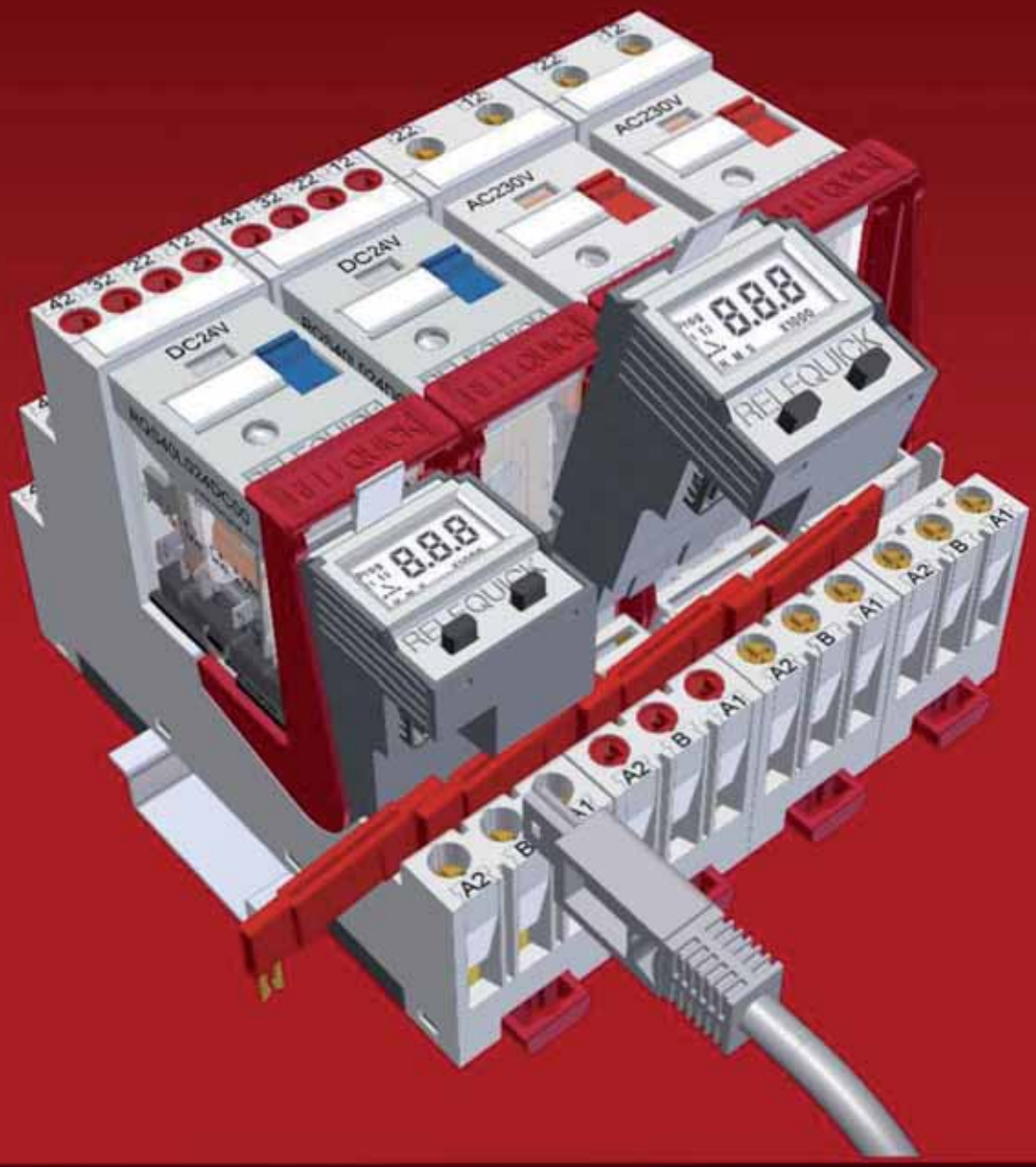
RELEQUICK



PRODUCT'S CATALOGUE

Technical information

Contact materials
Silver is alloyed with Ni, Sn, and others as standard for all models.

Contact GAP
The duration of the electric arc among relays' contacts depends on the distance and on its opening speed.

Maximum & Minimum current
The "max. switching current" indicated in every model, refers to the maximum stable current which is in permanent connection. The "min. switching current" is 50 mA.

Maximum voltage
The values are fixed according to the IEC/EN 61810 – 1/ - 5 standards, taking into account the insulation materials quality, pollution degree as well as the shape and dimensions of the contacts barriers (creepeage distance).

Coils
Coil resistance is measured at 25 ° and is regulated within +/- 15% of specific values for RM and RQ relays series and +/- 10% for RF series.

Standard windings
The coil voltages indicated in this catalogue refer to the standard winding. Any other intermediate winding will be available under request.

Coil temperature tables
They represent the relation between coil temperature and voltage applied to the relay in permanent connection.

Operating range
Our relays specifications are listed below.

	VDC	VAC 50Hz
RM	0,8 - 1,1Un	0,8 - 1,1Un
RQ/RF	0,75 - 1,1Un	0,8 - 1,1Un

Max. drop-out voltage
Our relays specifications are listed below.

	VDC	VAC
RM	≥ 15% Un	≥ 30% Un
RQ/RF	≥ 10% Un	≥ 30% Un

Coil temperature Tables
It shows the relation between the coil temperature and the load applied.

Room temperature
The environmental temperature has an influence on the coil resistance and on its operation and release values.

Electrical life tables
They represent the number of operations that a relay can make with different load values during its life.

Norm RoHS
All our products sold in the EU will be according to this norm.

Part number key

Relays part number key

RQ S 4 0 L 230 AC D T

- Product series
- Type
- Contact's number
- Contact's material
- Led
- Coil voltage
- Coil circuit
- Special executions

Detailed part key number relays

M series	RMS2	universal 8 pins	2 contacts	8 pins
M series	RMS3	universal 11 pins	3 contacts	11pins
Q series	RQS1	miniature	1 contact	8 faston
Q series	RQS2	miniature	2 contacts	8 faston
Q series	RQS4	miniature	4 contacts	14 faston
F series	RFS1	interface	1 contact	5 faston
F series	RFS2	interface	2 contacts	8 faston

Type	Contact material	Luminous indication	Circuits connected to coil	Special Executions
S Change-over Standard for all models	Silver alloy	L with led N without led	0 without circuit D with diode only DC	0 Without special execution T T series

Socket part number key

SQ B 4 0 D 0 0 0 0

- Product series
- Model
- Contacts number
- Colour
- Montage type
- Form
- Module insertion
- Range

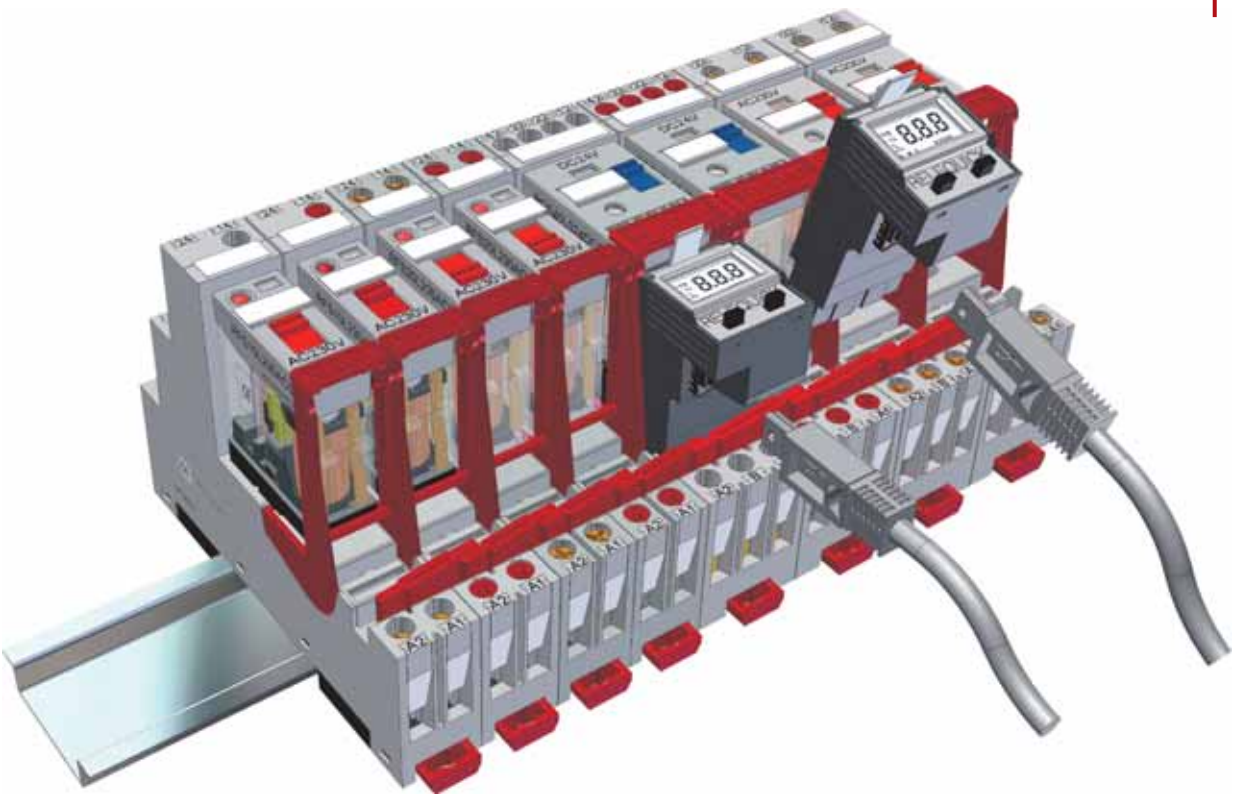
Detailed part key number sockets

M series	SMS2	universal 8 pins	2 contacts	8 pins
M series	SMS3	universal 11 pins	3 contacts	11pins
Q series	SQS2	miniature	1 & 2 contacts	8 faston
Q series	SQS4	miniature	4 contacts	14 faston
F series	SFS1	interface	1 contact	5 faston or PIN
F series	SFS2	interface	2 contacts	8 faston or PIN

Mode	Colour	Connection type	Form	Module insertion	Range
B screw terminal R Quick Clamp C PCB	0 Relequick grey colour 1 Black	D DIN rail 35 mm C Weld on PC	0 Interface 1 Standard	0 yes 1 no	0 Standard T T series

Modules
MQSMM - Standard multifunction and multivoltage digital module Q series.
MQPMM - Programmable multifunction and multivoltage digital module Q series.
MQ1- - - - Q series various electronic modules.

Product's features



Industrial design

The Relequick industrial relay's range combine aesthetic, functionality and technology. Its uniform extructure and the geometry of its more characteristics elements make them easily recognizable and differentiated.

Interface type; I/O [input/output]

Our conception of the industrial design drove us to develop our whole interface socket range positioning the coil excitation wires at one side of the socket (A1 and A2), and at the other side, the change-over or signal terminals, avoiding wiring mistakes and allowing PLC commanding.

Three possitions operation button

This button allows "test" position, "lock for test" possition, and the identification of the current type that corresponds with the relay by its colour: Blue in DC and red in AC.

Mechanical and led indication

Coil excitation is clearly seen in every of our relays and modules plugged in our socket, enabling a clear vision of the coil operation.

Numeration removable labels

It indicates all the technical information and characteristics related to sockets or relays. They are replaceable privinding the update of the installation at any moment.

Electronic modules

Our socket´s admit modules improving the operative of the Relequick system, which reinforce its performance, thanks to a new module´s connexion to the socket.

Technical information and approvals

It is located on the most noticeable relay side, it allows an easy identification, each relay has its technical information and coil tension on the top front printed by laser, in a very clear and indelible way. None of our products is provided with low definition labels or lack of clarity inscriptions.

Materials and temperature

Every plastic part is made of high performance materials, self extinguishing V0 UL-94 specially elaborated for the electric industry. Its thermal stability armature confers a great security against overheating thanks to its excellent dielectrical rigidity, and high hardness and stability.

They support temperatures higher than 130°C without deformations

Working temperature range: -40... +70°C

Storage temperature range: -20. . +100°C

Humidity range: 35%... 85%

Connection bridges

Based on the interface concept, we designed a single bridge system, which simplified the coil common inputs A2 wiring. You won't need to wire all the same type inputs, so you will save time and wire.

Assembly system on DIN rail

You can transition from the total opening state to a perfect anchorage with simplicity and security in three steps (totally open, rail position, click closed), without springs and overpressure which reduces socket lifetime, producing breaks and bad subjection.

Product´s features

Clip subjection

It is designed to deject the relay easily, effortless and securely. Moreover, this kind of clip fixes against vibrations and allows other manufacturer's relays to be mounted in our socket, because they are completely standard and universal.

Free B terminal

It is produced for external signal as an auxiliary input to the electronic module or digital control as sensors, encoders or PLC.

Uniform heights and levels

It allows the bridging in coil connections with minimum width and better adaptation to the trend of reduction in used space on DIN rails and electrical enclosures.

Electronic plug-in modules

Our sockets enable the electronic modules connection with many applications in series or paralelle with the coil. Digital control modules with LCD multivoltage, programmable with timing and counting functions.

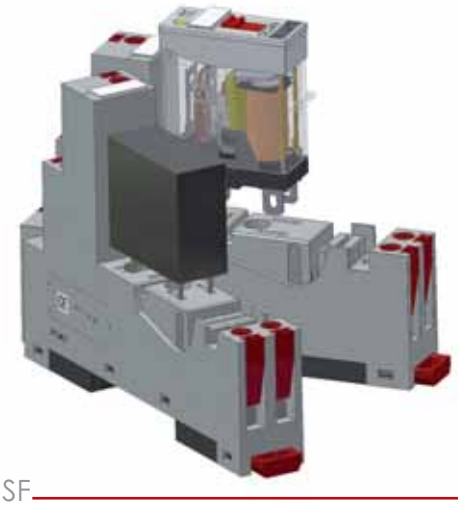
Up to 21 stackable and sequenceable functions, its functionality and design are also adequate to create new specific applications on customer request.

