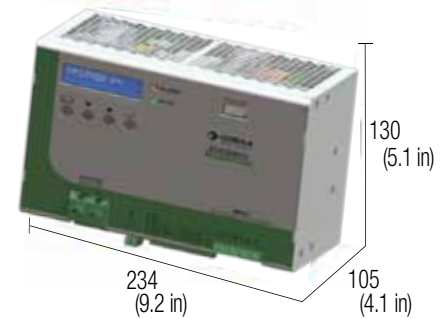


3-phase switching power supply 400-500 Vac output power 2400 W



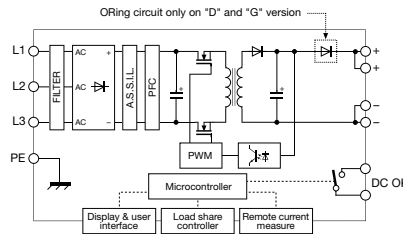
- Three-phase input 340...550 Vac or two-phase with derating
- Short circuit, overload, over temperature, input and output overvoltage protections
- High outrush current to guarantee downstream overcurrent protections selectivity and to start-up heavy loads
- High efficiency and low dissipated power
- Suitable for applications in PELV circuits
- Input protected by ASSIL circuit (Surge Suppressor and Inrush Limiter)



NOTES

- The depth dimension includes the DIN rail clamp.
 With DC input voltage, the output current must be derated by 30%
 (3) Over 45°C (113°F) apply a derating of about 40 W/°C
 (4) For this peak current, the output voltage does not drop more than 10% of the nominal value, but the current value, provided by the power supply also depends on the total line resistance.
 (5) Available from July 2011
 (6) Version CSG2401G and CSG2401R is not suitable for SELV applications

BLOCK DIAGRAM



Special version for DC motors

VERSIONI

- Uscita 72 Vdc 33 A versione ridondante (5)
- Uscita 170 Vdc 14 A versione ridondante (5)

Cod. XCSG2401G

Cod. XCSG2401R

CSG2401G (5) (6)

CSG2401R (5) (6)

APPLICATIONS

Series CSG2401 has an internal microprocessor that controls the many functions of the power supply, which can be programmed thanks to a user-friendly menu activated by 4 buttons on the front and shown on the front display.

Front display: during normal operation, this shows the output voltage value and current used by the load; during programming, it allows for the choice of the various functions available.

Input protection: the input circuit has been designed to avoid the most common problems seen in three-phase networks. It therefore has:

- 1) a special ASSIL (Active Surge Suppressor and Inrush Limiter) circuit to protect it against overvoltage in accordance with VDE0160;
- 2) a PFC circuit failure (latched shutdown) circuit;
- 3) a system for controlling lack of phase that automatically reduces output power;
- 4) an auto-restart switch-off system in the event of overvoltage and undervoltage.

Output protection: limit current can be selected as between 10% and 100% of rated current; protection type against overload and short circuit can be chosen from:

- 1) hiccup autoreset with limit current, equal to 150% of rated current and ON/OFF time equal to 5 secs./10 secs. (values can be altered manually);
- 2) constant power.

Output signals: in addition to the "DC OK" and "FAULT" LEDs, the device also has:

- 1) an analogue signal 0...10V or 4...20mA that provides an indication of current used by the load;
- 2) a programmable alarm contact able to signal and record the exceeding of the various limits to a memory: output voltage, input current, output overload, overtemperature and other parameters that can be defined by programming.

Additional functions: the following functions are also available:

- 1) battery charger: the acid lead battery charging function can be selected;
- 2) remote sensing (sense): this allows for the monitoring and compensation of voltage drops on long power supply lines;
- 3) remote switch-off: the power supply can be switched off and disabled from a remote position;
- 4) auxiliary voltage: auxiliary 12 Vdc is also available, regardless of the main output voltage status;
- 5) temperature control: by connecting an external sensor (NTC), the battery charge temperature can be controlled;
- 6) communication port: by means of an RS232 communication device, the power supply can be piloted and monitored from a remote position.

INPUT TECHNICAL DATA

Input rated voltage
Frequency
Current @ Iout max. (Uin 400 / 500 Vac)
Inrush peak current
Power factor
Internal protection fuse
External protection on AC line

3x 400-500 Vac (range 340...550 Vac)
47...63 Hz
4.2 A / 3.5 A
< 2 A (with active inrush current limiter)
> 0.92
—
circuit breaker: 3x 10 A C characteristic - fuse: 3x T10 A

OUTPUT TECHNICAL DATA

Output rated voltage
Output adjustable range
Continuous current
Overload limit
Short circuit peak current
Load regulation
Ripple @ nominal ratings
Hold up time (Uin 400 / 500 Vac)
Overload / short circuit protections
Status display

72 Vdc	170 Vdc
34.5...87 Vdc	80...190 Vdc
33 A @ 45°C (3)	14 A @ 45°C (3)
50 A per >5 s con Uout>90% Un (4)	21 A per >5 s con Uout>90% Un (4)
>50 A per 5 s (4)	>21 A per 5 s (4)
< 1%	< 1%
≤ 200 mVpp	≤ 200 mVpp
>10 ms / >10 ms	>10 ms / >10 ms

Alarm contact threshold
Parallel connection
Redundant parallel connection

programmable (see on right side)
"DC OK" green LED / "DC OK" alarm contact/ "Overload" red LED / LCD display (see on right side)
programmable
possibile
possibile

GENERAL TECHNICAL DATA

Efficiency (Uin 400 / 500 Vac)
Dissipated power (Uin 400 / 500 Vac)
Operating temperature range
Input/output isolation
Input/ground isolation
Output/ground isolation
Standard/approvals
EMC Standards

>92% / >92%
200 W / 200 W
-20...+60°C, con derating oltre 45°C / protezione termica (3)
3 kVac / 60 s SELV output (5)
1.5 kVac / 60 s
0.5 kVac / 60 s
EN60950, IEC950, UL508
EN 55011, EN 61000-3-2, EN61000-4-5
Surge immunity Level IV, VDE0160
>500'000 h secondo SN 29500 / >150'000 h secondo MIL Std. HDBK 217F

MTBF @ 25°C @ nominal ratings
Overvoltage category/Pollution degree
Protection degree
Connection terminal
Housing material
Approx. weight
Mounting information

II / 2
IP 20 IEC529, EN60529
4 and 6 mm ² screw type
aluminium
2,8 Kg (98,76 oz)
vertical on rail, allow 60 mm spacing between adjacent components

MOUNTING ACCESSORIES

- Mounting rail type according to IEC60715/TH35-7.5
- Mounting rail type according to IEC60715/G32

PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB

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