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# REVO S

THE THYRISTOR EVOLUTION

- Voltage Supply 480-600-690V
- Internal Fuse on product range from 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](http://www.cdautomation.com)

Revo S Catalog 2022

# WHY CHOOSE REVO?

## WE DESIGNED A SUPERIOR PRODUCT

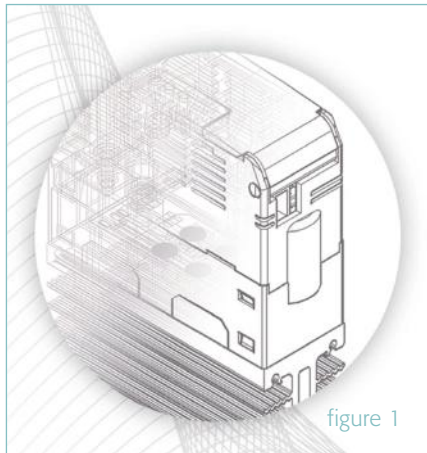


figure 1

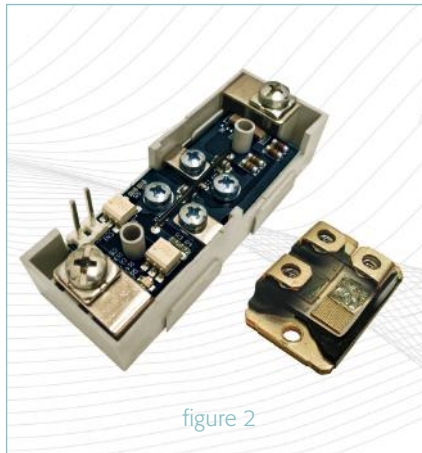


figure 2

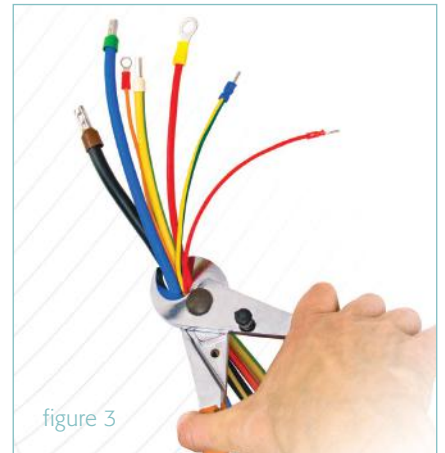


figure 3

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 heat sink
- 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

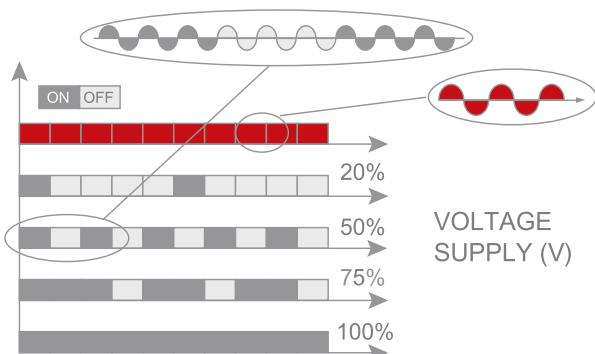
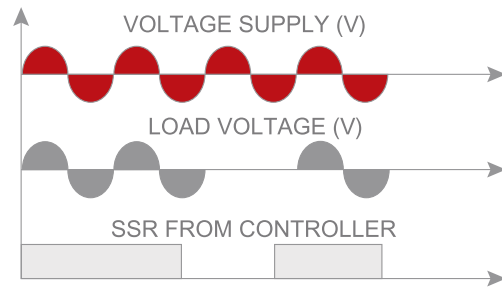
- Includes all key components of a typical temperature control zone
- Wiring & mounting accessories included
- Designed as a total block of automation



# 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.

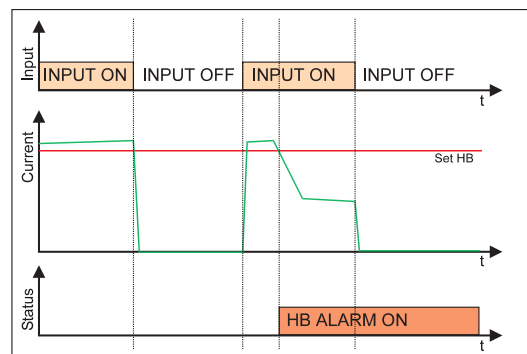


## BURST FIRING BF

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.

