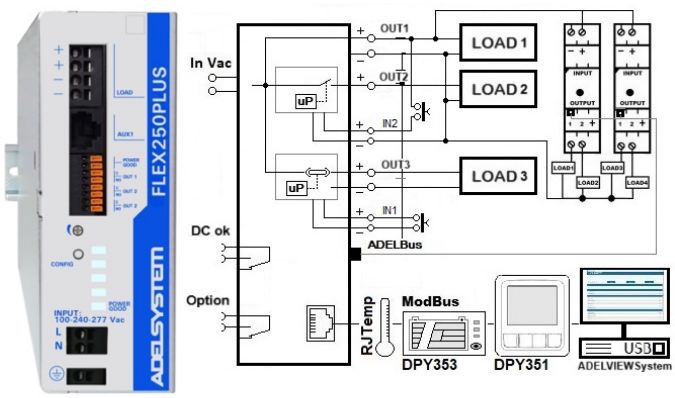
FLEX25024APLUS



Input: Single-phase 115 – 230 - 277 Vac
Output Power: 24 Vdc 250W
Out1: Continuous Mode Output
Out2 for Dynamic Output controls as: On/Off, Dimmer, soft start
Out3: Fuse Breaker output: set from 1 -10 A
Input: for driving output 2 and 3
Modbus RTU for the following controls: Monitoring; Config; History; Alarm; on Input, Output, Temperature, drive Out 2 and 3.
Quick diagram FLEX250ADELBus: connection to ADELSystem Interface device as MRF102.
Power Boost 150% ≤ 3sec.
Operating Temperature -40°C to 70°C
Protected against short circuit and inverted polarity
Signal output N°2 contact free configurable
Protection degree IP20 - DIN rail; Space saving

Technical features

Power Management and controls: The new line FLEX250 provide three Output. The first is a normal output connected to the internal power supply, the second "Dynamic Output" is controlled by the internal device and it is configurable as: Soft Start, On/Off, the third output is Fuse Breaker that can be set from 1 to 10A. All Output are controlled by Modbus RTU.

Interconnections: The communication interface for this devices, allows the connection in a simple but very powerful way with communication interface based on the Modbus RTU protocol.
The device provides also dedicated connection ADELBus able to communicate with all the accessories provided by ADELSYSTEM and to develop an independent system for electrical continuity. At the same time, it allows monitoring and controlling all parameters in the system. Using ADELViewSystem SW, free of charge, it is possible to configure the device in any feature, and control monitoring and logging, all the parameters. These devices allows you to implement very simple but sophisticated monitoring and control for your energy system and opens your mind to new ways to approach future applications.

Norms and Certifications: CE mark in conformity to EMC 2014/30/EU: Electromagnetic Compatibility Directive; 2014/35/EU: Low Voltage Directive; ROHS 2011/65/EU: Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS), as amended by 2015/863/EU. EMC Immunity: EN61000-6-2;EMC Emission: EN61000-6-3. According to: Electrical Equipment for Machinery EN 60204; Electrical safety (information technology equipment) IEC/EN EN62368-1.

Input Data

Nominal Input Voltage (2 x Vac)	**100 – 240 – 277 Vac**
AC Input Voltage range (Vac)	**85 – 305**
DC Input Range	**95 – 370 Vdc**
AC Frequency	**45 – 65 Hz ± 5%**
DC Frequency	**0 Hz**
Current consumption	**1.2 A (120 Vac)** **0.65 A (230 Vac)**
Inrush Current limiter	**Active**
Inrush Current limiter 110/230 (Vn – In Load)	**9 / 11 A**
Hold-up Time (Typ.)	**>15 msec (120 Vac)** **>20 msec (230 Vac)**
Internal Fuse (slow – blow, Internal)	**T 4 A**
External Fuse (recommended)	**B 6 A**
External Circuit Breaker (recommended)	**10 A curve C**

