

RISH FLEX 9012A



Input: single-phase: 115 - 230 Vac

Output: 12 Vdc 60 °C

Flexible Power continuity :from 95 to 120 W

Efficiency up to 91%

Strong overload without switch-off, up to 50%

“Power Good” Relay

Three mode of output protections:

- 1) Hiccup mode
- 2) Continuous Out Mode
- 3) Manual Reset

DIN Rail Mountable

Extremely small size

3 Year warranty

Input Data

Nominal Input Voltage (2 x Vac) Manual select Input from 115 to 230	115 – 230 Vac
Input Voltage range (Vac)	90 – 135 (115) 180 – 280 (230)
Inrush Current (Vn and In Load) I ² t	≤ 16 A ≤ 5 msec.
Frequency	47 – 63 Hz ±6%
Input Current (115 – 230 Vac)	1.8 – 0.9 A
Internal Fuse	T 4 A
External Fuse (recommended)	10 A (MCB curve B)

Output Data

Output Voltage (Vn) Factory Setting ±3%	12 Vdc
Adjustment range (Vadj)	10 – 14 Vdc
Start up with Strong Load (capacitive load)	≤ 50,000µF
Turn-On delay after applying mains voltage	1 sec. (max)
Rated Current at 12 V 40°C (In)	10 A (permanent)
Rated Current at 12 V 50°C (In)	9 A (permanent)
Rated Current at 12 V 60°C (In)	8 A (permanent)
Power Boost Current at 12 Vdc 60°C(In)	10 A ≤ 3 min.
Current max. Overload ≅ 4Vdc (permanent)	I_{max}=I_n60°Cx(1.8 - 2.2)
Current Short Circuit I _{cc}	
Max 2 sec.: Hiccup mode	20 A
Permanent : Continuous Mode	
Hold-up Time (min. Vac)	Typ. 20 msec
Residual Ripple	≤ 80 mV_{pp}
Efficiency	≥ 91 %
Over temperature Protection	Yes. Shut-down output and automatic restart.
Short-circuit protection	1° Hiccup Mode 2° Continuous mode 3° Manual Reset
Dissipation power load max (W)	11
Over Load protection	Yes
Over Voltage Output protection	Yes (typ. 35 Vdc)
Parallel connection	Yes
Power Good Contact rating (EN60947.4.1): Max. DC1: 30 Vdc 1 A; AC1: 60 Vac 1A Min.1mA at 5 Vdc	Resistive load Min permissive load

Climatic Data

Ambient Temperature operation	-25°C up to +70 °C (>60°C Derating 2.5% °C)
Ambient Temperature Storage	-40°C up to +85 °C
Humidity at 25 °C, no condensation	95 % to 25 °C

General Data

Isolation Voltage (In / Out)	3000 Vac
Isolation Voltage (In / PE)	1605 Vac
Isolation Voltage (Out / PE)	500 Vac
Protection Class (EN/IEC 60529)	IP 20
Reliability: MTBF IEC 61709	> 5,00,000 h
Pollution Degree Environment	2
Connection Terminal Blocks Screw Type	2.5 mm² (24 – 14 AWG)
Protection class	I with PE connected
Dimension (w-h-d)	55x110x105 mm
Weight	0.60 kg approx.

Norms and certifications

The CE mark in According to EMC 2004/108/EC and Low voltage directive 2006/95/EC.

Electrical Safety

According to IEC/EN 60950 (VDE 0805) e EN 50178 (VDE 0160) for assembling device. The unit must be installed according to IEC/EN 60950. Input / Output separation: SELV EN60950-1 and PELV EN 60204-1. Double or reinforced insulation.

EMC Immunity

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61000-6-2

EMC Emission:

EN61000-6-4, EN61000-3-2

Standards Conformity

EN 60204-1 Safety of Electrical Equipment Machines