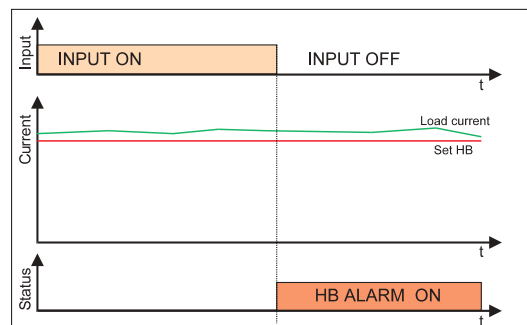
## HEATER BREAK (H.B.)

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

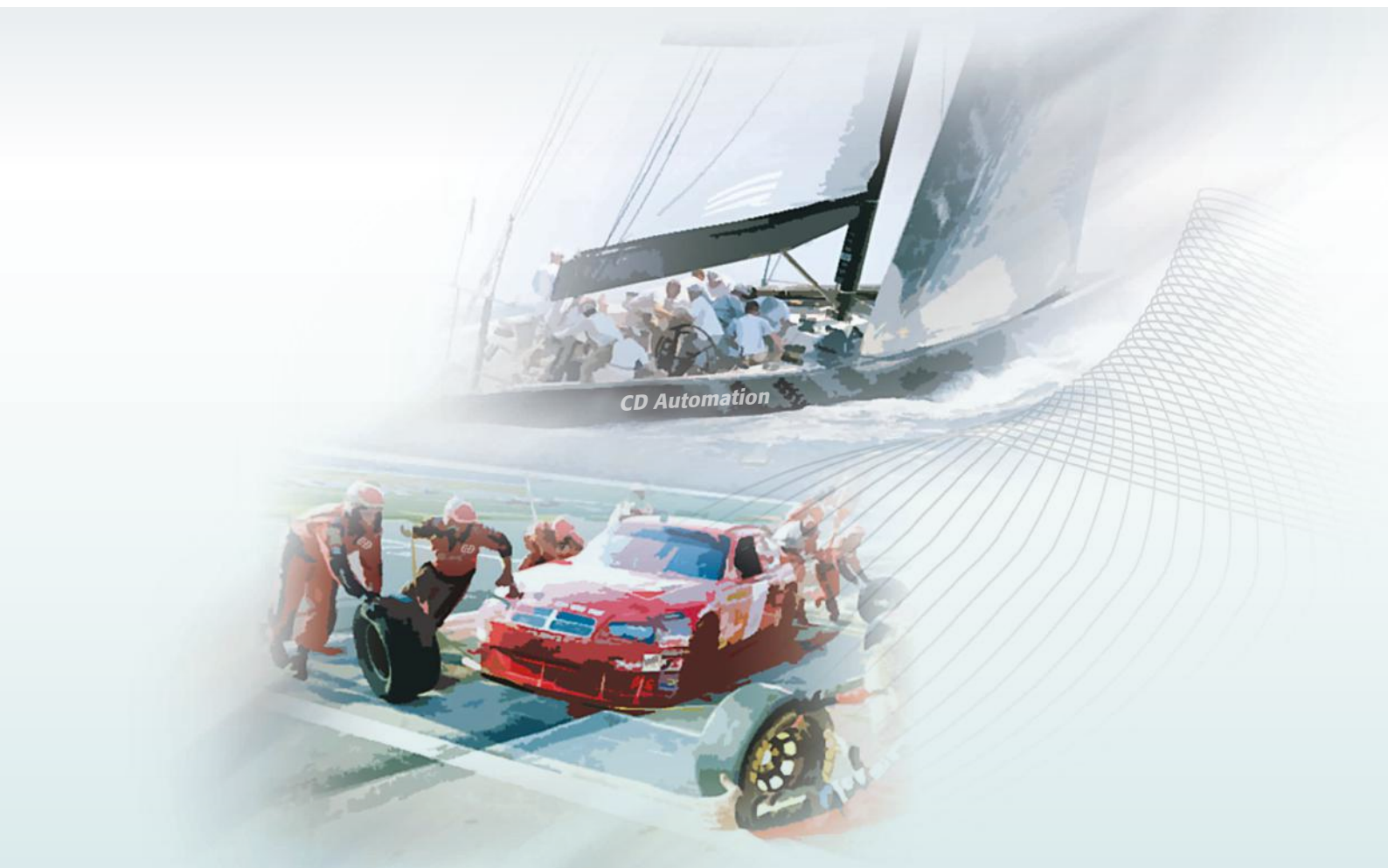
Fast reaction to your enquiry, short lead times, timely production of order acknowledgement, invoices etc. Catalogues & manuals of all our products plus configuration software, available free of charge from our web-site. Our people are always welcoming to our customers.