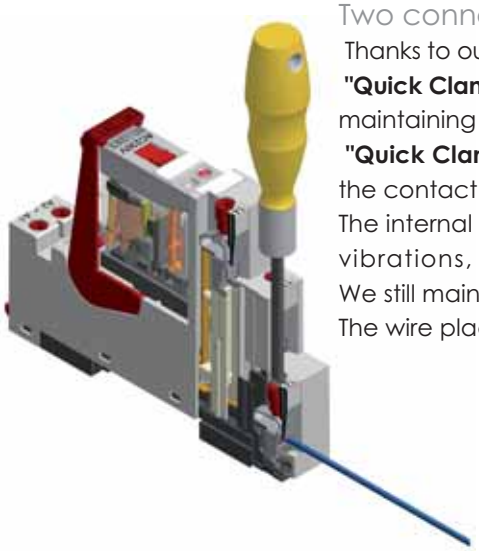
A very direct application is to plug in a Relequick socket a programmable timer module and a simple relay from 16 A to 4 contacts 5A reaching a powerful "din rail timer" that allows to use different voltages. This is useful when the relay is damaged so it can be substituted with low expenses, just changing the relay.

SF Series Universal Plug-in relays

Any kind of relay, industrial faston, printed circuit or PCB can be plugged in our sockets without any additional accesory.

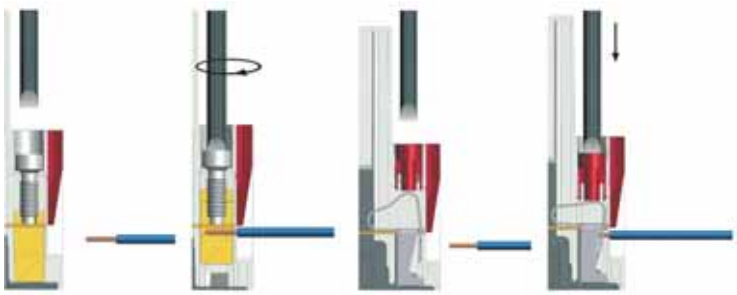
This innovation enables also the user to associate socket-relay on demand according to his requirements, even if a high performance relay is required, or a low price one, forget the "terminals", they won't be an obstacle any more in your election because you can plug-in an industrial faston relay or a pin's one usually used in PCB, so we get a Relequick SF socket totally compatible, offering the versatility widest range of the market.





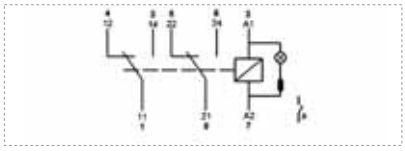
Two connection's type in all our sockets SQ & SF

Thanks to our exclusive patented design, our users can choose among our two connection systems:
"Quick Clamp" is the unique solution for quick connection in the market that works by vertical push, maintaining the wire safely placed.
"Quick Clamp" reduces the time of wiring in above a 50%: with only 3 steps the wire is inserted in the contact without screwing or unscrewing.
The internal spring system patented by Relequick remains firmly fixed so the wire is assured against vibrations, we recommend it for vibration's environment, and machinery, railway...
We still maintain the classic screw connection in our sockets too.
The wire placement allows the use of rigid and flexible wires from 0,14mm2 to 2,25mm2.

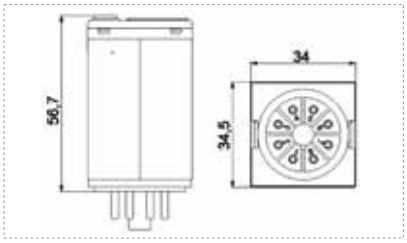


RMS2 Relay 8 pins 2 contacts

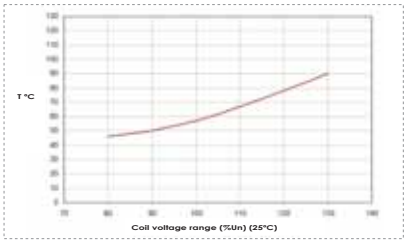
Wiring diagram RMS2



Measures RMS2

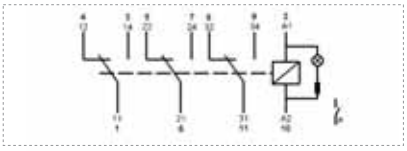


Coil Temperature

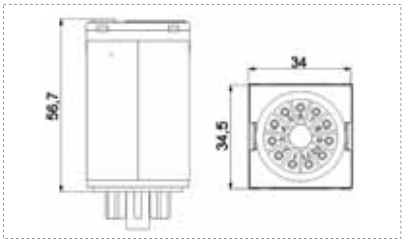


RMS3 Relay 11 pins 3 contacts

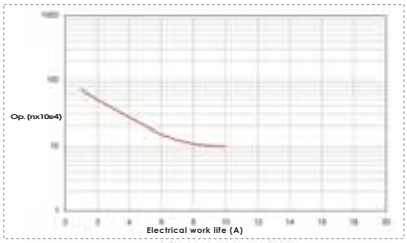
Wiring diagram RMS3



Measures RMS3



Electrical life 24 VDC Resistive load 20ºC



Features

Universal power relay for general applications.
Available in 2 & 3 change-over contacts with max. current 10 A - 250 VAC1 / 28 VDC1.
Nominal power DC 1,5 W & AC 2,7 VA.
Available with and without led for AC/DC relays.
Diode only available for DC.
Socket terminals, 8 pins plug-in for 2 contacts and 11 pins plug in for 3 contacts.
Insulation: IEC61810-5 - 2,5 KV.
Approvals: CE, UL.

Coil ratings

Nominal voltage VDC	**6**	**12**	**24**	**48**	**115**	**220**
Resistance (Ω± 15%)	23,5	96	430	1640	7360	29500
Nominal voltage VAC	**6**	**12**	**24**	**48**	**120**	**230**
Resistance (Ω± 15%)	3,9	17	62,5	305	1250	5170

Coil values at 25°C

	VDC	VAC 50Hz
Operating range	0,8 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥15% Un	≥30% Un

Contacts

Contact arrangement: 2C & 3C.
Max. contact power: 2500 VA / 280 W.
Max. voltage: 250 VAC / 28 VDC.
Max. current:10A - 250 VAC1 / 28VDC1
Contact resistance: ≤ 50 mΩ.
Contact material: Silver alloy.

Accessories

Mechanical indication wide window.
3 sequential possition test button (free, check, lock).
With colours for an easier identification of coil voltage (DC Blue, AC Red).
Technical information and coil voltage in frontal part, laser printed.
Interchangeable marking labels, marked by laser possibility.

Interchangeable marking labels

It can be interchanged or replaced easily, enabling the relays and sockets identification.

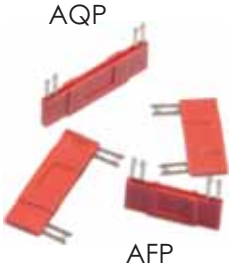
Connection bridges

Connection bridges allow A2 coil terminal contacts in series Q & F to reduce time and effort of wiring.

AQE

AME AFE

AQP



AFP

References RM

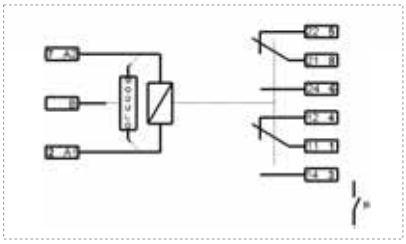
RMS20N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Power relay, 2 change-over contacts 10 A
RMS20L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Power relay, 2 change-over contacts 10 A with led
RMS20N	6/12/24/48/110-115/220VDC	D	Power relay, 2 change-over contacts 10 A with diode
RMS20L	6/12/24/48/110-115/220VDC	D	Power relay, 2 change-over contacts 10 A with diode and led
RMS30N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Power relay, 3 change-over contacts, 10 A
RMS30L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Power relay, 3 change-over contacts, 10 A with led
RMS30N	6/12/24/48/110-115/220VDC	D	Power relay, 3 change-over contacts, 10 A with diode
RMS30L	6/12/24/48/110-115/220VDC	D	Power relay, 3 change-over contacts, 10 A with diode and led

Specifications RM

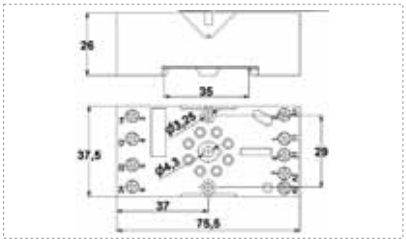
Electrical life	≥10^5 cycles
Mechanical life	≥10^7 cycles
Insulation resistance	≤1000 MΩ (500VDC)
Operation time	≤30 ms
Operation frequency	1200 op/h at nominal load
Release time	≤20 ms
Dielectric strength at 1 mA	2.500 VAC / 1 min. (between coil and contacts) 1.000 VAC / 1 min. (between open contacts)
Vibration resistance	10 – 50 Hz (Double width de 1,5 mm)
Shock resistance	10 G
Room temperature	-40º C + 65º C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weigh	80 gr.
Pack units	10

SM2 Socket

Wiring Diagram SM2

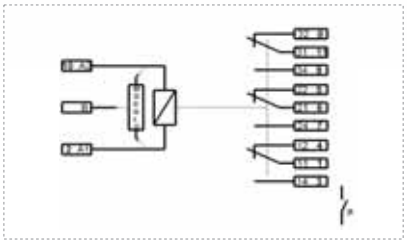


Measures SM2

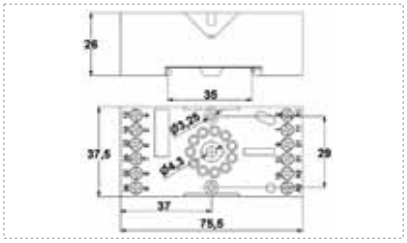


SM3 Socket

Wiring Diagram SM3



Measures SM3



Features

DIN rail (35 mm) or panel mount.
DIN/EN sequential numbering.
According to IEC / EN 61812/1/4.
Clip and label inside.
Electronic modules allowed.

Versions

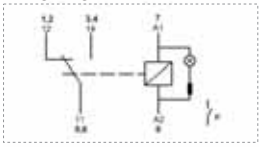
Screw terminal:
SMB20 for relay RMS2, 2 Contacts
SMB30 for relay RMS3, 3 Contacts

Specifications SMB2 and SMB3

Nominal load	10 A / 400 VAC
Dielectric strength	2,5 KV
Max. screw torque	1,2 Nm
Screws	M3 Steel. Pozi drive
Wire in lets capacity: solid wire	4 mm2 or 2 x 2,25 mm2
Wire in lets capacity: multi-core	22 – 14 AWG

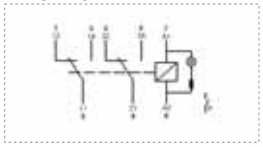
RQS 1 Relay 1 contact

Wiring diagram RQS1



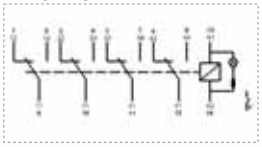
RQS 2 Relay 2 contacts

Wiring diagram RQS2

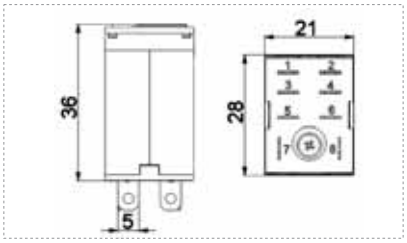


RQS 4 Relay 4 contacts

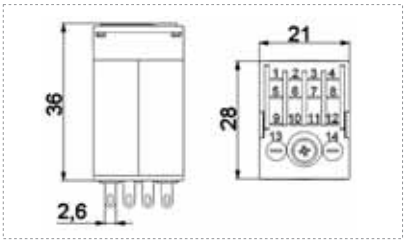
Wiring diagram RQS4



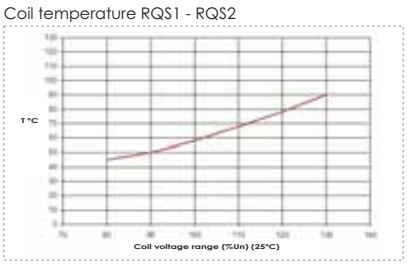
Measures RQS1 - RQS2



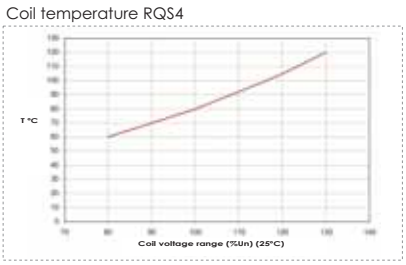
Measures RQS4



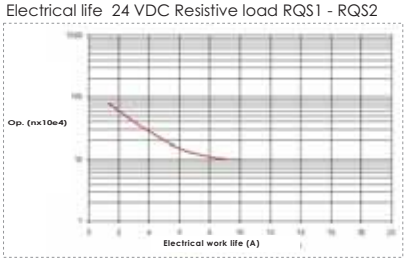
Coil temperature RQS1 - RQS2



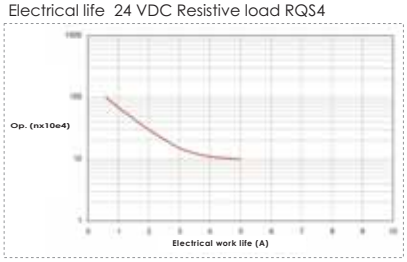
Coil temperature RQS4



Electrical life 24 VDC Resistive load RQS1 - RQS2



Electrical life 24 VDC Resistive load RQS4



Features

Miniature power relays for general and industrial applications.

