



GENERAL CATALOGUE

Thyristor Power Controllers

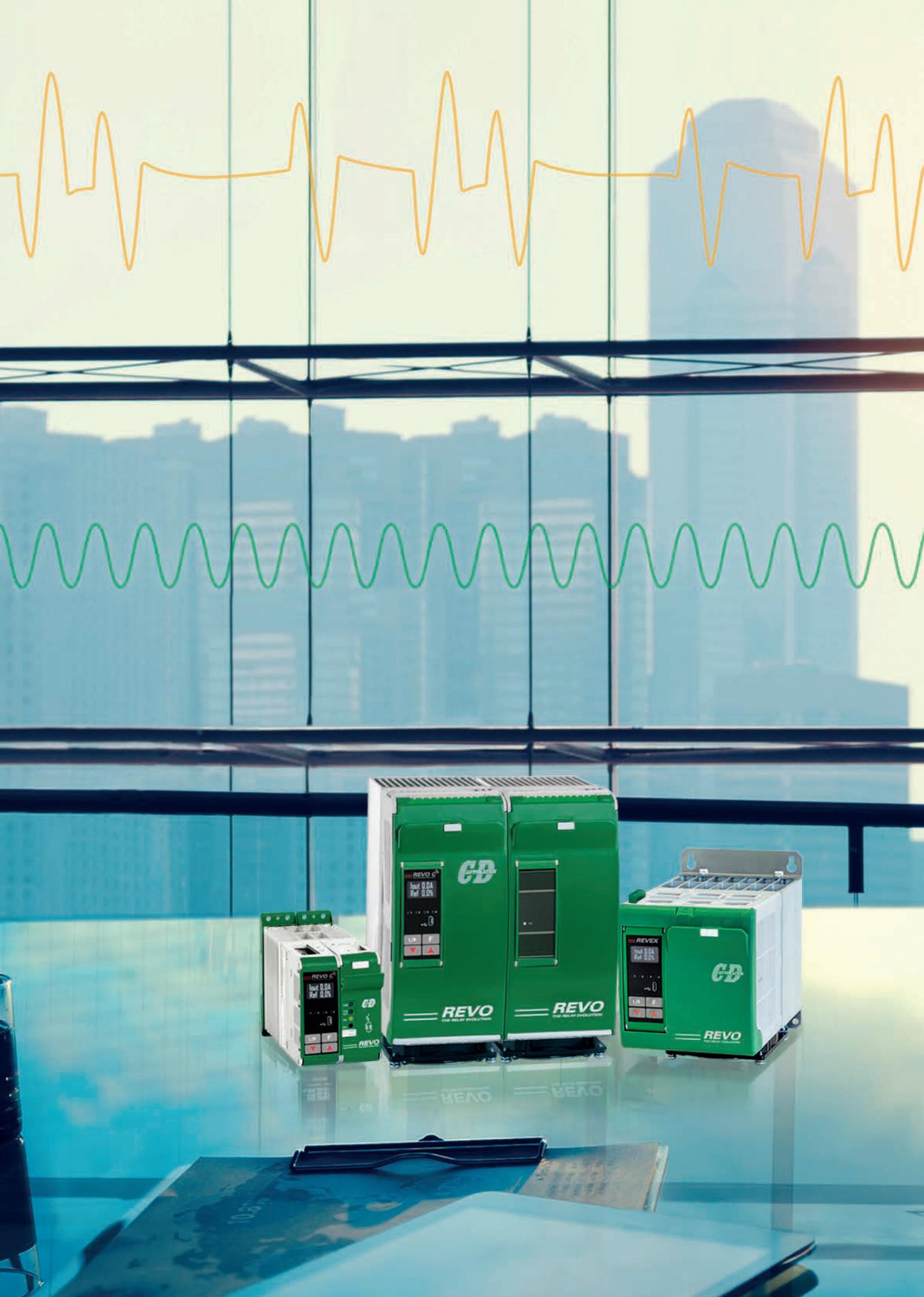


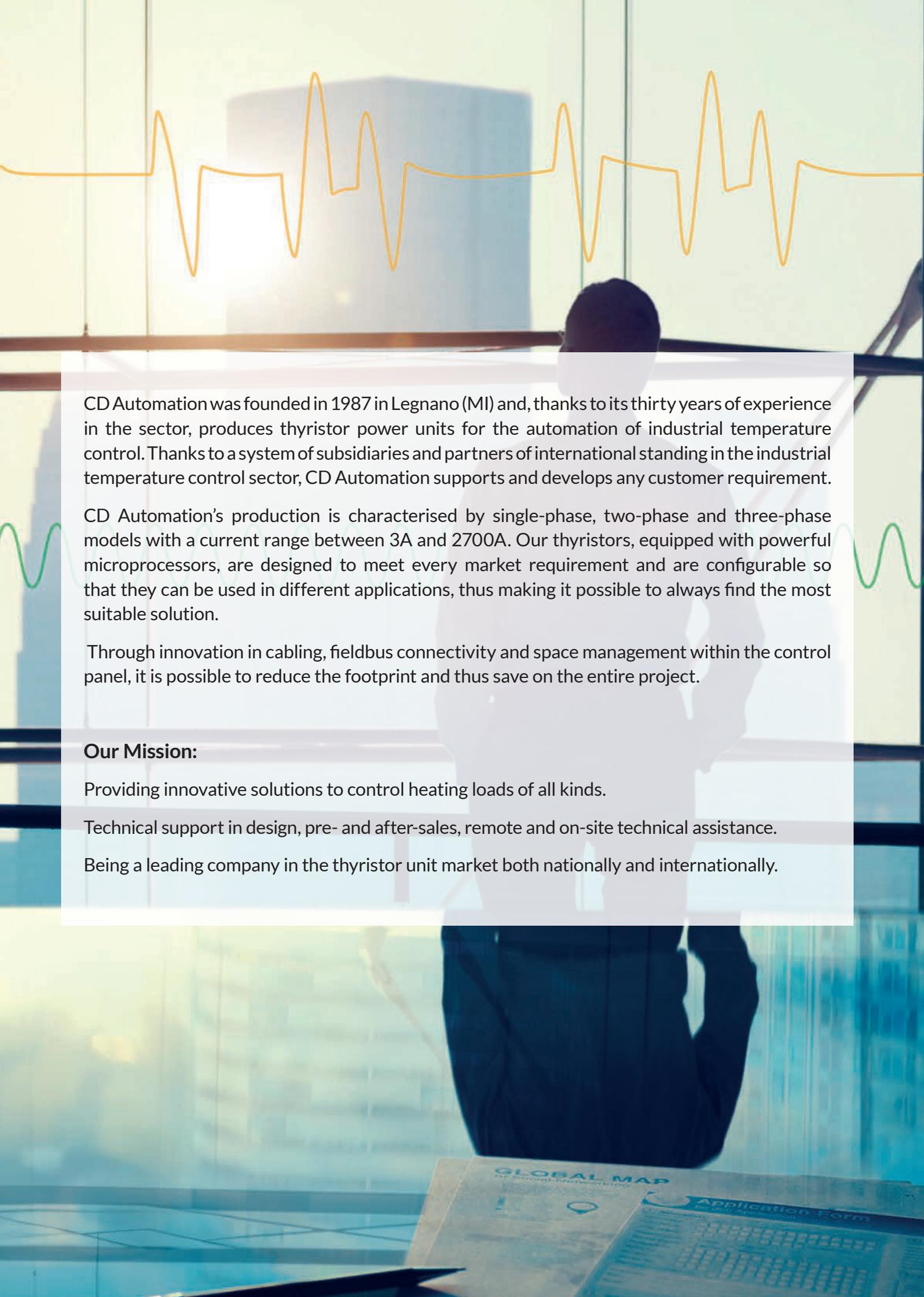
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CD Automation was founded in 1987 in Legnano (MI) and, thanks to its thirty years of experience in the sector, produces thyristor power units for the automation of industrial temperature control. Thanks to a system of subsidiaries and partners of international standing in the industrial temperature control sector, CD Automation supports and develops any customer requirement.

CD Automation's production is characterised by single-phase, two-phase and three-phase models with a current range between 3A and 2700A. Our thyristors, equipped with powerful microprocessors, are designed to meet every market requirement and are configurable so that they can be used in different applications, thus making it possible to always find the most suitable solution.

Through innovation in cabling, fieldbus connectivity and space management within the control panel, it is possible to reduce the footprint and thus save on the entire project.

Our Mission:

Providing innovative solutions to control heating loads of all kinds.

Technical support in design, pre- and after-sales, remote and on-site technical assistance.

Being a leading company in the thyristor unit market both nationally and internationally.



General features

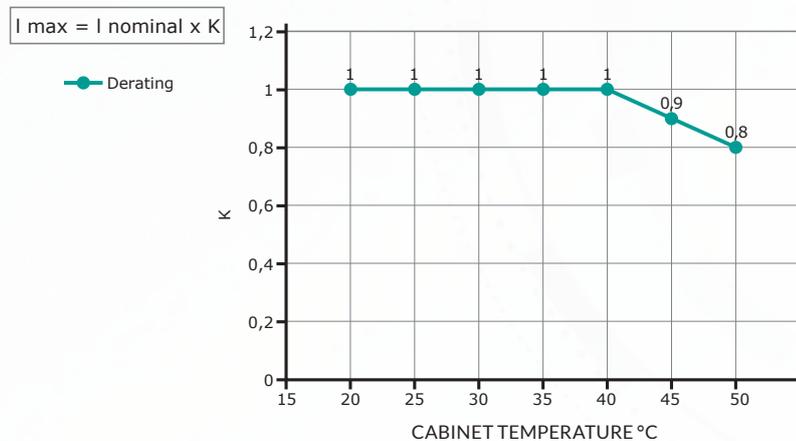
Environmental installation conditions

Ambient temperature	0÷40°C (32÷104°F) at nominal current. Over 40°C/104°F use the derating curve (max 50°C).
Storage temperature	-25°C to 70°C / -13°F to 158°F
Installation place	Avoid installing in areas exposed to direct sunlight, conductive dust, corrosive gases, vibrations, water, or salty environments.
Altitude	Up to 1000 meter over sea level. For higher altitude reduce the nominal current by 2% for each 100mt over 1000mt (<i>see Derating table</i>).
Humidity	From 5 to 95% without condensation and ice.
Pollution Level	Up to 2° level ref. IEC 60947-1 6.1.3.2

Derating

● Derating curve

The nominal current values specified for the units are based on their operation in continuous service at an ambient temperature of 40°C. To adjust for temperatures above 40°C, multiply the nominal current by the derating coefficient (K) as indicated below.



● SCR unit size derating with increasing altitude

When installing our SCR units at altitudes exceeding 1000 metres above sea level, it is advised to adjust the current size using a derating coefficient. This adjustment should take into account the stability of the electrical supply and the operating temperatures within the switch cabinet.

Minimal derating:

The derating of the current size by **-1% per 100m** above 1000m above sea level.

Derating with operating margin (recommended):

The derating of the current size by **-2% per 100m** above 1000m above sea level.

Example: The derating coefficient for an SCR device installed at an altitude of 3500 metres above sea level must be calculated as follows:

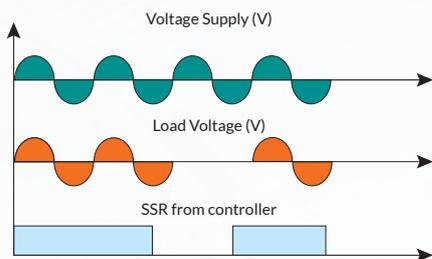
$$[(3500-1000)/100]=25\% \text{ minimum}$$

$$[(3500-1000) \times 2 / 100] = 50\% \text{ recommended}$$

Firing types

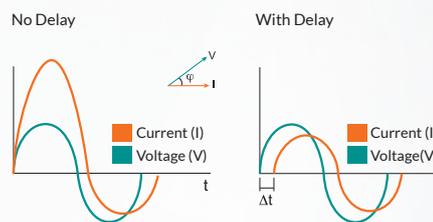
Zero Crossing (ZC)

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.



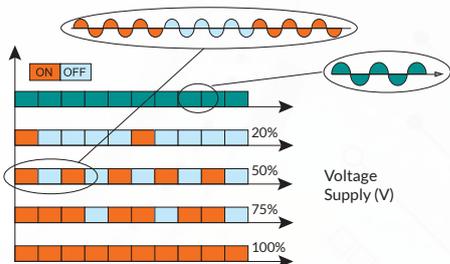
Delayed Triggering (DT)

Used to switch the primary coil of transformers when coupled with normal resistive loads (not cold resistance) on the secondary, DT prevents the inrush current when zero voltage (ON-OFF) is used to switch the primary. The thyristor unit switches OFF when the load voltage is negative and switches ON only when positive with a pre-set delay for the first half cycle.



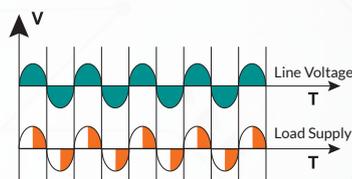
Burst Firing (BF)

This firing is performed digitally within the thyristor unit at zero volts, producing no EMC interference. Analogue input is necessary for BF and the number of complete cycles must be specified for 50% power demand. This value can be between 1 and 255 complete cycles, determining the speed of firing. When 1 is specified, the firing mode becomes Single Cycle (SC).



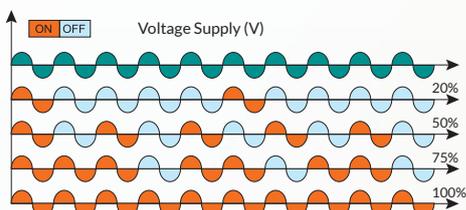
Phase Angle (PA)

PA controls the power to the load by allowing the thyristor to conduct for part of the AC supply cycle only. The more power required, the more the conduction angle is advanced until virtually the whole cycle is conducting for 100% power. The load power can be adjusted from 0 to 100% as a function of the analogue input signal, normally determined by a temperature controller or potentiometer, PA is normally used with inductive loads.



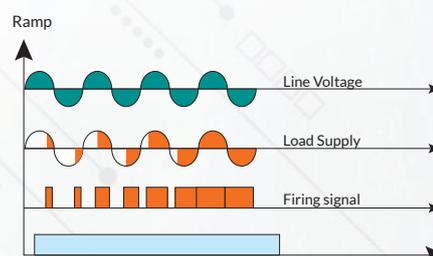
Single Cycle (SC)

SC is the fastest zero crossing switching method. At 50% input signal, one cycle is ON and one cycle is OFF. At 75%, 3 cycles are ON and one cycle is OFF. If power demand is 76% the unit performs the same as for 75% but every time the unit switches ON the microprocessor divides 76/75 and memorises the ratio. When the sum is one the unit delivers one cycle more to the load. With this firing it is necessary to have analogue input.



Soft Start + Burst Firing (S+BF)

This is an additional feature to Burst Firing. Starting in Phase Angle mode, the unit ramps from zero to full voltage at a preset time, finishing at full conduction for remainder of the ON period. Ideally used to switch small inductive loads, S+BF avoids current surge and minimizes electrical interference.



REVO S



Main features

The features of REVO S are suitable for basic applications where communication is not required

- The REVO S family includes 1-2-3 phase units from 30A to 800A
- Nominal voltage 480V, 600V and 690V
- Input: SSR or analog ($4\div 20\text{mA}/0\div 10\text{V}$)
- Firing: Burst Firing (Fast Zero Crossing)
- Heater Break: Alarm to diagnose partial or total break of the load or thyristor short circuit
- Extrarapid fuse with fuse holder up to 40A
- Extrarapid fixed fuses from 60A to 800A
- **100 kA** Short Circuit Current (SCCR) tested
- **CE** and **cUL** approvals

Load type

Resistive / Medium and long-wave infrared lamps

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- Petrolchemicals
- Platform for oil extraction
- Conventional power generator
- Chemicals and pharmaceuticals
- Autoclaves
- Electric furnaces
- Galvanic process
- Glass industry
- Polysilicon
- Chemical
- Plastic machinery
- Packing machinery
- Automobile
- Paint drying
- UV drying
- Car internal fitting

REVO S & SSR - FEATURES

	Description	Revo S 1PH		Revo S 2PH		Revo S 3PH	
	CODE	RS1		RS2		RS3	
Load Type	Max voltage 480V	●		●		●	
	Max voltage 600V	●		●		●	
	Max voltage 690V	● ≥60A		● ≥60A		● ≥60A	
	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)	○		○		○	
Options	Heater break + thyristor short circuit	○		○		○	
	Integrated extrarapid fixed fuses	● >40A		● >40A		● >40A	
	Extrarapid fuse & fuse holder	○ ≤40A		○ ≤40A		○ ≤40A	
	REVO PC (2)	○					
Current	CURRENT	SIZE		SIZE		SIZE	
	Voltage	480÷600V	690V	480÷600V	690V	480÷600V	690V
	30	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 option (*800A UL only) ■ CE only ■ cUL only

Nota 1: 4-8-16 Cycles Simplified Burst Firing available with Analog Input only

Nota 2: 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.

