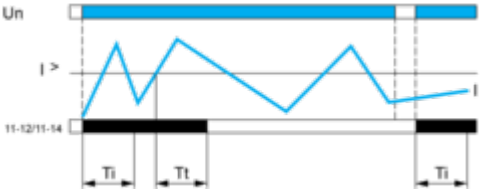
This mode is designed to control a pump via two external control signals (Y1 and Y2). The output relay closes when both input signals are present (Y1 and Y2 closed).



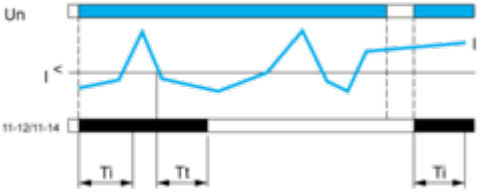
Current Control

If the control relay is configured for a single-phase supply, it monitors the current consumed by the pump. If the control relay is configured for a 3-phase supply, it monitors the current, phase sequence and phase failure.

Overcurrent detection



Undercurrent Detection

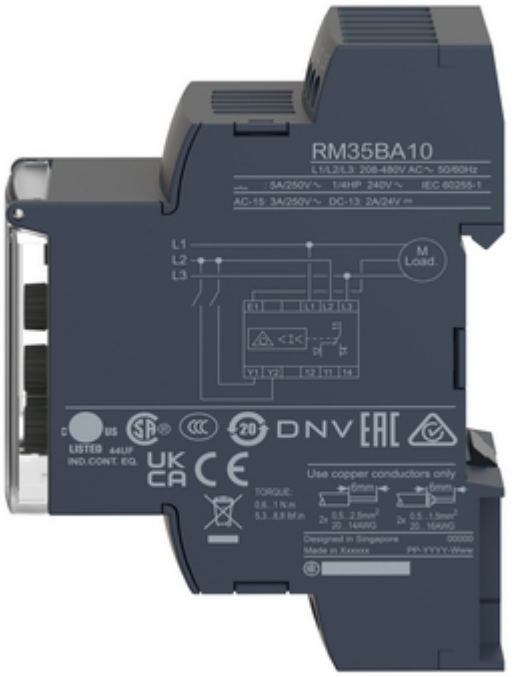


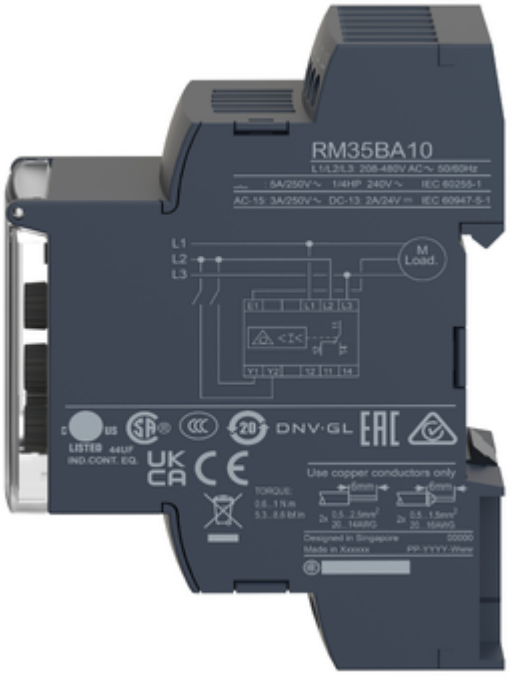
Legend

Ti Time delay to inhibit fault monitoring on starting of pump
Tt Time delay in the event of a fault
Un 3-phase or single-phase power supply
I Monitored current
I < Undercurrent threshold
I > Overcurrent threshold
I. Def Presence of a current fault
11-12, 11-14 Output relay connections
Relay status: black color = energized.

Image of product / Alternate images

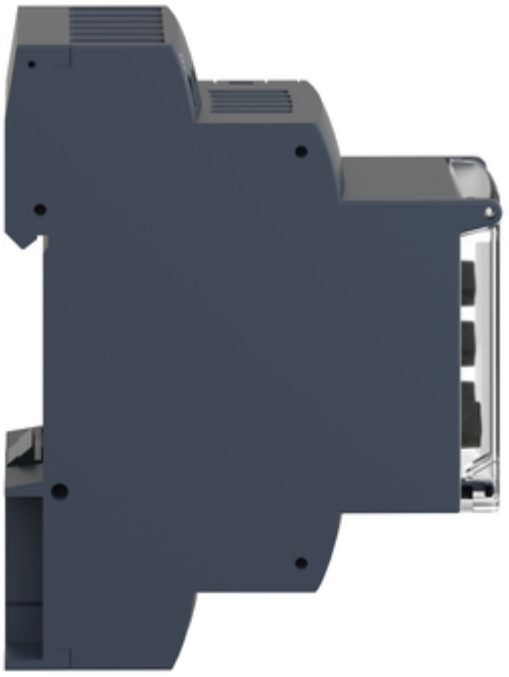
Alternative

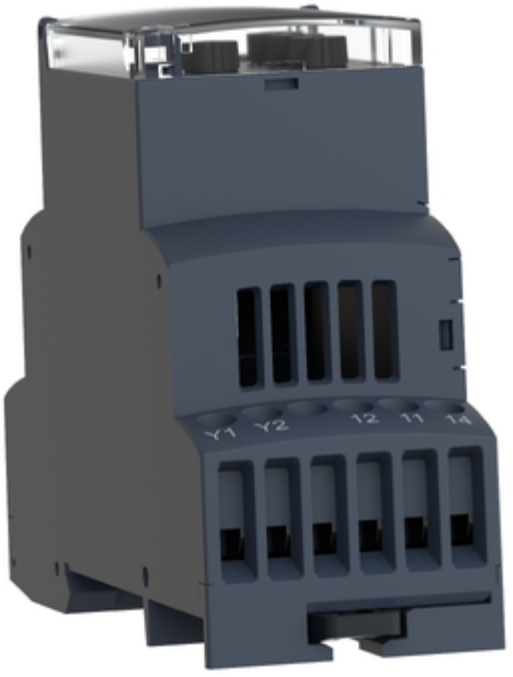







E1
L1 L2 L3
3ph
Double
Simple
> I
< I
Ti
Schneider
Y1 Y2
12 11 14




Y1
Y2
12
11
14

