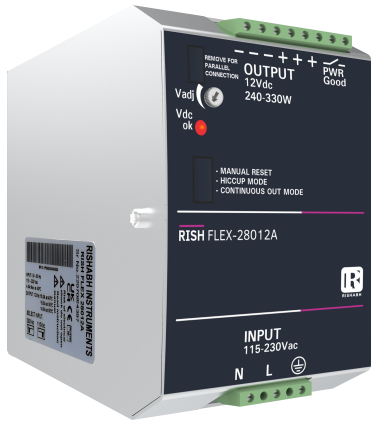


# RISH FLEX 28012A



Input: 115 - 230 Vac

Output: 12 Vdc 60 °C

Efficiency up to 91%

Strong overload without switch-off, up to 50%

Flexible Power continuity : from 240 to 336 W

“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)	115 – 230 Vac
Manual select Input from 115 to 230	
Input Voltage range (Vac)	90 – 135 (115) 180 – 280 (230)
Inrush Current (Vn and In Load) I <sup>2</sup> t	≤ 16 A ≤ 5 msec.
Frequency	47 – 63 Hz ±6%
Input Current (115 – 230 Vac)	4.6 – 2.2 A
Internal Fuse	T 6.3 A
External Fuse (recommended)	16 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)	20 A (permanent)
Rated Current at 12 V 50°C (In)	17 A (permanent)
Rated Current at 12 V 60°C (In)	15 A (permanent)
Power Boost Current at 12 Vdc 60°C(In)	20 A ≤ 3 min.
Current max. Overload ≅ 4Vdc (permanent)	I <sub>max</sub> =I <sub>n</sub> 60 °C <sub>x</sub> (1.8 -2.2)
Current Short Circuit I <sub>cc</sub>	
Max 2 sec.: Hiccup mode	30 A
Permanent : Continuous Mode	
Hold-up Time ( min. Vac)	Typ. 20 msec
Residual Ripple	≤ 80 mV <sub>pp</sub>
Efficiency	≥ 92 %
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)	28
Over Load protection	Yes
Over Voltage Output protection	Yes (typ. 35 Vdc)
Parallel connection	Yes. “Easy Parallel”
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 mm <sup>2</sup> (24 – 14 AWG)
Protection class	I with PE connected
Dimension (w-h-d)	72x115x135 mm
Weight	0.72 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

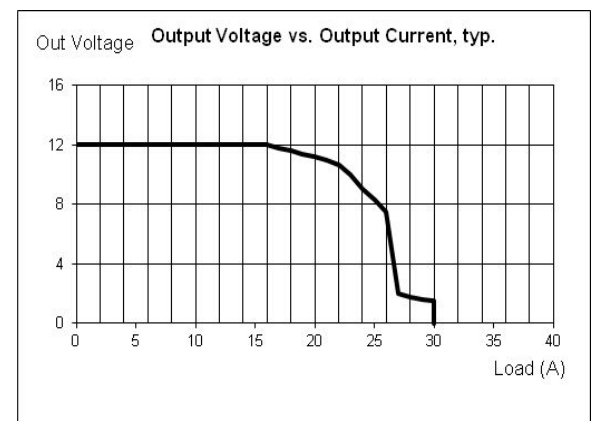
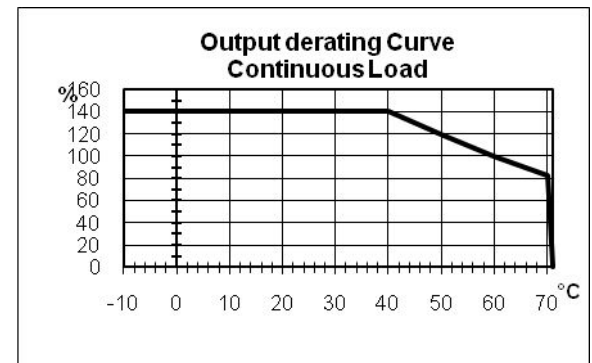
EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61000-6-2

## EMC Emission:

EN61000-6-4,

## Standards Conformity

EN 60204-1 Safety of Electrical Equipment Machines



All specifications are subject to change without notice



Measure



Control



Record



Analyze



Optimize