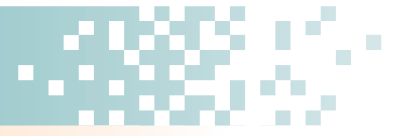




REVO SX Multichannel unit from 3,5A to 7A



GENERAL DESCRIPTION

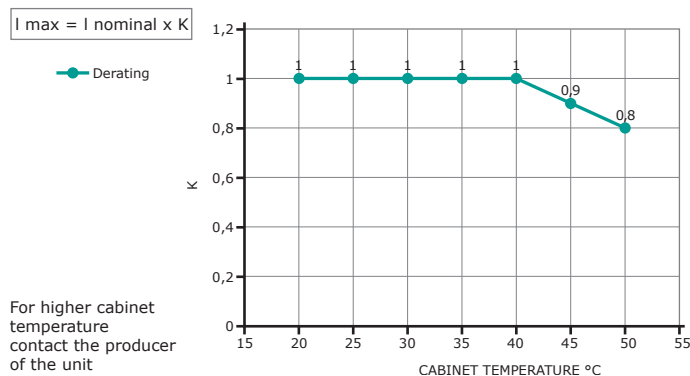


- This unit is available in three version as in drawing on next pages.
- Each unit includes Fuse and Fuse Holder, thyristor and heat sink with its own Firing circuit.
- Zero Crossing Firing standard (random Firing on request).
- Insulated input.
- LED for On Off Status indication.
- Plug in connection for auxiliary and power terminations.
- Small dimensions Width: 36 Depth: 86 Height:121
- Din rail mounting or screw mounting.
- Can be used in applications with many zones and low power as thermoforming, blow Moulding and Hot Runners.
- Total load failure alarm is available as standard on 480V version.

TECHNICAL SPECIFICATION

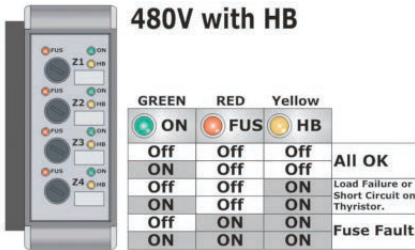
COVER AND SOCKET MATERIAL	Polymeric V2
MOUNTING	DIN bar (thickness type 1mm Max)
NOMINAL VOLTAGE RANGE UE:	24 ÷ 480V
DELAY SWITCH ON TIME	0,5 period Max
DELAY SWITCH OFF TIME	0,5 period Max
LOGIC INPUT SSR	4 ÷ 30Vdc 5mA Max (ON ≥ 4Vdc OFF < 1Vdc)
FIRING	Zero Crossing or Random
MOUNTING	Side by side mounting
OPERATING TEMPERATURE	40 °C without derating, over this temperature see below derating curve
STORAGE TEMPERATURE	-25 °C to 70 °C Max
ALTITUDE	Over 1000 mt of altitude reduce the nominal current of 2% for each 100m
HUMIDITY	From 5 to 95% without condense and ice

CURRENT DERATING AS FUNCTION OF CABINET TEMPERATURE



OPTION'S FEATURES AND SPECIAL DETAILS

TOTAL LOAD FAILURE ALARM OR SHORT CIRCUIT ON THYRISTOR



The alarm circuit checks if the load is connected to the unit and the health state of the semiconductor used for switching (SCR short circuit).

The alarm is active only when the unit is in OFF status. This unit don't need calibration.

The anomalies are indicated by the yellow Led one HB relay output give the alarm HB corresponding to the zone in alarm.

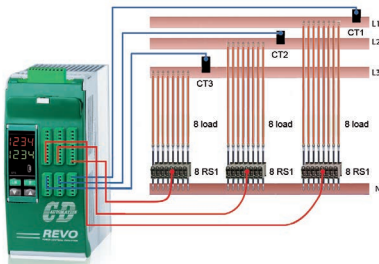
The diagnostic circuit also checks the fuse, if the fuse is faulty the red Led is ON and alarm active. The alarm is stored, to reset the alarm remove the auxiliary power supply (terminals 11 -12).

TOTAL LOAD FAILURE

Revo unit can be supplied with Total Load Failure Alarm:

- Without alarm with auxiliary voltage supply "open circuit on output terminals".
- With alarm "close circuit on output terminals".

