

# Source Control Document.

**Model:** PFC 1K5-M/140UT-RCX-R5418  
**COSED:** 3B10-1A (3B10-1B, 3B10-1C)  
**Summary Description:** 1500W, Industrial Quality AC/DC Converter  
 115Vac/400Hz to 140Vdc/10.7A  
**Customer Name:** TUBITAK/Turkey, Kalinka  
**Customer Part Number:** Same as above



**Product description:** This rugged, industrial-quality unit is built with a combination of field proven modules, PFN 1500 and KHB 1502. The use of components with many years of established reliability results in a high demonstrated MTBF.

**Special Features:** 400Hz input, Redundancy diode, Ruggedizing, Conformal coating, -40°C to +50°C, M6 mounting insert, M6 GND studs, C of C, Test data, CE mark, CE DoC.

## SPECIFICATIONS

### Input Voltage

90-264Vac Universal, 47-400Hz  
 Input current: 20Arms max.  
 Power Factor is min 0.9 at full load for the entire input range with 400Hz input  
 Meets EN61000-3-2

### Input Protection

Inrush current limiting  
 Varistor  
 Internal safety fuse  
 Lower voltage than the specified minimum input will not damage the unit

### Isolation

2250Vdc input to chassis  
 4300Vdc input to output  
 8mm spacing  
 1000Vdc output to chassis

### Standards

Designed to meet EN60950-1 and corresponding UL & CSA standards

### EMI

EN55022 Class A with margin

### Hold-Up Time

Min. 10ms at any input for 5% drop of the output voltage

### Switching Frequency

80kHz Input section  
 55kHz Output section

### Output Voltage/Current

140V ±0.5V/10.7A  
 Output is floating, either terminal can be grounded

### Output Separation Diode

Installed internally

### Line/Load Regulation

+/-1% combined from zero load to full load including output separation diode

### Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

### Output Ripple/Noise

Better than 150mVrms or 500mVpp (@ 20MHz BW)

### Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)  
 Thermal shutdown in case of insufficient airflow (self-resetting)  
 Current Limit: 12A ± 0.8A

### Output Overvoltage Protection

Second regulator loop, completely stable and independent of main regulator loop  
 OVP limit: 155V ± 5V

### Efficiency

80% at full load

### Operating Temperature Range

-40°C to +50°C for full specification

### Temperature Drift

0.03% per °C over operating temperature range

### Cooling

By built-in high quality fan

### Environmental Protection

Ruggedizing  
 Conformal coating

### Shock/Vibration

IEC 61373 Cat 1 A&B

### Humidity

5-95% non-condensing

### MTBF

100,000 hours @ 45°C (Fan excluded)

### Indicators

None

### Control Input

None

### Alarm Output

None

### Package / Dimensions (WxHxL)

U5512S: 127 x 127 x 314mm  
 (5.0" x 5.0" x 12")

Mounting inserts are M6

### Weight

5.2kg (11.5 lbs)

### Connections

Input: 2-pole terminal block with 13mm spacing

Output: 9-pole terminal block with 9.5mm spacing

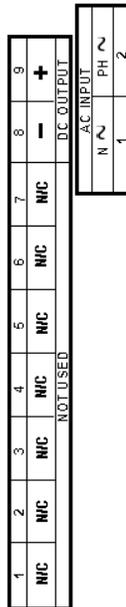
M6 stud for chassis GND

### RoHS Compliance

Compliant

### Warranty

Two years subject to application within good engineering practice  
 Contamination related failures and shipping cost excluded



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