celduc
r e l a i s

SOFTSTART RELAY WITH ELECTROMECANICAL RELAY

SMC45100

This relay is an association of two ones: a solid state relay for softstarting during 6 seconds , and an electromecanical one for operating time.

So, the avantages of these two types of relay are added.

-The phase control and the zero current turn off for solid state relay .

-A smaller power dissipation for electromecanical relay.

Electrical characteristics (Tamb 25°C):

Input
ON voltage   : 10 to 30 VDC
OFF voltage : 0 to 4 VDC
Input resistance :3,3 KΩ
Softstarting time :6 to 8 s

Electromecanical relay
Coil :Supply voltage =19,2 to 28,8VDC
Coil resistance = 380Ω
Contact :Max. current =30A

Power
-with 24VDC :Voltage =110 to 240VAC
:max. continuous current =15A
-without 24VDC :Output OFF
Fréquency 50Hz
Over voltage protection by varistors
dv/dt protection by RC (100Ω+22nF)
Triac
No repetitive current :
Itsm : 250A (10ms)
I^2t : $312A^2s$

Isolation
Input/power : 3000VRMS
Coil/power : 1500VRMS

Thermal characteristics

Storage temperature :-40 à +100°C
Operating temperature :-40 à +85°C
Triac junction temperature :-40 à +125°C
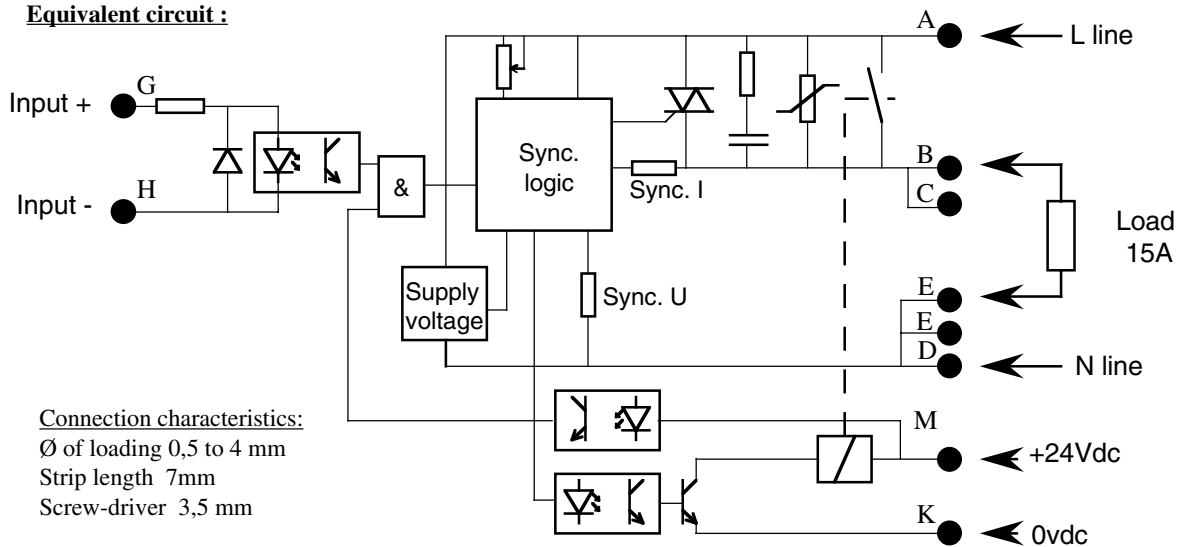Thermal Resistances
-jonction/case :13°C/w
-case/ambient :6°C/w
Thermal constant :10s

Connections :

BORNE	DESIGNATION
A	L LINE
B	L LOAD 1
C	L LOAD 2
D	N LINE
E	N LOAD 1
F	N LOAD 2
G	INPUT +
H	INPUT -
J	N. C.
K	0V COIL SUPPLY
L	N. C.
M	+24VDC COIL SUPPLY

Equivalent circuit :

Connection characteristics:
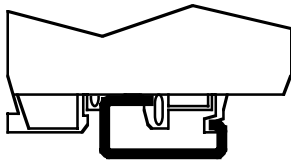Ø of loading 0,5 to 4 mm
Strip length 7mm
Screw-driver 3,5 mm

SMC45100

Dimensions :(Ech. 1)
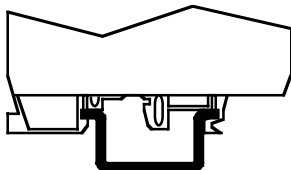Weight :130g
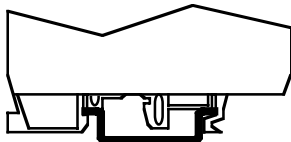
G H J

