



⚠ Discontinued

## Main

Range of product	Zelio Time
Product or component type	Optimum industrial timing relay
Component name	RE8
Time delay type	Qc
Time delay range	0.3...30 s
Sale per indivisible quantity	10

## Complementary

Discrete output type	Relay
Contacts material	90/10 silver nickel contacts
Width pitch dimension	0.89 in (22.5 mm)
[Us] rated supply voltage	110...240 V AC at 50/60 Hz 24 V AC/DC at 50/60 Hz
Voltage range	0.9...1.1 Us
Connections - terminals	Screw terminals 2 x 1.5 mm <sup>2</sup> , flexible cable with cable end Screw terminals 2 x 2.5 mm <sup>2</sup> , flexible cable without cable end
Tightening torque	5.31...9.73 lbf.in (0.6...1.1 N.m)
Setting accuracy of time delay	+/- 20 % of full scale
Repeat accuracy	< 1 %
Voltage drift	< 2.5 %/V
Temperature drift	< 0.2 %/°C
Minimum pulse duration	60 ms
Reset time	50 ms
Maximum switching voltage	250 V
Mechanical durability	20000000 cycles
[Ith] conventional free air thermal current	8 A
[Ie] rated operational current	<= 2 A at 24 V, DC-13 158 °F (70 °C) conforming to IEC 60947-5-1/1991 <= 2 A at 24 V, DC-13 158 °F (70 °C) conforming to VDE 0660 <= 3 A at 24 V, AC-15 158 °F (70 °C) conforming to IEC 60947-5-1/1991 <= 3 A at 24 V, AC-15 158 °F (70 °C) conforming to VDE 0660 <= 0.1 A at 250 V, DC-13 158 °F (70 °C) conforming to IEC 60947-5-1/1991 <= 0.1 A at 250 V, DC-13 158 °F (70 °C) conforming to VDE 0660 <= 0.2 A at 115 V, DC-13 158 °F (70 °C) conforming to IEC 60947-5-1/1991

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

<= 0.2 A at 115 V, DC-13 158 °F (70 °C) conforming to VDE 0660

Minimum switching capacity	10 mAat 12 V
Marking	CE
Overvoltage category	III conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to CSA
Supply disconnection value	> 0.1 Uc
Operating position	Any position without derating
Surge withstand	2 kV conforming to IEC 61000-4-5 level 3
Power consumption in VA	13 VAat 240 V 0.9 VAat 24 V 2.5 VAat 110 V
Power consumption in W	<= 0.5 W at 24 V
Terminal description	(15-16-18)OC_OFF (A1-B1)CO ALT
Height	3.07 in (78 mm)
Width	0.89 in (22.5 mm)
Depth	3.15 in (80 mm)
Product weight	0.24 lb(US) (0.11 kg)

## Environment

Immunity to microbreaks	3 ms
Standards	EN/IEC 61812-1
Product certifications	CSA GL UL
Ambient air temperature for storage	-40...185 °F (-40...85 °C)
Ambient air temperature for operation	-4...140 °F (-20...60 °C)
Relative humidity	15...85 % 3K3 conforming to IEC 60721-3-3
Vibration resistance	0.35 mm 10...55 Hz conforming to IEC 60068-2-6
IP degree of protection	IP20 (terminals) IP50 (casing)
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2.5 kV
Non-dissipating shock wave	4.8 kV
Resistance to electromagnetic fields	9.14 V/yd (10 V/m) conforming to IEC 61000-4-3 level 3
Resistance to fast transients	2 kV conforming to IEC 61000-4-4 level 3
Disturbance radiated/conducted	CISPR 11 group 1 - class A CISPR 22 - class A

## Ordering and shipping details

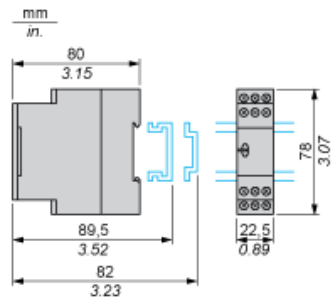
Category	22376 - RELAYS-MEASUREMENT(RM4)
Discount Schedule	CP2
Nbr. of units in pkg.	10
Package weight(Lbs)	0.23999999999999999
Returnability	N
Country of origin	ID

