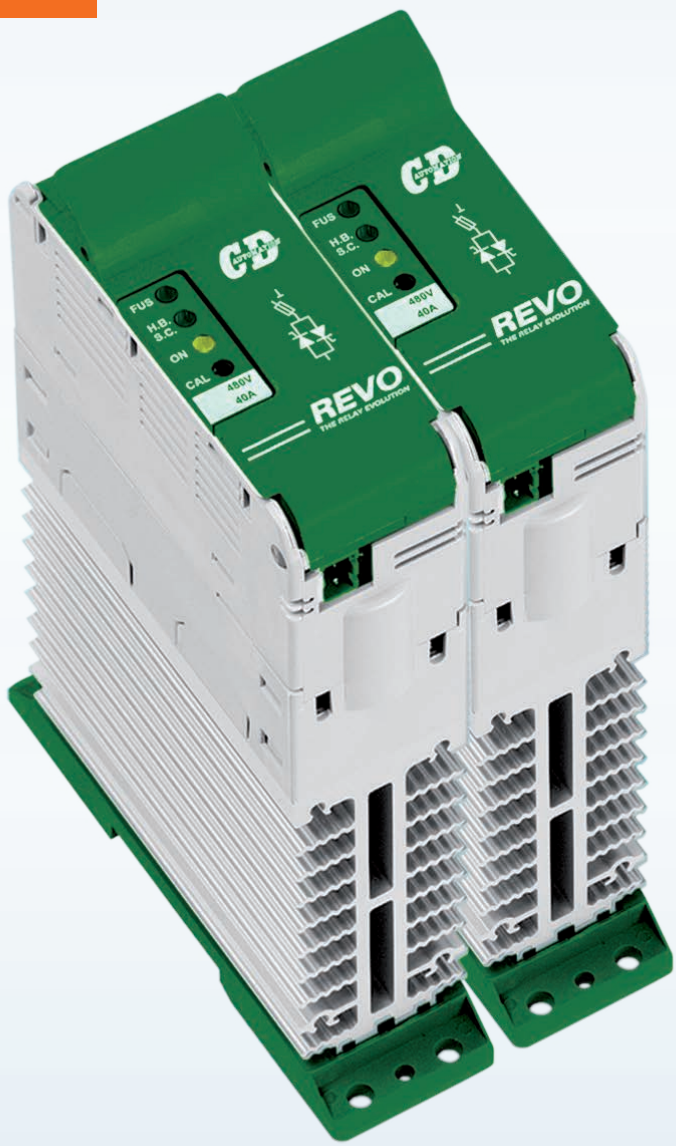
REVO S

THE THYRISTOR EVOLUTION

- Voltage Supply 480-600-690V
- Internal Fuse on product range 30 to 800A
- 100 kA Short Circuit Current (SCCR) up to 600V
- SSR and Analog Input
- Zero Crossing & Burst Firing
- HB alarm to diagnostic Partial Load Failure
- Comply with EMC, cULus® 508 listed and cUL® listed

CD AUTOMATION

POWERED BY INNOVATION



We are delivering Real Cost Benefits

www.cdautomation.com

Revo S Catalog 2018

Release n.1

WHY CHOOSE REVO?

WE DESIGNED A SUPERIOR PRODUCT

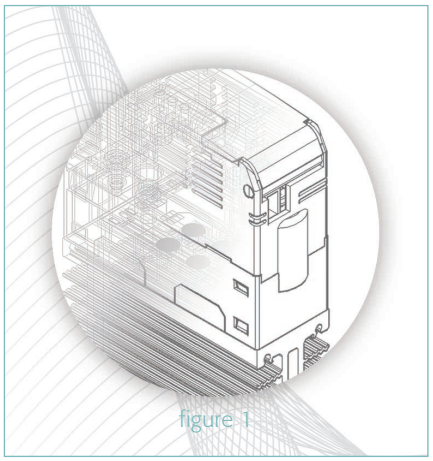


figure 1

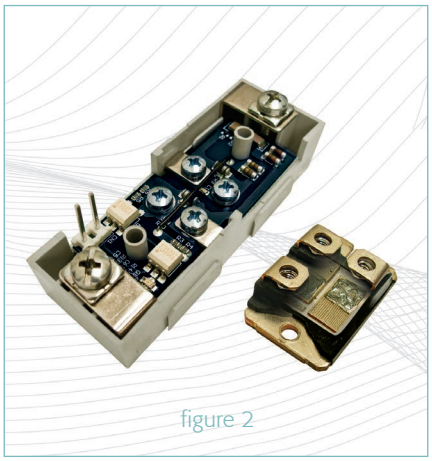


figure 2


figure 3

With the market place becoming more competitive we had a choice to make. Design a product a little cheaper but possibly not as good, or design a new innovative product where its added value is clear for all to see. We chose the latter, in line with our long-term philosophy.

NO COMPROMISE

Heatsink and thyristor junctions generously sized to guarantee a long life for the thyristor unit (see figure 2)

- Units working at low junction thyristor temperature with 20% margin on max temperature
- Strong connection design between the block terminal and thyristor semiconductor connection allows for generous sizing
- All the copper connections treated against oxidation
- Rugged construction for electronic and plastic parts
- Protection against over voltage

HAVE A CLOSER LOOK

Open a CD Automation thyristor unit and any of our competitors, you will discover the difference and see why we can offer a longer life warranty (see below tab).

ESTIMATED POWER CYCLES OF AL WIRE BONDED DIES

	dT	Tj max \°C 100°C	110°C	120°C	130°C	140°C
Tj start \°C	80°C	248.000				
	70°C	320.200	110.000			
	60°C	464.000	145.500	51.100		
	50°C	782.000	216.000	69.100	24.800	
	40°C	1.600.000	372.000	105.000	34.100	12.500
SSR	30°C	4.800.000	793.000	184.000	52.500	17.500
Single Cycle	20°C	25.400.000	2.400.000	400.000	94.000	27.500
			12.800.000	1.200.000	209.000	50.000
				6.700.000	645.000	112.000
					3.600.000	353.000
						2.000.000

CD Automation
CD predicted life working in Single Cycle.