Available in 1 and 2 change-over contacts with max. current 16 A - 250 VAC/30 VDC and 10 A - 250 VAC/30 VDC and in 4 change-over with max. current 5 A - 250 VAC/30 VDC (AC1/DC1).

Nominal coil power DC 0,9 W & AC 1.5 VA. Available with and without led for AC and DC. Diode only available for DC.

Insulation: IEC61810-5 - 2,5 Kv.

Plug in terminal faston 1 and 2 contacts (4,8 mm). In 4 contacts plug-in faston (2,6 mm).

Approvals: CE, UL

Coil ratings

Nominal voltage VDC	**6**	**12**	**24**	**48**	**115**	**220**
Resistance (Ω±10%)	40	160	650	2600	11000	42000
Nominal voltage VAC	**6**	**12**	**24**	**48**	**120**	**230**
Resistance (Ω±10%)	11,5	40	160	600	390	1300

Coil values at 25°C

	VDC	VAC 50Hz
Operating range	0,75 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥ 10% Un	≥ 30% Un

Contacts

Contacts arrangement: 1C, 2C and 4C

Maximum contact power:

1C: 4000 VA / 480 W,

2C: 2500 VA / 300 W.

4C: 1250 VA / 150 W.

Maximum voltage: 250 VAC, 30 VDC.

Maximum current: 16 A, 10 A, 5 A. AC1/DC1

Contacts resistance: ≤ 50mΩ.

Contacts material: Silver alloy.

Accessories

Mechanical indication, wide window, 3 sequential possition, test button [free, check, lock] with colours for an easier coil voltage identification [DC blue, AC red]

Technical information and coil voltage in the frontal part printed by laser.

Interchangeable marking labels.

Marking laser labels posibility.

References RQ

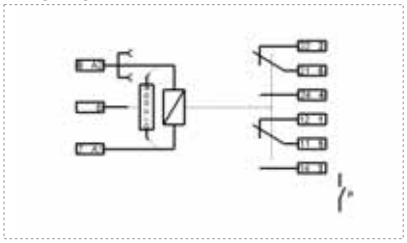
RQS10N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay, 1 change-over contact, 16 A.
RQS10L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay, 1 change-over contact, 16 A with led
RQS10N	6/12/24/48/110-115/220VDC	D Miniature relay 1 change-over contact, 16 A with diode.
RQS10L	6/12/24/48/110-115/220VDC	D Miniature relay 1 change-over contact, 16 A with diode and led.
RQS20N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay 2 change-over contacts, 10 A.
RQS20L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay 2 change-over contacts, 10 A with led.
RQS20N	6/12/24/48/110-115/220VDC	D Miniature relay 2 change-over contacts, 10 A with diode.
RQS20L	6/12/24/48/110-115/220VDC	D Miniature relay 2 change-over contacts, 10 A with diode and led.
RQS40N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay 4 change-over contacts, 5 A.
RQS40L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC	Miniature relay 4 change-over contacts, 5 A with led.
RQS40N	6/12/24/48/110-115/220VDC	D Miniature relay 4 change-over contacts, 5 A with diode.
RQS40L	6/12/24/48/110-115/220VDC	D Miniature relay 4 change-over contacts, 5 A with diode and led.

Specifications RQ

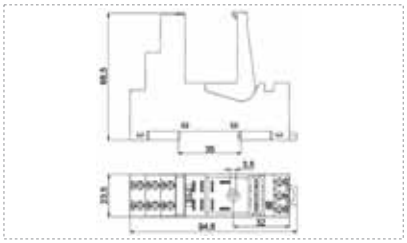
Electrical life	≥10^5 cycles
Mechanical life	≥10^7 cycles
Insulation resistance	≤ 1000 MΩ (500VDC)
Operation time	≤ 20 ms
Operation frequency	1200 op/h at nominal load
Release time	≤20 ms
Dielectric strength at 1 mA in 1C & 2C	2.000 VAC / 1 min. (between coil and contacts) 1.200 VAC / 1 min. (between open contacts)
Dielectric strength at 1 mA in 4 C	1.800 VCA / 1 min. (between coil and contacts) 1.000 VCA / 1 min. (between open contacts)
Vibration resistance	10 – 50 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weigh	35 gr.
Pack units	10

SQ2 Socket

Wiring diagram SQ2

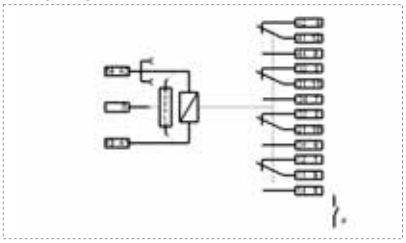


Measures SQ2

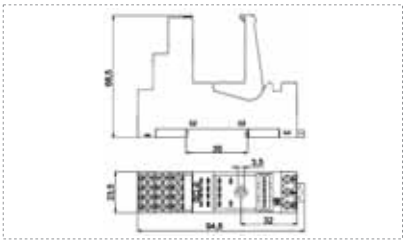


SQ4 Socket

Wiring diagram SQ4



Measures SQ4



Specifications SQB20-SQR20 and SQB40-SQR40

Nominal load	16 A /250 V SQB2,SQR2; 10 A/250V SQB4,SQR4
Dielectric strength	2,5 KV
Max screw torque	1,2 Nm
Screws	M3 Steel. Pozi drive
Quick Clamp	Stainless steel.
Wire in lets capacity: solid wire	4 mm2 or 2 x 2,25 mm2
Wire in lets capacity: multi-core	22 – 14 AWG

The SQ sockets are produced in 2 versions with or without module MQ series insertion (pg 11).

Features

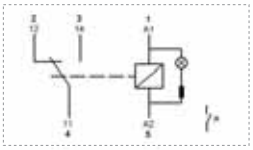
Interface I/O (Input/Output).
Interchangeable marked labels and clip integrated.
DIN rail (35 mm) or panel mount.
Connection bridges bars for A2 terminal.
Electronic modules connection.
3 possition clip for the subjection to DIN rail.
DIN, and sequential numbering(optional).
According to IEC/EN 61810

Versions

With screw terminal:
SQB20 for relay RQS1, 1 Contact
SQB20 for relay RQS2, 2 Contacts
SQB40 for relay RQS2, 4 Contacts
With Quick Clamp:
SQR20 for relay RQS1, 1 Contact
SQR20 for relay RQS2, 2 Contacts
SQR40 for relay RQS2, 4 Contacts

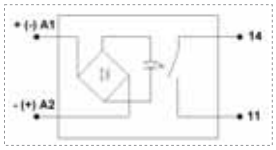
RFS 1 Relay 1 contact

Wiring diagram RFS1



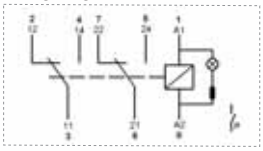
RFS1SL Relay 1 contact

Wiring diagram RFS1SL

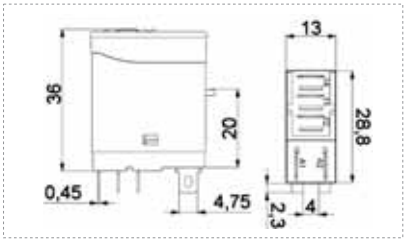


RFS 2 Relay 2 contacts

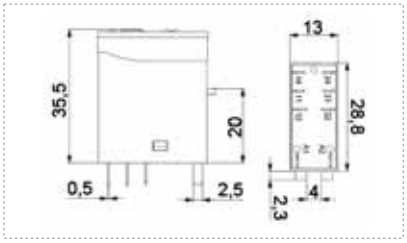
Wiring diagram RFS2



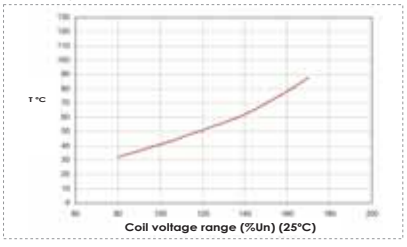
Measures RFS1



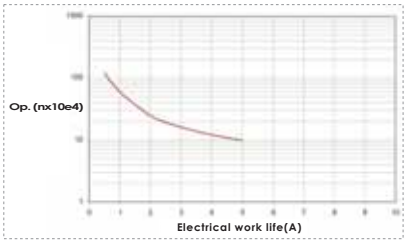
Measures RFS2



Coil temperature



Electrical life 24 VDC Resistive load



Features

Electromechanical relays

Industrial interface relay for general applications.
Available in 1 & 2 change-over contacts with max. current 10 A - 250VAC/30VDC and 5 A - 250 VAC/30VDC.
Coil nominal power DC 0,53 W & AC 1,1 VA.
Available with or without led for AC/DC relays.
Diode only available in DC.
Insulation: IEC61810-5 - 2,5 Kv.
Socket 187 (4,75 mm)terminals.

Solid state relays

One contact NO and industrial faston plug-in. (for more information see p.13.)

Coil ratings

Nominal voltage VDC	**6**	**12**	**24**	**48**	**115**	
Resistance (Ω± 10%)	68	270	1100	4300	22800	
Nominal voltage VAC	**6**	**12**	**24**	**48**	**120**	**230**
Resistance (Ω± 10%)	16	63	240	1085	6680	21000

Coil values (at 25 °C)

	VDC	VAC 50Hz
Operating range	0,75 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥ 10% Un	≥ 30% Un

Contacts

Contact arrangement: 1C and 2C.
Maximum contact power: 1C:2500 VA / 300 W, 2C: 1250VA / 150W.
Maximum voltage: 250 VAC / 30 VDC.
Maximum current: 10 A and 5 A. AC1/DC1
Contact resistance: ≤ 50 mΩ.
Contact material: Silver alloy.

Accessories

Mechanical indication wide window.
3 sequential possition test button (free, check, lock).
With colours for an easier identification of coil voltage (DC blue, AC red).
Technical information and coil voltage in frontal side, laser printed.
Interchangeable marking labels, can be printed by laser (option).
These solid state relays have the possibility of an USB connection to program by computer timing and other functions (see p.13).

References RF

Electromechanical relays

RFS10N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Interface relay, 1 change-over contact, 10 A
RFS10L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Interface relay, 1 change-over contact, 10 A with led
RFS10N	6/12/24/48/110-115/220VDC	D	Interface relay, 1 change-over contact, 10 A with diode
RFS10L	6/12/24/48/110-115/220VDC	D	Interface relay, 1 change-over contact, 10 A with diode and led
RFS20N	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Interface relay, 2 change-over contact, 5 A.
RFS20L	6/12/24/48/110-115/220VDC 6/12/24/48/110-120/220-230VAC		Interface relay, 2 change-over contact, 5 A with led.
RFS20N	6/12/24/48/110-115/220VDC	D	Interface relay, 2 change-over contact, 5 A with diode.
RFS20L	6/12/24/48/110-115/220VDC	D	Interface relay, 2 change-over contact, 5 A with diode and led.

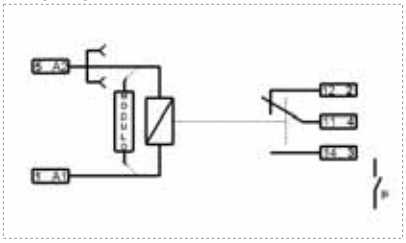
Specifications RF

Electromechanical relays

Electrical life	≥10^5 cycles
Mechanical life	≥10^7 cycles
Insulation resistance	≥1000 MΩ (500 VDC)
Operation time	≤ 20 ms
Operation frequency	1200 op/h at nominal load
Release time	≤10 ms
Dielectric strength at 1 mA	5.000 VAC / 1 min. (between coil and contacts) 1.000 VAC / 1 min. (between open contacts)
Vibration resistance	10 – 55 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40º C + 65º C
Room humidity	35% - 85%
Atmospheric pressure	86 – 106 KPa
Weigh	20 gr.
Pack units	10

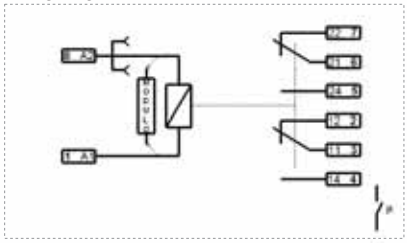
SF1 Socket

Wiring diagram SF1

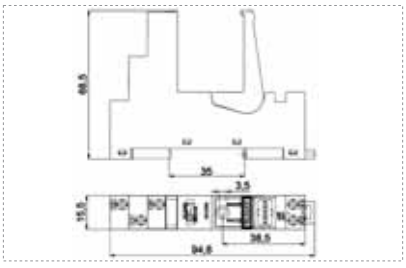


SF2 Socket

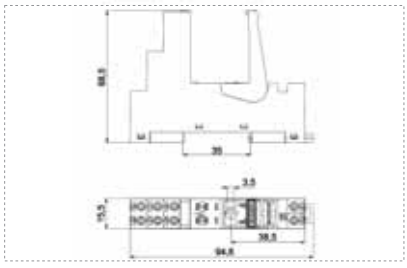
Wiring diagram SF2



Measures SF1



Measures SF2



Specifications SFB10 – SFR10 and SFB20 – SFR20

Nominal load	1C: 16 A / 250 V, 2C 8 A /250 V
Dielectric strength	2,5 KV
Max screw torque	1,2 Nm
Screws	M3 Steel. Pozi drive
Quick Clamp	Stainless steel
Wire in lets capacity: solid wire	4 mm2 or 2 x 2,25 mm2
Wire in lets capacity: multi-core	22 – 14 AWG

The SF sockets are produced in 2 versions with or without module MF series insertion (pg 11).