REVO S 1PH

Technical Specification

- **Load type:** Normal resistance, infrared long and medium waveform
- **Input:** SSR Standard; 0÷10V, 4÷20mA and Heater Break alarm are options
- **Firing:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0°C to 40°C without derating
- **Approvals:** Compliant with CE and cUL (option) up to 700A
- **100 kA:** Short Circuit Current Rating (SCCR) up to 600V, 700A

Options

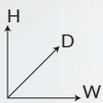
- Analog input: 4÷20mA or 0÷10V
- Heater Break Alarm + Current Transformer
- Integrated extrarapid fuses ≤40A
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

Firing

- ZC: Zero Crossing
- Burst Firing 4 / 8 / 16

ZC Firing available with analogue input ONLY

REVO S 1PH 30÷800A / 480÷600V



SR3

H 121xW 36xD 125 - 0,44 kg
30÷40A



SR6

H 121xW 36xD 185 - 0,61 kg
30÷40A IFH



SR12

H 269xW 93xD 170 - 3,4kg
60A



SR15

H 273xW 93xD 170 - 3,6 kg
90÷210A



S12

H 520xW 137xD 270 - 15 kg
300÷700A



S15

H 560xW 137xD 270 - 10,5 kg
800A

REVO S 1PH 60÷800A / 690V



S11

H 440xW 137xD 270 - 10,5 kg
60÷210A



S12

H 520xW 137xD 270 - 15 kg
400÷700A



S15

H 560xW 137xD 270 - 10,5 kg
800A

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

CURRENT			4	5	6	
Description	Size 480/600V	Size 690V	cod	note		
30A	SR3 / IFH=SR6	--	0 3 0			
35A	SR3 / IFH=SR6	--	0 3 5			
40A	SR3 / IFH=SR6	--	0 4 0			
60A	SR12	S11	0 6 0			
90A	SR15	S11	0 9 0			
120A	SR15	S11	1 2 0			
150A	SR15	S11	1 5 0			
180A	SR15	S11	1 8 0			
210A	SR15	S11	2 1 0			
300A	S12	S12	3 0 0			
400A	S12	S12	4 0 0			
500A	S12	S12	5 0 0			
600A	S12	S12	6 0 0			
700A	S12	S12	7 0 0			
800A	S15	S15	8 0 0			10

MAX VOLTAGE		7	
Description	cod	note	
480V	4		
600V	6		
690V	7		4, 5

AUX VOLTAGE SUPPLY		8	
≤ 210A		cod	note
No Aux Voltage needed if HB option and/or Analog Input option NOT selected		0	8
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected		4	8
> 210A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT		9	
Description	cod	note	
SSR	S		A
0:10V dc	V		B
4:20mA	A		B

FIRING		10	
Description	cod	note	
Zero Crossing	Z		A
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 (used with REVO-PC)	R		7

CONTROL MODE		11	
Description	cod	note	
Open Loop	0		

FUSES & OPTIONS		12	
≤ 40A		cod	note
No Fuse (for units ≤ 40A)		0	
Extrarapid fuse + fuse holder		F	
Extrarapid fuse + fuse holder + CT		Y	
Extrarapid fuse + fuse holder + CT + HB		H	
Extrarapid fuse + fuse holder + CT + HB with Flat Cable Connection		X	5, 6
> 40A			
Extrarapid fixed fuses standard (on all units > 40A)		F	1
Extrarapid fixed fuses standard + CT + HB		H	

FAN VOLTAGE		13	
Description	cod	note	
No fan < 90A	0		
Fan 115Vac ≥ 90A	1		
Fan 230Vac ≥ 90A Standard	2		
Fan 24Vdc ≥ 90A	3		

APPROVALS		14	
Description	cod	note	
CE for European market	0		
CE + cUL	L		

MANUAL		15	
Description	cod	note	
None	0		
Italian	1		
English	2		
German	3		
French	4		

VERSION		16	
Description	cod	note	
Standard Version	1		
High Sensitivity HB below 5A	5		9

Note A: Zero Crossing Firing only with SSR input

Note B: With analog input (0:10Vdc, 4:20mA) it is necessary to have the Fuse + Fuse Holder on units ≤40A

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 units >210A

Note 4: Available on unit ≥60A

Note 5: This unit is not available with optional UL approval

Note 6: Needs RTURS terminal units

Note 7: See REVO PC

Note 8: This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies

Note 9: This option is available on units from 30A to 40A

Note 10: 800A unit is available with UL approval (not cUL)

REVO S 2PH

Technical Specification

- **Load type:** Normal resistance, infrared long and medium waveform
- **Input:** SSR Standard; 0÷10V, 4÷20mA and Heater Break alarm are options
- **Firing:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0°C to 40°C without derating
- **Approvals:** Compliant with CE and cUL (option) up to 700A
- **100 kA:** Short Circuit Current Rating (SCCR) up to 600V, 700A
- **Integrated pass-through phase:** 480V-600V: all sizes S14 / 690V: all sizes S11, S13, S14

Options

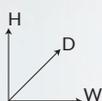
- Analog input: 4÷20mA or 0÷10V
- Heater Break Alarm + Current Transformer
- Integrated extrarapid fuses ≤40A
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

Firing

- ZC: Zero Crossing
- Burst Firing 4 / 8 / 16

ZC Firing available with analogue input ONLY

REVO S 2PH 30÷800A / 480÷600V



SR4

H 121 x W 72 x D 125 - 0,88 kg
30÷40A



SR7

H 121 x W 72 x D 185 - 1,22 kg
30÷40A IFH



SR15

H 273 x W 93 x D 170 - 3,6 kg
60÷90A



SR16

H 273 x W 186 x D 170 - 7,0 kg
120÷210A



S14

H 520 x W 262 x D 270 - 22 kg
300÷700A



S16

H 560 x W 275 x D 270 - 34,4 kg
800A

REVO S 2PH 60÷800A / 690V



S11

H 440 x W 137 x D 270 - 10,5 kg
60÷90A



S13

H 440 x W 262 x D 270 - 18 kg
120÷210A



S14

H 520 x W 262 x D 270 - 22 kg
300÷700A



S16

H 560 x W 275 x D 270 - 34,4 kg
800A

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

CURRENT			4	5	6	
Description	Size 480/600V	Size 690V	cod	note		
30A	SR4 / IFH=SR7	--	0 3 0			
35A	SR4 / IFH=SR7	--	0 3 5			
40A	SR4 / IFH=SR7	--	0 4 0			
60A	SR15	S11	0 6 0			
75A	SR15	--	0 7 5	7		
90A	SR15	S11	0 9 0	5		
120A	SR16	S13	1 2 0			
150A	SR16	S13	1 5 0			
180A	SR16	S13	1 8 0			
210A	SR16	S13	2 1 0			
300A	S14	S14	3 0 0			
400A	S14	S14	4 0 0			
450A	S14	S14	4 5 0			
500A	S14	S14	5 0 0			
600A	S14	S14	6 0 0			
700A	S14	S14	7 0 0			
800A	S16	S16	8 0 0	7		

MAX VOLTAGE			7	
Description	cod	note		
480V	4			
600V	6			
690V	7	4, 5		

AUX VOLTAGE SUPPLY			8	
≤ 210A			code	note
No Aux Voltage needed if HB option and/or Analog Input option NOT selected			0	8
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected			4	8
> 210A				
Main Supply Voltage	Aux Voltage Range			
100/120Vac	90÷135Vac	1	3	
200/208/230/240Vac	180÷265Vac	2	3	
277Vac	238÷330Vac	3	3	
380/415/480Vac	342÷528Vac	5	3	
600Vac	540÷759Vac	6	3	
690Vac	540÷759Vac	7	3	

INPUT			9	
Description	cod	note		
SSR	S	A		
0:10V dc	V	B		
4:20mA	A	B		

FIRING			10	
Description	cod	note		
Zero Crossing	Z	A		
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	cod	note		
Open Loop	0			

FUSES & OPTION			12	
≤ 40A			code	note
No Fuse (for units ≤ 40A)			0	
Extrapid fuse + fuse holder			F	
Extrapid fuse + fuse holder + CT			Y	
Extrapid fuse + fuse holder + CT + HB			H	
Extrapid fuse + fuse holder + CT + HB with Flat Cable Connection			X	5, 6
> 40A				
Extrapid fixed fuses standard (on all units > 40A)			F	1
Extrapid fixed fuses standard + CT + HB			H	

FAN VOLTAGE			13	
Description	cod	note		
No fan <60A	0			
Fan 115V ≥60A	1			
Fan 230V ≥60A Standard	2			
Fan 24Vdc ≥60A	3			

APPROVALS			14	
Description	cod	note		
CE for European market	0			
CE + cUL	L	7		

MANUAL			15	
Description	cod	note		
None	0			
Italian	1			
English	2			
German	3			
French	4			

VERSION			16	
Description	cod	note		
Standard Version	1			
High Sensitivity HB below 5A	5	9		

Note A: Zero Crossing Firing only with SSR input

Note B: With analog input (0:10Vdc, 4:20mA) it is necessary to have the Fuse + Fuse Holder on units ≤ 40A

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 not available with optional UL approval

Note 6: Needs RTURS terminal units

Note 7: 75A unit is available with cUL approval only, 800A unit is available with UL approval (not cUL)

Note 8: This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies

Note 9: This option is available on units from 30A to 40A

REVO S 3PH

Technical Specification

- **Load type:** Normal resistance, infrared long and medium waveform
- **Input:** SSR Standard; 0÷10V, 4÷20mA and Heater Break alarm are options
- **Firing:** Zero Crossing, Burst Firing available with analogue input only
- **Operating temperature:** 0°C to 40°C without derating
- **Approvals:** Compliant with CE and cUL (option) up to 700A
- **100 kA:** Short Circuit Current Rating (SCCR) up to 600V, 700A

Options

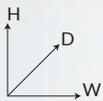
- Analog input: 4÷20mA or 0÷10V
- Heater Break Alarm + Current Transformer
- Integrated extrarapid fuses ≤40A
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

Firing

- ZC: Zero Crossing
- Burst Firing 4 / 8 / 16

ZC Firing available with analogue input ONLY

REVO S 3PH 30÷800A / 480V-600V



SR5

H 121 x W 108 x D 125 - 1,32 kg
30÷40A



SR8

H 121 x W 108 x D 185 - 1,83 kg
30÷40A IFH



SR16

H 269 x W 186 x D 170 - 6,8kg
60A



SR17

H 273 x W 279 x D 170 - 10,6 kg
90÷210A



S14

H 520 x W 262 x D 270 - 22 kg
300÷500A



S17

H 560 x W 411 x D 270 - 51,6 kg
800A

REVO S 3PH 60÷800A / 690V



S11

H 440 x W 137 x D 270 - 10,5 kg
60÷90A



S13

H 440 x W 262 x D 270 - 18 kg
120÷210A



S14

H 520 x W 262 x D 270 - 22 kg
300÷500A



S17

H 560 x W 411 x D 270 - 51,6 kg
800A

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

CURRENT			4	5	6
Description	Size 480/600V	Size 690V	cod	note	
30A	SR5 / IFH=SR8	--	0 3 0		
35A	SR5 / IFH=SR8	--	0 3 5		
40A	SR5 / IFH=SR8	--	0 4 0		
60A	SR16	S11	0 6 0		
75A	SR16	--	0 7 5	7	
90A	SR17	S11	0 9 0	5	
120A	SR17	S13	1 2 0		
150A	SR17	S13	1 5 0		
180A	SR17	S13	1 8 0		
210A	SR17	S13	2 1 0		
300A	S14	S14	3 0 0		
350A	S14	S14	3 5 0		
400A	S14	S14	4 0 0		
450A	S14	S14	4 5 0		
500A	S14	S14	5 0 0		
800A	S17	S17	8 0 0	7	

MAX VOLTAGE			7
Description	cod	note	
480V	4		
600V	6		
690V	7	4,5	

AUX VOLTAGE SUPPLY			8
Description	cod	note	
≤ 210A			
No Aux Voltage needed if HB option and/or Analog Input option NOT selected	0	8	
Aux Volt 24V ac-dc needed with HB option and/or Analog Input option selected	4	8	
> 210A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT			9
Description	cod	note	
SSR	S	A	
0:10V dc	V	B	
4:20mA	A	B	

FIRING			10
Description	cod	note	
Zero Crossing	Z	A	
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	cod	note	
Open Loop	0		

FUSES & OPTION			12
Description	cod	note	
≤ 40A			
No Fuse (for units ≤ 40A)	0		
Extrapid fuse + fuse holder	F		
Extrapid fuse + fuse holder + CT	Y		
Extrapid fuse + fuse holder + CT + HB	H		
Extrapid fuse + fuse holder + CT + HB with Flat Cable Connection	X	5,6	
> 40A			
Extrapid fixed fuses standard (on all units > 40A)	F	1	
Extrapid fixed fuses standard + CT + HB	H		

FAN VOLTAGE			13
Description	cod	note	
No fan <60A	0		
Fan 115V ≥60A	1		
Fan 230V ≥60A Standard	2		
Fan 24Vdc ≥60A	3		

APPROVALS			14
Description	cod	note	
CE for European market	0		
CE + cUL	L	7	

MANUAL			15
Description	cod	note	
None	0		
Italian	1		
English	2		
German	3		
French	4		

VERSION			16
Description	cod	note	
Standard Version	1		
High Sensitivity HB below 5A	5	9	

Note A: Zero Crossing Firing only with SSR input

Note B: With analog input (0:10Vdc, 4:20mA) it is necessary to have the Fuse + Fuse Holder on units ≤ 40A

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 units >210A

Note 4: Available on unit ≥60A

Note 5: This unit is not available with optional UL approval

Note 6: Needs RTURS terminal units

Note 7: 75A unit is available with cUL approval only, 800A unit is available with UL approval (not cUL)

Note 8: This option is not available with Max Voltage equal to 690V. In this case please use the other Auxiliary Voltage Supplies

Note 9: This option is available on units from 30A to 40A

REVO SX

230V



SR2-230V
H 121xW 36xD 87
0,27 kg

480V

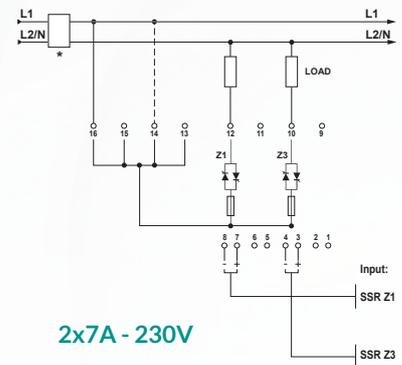
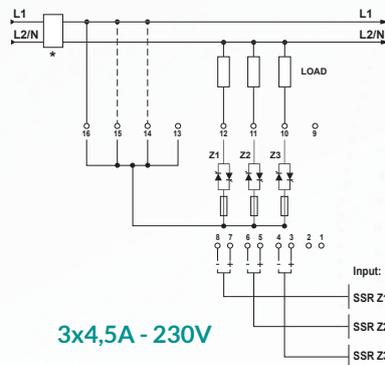
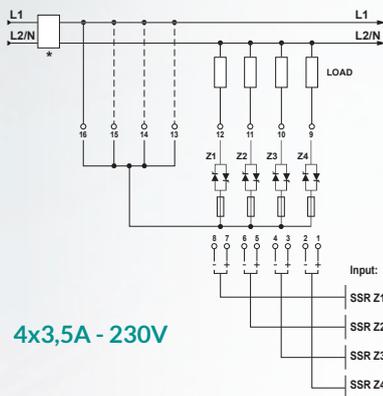


SR2-480V
H 121xW 48xD 87
0,27 kg

Technical Specification

- Available in three versions
- Each unit includes extrarapid fuse and fuse holder, thyristor and heat sink with its own firing circuit
- Zero Crossing firing
- Isolated SSR input
- LED for On/Off status indication
- LED for fuse failure indication
- Separate screw connection terminals for Power and Inputs
- Din rail mounting or screw mounting
- Can be used in multi-zone applications and low power such as Thermoforming, Blow Moulding and Hot Runners

Example control connection diagram



REVO SX	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	S	X	-	-	-	-	-	-	-	-	-	-	-	-	-
NUMBER OF ZONES X CURRENT RATING	4	5	6									12				
Description	cod			note									cod	note		
4 zones 3,5A each	4	0	3							F						
3 zone 4,5A each	3	0	4													
2 zone 7A each	2	0	7													
MAX VOLTAGE	7													13		
Description	cod			note									cod	note		
230V	2									0						
480V	4															
VOLTAGE SUPPLY AUX	8													14		
Description	cod			note									cod	note		
No Auxiliary Voltage with 230V	0									0						
24 Vdc with 480V	4															
INPUT	9													15		
Description	cod			note									cod	note		
SSR	S									0						
FIRING	10													16		
Description	cod			note									cod	note		
Zero Crossing	Z									1						
Random (used with REVO-PC)	R									1						
CONTROL MODE	11													16		
Description	cod			note									cod	note		
Open Loop	0									1						

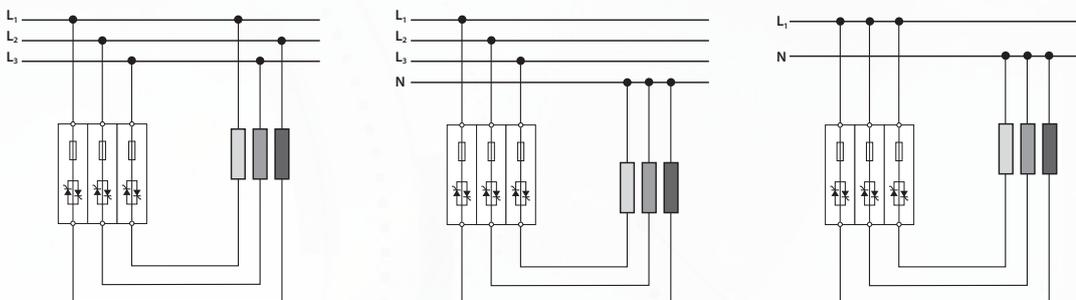


Technical Specification

- Available in different versions with two or three independent channels
- Currents: 50A, 60A, 75A, 90A
- 480V or 600V max voltage
- Integrated extrarapid fuses and thyristors with its own firing circuit
- Single heat sink
- Zero Crossing firing
- Isolated input
- Screw mounting
- Can be used in multi-zone applications in combination with REVO PC series to get power synchronization, communication, measurement and diagnostic

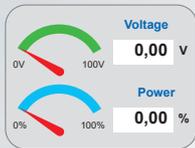
SR25
 H 180 x W 116 x D 183
 2,35 kg

Example control connection diagram



REVO SX	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	S	X	-	-	-	-	-	-	-	-	-	-	-	-	-
NUMBER OF ZONES X CURRENT RATING				4	5	6										
Description				cod		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										
MAX VOLTAGE				7												
Description				cod		note										
480V				4												
600V				6												
VOLTAGE SUPPLY AUX				8												
Description				cod		note										
No Auxiliary Voltage				0												
INPUT				9												
Description				cod		note										
SSR				S												
FIRING				10												
Description				cod		note										
Zero Crossing				Z												
CONTROL MODE											11					
Description											cod		note			
Open Loop											0					
FUSES & OPTION											12					
Description											cod		note			
Extrarapid fuse & fuse holder											F					
FAN VOLTAGE											13					
Description											cod		note			
Standard: 24Vdc fan											3					
APPROVALS											14					
Description											cod		note			
CE for European market											0					
MANUAL											15					
Description											cod		note			
None											0					
Italian											1					
English											2					
German											3					
French											4					
VERSION											16					
Description											cod		note			
Version 1											1					

REVEX



Configurator software

TIA PORTAL V16

SIEMENS

Libraries
(only for RS485)



Main features

Ready-to-use unit configured according to order code, choosing only the options you need to build your own “Customised Unit”.