CD Automation
CD predicted life with SSR Input and ZC Firing.

COMPETITORS
Predicted life of majority of competitors working at 130°C with SSR Input and ZC firing.

SAVE SPACE = SAVE MONEY

AN INNOVATIVE ENGINEERING SOLUTION THAT WILL DRAMATICALLY SAVE WIRING & LABOR

With a reduction of 50% space, it's easy to save hundreds off the cabinet price.

LEFT SIDE (TRADITIONAL)

Mounted on the baseplate are a Fuse & Fuseholder, 40A Solid State Relay and a Current Transformer.

RIGHT SIDE (INNOVATIVE)

Mounted on the same baseplate are two Relay 40A units, each having the same components as the traditional unit.
This simple example demonstrates a 50% saving of panel space.

THE NEW REVO S FAMILY

Can be put together with little technical knowledge

- SSR Solid State Relay with Zero Crossing
- SSR Solid State Relay + Fuse & Fuse Holder
- SSR Solid State Relay + Fuse & Fuse Holder + Current Transformer and Heater Break Alarm
- Different versions with or without heatsink
- Single and three phase thyristor units

OPTIONS

- Heater Break Alarm for partial or total load failure
- Analog Input and Burst Firing
- Connecting with REVO PC will remove power peaks and add communications
- Thyristor short circuit failure

Traditional Innovative

KEY BENEFITS INCLUDE:

- Space reduction of 50%, labour reduction of 1 hour per control zone, high reliability
- If one zone fails a non-technical user can substitute it with spare units in few seconds

WHAT REVO OFFERS?

- Modularity of its components
- Configurability that allows increased product performance
- REVO's 'value-add' capable of saving 50% of labour and space
- Innovation based on knowledge of process
- International assistance from around the world via trained distributors and joint venture multi-national companies
- Dynamic organization with total customer flexibility at the core of its philosophy

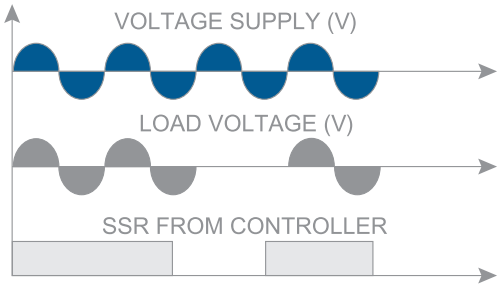
REVO IS A SYSTEM NOT A SIMPLE PRODUCT

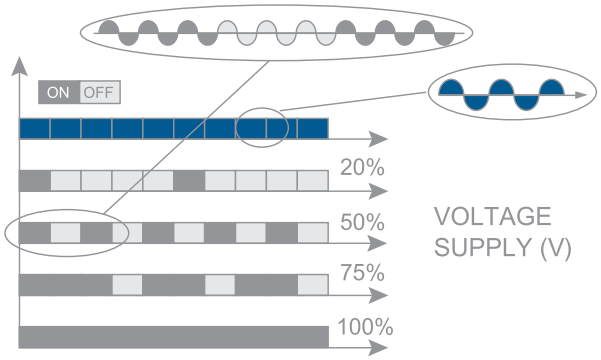
- Includes all key components of a typical temperature control zone
- Wiring & mounting accessories included
- Designed as a total block of automation

GLOSSARY

ZERO CROSSING ZC

ZC firing mode is used with the logic output from a temperature controller and so the thyristor operates like a contactor.
The cycle time is performed by the temperature controller.
Zero Crossing minimizes interferences as the thyristor unit switches ON-OFF at zero voltage.



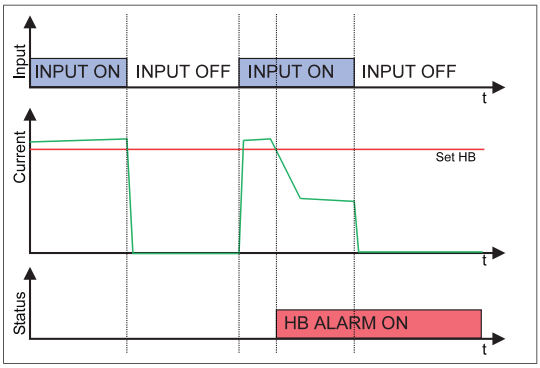


BURST FIRING BF

This firing is performed within the thyristor unit at zero volts, producing no EMC interference.
Analogue input is necessary for BF and the number of complete cycles can be 4-8-16 Cycles for 50% power demand.

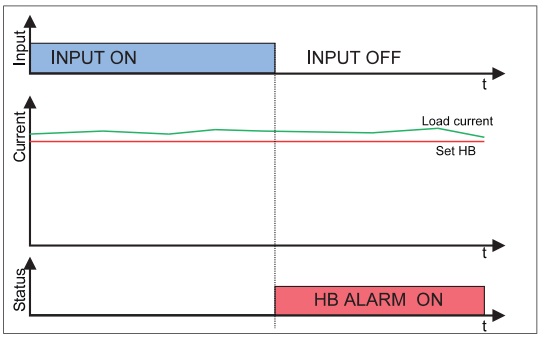
HEATER BREAK (H.B.)

Optional electronic circuit capable of detecting all types of heating zone faults. Each zone, via the units front panel, can be calibrated by the user to set the alarm value for partial or total load failure. The capability to identify a partial load failure is 1/5 or 20%.
The H.B. Alarm is microprocessor based and can automatically set its alarm value when a digital input is activated or when the CAL push button is selected on the front panel.



