



Technical Data Sheet

F POWER 90XXA



F Power 90XXA 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



- Single-phase, 115–230 Vac (auto/manual select), up to 91% efficiency
- 50% overload capability without switch-off
- Flexible power output: 95–120 W
- "Power Good" relay output
- 3 protection modes: Manual Reset, Hiccup, Continuous Out
- DIN rail mountable, compact (2.17 x 4.33 x 4.13 inches), 3-year warranty

Parameter	F POWER 9012A	F POWER 9024A
Input Data		
Nominal Input Voltage (2 x Vac)	115 – 230 (manual select 115 / 230)	
Input Voltage Range (Vac)	90 – 135 (115) / 180 – 280 (230)	90 – 135 (115) / 170 – 280 (230)
Inrush Current (Vn and In Load) I²t	≤ 16 A ≤ 5 msec	≤ 11 A ≤ 5 msec
Frequency	47 – 63 Hz ±6%	
Input Current (115 – 230 Vac)	1.8 – 0.9 A	2.8 – 0.9 A
Internal Fuse	T 4 A	
External Fuse (recommended)	10 A (MCB curve B)	
Output Data		
Output Voltage (Vn), Factory Setting ±3%	12 Vdc	24 Vdc
Adjustment Range (Vadj)	10 – 14 Vdc	22 – 27 Vdc
Start-Up with Strong Load (capacitive load)	≤ 50,000 µF	
Turn-On Delay after Applying Mains Voltage	1 sec. (max)	
Continuous Current at Vn, < 40°C (In)	10 A (permanent)	5 A (permanent)
Continuous Current at Vn, < 50°C (In)	9 A (permanent)	4.5 A (permanent)
Continuous Current at Vn, < 60°C (In)	8 A (permanent)	4 A (permanent)
Power Boost Current at 60°C (In), ≤ 3 min.	10 A	5 A
Current Max. Overload ≥ 4 Vdc (permanent)	Imax = In60°C x (1.8 – 2.2)	
Current Short Circuit Icc (max 2 sec.: Hiccup / permanent: Continuous)	20 A	12 A
Hold-Up Time (min. Vac)	Typ. 20 msec	
Residual Ripple	≤ 80 mVpp	
Efficiency	≥ 91%	
Over Temperature Protection	Yes. Shut-down output and automatic restart.	
Short-Circuit Protection – Mode Sequence	1° Hiccup Mode 2° Continuous Mode 3° Manual Reset	1° Manual Reset 2° Hiccup Mode 3° Continuous Out Mode
Dissipation Power Load Max (W)	11	
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 1 A (resistive load). Min. 1 mA at 5 Vdc (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 mm² (24 – 14 AWG)	
Protection Class	I, with PE connected	
Dimension (w-h-d)	2.17 x 4.33 x 4.13 inches	
Weight	0.60 kg approx.	0.50 kg approx.

Norms and Certifications:-

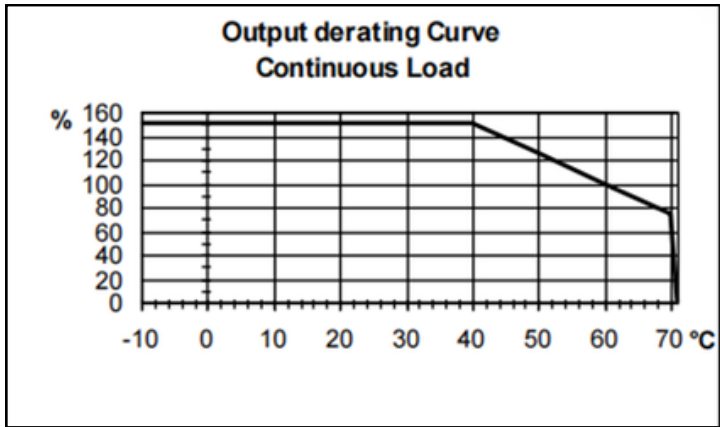
The CE mark is in accordance with EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC

