

eFA175-112

**Electrical
Specification for:**

ROHS Compliant

Wide range AC/DC Single Output 200W Power Supply

**Telkoor Part
Number:**

900-1436-20

Customer:

**Customer Part
Number:**

CUSTOMER: GENERAL	SIZE	CAGE CODE	S5417	DWG. NO.	1437-DOC1-10	REV	A3
	SCALE		RELEASE DATE	1/11/06	SHEET	1	OF 6

REVISION HISTORY					
Rev Level	Rev Date	Change Made	Reason for Change	Effective	Approved By
A	01/11/2006	Production release with RoHs compliance	Production release	01/11/2006	S. Sadot
A1	28/05/2007	Production release	Production release	28/05/2007	S. Sadot
A2	22/07/2008	ECO-007 Change Power Supply Rev. from C to C1	Change current share response	22/07/2008	S. Sadot
A3	25/05/2010	Change Dielectric Withstand: Input to Case from 2250VDC to 2121VDC. Page# 4. And there is a component change made to lower the PFC inductor audible noise. This change rolls the unit revision from C1 to C2.	Customer request	26/05/2010	G. Sela

Approvals		
	Name	Date
Written by:	S. Sadot	01/11/2006
Engineering:	S. Sadot	01/11/2006
Sales & Marketing:	M. Allon	01/11/2006
Management:	Yossi Ben-Ami	01/11/2006

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Input:

Input Voltage: 85-264VAC
 Frequency: 47-63Hz
 Inrush Current: 25A max. cold start at 25 ° C, 115VAC
 50A max. cold start at 25 ° C, 230VAC
 Power Factor: 0.96 typical at 230Vac, full load
 0.98 typical at 115Vac, full load
 Efficiency: 86% typical at 230Vac, full load
 82% typical at 115Vac, full load
 Input Protection: Internal Line Fuse: IEC type 4A 250VAC Normal BLO
 Brown – Out: No damage to PSU if AC input voltage <85VAC

Output Voltages & Currents:

<i>Output</i>	<i>Output Voltage</i>	<i>I Min</i>	<i>I Max</i>	<i>I Peak</i>
V1	12V	0	16.6A	17A
V aux	5V	0	5mA	

- Maximum output power at any combination within this table is 200 watts, with 15 CFM airflow cooling

Output Power: 200W
 Line & Load Regulation: ± 2%
 Ripple & Noise:
 V1 150mV p-p tested on 10 µF, in parallel with 0.1 µF Ceramic capacitors,
 Bandwidth 20 MHz
 Initial Set Point & Tolerance:
 V1 12.2V ± 1%
 Overshoot & Undershoot: Less than 1% at turn ON-OFF
 Transient Load Response: ±5% Max. Deviation for load change of 25% to 75%, at slew rate of 1A/µsec,
 recovery time less then 5mSec
 Turn On Delay: 2 sec. Maximum.
 Hold-up Time: 16mSec minimum at 110Vac and full load
 Rise Time: 20mSec max.
 Over-current Protection: V1 110 to 130% of I_{max}, hiccup mode current limit; automatic recovery.
 Long-term fail condition shall not cause damage to PSU.
 Over-voltage Protection: Outputs shut down at 125% of nominal; AC input must be recycled to restore
 operation.
 Temperature Protection: Internal thermostat protects the power supply against excessive temperature.
 Automatic recovery.
 Current Share: ±10% Max. single wire current share in an N+1 parallel redundant
 configuration with Oring diodes included in the PSU.
 Hot Swap: Available
 Remote Sense: Compensates for voltage drop of up to 0.5V between PS to the load. Outputs
 are internally sensed at output connector if remote sense lines are opened.

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Signals & Commands:

Power Good (PG) indication: This signal is used to detect the presence of output voltage. This signal goes high when input power is applied and output voltage is more than 85% of nominal 12.0 VDC output. Signal type: TTL-compatible, with 2.43K pull-up resistor to +5V.

Enable: Active low input to enable +12VDC output of power supply.

+ Sense: Positive side of Remote Sense input.

- Sense: Negative side of Remote Sense input.

5V AUX: +5V standby.

Current share: Single-wire current-share connection.

LED drive: 10mA min. When PG is high, Pin 1 of J2 shall go high to illuminate external GREEN LED. When PG is low, Pin 3 of J2 shall go high to illuminate external YELLOW LED.

Environmental Specifications:

Temperature: Operating: -5 °C to +50 °C (de-rating linearly to 70 °C at -2.5% per 1°C). Storage: -25 °C to +85 °C.

Temperature Coefficient: 0 to 70 °C ± 0.02%/°C

Cooling: 100W free convection cooling (base plate cooling). 200W continuous forced air cooling, 15CFM min.