Heater Break Alarm load failure

To ensure that the automatic set value is not taken from an unstable current value, the circuit will read the current 5 times and store the average value. When there are 3 equal average values in sequence, it will take this value and multiply by 0.8 to compensate for any voltage fluctuations. The intelligent circuit can also detect if the SCR (switching device) has become open circuit.



Heater Break Alarm short circuit on scr

WHAT DO OUR CUSTOMERS WANT?

THEY WANT A POSITIVE EXPERIENCE WITH OUR TOTAL SOLUTION, NOT JUST A CHEAP PRICE!

KNOWLEDGEABLE SALES TEAM

We have a team of sales engineers focused on core business products only. An expert at no cost, not an engineer with a big catalogue and little product knowledge, will welcome customers. Easy access to engineers when you need a special performance project.

EASY TO DO BUSINESS WITH US

Fast reaction to your enquiry, short lead times, timely production of order acknowledgement, invoices etc.
Catalogues & manuals of all our products plus configuration software, available free of charge from our web-site.
Our people are always welcoming to our customers.

FAST SERVICE

Excellent pre sales and after sales service including engineering support.

DIGITAL DOCUMENTATION ON CDAUTOMATION.COM

- Bulletins
- Manuals
- Applications
- Help desk

REVO S & SSR FEATURES AND DIMENSIONS

	DESCRIPTION	REVO SSR	REVO S 1PH		REVO S 2PH		REVO S 3PH	
	CODE	SSR	RS1		RS2		RS3	
MAIN VOLT.	Max voltage 480V	●	●		●		●	
	Max voltage 600V	●	●		●		●	
	Max voltage 690V		● ≥60A		● ≥60A		● ≥60A	
LOAD TYPE	Single phase	●	●					
	3 phase load star no neutral or delta				●		●	
	3 phase load star with neutral						●	
	3 phase load open delta						●	
INPUT	SSR 4:30VDC	●	●		●		●	
	4:20 mA	O	O		O		O	
	0:10 Vdc	O	O		O		O	
	Digital Potentiometer	O	O		O		O	
FIRING	Zero crossing	●	●		●		●	
	Burst firing 4-8-16	O **(1)**	O **(1)**		O **(1)**		O **(1)**	
OPTION	Heater break + thyristor short circuit	O	O		O		O	
	Integrated fixed fuses		● >40A		● >40A		● >40A	
	Fuse & fuse holder	O	O ≤40A		O ≤40A		O ≤40A	
	REVO PC **(3)**	O	O					
CURRENT	**CURRENT**	**SIZE**	**SIZE**		**SIZE**		**SIZE**	
	Voltage	480 to 600V	480 to 600V	690V	480 to 600V	690V	480 to 600V	690V
	30	SR0.SR1 **(2)**	SR3.SR6		SR4.SR7		SR5.SR8	
	35		SR3.SR6		SR4.SR7		SR5.SR8	
	40		SR3.SR6		SR4.SR7		SR5.SR8	
	60		SR12	S11	SR15	S11	SR16	S11
	75				SR15		SR16	
	90		SR15	S11	SR15	S11	SR17	S11
	120		SR15	S11	SR16	S13	SR17	S13
	150		SR15	S11	SR16	S13	SR17	S13
	180		SR15	S11	SR16	S13	SR17	S13
	210		SR15	S11	SR16	S13	SR17	S13
	300		S12	S12	S14	S14	S14	S14
	350						S14	S14
	400		S12	S12	S14	S14	S14	S14
	450				S14	S14	S14	S14
	500		S12	S12	S14	S14	S14	S14
	600		S12	S12	S14	S14		
	700		S12	S12	S14	S14		
	800		S15	S15	S16	S16	S17	S17

● **Standard** O **Option** ■ CE standard + cUL® as an option ■ CE Only ■ cUL® Only

(1) 4-8-16 Cycles Simplified Burst Firing available with Analog Input only **(2)** See page 9 for current sizing
(3) REVO PC is an external unit designed to handle multiple zones, able to minimize energy cost, keep power factor close to 1 and add Field Bus. See REVO PC catalog.

Agency Approval and Regulatory: • cULus 508 Listed File E231578 • cUL® Listed to C22.2 No. 14 • CE EMC Directive 2014-30-EU, EN 60947-4-3 Class A Emissions
• CE Safety Directive 2014-35-EU, EN 60947-4-1, -4-3 • RoHS 2011-65-EU • W.E.E.E 2012-19-EU • 690VAC units not covered by UL®

REVO S & SSR SIZE AND DIMENSIONS

SR0 H 97 x W 36 x D 32 - 0,12kg.

SR1 H 97 x W 36 x D 92 - 0,29kg.

SR2 H 121 x W 36 x D 87 - 0,27kg.

SR3 H 121 x W 36 x D 125 - 0,44kg.

SR4 H 121 x W 72 x D 125 - 0,88kg.

SR5 H 121 x W 108 x D 125 - 1,32kg.

SR6 H 121 x W 36 x D 185 - 0,61kg.

SR7 H 121 x W 72 x D 185 - 1,22kg.

SR8 H 121 x W 108 x D 185 - 1,83kg.

SR12 H 269 x W 93 x D 170 - 3,4kg.
SR15 H 273 x W 93 x D 170 - 3,6kg.

SR13 H 269 x W 186 x D 170 - 6,8kg.
SR16 H 273 x W 186 x D 170 - 7,0kg.

SR14 H 269 x W 279 x D 170 - 10,2kg.
SR17 H 273 x W 279 x D 170 - 10,6kg.

S11 H 440 x W 137x D 270 - 10,5kg.

S12 H 520 x W 137 x D 270 - 15kg.

S13/S14 H 440/520 x W 262 x D 270 - 18/22kg.

S15 H 560 x W 137x D 270 - 10,5kg.

