

7200S

MODEL



Two Leg Three Phase Solid State Contactor for use with Resistive Loads Specification Sheet

Ideal for :

- Injection moulding
- Thermo-forming
- Multi-zone heating
- Autoclaves
- Ovens

Features :

- **Current range; from 16 to 200 amps at 45°C**
- **Voltage up to 500V**
- **Inputs: Logic (AC or DC) or Analogue 4-20mA which gives time proportional output**
- **Suitable for resistive loads**
- **Overtemperature shutdown for fan cooled units (over 100 amps)**
- **Options include:
Thyristor short circuit alarm
Overtemperature alarm
Diagnostic load failure detection**

A range of three phase solid state contactors for use with Low Temperature Coefficient resistive loads. 3-wire configuration in 'star without neutral' or 'Closed delta'.

Ratings

The current ratings of the 7200S cover the range from 16 to 200 amps. The voltage rating can go to a maximum rating of 500 volts.

Inputs

These units, with integral heat sinks, are driven by either DC or AC Logic signals depending on the order code, Also an analogue 4-20mA input can be specified which gives a linear time proportional output.

Fusing

In all cases the output is zero voltage switching. High speed fuses are mounted external to the unit for 100 amps and below, internal above 100 amps. They can be ordered as part of the 7200S order code. Spare fuses or complete fuse and fuseholder assemblies can also be ordered separately.

Alarm

The 7200S has an the optional thyristor short circuit and total load failure alarm.

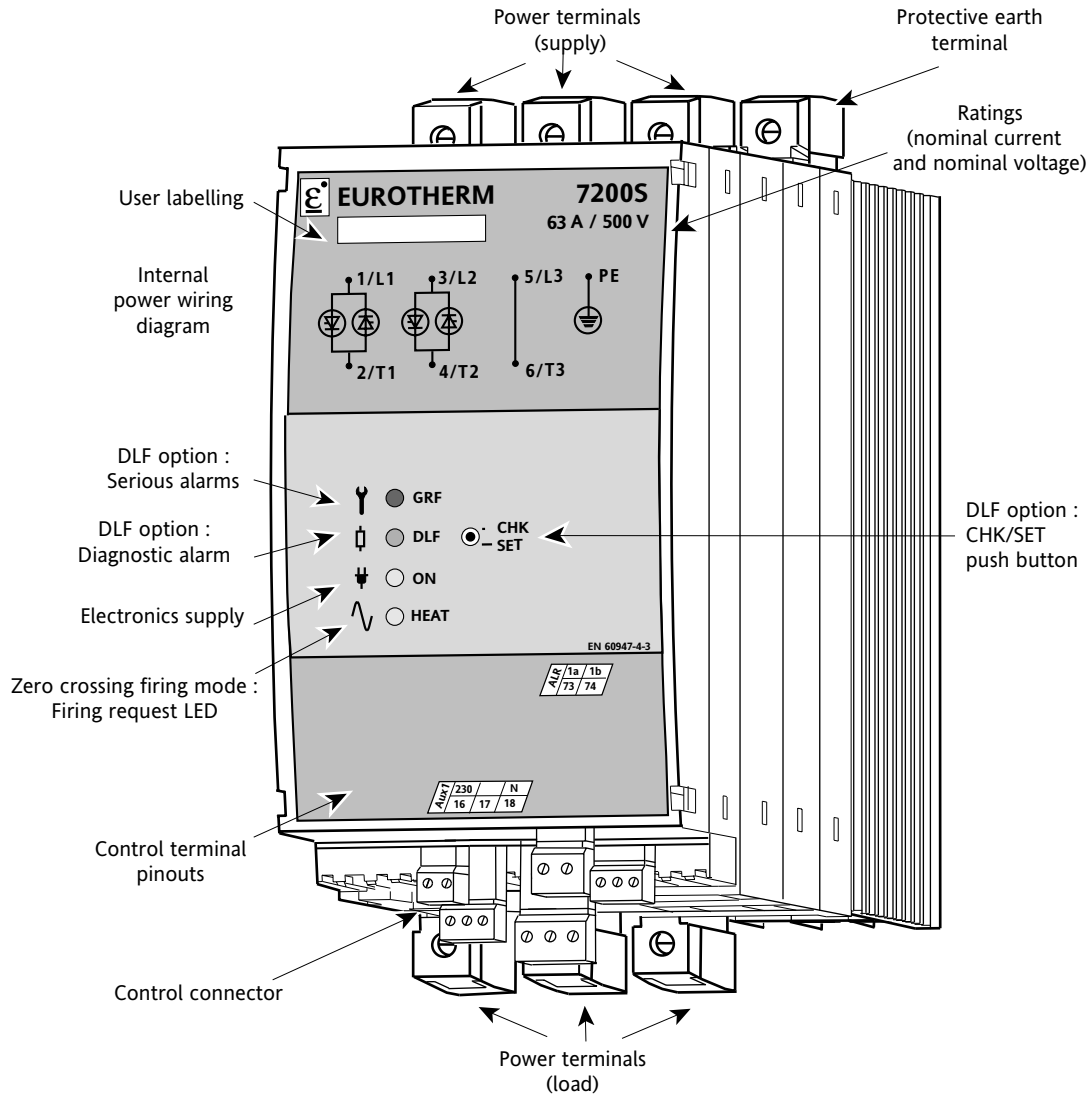
An overtemperature shut down is provided for fan cooled units (over 100 amps). An optional overtemperature alarm is also available.

