CUSTOM 2PH from 150A to 800A

Innovative 2 Phase Thyristor Unit

FROM 150 to 300A

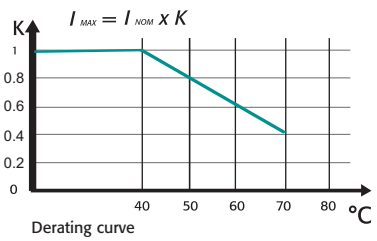
FROM 450 to 800A

GENERAL DESCRIPTION

- Revo S has been specifically designed for OEM. This product can be costumized
- 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 doar
- 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 (with Heather Break option)
- Special design for Heat sink with very high dissipation value
- Comply with EMC, cUL (pending)
- Panel Mounting
- IP20 Protection available as an option

TECHNICAL SPECIFICATION

Voltage power supply	24V minimum to 480V, 600V and 690V on request		
Voltage Frequency	50 or 60 Hz no setting needed from 47 to 70 Hz		
Nominal Current	150A - 210A - 300A - 450A - 800A		
Input Signal	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;
Firing	Zero Crossing, Burst Firing with analog input signal only		
Auxiliary Voltage Supply	90:130Vac 8VA Max 170:265Vac 8VA Max (Standard) 230:345Vac 8VA Max 300:530Vac 8VA Max (Standard) 510:690Vac 8VA Max		
Heather Break Alarm	Microprocessor based with automatic setting Digital Input, Relay Output 0,5A at 110V (option)		
Mounting	Panel 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 m of altitude reduce the nominal current of 2% for each 100m		
Humidity	From 5 to 95% without condense and ice		



Derating curve

USER'S MANUAL
Rev. 01/2012

OPTION'S FEATURES AND SPECIAL DETAILS

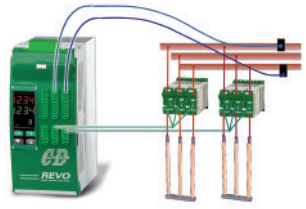
HEATER BREAK ALARM HB

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
- Commom setting command can be given to many units and in a matter of second, the tuning is done, also by a non expert operator

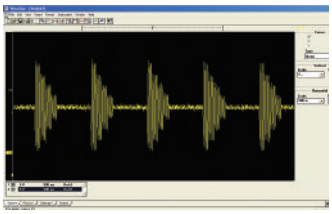
HOW TO ADD POWER LOAD MANAGMENT AND FEATURES TO YOUR SIMPLE UNITS



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
- Istantaneus 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

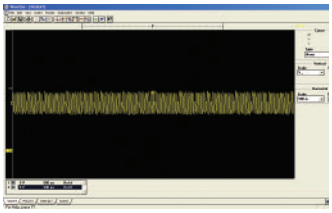


WITHOUT POWER CONTROL OPTI-MISATION

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 OPTIMISA-TION

Smart power limitation

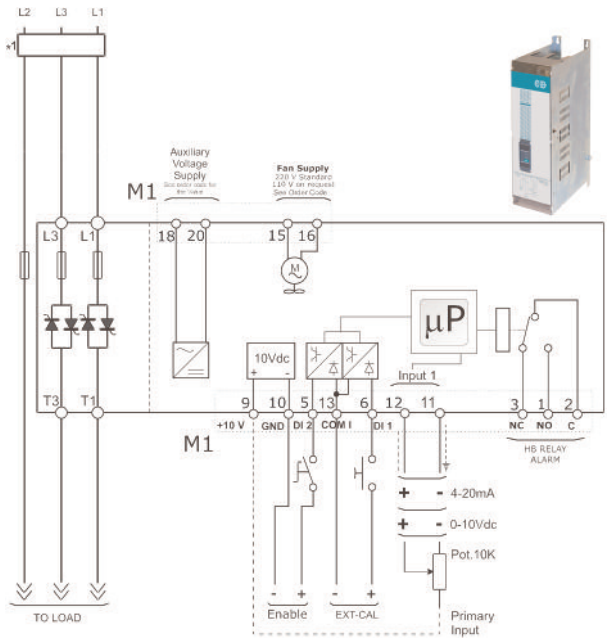
- Smart power limitation works together with synchronization. If this function is enabled, REVO-PC makes a live calculation of power at each period and generates the output values for the next period. If the calculated power is below the power limit value, the previous values remain with each channel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

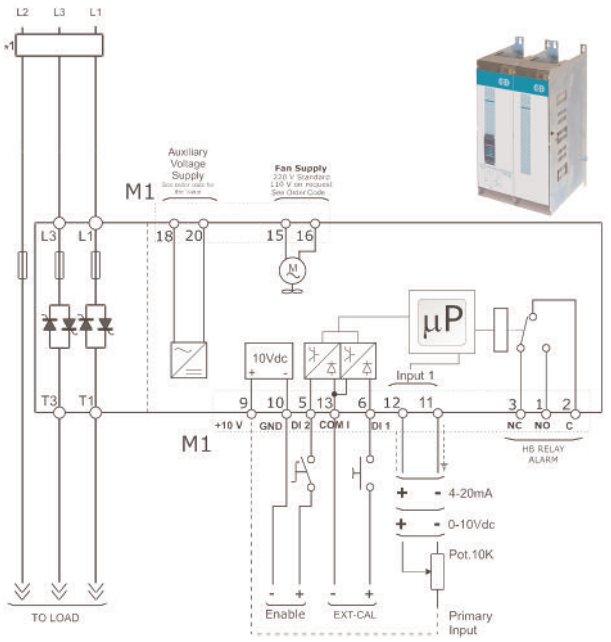
- Autoclaves.
- Fournaces.
- Dryers
- Chemical