S16 H 560 x W 275 x D 270 - 21kg.

S17 H 560 x W 411 x D 270 - 31,5kg.

REVO SSR

SIZE SR0

Technical Specification

- **Dimensions:** SR0, SR1, (see page 7)
- **Load type:** Normal resistance, infrared long and medium waveform
- **Inputs:** SSR
- **Firing mode:** Zero Crossing
- **Operating temperature:** See graph on right page
- **Comply with EMC - CE** and cULus as an option
- **Operating current:** see the graph on the right page.
  This unit needs an heatsink, see the graph on the right page to size it
  Max terminals current allowed is 40A

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE	S	S	R	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	4 5 6	
description	code	note
62A	0 6 2	
74A	0 7 4	
90A	0 9 0	

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	

VOLTAGE SUPPLY AUX	8	
description	code	note
No auxiliary voltage supply	0	

INPUT	9	
description	code	note
SSR	S	

FIRING	10	
description	code	note
Zero Crossing Z	Z	
Random (For connection with REVO PC)	R	

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
description	code	note
No Fuse	O	

FAN VOLTAGE	13	
description	code	note
No fan	0	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
cULus listed	L	

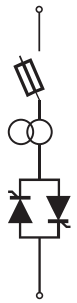
MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Std version	1	

More details on "Revo SSR" Manual

REVO SSR/Analog

SIZE SR1



Technical Specification

- **Dimensions:** SR1 (see page 7)
- **Load type:** Normal resistance, infrared long and medium waveform
- **Inputs:** 0:10V; 4-20mA - SSR
- **Firing mode:** Zero Crossing
- **Operating temperature:** See the graph on the right page
- **Comply with EMC - CE** and cULus as an option
- **Operating current:** see the graph on the right page. This unit needs an heatsink, see the graph on the right page to size it. Max terminals and fuse current allowed is 40A.

Option

All options below are available with fuse + fuse holder only

- Current Transformer
- Current Transformer + HB (heater break)
- Current Transformer + HB (heater break) + flat wiring system

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE (Note 3)	S	S	R	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	4 5 6	
description	code	note
62A	0 6 2	
74A	0 7 4	
90A	0 9 0	

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	

VOLTAGE SUPPLY AUX	8	
description	code	note
Without HB no auxiliary voltage supply	0	
12:24V ac-dc	4	

INPUT	9	
description	code	note
SSR	S	
0:10V Analog Input	V	2
4:20 mA Analog Input	A	2
Random (For connection with REVO PC)	R	

FIRING	10	
description	code	note
Zero Crossing	Z	
Burst firing 4 Cycles on at 50% Power Demand	4	
Burst firing 8 Cycles on at 50% Power Demand	8	
Burst firing 16 Cycles on at 50% Power Demand	6	

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
description	code	note
Fuse + Fuse Holder	F	
Fuse + Fuse Holder + CT	Y	
Fuse + Fuse Holder + CT + HB	H	2
Fuse + Fuse Holder + CT + HB + Flat Cable	X	2, 4

FAN VOLTAGE	13	
description	code	note
No fan	0	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
cULus listed	L	

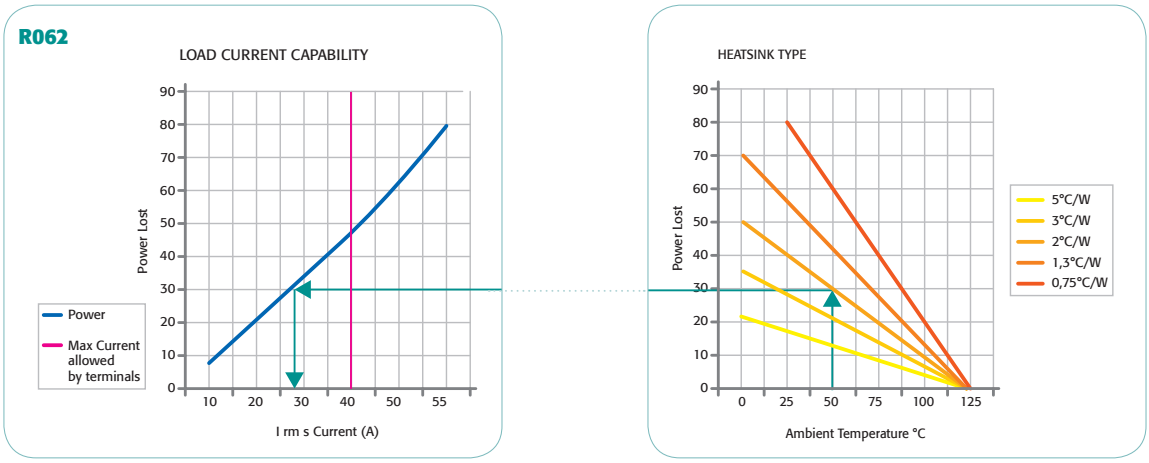
MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Std version	1	
High Sensitivity HB below 5A	5	

