



Technical Data Sheet

F Power 17024B



F Power 17024B is a compact DIN-rail mounted switch mode power supply designed to provide reliable DC power for industrial control and automation applications. Its space-saving design, wide input voltage range and strong overload capability ensure dependable performance, while built-in protection features enhance system safety and reliability.

Special Features



- Universal input: 187–550 VAC / 264–780 VDC
- Stable 24 VDC output (120–180 W), adjustable, up to 87% efficiency
- Compact DIN rail design with optional Power Good relay output
- Wide operating range: -25°C to +70°C
- Robust overload protection for harsh industrial environments

Parameters

Input Data

Nominal Input Voltage (2 x Vac) Manual select Input from 230 to 400-500	230 - 400 - 500 Vac
Input Voltage range (Vac)	187 - 264 (230) 330 - 550 (400 - 500)
Inrush Current (Vn and In Load) I2t	$\leq 17 \text{ A} \leq 5 \text{ msec.}$
Frequency	47 - 63 Hz $\pm 6\%$
Input Current (230 - 400 - 500 Vac)	1.5 - 0.8 - 0.7 A
Internal Fuse	T 4 A
External Fuse (recommended)	10 A (MCB curve B)

Output Data

Output Voltage (Vn) Factory Setting $\pm 3\%$	24 Vdc
Adjustment range (Vadj)	22 - 27 Vdc
Start up with Strong Load (capacitive load)	$\leq 50,000 \mu\text{F}$
Turn-On delay after applying mains voltage	1 sec. (max)
Continuous Current at 24 V < 40°C (In)	7.5 A (permanent)
Continuous Current at 24 V < 50°C (In)	6 A (permanent)
Continuous Current at 24 V < 60°C (In)	5 A (permanent)
Power Boost Current at 24 Vdc 60°C(In)	7.5 A $\leq 3 \text{ min.}$
Current max. Overload @ 4Vdc (permanent)	$I_{\text{max}} = I_{\text{n}60^\circ\text{C}} \times (1.8 - 2.2)$
Current Short Circuit Icc	16A
Max 2 sec.: Hiccup mode	
Permanent : Continuous Mode	
Hold-up Time (min. Vac)	Typ. 20 msec
Residual Ripple	$\leq 80 \text{ mVpp}$
Efficiency	$\geq 91\%$
Over temperature Protection	Yes. Shut-down output and automatic restart.
Short-circuit protection	1° Manual Reset
	2° Hiccup Mode
	3° Continuous Out Mode
Dissipation power load max (W)	17
Over Load protection	Yes
Over Voltage Output protection	Yes (typ. 35 Vdc)

Parallel connection	Yes
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 ² (24 - 14 AWG)
Protection class	I with PE connected
Dimension (w-h-d)	2.17x4.33x4.13 inches
Weight	0.60 kg approx.

Norms and certifications:-

The CE mark in According to EMC 2004/108/EEC 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

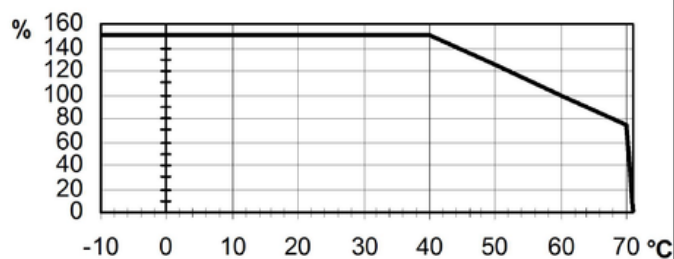
EMC Emission:-

EN61000-6-4, EN61000-3-2

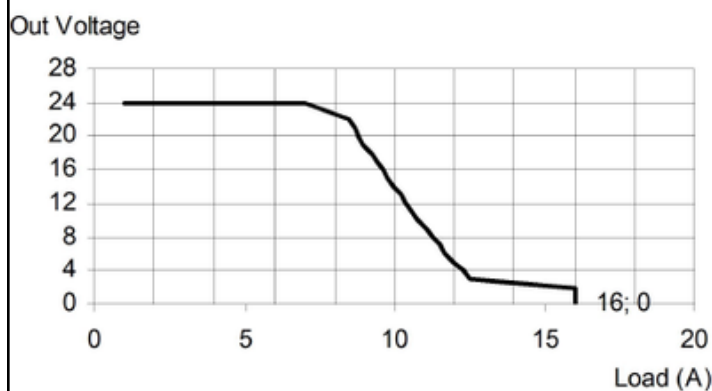
Standards Conformity:-

EN 60204-1 Safety of Electrical Equipment Machines

**Output derating Curve
Continuous Load**



Output Voltage vs. Output Current, typ.



Ordering Information

F Power 17024B												
Product Code	RF13-	X	X	0	0	0	0	0	0	0	0	0ST
System of RF13 (F POWER)	2P	2										
F POWER 17024B	170W,24V 2P		J									
Reserved				0	0	0	0	0	0	0	0	0ST



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