

# FLEX Series - DIN Mounted Power Supplies



The new, compact FLEX series of power supplies features 1, 2, and 3-phase input up to 600W with current rating ranging from 2A to 25A and a 'Power Boost' function allowing to the power supply to reach 150% of the rated current for up to 3 minutes.

The FLEX series offers three types of short-circuit protection (Hiccup Mode, Manual Reset and Continuous Output Mode).

## Features and Specifications:

- Compact (4 models in this catalog are 55x110x105mm WxHxD)
- Aluminum enclosure with DIN rail mounting clip
- **Ingress Protection: IP20**
- **Power Boost function: 150% load for up to 3 minutes**
- **3 selectable types of short-circuit - reset functions:**
  - Hiccup mode (auto interrupt and restart)
  - Manual reset
  - Continuous output mode
- **Input Voltage:** Single phase 115-230Vac, 2 phase 230-500 Vac, 3 phase 400-500Vac
- **Output Voltage:** 24 Vdc
- **Output Current:**
  - 1 phase: 2 - 2.5 - 5 - 7.5 - 9 -14.5 -25A
  - 2 phase: 5 - 7.5 - 14.5A
  - 3 phase: 25A
- **Operating Temperature:** -25 to 70°C
- **Approvals:** cULus (file #E308682)

**Single Phase Power Supplies (Order by Part No.)**

<b>Part No</b>	<b>AD-FLEX6024A</b>	<b>AD-FLEX9024A</b>	<b>AD-FLEX17024A</b>	<b>AD-FLEX28024A</b>	<b>AD-FLEX50024A</b>
<b>Output</b>	24Vdc 40-70W	24Vdc 95-120W	24Vdc 120-180W	24Vdc 240-330W	24Vdc 480-600W
<b>Phases</b>	1	1	1	1	1
<b>Input Data</b>					
<b>Nominal Input Voltage Vn</b>	115-230 Vac	115-230 Vac <sup>1</sup>	115-230 Vac <sup>1</sup>	115-230 Vac <sup>1</sup>	115-230 Vac <sup>1</sup>
<b>Input Voltage Range</b>	90-264 Vac	90-135 Vac 180-264 Vac	90-135 Vac 180-264 Vac	90-135 Vac 180-264 Vac	90-135 Vac 180-264 Vac
<b>Input Current</b>	1.0-0.7A	1.8-0.9A	2.8-1.3A	3.3-2.2A	8.5-4.2A
<b>Internal Fuse</b>	4A	4A	4A	6.3A	10A
<b>External Fuse (recommended)</b>	6A	10A	10A	16A	16A
<b>Output Data</b>					
<b>Output Voltage Factory Setting <math>\pm 3\%</math> Vn</b>	24 Vdc	24 Vdc	24 Vdc	24 Vdc	24 Vdc
<b>Adjustment range</b>	22-27 Vdc	22-27 Vdc	22-27 Vdc	22-27 Vdc	22-27 Vdc
<b>Continuous Current at Vn &lt; 40°C (In)</b>	2.0A (115) 3.0 A (230)	5A	7.5A	14A	25A
<b>Continuous Current at Vn &lt; 50°C (In)</b>	1.5A (115) 2.5 A (230)	4.5A	6.0A	12A	22A
<b>Continuous Current at Vn &lt; 60°C (In)</b>	—	4.0A	5.0A	10A	20A
<b>Power Boost Current (at Vn 60°C <math>\geq</math> 3min.)</b>	3.5A	5.0A	7.5A	14A	25A
<b>Over Temperature Protection</b>	Shut down output and automatically restart				
<b>General Data</b>					
<b>Derating T<sup>a</sup>&gt;(In)</b>	>50°C 2.5% °	>60°C 2.5% °	>60°C 2.5% °	>60°C 2.5% °	>60°C 2.5% °
<b>Connection Terminal Blocks (Screw Type)</b>	2.5 mm	2.5 mm	2.5 mm	2.5 mm	4 mm
<b>Dimensions (w-h-d) mm</b>	50x120x50	55x110x105	55x110x105	72x115x135	85x120x140
<b>Weight</b>	0.3 kg approx.	0.56 kg approx.	0.6 kg approx.	0.85 kg approx.	1.2 kg approx.
<b>Approvals<sup>2</sup></b>					