## Contractual warranty

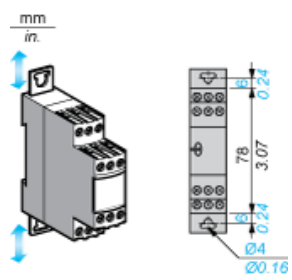
Warranty period	18 months
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Width 22.5 mm

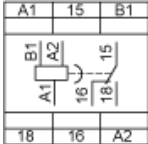
Rail Mounting



Screw Fixing

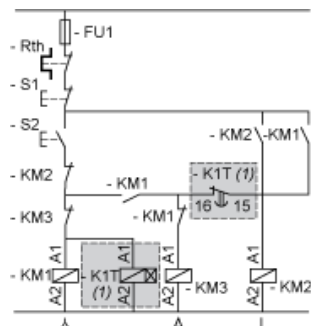


Internal Wiring Diagram



Recommended Application Wiring Diagram

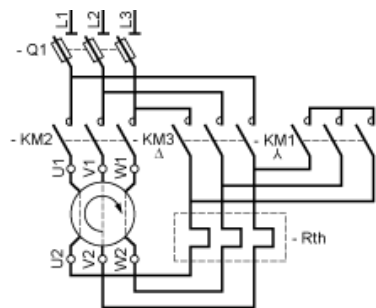
Control



K1T Timing relay for star-delta starters.

NOTE: Correct operation of the star-delta starter associated with the relay is only possible if the wiring diagram is strictly complied with.

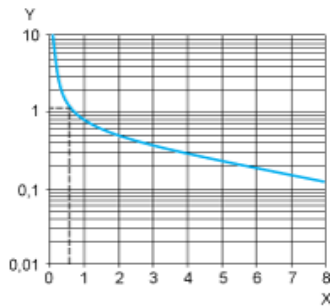
Power



Performance Curves

A.C. Load Curve 1

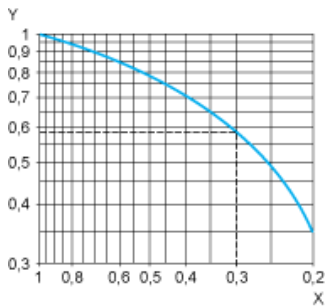
Electrical durability of contacts on resistive loading millions of operating cycles



X Current broken in A  
Y Millions of operating cycles

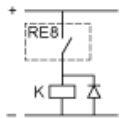
A.C. Load Curve 2

Reduction factor k for inductive loads (applies to values taken from durability curve 1).

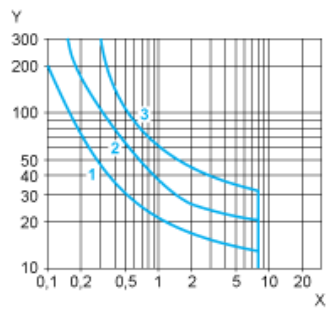


X Power factor on breaking (cos φ)  
Y Reduction factor k

Example: An LC1-F185 contactor supplied with 115 V/50 Hz for a consumption of 55 VA or a current consumption equal to 0.1 A and cos φ = 0.3. For 0.1 A, curve 1 indicates a durability of approximately 1.5 million operating cycles. As the load is inductive, it is necessary to apply a reduction coefficient k to this number of cycles as indicated by curve 2. For cos φ = 0.3: k = 0.6 The electrical durability therefore becomes:  $1.5 \cdot 10^6$  operating cycles  $\times$  0.6 = 900 000 operating cycles.



## D. C. Load Limit Curve



- X Current in A
- Y Voltage in V
- 1 L/R = 20 ms
- 2 L/R with load protection diode
- 3 Resistive load

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Function Qc: Star-Delta Timing

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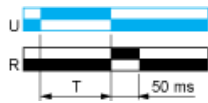
Description

On energisation, the star contact closes instantaneously and timing starts.

At the end of the timing period, the star contact opens.

After a 50 ms pause, the delta contact closes and remains in this position.

Function: 1 Output





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Legend

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Relay de-energised

Relay energised

Output open

Output closed

C Control contact

G Gate

R Relay or solid state output

R1/R2 2 timed outputs

R2 inst. The second output is instantaneous if the right position is selected

T Timing period

Ta - Adjustable On-delay

Tr - Adjustable Off-delay

U Supply

RE8YG31BUTQ is replaced by:

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Relay Output RE22R1QCMU

Star-Delta Timing Relay - 0.05s...300s - 24V DC / 24...240V AC - 1C/O

Qty 1

Reason for Substitution: End of life | Substitution date: 01 January 2017

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