Features

Interface I/O (Input/Output)
Interchangeable marked labels option, and clip integrated
DIN rail (35 mm) or panel mount
Connection Bridges for A2 terminals
Industrial faston or PCB relay mount
3 possition clip for subjection to DIN Rail
DIN/EN sequential numbering (optional)
According to IEC/EN61810

Versions

With screw terminal:
SFB10 for relay RFS1, 1 Contact
SFB20 for relay RFS2, 2 Contacts
With Quick Clamp:
SFR10 for relay RFS1, 1 Contact
SFR20 for relay RFS2, 2 Contacts

Plug & Play modules Easy Control

Relequick Easy plug and play modules are multifunction and multivoltage, adding complex timing and low frequency counter functions up to 125Hz.

Easy Control MQ series is pluggable to our SQ4 and SQ2 connection sockets, to control 1, 2 and 4 contacts relays, it can commute 16A, 10A and 5A by contact.

There are two Easy Control versions:

Standard Easy Control: Reference MQSMM, with 21 programmable timing and low frequency counter functions trough the upper side. Relay and function state monitored on a built-in LCD screen.

Programmable Easy Control: Reference MQPMM, including standard Easy Control functions, it also includes a programming mini-USB cable connection Easy Control. With the PC programming software, the user will be able to set up his own complex functions nesting and mixing different timing and counter functions, making possible to develop complex programmed solutions.

This version turns the Easy Control in a mini-PLC with one input and a relay output.

Easy Control can receive and manage signals from our socket's B input, or external signal (B signal) coming from a PLC, a sensor or any other required signaling source. With this signal, the user will be able to manage and control timing programmed functions and changes the relay state depending on the cycles counted from the upcoming signal
Programmable Easy Control can be programmed and activated by radiofrequency connecting a wireless module to the USB input. There are many pluggable accessories, for different applications like home-automation and industrial control (cabled and wireless)

Functions

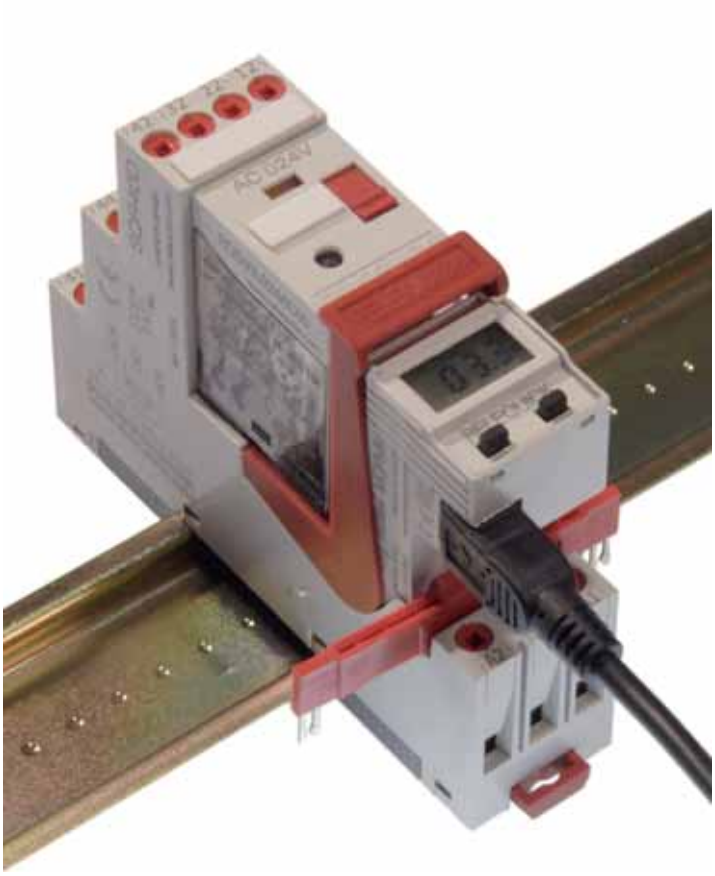
Standard functions are:

Simple timing functions, B-signal manager timing functions and symmetric / asymmetric timing functions.

Simple counter functions and symmetric/asymmetric cycle counting functions (for more information see page 13.)

Applications

Charge control timming processes and cycle counting, as resistive or inductive charges control with 1, 2 or 4 chage-over contacts up to 16A relay commutation output.



Advantages

It is very easy to setup over its 21 stackable functions, on a clear LCD screen. It allows to create complex functions with the PC programming software using the mini-USB connection to download the module.

Wide timing range (0,1sec to 999 hours) with high precision +/- 0,05%; and counter (up to 999,000 cycles). Multivoltage supply input, supporting a range of VAC [24...230] and VDC [6...115]. It has no batteries, so no maintenance is needed and it is environmental friendly.

There is no need to dismount or unwire the system when it is damage or its life is finished, just change the relay and you will have our system running again, saving money and gaining service time.

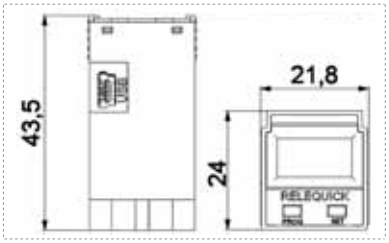
Relay, socket and Easy Control module are in essence, a small PLC with one input/output, for easy and low cost applications. Product versatility allows us to make simple changes on our process to customize our products for customer applications.

Accesories

USB cable and PC programming software.
Download the EASY CONTROL PROGRAM software for free from our Webpage: http://www.relequick.com, so you will always have it updated.

Specifications

Supply Characteristics			
Supply Voltage (U)	VAC (50 / 60Hz) VDC	24……230 6……220	
Nominal Power AC/DC (w)		0.1w (12VDC) 0.5w (115VDC)	
Working Characteristics			
Timing range	Seconds	[0.1 - 99.9] s. [1 - 999] s.	Range (99.9) Range (999)
	Minutes	[0.01 - 9.99] m. [0.1 - 99.9] m. 1 - 999] m.	Range (9.99) Range (99.9) Range (999)
	Hours	[0.01 - 9.99] h. [0.1 - 99.9] h. [1 - 999] h.	Range (9.99) Range (99.9 Range (999
Counter range	Significative values: [1 – 999]	Counter values: x1 [1 – 999] x10 [10 - 9.990] x100 [100 - 99.900] x1000 [1000 - 999.000]	
Timing precision	±0.05% time set off		
Repeatibility	± 0.01% time set off		
Minimum B signal duration	≥23ms (VDC) - 50 ms (VAC)		
Maximum counter frequency	21Hz (VDC) - 10Hz (VAC) -125Hz under request		
Reestablishment time	≥ 300 ms		
Working temperature	-10ºC ..... +60ºC (24VAC)		
Storage temperature	-20ºC .....+60ºC		

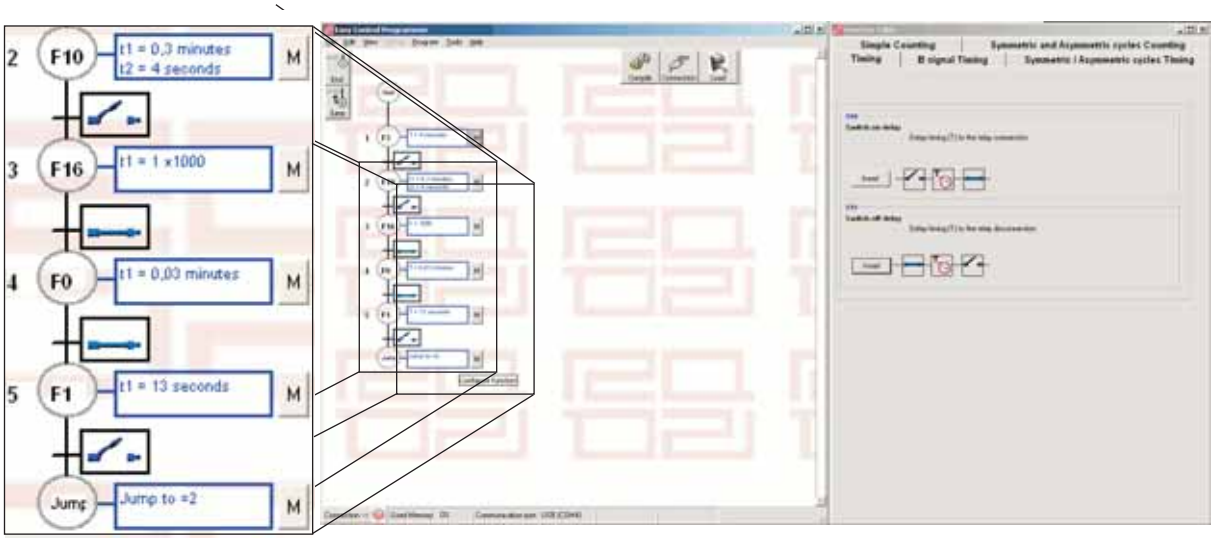


USB cable available

Note:

Remember to unplug the module from the socket before connecting the USB cable.

Easy Control Programmer



You can download our software from our site http://www.relequick.com and configure your product in 3 easy steps:

1) Simply click in the function you want to add into the work space.

2) Configure your array of functions with 1 click.

3) You are ready now to download the new program to your Easy Control module or programmable solid state relay.

A friendly-multilanguage interface and a wide help will make your programming experience easier than ever.

You can save your projects, insert jumps in the diagram flow and many other features which Relequick is improving every day.

Warning: Please always remember to unplug the Easy Control module or the programmable solid state relay from the socket before connecting to the USB cable or bluetooth.

Bluetooth connection is ready only for RFS1SP programmable version.

USB Programmable solid state relay

New solid state relay series, with 1 normally open contact 4,8mm faston type (idustrial faston 0.187), for charges control in DC or AC. It has also the already well known solid state relay's possibilities and functionalities (electronic commutation, much longer life than electromechanical relays, no vibrations and hard environments resistant, etc.)

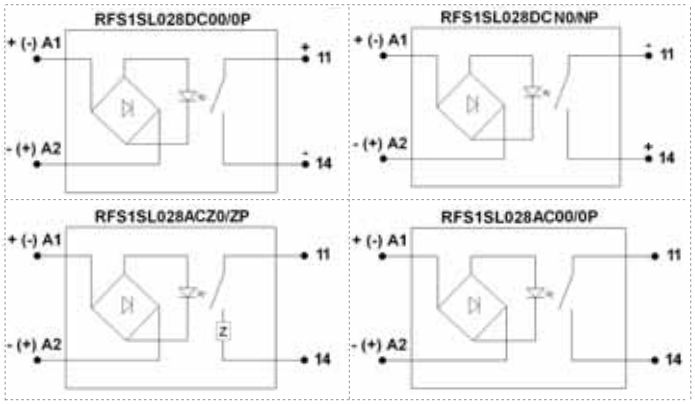
Our relays include new possibilities: they are **programmable,** so you can use them as a timer and current control with **10 stackable different functions**, using the **miniUSB** plug which is on its top, connecting it to your personal computer with a special wire. This functionality can be timmed in milliseconds, seconds, minutes and hours, from 1 millisecond to 999 hours. Three functions have been recently added to control the charges in DC with a signal PWM signal generated by the internal processor, specially designed for engine speed control and light regulation.

Specifications

INPUT	
Voltage range (input terminal : A1 & A2)	5-28 VDC
Release Voltage	< 2VDC
Current	10-20 mA
OUTPUT	
Max. current	3 A in AC 2 A in DC
Max. current in t<5ms.	20A
Max. voltage	250 VAC 50 VDC
Min. voltage	1.5 VAC 5 VDC
IN/OUT Insulation	3,75 KV
SPECIFICATIONS	
Operating temperature	-20ºC +60ºC
Storage temperature	100ºC
Weight	23 gr.

RFS1S

RFS1SL028DC00	Solid State Relay, DC, positive common.
RFS1SL028DCN0	Solid State Relay, DC, negative common.
RFS1SL028DC0P	Solid State Relay, DC, positive common USB connection.
RFS1SL028DCNP	Solid State Relay, DC, negative common USB connection.
RFS1SL028AC00	Solid State Relay, AC, instant
RFS1SL028ACZ0	Solid State Relay, AC, zero cross switching
RFS1SL028AC0P	Solid State Relay, AC, instant, USB connection.
RFS1SL028ACZP	Solid State Relay, AC, zero cross switching, USB connection.




USB cable and Bluetooth available

Functions available are number: 0, 1, 10, 12, 13, 14, 15 (see pg. 13).

Progressive connection and disconnection ramp (PWM signal).

Real time control with the Relequick plug in and play Bluetooth.

The software EASY CONTROL PROGRAM can be downloaded for free in our webpage.

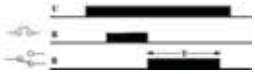
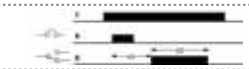
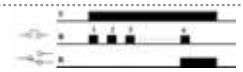
These relays are supposed to be controlled directly from any transistor output in an electronic system, as a PLC, a sensor or simply from any other relay or button.

By plugging the Relequick Bluetooth into the USB slot, you will be able to control in real time the percentage of current which flows through the contacts, to reprogram the memory and to turn on-off from up to 100 meters(1).

With this simple device, we give to our customer the power and secure switching of a solid state relay, the versatility of a programmable timer and all this with an industrial faston standard format, sealed and airtight in the smallest size of the market.