REVEX is a universal unit that allows you to have:

- Input signal in digital mode, no link jumpers inside
- Firing: Single Cycle, Half Cycle, Burst Firing, Phase Angle, Delayed Triggering, different types of adjustable ramp
- Control mode (V, V2, I, I2, VxI)
- Communication RS485 with Modbus® protocol std
- Two Analog input
- Two Digital input
- USB port for programming, configuration and remote management
- **Guided configuration via free software**, available on www.cdautomation.com
- Siemens **TIA Portal Libraries** for data exchange with our products (from V16) (only for RS485)

Load type

Resistive / Inductive / Infrared lamp short wave (IRSW) and fast medium wave (IRMW) / Molybdenum Disilicide elements (MoSi2) / Silicon Carbide elements (SiC)

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- | | | | |
|---------------------------------|---------------------|---------------------|------------------------|
| ● Petrochemicals | ● Autoclaves | ● Polysilicon | ● Automobile |
| ● Platform for oil extraction | ● Electric furnaces | ● Chemical | ● Paint drying |
| ● Conventional power generator | ● Galvanic process | ● Plastic machinery | ● UV drying |
| ● Chemicals and pharmaceuticals | ● Glass industry | ● Packing machinery | ● Car internal fitting |

REVEX - FEATURES

	Description	REVEX 1PH	REVEX 2PH	REVEX 3PH	REVEX PA
	CODE	RX1	RX2	RX3	RXP
Load type	Max voltage 480V	●	●	●	●
	Max voltage 600V	●	●	●	●
	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	●	●	●	●
	Potentiometer	●	●	●	●
Firing	Single Cycle	●			
	Half Cycle	●			
	Burst Firing	●	●	●	●
	Phase Angle	●			●
	Delayed Triggering	●			●
	Zero Crossing	●	●	●	●
Control mode (feedback)	Open Loop	●	●	●	●
	V	●	●	●	●
	V ²	●	●	●	●
	I	●	●	●	●
	I ²	●	●	●	●
	V x I	●	●	●	●
Options	Current limit (CL)	○			○
	Heater Break Alarm + SCR Short Circuit	○	○	○	○
	Fuse	○	○	○	○
	Display	○	○	○	○
	Load Analyzer	●	●	●	●
Communication	Modbus® RTU	●	●	●	●
Current	Current	SIZE	SIZE	SIZE	SIZE
		600V Max	600V Max	600V Max	600V Max
	30	SR6	SR9	SR10	
	35	SR6	SR9	SR10	SR25
	40	SR6	SR9	SR10	
	50				SR25
	60	SR24	SR25	SR25	
	75				SR25
	90	SR25	SR25	SR25	SR25
	120	SR15	SR16	SR17	
	150	SR15	SR16	SR17	
	180	SR15	SR16	SR17	
	210	SR15	SR16	SR17	
280	S10	2xS10			

● Standard ○ Option ■ CE standard

REVEX 1PH

Technical Specification

- **Load type:** Normal resistance, infrared short, medium and long, transformer primary, cold resistance and SiC elements
- **Input:** 4:20mA, 0:10V, SSR, with Modbus® RTU standard
- **Firing:** Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle with or without Soft Start
- **Control mode:** Voltage, Current and Power (V-V²-I-I²-VxI) or external feedback
- **Communication:** RS485 port RTU Modbus® Protocol
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **Approvals:** Compliant with CE
- **Dual Current Limit:** For peak or RMS value

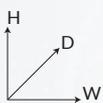
Attention

- Phase Angle available only on 1PH units
- Delayed Triggering available only on 1PH units
- For three-phase solutions (3PH) with Phase Angle use **REVEX PA** (pag 22)

Options

- All options are shown below with the relevant model code
- HB Alarm to diagnose partial or total load failure and thyristor short circuit

REVEX 1PH 30÷280A / 480÷600V



SR6

H 121xW 36xD 185 - 0,61 kg
30÷40A



SR24

H 132xW 116xD 183 - 2,10 kg
60÷90A



SR15

H 273xW 93xD 170 - 3,6 kg
120÷210A



S10

H 350xW 120xD 230 - 6,50 kg
280A

REVEX 1PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	X	1	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6
Description	Size	cod	note		
30A	Extrarapid fixed fuses not included	SR6	0	3	0
35A	Extrarapid fixed fuses not included	SR6	0	3	5
40A	Extrarapid fixed fuses not included	SR6	0	4	0
60A	Extrarapid fixed fuses included	SR24	0	6	0
90A	Extrarapid fixed fuses included	SR24	0	9	0
120A	Extrarapid fixed fuses included	SR15	1	2	0
150A	Extrarapid fixed fuses included	SR15	1	5	0
180A	Extrarapid fixed fuses included	SR15	1	8	0
210A	Extrarapid fixed fuses included	SR15	2	1	0
280A	Extrarapid fixed fuses included	S10	2	8	0

MAX VOLTAGE		7
Description	cod	note
480V	4	
600V	6	

MAIN SUPPLY VOLTAGE		8
Description	cod	note
24Vdc	4	

INPUT		9
Description	cod	note
SSR	S	
0:20mA	B	
4:20mA	A	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
Description	Description	cod	note
Single Cycle	No Soft Start	C	
	Linear Soft Start	S	
Half Cycle	No Soft Start	H	
	Linear Soft Start	L	
	Soft Start for short wave Infrared Lamp	I	
Burst Firing	No Soft Start	B	
	Linear Soft Start	J	
Phase Angle	No Soft Start	P	
	Linear Soft Start	E	
Delayed Triggering	No Soft Start	D	
	Linear Soft Start	T	
Zero Crossing	No Soft Start	Z	
	Linear Soft Start	R	

CONTROL MODE		11
Description	cod	note
Open Loop	0	
Voltage	U	
Voltage Square (V ²)	Q	
Current	I	
Current Square (I ²)	A	
Power VxI	W	
External Feedback	X	

OPTION		12
Description	cod	note
Option code: see table	...	

FAN VOLTAGE		13
Description	cod	note
No fan <90A	0	
Fan 24Vdc ≥90A	3	

APPROVALS		14
Description	cod	note
CE for European market	0	

LOAD TYPE		15
Description	cod	note
1PH normal resistance	0	
1PH IRSW infrared short wave	1	
1PH MoSi2 heaters	2	2
1PH SiC heaters	3	
1PH transformer coupled with normal resistance	4	1
1PH transformer coupled with MoSi2 heaters	5	1
1PH transformer coupled with SiC heaters	6	1
1PH transformer coupled with UV heaters	7	1

VERSION		16
Description	cod	note
Standard Version - N°1 Modbus® RTU	0	

Note 1: This configuration is possible only with Delayed Triggering or Phase Angle Firing

Note 2: This configuration is possible only with Phase Angle Firing

Option Code (digit 12)

REVEX 1PH	Current Limit	Heater Break	Display	Cod (digit 12)
	Y	Y	Y	0
Y	Y	N	2	
Y	N	N	3	
N	N	N	4	
Y	N	Y	6	
N	N	Y	7	
N	Y	Y	9	
N	Y	N	D	

REVEX 1PH	Current Limit	Heater Break	Fuse	Display	Cod (digit 12)
	Y	Y	Y	Y	0
Y	Y	Y	N	1	
Y	Y	N	N	2	
Y	N	N	N	3	
N	N	N	N	4	
Y	Y	N	Y	5	
Y	N	N	Y	6	
N	N	N	Y	7	
N	Y	Y	N	8	
N	Y	N	Y	9	
N	N	Y	Y	A	
N	N	Y	N	B	
N	Y	Y	Y	C	
N	Y	N	N	D	
Y	N	Y	N	E	
Y	N	Y	Y	F	

N Option you want remove

Y It serves my project

REVEX 2PH

Technical Specification

- **Load type:** Normal resistance, infrared short, medium and long waveform
- **Input:** 4:20mA, 0:10V, SSR, with Modbus® RTU standard
- **Firing:** Burst Firing, Zero Crossing
- **Control mode:** Voltage, Current and Power (V-V²-I-I²-VxI) or external feedback
- **Communication:** RS485 port RTU Modbus® Protocol
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **Approvals:** Compliant with CE
- **Dual Current Limit:** For peak or RMS value

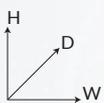
Attention

- Phase Angle available only on 1PH units
- Delayed Triggering available only on 1PH units
- For three-phase solutions (3PH) with Phase Angle use **REVEX PA** (pag 22)

Options

- All options are shown below with the relevant model code
- HB Alarm to diagnose partial or total load failure and thyristor short circuit

REVEX 2PH 30÷280A / 480÷600V



SR9

H 121 x W 72 x D 185 - 1,15 kg
30÷40A



SR25

H 165 x W 116 x D 183 - 2,35 kg
60÷90A



SR16

H 273 x W 186 x D 170 - 7,0 kg
120÷210A



2xS10

H 350 x W 240 x D 230 - 12,70 kg
280A

REVEX 2PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	X	2	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6
Description	Size	cod	note		
30A	Extrarapid fixed fuses not included	SR9	0	3	0
35A	Extrarapid fixed fuses not included	SR9	0	3	5
40A	Extrarapid fixed fuses not included	SR9	0	4	0
60A	Extrarapid fixed fuses included	SR25	0	6	0
90A	Extrarapid fixed fuses included	SR25	0	9	0
120A	Extrarapid fixed fuses included	SR16	1	2	0
150A	Extrarapid fixed fuses included	SR16	1	5	0
180A	Extrarapid fixed fuses included	SR16	1	8	0
210A	Extrarapid fixed fuses included	SR16	2	1	0
280A	Extrarapid fixed fuses included	2xS10	2	8	0

MAX VOLTAGE		7
Description	cod	note
480V	4	
600V	6	

MAIN SUPPLY VOLTAGE		8
Description	cod	note
24Vdc	4	

INPUT		9
Description	cod	note
SSR	S	
0:20mA	B	
4:20mA	A	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
Description	Description	cod	note
Burst Firing	No Soft Start	B	
Zero Crossing	No Soft Start	Z	

CONTROL MODE		11
Description	cod	note
Open Loop	0	
Voltage	U	
Voltage Square (V ²)	Q	
Current	I	
Current Square (I ²)	A	
Power VxI	W	
External Feedback	X	

OPTION		12
Description	cod	note
Option code: see table	...	

FAN VOLTAGEE		13
Description	cod	note
No fan <60A	0	
Fan 24Vdc ≥60A	3	

APPROVALS		14
Description	cod	note
CE for European market	0	

LOAD TYPE		15
Description	cod	note
Normal resistive load with 3 phase star without neutral connection	0	
Normal resistive load with 3 phase delta connection	1	
IRSW infrared short wave with 3 phase star connection	2	
IRSW Infrared Short wave with 3 phase delta connection	3	

VERSION		16
Description	cod	note
Standard Version - N°1 Modbus® RTU std. 30-40A / 120-280A	0	
60A-90A only: Version from 2021 (compact unit) N°1 Modbus® RTU std.	1	

Option Code (digit 12)

REVEX 2PH	Heater Break	Display	Cod (digit 12)
30A - 40A	Y	Y	0
	Y	N	2
	N	N	3
	N	Y	5
	N	N	

REVEX 2PH	Heater Break	Fuse	Display	Cod (digit 12)
60A - 280A	Y	Y	Y	0
	Y	Y	N	1
	Y	N	N	2
	N	N	N	3
	Y	N	Y	4
	N	N	Y	5
	N	Y	Y	6
N	Y	N	7	

N Option you want remove

Y It serves my project

REVEX 3PH

Technical Specification

- **Load type:** Normal resistance, infrared short, medium and long waveform
- **Input:** 4:20mA, 0:10V, SSR, with Modbus® RTU standard
- **Firing:** Burst Firing, Zero Crossing
- **Control mode:** Voltage, Current and Power (V-V²-I-I²-VxI) or external feedback
- **Communication:** RS485 port RTU Modbus® Protocol
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **Approvals:** Compliant with CE
- **Dual Current Limit:** For peak or RMS value

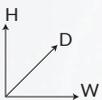
Attention

- Phase Angle available only on 1PH units
- Delayed Triggering available only on 1PH units
- For three-phase solutions (3PH) with Phase Angle use **REVEX PA** (pag 22)

Options

- All options are shown below with the relevant model code
- HB Alarm to diagnose partial or total load failure and thyristor short circuit

REVEX 3PH 30÷210A / 480÷600V



SR10
H 121 x W 108 x D 185 - 1,76 kg
30÷40A



SR25
H 165 x W 116 x D 183 - 2,35 kg
60÷90A



SR17
H 273 x W 279 x D 170 - 10,6 kg
120÷210A

REVEX 3PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	X	3	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6
Description	Size	cod	note		
30A Extrarapid fixed fuses not included	SR10	0 3 0			
35A Extrarapid fixed fuses not included	SR10	0 3 5			
40A Extrarapid fixed fuses not included	SR10	0 4 0			
60A Extrarapid fixed fuses included	SR25	0 6 0			
90A Extrarapid fixed fuses included	SR25	0 9 0			
120A Extrarapid fixed fuses included	SR17	1 2 0			
150A Extrarapid fixed fuses included	SR17	1 5 0			
180A Extrarapid fixed fuses included	SR17	1 8 0			
210A Extrarapid fixed fuses included	SR17	2 1 0			

MAX VOLTAGE			7
Description	cod	note	
480V	4		
600V	6		

MAIN SUPPLY VOLTAGE			8
Description	cod	note	
24Vdc	4		

INPUT			9
Description	cod	note	
SSR	S		
0:20mA	B		
4:20mA	A		
0:10V	V		
10KPot	K		

FIRING		START OPTION		10
Description	Description	cod	note	
Burst Firing	No Soft Start	B		
Zero Crossing	No Soft Start	Z		

CONTROL MODE			11
Description	cod	note	
Open Loop	0		
Voltage	U		
Voltage Square (V ²)	Q		
Current	I		
Current Square (I ²)	A		
Power Vxl	W		
External Feedback	X		

OPTION			12
Description	cod	note	
Option code: see table	...		

FAN VOLTAGE			13
Description	cod	note	
No fan <60A	0		
Fan 24Vdc ≥60A	3		

APPROVALS			14
Description	cod	note	
CE for European market	0		

LOAD TYPE			15
Description	cod	note	
Normal resistive load with 3 phase star connection with neutral	0		
Normal resistive load with 3 phase delta or star connection	1		
IRSW infrared short wave with 3 phase star connection with neutral	2		
IRSW infrared short wave with 3 phase delta or star connection	3		

VERSION			16
Description	cod	note	
Standard Version - N°1 Modbus® RTU std. 30-40A / 120-210A	0		
60A-90A only: Version from 2021 (compact unit) N°1 Modbus® RTU std.	1		

Option Code (digit 12)

REVEX 3PH 30A - 40A	Heater Break	Display	Cod (digit 12)
	Y	Y	0
	Y	N	2
	N	N	3
	N	Y	5

REVEX 3PH 60A - 280A	Heater Break	Fuse	Display	Cod (digit 12)
	Y	Y	Y	0
	Y	Y	N	1
	Y	N	N	2
	N	N	N	3
	Y	N	Y	4
	N	N	Y	5
N	Y	Y	6	
N	Y	N	7	

N Option you want remove

Y It serves my project

REVEX PA

Technical Specification

- **Load type:** Normal resistance, infrared short, medium and long waveform
- **Input:** 4:20mA, 0:10V, SSR, with Modbus® RTU standard
- **Firing:** Burst Firing, Phase Angle, Delayed Triggering, Zero Crossing
- **Display:** Oled display always present
- **Control mode:** Voltage, Current and Power (V-V²-I-I²-VxI) or external feedback
- **Communication:** RS485 port RTU Modbus® Protocol
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **Approvals:** Compliant with CE
- **Dual Current Limit:** For peak or RMS value

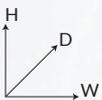
Attention

- For three-phase solutions (3PH) with Phase Angle

Options

- All options are shown below with the relevant model code
- HB Alarm to diagnose partial or total load failure and thyristor short circuit

REVEX PA 35÷90A / 480÷600V



SR25

H 165 x W 116 x D 183 - 2,35 kg
35÷90A

REVEX PA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	X	P	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6
Description	Size	cod	note		
35A Extrarapid fixed fuses included	SR25	0 3 5			
50A Extrarapid fixed fuses included	SR25	0 5 0			
75A Extrarapid fixed fuses included	SR25	0 7 5			
90A Extrarapid fixed fuses included	SR25	0 9 0			

MAX VOLTAGE			7
Description	cod	note	
480V	4		
600V	6		

MAIN SUPPLY VOLTAGE			8
Description	cod	note	
24Vdc	4		

INPUT			9
Description	cod	note	
SSR	S		
0:20mA	B		
4:20mA	A		
0:10V	V		
10KPot	K		

FIRING	START OPTION	10
Description	Description	cod
Burst Firing	No Soft Start	B
	Linear Soft Start	J
Phase Angle	No Soft Start	P
	Linear Soft Start	E
Delayed Triggering	No Soft Start	D
	Linear Soft Start	T
Zero Crossing	No Soft Start	Z
	Linear Soft Start	R

Note 1: This configuration is possible only with Delayed Triggering or Phase Angle Firing.

Note 2: This configuration is possible only with Phase Angle Firing

CONTROL MODE		11
Description	cod	note
Open Loop	0	
Voltage	U	
Voltage Square (V ²)	Q	
Current	I	
Current Square (I ²)	A	
Power Vxl	W	
External Feedback	X	

OPTION		12
Description	cod	note
Option code: see table	...	

FAN VOLTAGE		13
Description	cod	note
Fan 24Vdc	3	

APPROVALS		14
Description	cod	note
CE for European market	0	

LOAD TYPE		15
Description	cod	note
Normal resistance	0	
IRSW infrared short wave	1	
MoSi2 heaters	2	2
SiC heaters	3	
Transformer coupled with normal resistance	4	1
Transformer coupled with MoSi2 heaters	5	1
Transformer coupled with SiC heaters	6	1
Transformer coupled with UV lamp	7	1

VERSION		16
Description	cod	note
N°1 Modbus® RTU std.	0	

Option Code (digit 12)

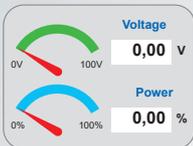
REVEX PA	Current Limit	Heater Break	Cod (digit 12)
35A - 90A	Y	Y	2
	Y	N	3
	N	N	4
	N	Y	D

N Option you want remove

Y It serves my project

REVO C

Integrated
Fieldbus



Configurator
software

TIA PORTAL
V16

SIEMENS

Libraries



Main features

Universal power controller with advanced microprocessor, configurable via software.

