

# SQ960-3F range

Revision: 18R17.10.02  
Sheet: R971009C

## FEATURES

### Input voltage

200-240V 3AC (180...264V 3AC)  
400-500V 3AC (340...576V 3AC)

### Input frequency

50/60Hz

### Switching operating frequency

50KHz typ.

### Input protections

- Inrush current typ. < 50A @ Vin max, cold-start.

- EMI filter

- Line fuses

### See table for

- Efficiency at Vin 200V or 400V
- Power factor at Vin 200V or 400V
- Input current at Vin 200V or 400V

- Hold up time
- Output power
- Output voltage and current
- Output ripple and noise

### Output protections

- Short circuit protection with automatic restart

- Overcurrent protection

- Overvoltage protection

### Start up time

<0.1 sec.

### Inhibit input

- (optional) High active (4.5÷15V)

### Operating temperature

-10°C to 60°C

### Temperature power derating

2%/°C (50÷60°C see diag.)

### Storage temperature

-25°C to 85°C

### Temperature drift

0.01%/°C typ.

### Long term stability

Better than 1% after 24hours typ.

### Cooling

Natural convection

### Dielectric withstand voltage

- Conform to EN 60950

### Isolation

- Output - P.E.: 500Vdc

### Comply with

- EN 50081-1
- EN 61000-6-2
- EN 61000-3-2 cl. A
- EN 60950
- CE

### Weight

4.75Kg

### Optional features

- DD - Output decoupl. diode for parallel connection

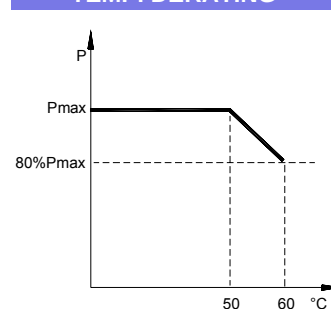
### Alarm Relay (U.V.P)

relay's contacts loading: <=30VA,  
<=125Vac, <=110Vdc

## FEATURES TABLE

| MODEL            | Effic. Typ. % | Power Factor Typ. | Input Current A | Hold Up Time ms | Output Power Max W | Vout Nom...Max V | Iout Nom. (Vout nom) A | Iout Min A | Voltage Accuracy % | Line Reg. % | Load Reg. % | Ripple & Noise (0÷20MHz) mV |
|------------------|---------------|-------------------|-----------------|-----------------|--------------------|------------------|------------------------|------------|--------------------|-------------|-------------|-----------------------------|
| SQ963-3F-200-240 | 86            | 0.87              | 5               | >10             | 720                | 12...15          | 60                     | 0          | ±0.5               | ±0.5        | ±2%         | <200                        |
| SQ963-3F-400-500 | 85            | 0.87              | 2.5             | >10             |                    |                  |                        |            |                    |             |             |                             |
| SQ966-3F-200-240 | 91            | 0.87              | 5               | >8              | 960                | 24...30          | 40                     | 0          | ±0.5               | ±0.5        | ±2%         | <200                        |
| SQ966-3F-400-500 | 90            | 0.87              | 2.5             | >8              |                    |                  |                        |            |                    |             |             |                             |
| SQ968-3F-200-240 | 92            | 0.87              | 5               | >8              | 960                | 48...55          | 20                     | 0          | ±0.5               | ±0.5        | ±2%         | <200                        |
| SQ968-3F-400-500 | 92            | 0.87              | 2.5             | >8              |                    |                  |                        |            |                    |             |             |                             |

