

# FLEX28024A



**Input: 115 – 230 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)        |                                |
| Manual select Input from 115 to 230    | <b>115 – 230 Vac</b>           |
| Input Voltage range: (115)             | <b>90-135 Vac</b>              |
| (230)                                  | <b>170-264 Vac 238-370 Vdc</b> |
| Inrush Current (Vn and In 40°C)        | <b>≤ 42 A ≤ 5 msec.</b>        |
| Frequency                              | <b>47 – 63 Hz</b>              |
| Input Current (115 – 230 Vac, In 40°C) | <b>4.4 – 2.2 A</b>             |
| Internal Fuse                          | <b>T 6.3 A</b>                 |
| External Fuse (recommended)            | <b>16 A (MCB curve B)</b>      |

## Output Data

|   |   |
|---|---|
| Output Voltage (Vn) Factory Setting ±3%       | <b>24 Vdc</b>                                       |
| Adjustment range (Vadj)                       | <b>22 – 27 Vdc</b>                                  |
| Start up with Strong Load (capacitive load)   | <b>≤50.000µF</b>                                    |
| Turn-On delay after applying mains voltage    | <b>1 sec. (max)</b>                                 |
| Rated Current at 24 V 40°C (In)               | <b>14 A</b>   |
| Rated Current at 24 V 50°C (In)               | <b>12 A</b>   |
| Rated Current at 24 V 60°C (In)               | <b>10 A</b>   |
| Power Boost Current at 24 Vdc 60°C(In)        | <b>In 60 °C x 1.5 ≥ 3 min.</b>                      |
| Current max. Overload ≅ 4Vdc (permanent)      | <b>I<sub>max</sub>=In60 °Cx(1.8 -2.2)</b>           |
| Maximum Short Circuit Current I <sub>cc</sub> |   |
| Hiccup mode: Max 2 sec. Continuous Mode       | <b>30 A</b>   |
| Hold-up Time ( min. Vac) Vn In 40°C           | <b>Typ. 20 msec</b>                                 |
| Residual Ripple                               | <b>≤ 80 mV<sub>pp</sub></b>                         |
| Efficiency                                    | <b>≥ 89 %</b>                                       |
| Over temperature Protection                   | <b>Yes. Shut-down output and automatic restart.</b> |
| Short-circuit protection                      | <b>1° Hiccup Mode</b>                               |
|   | <b>2° Continuous mode</b>                           |
|   | <b>3° Restart After Main</b>                        |
| Max Dissipation Power at Vn In 40°C           | <b>42 W</b>   |
| Over Load protection                          | <b>Yes</b>  |
| Over Voltage Output protection                | <b>Yes (typ. 35 Vdc)</b>                            |
| Parallel connection                           | <b>Yes. “Easy Parallel”</b>                         |
| Power Good Contact rating (EN60947.4.1):      |   |
| Max. DC1: 30 Vdc 1 A; AC1: 60 Vac 1A          | <b>Resistive load</b>                               |
| Min.1mA at 5 Vdc                              | <b>Min permissible load</b>                         |

## Climatic Data

|                                    |   |
|------------------------------------|---|
| Ambient Temperature operation      | <b>-25 up to +70 °C</b><br><b>(&gt;60°derating 2.5% °C)</b> |
| Ambient Temperature Storage        | <b>-40 up to +85 °C</b>                                     |
| Humidity at 25 °C, no condensation | <b>95 % to 25 °C</b>  |

## General Data

|                                       |                             |
|---------------------------------------|-----------------------------|
| Isolation Voltage (In / Out)          | <b>3000 Vac</b>             |
| Isolation Voltage (In / PE)           | <b>1605 Vac</b>             |
| Isolation Voltage (Out / PE)          | <b>500 Vac</b>              |
| Protection Class (EN/IEC 60529)       | <b>IP 20</b>                |
| Reliability: MTBF IEC 61709           | <b>&gt; 500.000 h</b>       |
| Pollution Degree Environment          | <b>2</b>                    |
| Connection Terminal Blocks Screw Type | <b>2,5 mm (24 – 14 AWG)</b> |
| Protection class                      | <b>I with PE connected</b>  |
| Dimension (w-h-d)                     | <b>72x115x135 mm</b>        |
| Weight                                | <b>0.85 kg approx.</b>      |

## 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; EN61000-3-3

## Standards Conformity

EN 60204-1 Safety of Electrical Equipment Machines