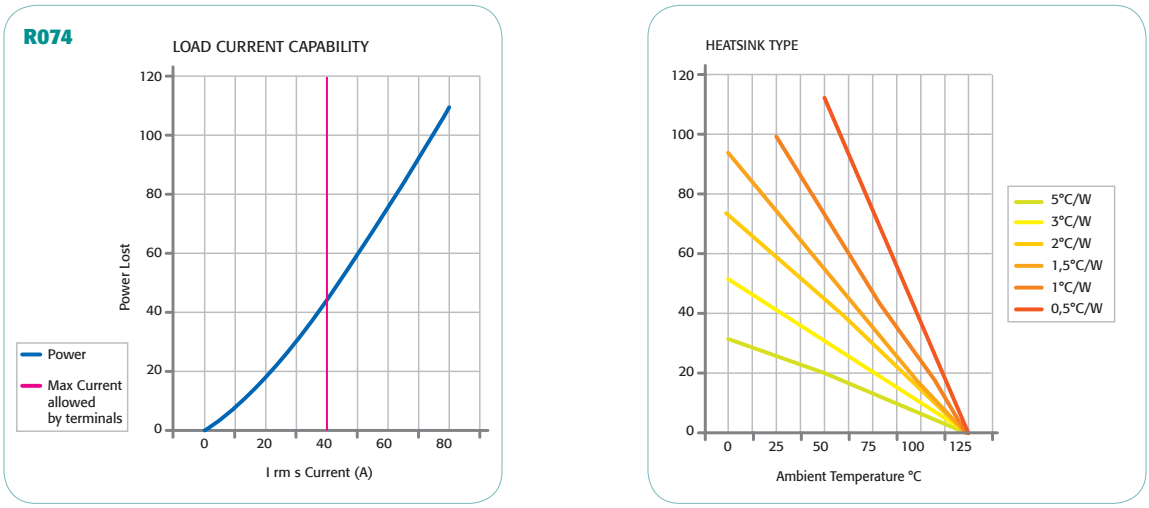
Note (2) Option available only with fuse + fuse holder **Note (3)** All the Revo Analog version have fuse + fuse holder
Note (4) Not available with cULus

More details on "Revo SSR Analog" Manuals

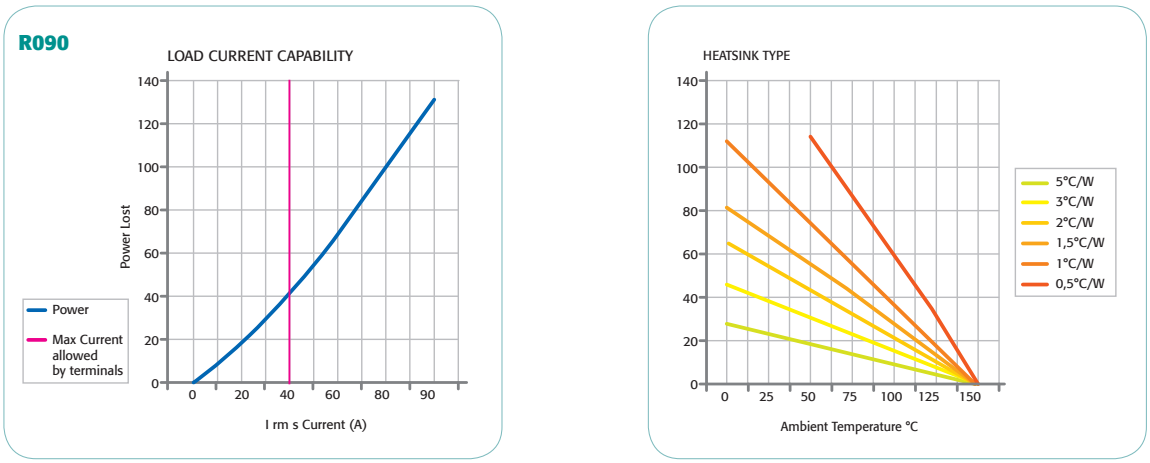
CURRENT SIZING FOR REVO SSR/SSR ANALOG



R062 MODULE Power Dissipation versus on state Current and ambient Temperature



R074 MODULE Power Dissipation versus on state Current and ambient Temperature



R090 MODULE Power Dissipation versus on state Current and ambient Temperature

REVO SX

SIZE SR2 - 230V / 480V

Specification

- Available in three versions as shown below
- Each unit includes Fuse and Fuse Holder, thyristor and heat sink with its own Firing circuit
- Zero Crossing Firing
- Isolated input
- LED for On Off Status indication
- LED for fuse failure indication
- Plug in connection for auxiliary and power terminations
- Small dimensions Width: 36 Depth: 86 Height:121
- Din rail mounting or screw mounting
- Can be used in applications with many zones and low power as thermoforming, blow Moulding and Hot Runners

Diagram of control connection 4x3,5A

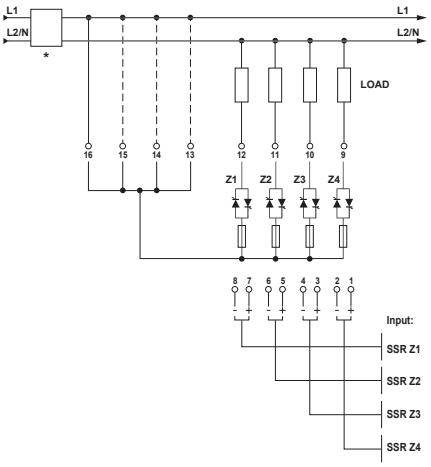


Diagram of control connection 3x4,5A

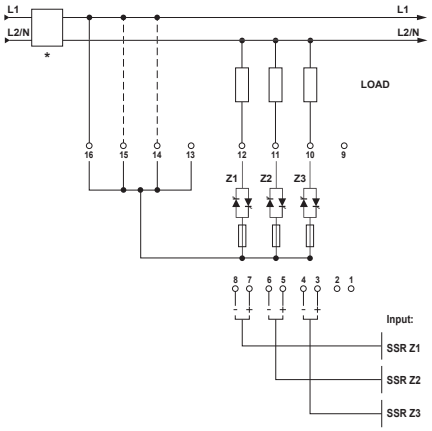
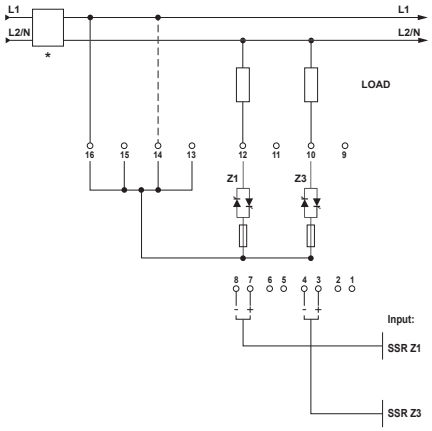