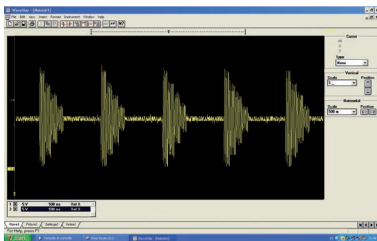
HOW TO ADD POWER LOAD MANAGEMENT AND FEATURES TO YOUR SIMPLE UNITS



Application with 8, 16 or 24 single phase loads

Use REVO-PC and you can add these Features:

- Communication with different field bus
- Reading of current Voltage and Power
- Instantaneous power very close to average value, no pick power
- Power factor close to one no harmonics
- Prevents increase in energy supply tariffs imposed by your electricity supplier

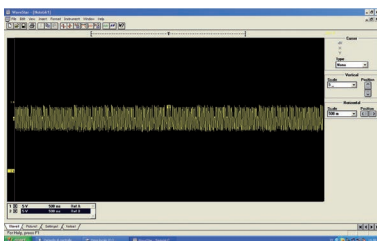


Without power control optimisation

SYNCHRONIZATION

On all controlled zones, REVO-PC Synchronization is automatic resulting in superior performance:

- Total current is equal to a sinusoidal wave form.
- Power factor > 0,9.
- Instantaneous current close to average value.
- Cancellation of harmonics.
- Flickering effect removed.



With power control optimisation

SMART POWER LIMITATION

Smart power limitation works together with synchronization. If this function is enabled, REVO-PC makes a live calculation of power at each period and generates the output values for the next period. If the calculated power is below the power limit value, the previous values remain with each channel using full power.

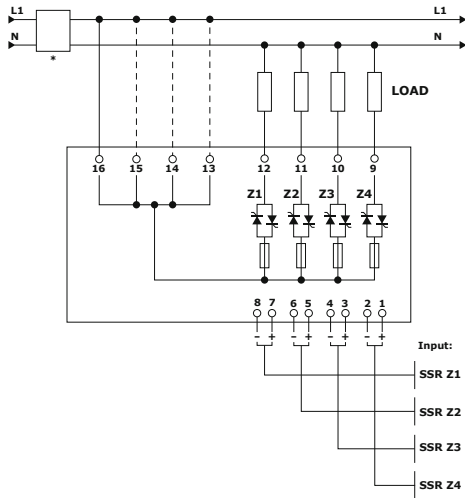
- If the power is above the power limit value, the setpoint of each channel is reduced proportionally to restrict power overshoot. This function significantly reduces disturbances on the main network compared to a full power system, preventing any increase in energy tariffs imposed by the electricity supplier.
- This function can be activated/deactivated and the limit value changed at any time.

APPLICATION AND FOCUS ON:

- Chiller application.
- Autoclaves.
- Thermoforming
- Dryers
- Chemical
- Infrared lamp.
- Furnaces.
- Extrusion line.
- Climatic chambers
- Pharmaceutical

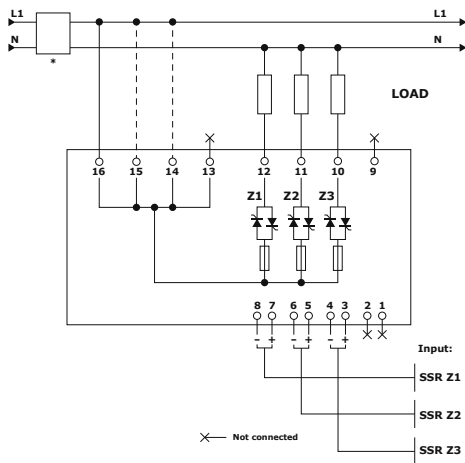
WIRING CONNECTION REVO SX 230V

DIAGRAM OF CONTROL CONNECTION 4X3,5A 230V



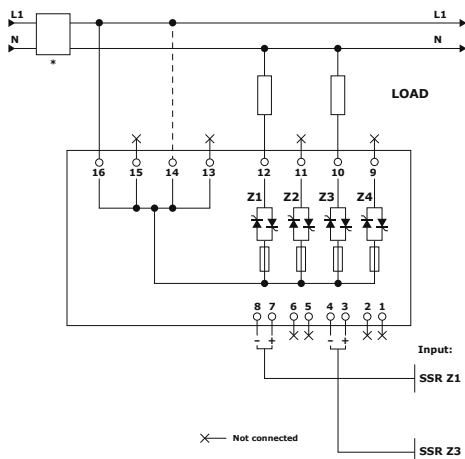
- 4 OFF Channels 3,5A each
- 4 OFF Fuse and Fuse Holder
- 4 OFF Solid State Relays
- 4 OFF Input Signal
- Indication ON-OFF status
- Internal Heat Sink

DIAGRAM OF CONTROL CONNECTION 3X4,5A 230V



- 3 OFF Channels 4,5A each
- 3 OFF Fuse and Fuse Holder
- 3 OFF Solid State Relays
- 3 OFF Input Signal
- Indication ON-OFF status
- Internal Heat Sink

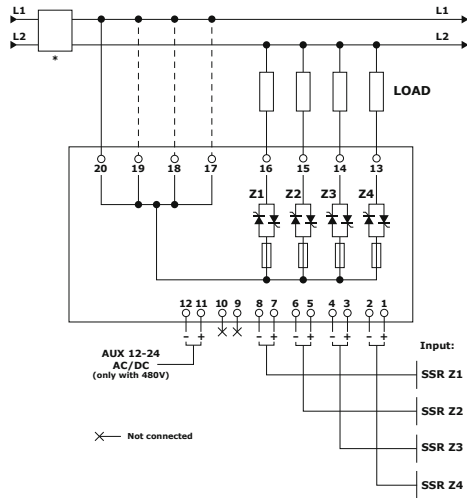
DIAGRAM OF CONTROL CONNECTION 2X7A 230V



- 2 OFF Channels 7A each
- 2 OFF Fuse and Fuse Holder
- 2 OFF Solid State Relays
- 2 OFF Input Signal
- Indication ON-OFF status
- Internal Heat Sink