- **Wide range of communication protocols and fieldbuses available:**
Modbus® RTU, Profibus® DP, Profinet® IO, Modbus® TCP
- Single-phase or three-phase load control with 1-2-3PH
- Voltage range 480÷600÷690V
- **100 kA** Short Circuit Current (SCCR) up to 600V
- Extrarapid fuse and integrated sectional fuse holder up to 40A
- Extrarapid fixed fuses from 60A to 2100A
- Input signals selectable from PC or OLED display
- Standard firing mode available: Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle and Soft Start
- All types of firing mode and control mode available
- **CE** and **cUL** approvals
- **Guided configuration via free software**, available on www.cdautomation.com
- Optional **Bluetooth connection** for communication and control of the unit via APP
- Free CD Automation **APP** for Android and IOS, for unit control with Bluetooth
- Siemens **TIA Portal Libraries** for data exchange with our products (from V16)

Load type

Resistive / Inductive / Infrared lamp short wave (IRSW) and fast medium wave (IRMW) / Molybdenum Disilicide elements (MoSi2) / Silicon Carbide elements (SiC)

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- Petrolchemicals
- Platform for oil extraction
- Conventional power generator
- Chemicals and pharmaceuticals
- Renewable Energies
- Autoclaves
- Electric furnaces
- Galvanic process
- Glass industry
- Polysilicon
- Chemical
- Plastic machinery
- Packing machinery
- Automobile
- Paint drying
- UV drying
- Car internal fitting

REVO C - FEATURES

	Description	Revo C 1PH		Revo C 2PH		Revo C 3PH	
	CODE	RC1		RC2		RC3	
Load type	Max voltage 480V	●		●		●	
	Max voltage 600V	●		●		●	
	Max voltage 690V	●		●		●	
	Single phase	●					
	3 phase load star no neutral or delta			●		●	
	3 phase load star with neutral					●	
	3 phase load open delta	●(1)					
Input	SSR 4:30VDC	●		●		●	
	4:20 mA	●		●		●	
	0:10 Vdc	●		●		●	
	Potentiometer	●		●		●	
Firing	Single Cycle	●					
	Half Cycle	●					
	Burst Firing	●		●		●	
	Phase Angle	●				●	
	Delayed Triggering	●				●	
	Zero Crossing	●		●		●	
Control Mode	Open Loop	●		●		●	
	V	●		●		●	
	V ²	●		●		●	
	I	●		●		●	
	I ²	●		●		●	
	Power V x I	●		●		●	
Options	Current Limit - CL	○				○	
	Heater Break Alarm + SCR Short Circuit	○		○		○	
	Logging	○		○		○	
	Totalizer	○		○		○	
Communication	Bluetooth	○		○		○	
	Modbus® RTU	●		●		●	
	Profibus® DP + 1 Modbus® RTU	○		○		○	
	2 Profinet® IO + 1 Modbus® RTU	○		○		○	
	2 Modbus® TCP + 1 Modbus® RTU	○		○		○	
Current	Current	SIZE		SIZE		SIZE	
		600V Max	690V	600V Max	690V	600V Max	690V
	30	SR9		SR10		SR11	
	35	SR9		SR10		SR11	
	40	SR9		SR10		SR11	
	60	SR12	S11	SR13	S11	SR14	S11
	90	SR15	S11	SR16	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		S14	S14	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	S17*	S17
	700	S12	S12	S14	S14	S17*	S17
	800	S15*	S15	S16*	S16	S17*	S17
	1100	SR18*	SR18	SR19*	SR19	SR20*	SR20
	1400	SR21*	SR21	SR22*	SR22	SR23*	SR23
	1600	SR21*	SR21	SR22*	SR22	SR23*	SR23
1800	SR21*	SR21	SR22*	SR22	SR23*	SR23	
2100	SR21*	SR21	SR22*	SR22	SR23*	SR23	

● Standard ○ Option ■ CE standard + cUL® option / *UL approval option ■ CE Only - **Note 1:** Use n° 3 Revo-C 1PH

REVO C 1PH

Technical Specification

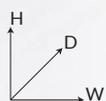
- **Load type:** Normal Resistance, Infrared Short, Medium and Long, Transformer Primary, Cold resistance, SiC and MoSi2 heaters
- **Input:** 4÷20mA, 0÷10V, SSR, with Modbus® RTU standard; and different Field Bus listed in the Order Code
- **Firing:** Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle with or without Soft Start
- **Control mode:** Can be configured with feedback on Current, Voltage, Power or Open Loop mode
- **Communication:** **RS485 port, Modbus® RTU protocol and optional integrated fieldbus: Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet® IP**
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **100kA:** Short Circuit Current rating (SCCR) up to 600V
- **Approvals:** Compliant with CE, cUL (option) up to 700A, UL (option) from 800A to 2100A
- **Dual Current Limit:** For peak and RMS value

Options

All options are shown in the table on page 34 with the relevant code

- Energy totalizer
- Data logging
- Bluetooth
- Heater Break (HB) Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit
- Over-temperature alarm
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

REVO C 1PH 30A-800A / 480V-600V



SR9
H 121xW 72 xD 185
1,15 kg
30-40A



SR12
H 269 xW 93 xD 170
3,4kg
60A



SR15
H 273xW 93xD 170
3,6 kg
90-210A



S12
H 520xW 137xD 270
15 kg
300-700A



S15
H 560xW 137 x D 270
17,2 kg
800A

REVO C 1PH 60A-800A / 690V



S11
H 440xW 137 xD 270
10,5 kg
60-210A



S12
H 520xW 137 xD 270
15 kg
400-700A



S15
H 560xW 137xD 270
17,2 kg
800A

REVO C 1PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	C	1	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6	
Description	Size 480-600V	Size 690V	cod	note		
30A Extrarapid fuse + fuse holder included	SR9	--	0 3 0			
35A Extrarapid fuse + fuse holder included	SR9	--	0 3 5			
40A Extrarapid fuse + fuse holder included	SR9	--	0 4 0			
60A Extrarapid fixed fuses included	SR12	S11	0 6 0			
90A Extrarapid fixed fuses included	SR15	S11	0 9 0			
120A Extrarapid fixed fuses included	SR15	S11	1 2 0			
150A Extrarapid fixed fuses included	SR15	S11	1 5 0			
180A Extrarapid fixed fuses included	SR15	S11	1 8 0			
210A Extrarapid fixed fuses included	SR15	S11	2 1 0			
300A Extrarapid fixed fuses included	S12	--	3 0 0			
400A Extrarapid fixed fuses included	S12	S12	4 0 0			
500A Extrarapid fixed fuses included	S12	S12	5 0 0			
600A Extrarapid fixed fuses included	S12	S12	6 0 0			
700A Extrarapid fixed fuses included	S12	S12	7 0 0			
800A Extrarapid fixed fuses included	S15	S15	8 0 0			5

MAX VOLTAGE	7	
Description	cod	note
480V	4	
600V	6	
690V	7	1, 2

MAIN SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
	V range	cod	note
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT	9	
Description	cod	note
SSR	S	
0:20mA	B	
4:20mA	A	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
Description	Description	cod	note
Single Cycle	No Soft Start	C	
	Linear Soft Start	S	
Half Cycle	No Soft Start	H	
	Linear Soft Start	L	
	Soft Start for short Infr. Lamp	I	
Burst Firing	No Soft Start	B	
	Linear Soft Start	J	
Phase Angle	No Soft Start	P	
	Linear Soft Start	E	
Delayed Triggering	No Soft Start	D	
	Linear Soft Start	T	
Zero Crossing	No Soft Start	Z	
	Linear Soft Start	R	

CONTROL MODE	11	
Description	cod	note
Open Loop	0	
Voltage	U	
Voltage Square	Q	
Current	I	
Current Square	A	
Power VxI	W	

OPTION	12	
Description	cod	note
No option	0	
Option Code - See table page 34	...	

FAN VOLTAGE	13	
Description	cod	note
No fan <90A 480V/600V	0	
Fan 115Vac ≥90A 480V/600V - ≥60A 690V	1	
Fan 230Vac ≥90A 480V/600V - ≥60A 690V Standard	2	
Fan 24Vdc ≥90A 480V/600V - ≥60A 690V	3	

APPROVALS	14	
Description	cod	note
CE for European market	0	
CE + cUL	L	

LOAD TYPE	15	
Description	cod	note
1 PH Normal resistance	0	
1 PH IRSW infrared short wave	1	
1 PH MoSi2 heaters	2	7
1 PH SiC Heaters	3	
1 PH Transformer coupled with normal resistance	4	6
1 PH Transformer coupled with MoSi2 heaters	5	6
1 PH Transformer coupled with SiC heaters	6	6
1 PH Transformer coupled with UV lamp	7	6

COMMUNICATION AND RETRANSMISSION		16	
Description	Description	cod	note
N°1 Modbus® RTU	No Retransmission	0	
	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
N°2 Modbus® RTU	No Retransmission	3	4
	Retransmission 4:20mA	4	4
	Retransmission 0:10V	5	4
N°1 Profibus® DP	No Retransmission	6	4
	Retransmission 4:20mA	7	4
	Retransmission 0:10V	8	4
N°1 Profinet® IO	No Retransmission	9	4
	Retransmission 4:20mA	A	4
	Retransmission 0:10V	B	4
N°1 Modbus® TCP	No Retransmission	C	4
	Retransmission 4:20mA	D	4
	Retransmission 0:10V	E	4
N°1 Ethernet IP + N°1 Modbus® RTU	No Retransmission	F	2
	Retransmission 4:20mA	G	2
	Retransmission 0:10V	H	2

- Note 1:** No cUL/UL approved
- Note 2:** Available on unit ≥60A
- Note 3:** Main Supply Voltage has to be included in Auxiliary Voltage range
- Note 4:** 24Vdc Backup Power for User Interface and Communications included
- Note 5:** Only CE and UL approved, not cUL
- Note 6:** This configuration is possible only with Delayed Triggering or Phase Angle Firing
- Note 7:** This configuration is possible only with Phase Angle Firing

REVO C 2PH

Technical Specification

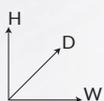
- **Load type:** Normal Resistance, Infrared Short, Medium and Long waveform
- **Input:** 4÷20mA, 0÷10V, SSR, with Modbus® RTU standard; and different Field Bus listed in the Order Code
- **Firing:** Burst Firing, Zero Crossing
- **Control mode:** Can be configured with feedback on Current, Voltage, Power or Open Loop mode
- **Communication:** **RS485 port, Modbus® RTU protocol and optional integrated fieldbus:**
Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet® IP
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **100kA:** Short Circuit Current rating (SCCR) up to 600V
- **Approvals:** Compliant with CE, cUL (option) up to 700A, UL (option) from 800A to 2100A
- **Integrated pass-through phase:** 480V-600V: all sizes S14 / 690V: all sizes S11, S13, S14

Options

All options are shown in the table on page 34 with the relevant code

- Energy totalizer
- Data logging
- Bluetooth
- Heater Break (HB) Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit
- Over-temperature alarm
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

REVO C 2PH 30÷800A / 480÷600V



SR10
H 121xW 108xD 185
1,76 kg
30÷40A



SR13
H 269xW 186xD 170
6,8kg
60A



SR16
H 273xW 186xD 170
7,0 kg
90÷210A



S14
H 520xW 262xD 270
22 kg
300÷700A



S16
H 560xW 275xD 270
34,4 kg
800A

REVO C 2PH 60÷800A / 690V



S11
H 440xW 137xD 270
10,5 kg
60÷90A



S13
H 440xW 262xD 270
18 kg
120÷210A



S14
H 520xW 262xD 270
22 kg
300÷700A



S16
H 560xW 275xD 270
34,4 kg
800A

REVO C 2PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	C	2	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6	
Description	Size 480-600V	Size 690V	cod	note		
30A Extrarapid fuse + fuse holder included	SR10	--	0 3 0			
35A Extrarapid fuse + fuse holder included	SR10	--	0 3 5			
40A Extrarapid fuse + fuse holder included	SR10	--	0 4 0			
60A Extrarapid fixed fuses included	SR13	S11	0 6 0			
90A Extrarapid fixed fuses included	SR16	S11	0 9 0			
120A Extrarapid fixed fuses included	SR16	S13	1 2 0			
150A Extrarapid fixed fuses included	SR16	S13	1 5 0			
180A Extrarapid fixed fuses included	SR16	S13	1 8 0			
210A Extrarapid fixed fuses included	SR16	S13	2 1 0			
300A Extrarapid fixed fuses included	S14	S14	3 0 0			
400A Extrarapid fixed fuses included	S14	S14	4 0 0			
450A Extrarapid fixed fuses included	S14	S14	4 5 0			
500A Extrarapid fixed fuses included	S14	S14	5 0 0			
600A Extrarapid fixed fuses included	S14	S14	6 0 0			
700A Extrarapid fixed fuses included	S14	S14	7 0 0			
800A Extrarapid fixed fuses included	S16	S16	8 0 0	5		

MAX VOLTAGE		7	
Description	cod	note	
480V	4		
600V	6		
690V	7	1,2	

MAIN SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
	V range	cod	note
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT		9	
Description	cod	note	
SSR	S		
0:20mA	B		
4:20mA	A		
0:10V	V		
10KPot	K		

FIRING		START OPTION		10	
Description	Description	cod	note		
Burst Firing	No Soft Start	B			
Zero Crossing	No Soft Start	Z			

CONTROL MODE		11	
Description	cod	note	
Open Loop	0		
Voltage	U		
Voltage Square	Q		
Current	I		
Current Square	A		
Power Vxl	W		

OPTION		12	
Description	cod	note	
No option	0		
Option Code - See table page 34	...		

FAN VOLTAGE		13	
Description	cod	note	
No fan <90A 480V/600V	0		
Fan 115Vac ≥90A 480V/600V - ≥60A 690V	1		
Fan 230Vac ≥90A 480V/600V - ≥60A 690V Standard	2		
Fan 24Vdc ≥90A 480V/600V - ≥60A 690V	3		

APPROVALS		14	
Description	cod	note	
CE for European market	0		
CE + cUL	L		

LOAD TYPE		15	
Description	cod	note	
Normal resistive load with 3 phase star without neutral connection	0		
Normal resistive load with 3 Phase delta connection	1		
IRSW infrared short wave with 3 phase star connection	2		
IRSW infrared short wave with 3 phase delta connection	3		

COMMUNICATION AND RETRANSMISSION				16	
Description	Description	cod	note		
N°1 Modbus® RTU	No Retransmission	0			
	Retransmission 4:20mA	1			
	Retransmission 0:10V	2			
N°2 Modbus® RTU	No Retransmission	3	4		
	Retransmission 4:20mA	4	4		
	Retransmission 0:10V	5	4		
N°1 Profibus® DP	No Retransmission	6	4		
	Retransmission 4:20mA	7	4		
	Retransmission 0:10V	8	4		
N°1 Profinet® IO	No Retransmission	9	4		
	Retransmission 4:20mA	A	4		
	Retransmission 0:10V	B	4		
N°1 Modbus® TCP	No Retransmission	C	4		
	Retransmission 4:20mA	D	4		
	Retransmission 0:10V	E	4		
N°1 Ethernet IP + N°1 Modbus® RTU	No Retransmission	F	2		
	Retransmission 4:20mA	G	2		
	Retransmission 0:10V	H	2		

Note 1: No cUL/UL approved

Note 2: Available on unit ≥60A

Note 3: Main Supply Voltage has to be included in Auxiliary Voltage range

Note 4: 24Vdc Backup Power for User Interface and Communications included

Note 5: Only CE and UL approved, not cUL

REVO C 3PH

Technical Specification

- **Load type:** Normal Resistance, Infrared Short, Medium and Long, Transformer Primary, Cold resistance, SiC and MoSi2 heaters
- **Input:** 4÷20mA, 0÷10V, SSR, with Modbus® RTU standard; and different Field Bus listed in the Order Code
- **Firing:** Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle with or without Soft Start
- **Control mode:** Can be configured with feedback on Current, Voltage, Power or Open Loop mode
- **Communication:** **RS485 port, Modbus® RTU protocol and optional integrated fieldbus: Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet® IP**
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **100kA:** Short Circuit Current rating (SCCR) up to 600V
- **Approvals:** Compliant with CE, cUL (option) up to 500A, UL (option) from 600A to 2100A
- **Dual Current Limit:** For peak and RMS value

Options

All options are shown in the table on page 34 with the relevant code

- Energy totalizer
- Data logging
- Bluetooth
- Heater Break (HB) Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit
- Over-temperature alarm
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch

REVO C 3PH 30÷800A / 480÷600V



SR11

H 121xW 144xD 185
2,4 kg
30÷40A



SR14

H 269xW 279xD 170
10,2kg
60A



SR17

H 273xW 279xD 170
10,6 kg
90÷210A



S14

H 520xW 262xD 270
22 kg
300÷500A



S17

H 560xW 411xD 270
51,6 kg
600÷800A

REVO C 3PH 60÷800A / 690V



S11

H 440xW 137xD 270
10,5 kg
60÷90A



S13

H 440xW 262xD 270
18 kg
120÷210A



S14

H 520xW 262xD 270
22 kg
300÷500A



S17

H 560xW 411xD 270
51,6 kg
600÷800A

REVO C 3PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	C	3	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6	
Description	Size 480-600V	Size 690V	cod	note		
30A Extrarapid fuse + fuse holder included	SR11	--	0 3 0	2		
35A Extrarapid fuse + fuse holder included	SR11	--	0 3 5	2		
40A Extrarapid fuse + fuse holder included	SR11	--	0 4 0	2		
60A Extrarapid fixed fuses included	SR14	S11	0 6 0			
90A Extrarapid fixed fuses included	SR17	S11	0 9 0			
120A Extrarapid fixed fuses included	SR17	S13	1 2 0			
150A Extrarapid fixed fuses included	SR17	S13	1 5 0			
180A Extrarapid fixed fuses included	SR17	S13	1 8 0			
210A Extrarapid fixed fuses included	SR17	S13	2 1 0			
300A Extrarapid fixed fuses included	S14	S14	3 0 0			
400A Extrarapid fixed fuses included	S14	S14	4 0 0			
450A Extrarapid fixed fuses included	S14	S14	4 5 0			
500A Extrarapid fixed fuses included	S14	S14	5 0 0			
600A Extrarapid fixed fuses included	S17	S17	6 0 0	5		
700A Extrarapid fixed fuses included	S17	S17	7 0 0	5		
800A Extrarapid fixed fuses included	S17	S17	8 0 0	5		

MAX VOLTAGE	7	
Description	cod	note
480V	4	
600V	6	
690V	7	1

MAIN SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
	V range	cod	note
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT	9	
Description	cod	note
SSR	S	
0:20mA	B	
4:20mA	A	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
Description	Description	cod	note
Burst Firing	No Soft Start	B	
	Linear Soft Start	J	
Phase Angle	No Soft Start	P	2
	Linear Soft Start	E	2
Delayed Triggering	No Soft Start	D	2
Zero Crossing	No Soft Start	Z	
	Linear Soft Start	R	

CONTROL MODE	11	
Description	cod	note
Open Loop	0	
Voltage	U	
Voltage Square	Q	
Current	I	
Current Square	A	
Power VxI	W	

OPTIONS	12	
Description	cod	note
No option	0	
Option Code - See table page 34	...	