WIRING CONNECTION CUSTOM 2PH from 150A to 800A

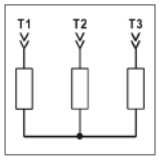
CUSTOM 2PH 150A to 210A



CUSTOM 2PH from 300 to 800A

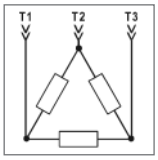


LOAD TYPE



STAR without neutral
Resistive or Infrared Lamps
Long and medium waves

LOAD TYPE



DELTA
Resistive or Infrared Lamps
Long and medium waves

NOTE

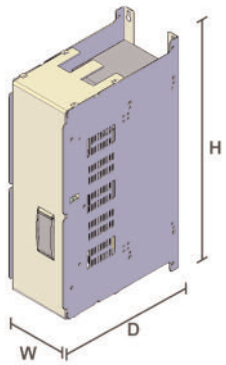
(1) • A suitable device must ensure that the unit can be electrically isolated from the supply, this allows the qualified people to work in safety.

• The user installation must be protecting by electromagnetic circuit breaker or by fuse isolator. The semiconductor fuses are classified for UL as supplementar protection for semiconductor.

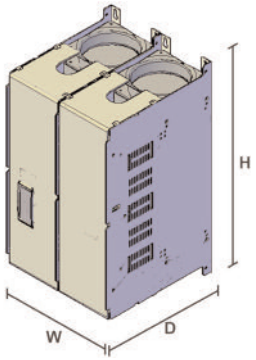
(2) • The heat-sink must be connected to the earth.

(3) • Only for the HB option

DIMENSION AND FIXING HOLES

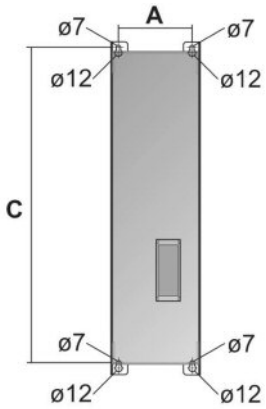


W 130 mm. - H 478 mm. - D 274 mm. - kg. 14

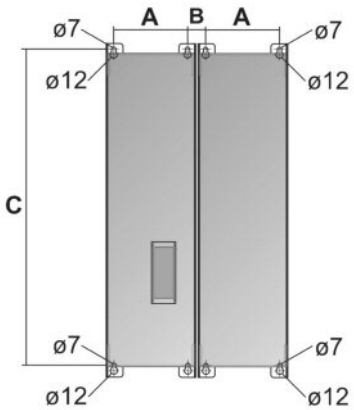


W 260 mm. - H 478 mm. - D 274 mm. - kg. 27

150A to 210A



300A ÷ 800A



OUTPUT FEATURES (POWER DEVICE)

Current A	Voltage range (V)	Ripetitive peak reverse voltage (480V)	(600V)	Latching current (mAeff)	Max peak one cycle (10msec.)	Leakage current (mAeff)	I2T value for fusing tp=10msec.	Frequency range (Hz)	Power loss I=Inom (W)	Isolation Voltage Vac
150/210A	24÷600V	1200	1600	300	4800	15	108000	47÷70	623	2500
300A	24÷600V	1200	1600	200	7800	15	300000	47÷70	875	2500
450A	24÷600V	1200	1600	200	7800	15	300000	47÷70	1021	2500
550A	24÷600V	1200	1600	1000	17800	15	1027000	47÷70	1178	2500
800A	24÷600V	1200	1600	1000	17800	15	1027000	47÷70	1425	2500

Fan Specification

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

ORDERING CODE CUSTOM 2PH from 150 to 800A

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
CUSTOM 2PH	C	2	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_

4,5,6 Current

Description code	Numeric code
150A	0 1 5 0
210A	0 2 1 0
300A	0 3 0 0
450A	0 4 5 0
550A	0 5 5 0
800A	0 8 0 0

7 Max Voltage

Description code	Numeric code
480V	4
600V	6
690V	7

8 Control Mode

Description code	Numeric code
90:130V (3)	1
170:265V (3)	2
300:530V (3)	5
510:690V (3)	6
600:760V (3)	7

9 Input

Description code	Numeric code
SSR	S
0:10V	V
4:20mA	A

10 Firing

Description code	Numeric code
Zero Crossing ZC	Z
Burst Firing 4 Cycles On at 50% Power Demand	4 (2)
Burst Firing 8 Cycles On at 50% Power Demand	8 (2)
Burst Firing 16 Cycles On at 50% Power Demand	6 (2)

11 Control Mode

Description code	Numeric code
Open Loop	0

12 Fuse & Option

Description code	Numeric code
Fixed Fuses Standard	F
Fixed Fuses + CT	Y
Fixed Fuses + CT + HB	H

13 Fan Voltage

Description code	Numeric code
Fan 110V	1
Fan 220V Standard	2

14 Approvals

Description code	Numeric code
CE EMC	0

15 Manual

Description code	Numeric code
None	0
Italian Manual	1
English Manual	2
German Manual	3
French Manual	4

16 Version

Description code	Numeric code
Std with Fuses	1

LEGEND
IFH = Integrated Fuse + Fuse Holder
IF = Internal Fixed Fuse
CT = Current Transformer
HB = Heater Break Alarm

Note (1): Load voltage must be included in Selected Auxiliary Voltage Range

CD Automation UK Ltd

Tel: +44 (0)1323 811100
Email: info@cdautomation.co.uk
Web: www.cdautomation.co.uk/Custom