Diagram of control connection 2x7A



	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE	R	S	X	_	_	_	-	_	_	_	_	_	_	_	_	_	_

NUMBER OF ZONES X CURRENT RATING	4 5 6	
description	code	note
4 zones 3,5A each	4 0 3	
3 zones 4,5A each	3 0 4	
2 zones 7A each	2 0 7	

MAX VOLTAGE	7	
description	code	note
230V	2	
480V	4	2

VOLTAGE SUPPLY AUX	8	
description	code	note
No Auxiliary Voltage with 230V	0	

INPUT	9	
description	code	note
SSR	S	

FIRING	10	
description	code	note
Zero Crossing	Z	
Random (used with REVO-PC)	R	

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
description	code	note
Fuse + Fuse Holder	F	

FAN VOLTAGE	13	
description	code	note
No Fan Voltage	0	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	

MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

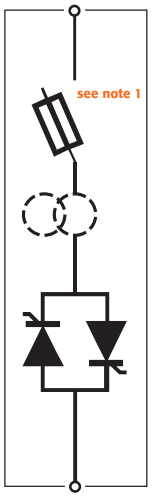
VERSION	16	
description	code	note
Version 1	1	

Note (1) This option is available only on 480V version
Note (2) The 480V version have dimension W=48 H=121 D=86

REVO S 1PH

SIZE SR6

SIZE S15



Technical Specification

- **Dimensions:** See size and dimensions on page 7
- **Load type:** Normal resistance, infrared long and medium waveform
- **Inputs:** SSR Standard, 0:10V, 4:20mA and Heater Break alarm are options
- **Firing mode:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0 to 40°C without derating
- **Comply with EMC**, cULus® 508 listed and cUL® listed up to 700A as an option
- **100 kA:** Short Circuit Current rating (SCCR) up to 600V
- **Data sheet:** More details on "Revo S 1PH" Manual

Option

- Analog input: 4/20 mA or 0/10V
- Heater Break Alarm + Current Transformer
- Current Transformer mounted inside

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE	R	S	1	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	4	5	6	
description	code			note
30A	0	3	0	
35A	0	3	5	
40A	0	4	0	
60A	0	6	0	
90A	0	9	0	
120A	1	2	0	
150A	1	5	0	
180A	1	8	0	
210A	2	1	0	
300A	3	0	0	
400A	4	0	0	
500A	5	0	0	
600A	6	0	0	
700A	7	0	0	
800A	8	0	0	6

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	4, 5, 6

VOLTAGE SUPPLY AUX		8	
≤ 210A		code	note
No Aux Voltage without HB and/or Analog Input up to 210A included		0	
With HB and/or Analog Input on all unit ≤ 210A Aux Volt 12:24V ac-dc		4	
> 210A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90 to 135V Vac	1	3
200/208/230/240Vac	180 to 265V Vac	2	3
277Vac	238 to 330V Vac	3	3
380/415/480Vac	342 to 528V Vac	5	3
600Vac	540 to 759V Vac	6	3
690Vac	540 to 759V Vac	7	3

INPUT	9	
description	code	note
SSR	S	
0:10V dc	V	
4:20mA	A	

FIRING	10	
description	code	note
Zero Crossing	Z	
Burst Firing 4 Cycles On at 50% Power Demand	4	2
Burst Firing 8 Cycles On at 50% Power Demand	8	2
Burst Firing 16 Cycles On at 50% Power Demand	6	2
Random Firing (used with REVO-PC)	R	4, 8

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
≤ 40A	code	note
No Fuse for all Units ≤ 40A	O	
Fuse + Fuse Holder	F	
Fuse + Fuse Holder + CT	Y	
Fuse + Fuse Holder + CT + HB	H	
Fuse + Fuse Holder + CT + HB with Flat Cable Connection	X	6, 7
> 40A		
Fixed Fuses Std for all Units > 40A	F	1
Fixed Fuses Std + CT	Y	
Fixed Fuses Std + CT + HB	H	

FAN VOLTAGE	13	
description	code	note
No Fan < 90A	0	
Fan 110V ≥ 90A	1	
Fan 220V ≥ 90A Std Version	2	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
CE EMC + cUL® listed and cULus 508® listed	L	

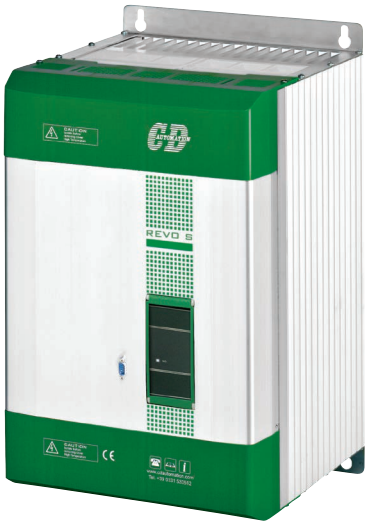
MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Std unit with one fuse only	1	
High Sensitivity HB below 5A	5	

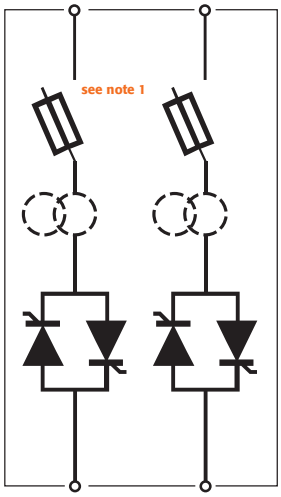
Note (1) Fixed Fuses over 40A
Note (2) Available only with Analog input
Note (3) Load voltage must be included in Selected Auxiliary Voltage Range for units >210A
Note (4) With 690V the firing is random
Note (5) Available on unit ≥60A
Note (6) This unit is available with CE only
Note (7) Needs TU-RS2 Terminal units
Note (8) See Revo PC catalog