FAN VOLTAGE	13	
Description	cod	note
No fan <90A 480V/600V	0	
Fan 115Vac ≥90A 480V/600V - ≥60A 690V	1	
Fan 230Vac ≥90A 480V/600V - ≥60A 690V Standard	2	
Fan 24Vdc ≥90A 480V/600V - ≥60A 690V	3	

APPROVALS	14	
Description	cod	note
CE for European market	0	
CE + cUL	L	

LOAD TYPE	15	
Description	cod	note
Normal resistive with 3 phase star connection with neutral	0	
Normal resistive with 3 phase delta or star connection	1	
IRSW infrared short wave with 3 phase star connection with neutral	2	
IRSW infrared short wave with 3 phase delta or star connection	3	
3 phase transformer coupled with normal resistance	4	7
3 phase transformer coupled with cold resistance	5	7

COMMUNICATION AND RETRANSMISSION		16	
Description	Description	cod	note
N°1 Modbus® RTU	No Retransmission	0	
	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
N°2 Modbus® RTU	No Retransmission	3	4
	Retransmission 4:20mA	4	4
	Retransmission 0:10V	5	4
N°1 Profibus® DP	No Retransmission	6	4
	Retransmission 4:20mA	7	4
	Retransmission 0:10V	8	4
N°1 Profinet® IO	No Retransmission	9	4
	Retransmission 4:20mA	A	4
	Retransmission 0:10V	B	4
N°1 Modbus® TCP	No Retransmission	C	4
	Retransmission 4:20mA	D	4
	Retransmission 0:10V	E	4
N°1 Ethernet IP + N°1 Modbus® RTU	No Retransmission	F	6
	Retransmission 4:20mA	G	6
	Retransmission 0:10V	H	6

Note 1: No cUL/UL approved **Note 2:** Phase Angle and Delayed Triggering not available for 30A, 35A, 40A

Note 3: Main Supply Voltage has to be included in Auxiliary Voltage range

Note 4: 24Vdc Backup Power for User Interface and Communications included **Note 5:** Only CE and UL approved, not cUL

Note 6: Available on unit ≥60A **Note 7:** This configuration is possible only with Phase Angle firing

REVO C Extended Version

Technical Specification

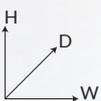
- **Load type:** Normal Resistance, Infrared Short, Medium and Long, Transformer Primary, Cold resistance, SiC and MoSi2 heaters
- **Input:** 4÷20mA, 0÷10V, SSR, with Modbus® RTU standard; and different Field Bus listed in the Order Code
- **Firing:** Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle with or without Soft Start
- **Control mode:** Can be configured with feedback on Current, Voltage, Power or Open Loop mode
- **Communication:** **RS485 port, Modbus® RTU protocol and optional integrated fieldbus: Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet® IP**
- **USB:** Integrated port for configuration in safety mode (no load and auxiliary voltage needed). Unit powered through USB
- **100kA:** Short Circuit Current rating (SCCR) up to 600V
- **Approvals:** Compliant with CE, UL (option)
- **Dual Current Limit:** For peak and RMS value

Options

All options are shown in the table on page 34 with the relevant code

- Energy totalizer
- Data logging
- Bluetooth
- Heater Break (HB) Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit
- Over-temperature alarm
- Available on some size: Fuse alarm signal (FUMS) and 2° thermal switch
- IP20 protection

REVO C 1-2-3PH 1100÷2100A / 480V-600V-690V



SR18
H 550 x W 329 x D 347 - 27 kg
1100A



SR19
H 550 x W 523 x D 347 - 49 kg
1100A



SR20
H 550 x W 717 x D 347 - 72 kg
1100A



SR21
H 730 x W 329 x D 347 - 34 kg
1400-2100A



SR22
H 730 x W 523 x D 347 - 65 kg
1400-2100A



SR23
H 730 x W 717 x D 347 - 98 kg
1400-2100A



ORDER CODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
REVO C 1PH	R	C	1	-	-	-	-	-	-	-	-	-	-	-	-	-
REVO C 2PH	R	C	2	-	-	-	-	-	-	-	-	-	-	-	-	-
REVO C 3PH	R	C	3	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT / FUSES			4	5	6		
Description		Size 480-600-690V			cod	note	
		1PH	2PH	3PH			
1100A	Extrarapid fixed fuses included	SR18	SR19	SR20	1	1	H
1400A	Extrarapid fixed fuses included	SR21	SR22	SR23	1	4	H
1600A	Extrarapid fixed fuses included	SR21	SR22	SR23	1	6	H
1800A	Extrarapid fixed fuses included	SR21	SR22	SR23	1	8	H
2100A	Extrarapid fixed fuses included	SR21	SR22	SR23	2	1	H

MAX VOLTAGE		7	
Description		cod	note
480V		4	
600V		6	
690V		7	1

AUX SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
Description	Description	cod	note
100/120Vac	90÷135Vac	1	
200/208/230/240Vac	180÷265Vac	2	

INPUT		9	
Description		cod	note
SSR		S	
0:20mA		B	
4:20mA		A	
0:10V		V	
10KPot		K	

FIRING	START OPTION	10	
Description	Description	cod	note
Burst Firing	No Soft Start	B	
	Linear Soft Start	J	4
Phase Angle	No Soft Start	P	4
	Linear Soft Start	E	4
Delayed Triggering	No Soft Start	D	4
	Linear Soft Start	T	3
Zero Crossing	No Soft Start	Z	
	Linear Soft Start	R	4

CONTROL MODE		11	
Description		cod	note
Open Loop		0	
Voltage		U	
Voltage Square		Q	
Current		I	
Current Square		A	
Power Vxl		W	

OPTION		12	
Description		cod	note
No option		0	
Option Code - See tables pages 34-35		...	

FAN VOLTAGE		13	
Description		cod	note
Fan 115Vac		1	
Fan 230Vac Standard		2	

APPROVALS		14	
Description		cod	note
CE for European market - IP00 protection		0	
CE for European market - IP20 protection		1	
UL + CE - IP00 protection		2	
UL + CE - IP20 protection		L	

LOAD TYPE		15	
Description		cod	note
Normal resistance		0	
IRSW infrared short wave		1	
MoSi2 heaters		2	3,5
SiC heaters		3	3
Transformer coupled with normal resistance		4	3,4
Transformer coupled with MoSi2 heaters		5	3,4
Transformer coupled with SiC heaters		6	3,4
Transformer coupled with UV lamp		7	3,4

COMMUNICATION AND RETRANSMISSION		16	
Description	Description	cod	note
N°1 Modbus® RTU	No Retransmission	0	
	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
N°2 Modbus® RTU	No Retransmission	3	2
	Retransmission 4:20mA	4	2
	Retransmission 0:10V	5	2
N°1 Profibus® DP + N°1 Modbus® RTU	No Retransmission	6	2
	Retransmission 4:20mA	7	2
	Retransmission 0:10V	8	2
N°1 Profinet® IO + N°1 Modbus® RTU	No Retransmission	9	2
	Retransmission 4:20mA	A	2
	Retransmission 0:10V	B	2
N°1 Modbus® TCP + N°1 Modbus® RTU	No Retransmission	C	2
	Retransmission 4:20mA	D	2
	Retransmission 0:10V	E	2
N°1 Ethernet IP + N°1 Modbus® RTU	No Retransmission	F	2
	Retransmission 4:20mA	G	2
	Retransmission 0:10V	H	2

Note 1: No cUL/UL approved

Note 2: 24Vdc Backup Power for User Interface and Communications included

Note 3: Available on 1PH and 3PH only

Note 4: This configuration is possible only with Delayed Triggering or Phase Angle Firing

Note 5: This configuration is possible only with Phase Angle Firing

REVO C Options

Option codes REVO C 1PH (Digit 12)

No option

Option selected (es cod 3: Logging + Totalizer)

I LIMIT	HB	BLUETOOTH	LOGGING	TOTALIZER	Cod. OPTION	NOTES
					0	
					1	
					2	
					3	
					4	
					5	
					6	
					7	
					8	
					9	
					A	
					B	
					C	
					D	
					E	
					F	
					G	
					H	
					I	
					J	
					K	
					L	
					M	
					N	
					O	
					P	
					Q	
					R	
					S	
					T	
					U	
					V	

I LIMIT (CURRENT LIMIT) This option is used to keep the overcurrent inside set limit. It's necessary to drive primary transformers and cold resistance. It's dual limit for peak and RMS value.

HB Alarm for partial or total load failure and Short Circuit on SCR (relay output)

WiFi not available

Bluetooth Communication and control of the unit via **APP**

APP "RevoBLE" free download from Google Play or Apple Store

Data Logger Reading and data logging of Current (I), Voltage (V) and Power (%) for diagnostics

Energy Totalizer Power reading: totals the energy consumption of the load by providing the kW consumed

No option

Option selected (es cod 3: Logging + Totalizer)

Option codes REVO C 2PH (Digit 12)

HB	BLUETOOTH	LOGGING	TOTALIZER	Cod. OPTION	NOTES
				0	
				1	
				2	
				3	
				4	
				5	
				6	
				7	
				8	
				9	
				A	
				B	
				C	
				D	
				E	
				F	

HB Alarm for partial or total load failure and Short Circuit on SCR (relay output)

WiFi not available

Bluetooth Communication and control of the unit via **APP**

APP "RevoBLE" free download from Google Play or Apple Store

Data Logger Reading and data logging of Current (I), Voltage (V) and Power (%) for diagnostics

Energy Totalizer Power reading: totals the energy consumption of the load by providing the kW consumed

Option codes REVO C 3PH (Digit 12)

No option

Option selected (es cod 3: Logging + Totalizer)

ILIMIT	HB	BLUETOOTH	LOGGING	TOTALIZER	Cod. OPTION	NOTES
					0	
					1	
					2	
					3	
					4	
					5	
					6	
					7	
					8	
					9	
					A	
					B	
					C	
					D	
					E	
					F	
					G	
					H	
					I	
					J	
					K	
					L	
					M	
					N	
					O	
					P	
					Q	
					R	
					S	
					T	
					U	
					V	

I LIMIT (CURRENT LIMIT) This option is used to keep the overcurrent inside set limit. It's necessary to drive primary transformers and cold resistance. This option is not available on 30-35-40A units.

HB Alarm for partial or total load failure and Short Circuit on SCR (relay output).

WiFi not available

Bluetooth Communication and control of the unit via **APP**

APP "RevoBLE" free download from Google Play or Apple Store

Data Logger Reading and data logging of Current (I), Voltage (V) and Power (%) for diagnostics

Energy Totalizer Power reading: totals the energy consumption of the load by providing the kW consumed



Bluetooth option for communication and control via app



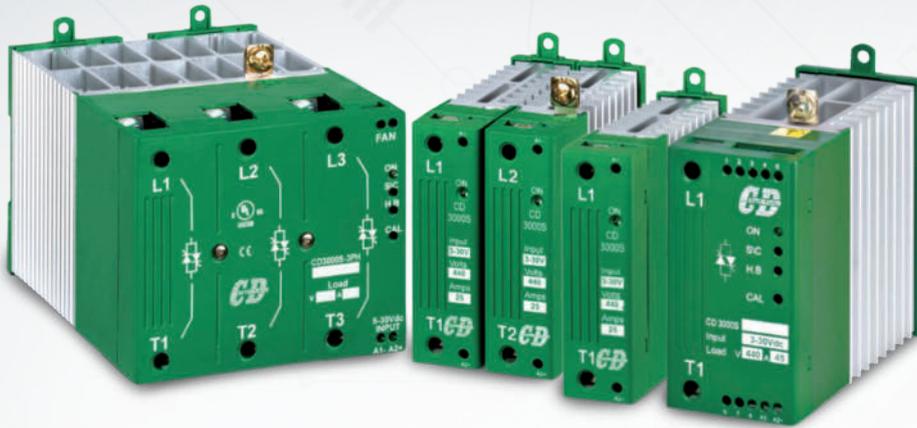
App

APP "RevoBLE" free download from Google Play or Apple Store. Connecting to the unit via Bluetooth



WiFi not available

CD3000S



Main features

CD3000S is our low cost family of solid state relays

- Thyristor units from 10A to 90A 1PH, 2PH and 3PH
- Can be used with resistive loads
- Zero crossing firing available with logic input signal (SSR)
- Analog input 4÷20mA or 0÷10V with Burst Firing 4, 8 or 16 cycle at 50% power demand, is available as an option on these models: 1PH from 35A to 90A; 2PH from 45A to 90A.
- Heater break alarm (HB) to diagnose partial or total load failure and short circuit on thyristor, available as an option on these models: 1PH from 35A to 90A; 2PH from 45A to 90A.
- Side-by-side mounting
- Approvals **CE** and **cUL**

Load type

Resistive

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- Petrolchemicals
- Platform for oil extraction
- Conventional power generator
- Chemicals and pharmaceuticals
- Autoclaves
- Electric furnaces
- Galvanic process
- Glass industry
- Polysilicon
- Chemical
- Plastic machinery
- Packing machinery
- Automobile
- Paint drying
- UV drying
- Car internal fitting

CD 3000S - FEATURES

	Description	CD3000S 1PH			CD3000S 2PH		CD3000S 3PH	
	CODE	DS1			DS2		DS3	
Load type	Max voltage 480V	●			●		●	
	Max voltage 600V (on request)	●			●		●	
	Resistive load	●					●	
	Resistive load with connection 3PH star/delta				●			
	Infrared lamp up to 90A	●			●			
Input	SSR from 4 to 30Vdc	●			●		●	
	Analog input 0÷10V	○			○			
	Analog input 4÷20mA	○			○			
Firing	Zero crossing	●			●		●	
	Burst firing 4-8-16 (1)	○			○			
Current	Current	SIZE			SIZE		SIZE	
		240V	480V	600V	480V	600V	480V	600V
	10A				S0			
	2x10A	S0						
	15A		S0		S1		S2	
	25A		S0		S1			
	30A						S4	
	35A			S3		S4		
	45A			S3		S7		S6
	60A			S7				S8
	75A					S8		S8
	90A			S7		S8		S8

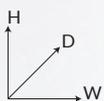
Note 1: Burst Firing 4/8/16 with 4÷20mA or 0÷10V with 12÷24V aux. power supply

CD3000S 1PH

Technical Specification

- **Voltage power supply:** 24V min, 240V, 480V, 600V 50/60Hz
- **Input Signal:** SSR standard up to 90A
Analog input 4÷20mA and 0÷10V available as an option on units from 35A to 90A
- **Firing:** Zero Crossing; Burst Firing 4/8/16 with 4÷20mA or 0÷10V with 12÷24Vac/dc aux. power supply
- **Heater Break Alarm:** Discrimination better than 20%
Circuit microprocessor to diagnose partial or total load failure and short circuit on Thyristor
Automatic calibration of one or more unit at the same time using a dedicated digital input, or for each unit, using the calibration button
Relay output 1A at 230V
- **Approvals:** Compliant with CE and cUL (option in standard units)
- **Mounting:** Din rail
- **Operating temperature:** 0÷40°C up to 90A (for higher temperature see the derating curve)

CD3000S 1PH 10÷90A / 240÷480÷600V



S0
H 120xW 30xD 120 - 0,33 kg
2x10A / 15÷25A



S3
H 120xW 52xD 120 - 0,55 kg
35÷45A



S7
H 120xW 117xD 159 - 1,65 kg
60÷90A

CD3000S 1PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	D	S	1	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT		4	5	6	
Description	Size	cod		note	
2x10A	S0	2	X	X	
15A	S0	0	1	5	
25A	S0	0	2	5	
35A	S3	0	3	5	
45A	S3	0	4	5	
60A	S7	0	6	0	
90A	S7	0	9	0	

MAX LOAD VOLTAGE		7	
Description		cod	note
240V		2	
480V		4	1
600V		6	1

AUXILIARY VOLTAGE		8	
Description		cod	note
No Auxiliary Voltage supply		0	
12÷24Vac/dc with analog input / HB Alarm		4	2,3

INPUT		9	
Description		cod	note
SSR 4÷30Vdc		S	
Analog Input 0÷10V		V	3,5
Analog Input 4÷20mA		A	3,5

FIRING		10	
Description		cod	note
Zero Crossing with SSR input		Z	
4 cycles on + 4 off with analog input		4	
8 cycles on + 8 off with analog input		8	
16 cycles on + 16 off with analog input		6	

CONTROL MODE		11	
Description		cod	note
Open loop		0	

FUSES & OPTION		12	
Description		cod	note
No fuse / No option		0	
No fuse / HB option		1	3,5
External fuse & fuse holder / No option		F	
External fuse & fuse holder / HB option		2	3,5

FAN VOLTAGE		13	
Description		cod	note
No fan		0	

APPROVALS		14	
Description		cod	note
CE for European market		0	
CE + cUL		L	

MANUAL		15	
Description		cod	note
None		0	
Italian		1	
English		2	
German		3	
French		4	

IP PROTECTION		16	
Description		code	note
Standard IP20 (all unit excluded 60A and 90A)		0	
External IP20 protection for size S7 (60-90A)		P	4

Note 1: 480V and 600V not available for 2x10A

Note 2: Necessary with 0÷10V - 4÷20mA and HB alarm

Note 3: Option available 35÷90A

Note 4: IP20 is standard on all units with exception of S7 size (60-90A). To comply with IP20 use "P" option at digit 16

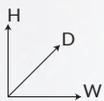
Note 5: HB not available with UL approval

CD3000S 2PH

Technical Specification

- **Voltage power supply:** 24V min, 480V, 600V 50/60Hz
- **Input Signal:** SSR
Analog input 4÷20mA and 0÷10V available from 45A to 90A
- **Firing:** Zero Crossing; Burst Firing 4/8/16 with 4÷20mA or 0÷10V with 12÷24Vac/dc aux. power supply
- **Fan Voltage Supply:** for unit ≥75A; 230V standard (115V option)
- **Heater Break Alarm:** Discrimination better than 20%
Circuit microprocessor to diagnose partial or total load failure and short circuit on Thyristor
Relay output 1A at 230V
Automation calibration of one or more unit at the same time using a dedicated digital input, or for each unit, by using the calibration button
- **Approvals:** Compliant with CE and cUL (option in standard units)
- **Mounting:** Din rail
- **Operating temperature:** 0÷40° up to 90A (for higher temperature see the derating curve)

CD3000S 2PH 10÷90A / 480÷600V



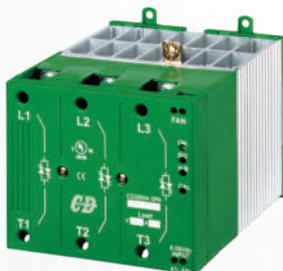
S0
H 120xW 30xD 120 - 0,33 kg
10A



S1
H 120xW 60xD 120 - 0,70 kg
15-25A



S4
H 120xW 117xD 123 - 1,15 kg
35A



S7
H 120xW 117xD 159 - 1,65 kg
45A



S8
H 138xW 117xD 159 - 2,10 kg
75÷90A

CD3000S 2PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	D	S	2	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT		4	5	6	
Description	Size	cod		note	
10A	S0	0	1	0	1
15A	S1	0	1	5	
25A	S1	0	2	5	
35A	S4	0	3	5	
45A	S7	0	4	5	
75A	S8	0	7	5	
90A	S8	0	9	0	

MAX LOAD VOLTAGE		7	
Description		cod	note
480V		4	
600V		6	

AUXILIARY VOLTAGE		8	
Description		cod	note
No Auxiliary Voltage supply		0	
12÷24Vac/dc with analog input / HB Alarm		4	2,3

INPUT		9	
Description		cod	note
SSR 4÷30Vdc		S	
Analog input 0÷10V		V	3,5
Analog input 4÷20mA		A	3,5

FIRING		10	
Description		cod	note
Zero Crossing with SSR input		Z	
4 cycles on + 4 off with analog input		4	
8 cycles on + 8 off with analog input		8	
16 cycles on + 16 off with analog input		6	

CONTROL MODE		11	
Description		cod	note
Open loop		0	

FUSES & OPTION		12	
Description		cod	note
No fuse / No option		0	
No fuse / HB option for SSR input		1	3,5
No fuse / HB option for analog input		1	3,5
External fuse + fuse holder / No option		F	
External fuse + fuse holder / HB option for SSR input		2	3,5
External fuse + fuse holder / HB option for analog input		2	3,5

FAN VOLTAGE		13	
Description		cod	note
No Fan for unit <75A		0	
Fan 115V option - for 75A and 90A units		1	
Fan 230V standard - for 75A and 90A units		2	

APPROVALS		14	
Description		cod	note
CE for European market		0	
CE + cUL		L	

MANUAL		15	
Description		cod	note
None		0	
Italian		1	
English		2	
German		3	
French		4	

IP PROTECTION		16	
Description		cod	note
Standard IP20 (all unit excluded 45A, 75A, 90A)		0	
External IP20 protection for size S7/S8 (45A, 75A, 90A)		P	

Note 1: For 10A 600V cUL us not available

Note 2: Necessary with 0÷10V - 4÷20mA or HB alarm

Note 3: Option available from 45÷90A

Note 4: IP20 is standard on all units with exception of S7 and S8 size (45-75-90A). To comply with IP20 use "P" option at digit 16

Note 5: HB not available with cUL us approval

CD3000S 3PH

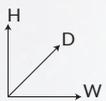
Technical Specification

- **Voltage power supply:** 24V min, 480V Max, 600V on request
- **Input Signal:** SSR
- **Firing:** Zero Crossing
- **Fan Voltage Supply:** 230V
- **Approvals:** Compliant with CE and cUL (option)
- **Mounting:** Din rail
- **Operating Temperature:** 0÷40° up to 90A included (for higher temperature see the derating curve)