### FAST SERVICE

Excellent pre sales and after sales service including engineering support.

### DIGITAL DOCUMENTATION ON [CDAUTOMATION.COM](http://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	○	○	○	○			
	0:10 Vdc	○	○	○	○			
	Digital Potentiometer	○	○	○	○			
FIRING	Zero crossing	●	●	●	●			
	Burst firing 4-8-16	○ (1)	○ (1)	○ (1)	○ (1)			
OPTION	Heater break + thyristor short circuit	○	○	○	○			
	Integrated fixed fuses		● >40A	● >40A	● >40A			
	Fuse & fuse holder	○	○ ≤40A	○ ≤40A	○ ≤40A			
	REVO PC (3)	○	○					
CURRENT	<b>CURRENT</b>	<b>SIZE</b>	<b>SIZE</b>		<b>SIZE</b>		<b>SIZE</b>	
		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	SR16	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		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 ○ 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.

# REVO S & SSR SIZE AND DIMENSIONS



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



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



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



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



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



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



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



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



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



**SR12** H 269 x W 93 x D 170 - 3,4 kg

**SR15** H 273 x W 93 x D 170 - 3,6 kg



**SR13** H 269 x W 186 x D 170 - 6,8 kg

**SR16** H 273 x W 186 x D 170 - 7,0 kg



**SR14** H 269 x W 279 x D 170 - 10,2 kg

**SR17** H 273 x W 279 x D 170 - 10,6 kg



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



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



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



**S15** H 560 x W 137x D 270 - 17,2 kg



**S16** H 560 x W 275 x D 270 - 34,4 kg

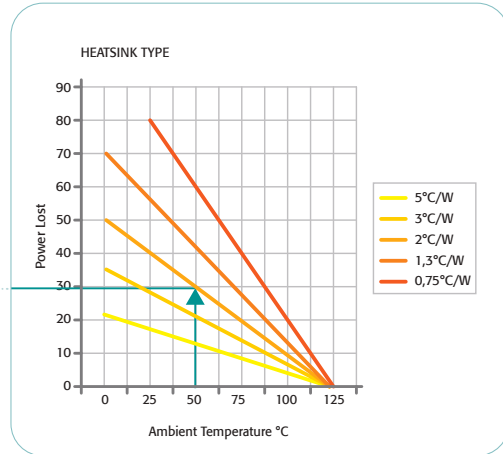
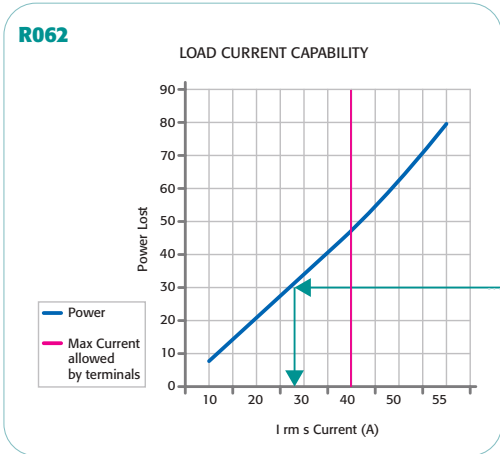