REVO S 2PH

SIZE SR7



SIZE S14



Technical Specification

- **Dimensions:** See size and dimensions on page 7
- **Load type:** Normal resistance, infrared long and medium waveform
- **Inputs:** SSR Standard, 0:10V, 4:20mA and Heater Break alarm are options
- **Firing mode:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0 to 40°C without derating
- **Comply with EMC**, cULus® 508 listed and cUL® listed up to 700A as an option
- **100 kA:** Short Circuit Current rating (SCCR) up to 600V
- **Data sheet:** More details on "Revo S 2PH" Manual

Option

- Analog input: 4/20 mA or 0/10V
- Current Transformer mounted inside
- Current Transformer + HB Alarm

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE	R	S	2	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	4	5	6	
description	code			note
30A	0	3	0	
35A	0	3	5	
40A	0	4	0	
60A	0	6	0	
75A	0	7	5	7
90A	0	9	0	5
120A	1	2	0	
150A	1	5	0	
180A	1	8	0	
210A	2	1	0	
300A	3	0	0	
400A	4	0	0	
450A	4	5	0	
500A	5	0	0	
600A	6	0	0	
700A	7	0	0	
800A	8	0	0	5

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	4, 5

VOLTAGE SUPPLY AUX		8	
≤ 210A		code	note
No Aux Voltage without HB and/or Analog Input up to 210A included		0	
With HB and/or Analog Input on all unit ≤ 210A Aux Volt 12:24V ac-dc		4	
> 210A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90 to 135V Vac	1	3
200/208/230/240Vac	180 to 265V Vac	2	3
277Vac	238 to 330V Vac	3	3
380/415/480Vac	342 to 528V Vac	5	3
600Vac	540 to 759V Vac	6	3
690Vac	540 to 759V Vac	7	3

INPUT	9	
description	code	note
SSR	S	
0:10V dc	V	
4:20mA	A	

Note (1) Fixed Fuses over 40A
Note (2) Available with Analog input only
Note (3) Load voltage must be included in Selected Auxiliary Voltage Range for unit > 210A
Note (4) Available on unit ≥60A
Note (5) This unit is available with CE only
Note (6) Needs TU-RS2 Terminal units
Note (7) 75A unit is available with cUL only

FIRING	10	
description	code	note
Zero Crossing	Z	
Burst Firing 4 Cycles On at 50% Power Demand	4	2
Burst Firing 8 Cycles On at 50% Power Demand	8	2
Burst Firing 16 Cycles On at 50% Power Demand	6	2

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
≤ 40A	code	note
No Fuse for all Units ≤ 40A	O	
Fuse + Fuse Holder ≤ 40A	F	
Fuse + Fuse Holder + CT ≤ 40A	Y	
Fuse + Fuse Holder + CT + HB with Terminals	H	
Fuse + Fuse Holder + CT + HB with Flat Cable Connection	X	5, 6
> 40A		
Fixed Fuses Std for all Units > 40A	F	1
Fixed Fuses Std + CT	Y	
Fixed Fuses Std + CT + HB	H	

FAN VOLTAGE	13	
description	code	note
No Fan < 60A	0	
Fan 110V ≥ 60A	1	
Fan 220V ≥ 60A Std Version	2	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
CE EMC + cUL® listed and cULus 508® listed	L	7

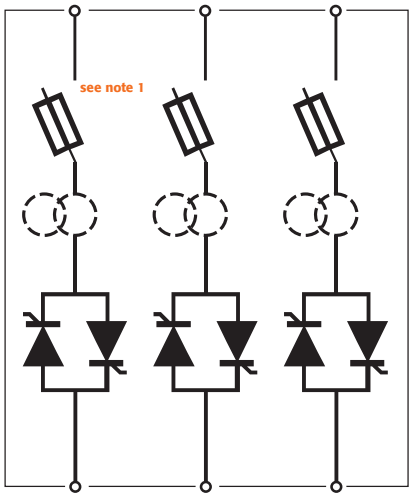
MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Std unit with 2 fuses + fuses Holder ≤40A	1	
Std units with 2 fixed fuses > 40A	2	
High Sensitivity HB below 5A	5	

REVO S 3PH

SIZE SR8

SIZE S13



Technical Specification

- **Dimensions:** See size and dimensions on page 7
- **Load type:** Normal resistance, infrared long and medium waveform
- **Inputs:** SSR Standard, 0:10V, 4:20mA and Heater Break alarm are options
- **Firing mode:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0 to 40°C without derating
- **Comply with EMC**, cULus® 508 listed and cUL® listed up to 500A as an option
- **100 kA:** Short Circuit Current rating (SCCR) up to 600V
- **Data sheet:** More details on "Revo S 3PH" Manual

Option

- Analog input: 4/20 mA or 0/10V
- Current Transformer mounted inside
- Current Transformer + HB Alarm

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDERING CODE	R	S	3	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	4	5	6	
description	code			note
30A	0	3	0	
35A	0	3	5	
40A	0	4	0	
60A	0	6	0	
75A	0	7	5	7
90A	0	9	0	5
120A	1	2	0	
150A	1	5	0	
180A	1	8	0	
210A	2	1	0	
300A	3	0	0	
350A	3	5	0	
400A	4	0	0	
450A	4	5	0	
500A	5	0	0	
800A	8	0	0	5