Diagnostic Load Failure detection is an option which alarms on the loss of one or more parallel heating elements (resistive). The sensitivity is one out of four maximum. It is auto-setting via a front panel push button.

International approvals

CE (EN60947-4-3)

7200s



Example of 7200S layout

Signal connections

Terminal Block	Terminal		
	No.	Label	Purpose
LDC	11	0V	Logic
	12	LD	4.5 - 32Vdc
HAC	11	A1	Logic
	12	A2	85-253Vac
ATP	11	0V	Analogue
	12	R1	4 - 20mA
ALR	71	1a	DLF
	72	1b	NC Alarm relay
	73	1a	DLF
	74	1b	NO Alarm Relay

Terminal Block	Terminal		
	No.	Label	Purpose
Fan	16	230	Fan supply
	17	115	230Vac or
	18	N	115Vac
Ext	21	L2	2nd Phase or
	22	-	N for reference

TECHNICAL SPECIFICATION

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

POWER

Current 16, 25, 40, 63, 80, 100, 125, 160, 200amps two leg three-phase at 45 Deg. C
 Voltage 200 to 500VAC
 Frequency 47 to 63 Hz

AUXILIARY SUPPLY No Auxiliary supply is required as the 7200S derives its own internal, synchronised supply

FAN SUPPLY None required up to 100 amps (natural convection). Above 100amps; 115V or 230V (10VA)

LOAD Three Phase industrial load:
 Use category AC-51 Resistive load with low temperature coefficient
 Load configuration
 · Star without neutral (3S)
 · Closed delta (3D)

FUSES High speed fuses are external for thyristor ratings up to and including 100 amps, internal above 100 amps
 The fuses can be called up as part of the ordering code

INPUT
 DC Logic (LDC) 4.5 to 32 VDC (ON > 4.5V, OFF < 2V) or (ON > 9mA, OFF < 0.5mA) 32VDC maximum.
 AC Logic (HAC) 100 to 230VAC (ON > 85VAC, OFF < 10VAC) 253VAC maximum. Impedance 7K at 50 Hz
 DC analogue (ATP) 4-20mA (10VDC max.)