Output Data General

Output Voltage isolated DC Voltage (Vn)	**24 Vdc ± 3%**
Adjustment range (Vadj)	**22.5 – 28 Vdc**
Output Switch Off	**≥ 60Vdc**
Start up with Strong Load (capacitive load)	**≤ 30.000µF**
Turn-On delay after applying mains voltage	**1 sec. (max)**
Continuous Current -25 - +55°C In	**10 A**
Continuous Current +55 - +70°C In	**Derating 2%/K**
Power Boost Current at 24 Vdc 55° C In	**12 A ≤ 3 min.**
Max Short Circuit current (Icc)	**14 A**
Enduring Short Circuit current RMS max.	**14 A**
Residual Ripple (with nominal value)	**≤ 100 mV_{ss}**
Peak	**≤ 150 mV_{ss}**
Parallel connection to increase power	**No**
Series Connection	**Yes (max four device)**
Redundancy Connection	**Yes**

Output 1 Continuous

Continuous Output	**10 A**

Output 2 Dynamic

Output configurable by ADELViewSystem	**Soft Start; On/Off; Dimmer; 10A**
Driver:	**IN2**

Output 3 Fuse Breaker

Output Fuse Breaker configurable by ADELViewSystem	**Trip current: 1 – 10A**
Reactivatable by	**Push Button or IN1**

I/O Controls

Input 1	**Driver for Fuse Breaker**
Input 2	**Driver for Out Dynamic**
Output DC Ok	**Normal Close**
Option	**Normal Open**

ADELBus

This device features thru the ADELBus name use CAN bus communication protocol for the connection of other devices, for monitoring, configuring, driving and updating them	**Additional Fuse Breaker MRF102. Max. additional 8 Output.**

Efficiency

Efficiency at Vout rated, Iout rated, approx.	**93 %**
Power loss at Vout rated, Iout rated, approx.	**3 W**
Power loss [W] during no-load operation maximum	**0.3 W**

Protection and monitoring

Output over voltage protection	**Hiccup. Shut-down output and automatic restart.**
Short-circuit protection	**Hiccup. Shut-down output and automatic restart.**
Over Voltage Output protection	**Yes** (typ. 35 Vdc)
Status output voltage OK	**Green LED**
Status Alarm Device	**Red LED**

Environmental Conditions

Ambient Temperature operation	**-25 up to +70 °C**
Ambient Temperature Storage	**-40 up to +85 °C**
Humidity at 25 °C in acc. to EN 60721	**95 % no condensation**
Vibration (operation) IEC 60068-2-6	**<15 Hz,amplitude ± 2.5mm** **<15Hz-150Hz, 2.3G 90 min.**
Shock IEC 60068-2-6	**30g in all directions**

Safety

Primary/secondary isolation	**Yes**
Protection class	**II**

Pollution Degree Environment	**2**
Insulation voltage (IN/OUT)	**4000 Vac**
Insulation voltage (Input / Earth, PE)	**2500 Vac**
Insulation voltage (Out Load / Earth, PE)	**1000 Vac**
Galvanic isolation to: EN 60950-1 and EN 50178	**Safety extra-low output voltage Uout**
Degree of protection (EN 60529)	**IP20**

Approval

CE mark	**Yes**
UL/cUL (CSA) approval	**UL 61010**

Environment Data

Operational temperature (natural convention)	**-25 to 70 °C**
Storage temperature	**-40 to 85 °C**
Operational humidity (25 °C)	**≤ 90 %, no condensation**
Pollution degree	**2**

Mechanics Data

Connections Supply Input: L, N: 1	**0.2 - 2.5 mm2 (24–12 AWG)**
Connections Output: +, -	**0.2 - 2.5 mm2 (24–12 AWG)**
Protection class	**II**
MTBFat 40°C	**> 4.300.000 h**
Housing material	**Polycarbonate**
Dimension (Width x Height x Depth)	**135 x 135 x 50 mm**
Weight (approx.)	**0.5 Kg**