invensys
EUROTHERM

7100L

MODEL

Single Phase Solid State Contactor
for use with Resistive Loads

Specification Sheet

Ideal for :

- Small ovens
- Chillers
- Sterilisers
- Heat sealing

Features :

- Current range from 16 to 100 amps at 45°C
- Voltage up to 500V
- Simple installation and maintenance
- Reduced size due to optimised design
- Protected against transients
- Fast cycle times give increased heater life
- High reliability with no mechanical contacts
- 2 Year warranty

The 7100L is a simple, economic solid state contactor for use with low temperature coefficient resistive loads.

The 7100L range provides an effective replacement for electromechanical contactors. Fast switching reduces the thermal cycling of the elements resulting in long element life. There are no mechanical contacts to wear out and so maintenance costs and downtime are reduced.

Silent operation and lack of electrical interference, achieved by zero voltage switching, give environmentally friendly operation.

Ratings
The 7100L is offered in a wide range of current ratings (from 16 to 100 amps) which are rated at 45°C

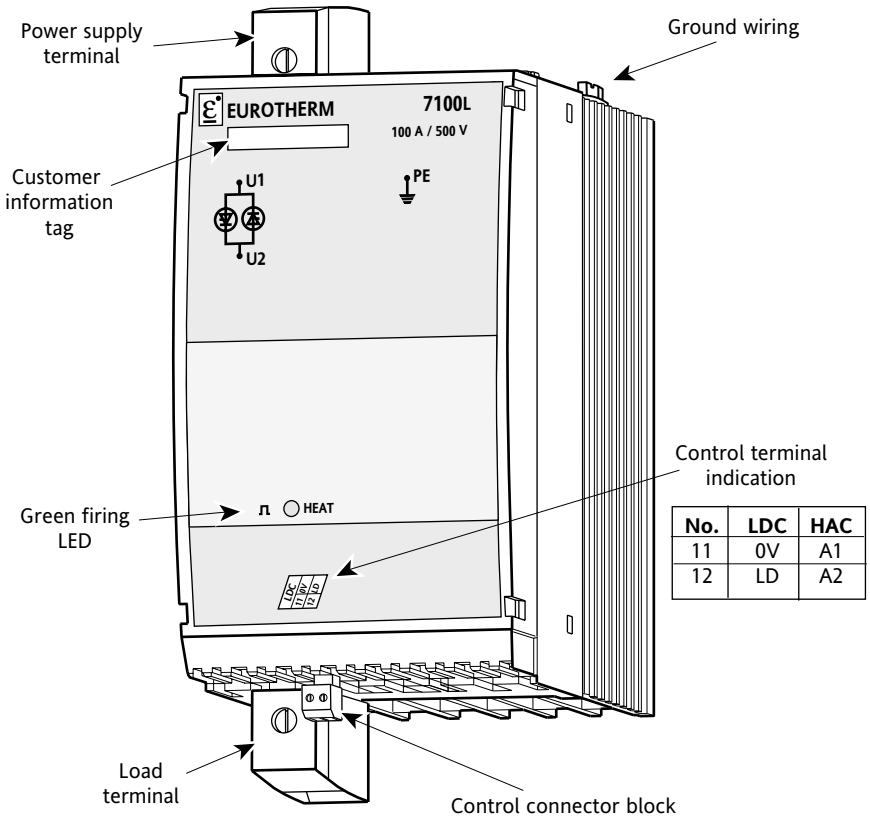
Inputs
These units, with integral heatsinks, are driven by a logic input signal which can be either DC or AC, depending on the order code. Firing is ON/OFF in response to the logic input, with zero voltage switching.

A green 'heat' LED indicator on the front face indicates the status of the input signal.

Fusing
High speed fuses are external to the unit and can be ordered complete with fuseholder as part of the 7100L order code. Spare fuses or complete fuse and fuseholder assemblies can also be ordered separately.

International approvals
CE (EN60947-4-3), UL and cUL (file number E86160)

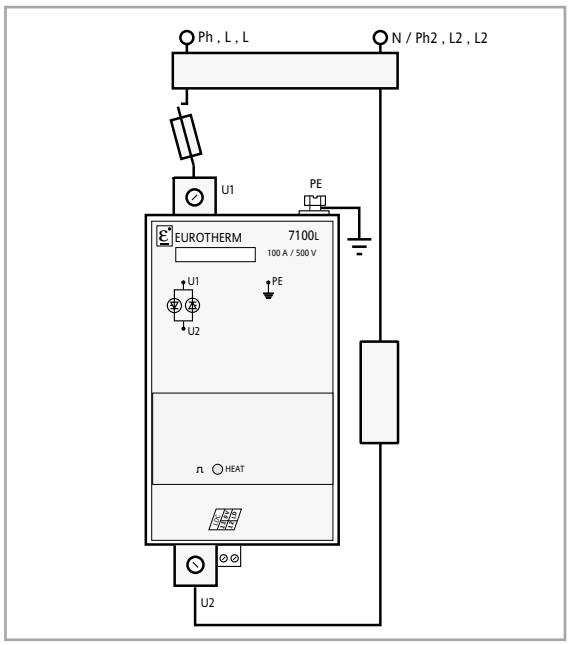
7100L



No.	LDC	HAC
11	0V	A1
12	LD	A2

Example of 7100L layout

Wiring schematic



CAUTION

7100L Solid State Contactors must be mounted and wired by qualified staff, authorised to work on low voltage electrical facilities