**S17** H 560 x W 411 x D 270 - 51,6 kg

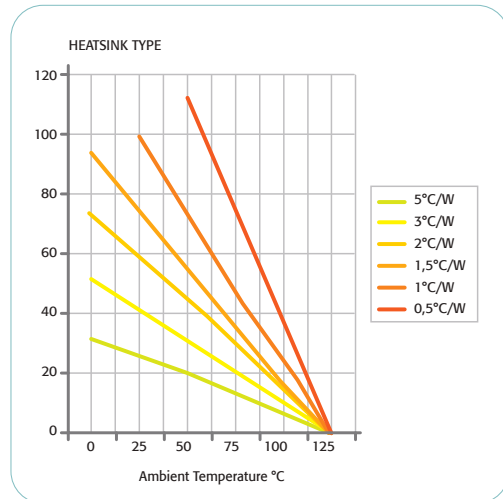
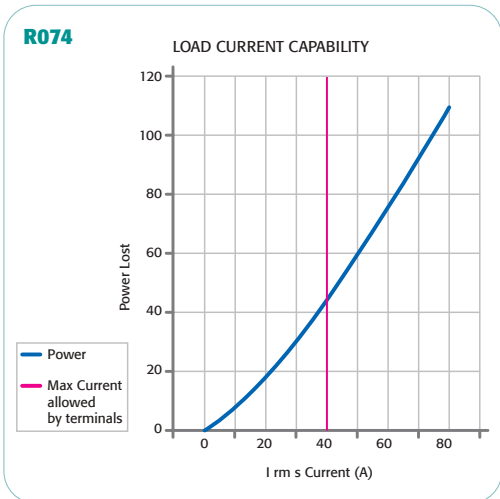




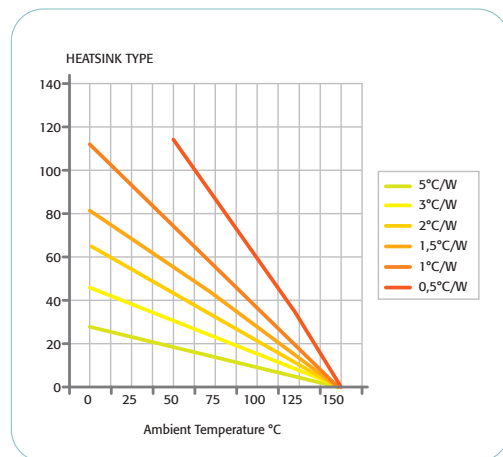
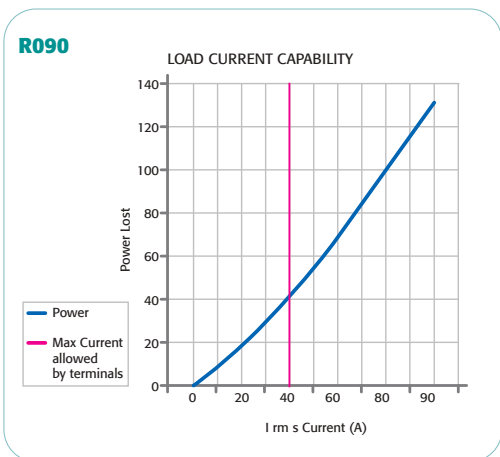
# CURRENT SIZING FOR REVO SSR/SSR ANALOG



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

230V



480V



Size SR2-230V H 121 x W 36 x D 87 - 0,27 kg

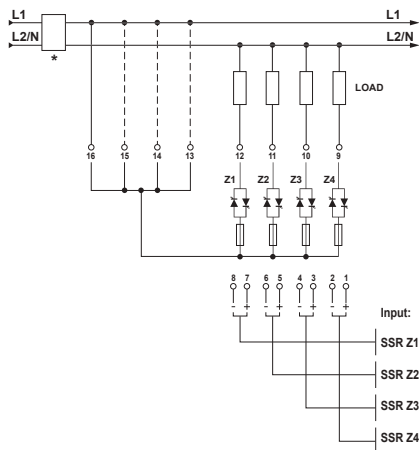
Size SR2-480V H 121 x W 48 x D 87 - 0,27 kg