Humidity: Maximum 5% to 95% RH non-condensing.

Altitude: Operating 10,000 ft. Non- operating 40,000 ft.

Vibration: Three orthogonal axes at 1 octave/min, 5 min dwell at four major resonance's at 0.75G peak, 5Hz to 500Hz.

RoHs Compliant YES, effective 1st, July 2006

Safety Regulatory & EMC Specifications:

MEETS FCC CLASS B, EN55022 CLASS B – With an external line filter Type 03SS-P-Q By High LAN or equivalent

EN61000-3-2 HARMONICS

EN61000-3-3 VOLTAGE FLUCTUATION

EN60000-4-2 ESD +8KV AIR +4KV CONTACT DISCHARGE, performance criteria B

EN61000-4-3 RADIATED IMMUNITY: 80-1000Mhz 3V/m, AM 80% (1KHz), criteria A

EN61000-4-4 FAST TRANSIENT: 1KV for AC power port, 0.5KV for DC power I/O and signals Port, performance criteria B

EN61000-4-5 SURGE: 2KV common mode and 1KV differential mode

EN61000-4-6 3VRMS, 80% A.M. BY 1kHz

EN61000-4-8 3A /m at 50Hz, performance criteria A.

EN61000-4-11 VOLTAGE Dips and interruption: 30% reduction for 10mSec –Criteria B, 60% for 100mSec. Criteria C, 95% reduction for 5000mSec Criteria C.

Safety Agency Compliance (pending): UL 60950
CSA C22.2 -234, LEVEL 3.
EN-60950-1
CE - MARK

Leakage Current: 1mA @50/60 Hz, 230Vac input.

MTBF: 300,000 hours minimum per BELCOR 332,issue 6 specification @30 degrees C (Max. junction temperature for silicon 110°C, Capacitors 105°C)

Dielectric Withstand:

Input to Case: 2121VDC.

Input to Output: 4250VDC

Output to Case: 100VDC.

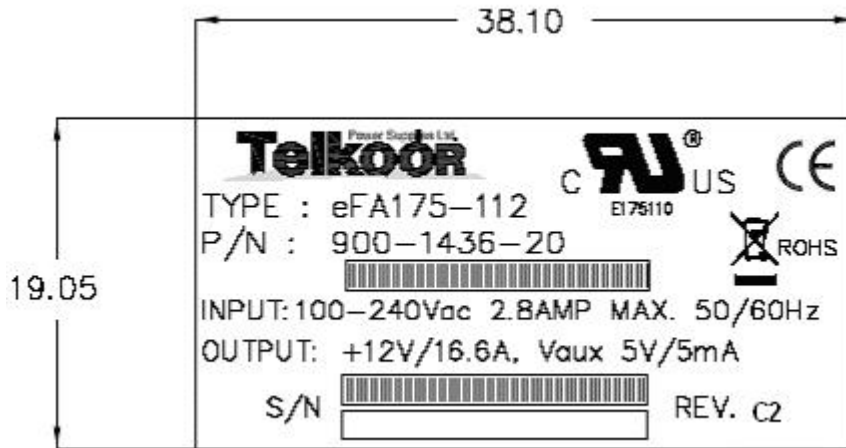
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Mechanical Dimensions:

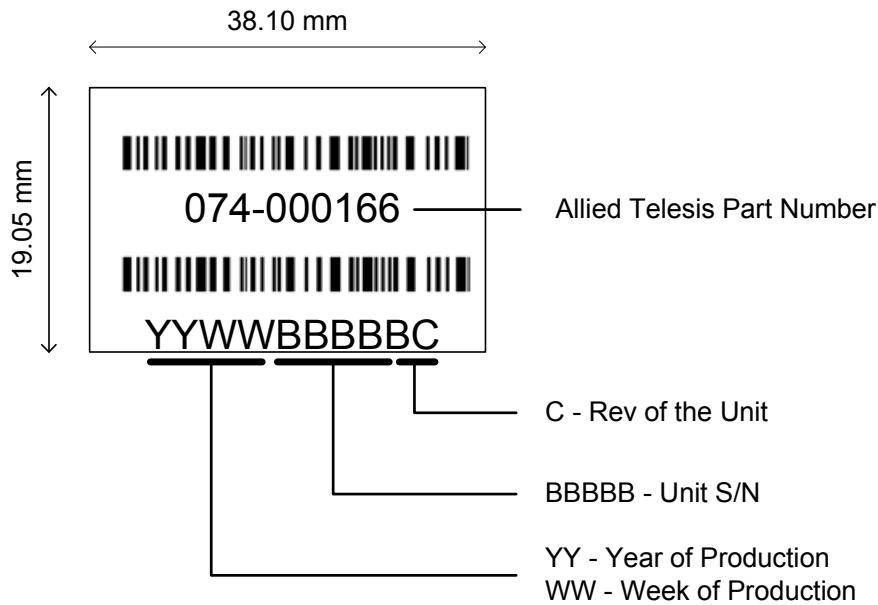
Size: 127mm x 84mm x 38.1mm
 Weight: 510 Gr.