(1)-depending on the bluetooth device used

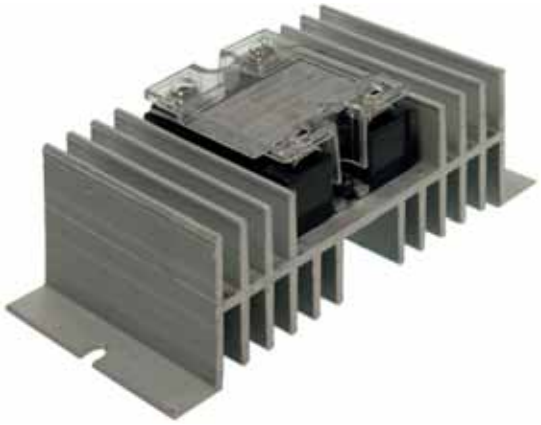
Easy Control and solid state relay functions

	Nº	Function	Initial State	B Signal	Diagrams	Description
Simple timing Functions	0	Switch on delay		X		Delay timing (T) to the relay connection.
	1	Switch off delay		X		Delay timing (T) to the relay disconnection.
Timing functions based on the B Signal input	2	Switch on delay by B signal		rising edge (Timing begins)		Delay timing (T) to the relay connection at the reception of a rising B signal edge.
	3	Switch off delay by B signal		rising edge (Timing begins)		Delay timing (T) to the relay disconnection at the reception of an B Signal rising edge.
	4	Switch off delay by an B signal falling edge, an B signal rising edge the relay switch on.		rising edge (closes the relay) / falling edge (timing switches on)		Switch on relay with an B Signal rising edge and with the edge falling begins a delay timing (T) to the switch off relay. A new B signal falling edge reset timing.
	5	Switch off delay by B signal rising edge.		rising edge (closes the relay, timing switches on)		Switch on relay with an B Signal rising edge and begins a delay timing (T) to switch off the relay.
	6	Switch off delay by B signal falling edge.		falling edge (closes the relay,timing switches on)		Switch on relay with a B Signal falling edge and begins a delay timing (T) to switch off the relay.
	7	Switch off delay by B signal rising and falling edge.		rising / falling edge (closes the relay, timing switches on)		Switch on relay with a B Signal rising or falling edge and begins a delay timing (T) to switch off relay. A new B signal edge reset timing.
	8	Switch on delay stopping by rising B signal edge.		rising edge (timing stops) / falling edge (timing continues)		Delay timing (T) to the switch on relay interruptible by a B signal rising edge, stopping the timing process while a B signal falling edge resumes again the timing.
	9	Switch on delay stopping by falling B signal edge.		falling edge (timing stops) / rising edge (timing continues)		Delay timing (T) to the switch on relay interruptible by a B signal falling edge, stopping the timing process while a B signal rising edge resumes again the timing.
Symmetric and asymmetric cycle timing functions	10	Pulse delay		X		To time t1 and t2, defining t1 as the time of the switch off relay and t2 as the time the switch on relay, timing after feeding the module.
	11	Pulse delay with B signal		rising edge (delay timing switches on)		To time t1 and t2, defining t1 as the time of the switch off relay and t2 as the time the switch on relay, timing after receiving an B signal rising edge.
	12	Symmetric timing cycle (Start close)		X		After the module feeding, the system begins to time a symmetric cycle, keeping the switch on relay for a period T, the next period T is switched off. The process begins with the relay switched on.
	13	Symmetric timing cycle (Start open)		X		After the module feeding, the system begins to time a symmetric cycle, keeping the switch off relay for a period T, the next period T switches on. The process begins with the relay swiched off.
	14	Asymmetric timing cycle (start close)		X		After the module feeding, the system begins to time an asymmetric cycle, keeping the switch on relay for a period T1 and the next period T2 switched off. The process begins with the relay switches on.
	15	Asymmetric timing cycle (start open)		X		After the module feeding, the system begins to time an asymmetric cycle, keeping the switch on relay for a period T1 and the next period T2 switch off. The process begins with the relay switches off.
Simple counter functions	16	Switch on counter		rising edge (decreases the counter)		Each B signal rising edge decreases a present value (n), when this counter reaches zero, the relay is switched on.
	17	Switch off counter		rising edge (decreases the counter)		Each B signal rising edge decreases a present value (n), when this counter reaches zero, the relays is switch off.
Symmetric and asymmetric cycle counter functions	18	Symmetric counter (start close)		rising edge (decreases the counter)		Each B signal rising edge decreases a present value (n), when this counter reaches zero, the relay state is changed, the relay keeps switched on for (n) B signal cycles and (n) cycles switch off (symmetric cycle). The process begins with the relay switched on.
	19	Symmetric counter (start open)		rising edge (decreases the counter)		Each B signal rising edge decreases a present value (n), when this counter reaches zero, the relay state is changed, the relay keeps switched off for (n) B signal cycles and (n) cycles switched on (symmetric cycle). The process begins with the relay switched off.
	20	Asymmetric counter (start close)		rising edge (decreases the counter)		Each B signal rising edge decreases a preset values (n1 & n2), when this counter reaches zero, the relay state is changed, the relay keeps switch on for (n1) B signal cycles and (n2) cycles switch off (asymmetric cycle). The process begins with the relay switched on.

RELEQUICK

SOLID STATE RELAYS

Single Phase SSR HHG1-1 (input circuit VDC)



Input circuit	VDC	VAC
LED indication	YES	
Control voltage range	3-32VDC	90-250VAC
Control current range	6-35mA	5-35mA
Min. turn-on voltage	3VDC	90VAC
Max. turn-off voltage	1VDC	10VAC
Min. input impedance	1500(Ω)	
Output circuit	**Zero cross switching**	
Max. load current (AC1 at 30ºC mount radiator for load≥10A)	25, 60, 80 (A)	
Max. load current (AC3 at 30ºC mount radiator for load ≥10A)	5, 15, 20 (A)	
Load voltage range	40-440VAC (50-60Hz)	
Max. non-repetitive peak voltage	660VAC	
Max. non-repetitive peak current (10 ms)	165 A	
Max. off-state leakage current	≤10mA	
Max. on-state voltage	<1,6VAC	
Min. load current	≥ 0.1 A	
General data		
Max. turn-on/off time	8,3 -10ms	
Min. insulation resistance (input/output, input /output and cover)	500M Ω (500VDC)	
Insulation dielectric strength (between input and output)	≥2500VAC	
Measures (L x W x H)	60 x 45 x 22 (mm)	
Room temperature	-25 +70ºC	

Radiators (over 10A max. load. mount radiator)

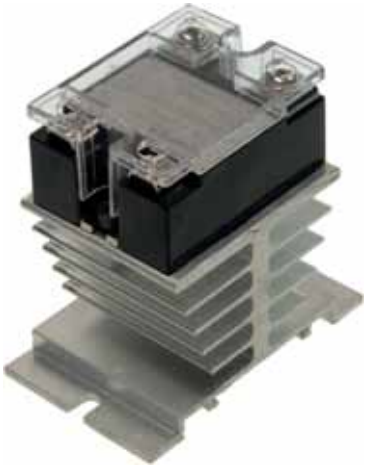
Reference	Output current	Measures L x W x H (mm)
HH-060	≤ 25A	80 x 50 x 50
HH-061	≤60A	125 x 70 x 50
HH-062	≤ 80A	125 x 115 x 50

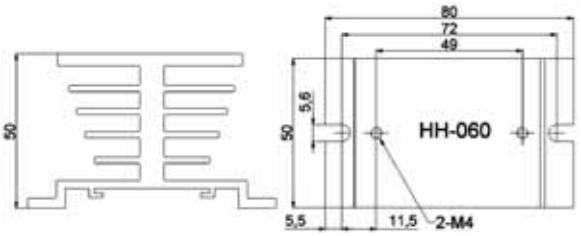
Ordering part number: HHG1-1/032F - 38 - (_ _) Z

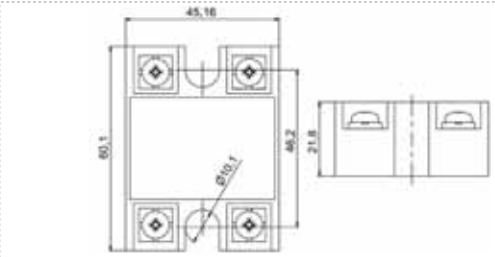
Ordering part number: HHG1-1/250F - 38 - (_ _) Z

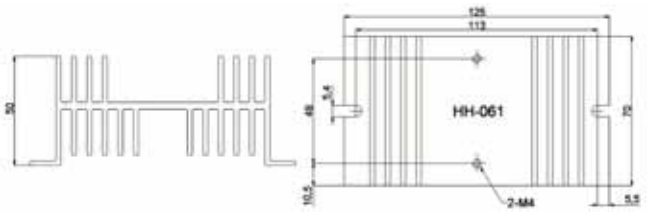
(__): Max. load current (A) 25, 60, 80

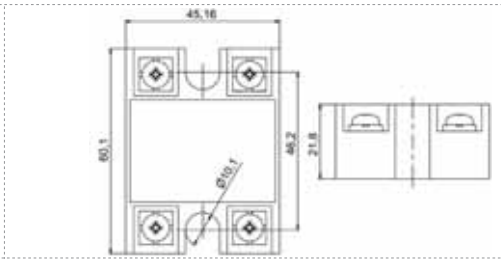
(__): Max. load current (A) 25, 60, 80



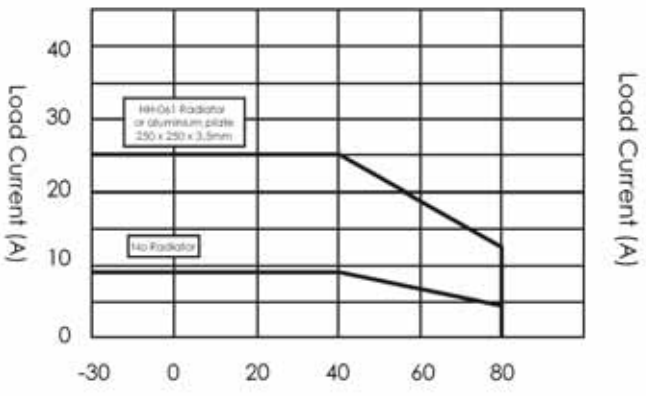




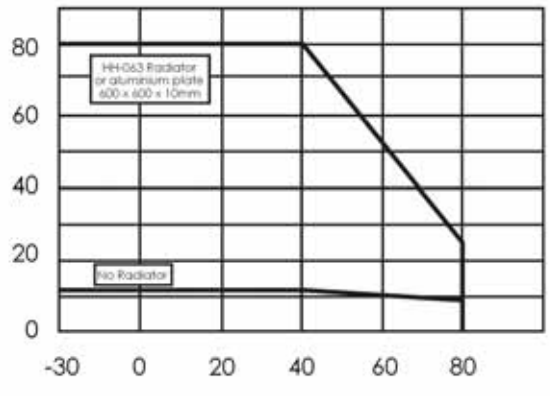




Single phase relay 25A



Single phase relay 80A



Three Phase SSR HHG1-3(input circuitVDC)

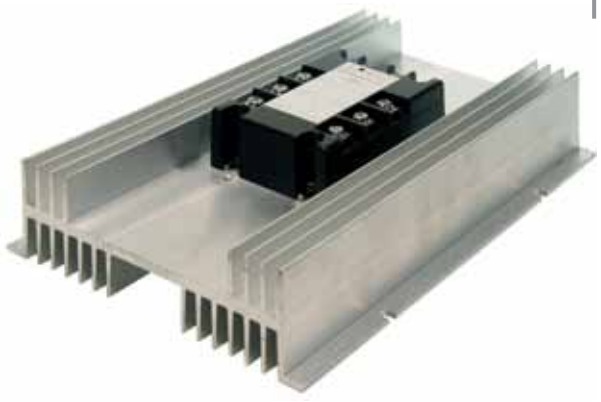
Input Circuit	VDC	VAC
LED indication	YES	
Control voltage range	3-32VDC	90-250VAC
Control current range	12-30mA	
Min. turn-on voltage	3VDC	90 VAC
Max. turn-off voltage	1VDC	30 VAC
Min. input impedance	1500(Ω)	
Output circuit	**Zero cross switching**	
Max. load current (AC1 at 30°C mount radiator for load ≥10A)	25,60,80, 120(A)	25,60,80 (A)
Max. load current (AC3 at 30°C mount radiator for load ≥10A)	5, 15, 20 (A)	
Load voltage range	40-440VAC (50-60Hz)	
Max. non-repetitive peak voltage	660VAC	
Max. non-repetitive peak current (10 ms)	165 A	
Max. off-state leakage current	≤10mA	
Max. on-state voltage	<1,6VAC	
Min. load current	≥ 0.1 A	
General data		
Max. turn-on /off time	8,3 -10ms	
Min. insulation resistance (input/output, input /output and cover)	500M Ω (500VDC)	
Insulation dielectric strength (between input and output)	≥ 2500VAC	
Measures (L x W x H)	106 x 75 x 32 (mm)	
Room temperature	-25° +70°C	

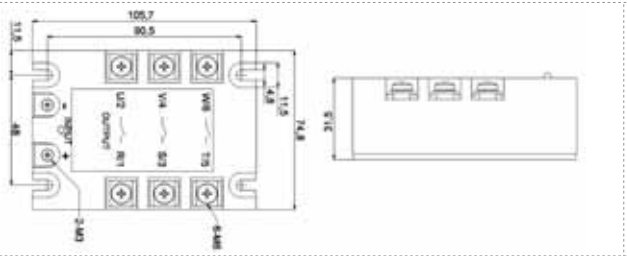
Radiators (over 10A max. load mount radiator)