## Specification

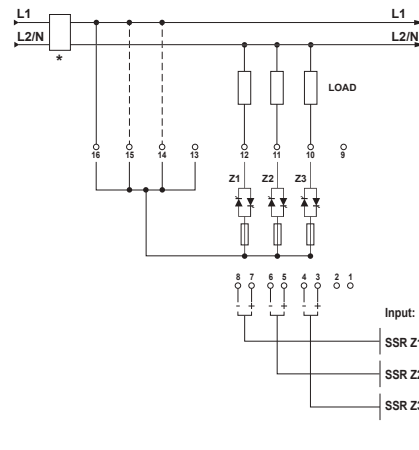
- Available in three versions as shown below
- Each unit includes Fuse and Fuse Holder, thyristor and heat sink with its own Firing circuit
- Zero Crossing Firing
- Isolated input
- LED for On Off Status indication
- LED for fuse failure indication
- Plug in connection for auxiliary and power terminations
- 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 examples

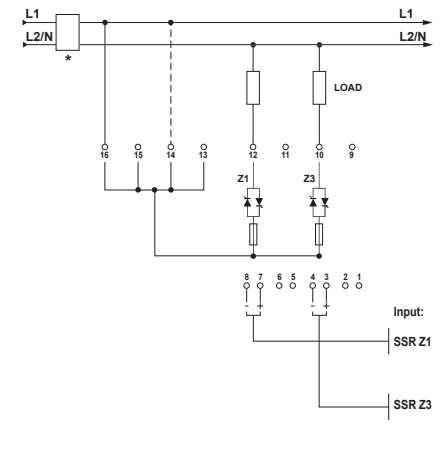
4x3,5A - 230V



3x4,5A - 230V



2x7A - 230V



ORDER CODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	R	S	X	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>NUMBER OF ZONES X CURRENT RATING</b>	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													
<b>MAX VOLTAGE</b>		7														
description	code	note														
230V		2														
480V		4														
<b>VOLTAGE SUPPLY AUX</b>		8														
description	code	note														
No Auxiliary Voltage with 230V		0														
24 Vdc with 480V		4														
<b>INPUT</b>		9														
description	code	note														
SSR		S														
<b>FIRING</b>		10														
description	code	note														
Zero Crossing		Z														
Random (used with REVO-PC)		R														
<b>CONTROL MODE</b>		11														
description	code	note														
Open Loop		0														
<b>FUSES &amp; OPTION</b>												12				
description	code	note														
Fuse + Fuse Holder		F														
<b>FAN VOLTAGE</b>												13				
description	code	note														
No Fan Voltage		0														
<b>APPROVALS</b>														14		
description	code	note														
CE EMC For European Market		0														
<b>MANUAL</b>														15		
description	code	note														
None		0														
Italian		1														
English		2														
German		3														
French		4														
<b>VERSION</b>														16		
description	code	note														
Version 1		1														

