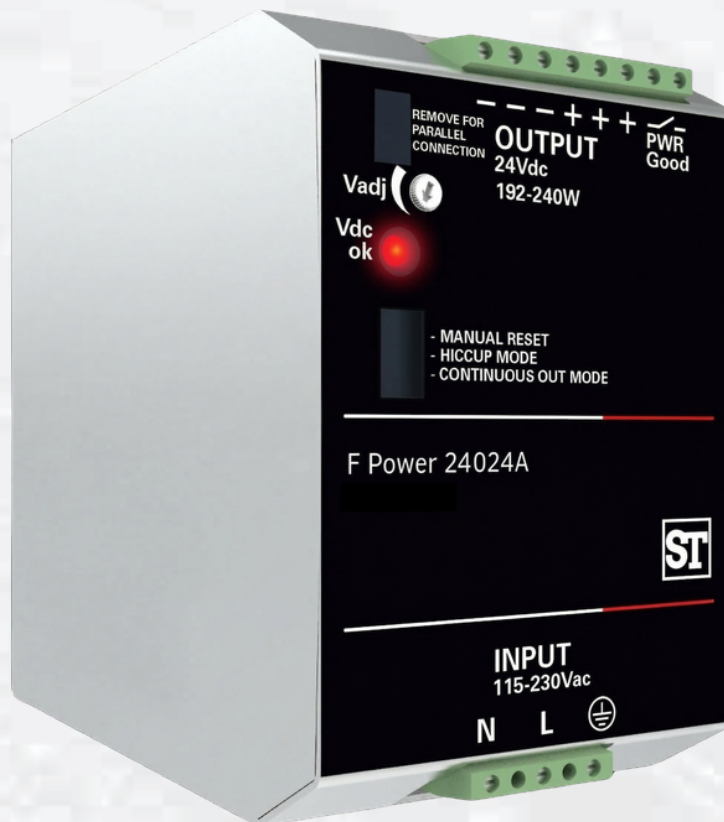




Technical Data Sheet

F Power 24024A



F Power 24024A 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



- Input 115–230 Vac | Output at 60°C, efficiency up to 91 %
- Flexible power continuity: 192–240 W
- Three output protection modes: Hiccup, Continuous Out, Manual Reset
- "Power Good" relay
- Compact DIN-rail mountable design with 3-year warranty

Parameters

Input Data

Nominal Input Voltage (2 x Vac) Manual select Input from 115 to 230	115 - 230 Vac
Input Voltage range (Vac)	90 - 135 (115) 170 - 280 (230)
Inrush Current (Vn and In Load) I2t	$\leq 16 \text{ A} \leq 5 \text{ msec.}$
Frequency	47 - 63 Hz $\pm 6\%$
Input Current (115 - 230 Vac)	3.1 - 2.0 A
Internal Fuse	T 6.3 A
External Fuse (recommended)	16 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)	10 A (permanent)
Continuous Current at 24 V < 50°C (In)	9 A (permanent)
Continuous Current at 24 V < 60°C (In)	8 A (permanent)
Power Boost Current at 24 Vdc 60°C(In)	10 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	30A
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)	23
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 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)	2.83x4.53x5.31 inches
Weight	0.72 kg approx.

Norms and certifications:-

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

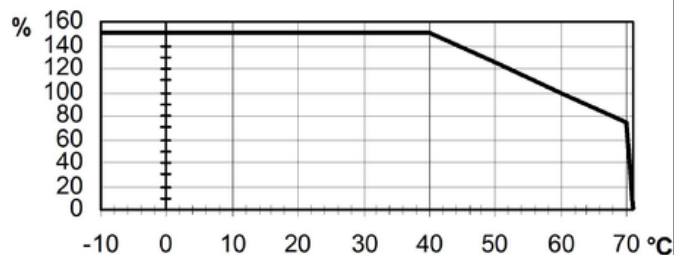
EMC Emission:-

EN61000-6-4

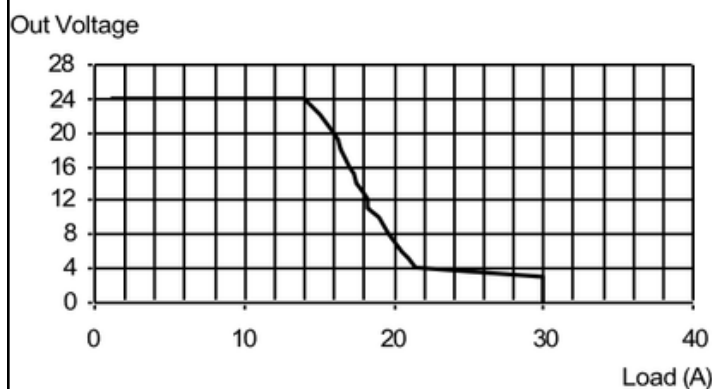
Standards Conformity:-

EN 60204-1 Safety of Electrical Equipment
Machines

**Output derating Curve
Continuous Load**



Output Voltage vs. Output Current, typ.



Ordering Information

F Power 24024A												
Product Code	RF13-	X	X	0	0	0	0	0	0	0	0	0ST
System of RF13 (F POWER)	1P	1										
F POWER 24024A	240W,24V 1P		Z									
Reserved				0	0	0	0	0	0	0	0	0ST



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