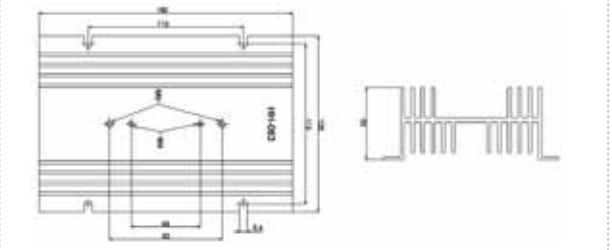
Reference	Output current	Measures L x W x H (mm)
HH-035	≤ 25A	150 x 90 x 35
HH-036	≤ 60A	150 x 100 x 80
HH-037	≤80A	260 x 180 x 50
HH-038	≤100A	150 x 125 x 135
HH-039	≤200A	200 x 125 x 135

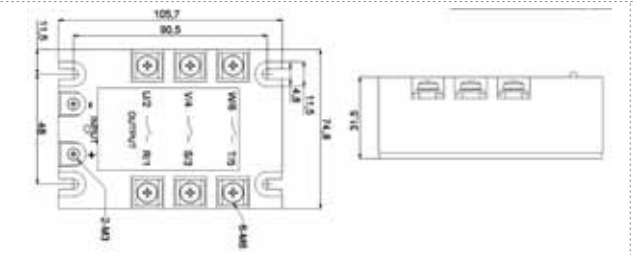
Ordering part number: HHG1-3/032F - 38 - (_ _) Z
Ordering part number: HHG1-3/250F - 38 - (_ _) Z

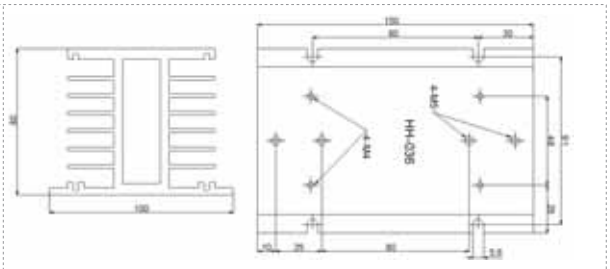
(__): Max. load current(A) 25, 60, 80, 120
(__): Max. load current (A) 25, 60, 80

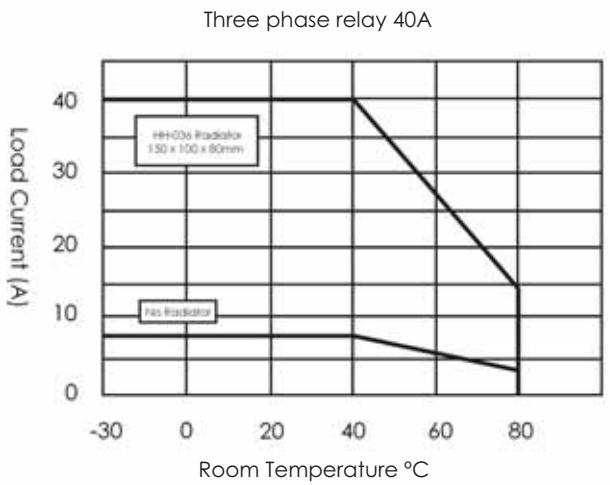


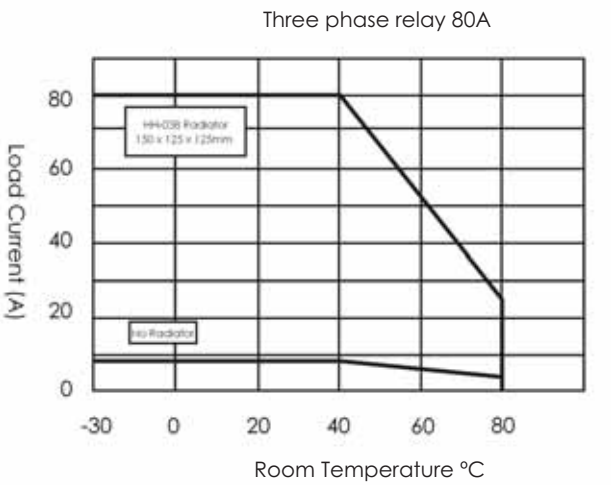









Three phase relay 40A
Load Current (A)
40
30
20
10
0
HH-036 Radiator
150 x 100 x 80mm
No Radiator
-30
0
20
40
60
80
Room Temperature °C


Three phase relay 80A
Load Current (A)
80
60
40
20
0
HH-038 Radiator
150 x 125 x 125mm
No Radiator
-30
0
20
40
60
80
Room Temperature °C

Miniature SSR HHG1-1 (input circuit VDC)

HHG1-032F-38-4Z

HHG1-032F-38-5Z

HHG1A-1-032F-38-4Z

Input circuit

Control voltage range	3-32VDC
Control current range	6-35mA
Min. turn-on voltage	3VDC
Min. turn-off voltage	1VDC
Min. input impedance	1500(Ω)

Output circuit — Zero cross switching

Max. load current (AC1)	4 , 5 (A)
Load voltage range	40-440VAC (50-60Hz)
Max. non-repetitive peak voltage	660VAC
Max. non-repetitive peak current (10 ms)	7A
Max. off-state leakage current	≤ 10mA
Max. on-state voltage	<1.6VAC
Min. load current	≥ 0.1 A

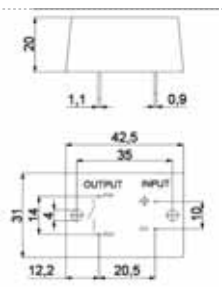
General data

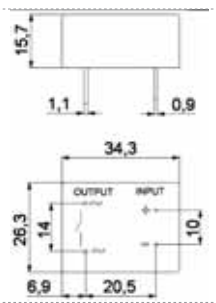
Max. turn-on / off time	8,3 - 10ms
Min. insulation resistance (between input and output, input / output and cover)	500M Ω (500VDC)
Insulation dielectric strength (between input and output)	≥1500VAC
Max. capacity between input and output	10pF
Room temperature	-25° +70°C

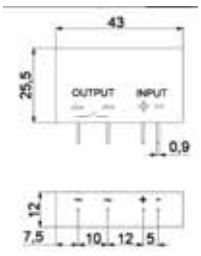
	HHG1-032F-38-4Z	HHG1-032F-38-5Z	HHG1A-1-032F-38-4Z
Measures (L x H x W) mm	34 x 16 x 26	42 x 19 x 31	43 x 26 x 12
Weight	34g	78g	22g

Ordering part number: HHG1-1/032F - 38 - (_ _) Z

(__): Max. load current (A) 3 , 4







Input circuit

LED indication	YES
Control voltage range	3-32VDC
Control current range	6-35mA
Min. turn-on voltage	3VDC
Min. turn-off voltage	1VDC
Min. input impedance	1500(Ω)

Output circuit — Zero cross switching

Max. load current (AC1 mount radiator for load≥10A)	100, 150, 250 (A)
Load voltage range	40-440VAC (50-60Hz)
Max. non-repetitive peak voltage	660VAC
Max. non-repetitive peak current (10 ms)	800 A
Max. off-state leakage current	≤ 10mA
Max. on-state voltage	<1.8VAC
Min. load current	≥0.1 A

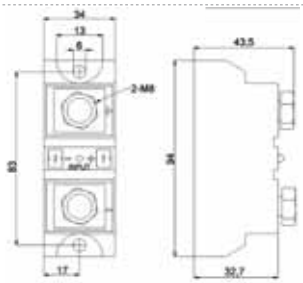
General data

Max. turn-on / off time	8,3 - 10ms
Min. insulation resistance (between input and output, input / output and cover)	500M Ω (500VDC)
Insulation dielectric strength (between input and output)	≥ 2500VAC
Measures (L x W x H)	94 x 34 x 44 (mm)
Room temperature	-25 +70°C

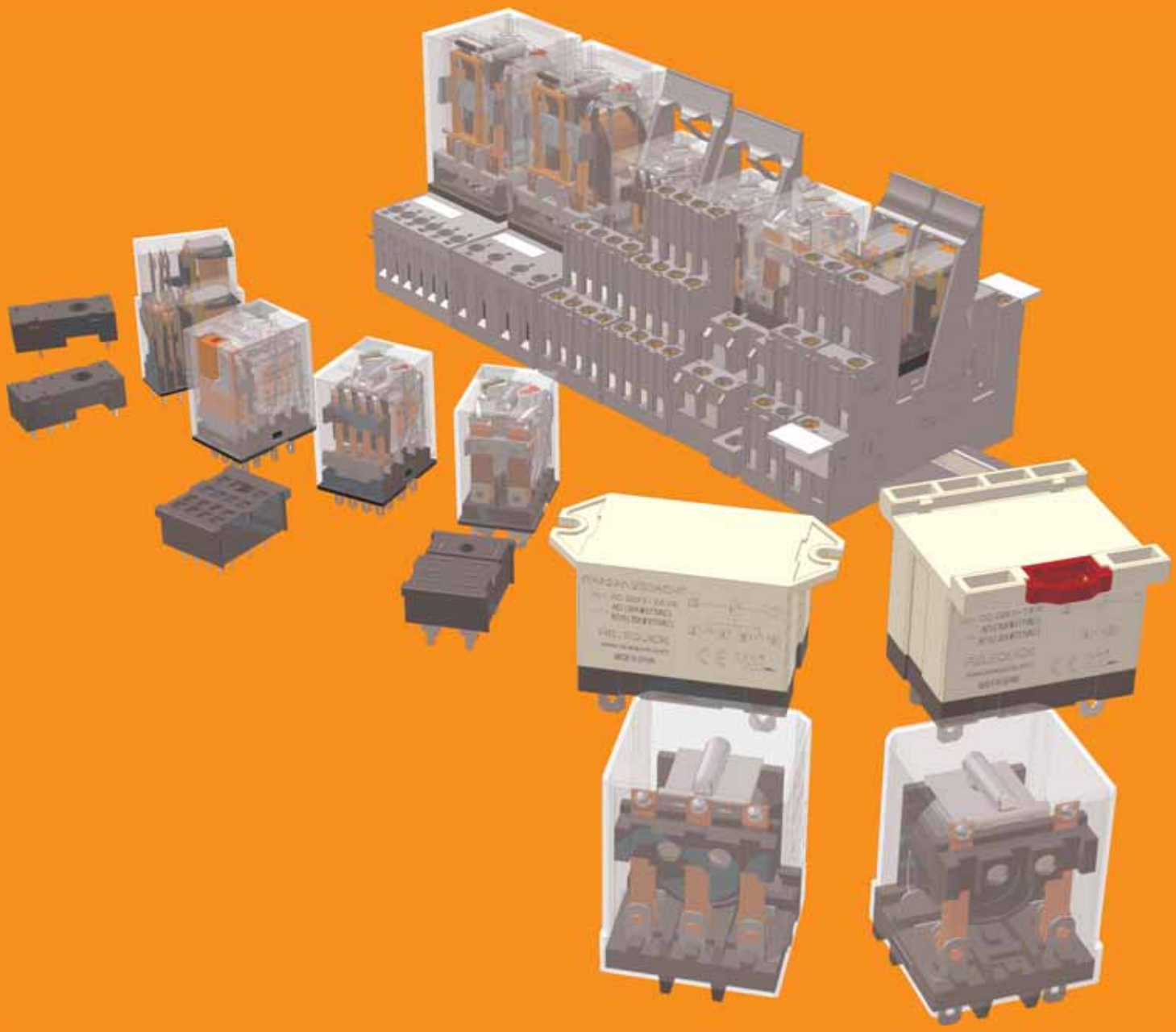
Radiators (above 10A load max. mount radiator)

Reference	Output current	Measures L x W x H (mm)
HH-063	≤ 120A	180 x 150 x 48
HH-038	≤ 100A	150 x 125 x135
HH-039	≤200A	200 x 125 x135

Ordering part number: HHG1A-1/032F - 38 - (_ _) Z (__):Max. load current (A) 100, 150, 250



RELEQUICK



T SERIES

RME20NT

RME30LT

RMS20LT

RMS30LT

References

RME - T Relays 2 & 3 contacts

RME20N()T RME30N()T	Standard power relay, 2 & 3 change - over contacts, 10 A	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	
RME20L()T RME30L()T	Standard power relay, 2 & 3 change - over contacts, 10 A, with lamp	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	

RMS - T Relays 2 & 3 contacts with puss button

RMS20N()T RMS30N()T	Standard power relay, 2 & 3 change - over contacts, 10 A, with puss button	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	
RMS20L()T RMS30L()T	Standard power relay, 2 & 3 change - over contacts, 10 A, with lamp & puss button	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	

Coil ratings

Nominal voltage VDC	6	12	24	48	115	220
Resistance (Ω±15%)	23,5	96	430	1640	7360	29500
Nominal voltage VAC	6	12	24	48	120	230
Resistance (Ω±15%)	3,9	17	62,5	305	1250	5170

Features

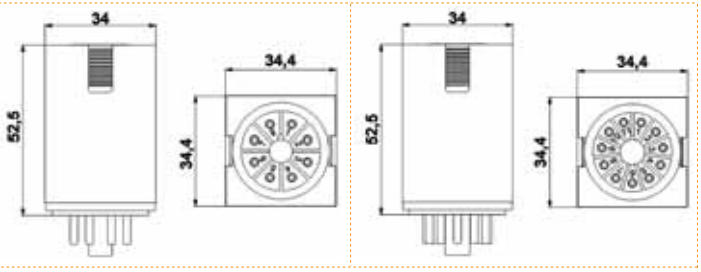
Universal power relay for general applications.
Available in 2 & 3 change-over contacts with max. current 10 A -250 VAC1 / 30 VDC1
Nominal power DC 1,5 W & AC 2.7 VA.
Available with or without led for AC/DC. Diode only available in DC.
Socket terminals, 8 pins plug-in for 2 contacts and 11 pins plug-in for 3 contacts.
Low consumption and high response.
Approvals: CE, UL.