# REVO SX

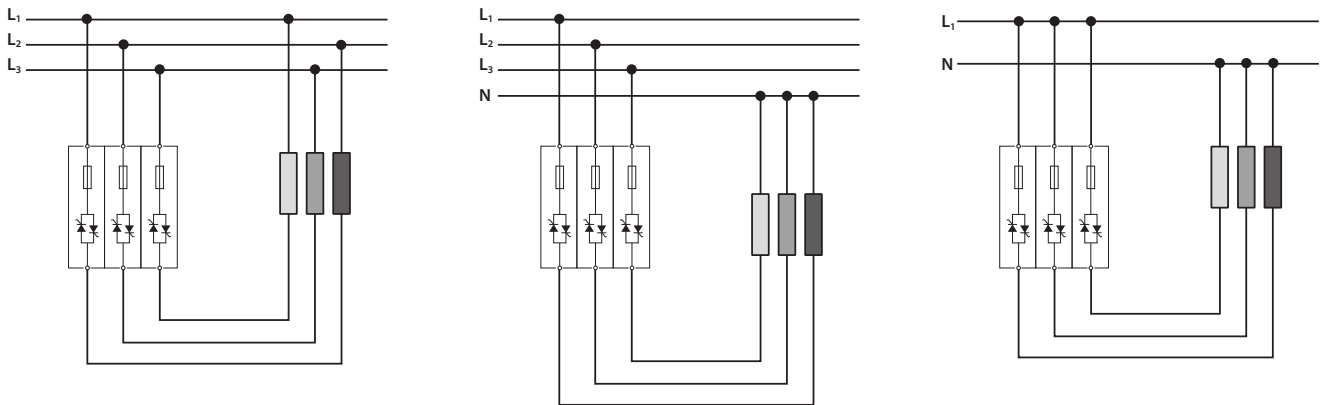


Size SR25 H 180 x W 116 x D 183 - 2,35 kg

## Specification

- Available in different type with two or three independent channels
- Currents: 50, 60, 75 and 90A
- 480V or 600V Max Voltage
- Each unit includes two or three Integrated Fuses & thyristors with its own firing circuit, they share a heat sink
- Zero Crossing Firing
- Isolated input
- Screw mounting
- Can be used in applications with many zones in combination with REVO PC series to get power synchronization, communication, measurement and diagnostic

## Diagram of control connection examples



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16					
<b>ORDER CODE</b>	<b>R</b>	<b>S</b>	<b>X</b>	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>NUMBER OF ZONES X CURRENT RATING</b>				4	5	6															
description				code		note															
2 zones 50A each				2	5	0															
2 zones 60A each				2	6	0															
2 zones 75A each				2	7	5															
2 zones 90A each				2	9	0															
3 zones 50A each				3	5	0															
3 zones 60A each				3	6	0															
3 zones 75A each				3	7	5															
3 zones 90A each				3	9	0															
<b>MAX VOLTAGE</b>							7														
description							code														
480V							4														
600V							6														
<b>VOLTAGE SUPPLY AUX</b>								8													
description								code													
No Auxiliary Voltage								0													
<b>INPUT</b>									9												
description									code												
SSR									S												
<b>FIRING</b>										10											
description										code											
Zero Crossing										Z											
<b>CONTROL MODE</b>																11					
description																code					
Open Loop																0					
<b>FUSES &amp; OPTION</b>																	12				
description																	code				
Integrated fuses																	F				
<b>FAN VOLTAGE</b>																		13			
description																		code			
Standard: 24Vdc Fan																		3			
<b>APPROVALS</b>																			14		
description																			code		
CE EMC For European Market																			0		
<b>MANUAL</b>																				15	
description																				code	
None																				0	
Italian																				1	
English																				2	
German																				3	
French																				4	
<b>VERSION</b>																					16
description																					code
Version 1																					1

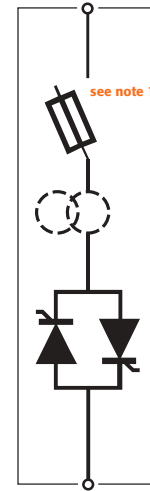
# REVO S 1PH



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,** cUL us® 508 listed and cUL® listed up to 700A as an option
- **100 kA:** Short Circuit Current rating (SCCR) up to 600V, 700A (see Tab. page 6)
- **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