Information subject to change without notice

1 - Selectable

2 - UL508

**Two and Three Phase Power Supplies (Order by Part No.)**

<b>Part No</b>	<b>AD-FLEX9024B</b>	<b>AD-FLEX17024B</b>	<b>AD-FLEX28024B</b>	<b>AD-FLEX50024B</b>
<b>Output</b>	24Vdc 95-120W	24Vdc 120-180W	24Vdc 240-330W	24Vdc 480-600W
<b>Phases</b>	2	2	2	3
<b>Input Data</b>				
<b>Nominal Input Voltage Vn</b>	230-400-500 Vac <sup>1</sup>	230-400-500 Vac <sup>1</sup>	230-400-500 Vac <sup>1</sup>	400-500 Vac
<b>Input Voltage Range</b>	187-264 Vac 330-550 Vac	187-264 Vac 330-550 Vac	187-264 Vac 330-550 Vac	330-550 Vac
<b>Input Current</b>	1.0-0.5-0.4A	1.5-0.8-0.7A	202-1.4-1.0A	1.7A
<b>Internal Fuse</b>	4A	4A	4A	6.3A
<b>External Fuse (recommended)</b>	10A	10A	16A	16A
<b>Output Data</b>				
<b>Output Voltage Factory Setting <math>\pm 3\%</math> Vn</b>	24 Vdc	24 Vdc	24 Vdc	24 Vdc
<b>Adjustment range</b>	22-27 Vdc	22-27 Vdc	22-27 Vdc	22-27 Vdc
<b>Continuous Current at Vn &lt; 40°C (In)</b>	5A	7.5A	14A	25A
<b>Continuous Current at Vn &lt; 50°C (In)</b>	4.5A	6.0A	12A	22A
<b>Continuous Current at Vn &lt; 60°C (In)</b>	4A	5.0A	10A	20A
<b>Power Boost Current (at Vn 60°C <math>\geq</math> 3min.)</b>	5A	7.5A	14A	25A
<b>Over Temperature Protection</b>	Shut down output and automatically restart			
<b>General Data</b>				
<b>Derating T<sup>a</sup>&gt;(In)</b>	>60°C 2.5% °	>60°C 2.5% °	>60°C 2.5% °	>60°C 2.5% °
<b>Connection Terminal Blocks (Screw Type)</b>	2.5 mm	2.5 mm	2.5 mm	4 mm
<b>Dimensions (w-h-d) mm</b>	55x110x105	55x110x105	72x115x135	85x120x140
<b>Weight</b>	0.56 kg approx.	0.6 kg approx.	0.85 kg approx.	1.2 kg approx.
<b>Approvals<sup>2</sup></b>				

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**Environment and General Data**

<b>Climatic Data</b>	
<b>Ambient Temperature (Operation)</b>	-25 to 70°C
<b>Ambient Temperature (Storage)</b>	-40 to 85°C
<b>Humidity at 25°C</b>	95%
<b>General Data</b>	
<b>Isolation Voltage (IN/OUT)</b>	3000 Vac
<b>Isolation Voltage (Input/Ground)</b>	1605 Vac
<b>Isolation Voltage (Output/Ground)</b>	500 Vac
<b>Reliability (MTBF IEC 61709)</b>	>500,000 h
<b>Pollution Degree</b>	2

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# DC-UPS Power Continuity Solutions

ADEL System's DC-UPS series provides a compact, 'All-in-one' solution to your power management needs. These combine several functions into a compact Unit: power supply, power backup (UPS), battery charger and battery care module.

DC-UPS devices automatically distributes power between load and battery. If the system is disconnected from the main power source, the battery will supply power until the battery voltage reaches the minimum recommended voltage per cell, depending on the battery type. This prevents lead-acid batteries from reaching a sulfated state, or deep discharge for other battery types, while ensuring power to the load for as long as possible.

DC-UPS devices automatically detect the battery's condition and choose the appropriate charging mode. The diagnostics system will continuously monitor the charging progress and indicate faults using the LED light or the status contacts.

## Features and Specifications:

- Power supply, back-up (UPS), battery charger and battery care modules in one compact device
- Three charging modes (recovery, boost and float/trickle) and adjustable charging current
- **Output:** 12VDC, 24VDC and 48VDC
- **Power Boost:** 2x Nominal Current for 4 minutes and 3x Nominal Current for 4 seconds
- Suitable for most common battery types
  - Lead-acid: VRLA, AGM, Gel
  - Ni-Cd
  - Li-Ion, Lithium polymer
- High charging current: charge up to 200 Ah batteries
- Battery and fault diagnostics /output protection: disconnection, polarity, short circuit, overload, battery sulfation / deep discharge
  - Included LED indicator
  - Contacts for external signal (remote monitoring)
- **Input:** 90-305VAC
- **Material (housing):** Aluminum
- **Ingress Protection:** IP20
- **Mounting:** DIN Rail
- **Approvals:** cURus (UL 60950-1); #E353188



Please see our catalog EC-2111 DC-UPS Power Continuity Solutions for more details.