TECHNICAL SPECIFICATION

Additional information and documentation available on www.eurotherm.co.uk

POWER

Current	16, 25, 40, 63, 80 and 100 amps single phase at 45 degrees C.
Voltage	230V (48-253V), 500V (96-550V)
Frequency	47 to 63 Hz

LOAD

Load type	Constant resistance single phase load, switched Line to Neutral or Line to Line.- Select appropriate voltage

FUSE An external fuse is necessary in order to protect the solid state contactor (see the Ordering code)

INPUT

DC Logic (LDC).	5 to 32 VDC (ON > 5V, OFF < 2V) or (ON > 9mA, OFF < 0.5mA).
AC Logic (HAC)	100 to 230VAC (ON > 85VAC, OFF < 10VAC) 253VAC maximum. Impedance 7K at 50 Hz.

FIRING MODE Logic firing (ON/OFF) with zero voltage switching.

INDICATION Green 'HEAT' LED on front face indicates the presence of the input signal.

ENVIRONMENT

Temperature	Operating: 0 to 45 Deg. C. (2,000 metres maximum altitude). Storage: -10 to 70 Deg. C.
Pollution	Pollution degree 2
Humidity	5 to 95% Non condensing, non streaming.
Enclosure protection.	IP20 without additional protection.
Cooling	Natural convection.
Heat dissipation	1.3 watts per amp. Allow 2 watts per amp to include heat dissipation from fuse (if used).
Safety standards	Installation category II

INSTALLATION

Mounting.	Allow a minimum of 10mm between units. Unit must be mounted with fins running vertically. Rating from 16 to 63A: one symmetric DIN rail EN50022 or panel mounting (2 x M4 screws). Rating from 80 to 100A: two symmetric DIN rail EN50022 (125mm between centres) or panel mounting (4 x M4 screws)
Max. cable size.	16 and 25 amp: 6mm². 40 and 63 amp: 16mm². 80 and 100 amp: 35mm²

PRODUCT STANDARD The 7100L products comply with the terms of product standard EN 60947-4-3. Contactors and motor-starters - AC semiconductor controllers and contactors for non-motor loads.

CE LABELLING 7100L units installed and used according to User Instructions document HA176385FED comply with the requirements of the European Low Voltage Directive73/23EEC (93/68 EEC) and product standard EN60947-3. This enables the installation in which the products are used to be declared compliant with the EMC directive, as regards the 7100L units.

WARRANTY 2 years

PHYSICAL DATA

	H(mm)	W(mm)	D(mm)	Weight Kg
16A	164	35	110	0.3
25A	164	35	140	0.45
40A	164	52.5	140	0.68
63A	164	70	160	0.9
80A - 100A	226	96	164	1.56

ORDERING CODE

7100L	1	2	3	4	5	6	
						NONE	00

1 Current

16A	16 amps
25A	25 amps
40A	40 amps
63A	63 amps
80A	80 amps
100A	100 amps

2 Voltage

230V	230 volts
500V	500 volts

3 Fuse

FUSE	External fuse
MSFU	Fuse + m/switch
NONE	No fuse

4 Input

LDC	DC logic
HAC	AC logic

5 Language

ENG	English
FRA	French
GER	German
SPA	Spanish
ITA	Italian

SPARE FUSE AND HOLDER

Current rating amps	Fuse and holder assembly	Fuse and Holder with Microswitch
16	**FU1038/16A/00**	**MSFU1451/16A**
25	**FU1038/25A/00**	**MSFU1451/25A**
40	**FU1451/40A/00**	**MSFU1451/40A**
63	**FU2258/63A/00**	**MSFU2258/63A**
80	**FU2258/80A/00**	**MSFU2258/80A**
100	**FU2760/100A/00**	**MSFU2760/100A**

SPARE FUSE

Current rating amps	Fuse number	Fuse Trip with Indicator
16	**CH260024**	**CS176513U020**
25	**CH260034**	**CS176513U032**
40	**CH330054**	**CS176513U050**
63	**CS173087U080**	**CS176461U080**
80	**CS173087U100**	**CS176461U100**
100	**CS173246U125**	**CS173246U125**

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