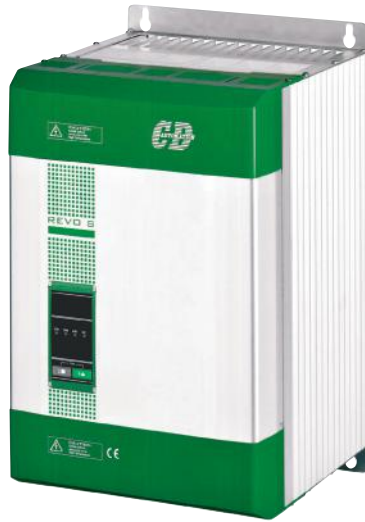
ORDER CODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16						
	R	S	1	-	-	-	-	-	-	-	-	-	-	-	-	-						
<b>CURRENT</b>			4	5	6																	
description			code		note																	
30A			0	3	0																	
35A			0	3	5																	
40A			0	4	0																	
60A			0	6	0																	
90A			0	9	0																	
120A			1	2	0																	
150A			1	5	0																	
180A			1	8	0																	
210A			2	1	0																	
300A			3	0	0	8																
400A			4	0	0																	
500A			5	0	0																	
600A			6	0	0																	
700A			7	0	0																	
800A			8	0	0	5																
<b>MAX VOLTAGE</b>					7																	
description					code	note																
480V					4																	
600V					6																	
690V					7	4, 5																
<b>AUX VOLTAGE SUPPLY</b>					8																	
≤ 210A					code	note																
No Aux Voltage needed if HB option and/or Analog Input option NOT selected					0	9																
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected					4	9																
> 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															
<b>INPUT</b>					9																	
description					code	note																
SSR					S																	
0:10V dc					V																	
4:20mA					A																	
<b>FIRING</b>																10						
description																code						
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						
Random Firing (used with REVO-PC)																R						
<b>CONTROL MODE</b>																	11					
description																	code					
Open Loop																	0					
<b>FUSES &amp; OPTION</b>																		12				
description																		code				
≤ 40A																		code				
No Fuse for all Units ≤ 40A																		0				
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				
> 40A																						
Fixed Fuses Std for all Units > 40A																		F				
Fixed Fuses Std + CT + HB																		H				
<b>FAN VOLTAGE</b>																			13			
description																			code			
No Fan < 90A																			0			
Fan 115Vac ≥ 90A																			1			
Fan 230Vac ≥ 90A Std Version																			2			
Fan 24Vdc ≥ 90A																			3			
<b>APPROVALS</b>																				14		
description																				code		
CE EMC For European Market																				0		
CE EMC + cUL® listed and cULus 508® listed																				L		
<b>MANUAL</b>																					15	
description																					code	
None																					0	
Italian																					1	
English																					2	
German																					3	
French																					4	
<b>VERSION</b>																						16
description																						code
Std version																						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)** Available on unit ≥60A **Note (5)** This unit is available with CE only **Note (6)** Needs TU-RS2 Terminal units **Note (7)** See Revo PC catalog **Note (8)**: 690V not available **Note (9)** This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies **Note (10)**: This option is available on units from 30 to 40A

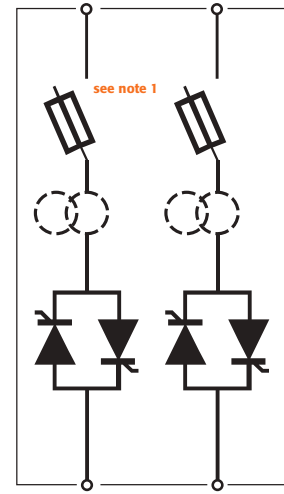
# REVO S 2PH



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,** cUL us<sup>®</sup> 508 listed and cUL<sup>®</sup> listed up to 700A as an option
- **100 kA:** Short Circuit Current rating (SCCR) up to 600V, 700A
- **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

ORDER CODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	R	S	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>CURRENT</b>			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											
<b>MAX VOLTAGE</b>			7														
description			code			note											
480V			4														
600V			6														
690V			7			4,5											
<b>AUX VOLTAGE SUPPLY</b>			8														
≤ 210A			code			note											
No Aux Voltage needed if HB option and/or Analog Input option NOT selected			0			9											
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected			4			9											
> 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											
<b>INPUT</b>			9														
description			code			note											
SSR			S														
0:10V dc			V														
4:20mA			A														
<b>FIRING</b>											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				
<b>CONTROL MODE</b>											11						
description											code		note				
Open Loop											0						
<b>FUSES &amp; OPTION</b>											12						
≤ 40A											code		note				
No Fuse for all Units ≤ 40A											0						
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 + HB											H						
<b>FAN VOLTAGE</b>											13						
description											code		note				
No Fan < 60A											0						
Fan 115V ≥ 60A											1						
Fan 230V ≥ 60A Std Version											2						
Fan 24Vdc ≥ 60A											3						
<b>APPROVALS</b>											14						
description											code		note				
CE EMC For European Market											0						
CE EMC + cUL <sup>®</sup> listed and cULus 508 <sup>®</sup> listed											L		7				
<b>MANUAL</b>											15						
description											code		note				
None											0						
Italian											1						
English											2						
German											3						
French											4						
<b>VERSION</b>											16						
description											code		note				
Std version											1						
High Sensitivity HB below 5A											5		10				