Not available on this unit

- Heater Break Alarm
- Analog input 4÷20mA and 0÷10V

CD3000S 3PH 15÷90A / 480÷600V



S2
H 120xW 92xD 120 - 1,05 kg
15A



S4
H 120xW 117xD 123 - 1,15 kg
30A



S6
H 138xW 117xD 123 - 1,80 kg
45A



S8
H 138xW 117xD 159 - 2,10 kg
60÷90A

CD3000S 3PH

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	D	S	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT		4	5	6	
Description	Size	cod			note
15A	S2	0	1	5	
30A	S4	0	3	0	
45A	S6	0	4	5	
60A	S8	0	6	0	
75A	S8	0	7	5	
90A	S8	0	9	0	

MAX LOAD VOLTAGE		7	
Description		cod	note
480V		4	
600V		6	

AUXILIARY VOLTAGE		8	
Description		cod	note
No Auxiliary Voltage supply		0	

INPUT		9	
Description		cod	note
SSR		S	

FIRING		10	
Description		cod	note
Zero Crossing		Z	

CONTROL MODE		11	
Description		cod	note
Open loop		0	

FUSES & OPTION		12	
Description		cod	note
No fuse		0	
External fuse + fuse holder		F	

FAN VOLTAGE		13	
Description		cod	note
No Fan for unit <45A		0	
Fan 115V option - for 45A to 90A units		1	
Fan 230V Standard - for 45A to 90A units		2	

APPROVALS		14	
Description		cod	note
CE for European market		0	
CE + cUL		L	

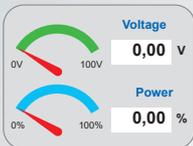
MANUAL		15	
Description		cod	note
None		0	
Italian		1	
English		2	
German		3	
French		4	

IP PROTECTION		16	
Description		cod	note
IP20 standard (all unit excluded size S8, from 60A to 90A)		0	
External IP20 protection for size S8 (from 60A to 90A)		P	1

Note 1: IP20 is standard on all units with exception of S8 size (60÷90A). To comply with IP20 use "P" option at digit 16

REVO PN

Integrated
fieldbus



Configurator
software

TIA PORTAL
V16

SIEMENS

Libraries



4 - 8
One Phase Channels



12 - 16
One Phase Channels



12 - 24 One Phase Channels
shared on the three phases
20 - 24 One Phase Channels

Main features

Multi-zone control system with energy efficiency (Power Management)

- **Fieldbus: range of communication protocols available**
Modbus® RTU, Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet IP
- From 12 to 24 single phase independent channels balanced on the three different phases
- From 4 to 24 single phase independent channels sharing the same phase connection Phase-Neutral or Phase-Phase
- Nominal current in continuous service Max 25A for each load
- Max peak current (10ms) 700A
- Nominal Voltage range 24÷600V, 3 phase
- Current reading with integrated CT for each channel
- Load and short circuit thyristor diagnostics for each channel
- "Enable" command for each channel
- CE approval
- UL approval max 300V
- **Guided configuration via free software**, available on www.cdautomation.com
- Siemens **TIA Portal Libraries** for data exchange with our products (from V16)

Load type

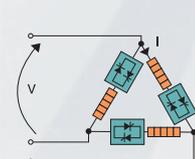
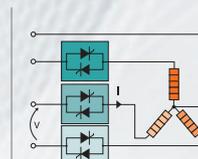
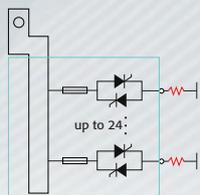
Resistive / Short wave (IRSW) and fast medium wave (IRMW) infrared lamp

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- Plastic industry
- Paint drying
- PET moulding
- Extrusion/Co-extrusion
- Furnaces with IR lamps
- Multizone furnaces
- Renewable energies
- Bio Packaging

REVO PN - FEATURES



CODE	RPN 104	RPN 108	RPN 112 RPN 120	RPN 116 RPN 124	RPN 412	RPN 424	RPN 612	RPN 624	REVO PB (PN Basic)
Connection	Phase-Phase		Phase-Neutral		Ph-N connect. Shared on the three phases		Ph-Ph connect. Shared on the three phases		
Channel	4	8	12 20	16 24	12	24	12	24	3
N° of Control Legs for each Channel	2PH	2PH	3PH	3PH	1PH	1PH	1PH	1PH	1PH
General features	Polymeric V2								
IP code	20								
Aux voltage	24Vdc								
Input	4	8	12 20	16 24	12	24	12	24	3
Configurable Digital Input calibration	max. 50mA								
Output	25A for each channel, Fuse 1260 A ² S								Up to 90A
Firing	Half Cycle at 50% power demand				Not available		Standard		Standard
	Single Cycle at 50% power demand				Standard		Standard		Standard
Control	Open Loop				Standard				
	Power Feedback				Standard				
Features	Heater Break + Thyristor short circuit				Standard				
	Current Measurement on communication				Standard				
	Voltage measurement				Standard				
	Power measurement				Standard				
	Three Phase balanced load				Standard				No
Communication	N°1 Modbus TCP and N°3 Modbus RTU Slave				Standard				1
	Modbus Master				Yes				No
	Profibus DP and Modbus TCP				Option				External module
	Profinet and Modbus TCP				Option				
	Ethernet IP and Modbus TCP				Option				
Digital Input	N° digital input				4				3
	Enable/Disable Function				OK				
Relay Output	Relay Output				Option				
Options	Operator panel KPPC				Option				
Temperature Control	Can be added externally				Option				No

From 4 up to 24 single phase independent channels sharing the same phase connection

Diagram 104

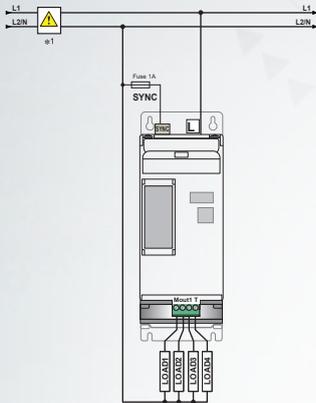


Diagram 108

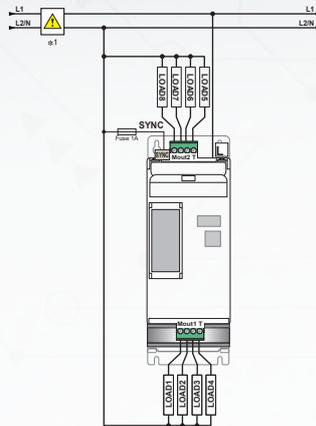


Diagram 112

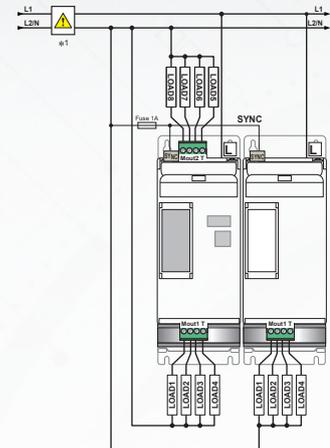


Diagram 116

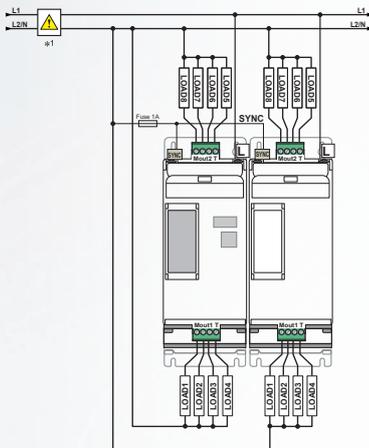


Diagram 120

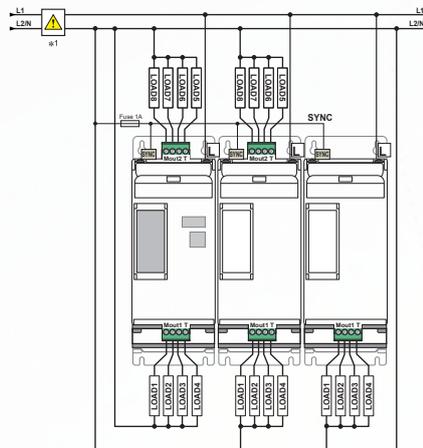
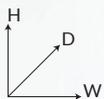
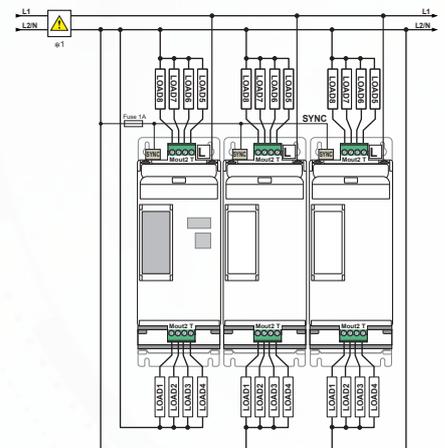


Diagram 124



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



SR15 x2
H 273 x W 186 x D 170
7,0 kg



SR15 x3
H 273 x W 281 x D 170
10,6 kg

REVO PN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	P	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT	3	4	5
Description	cod		note
1 PH 4 zones, all F1-N or F1-F2 (See diagram 104)	1	0	4
1 PH 8 zones, all F1-N or F1-F2 (See diagram 108)	1	0	8
1 PH 12 zones, all F1-N or F1-F2 (See diagram 112)	1	1	2
1 PH 16 zones, all F1-N or F1-F2 (See diagram 116)	1	1	6
1 PH 20 zones, all F1-N or F1-F2 (See diagram 120)	1	2	0
1 PH 24 zones, all F1-N or F1-F2 (See diagram 124)	1	2	4

MAX VOLTAGE	6
Description	cod
300V max	2
480V	4

COMMUNICATION	7
Description	cod
N° 1 Ethernet Port, Modbus® TCP and n°3 Modbus® RTU	1
N°1 Profibus-DP® Port (with external communication module)	4
N° 1 Ethernet port ProfiNet®	5
N° 1 Ethernet IP port	7

AUXILIARY VOLTAGE	8
Description	cod
24Vdc	4

INPUT	9
Description	cod
None, use only communication	0

FIRING	10
Description	cod
Half Cycle	1

CONTROL MODE	11
Description	cod
Single Cycle	2
Open Loop	1
Power Feed Back	2

FUSES + FUSE HOLDER	12
Description	cod
Low Speed Fuse & Fuse Holder for each channel (see option table)	...
Extra Rapid Fuse & Fuse Holder for each channel	F

FAN VOLTAGE	13
Description	cod
24Vdc fan	3

APPROVALS	14
Description	cod
CE for European market	0
UL max 300V	L

MANUAL	15
Description	cod
None	0
Italian	1
English	2
German	3
French	4

VERSION	16
Description	cod
Each channel has a dedicated current sensor integrated in the units	4

Note 1: These fuses do not protect the Thyristors. You need external fuses. This solution is recommended for current IRSW Lamp.

Option table

Fuse type	Max current	COD
Extrarapid fuse (Standard)	32A	F
Low speed fuse	2A	A
Low speed fuse	4A	B
Low speed fuse	6A	C
Low speed fuse	8A	D
Low speed fuse	10A	E
Low speed fuse	12A	G
Low speed fuse	16A	H
Low speed fuse	20A	I
Low speed fuse	25A	L
Low speed fuse	32A	N
Low speed fuse	Various	V

All low speed fuses do not protect thyristor module

From 12 up to 24 single phase independent channels balanced on the three different phases

Diagram 412

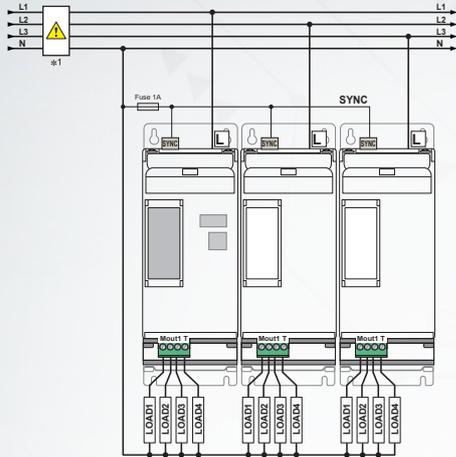


Diagram 612

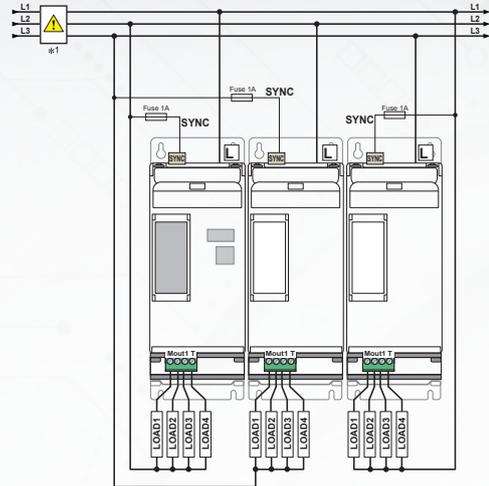


Diagram 424

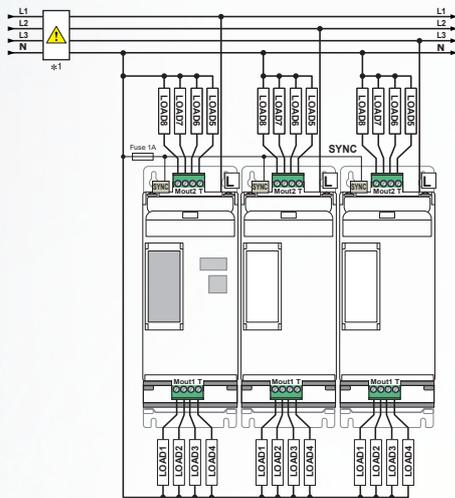
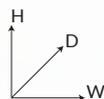
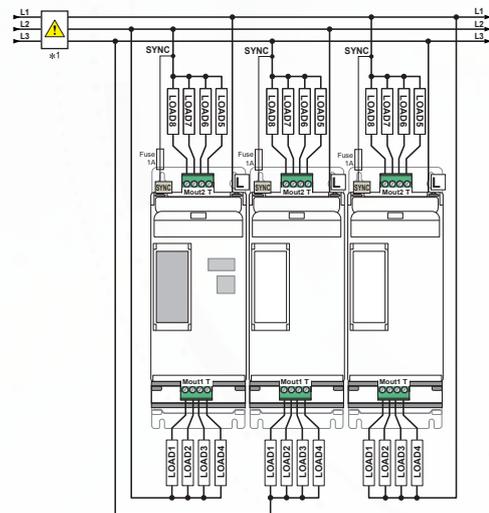


Diagram 624



SR15 x3

H 273 x W 281 x D 170

10,6 kg

REVO PN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	P	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT	3	4	5	
Description	cod		note	
1PH 12 zones (n°4 zones F1-N; n°4 zones F2-N; n°4 zones F3-N) (See diagram 412)	4	1	2	
1PH 24 zones (n°8 zones F1-N; n°8 zones F2-N; n°8 zones F3-N) (See diagram 424)	4	2	4	
1PH 12 zones (n°4 zones F1-F2; n°4 zones F2-F3; n°4 zones F1-F3) (See diagram 612)	6	1	2	
1PH 24 zones (n°8 zones F1-F2; n°8 zones F2-F3; n°8 zones F1-F3) (See diagram 624)	6	2	4	

MAX VOLTAGE	6	
Description	cod	note
300V max	2	
480V	4	

COMMUNICATION	7	
Description	cod	note
N° 1 Ethernet Port, Modbus® TCP and n°3 Modbus® RTU	1	
N°1 Profibus-DP® Port (with external communication module)	4	
N° 1 Ethernet Port ProfiNet®	5	
N° 1 Ethernet IP port	7	

AUXILIARY VOLTAGE	8	
Description	cod	note
24Vdc	4	

INPUT	9	
Description	cod	note
None, use only communication	0	

FIRING	10	
Description	cod	note
Half cycle	1	

Option table

Fuse type	Max current	COD
Extrarapid fuse (Standard)	32A	F
Low speed fuse	2A	A
Low speed fuse	4A	B
Low speed fuse	6A	C
Low speed fuse	8A	D
Low speed fuse	10A	E
Low speed fuse	12A	G
Low speed fuse	16A	H
Low speed fuse	20A	I
Low speed fuse	25A	L
Low speed fuse	32A	N
Low speed fuse	Various	V

All low speed fuses do not protect thyristor module

Single cycle	2	
CONTROL MODE	11	
Description	cod	note
Open Loop	1	
Power Feed Back	2	

FUSES + FUSE HOLDER	12	
Description	cod	note
Low Speed Fuse & Fuse Holder for each channel (see option table)	...	1
Extra Rapid Fuse & Fuse Holder for each channel	F	

FAN VOLTAGE	13	
Description	cod	note
24Vdc fan	3	

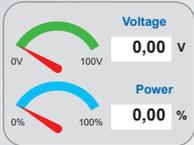
APPROVALS	14	
Description	cod	note
CE for European market	0	
UL max 300V	L	

MANUAL	15	
Description	cod	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
Description	code	note
Each channel has a dedicated current sensor integrated in the units	4	

Note 1: fuses do not protect the Thyristors. You need external fuses. This solution is recommended for current IRSW Lamp.

REVO PB



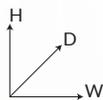
Configurator
software



REVO PB: REVO PN power extension up to 90A

Created specifically for industrial multi-zone applications, REVO PB can be configured to control between 3 and 9 channels/zones.

- Available sizes: 35A, 50A, 75A, 90A
- Three zones thyristor controller with power optimization algorithm (power management)
- Modbus® RTU communication protocol on RS485
- Extrarapid fixed fuses
- Current reading with integrated CT for each channel
- Firing: Single cycle, Half cycle
- Load and SCR diagnostics for each channel
- Outputs for alarms
- "Enable" command for each channel
- **CE** approval
- **Guided configuration via free software**, available on www.cdautomation.com



SR25
H 165 x W 116 x D 183 - 2,35 kg
35+90A

REVO PB	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	P	B	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CURRENT	4	5	6	
Description		cod	note	
35A	0	3	5	
50A	0	5	0	
75A	0	7	5	
90A	0	9	0	

MAX VOLTAGE	7	
Description	cod	note
480V	4	
600V	6	

AUXILIARY VOLTAGE	8	
Description	cod	note
24Vdc	4	

INPUT	9	
Description	cod	note
RS485 Modbus RTU Communication and DI	0	

FIRING	10	
Description	cod	note
Half Cycle	0	
Single Cycle	1	

CONTROL MODE	11	
Description	cod	note
No Feed-back	1	
Power Vxl	2	

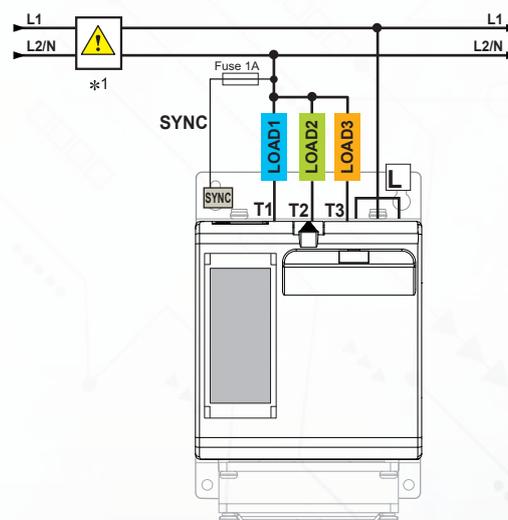
OPTION	12	
Description	cod	note
Display, Heater Break ALARM	0	

FAN VOLTAGE	13	
Description	cod	note
24Vdc FAN	3	

APPROVALS	14	
Description	cod	note
CE for European market	0	

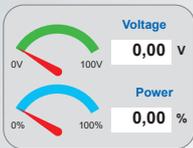
LOAD TYPE	15	
Description	cod	note
1PH Normal resistance	0	
1PH IRSW Infrared Short Wave	1	

VERSION	16	
Description	cod	note
Standard Version	0	



REVO PC

Integrated
Fieldbus



Configurator
software

TIA PORTAL
V16

SIEMENS

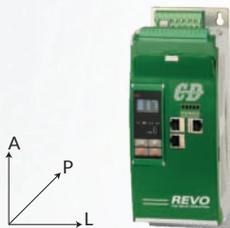
Libraries



Main features

REVO PC system is based on an intelligent unit that manages one or more basic SCR power controller. All currents are measured with an external current transformer. REVO PC acquires the power setpoint from different sources including: single or multi zone temperature controller, PLC or HMI.

