

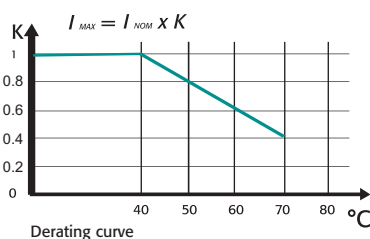


## GENERAL DESCRIPTION

- Revo S has been specifically designed for OEM. This product can be customized
- These simple units can be connected with REVO PC to manage multizone system this minimize your energy cost by controlling synchronization and power limit on each zone
- All circuit board, fuses and Thyristor can be inspected just opening front door
- Input signal: SSR, Analog as an option
- Zero Crossing, Burst Firing available at 4, 8 or 16 Cycles at 50% Power demand
- Electronic circuit fully isolated from power with constant current drain on input.
- Heater Break alarm option to diagnose partial or total load failure and Thyristor Short circuit
- Internal fixed fuses are standard
- Current transformer integrated
- Special design for Heat sink with very high dissipation value
- Comply with EMC
- Panel Mounting
- IP20 Protection available as option

## TECHNICAL SPECIFICATION

<b>Voltage power supply</b>	24V minimum to 480V, 600V and 690V On request		
<b>Voltage Frequency</b>	50 or 60 Hz no setting needed from 47 to 70 Hz		
<b>Nominal Current</b>	300A, 550A, 800A		
<b>Input Signal</b>	SSR	4:30Vdc	5mA Max (On ≥ 4Vdc Off ≤ 1Vdc);
	Voltage input	0:10Vdc	impedance 15 K ohm;
	Current input	0:20/4:20mA	impedance 100 Ohm;
<b>Firing</b>	Zero Crossing, Burst Firing with analog input signal only		
<b>Auxiliary Voltage Supply</b>	90:130Vac	8VA Max	
	170:265Vac	8VA Max	(Standard)
	230:345Vac	8VA Max	
	300:530Vac	8VA Max	(Standard)
	510:690Vac	8VA Max	
<b>Heather Break Alarm</b>	Microprocessor based with automatic setting Digital Input, Relay Output 0,5A at 110V (option)		
<b>Mounting</b>	Panel Mounting		
<b>Operating Temperature</b>	40 °C without derating. Over this temperature see below derating curve		
<b>Storage temperature</b>	-25 °C to 70 °C Max		
<b>Altitude</b>	Over 1000 m of altitude reduce the nominal current of 2% for each 100m		
<b>Humidity</b>	From 5 to 95% without condense and ice		



## OPTION'S FEATURES AND SPECIAL DETAILS

### HEATER BREAK ALARM HB

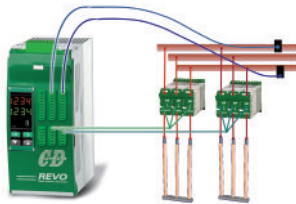
#### ON FRONT CABINET



FEW SECOND TO SET AND CALIBRATE ALL THE UNITS

- Microprocessor based circuit
- Capacity to diagnose the failure of one Resistance over five in parallel
- Load failure alarm with LED indication on front unit
- Thyristor short circuit alarm with LED indication on front unit
- Alarm output with free voltage relay contact
- Alarm reset function and possibility to auto reset if the alarm disappear
- Built in Current transformer when heather Break option has been selected
- Self Setting via external command or push button on front unit
- Common setting command can be given to many units and in a matter of second, the tuning is done, also by a non expert operator

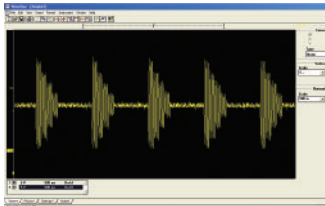
### HOW TO ADD POWER LOAD MANAGEMENT AND FEATURES TO YOUR SIMPLE UNITS



APPLICATION WITH 8, 16 OR 24 THREE-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

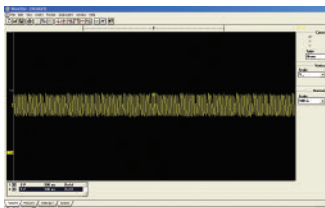


WITHOUT POWER CONTROL OPTIMISATION

#### 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

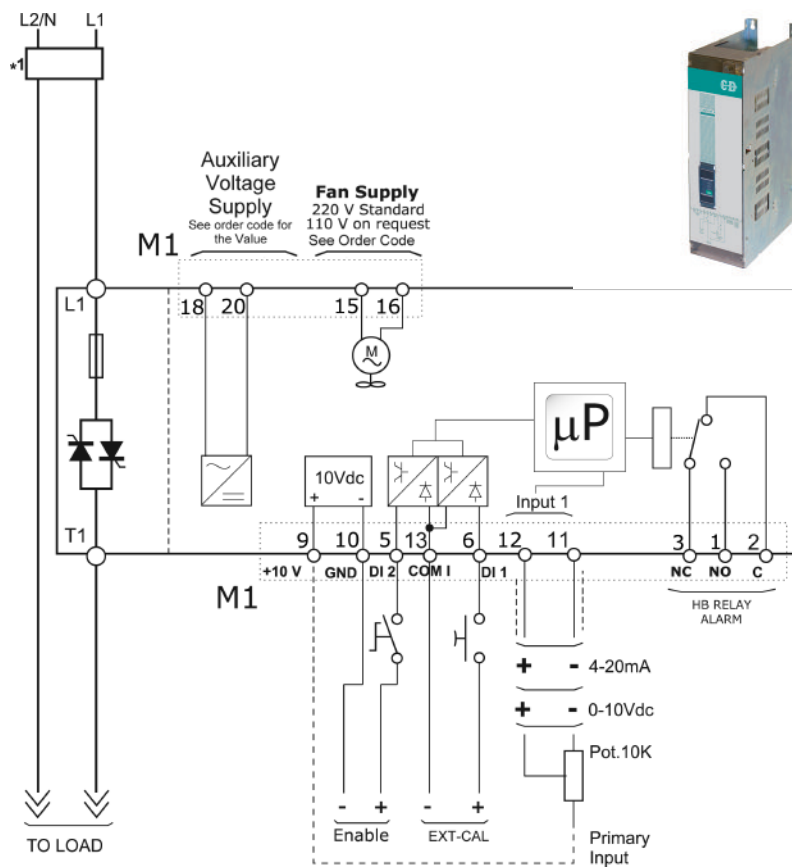
- Smart power limitation works together with synchronization. If this function is enabled, REVO-PC makes a live calculation of power at each period and generates the output values for the next period. If the calculated power is below the power limit value, the previous values remain with each channel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