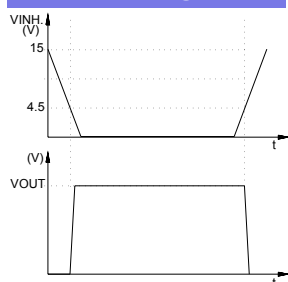
## TEMP. DERATING



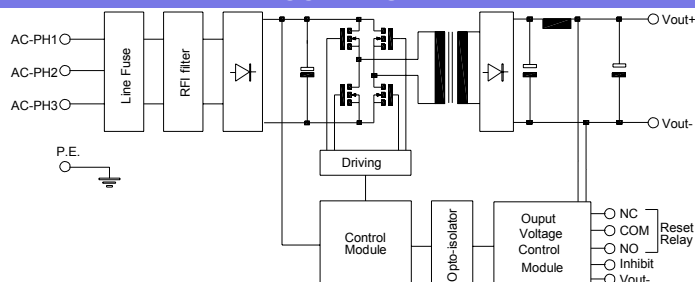
## POWER SUPPLY VIEW



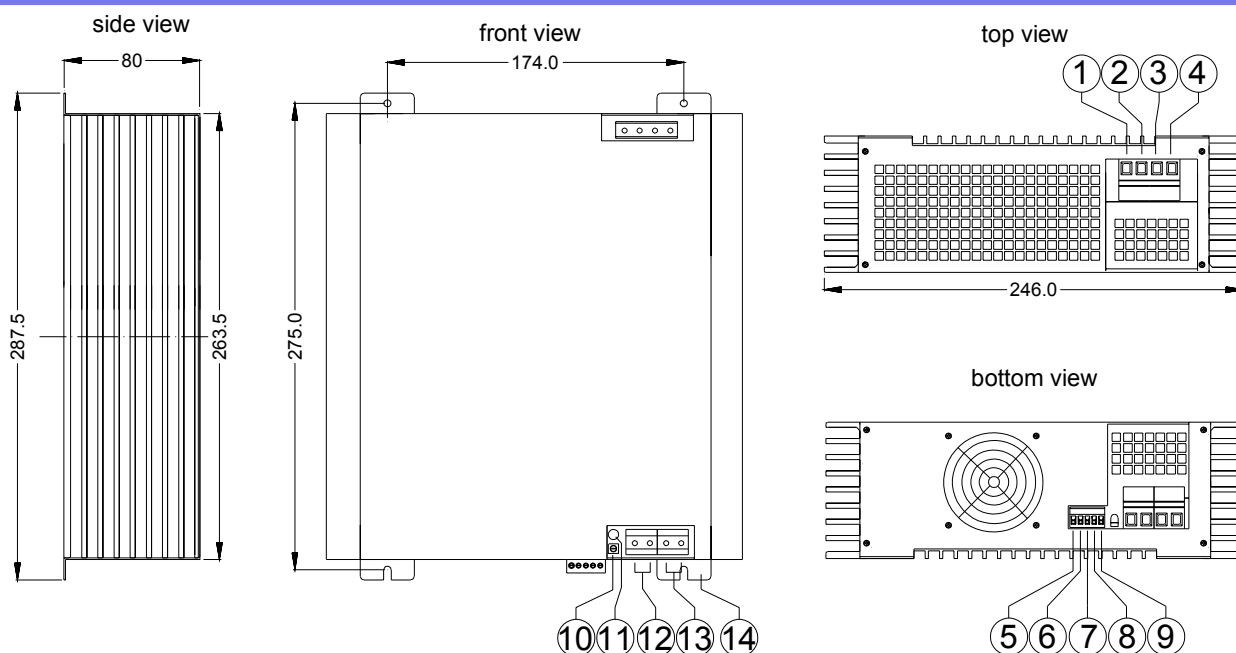
## INHIBIT DIAGRAM



## BLOCK DIAGRAM



## DIMENSIONS AND CONNECTIONS



1)ACinput phase1  
8)Reset relay COM

2)ACinput phase2  
9)Reset relay NC

3)ACinput phase3  
10)Vadj. 11)led Vout ok

4)P.E. 5)Vout- 6)Inhibit

7)Reset relay NO  
12)Vout- 13)Vout+ 14)SF-Fixing Bracket