Product Labels:

Name Plate

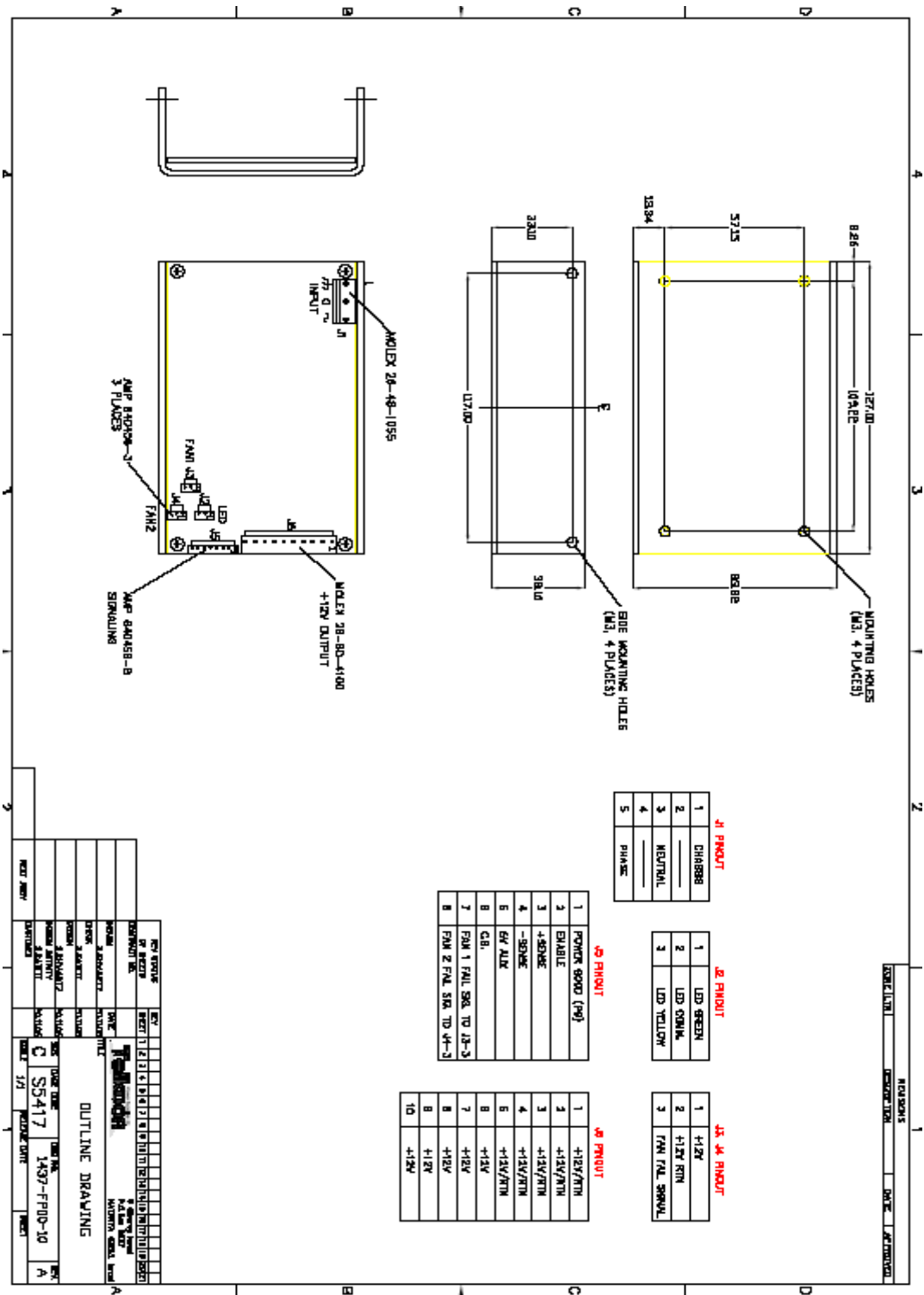


ID Label



Bar Code Standard: Use Code 39

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REV	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DATE	1/11/06																			
DESIGNER	S5417																			
CHECKER	S5417																			
APPROVED																				
DATE	1/11/06																			
SCALE	1:1																			
DWG. NO.	1437-DOC1-10																			
REV	A																			

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