7100A
Single Phase SCR Power Controller

The Model 7100A is a new range of economic SCR Power Controllers for use with resistive, infrared or inductive loads. This unit features integral heatsinks with analog voltage or current inputs for precise control. Options include Gross Fault (GRF) Detection, Diagnostic Load Failure (DLF) Detection, Current Limit and digital communications. GRF indicates when a shorted device or an open load is detected. Similar to GRF, DLF detects a shorted device, an open load or a partial load failure. Current limit is available for use with variable resistance loads and digital communications is available for remote control or monitoring of the process.

Rating (A)	Height (mm)	Width (mm)			Depth (mm)			Max. weight (kg)
		Basic or A options	B options or A+B	C options or A+C	Basic or A options	B options or A+B	C options or A+C	
16 to 40	156	52.5	52.5	70	193	218	238	0.8
63	156	70	70	70	213	238	238	1.9
80 to 100	226	96	96	96	215	243	243	2.2

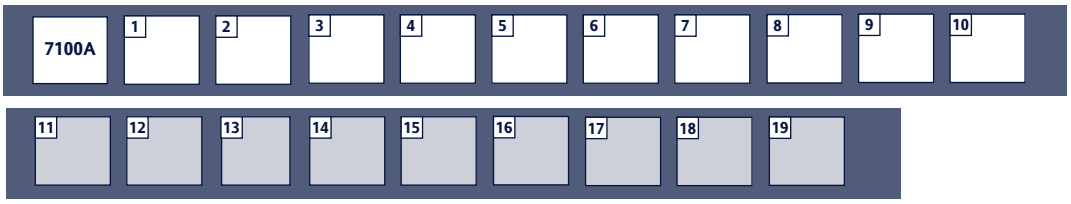
Features

- 16-100 amps, 120-690Vac
- zero cross or phase angle firing
- optional control modes
- optional current limit
- optional Modbus® comms

Specifications

Line Voltage:
100V - 690V (+10%, -15%), 47 - 63 Hz)
Load:
Resistive, short wave infrared, inductive/trans former coupled
Firing mode:
Fast Cycle, Single Cycle, Advanced Single Cycle or Phase Angle
Inputs:
DC current: 0-20mA or 4-20mA
DC voltage: 0-5V or 0-10V
Potentiometer: 10kΩ external, customer supplied
Communications:
Modbus®,9600 or 19200 baud
Ambient temperature:
0 to 45°C
Options:
GRF: Gross Fault, detects shorted device and open load
DLF: Diagnostic Load Failure, detects shorted device, open load and partial load failure
V2I2: Current limit
V1I2: V2 control and current limit
V2CL: VxI control and current limit
V1CL: VxI control and current limit
Mounting:
Panel or symmetrical DIN Rail
Dimensions (see coding):
A options: V2, OL, XFMR
B options: DLF, GRF, I2, V2II, V2CL
C options: ICO, VICL, VII2, DLF/GRF + I2, DLF/GRF +V2I2, DLF/GRF +V2CL

Ordering code Phased introduction, consult Eurotherm for availability



1 Current

16A	16 amps
25A	25 amps
40A	40 amps
63A	63 amps
80A	80 amps
100A	100 amps
125A	125 amps*
150A	150 amps*
200A	200 amps*
250A	250 amps*
315A	315 amps*
400A	400 amps*
500A	500 amps*
630A	630 amps*

*Fan cooled (consult factory for availability)

2 Voltage

100V	100 volts
115V	115 volts
120V	120 volts
127V	127 volts
200V	200 volts
230V	230 volts
277V	277 volts
400V	400 volts
460V	460 volts
480V	480 volts
500V	500 volts
690V	690 volts

3 Power Supply

SELF	Self powered (100V to 500V only)
115V	External 115V supply
230V	External 230V supply

4 Fan Supply

XXXX	16A to 100A (no fan) ≥125A
115V	115V Fan supply•
230V	230V Fan supply•

5 Fuse

FUSE	Fuse without microswitch External ≤100A Internal >100A
MSFU	Fuse with microswitch
NONE	No fuse (or SWIR)

6 Firing Mode

PA	Phase angle
Burst mode	
C16	base time 16 cycles
C64	base time 64 cycles
Single cycle	
FC1	1 base cycle
Advanced single cycle	
ASC	Non firing by half cycles

7 Internal EMC filter

XXXX	Phase angle or ratings ≥125 A: no filter
Burst mode or single-cycle	
FILT	16A to 40A: filter as standard
FILT	63A to 100A: with filter
NONE	no filter

8 Input

Analog signal:	
0mA20	0 to 20mA
4mA20	4 to 20mA
0V5	0 to 5V
0V10	0 to 10V

9 Manual Language

ENG	English
FRA	French
GER	German

10 Selected Options

NONE	Base version: No options, standard V² control *End of code*
YES	Version with options: Select below

Options for Phase Angle Firing

11 Control Options

V2	Voltage (V²)
I2	Current (I²)
V2I2	Current limit by control transfer (V² to I²)
VII2	Current limit by control transfer (V x I to I²)
OL	Open loop

12 Delay on First Firing

XXXX	No delay on first firing

13 Type 1 Alarms

GRF	Serious alarms: SCR short-circuit, total load failure, overtemperature for ratings ≥125A
DLF	Partial load failure and serious alms
NONE	No alarms

14 Load type (for DLF)

SWIR	*With DLF option:* Short wave infrared elements
LCTL	Low temperature coefficient load
XXXX	*Without DLF option or* High temperature coefficient load

15 Type 2 Alarms

XXXX	No over-current alarm

16 Alarm Relay Contact

	With alarm option:
NC	Contact closed on alarm
NO	Contact open on alarm
XX	Without alarm option

Options for Burst/Single-Cycle Firing

11 Control Options

V2	Voltage (V²)
Burst firing C16 only:	
V2CL	Voltage control (V²) and current limit
VICL	Power control (V x I) and current limit

12 Delay on First Firing

Burst firing C16 or C64:	
XFMR	Transformer primary
NONE	Other configurations
XXXX	Single-cycle (FCI/ASC)

13 Type 1 Alarms

GRF	Serious alarms: SCR short-circuit, total load failure, overtemperature for ratings ≥125A
DLF	Partial load failure and serious alms
NONE	No alarms

14 Load type (for DLF)

SWIR	*With DLF option:* Short wave infrared elements
LCTL	Low temperature coefficient load
XXXX	*Without DLF option or* High temperature coefficient load

15 Type 2 Alarms

ICO	Over-current alarm *(for DLF option) except* codes: SWIR, XFMR, VICL and V2CL
NONE	No over-current alarm

16 Alarm Relay Contact

	With alarm option:
NC	Contact closed on alarm
NO	Contact open on alarm
XX	Without alarm option

Communications and Certification

17/18 Comms Options

NONE	Available later

19 Certification Options

NONE	No certification of 'Compliance with Order'
CFMC	Certificate of 'Compliance with Order'

External fuses and holders may be ordered separately, see pages 3-47 to 3-49.

Tel: 0411-82650498 82597851 86860590 Fax: 0411-82650478
e-mail: sales@eurotherm.com.cn support@eurotherm.com.cn repair: euro@eurotherm.com.cn