K L M

D E F

A B C

90

10

35

75
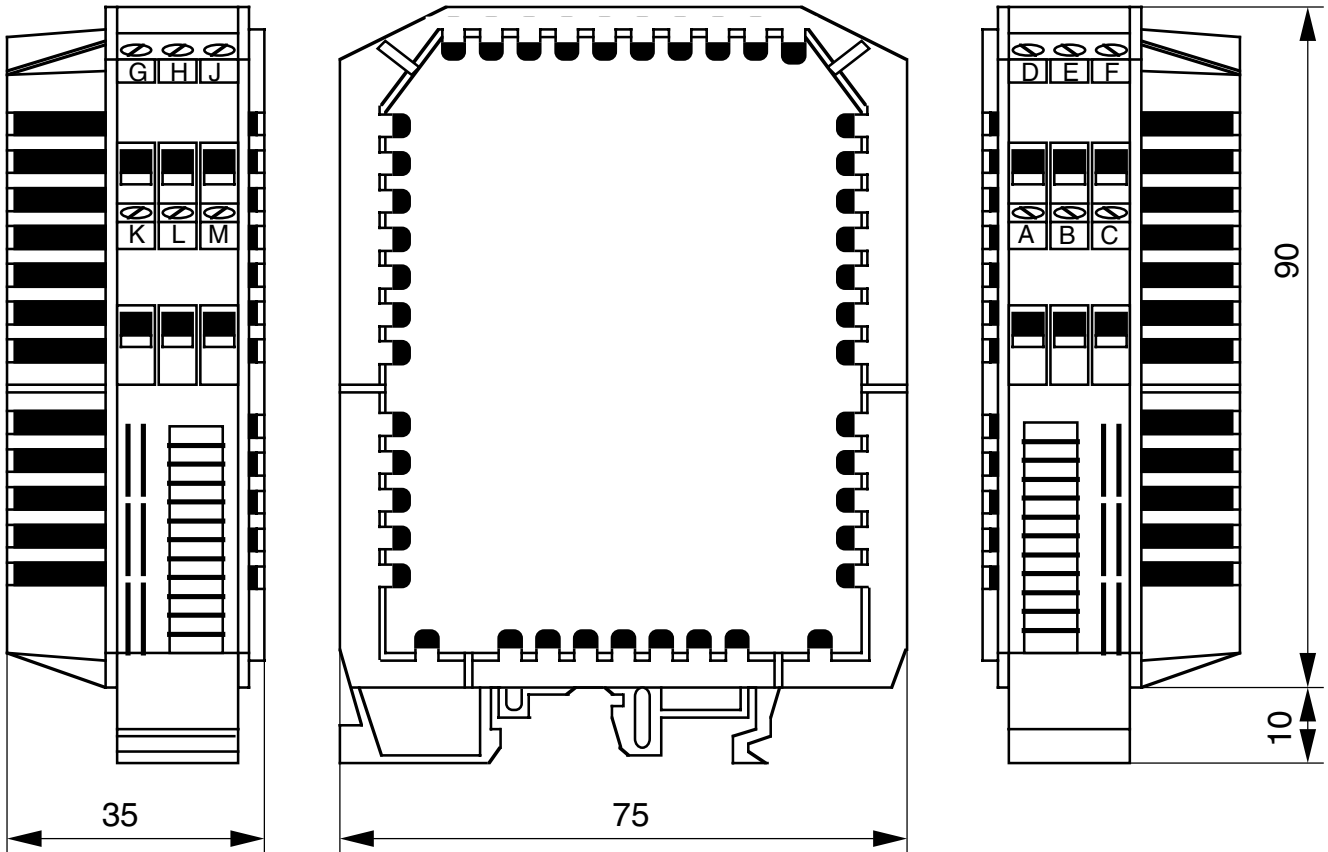
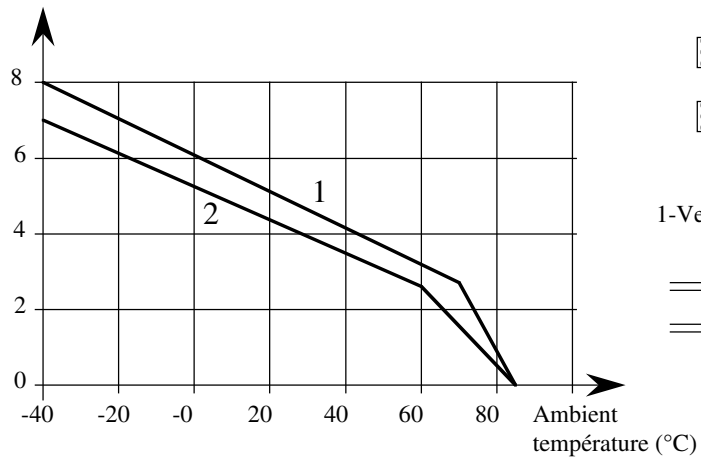**Mounting on profiles:**(Ech. 0,5)

Profile EN50035

Profile EN50022 35x15

Profile EN50022 35x7,5

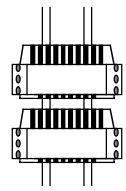**Thermal curve :**
 Number of softstart by min./ Ambient temperature .
 (With +24VDC for coil supply and I load =15A).

2-Horizontal mounting

1-Vertical mounting

Nb of softstart /min

8

6

4

2

0

-40   -20   -0   20   40   60   80   Ambient
température (°C)

1

2