

Product Sheet

Ion SFX Gold



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Ion SFX Gold

The power of flexibility

The Ion SFX Gold is a high-performance fully modular PSU with enhanced cable flexibility and superior output quality.

The semi-passive Zero RPM mode maintains total silence under light loads, and the custom-tailored 120 mm fan with FDB bearings ensures discrete operation even under heavy use. Revolutionary UltraFlex™ cables with ultra-high strand count wire and special insulation bend and twist effortlessly to make installation and cable-routing a breeze.

All Ion SFX Gold power supplies are 80 PLUS® Gold Certified and backed with a 10-year warranty and full electrical protection suite for your peace of mind.



Key features

- Fractal Design UltraFlex™ DC wires with game-changing flexibility for effortless cable-routing and connectors that twist and bend to fit your installation – not fight it
- Large 120 mm fan with true long-life FDB bearings for silent, dependable cooling
- 80 PLUS® Gold Certified for efficient energy usage and reduced heat generation
- Semi-passive Zero RPM mode allows for absolute silence in low load situations
- Outstanding output quality with tight voltage regulation and very low ripple and noise
- Fully modular design for reduced clutter and maximum ease of installation
- Ultra-high strand count 0.08T wire gives cables fluid flexibility while maintaining a high current capacity
- Specially formulated 80P PVC insulation offers just the right amount of rigidity for easy cable management
- Premium Japanese 105°C capacitors provide enhanced reliability and durability
- Over Power Protection, Over Voltage Protection, Short Circuit Protection, Under Voltage Protection, Over Current Protection and Over Temperature Protection
- Includes SFX-to-ATX mounting bracket
- Extensive 10-year warranty



General specifications

80PLUS® Certification	<ul style="list-style-type: none">• Gold
Modular cables	<ul style="list-style-type: none">• Fully modular
Fan type	<ul style="list-style-type: none">• Slim (15 mm) FDB bearing 120 mm fan
Maximum operating temperature (full load)	<ul style="list-style-type: none">• 40°C• Maximum 80% load at 50°C
Semi-passive operation	<ul style="list-style-type: none">• Yes (Zero RPM)
Capacitors	<ul style="list-style-type: none">• 105°C Japanese Polymer
Life expectancy (MTBF) at max output load	<ul style="list-style-type: none">• 100,000 hours
PSU form factor	<ul style="list-style-type: none">• SFX-L
Cable type	<ul style="list-style-type: none">• Modular 24-pin: Braided sleeve UltraFlex™ wire• Others: Flat UltraFlex™ wire
PSU Color	<ul style="list-style-type: none">• Black/Gunmetal
Cable Color	<ul style="list-style-type: none">• Black
Protection features	<ul style="list-style-type: none">• Over voltage protection• Under voltage protection• Over power protection• Short circuit protection• Over current protection• Over temperature protection

General specifications

Input voltage	• 100-240V AC
Input frequency	• 50-60 Hz
Input current	• 6A/3A (500G) • 8A/4A (650G)
Number of 12V rails	• 1
Standby efficiency	• ErP 2013 (<0.45W @230 VAC, 45 mA load on +5Vsb)
Sleep State Compliance	• C6/C7
Approvals & Certifications	• CE, FCC, TUV, cTUVus, EAC, RCM, CCC, BSMI, CB, RoHS, WEEE
Unit dimensions (LxWxH)	• 125 x 125 x 63.5 mm
Net weight (unit only)	• 1.11 kg (500G) / 1.15 kg (650G)
Package dimensions (LxWxH)	• 260 x 170 x 95 mm
Package weight	• 1.91 kg (500G) / 2.07 kg (650G)
Warranty	• 10 Years

Connectors

	Ion SFX 500G	Ion SFX 650G
ATX	• 1	• 1
EPS/ATX12V	• 1	• 1
PCIe	• 2	• 4
SATA	• 4	• 8
Peripheral	• 2	• 2

Cable Configuration (length in mm between connectors)

	Ion SFX 500G	Ion SFX 650G
ATX 24-pin	• 350	• 350
EPS/ATX12V 4+4 pin	• 400	• 400
PCIe 6+2 pin	• 400+100	• 400+100 x2
SATA	• 300+200+200+100	• 300+200+200+100 x2
Peripheral	• 300+200	• 300+200

DC Output

	Ion SFX 500G	Ion SFX 650G
3.3V	• 20A	• 20A
5V	• 20A	• 20A
3.3V and 5V combined	• 100W	• 100W
12V	• 41A	• 54A
-12V	• 0.3A	• 0.3A
+5Vsb	• 3A	• 3A
Total Power	• 500W	• 650W

DC Voltage Regulation

	+3.3V	+5V	+12V
Fractal Design Ion SFX, typical value	• <0.3%	• <0.2%	• <0.2%
SFX Specifications, maximum value	• <5%	• <5%	• <5%

Ripple and Noise

	+3.3V	+5V	+12V
Fractal Design Ion SFX, typical value	• <25mV	• <15mV	• <35mV
SFX Specifications, maximum value	• <50mV	• <50mV	• <120mV

Package contents

Ion SFX Gold

- Ion SFX PSU with protective bag
- Modular cables in a convenient storage bag
- Screw pack with Velcro cable ties
- SFX-to-ATX bracket
- AC power cord (localized)
- User manual

Additional information

Product	SKU	EAN	UPC	JAN
ION SFX 500G	FD-PSU-ION-SFX-500G-BK	7340172702016	843276102012	4537694273725
ION SFX 650G	FD-PSU-ION-SFX-650G-BK	7340172702023	843276102029	4537694273732