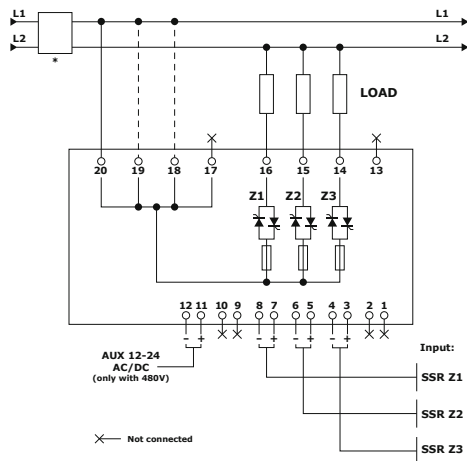
WIRING CONNECTION REVO SX 480V Total load failure alarm or short circuit on thyristor

DIAGRAM OF CONTROL CONNECTION 4X3,5A 480V



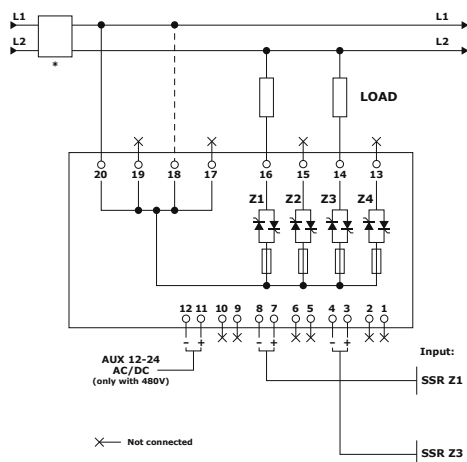
- 4 OFF Channels 3,5A each
- 4 OFF Fuse and Fuse Holder
- 4 OFF Solid State Relays
- 4 OFF Input Signal
- Indication ON-OFF status
- Indication of total load failure
- Internal Heat Sink

DIAGRAM OF CONTROL CONNECTION 3X4,5A 480V



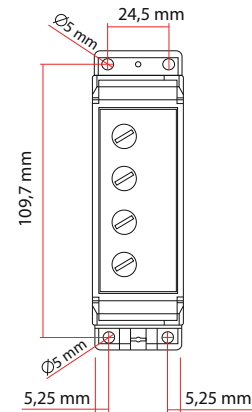
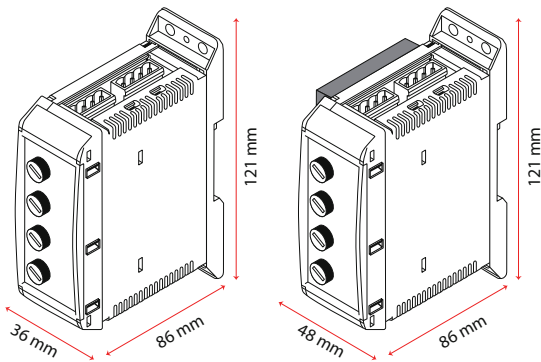
- 3 OFF Channels 4,5A each
- 3 OFF Fuse and Fuse Holder
- 3 OFF Solid State Relays
- 3 OFF Input Signal
- Indication ON-OFF status
- Indication of total load failure
- Internal Heat Sink

DIAGRAM OF CONTROL CONNECTION 2X7A 480V



- 2 OFF Channels 7A each
- 2 OFF Fuse and Fuse Holder
- 2 OFF Solid State Relays
- 2 OFF Input Signal
- Indication ON-OFF status
- Indication of total load failure
- Internal Heat Sink

DIMENSION AND FIXING HOLES



WEIGHT Kg 0,3

WEIGHT Kg 0,32

POWER OUTPUT FEATURES

NOMINAL CURRENT IN CONTINUOUS SERVICE:	4x3,5A - 3x4,5A - 2x7A
VOLTAGE RANGE:	24 ÷ 480V
REPETITIVE PEAK REVERSE VOLTAGE	1200 (480V)
LATCHING CURRENT:	250mA
MAX PEAK ONE CYCLE (10 msec):	350A
LEAKAGE CURRENT:	15mA eff
I ² T THYRISTOR VALUE TP=10 msec:	610 A ² S
FREQUENCY RANGE:	47 ÷ 70Hz
POWER LOSS (I=INOM):	4x4,2W - 3x5,4W - 2x8,4W
ISOLATION VOLTAGE UI:	2500Vac

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

Note (2) The 480V version have dimension W=48 H=121 D=86