### APPLICATIONS AND FOCUS ON:

- Autoclaves.
- Fournaces.
- Dryers
- Chemical

## WIRING CONNECTION CUSTOM 1PH from 300 to 800A

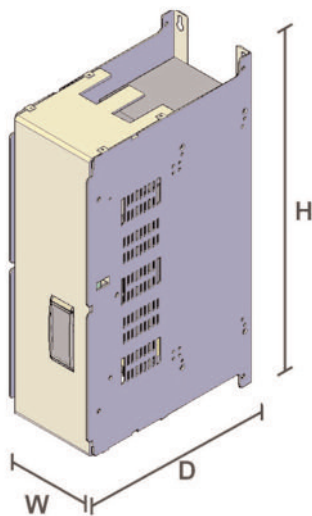
### CUSTOM 1PH from 300 to 800A



### NOTE

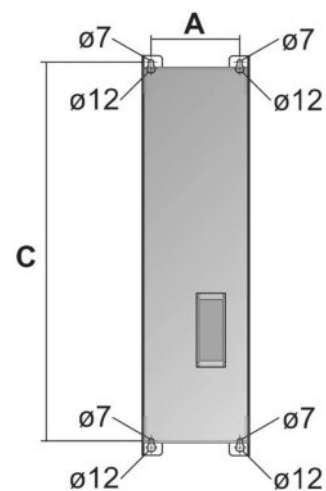
- (1) • A suitable device must ensure that the unit can be electrically isolated from the supply, this allows the qualified people to work in safety.
- (2) • The heat-sink must be connected to the earth.
- The user installation must be protecting by electromagnetic circuit breaker or by fuse isolator. The semiconductor fuses are classified for UL as supplementer protection for semiconductor.
- (3) • Only for the HB option

## DIMENSION AND FIXING HOLES



**S9H** W 130 mm. - H 478 mm. - D 274 mm. - kg. 14

**300A to 800A**



**A** 106 mm. - **B** 24 mm. - **C** 448 mm.

**300A to 800A**

## OUTPUT FEATURES (POWER DEVICE)

Current A	Voltage range (V)	Ripetitive peak reverse voltage (480V) (600V)		Latching current (eff)	Max peak one cycle (10msec.)	Leakage current (mAeff)	I <sup>2</sup> T value for fusing tp=10msec.	Frequency range (Hz)	Power loss I=I <sub>nom</sub> (W)	Isolation Voltage Vac
<b>300A</b>	24+600V	1200	1600	200	7800	15	300000	47+70	397	2500
<b>550A</b>	24+600V	1200	1600	200	8000	15	306000	47+70	530	2500
<b>800A</b>	24+600V	1200	1600	1000	17800	15	1027000	47+70	589	2500

## Fan Specification

Supply: 230V Standard	Input Power 17W
Supply: 115V Option	Input Power 14W

## ORDERING CODE CUSTOM 1PH from 300 to 800A

CUSTOM 1PH		1	2	3	4	5	6	-	7	8	9	10	11	12	13	14	15	16	
		C	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>4, 5, 6</b> Current		<b>9</b> Input		<b>11</b> Control Mode		<b>14</b> Approvals		<b>12</b> Fuse & Option		<b>15</b> Manual		<b>13</b> Fan Voltage		<b>16</b> Version					
Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code	Description code	Numeric code
300A	0 3 0 0	SSR	S	Open Loop	0	CE EMC	0	Fix Fuses Standard	F	None	0	Fan 110V	1	Italian Manual	1	Std with Fuse	1		
550A	0 5 5 0	0:10V dc	V					Fix Fuses + CT	Y	English Manual	2	Fan 220V Standard	2	German Manual	3				
800A	0 8 0 0	4:20mA	A					Fix Fuses + CT + HB	H	French Manual	4								
<b>7</b> Max Voltage		<b>10</b> Firing																	
Description code	Numeric code	Description code	Numeric code																
480V	4	Zero Crossing ZC	Z																
600V	6	Burst Firing																	
690V	7	4 Cycles On at 50% Power Demand	4 (2)																
<b>8</b> Aux. Voltage supply																			
Description code	Numeric code																		
90:130V (1)	1																		
170:265V (1)	2																		
300:530V (1)	5																		
510:690V (1)	6																		
600:760V (1)	7																		

### LEGEND

IF = Internal Fixed Fuse  
 CT = Current Transformer  
 HB = Heater Break Alarm

Note (1): Load voltage must be included in Selected Auxiliary Voltage Range for units >210A

Note (2): Available only with Analog input



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