- **Fieldbus: range of communication protocols available**
Modbus® RTU, Profibus® DP, Profinet® IO, Modbus® TCP, Ethernet IP
- For standard resistors and IR lamps
- To use with REVO S and REVO Sx in “Y” configuration
- Firing: Single Cycle, Half Cycle and Dynamic Burst Firing
- Reduces power peaks and increases energy savings (power management)
- Heater Break alarm and “Enable” command for each channel
- **Guided configuration via free software**, available on www.cdautomation.com
- Siemens **TIA Portal Libraries** for data exchange with our products (from V16)



A 269 x L 93 x P 95
0,6 kg

Control unit

REVO PC up to 24 channels

- SSR output “Y” to control up to 24 REVO S 1PH
- High precision voltage transducer
- RS485 and Modbus TCP available as standard

Power Unit

REVO S 1PH “Y”

- SCR power switches from 30A to 800A
- Extrarapid internal fuses
- Max voltage 480V - 600V - 690V
- High precision integrated current transducer

REVO Sx “Y”

- SCR power controllers from 50A to 90A
- External CT
- Multichannel unit

Load type

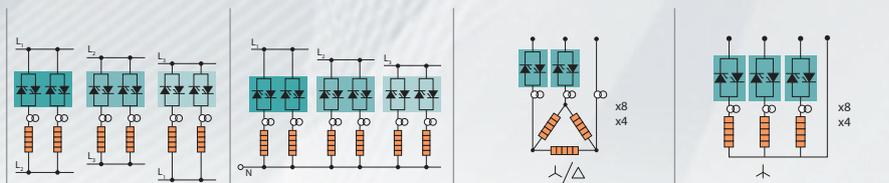
Resistive / Short wave (IRSW) and fast medium wave (IRMW) infrared lamp

Cannot be used for capacitive loading. For information contact our technical department

Industrial applications

- Plastic industry
- Paint drying
- PET moulding
- Extrusion/Co-extrusion
- Furnaces with IR lamps
- Multizone furnaces
- Renewable energies
- Bio Packaging

REVO PC - FEATURES



CODE		RPC612	RPC624	RPC412	RPC424	RPC204	RPC208	RPC304	RPC308
Connection		Phase-Phase shared on three phases		Phase-Neutral		2 Legs		3 legs	
Channels		12	24	12	24	4	8	4	8
N° of Control Legs for each Channel		1PH	1PH	1PH	1PH	2PH	2PH	3PH	3PH
General features	Cover and socket material	Polymeric V2							
	IP code	20							
	Aux Voltage	24Vdc							
Input	Number of sensor used	12	24	12	24	12	24	12	24
	Configurable Digital Input calibration	max. 50mA							
Output		25A for each channel, Fuse I ² t 1260 A ² S							
Firing	Half Cycle at 50% power demand	Standard				Not available		Standard	
	Single Cycle at 50% power demand	Standard				Standard			
Control	Open Loop	Standard							
	Power Feedback	Standard							
Features	Heater Break + Thyristor short circuit	Standard							
	Current Measurement on communication	Standard							
	Voltage measurement	Standard							
	Power measurement	Standard							
	Three Phase balanced load	Standard							
Communication	N°1 Modbus TCP and N°3 Modbus RTU Slave	Standard							
	Profibus DP and Modbus TCP	Option							
	Profinet and Modbus TCP	Option							
	Ethernet IP and Modbus TCP	Option							
Digital Input	N° digital input	4							
	Enable Disable Function	Standard							
Relay Output	Relay Output	Option							
Option	Operator panel KPPC	Option							
Temperature control	Can be added externally	Option							

RPC612 / RPC624

up to 24 1PH channel shared on three phases

CONNECTION PHASE TO PHASE

REVO PC	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CONNECTION	4	
Description	cod	note
F1-F2; F2-F3; F1-F3 All the 1PH channel can be balanced on the three phases Phase to Phase	6	

FIRING	12	
Description	cod	note
Half Cycle at 50% power demand	1	
One Cycle at 50% power demand	2	

CHANNELS	5	6	
Description	cod	note	
12 channel REVO PC to drive 12 REVOS-1PH Max with Random Firing	1	2	
24 channel REVO PC to drive 24 REVOS-1PH Max with Random Firing	2	4	

FEEDBACK (Control Mode)	13	
Description	cod	note
No Feedback	1	
Power	2	

One Current Sensor Input for each channel	7	8	9	
Description	cod	note		
Current Sensor is included and integrated with REVO S 1PH units with "Y" Option	0	0	0	

APPROVALS	14	
Description	cod	note
CE for European market	1	
CE + cUL (pending)	L	

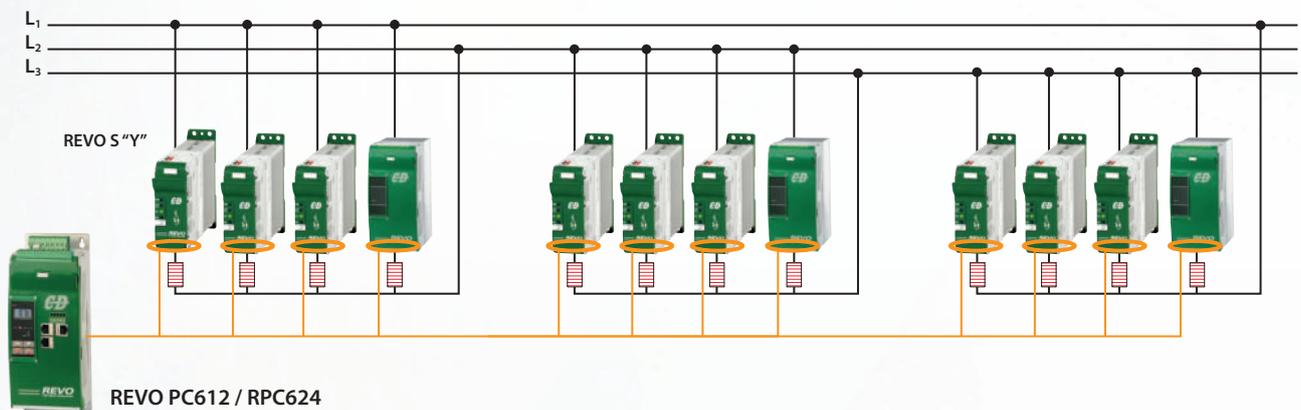
COMMUNICATION	10	
Description	cod	note
Ethernet Port, Modbus TCP, Modbus RTU and CD Bus	1	
Profibus-DP® Port, Modbus TCP, Modbus RTU and CD Bus (with external module) <i>on request only</i>	4	
Ethernet Port ProfiNet, Modbus TCP, Modbus RTU and CD Bus	5	
Ethernet Port Ethernet IP, Modbus TCP, Modbus RTU and CD Bus	7	

MANUAL	15	
Description	cod	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

Aux Voltage to be coupled with an external transformer	11	
Description	cod	note
24Vdc	4	

VERSION	16	
Description	cod	note
Version 2	2	

Connection example



RPC412 / RPC424

up to 24 1PH channel balanced on three phases

CONNECTION PHASE TO NEUTRAL

REVO PC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-

CONNECTION	4	
Description	cod	note
F1-N; F2-N; F3-N All the 1PH channel can be balanced on the three phases Phase to Neutral	4	

FIRING	12	
Description	cod	note
Half Cycle at 50% power demand	1	
One Cycle at 50% power demand	2	

CHANNELS	5	6	
Description	cod	note	
12 channel REVO PC to drive 12 REVOS-1PH Max with Random Firing	1	2	
24 channel REVO PC to drive 24 REVOS-1PH Max with Random Firing	2	4	

FEEDBACK (Control Mode)	13	
Description	cod	note
No Feedback	1	
Power	2	

One Current Sensor Input for each channel	7	8	9	
Description	cod	note		
Current Sensor is included and integrated with REVO S 1PH units with "Y" Option	0	0	0	

APPROVALS	14	
Description	cod	note
CE for European market	1	
CE + cUL (pending)	L	

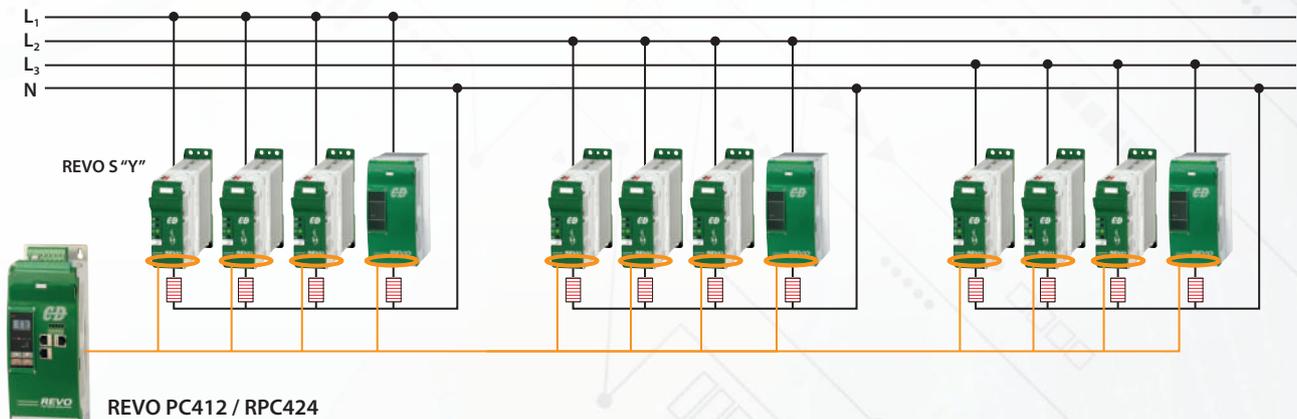
COMMUNICATION	10	
Description	cod	note
Ethernet Port, Modbus TCP, Modbus RTU and CD Bus	1	
Profibus-DP® Port, Modbus TCP, Modbus RTU and CD Bus (with external module) <i>on request only</i>	4	
Ethernet Port ProfiNet, Modbus TCP, Modbus RTU and CD Bus	5	
Ethernet Port Ethernet IP, Modbus TCP, Modbus RTU and CD Bus	7	

MANUAL	15	
Description	cod	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

Aux Voltage to be coupled with an external transformer	11	
Description	cod	note
24Vdc	4	

VERSION	16	
Description	cod	note
Version 2	2	

Connection example



RPC 2

Three-phase system regulated on two legs

STAR WITHOUT NEUTRAL OR CLOSE DELTA CONNECTION

REVO PC	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CHANNELS	4	5	6	
Description	cod		note	
REVO-PC to drive N°4 of 3 Phase Loads with two legs (2PH) N°8 SSR output to drive N°8 REVO S 1PH	2	0	4	
REVO-PC to drive N°8 of 3 Phase Loads with two legs (2PH) N°16 SSR output to drive N°16 REVO S 1PH	2	0	8	

CURRENT SENSOR INPUT	7	8	9	
Description	cod			note
N°3 Current Sensor Input for each three phase channel are required. Current Sensor is included and integrated with REVO S 1PH units with "Y" Option.				
For 2PH control N°2 REVO S 1PH units with "Y" option are required + an additional Current Transformer	See CT Table			

COMMUNICATION	10	
Description	cod	note
Ethernet Port, Modbus TCP, Modbus RTU and CD Bus	1	
Profibus-DP® Port, Modbus TCP, Modbus RTU and CD Bus (with external module) <i>on request only</i>	4	
Ethernet Port ProfiNet, Modbus TCP, Modbus RTU and CD Bus	5	
Ethernet Port Ethernet IP, Modbus TCP, Modbus RTU and CD Bus	7	

Aux Voltage to be coupled with an external transformer	11	
Description	cod	note
24Vdc	4	

FIRING	12	
Description	cod	note
One Cycle at 50% power demand	2	

FEED BACK (Control Mode)	13	
Description	cod	note
No Feedback	1	
Power	2	

APPROVALS	14	
Description	cod	note
CE for European market	1	
CE + cUL (pending)	L	

MANUAL	15	
Description	cod	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

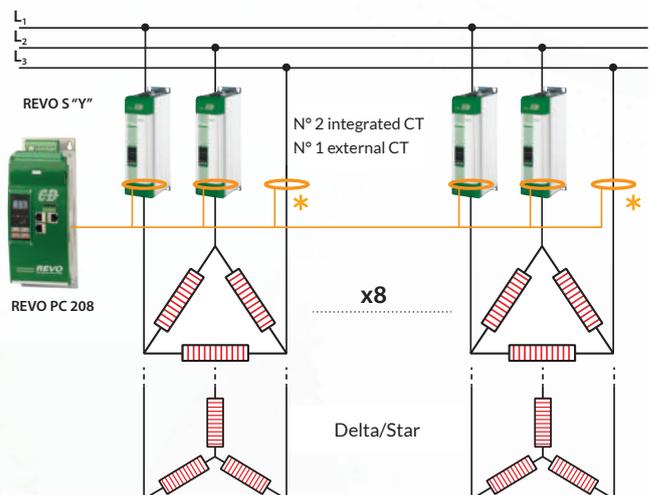
VERSION	16	
Description	cod	note
Version 2	2	

CT for the third uncontrolled phase

MANDATORY *

External current sensor					
Description	REVO S size	cod	Description	REVO S size	cod
50/0,05	30-40A	000	200/0,05	150-200A	004
75/0,05	60A	001	250/0,05	210A	005
100/0,05	90A	002	400/0,05	300-400A	006
150/0,05	120A	003	800/0,2	500-800A	007

Connection example



RPC 3

Three-phase system regulated on three legs

STAR + NEUTRAL CONNECTION

REVO PC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-

CHANNELS	4	5	6	7
Description	cod	note		
REVO-PC to drive N°4 of 3 Phase Loads with three legs (3PH) N°12 SSR output to drive N°12 REVO S 1PH	3	0	4	
REVO-PC to drive N°8 of 3 Phase Loads with three legs (3PH) N°24 SSR output to drive N°24 REVO S 1PH	3	0	8	

CURRENT SENSOR INPUT	7	8	9	10
Description	cod	note		
N°3 Current Sensor Input for each three phase channel are required.	0	0	0	
Current Sensor is included and integrated with REVO S 1PH units with "Y" Option.				

COMMUNICATION	10	11
Description	cod	note
Ethernet Port, Modbus TCP, Modbus RTU and CD Bus	1	
Profibus-DP® Port, Modbus TCP, Modbus RTU and CD Bus (with external module) <i>on request only</i>	4	
Ethernet Port ProfiNet, Modbus TCP, Modbus RTU and CD Bus	5	
Ethernet Port Ethernet IP, Modbus TCP, Modbus RTU and CD Bus	7	

Aux Voltage to be coupled with an external transformer	11
Description	cod
24Vdc	4

FIRING	12
Description	cod
Half Cycle (only with neutral)	1
One Cycle at 50% power demand	2

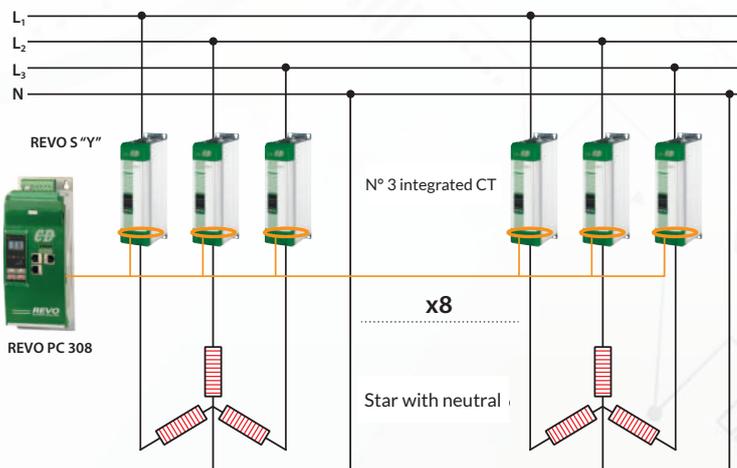
FEED BACK (Control Mode)	13
Description	cod
No Feedback	1
Power	2

APPROVALS	14
Description	cod
CE for European market	1
CE + cUL (pending)	L

MANUAL	15
Description	cod
None	0
Italian	1
English	2
German	3
French	4

VERSION	16
Description	cod
Version 2	2

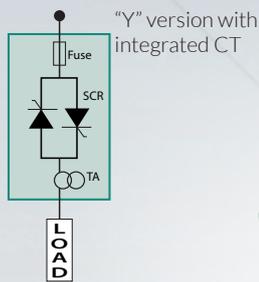
Connection example



Codice TA

External current sensor					
Description	REVO S size	cod	Description	REVO S size	cod
50/0,05	30-40A	000	200/0,05	150-200A	004
75/0,05	60A	001	250/0,05	210A	005
100/0,05	90A	002	400/0,05	300-400A	006
150/0,05	120A	003	800/0,2	500-800A	007

REVO S selection for REVO PC



SR6	SR12	SR15	S11	S12	S15
H 121 x W 36 x D 185	H 269 x W 93 x D 170	H 273 x W 93 x D 170	H 440 x W 137 x D 270	H 520 x W 137 x D 270	H 560 x W 137 x D 270
0,61 kg	3,4kg	3,6 kg	10,5 kg	15 kg	17,2kg

REVO S 1PH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	S	1	-	-	-	-	-	-	-	-	Y	-	-	-	-

CURRENT		4	5	6	
Description	Size 480/600V	Size 690V	cod	note	
30A	SR3 / IFH=SR6	--	0 3 0		
35A	SR3 / IFH=SR6	--	0 3 5		
40A	SR3 / IFH=SR6	--	0 4 0		
60A	SR12	S11	0 6 0		
90A	SR15	S11	0 9 0		
120A	SR15	S11	1 2 0		
150A	SR15	S11	1 5 0		
180A	SR15	S11	1 8 0		
210A	SR15	S11	2 1 0		
300A	S12	S12	3 0 0		
400A	S12	S12	4 0 0		
500A	S12	S12	5 0 0		
600A	S12	S12	6 0 0		
700A	S12	S12	7 0 0		
800A	S15	S15	8 0 0	1	

MAX VOLTAGE		7	
Description		cod	note
480V		4	
600V		6	
690V		7	2

VOLTAGE SUPPLY AUX		8	
≤ 210A		cod	note
No Aux		0	
≥ 300A			
Main Supply Voltage	Aux Voltage Range		
100/120Vac	90÷135Vac	1	3
200/208/230/240Vac	180÷265Vac	2	3
277Vac	238÷330Vac	3	3
380/415/480Vac	342÷528Vac	5	3
600Vac	540÷759Vac	6	3
690Vac	540÷759Vac	7	3