Contacts

Contact arrangement	2C & 3C
Max. contact power	2500 VA / 300 W
Max. voltage	250 VAC, 28 VDC
Max. current	10 A - 250VAC1/28VDC1
Contact resistance	≤50 mΩ
Contact material	Silver alloy

Coil values (at 25° C)

	VDC	VAC 50Hz
Operating range	0,8 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥15% Un	≥30% Un



RM()20()T RM()30()T

Specifications

Electrical life	≥10^5 cycles
Mechanical life	≥10^7 cycles
Insulation resistance	≥1000 MΩ(500 VDC)
Operation time	≤ 30 ms
Release time	≤ 20 ms
Dielectric strength at 1 mA	2.500 VAC / 1 min. (Between coil and contacts) 1.000 VAC / 1 min. (Between open contacts)
Vibration resistance	10 – 50 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weight	80 gr.
Pack units	20

SM - T Sockets /POWER relays RME-FT , RMEA-FT & RMED-FT

Features

DIN rail (35 mm) or panel mount
Available with module long form or without module short form.
DIN/EN sequential numbering
According to EN 60947

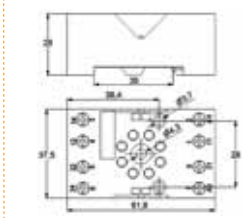

SMB21D10T

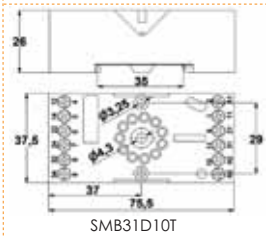

SMB31D10T

Specifications

Nominal load	10 A / 400 VAC
Dielectric strength	2,5 KV
Max. screw torque	1,2 Nm
Screws	M3 Steel. Pozi drive
Wire in lets capacity solid wire	4mm2 or 2x2,25mm2
Wire in lets capacity multi-core	22 – 14 AWG


SMB30D11T


SMB20D11T


SMB31D10T

References

SMB21D10T..... Long sockets (module) with screw terminals for RM relays 2 contacts black.
SMB21D11T..... Short sockets with screw terminals for RM relays 2 contacts black.
SMB20D11T..... Short sockets with screw terminals for RM relays 2 contacts grey.

SMB31D10T..... Long sockets (module) with screw terminals for RM relays 3 contacts black.
SMB31D11T..... Short sockets with screw terminals for RM relays 3 contacts black.
SMB30D11T..... Short sockets with screw terminals for RM relays 3 contacts grey.

Power relays RME-FT, RMEA-FT & RMED-FT


RME2AN()FT


RME30N()FT


RME3AN()FT


SMB31D11FT

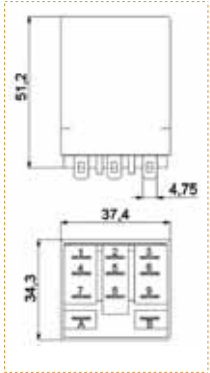
References

Relays RME-FT, and relays RMEA-FT - 2 and 3 contacts

RME20N()FT	Power relay 2 change - over contacts, 16 A.	VDC	06/12/24	48-110/115	220
RME2AN()FT	Power relay 2 open contacts, 16A, GAP 1,5mm, 1A - 220VDC	VAC	6/12/24/48	110/120-220/230	
RME30N()FT	3 change - over contacts, 16 A.	VDC	06/12/24	48-110/115	220
RME3AN()FT	Power relay 3 open contacts, 16 A, GAP 1.5mm, 1A - 220VDC	VAC	6/12/24/48	110/120-220/230	

Relays RMEA-FT - 1 open contact with double or triple make

RME1DN()FT	Power relay 1 open contact, double make, 16 A - 250VAC1, GAP 3mm 3A - 220VDC1	VDC	06/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	
RME1TN()FT	Power relay 1 open contact, triple make, 16A - 250VAC1, GAP 4.5mm 5A - 220 VDC1	VDC	06/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	



SM - T Sockets for relays RME-FT

SMB31D11FT ..... Sockets with screw terminals for relays RME-FT

SMB31D11TFT..... Special socket for relay RME1TN()FT triple make

Features

Universal power relays for general applications with faston terminals, specially designed to have a high resistence to the wearing down in inductive load applications , for DC current.

RME-FT 2 & 3 change over contacts

Available in 2 & 3 change-over contacts with max. current 16 A - 250 VAC / 30 VDC
Nominal power DC 1,5 W & AC 2.4 VA.
Low consumption and high response.
Approvals: CE UL.

RMEA-FT 2 & 3 open contacts

Power relay faston terminals, special designed for DC charge Applications with 1,5 mm GAP.
Available in 2 & 3 open contacts with max. current 16 A - 250 VAC / 30 VDC & 1A - 220 VDC
Nominal power DC 1,5 W & AC 2.4 VA.
Approvals: CE UL.

RMED-FT 1 open contact with double and triple make

Universal power relay faston 1 open contact double and triple make, designed with higher GAP to obtain more switching capacity for DC current in inductive charges.

Double make 3A/220 VDC1 - GAP ≥3mm.
Triple make 5A/220VDC1 - GAP ≥4,5mm.

Nominal power DC 1,5 W & AC 2,4 VA.
Approvals: CE UL.

Contacts

RME - FT 2 & 3 change over contacts

Contacts arrangement	2C & 3C
Max. contact power	4000 VA / 480 W
Max. voltage	250 VAC / 30 VDC
Max. current	16 A - 250VAC1 / 30 VDC1
Contact resistance	≤30 mΩ
Contact material	Silver alloy

RMEA - FT 2 & 3 open contacts

Contacts arrangement	2C & 3C
GAP	≥1,5mm
Max. contact power	4000 VA / 220 W
Max. voltage	250 VAC / 220 VDC
Max. current	16 A - 250VAC1 / 1A 220VDC1
Contact resistance	≤30 mΩ
Contact material	Silver Alloy

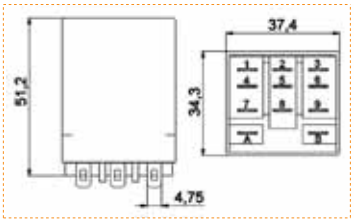
RMEA()FT RME1D()FT

RMED - FT 1 open contact with double and triple make

Models	Double make (RME1D-FT)	Triple make (RME1T-FT)
Contacts arrangement	1C open contact	
GAP	≥ 3mm (double make)	≥4,5mm (triple make)
Max. contact power	4000 VA / 660 W	4000 VA / 1100 W
Max. voltage	250 VAC / 220 VDC	250 VAC / 220 VDC
Max. current	16 A/3A (250VAC)	16 A / 5A(250VAC1/220VDC1)
Contact resistence	≤30 mΩ	
Contact material	Silver alloy	

Specifications

Electrical life	$\geq 10^5$ cycles
Mechanical life	$\geq 10^7$ cycles
Insulation resistance	≥1000 MΩ (500 VDC)
Operating time	≤30 ms
Release time	≤20 ms
Dielectric strength at 1 mA	4000 VCA / 1 min. (Between coil and contacts) 1.200 VCA / 1 min. (Between open contacts)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Weight	80gr.
Pack units	20



RME()FT RMEA()FT RMED()FT

Coil values (at 25°C)

	VDC	VAC 50Hz
Operating range	0,8 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥15% Un	≥30% Un

Coil ratings

Nominal voltage VDC	12	24	48	60	115
Resistance (Ω±10%)	110	475	2000	2850	10000
Nominal voltage VAC	12	24	48	120	230
Resistance (Ω±10%)	24	86	100	2000	8300

Features

High power relay designed for strong current charges applications, 1 & 2 open contacts used for up to 30 / 25A.
Available with flanges for pannel or DIN rail, and faston or screw terminals.
Nominal power DC 1,9 W & AC 2,5 VA.
Approvals: CE, UL.

Contacts

Contact arrangement	1C & 2C open contacts
Max. contact power	7500 & 6250 VAC (AC1)
Max. voltage	250 VAC
Max. current	30&25A(AC1 250V)-9A-250VAC3
Contact resistance	≤50 mΩ
Contact material	Silver alloy

Coil values (at 25° C)

	VDC	VAC 50Hz
Operating range	0,75 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥15% Un	≥30% Un

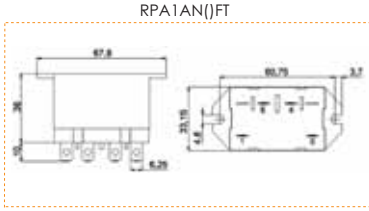
Coil ratings

Nominal voltage VDC	6	12	24	48	115	
Resistance (Ω±10%)	19	75	300	1220	6360	
Nominal voltage VAC	6	12	24	48	120	230
Resistance (Ω±10%)	17	65	275	1100	4730	21000

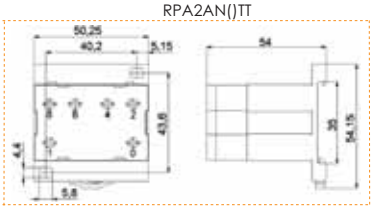
Specifications

Electrical life	≥10^5 cycles
Mechanical life	≥5x10^6 cycles
Insulation resistance	≥1000 MΩ (500 VDC)
Operating time	≤30 ms
Release time	≤30 ms
Dielectric strength at 1 mA	4000 VAC / 1 min. (Between coil and contacts) 2000 VAC / 1 min. (Between open contacts)
Vibration resistance	10 – 50 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weight	90 gr (Faston terminals) 120 gr (Screw terminals)
Pack units	1

RPA1AN()FT



RPA2AN()TT



RPA1AN()FT

RPA2AN()FT

RPA2AN()HT

RPA2AN()TT

References

RPA1AN()FT	High power relay, 1 open contact faston and flanges 30A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230
RPA2AN()FT	High power relay, 2 open contacts faston and flanges 25A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230
RPA1AN()HT	High power relay, 1 open contact faston and DIN rail 30A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230
RPA2AN()HT	High power relay, 2 open contacts faston and DIN rail 25A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230
RPA1AN()TT	High power relay, 1 open contact screw terminals and DIN rail 30A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230
RPA2AN()TT	High power relay, 2 open contacts screw terminals and DIN rail 25A	VDC	06/12/24	48-110-115
		VAC	6/12/24/48	110/120-220/230

Features

Miniature relay for PCB.
Available in 1 change-over contact with max. current 6 A - 250 VAC / 30 VDC (AC1).
Nominal power 5 - 24VDC (170mW); 48VDC & 60VDC (210mW).
Miniature, low consumption, high response and sensitivity relay.
PCB terminals.
Approvals: CE.

Contacts

Contact arrangement	1C
Max. contact power	1500VA / 180W
Max. voltage	250 VAC / 30 VDC
Max. current	6 A (AC1 250V)/30VDC1
Contact resistance	≤100 mΩ
Contact material	Silver alloy

Coil values (at 25º C)

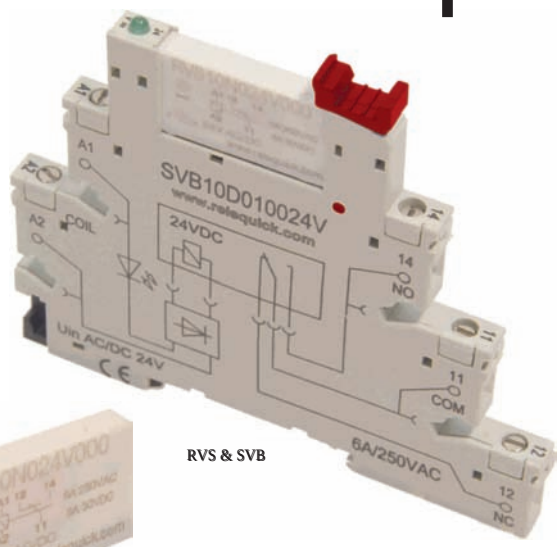
	VDC
Operating range	0,75 - 1,3Un
Max. drop-out voltage	≥5% Un

Coil ratings

N. voltage VDC, relay	5	6	9	12	18	24	48	60
Resistance (Ω±10%)	147	212	476	848	1906	3390	10600	16600
Socket input voltage	24VDC/AC						60 VDC/AC	

Specifications

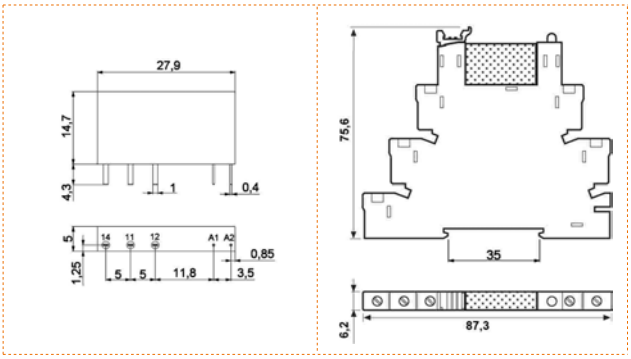
Electrical life	≥ $3x10^4$ cycles
Mechanical life	≥10^7 cycles
Operating time	Max. 8 ms
Release time	Max. 4 ms
Dielectric strength at 1 mA	4000 VAC / 1 min. (Between coil and contacts) 1000 VAC / 1 min. (Between open contacts)
Vibration resistance	10 – 55 Hz (Double width 1.0 mm)
Shock resistance	5 G
Room temperature	- 40º C + 85º C
Room humidity	5% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weight	5,4 gr.
Pack units	20 relay + socket



RVS & SVB

RVS

AVP



RVS & SVB

SVB Socket's

SVB Socket's features

Interface I/O (Input/Output),
4 Types depending on the input voltage
Protection and indication circuit
DIN rail (35 mm)
RVB PCB relays allowed
DIN/EN Sequential numbering

SVB Socket's specifications

Nominal load	6 A / 300 VAC
Dielectric strength	>3 KV
Screws	M3 Steel. Pozi drive
Wire in lets capacity solid wire	1 x 2,5 mm2

PLC Interface relays and sockets

RVS10N(*)V000	Interface relay PLC 6 A	(*) coil voltage
SVB10D010(*)V	Interface socket PLC 6,2 mm	(*) input voltage
AVP	Connection bridge for SVB sockets	(*)1 bridge (20 pins) per unit

Sockets' references / Relays' coil voltage

Sockets Reference Socket input voltage Coil voltage	SVB10D010012V 12 VAC/DC 12 VDC	SVB10D010024V 24VAC/DC 24VDC	SVB10D010060V 60VAC/DC 60VDC	SVB10D010110V 100-110VAC/DC 60VDC	SVB10D010240V 220-240VAC/DC 60VDC

RQE20LT

RQE40LT

RQS20LT

RQS40LT

References

RQE - T Relays 1, 2 & 4 contacts

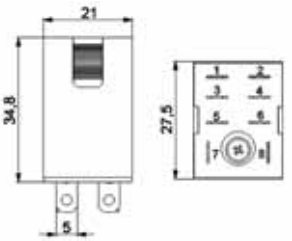
RQE 1 0N()T RQE 2 0N()T RQE 4 0N()T	Miniature standard relay , 1, 2 or 4 change-over contact, 16-10-5 A	VDC	6/12/24	48-110-115	220
		VAC	6/12/24/48	110/120-220/230	
RQE 1 0L()T RQE 2 0L()T RQE 4 0L()T	Miniature standard relay, 1, 2 or 4 change-over contact, 16-10-5 A with lamp	VDC	6/12/24	48-110-115	220
		VAC	6/12/24/48	110/120-220/230	

RQS - T Relays 1, 2 & 4 contacts with puss button.