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	4, 5

VOLTAGE SUPPLY AUX		8	
≤ 210A		code	note
No Aux Voltage without HB and/or Analog Input up to 210A included		0	
With HB and/or Analog Input on all unit ≤ 210A Aux Volt 12:24V ac-dc		4	
> 210A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90 to 135V Vac	1	3
200/208/230/240Vac	180 to 265V Vac	2	3
277Vac	238 to 330V Vac	3	3
380/415/480Vac	342 to 528V Vac	5	3
600Vac	540 to 759V Vac	6	3
690Vac	540 to 759V Vac	7	3

INPUT	9	
description	code	note
SSR	S	
0:10V dc	V	
4:20mA	A	

FIRING	10	
description	code	note
Zero Crossing	Z	
Burst Firing 4 Cycles On at 50% Power Demand	4	2
Burst Firing 8 Cycles On at 50% Power Demand	8	2
Burst Firing 16 Cycles On at 50% Power Demand	6	2

CONTROL MODE	11	
description	code	note
Open Loop	0	

FUSES & OPTION	12	
≤ 40A	code	note
No Fuse for all Units ≤ 40A	O	
Fuse + Fuse Holder ≤ 40A	F	
Fuse + Fuse Holder + CT ≤ 40A	Y	
Fuse + Fuse Holder + CT + HB with Terminals	H	
Fuse + Fuse Holder + CT + HB with Flat Cable Connection	X	5, 6
> 40A		
Fixed Fuses Std for all Units > 40A	F	1
Fixed Fuses Std + CT	Y	
Fixed Fuses Std + CT + HB	H	

FAN VOLTAGE	13	
description	code	note
No Fan < 60A	0	
Fan 110V ≥ 60A	1	
Fan 220V ≥ 60A Std Version	2	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
CE EMC + cUL® listed and cULus 508® listed	L	7

MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Std Version	1	
High Sensitivity HB below 5A	5	

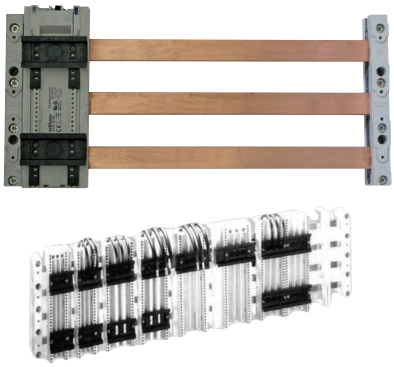
Note (1) Fixed Fuses over 40A
Note (2) Available with Analog input only
Note (3) Load Voltage must be included in selected Auxiliary Voltage Range for unit > 210A
Note (4) Available on unit ≥60A
Note (5) This unit is available with CE only
Note (6) Needs TU-RS2 Terminal units
Note (7) 75A unit is available with cUL only

REVO IS A SYSTEM NOT JUST A PRODUCT

REVO'S INNOVATIVE DESIGN AIDS SYSTEM INTEGRATION WITH THE FOLLOWING AUXILIARY UNITS:

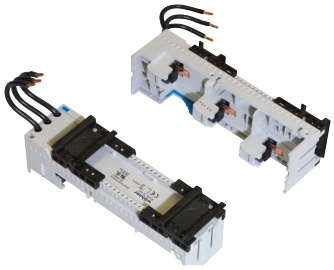
COPPER BAR

REVO can be mounted on copper bars as shown in the image
with Length 12:30 mm and thickness 5:10 mm
Lateral Support for 3 copper bars **Code:** SC3-30
Lateral Support for 4 copper bars **Code:** SC4-30



BASE PLATE

Different type of base plate are available
The Base Plate have 3 Off Screw terminals 16 mm2
W 54 x L 200 **Code:** BP-54-200
W 72 x L 200 **Code:** BP-72-200
W 54 x L 260 **Code:** BP-54-260

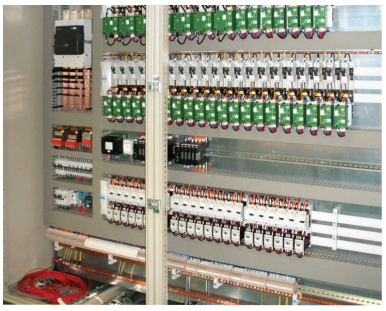


CABINET

The image shows a cabinet under construction with copper bars mounted on the back panel. This system is designed for optimal high short circuit current and the 100KA SCCR of the REVO S family.
Using copper bars in this way, it is not necessary to wire power cables from automatic circuit breakers to each thyristor unit but just to the power terminals of each bus bar. The plug-in base plates and therefore the complete zone, can easily be replaced should a fault occur.

CABINET

The image shows a finished cabinet with 60 temperature control zones. Mounting with the copper bus bar system results in a clean and professional cabinet.



BASE PLATE + ADAPTOR

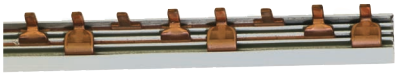
Various adapters are available from CD Automation that can be mounted on the original base plate. Shown is the adapter for the REVO 3PH thyristor unit.
Code: AD-{add the REVO model code} i.e. AD-RS3040

ADAPTER

This is an adaptor for REVO up to 210 A in different configurations such as 1, 2 or 3 phase control.

COPPER COMB 3PH

This is a copper comb for three phase connections.
This product is sold in lenghts of one metre.
For IP20 protection a plastic cover is supplied as standard with the copper comb.
Pitch: 36 Central connection:130A Side connection:80A
Code: Comb-3PH-36



COPPER COMB 1PH

Copper comb designed for multiple connections of REVO 1PH or REVO SSR.
Product sold in lengths of one metre.
IP20 available with plastic protector supplied as standard with copper comb.
Pitch: 36 Central connection:130A Side connection:80A
Code: Comb 1PH-36

SCREW TERMINAL

This is a screw terminal that can be mounted in each position of the copper comb above.
Code: ST16

PACKAGE

The example shows a package of 9 units. One or more screw terminals can be allocated as required.
From this terminal a traditional cable will be connected to circuit breaker directly.

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