- **Electrical Safety:** According to IEC/EN 60950 (VDE 0805) and 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 of Machines

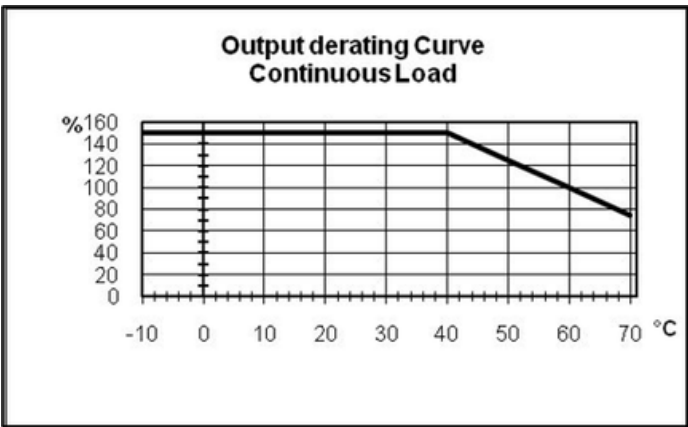
Derating Curves:-

Load Current in % Vs Temperature in C

F POWER 9012A

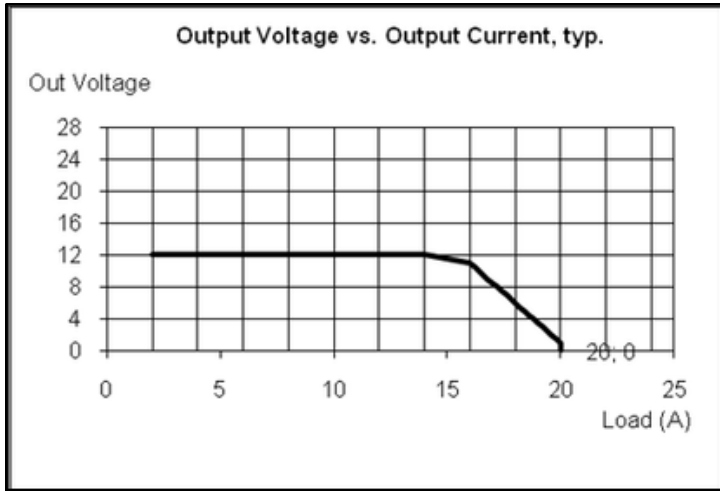


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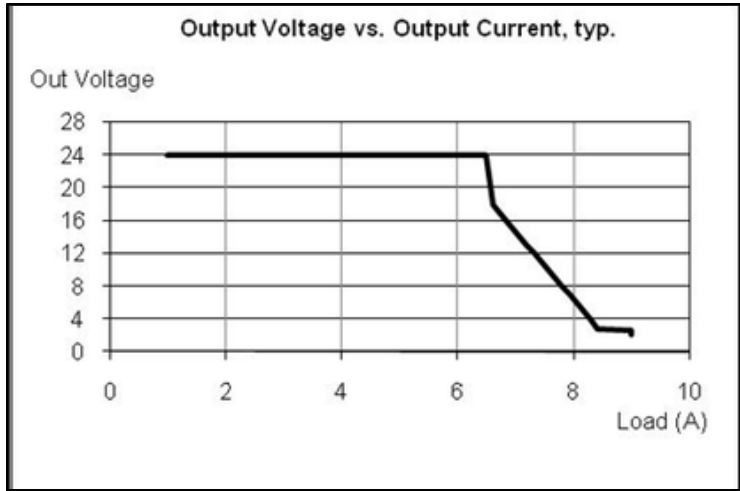


Output Voltage Vs Load Current

F POWER 9012A



F POWER 9024A



Ordering Information

F POWER 90xxA												
Product Code	RF13-	X	X	0	0	0	0	0	0	0	0	0ST
System of RF13 (F POWER)	1P	1										
F POWER 9012A	90W,12V 1P		Y									
F POWER 9024A	90W,24V 1P		B									
Reserved				0	0	0	0	0	0	0	0	0ST



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