INPUT		9	
Description		cod	note
SSR "Y" to connect with REVO PC		S	

FIRING		10	
Description		cod	note
Zero Crossing		Z	
Random Firing		R	4

CONTROL MODE		11	
Description		cod	note
Open Loop		0	

FUSES & OPTION		12	
30-40A		cod	note
Extrarapid fuse + fuse holder + integrated CT		Y	
60-800A			
Extrarapid fixed fuses + integrated CT		Y	

FAN VOLTAGE		13	
Description		cod	note
No fan < 90A		0	
Fan 115Vac ≥ 90A		1	
Fan 230Vac ≥ 90A Standard		2	
Fan 24Vdc ≥ 90A		3	

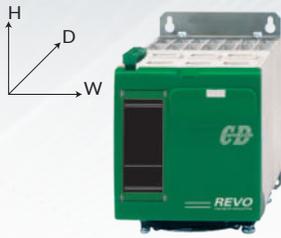
APPROVALS		14	
Description		cod	note
CE for European market		0	
CE + cUL		L	1

MANUAL		15	
Description		cod	note
None		0	
Italian		1	
English		2	
German		3	
French		4	

VERSION		16	
Description		cod	note
Standard version with CT output		1	

Note 1: UL option (not cUL) for 800A units **Note 2:** Available in units ≥60A, 690V units are available with CE only
Note 3: Load voltage must be included in Selected Auxiliary Voltage Range for units ≥300A
Note 4: With 690V the firing is random

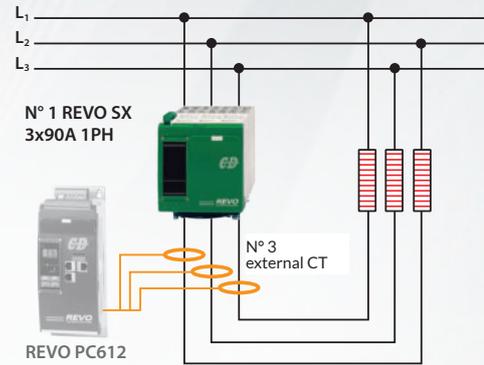
REVO SX 1PH Multichannel Unit for REVO PC



SR25

H 180xW 116xD 183 - 2,35 kg

“Y” version
with Current
transformer (CT)



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

NUMBER OF ZONES X CURRENT RATING	4	5	6	
Description	cod	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			

MAX VOLTAGE	7	
Description	cod	note
480V	4	
600V	6	

VOLTAGE SUPPLY AUX	8	
Description	cod	note
No Auxiliary Voltage	0	

INPUT	9	
Description	cod	note
SSR “Y” to connect with REVO PC	S	

FIRING	10	
Description	cod	note
Zero Crossing	Z	

CONTROL MODE	11	
Description	cod	note
Open Loop	0	

FUSES & OPTION	12	
Description	cod	note
Extrarapid fixed fuses + CT	Y	

FAN VOLTAGE	13	
Description	cod	note
Standard: fan 24Vdc	3	

APPROVALS	14	
Description	cod	note
CE for European market	0	

MANUAL	15	
Description	cod	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

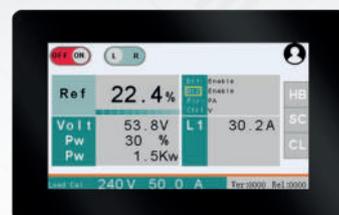
VERSION	16	
Description	cod	note
Version 1	1	

Operator panels

KP - User interface

The KP user interface is designed to be connected to a single unit via RS485. It can be connected to most units including REVO C, REVEX, REVO RT, REVO PN.

Parameters like power, current and alarms, and other operator functions can be read on the display. Local/Remote, Up and Down and Function commands are also available.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
ORDER CODE	K	P	-	-	-	-	-	-	-	-	-	-	0	0	0	0	
VERSION				3	4												
Description				cod													
Operative Display for REVO C and REVEX Series				R	C												
Operative Display for REVO PN				P	N												
Operative Display for REVO RT				R	T												
Screen size				5	6												
Description				cod													
4.3" horizontal				H	4												
4.3" vertical				V	4												
COMMUNICATION							7	8	9	10							
Description							cod										
MODBUS RTU							M	0	0	0							
APPROVALS												11	12				
Description												cod					
CE for European market												0	0				

REVO KP3

The REVO KP3 touch panel is configured to communicate with the REVO C and REVEX series SSRs.

It can be connected to up to 6 zones and all the main parameters of the six zones can be displayed on one page. Each parameter can be recorded and it is possible to see the trend and history of the recorded variables in real time.



	1	2	3	4	5	6	7	8	9	10		
ORDER CODE	R	K	P	-	-	-	-	-	-	-		
VERSION					4							
Description					cod							
Version 3 for REVO C and REVEX					3							
Screen size					5	6						
Description					cod							
4.3"					0	4						
7.0"					0	7						
10.0"					1	0						
COMMUNICATION							7	8				
Description							cod					
MODBUS RTU + Ethernet							M	ETH				
APPROVALS									9	10		
Description									cod			
CE for European market									0	0		
CE + UL									U	L		

Customised panels are possible. Please contact our technical department for more information.

Communication modules



TU-RS485-TCP-3580MB
Modbus/TCP - Modbus RTU converter



TU-RS485-ETH-000000
Serial Ethernet - Datalogger converter



TU-RS485-PNT-067602
Profinet terminal unit



TU-RS485-EIP-067591
Ethernet/IP / Modbus Master converter



RS485 | TU-RS485-232-00Z107
RS232 converter

	1	2		3	4	5	6	7		8	9	10		11	12	13	14	15	16	
ORDER CODE	T	U	-	R	S	4	8	5	-	-	-	-	-	-	-	-	-	-	-	
COMMUNICATION				3	4	5	6	7												
Modbus RTU				R	S	4	8	5												
FIELDBUS, COMMUNICATION OR OTHER FUNCTIONS										8	9	10		11	12	13	14	15	16	
Modbus TCP Protocol Converter										-	T	C	P	-	3	5	8	0	M	B
Modbus TCP, Modbus Slave, IO, Data Logger, Logic										-	E	T	H	-	0	0	0	0	0	0
Profinet										-	P	N	T	-	0	6	7	6	0	2
Ethernet IP										-	E	I	P	-	0	6	7	5	9	1
RS232										-	2	3	2	-	0	0	Z	1	0	7

Features comparison

		BASIC PRODUCTS WITHOUT COMMUNICATION			UNIVERSAL
DESCRIPTION		REVO S 1PH	REVO S 2PH	REVO S 3PH	REVEX 1PH
CODE		RS1	RS2	RS3	RX1
MAIN VOLTAGE	Max voltage 480V	●	●	●	●
	Max voltage 600V	●	●	●	●
	Max voltage 690V (1)	●	●	●	●
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	○	○	○	●
	Potentiometer	○	○	○	●
FIRING	Zero Crossing	●	●	●	●
	Half Cycle				●
	Single Cycle				●
	Burst Firing				●
	Burst Firing simplified 4-8-16 Cycles at 50% (2)	●	●	●	●
	Delayed triggering				●
	Phase Angle				●
	Soft Start				●
CONTROL MODE	No Feed Back	●	●	●	●
	Voltage				●
	Voltage Square				●
	Current				●
	Current Square				●
	Power Vxl				●
	Transfer from V to Vxl or I to Vxl				○
OPTION	Current Limit				●
	Heater Break - HB Alarm	○	○	○	●
	Logging (Data Logger)				
	Totalizer (Energy)				
TOOLS	Smartphone App (free)				
	Software PC Configurator (Line analyzer free)				●
COMMUNIC.	Bluetooth				
	N°1 Modbus® RTU				●
	N°2 Modbus® RTU				○
	N°1 Profibus DP + N°1 Modbus® RTU				○
	N°1 Profinet® + N°1 Modbus® RTU				○
	N°1 Modbus® TCP + N°1 Modbus® RTU				○
CURRENT	DESCRIPTION	REVO S 1PH	REVO S 2PH	REVO S 3PH	REVEX 1PH
	Size/Approvals	Size/Approvals	Size/Approvals	Size/Approvals	Size/Approvals
	30	SR3-SR6/CE-cUL	SR4-SR7/CE-cUL	SR5-SR8/CE-cUL	SR6/CE
	35	SR3-SR6/CE-cUL	SR4-SR7/CE-cUL	SR5-SR8/CE-cUL	SR6/CE
	40	SR3-SR6/CE-cUL	SR4-SR7/CE-cUL	SR5-SR8/CE-cUL	SR6/CE
	60	SR12/CE-cUL (3)	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (3)	SR24/CE
	75		F/SR15/cUL	F/SR16/cUL	
	90	F/SR15/CE-cUL (3)	F/SR15/CE (3)	F/SR16/CE (3)	F/SR24/CE
	120	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	F/SR15/CE
	150	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	F/SR15/CE
	180	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	F/SR15/CE
	210	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	F/SR15/CE
	280	F/S10/CE	F/2xS10/CE		F/S10/CE
	300	F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	
	350			F/S14/CE-cUL	
	400	F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	
	450		F/S14/CE-cUL	F/S14/CE-cUL	
	500	F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	
	600	F/S12/CE-cUL	F/S14/CE-cUL		
	700	F/S12/CE-cUL	F/S14/CE-cUL		
	800	F/S15/CE	F/S16/CE	F/S17/CE	
1100					
1400					
1600					
1800					
2100					

● STANDARD ○ OPTION F: Fan Air Cooling; any letter before SIZE: Natural Air Cooling (1) cUL® Approval is for Voltage ≤ 600V

thyristor unit SINGLE LOOP

THYRISTOR UNITS FULLY CONFIGURATION WITH COMMUNICATION					DESCRIPTION	
REVEX 2PH	REVEX 3PH	REVO C 1PH	REVO C 2PH	REVO C 3PH	CODE	
RX2	RX3	RC1	RC2	RC3	CODE	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max voltage 480V	MAIN VOLTAGE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max voltage 600V	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max voltage 690V (1)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Single phase	LOAD TYPE
	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	3 phase load star no neutral or delta	
	<input type="checkbox"/>	<input type="checkbox"/> (5)		<input type="checkbox"/>	3 phase load star with neutral 3 phase load open delta	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SSR 4:30VDC	INPUT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4:20 mA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0:10 Vdc	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Potentiometer	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zero Crossing	FIRING
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Half Cycle	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Single Cycle	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Burst Firing	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Burst Firing simplified 4-8-16 Cycles at 50% (2)	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Delayed Triggering	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Phase Angle	CONTROL MODE
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soft Start	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No Feed Back	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Voltage	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Voltage Square	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current Square	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power Vxl	OPTION
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transfer from V to Vxl or I to Vxl	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current Limit	TOOLS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Heater Break - HB Alarm	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Logging (Data Logger)	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Totalizer (Energy)	COMMUNIC.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Smartphone App (free)	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Software PC Configurator (Line analyzer free)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bluetooth	CURRENT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N°1 Modbus® RTU	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N°2 Modbus® RTU	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N°1 Profibus DP + N°1 Modbus® RTU	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N°1 Profinet® + N°1 Modbus® RTU	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N°1 Modbus® TCP + N°1 Modbus® RTU	
REVEX 2PH	REVEX 3PH	REVO C 1PH	REVO C 2PH	REVO C 3PH	DESCRIPTION	
Size/Approvals	Size/Approvals	Size/Approvals	Size/Approvals	Size/Approvals	Size/Approvals	
SR9/CE	SR10/CE	SR9/CE	SR10/CE-cUL	SR11/CE-cUL	30	CURRENT
SR9/CE	SR10/CE	SR9/CE-cUL	SR10/CE-cUL	SR11/CE-cUL	35	
SR9/CE	SR10/CE	SR9/CE-cUL	SR10/CE-cUL	SR11/CE-cUL	40	
SR25/CE	F/SR25/CE (6)	SR12/CE-cUL (3)	SR13/CE-cUL (3)	SR14/CE-cUL (3)	60	
					75	
F/SR25/CE	F/SR25/CE (6)	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (3)	F/SR17/CE-cUL (3)	90	
F/SR16/CE	F/RS17/CE	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	120	
F/SR16/CE	F/RS17/CE	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	150	
F/SR16/CE	F/RS17/CE	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	180	
F/SR16/CE	F/RS17/CE	F/SR15/CE-cUL (3)	F/SR16/CE-cUL (4)	F/SR17/CE-cUL (4)	210	
F/2xS10/CE					280	
		F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	300	
					350	
		F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	400	
					450	
		F/S12/CE-cUL	F/S14/CE-cUL	F/S14/CE-cUL	500	
		F/S12/CE-cUL	F/S14/CE-cUL	F/S17/CE-UL	600	
		F/S12/CE-cUL	F/S14/CE-cUL	F/S17/CE-UL	700	
		F/S15/CE-UL	F/S16/CE-UL	F/S17/CE-UL	800	
		F/SR18/CE-UL	F/SR19/CE-UL	F/SR20/CE-UL	1100	
		F/SR21/CE-UL	F/SR22/CE-UL	F/SR23/CE-UL	1400	
		F/SR21/CE-UL	F/SR22/CE-UL	F/SR23/CE-UL	1600	
		F/SR21/CE-UL	F/SR22/CE-UL	F/SR23/CE-UL	1800	
		F/SR21/CE-UL	F/SR22/CE-UL	F/SR23/CE-UL	2100	

(2) It's possible just using Analog Input Ex. 4:20mA (3) Size S11 at 690V (no cUL) (4) Size S13 at 690V (no cUL) (5) Use n° 3 1PH units (6) from 2021 version

APPLICATION GUIDE	LOAD TYPE	MODEL	CURRENT RANGE	N. OF UNITS	PHASE CTRL
	Normal resistance infrared medium and long waveform	REVO SSR	It depends on heat sink	1	1
		REVO S 1PH	30-800A	1	1
	Quartz lamp infrared short waveform	REVO C 1PH	30-2100A	1	1
		REVE X 1PH	30-280A	1	1
	Molibdenum, Tungstenum, Kanthal® super, Platinum	REVE X 1PH	30-280A	1	1
		REVO C 1PH	30-2100A	1	1
	Silicon carbide elements	REVO S 1PH	30-800A	1	1
		REVE X 1PH	30-280A	1	1
		REVO C 1PH	30-2100A	1	1
	Transformers coupled with normal resistance	REVE X 1PH	30-280A	1	1
		REVO C 1PH	30-2100A	1	1
	Transformers coupled with cold resistances (Kanthal® super)	REVE X 1PH	30-280A	1	1
		REVO C 1PH	30-2100A	1	1
	Normal Resistance	REVO S 2PH	30-800A	1	2
		REVE X 2PH	30-280A	1	2
		REVO C 2PH	30-2100A	1	2
	Normal Resistance	REVO S 3PH	30-500A	1	3
		REVE X 3PH	30-210A	1	3
		REVO C 3PH	30-2100A	1	3
	Silicon carbide elements	REVO C 3PH	60-2100A	1	3
		REVE X PA	35-90A		
	Molibdenum, Tungstenum, Kantal® Super, Platinum, Quartz lamp infrared short waveform	REVO C 3PH	60-2100A	1	3
		REVE X PA	35-90A		
	Three phase transformer	REVO C 3PH	60-2100A	1	3
		REVE X PA	35-90A		
	Three phase normal load resistance with open delta connection	REVO S 3PH	30-800A	1	3
		REVO C 1PH	30-2100A	3	3
	Cold resistance	REVO C 1PH	30-2100A	3	3

CONTROL MODE:

V = Voltage feedback V² = Square voltage feedback VxI = Power feedback I = Current feedback

for thyristor unit SINGLE LOOP

SUGGESTED FIRING MODE FOR YOUR APPLICATIONS						OTHER FEATURES				SIZING		NOTE	
ZC	HC	SC	BF	BF Simplified	S+BF	DT	PA	CL	Control	V	I		
•										V	$\frac{P}{V}$	For general resistance applications with low variations in temperature and age. For low inertia loads use Single Cycle (SC) or Phase Angle (PA). For Infrared Short it's suggested to use Half Cycle that is a very Fast Firing	
•				•									
•				•									
	•	•							V ²				
	•	•						•					
								•	I ²	V	$\frac{P}{V}$	These resistances change with temperature but have low variations with age. Starting current with cold elements can be 16 times nominal current (Kanthal® super). Infrared lamp short waveform can reach 8 time nominal current.	
								•	I ²				
			•					•	V to Vxl	V	$\frac{P}{V}$	These resistances change value with temperature and age and value at the end of element life is 4 times the initial value. Constant power regulation is necessary with V to Vxl Transfer.	
								•	Vxl	V	$\frac{P}{V \cos \phi}$	Transformers and inductors have inrush current on start up. Phase Angle plus Soft Start and current limit are required. To switch the transformer ON-OFF, use DT firing that will automatically switch ON-OFF when current value is at zero.	
								•	Vxl				
								•	I ²	V	$\frac{P}{V \cos \phi}$	Use Phase Angle + Current Limit	
•				•						V	$\frac{P}{1.73V}$		
			•							Vxl	V	$\frac{P}{1.73V}$	REVO S, REVE X and REVO C-2PH are suitable to control resistive loads with delta or star connection without neutral.
			•							Vxl	V	$\frac{P}{1.73V}$	
•				•						Vxl	$\frac{V}{1.73}$	$\frac{P}{1.73V}$	Three phase load with star plus neutral connection must be controlled on the three phases.
			•							Vxl	$\frac{V}{1.73}$	$\frac{P}{1.73V}$	
			•						V to Vxl	V	$\frac{P}{1.73V}$	On three phase silicon carbide elements Vxl feedback is suggested to have a constant power control. This is necessary to compensate resistance change with temperature and age. Resistance value at the end of element life is 4 times the original value. With REVO C use BF firing and Power Limit.	
								•	I ²			These resistances change with temperature but have low variations with age. Start up current with cold elements can be many times the nominal current value. In this case it is necessary to use Phase Angle + Current Limit.	
								•	I ²	V	$\frac{P}{1.73V \cos \phi}$	Three phase REVO C units are specially designed to drive three phase transformers coupled on secondary with normal or special resistive loads.	
•				•						V	$\frac{P}{3V}$		
								•	I ²	V	$\frac{P}{3V}$	Open delta can be driven by three phase unit.	
								•	I ²	V	$\frac{P}{3V}$		

Firing = BF Simplified 4-8-16 Cycles at 50% Power Demand with Analog Input only HC: Half Cycle SC: Single Cycle

At your service worldwide



Our sales and service network ensures worldwide distribution and support of our products.

Our locations



Headquarter and Production
Legnano (MI), Italy



CD Automation UK Ltd.
East Sussex, United Kingdom



M/s Toshcon CD Automation Pvt. Ltd.
Ajmer, India





Controllers, Drives & Automation

 Products made in Italy

Worldwide distribution and service

CD Automation Country Locations



CD Automation, a leader in the control of heating elements, has been offering top quality solutions in the field of industrial temperature control for over thirty years. The company supplies thyristor power units and SCR power controllers, making it the leading partner in the industry.

CD Automation offers a support service for the development, optimisation, sustainability and energy efficiency of thermal processes, improving plant power quality.

Our team will be at your disposal to deepen, analyse and optimise your applications.

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