

# FLEX28024B



**Input: single-phase: 230 – 400 – 500 Vac**  
**Output: 24 Vdc 60°C**  
**Efficiency up to 89%**  
**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 Years warranty**

## Input Data

|   |                         |
|---|-------------------------|
| Nominal Input Voltage (2 x Vac)         | 230 – 400 – 500 Vac     |
| Manual select Input from 230 to 400-500 |                         |
| Input Voltage range: (230)              | 187-264 Vac             |
| (400-500)                               | 330-550 Vac 462-770 Vdc |
| Inrush Current (Vn and In Load)         | ≤ 34 A ≤ 5 msec.        |
| Frequency                               | 47 – 63 Hz              |
| Input Current (230 – 400 – 500 Vac)     | 2.49 – 1.44 – 1.15 A    |
| Internal Fuse                           | T 4 A                   |
| External Fuse (recommended)             | 16 A (MCB curve B)      |

## Output Data

|   |   |
|---|---|
| Output Voltage (Vn) Factory Setting ±3%       | 24 Vdc  |
| Adjustment range (Vadj)                       | 22 – 27 Vdc   |
| Start up with Strong Load (capacitive load)   | ≤50.000µF   |
| Turn-On delay after applying mains voltage    | 1 sec. (max)  |
| Continuous Current at 24 V < 40°C (In)        | 14 A  |
| Continuous Current at 24 V < 50°C (In)        | 12 A  |
| Continuous Current at 24 V < 60°C (In)        | 10 A  |
| Power Boost Current at 24 Vdc 60°C(In)        | In 60°C x 1.5 ≥ 3 min.                                      |
| Current max. Overload ≅ 4Vdc (permanent)      | I <sub>max</sub> =In60°Cx(1.8 -2.2)                         |
| Maximum Short Circuit Current I <sub>cc</sub> |   |
| Hiccup mode: Max 2 sec. Continuous Mode       | 30 A  |
| Hold-up Time ( min. Vac ) Vn In 40°C          | Typ. 20 msec  |
| Residual Ripple                               | ≤ 80 mV <sub>pp</sub>                                       |
| Efficiency                                    | ≥ 89 %  |
| Over temperature Protection                   | Yes. Shut-down output and automatic restart.                |
| Short-circuit protection                      | 1° Manual Reset<br>2° Hiccup Mode<br>3° Continuous Out Mode |
| Dissipation power load max (W)                | 40  |
| 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          | Resistive load  |
| Min.1mA at 5 Vdc                              | Min permissible load  |

## Climatic Data

|                                    |  |
|------------------------------------|--|
| Ambient Temperature operation      | -25 up to +70 °C<br>(>60°derating 2.5% °C) |
| Ambient Temperature Storage        | -40 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           | > 500.000 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                                | 0.85 kg approx.                   |

## Norms and certifications

The CE mark in According to EMC 2014/30/UE and Low voltage directive 2014/35/UE.

## Electrical Safety

In compliance to UL508. EN IEC 61010-2-201:2018 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