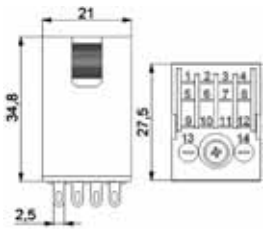
RQS 1 0N()T RQS 2 0N()T RQS 4 0N()T	Miniature standard relay, 1, 2 or 4 change-over contacts, 16-10-5 A with puss button.	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	
RQS 1 0L()T RQS 2 0L()T RQS 4 0L()T	Miniature standard relay, 1, 2 or 4 change-over contacts, 16-10-5 A with lamp & puss button.	VDC	6/12/24	48-110/115	220
		VAC	6/12/24/48	110/120-220/230	

Features

Miniature power relay for general applications.
Available in 1 & 2 change-over contacts with max. current 16 A - 250 VAC / 30 VDC and 10 A - 250 VAC / 30 VDC and 4 change-over contacts with max. current 5 A - 250 VAC / 30 VDC (AC1/CD1).
Nominal power DC 0,9 W & AC 1.5 VA.
Available with led for AC/DC relays. Diode only available for DC.
Small with high response and sensitivity relay.
Rational structure and wide applications.
In 1 and 2 contacts industrial plug-in terminals faston (4,8 mm)
In 4 contacts industrial plug-in terminals faston (2,6 mm)
Approvals: CE, UL.



RQS20()T



RQS40()T

Contacts

Contact arrangement	1C, 2C and 4C
Max. contact power	1C: 4000 VA / 480 W 2C: 2500 VA / 300 W 4C: 1250 VA / 150 W
Max. voltage	250 VAC1 / 30 VDC
Max. current	16 A, 10 A, 5 A AC1/DC1
Contact resistance	≤50 MΩ
Contact material	Silver alloy

Coil ratings

Nominal voltage VDC	6	12	24	48	115	220
Resistance (Ω± 15%)	40	160	650	2600	11000	42000
Nominal voltage VAC	6	12	24	48	120	230
Resistance (Ω±15%)	11,5	40	160	600	3900	13000

Coil values

	VDC	VAC 50Hz
Operating range	0,75 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥10% Un	≥30% Un

Specifications

Electrical life	$\geq 10^5$ cycles
Mechanical life	$\geq 10^7$ cycles
Insulation resistance	≥1000 MΩ (500 VDC)
Operating time	≤ 20 ms
Release time	≤ 15 ms
Dielectric strength at 1 mA 1 y 2 C	2.000 VAC / 1 min. (Between coil and contacts) 1.000 VAC / 1 min. (Between open contacts)
Dielectric strength at 1 mA 4 C	1.800 VAC / 1 min. (Between coil and contacts) 1.000 VAC / 1 min. (Between open contacts)
Vibration resistance	10 – 50 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weight	40 gr.
Pack units	20

SQB41D10T

SQB21D11T

SQC21C11T

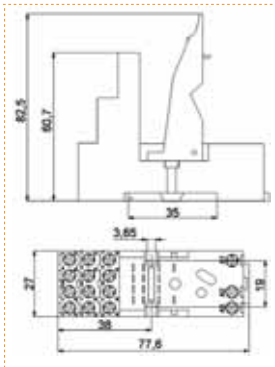
SQC41C11T

Features

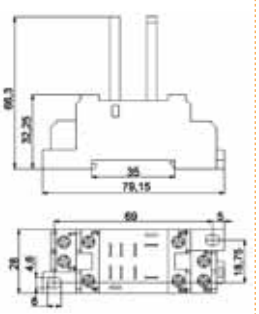
DIN rail (35 mm) or panel mount
Electronic modules installation (possibility)
DIN/EN Sequential numbering
According to EN 60947

Specifications

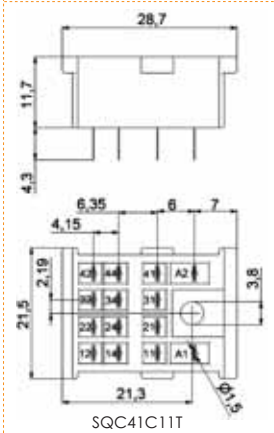
Nominal load	10 A / 250 VAC (SQB2T) 5 A / 250 VAC (SQB4T)
Dielectric strength	2,5 KV
Max. screw torque	1,2 Nm
Screws	M3 Steel. Pozi drive
Wire in lets capacity solid wire	4 mm2 or 2 x 2,25 mm2
Wire in lets capacity multi-core	22-14 AWG



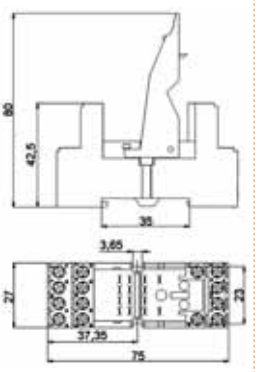
SQB41D00T



SQB21D11T



SQC41C11T



SQB40D10T

References

SQB21D11T..... Socket with screw terminals for RQ relays 2 contacts black.
SQB41D10T..... Socket with screw terminals for RQ relays 4 contacts black.
SQB40D10T..... Socket with screw terminals for RQ relays 4 contacts grey.
SQB41D00T..... Interface socket with screw terminals for RQ relays 4 contacts black.
SQC21C11T..... Weld-on PCB socket for RQ relays 2 contacts black.
SQC41C11T..... Weld-on PCB socket for RQ relays 4 contacts black.

RFS10N()T

RFS20N()T

Contacts

Contact arrangement	1C & 2C
Max. contact power	1C: 2500 VA / 300 W 2C: 1250 VA / 150 W
Max. voltage	250 VAC / 30 VDC
Max. current	10 A / 5 A-250VAC1 / 30VDC1
Contact resistance	≤50 mΩ
Contact material	Silver alloy

Features

PCB terminals for general applications
Available in 1 & 2 change-over contacts with max. current 10 A - 250 VAC / 30 VDC and 5 A - 250 VAC / 30 VDC (AC1/DC1).
Nominal power DC 0,53 W & AC 1,1 VA
Small with high response and sensitivity relay
Approvals: CE, UL

Coil values (at 25° C)

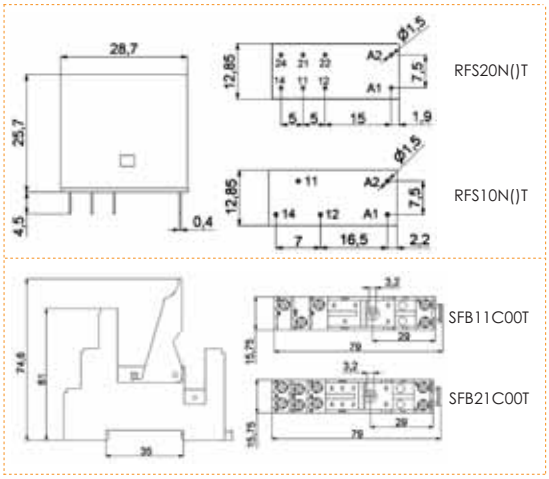
	VDC	VAC 50Hz
Operating range	0,75 - 1,1Un	0,8 - 1,1Un
Max. drop-out voltage	≥10% Un	≥30% Un

Coil ratings

Nominal voltage VDC	6	12	24	48	110	
Resistance (Ω±10%)	68	270	1100	4300	22800	
Nominal voltageVAC	6	12	24	48	120	220
Resistance (Ω±10%)	16	63	240	1085	6680	21000

Specifications

Electrical life	≥10^5 cycles
Mechanical life	≥10^7 cycles
Insulation resistance	≥1000 M Ω (500 VDC)
Operating time	≤20 ms
Release time	≤10 ms
Dielectric strength at 1 mA	5.000 VAC / 1 min. (Between coil and contacts) 1.000 VAC / 1 min. (Between open contacts)
Vibration resistance	10 – 55 Hz (Double width 1,5 mm)
Shock resistance	10 G
Room temperature	- 40° C + 65° C
Room humidity	35% - 85% RH
Atmospheric pressure	86 – 106 KPa
Weight	20 gr.
Pack units	100



References

PCB RF Relays

RFS10N()T	Interface relay 1 change-over contact, 10 A PCB Terminals	VDC	6/12/24	48	110/115
		VAC	6/12/24/48	110/120-220/230	
RFS20N()T	Interface relay 2 change-over contact, 5 A PCB Terminals	VDC	6/12/24	48	110/115
		VAC	6/12/24/48	110/120-220/230	

SFB21C00T

SFB11C00T

SFC21C11T

Specifications

Nominal load	10 A - 300 VAC (SFB1T) 5 A - 300 VAC (SFB2T)
Dielectric strength	2,5 KV
Max. screw torque	1,2 Nm
Screws	M 3 Steel. Pozi drive
Wire in lets capacity solid wire	4 mm2 or 2 x 2,25 mm2
Wire in lets capacity: multi-core	22 – 14 AWG

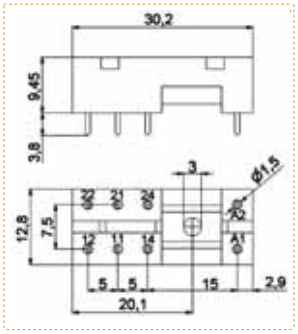
Features

Interface I/O (Input/Output)
DIN rail (35 mm) or panel mount
PCB relays and electronic modules allowed
According to EN 60947
DIN/EN sequential numbering

References

SFB11C00T ..... Interface socket with screw terminals for RF-T relays 1 contact PCB black.
SFB10C00T ..... Interface socket with screw terminals for RF-T relays 1 contact PCB grey.
SFC11C11T ..... Weld-on PCB sockets for RF - T relays 1 contacts PCB black.

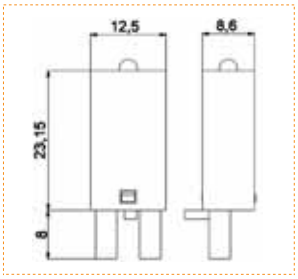
SFB21C00T ..... Interface socket with screw terminals for RF-T relays 2 contacts PCB black
SFB20C00T ..... Interface socket with screw terminals for RF-T rerlays 2 contacts PCB grey.
SFC21C11T ..... Weld-on PCB sockets for RF - T relays 2 contacts PCB black.



SFC21C11T

Series - T modules

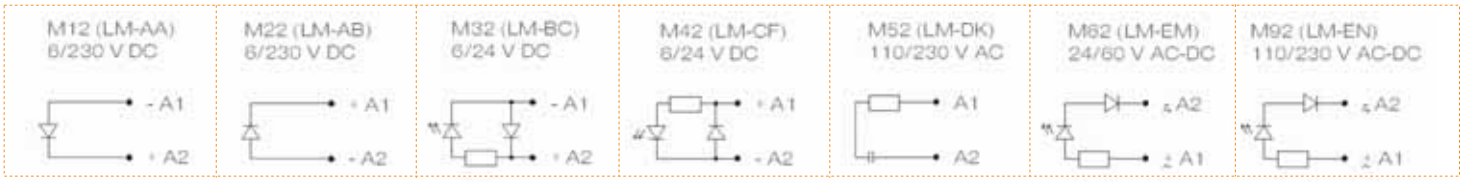
M()LM



M()LM

M12 - LM - AA	Module 6/230 VDC protection diode (A1-)
M22 - LM - AB	Module 6/230 VDC protection diode (A1+)
M32 – LM – BC	Module 6/24 VDC protection diode & lamp (A1-)
M42 – LM – CF	Module 6/24 VDC protection diode & lamp (A1+)
M52 – LM - DK	Module 110/230 VAC RC supresor
M62 – LM – EM	Module 24/60 VAC/DC with lamp
M92 – LM - EN	Module 110/230 VAC/DC with lamp

Modules series - T codes



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