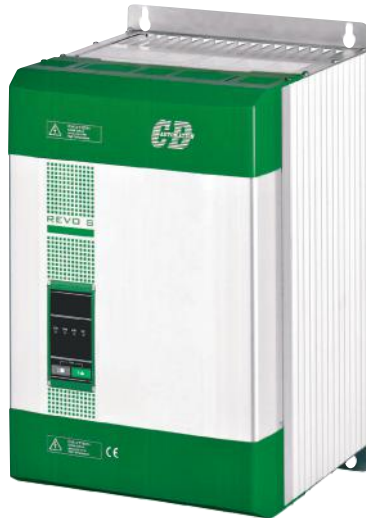
Note (1) Fixed Fuses over 40A Note (2) Available with Analog input only Note (3) Load voltage must be included in Selected Auxiliary Voltage Range for unit > 210A Note (4) Available on unit ≥60A Note (5) This unit is available with CE only Note (6) Needs TU-RS2 Terminal units Note (7) 75A unit is available with cUL only Note (9) This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies Note (10): This option is available on units from 30 to 40A



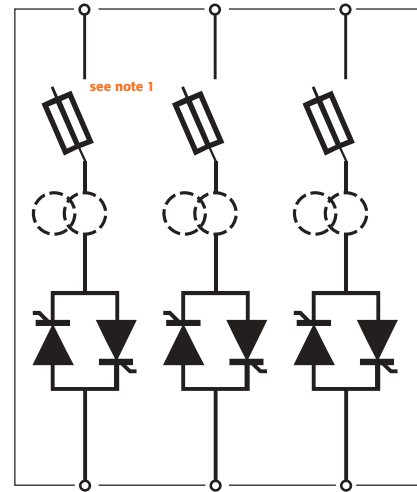
# REVO S 3PH



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,** cUL us® 508 listed and cUL® listed up to 500A as an option
- 100 kA:** Short Circuit Current rating (SCCR) up to 600V, 500A
- 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

ORDER CODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	R	S	3	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>CURRENT</b>			4	5	6											
<b>description</b>																
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										
<b>MAX VOLTAGE</b>							7									
<b>description</b>																
480V							4									
600V							6									
690V							7						4, 5			
<b>AUX VOLTAGE SUPPLY</b>								8								
<b>≤ 210A</b>																
<b>description</b>																
No Aux Voltage needed if HB option and/or Analog Input option NOT selected								0							9	
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected								4							9	
<b>&gt; 210A</b>																
<b>Main Supply Voltage</b>																
<b>Aux Voltage Range</b>																
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
<b>INPUT</b>																9
<b>description</b>																
SSR																S
0:10V dc																V
4:20mA																A
<b>FIRING</b>																
<b>description</b>																
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
<b>CONTROL MODE</b>																
<b>description</b>																
Open Loop																0
<b>FUSES &amp; OPTION</b>																
<b>≤ 40A</b>																
<b>description</b>																
No Fuse for all Units ≤ 40A																
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
<b>&gt; 40A</b>																
<b>Fixed Fuses Std for all Units &gt; 40A</b>																F
<b>Fixed Fuses Std + CT + HB</b>																H
<b>FAN VOLTAGE</b>																
<b>description</b>																
No Fan < 60A																
Fan 115Vac ≥ 60A																
Fan 230Vac ≥ 60A Std Version																
Fan 24Vdc ≥ 60A																
<b>APPROVALS</b>																
<b>description</b>																
CE EMC For European Market																
CE EMC + cUL® listed and cULus 508® listed																L
<b>MANUAL</b>																
<b>description</b>																
None																
Italian																
English																
German																
French																
<b>VERSION</b>																
<b>description</b>																
Std Version																
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 Note (9) This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies Note (10): This option is available on units from 30 to 40A

# 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 mm  
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.