FIRING MODE For Logic inputs the firing is ON/OFF with zero voltage switching.
 For analogue 4-20mA input the firing mode is Fast Cycle firing. The cycle time at 50% demand is 0.6 seconds (0.3 seconds ON and 0.3 seconds OFF). Output linearity better than + or - 2%. Open loop control (no supply voltage compensation)

INDICATION Green LED for supply 'ON'. Green LED for Heat 'ON'. Plus a range of diagnostic indicators

ALARM (OPTION)

Diagnostic alarms (DLF) Serious alarms: Unit overtemperature, thyristor short circuit and load open circuit signalled by set LED and relay contact
 And Partial load failure: detects the failure of at least 1 element out of 4 in 3S configuration and 1 element out of 3 in 3D configuration signalled by DLF LED and relay contact.

ENVIRONMENT

Temperature Operating: 0 to 45 Deg. C. (2,000 metres maximum altitude). Storage: -10 to 70 Deg. C
 Humidity 5 to 95% Non condensing, non streaming
 Pollution Pollution degree 2
 Enclosure protection. IP20 without additional protection
 Cooling Natural convection up to 100 amps, fan cooled >100amps
 Heat dissipation 1.3W per amp. per phase (≤ 2 W if internal fuse)
 Over-voltage Installation category II

INSTALLATION

Mounting. Rating from 16 to 63A: Two symmetric DIN rail EN50022 or bulkhead mounting (4 x M4 screws)
 Rating from 80 to 100A: Bulkhead mounting (4 x M4 screws)
 Rating from 125 to 200A: Bulkhead mounting (4 x M6 screws)
 Allow a minimum of 10mm between units. Units must be mounted with fins running vertically
 Max. cable size. 16 and 25 amp: 6mm². 40 and 63 amp: 16mm². 80 and 100 amp: 35mm². 125 to 200 amp: 120mm²

PRODUCT STANDARD The 7200S 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 7200S units installed and used according to user instructions and comply with the requirements of the European Low Voltage Directive 73/23EEC (93/68 EEC) and product standards. This enables the installation in which the products are used to be declared compliant with the EMC directive, as regards the 7200S units

WARRANTY 2 years

PHYSICAL DATA

Rating (A)	H(mm)	W(mm)	D(mm)		
			Basic	GRF	DLF
16-63	220	96	164	189	214
80-100	305	144	295	295	372
125-200	498	144	295	295	372

ORDERING CODE

7200S	1	2	3	4	5	6	7	8
	9	10	11	12 NONE	13 XXXX	14	15 NONE	

1 Current 16A 16 amps 25A 25 amps 40A 40 amps 63A 63 amps 80A 80 amps 100A 100 amps 125A 125 amps 160A 160 amps 200A 200 amps	2 Voltage 200V 200 volts 230V 230 volts 277V 277 volts 400V 400 volts 460V 460 volts 480V 480 volts 500V 500 volts 3 Fan XXXX None 125-200A 115V 115 volt supply 230V 230 volt supply	4 Load Configuration 3S Star without neutral 3D Closed delta 5 Fuse FUSE Fuse no microswitch MSFU Fuse with microswitch NONE No fuse	6 Input On/off firing LDC DC logic signal 4.5Vdc to 32Vdc AC logic signal 85Vac to 253Vac HAC Burst firing ATP Analogue DC signal 4mA to 20mA	7 Manual Language ENG English FRA French GER German 8 Options NONE No options End of code YES Selection of options
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9 Alarm option DLF Partial load failure + Serious alarms NONE No alarms	10 Load Type For DLF option: LTCL Low temperature coefficient load XXXX Without DLF option	11 Alarm Relay Contact DLF option: NC Closed on alarm NO Open on alarm XX Without alarm option	12 NONE	14 Certification option NONE No certificate of conformity CFMC Certificate of conformity
			13 XXXX	15 NONE

SPARE FUSE AND HOLDER (2 per unit)

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 (2 per unit)

Current rating amps	Fuse rating amps	Fuse number	Fuse Trip with Indicator
16	20	CH260024	CS176513U020
25	32	CH260034	CS176513U032
40	50	CH330054	CS176513U050
63	80	CS173087U080	CS176461U080
80	100	CS173087U100	CS176461U100
100	125	CS173246U125	CS173246U125
125	160		CS176762U160
160	250		CS176762U250
200	315		CS176762U315

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