

Darkflash PMT 80 Plus Gold 850W Computer Power Supply



Model: PMT850A3 Black

Manufacturer: DARKFLASH

EAN: 4711527000690

Product Code: 1092699

R2,879

Darkflash PMT 80 Plus Gold 850W computer power supply (black)

Darkflash PMT850A3 is an ATX power supply designed for modern computers for gamers, developers and professionals. It offers full support for ATX 3.1 and PCIe 5.1 standards, allowing it to stably power the latest graphics cards, including NVIDIA RTX 40 and AMD Radeon. The integrated 12VHPWR (600W), high efficiency confirmed by 80 Plus Gold certification and advanced security features make it a solid foundation for high-performance configurations.

PCIe 5.1 and 12VHPWR support

The built-in 12VHPWR cable (12+4 pin, 650 mm) provides up to 600W of power for modern PCIe 5.1-compatible graphics cards, eliminating the need for adapters. The connector design has been optimized for safety - it is recommended to mount the cable 35 mm from the side panel and avoid

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excessive bending to avoid mechanical damage and power transmission problems.

ATX 3.1 compliant stability

The ATX 3.1 standard allows the power supply to handle momentary power surges of up to 200% of its rated value. The power supply complies with Intel PSDG (Power Supply Design Guide) guidelines, so it can perfectly handle the dynamic loads caused by modern GPUs and CPUs. You can count on the reliability and stability of the entire system even under extreme operating conditions.

High efficiency and economy

The 80 Plus Gold certification confirms that the Darkflash PMT850A3 achieves up to 91% efficiency (for a typical load at 230V). This means less energy loss in the form of heat and lower electricity bills. In addition, the power supply meets the ErP Lot3 2014 standard, which translates into a power consumption of less than 0.5W in standby mode. The 99% efficiency of the active PFC circuit translates into better utilization of mains power, reduced losses and reduced electromagnetic interference. The circuit provides a stable supply voltage under varying load conditions.

One strong +12V line

The power supply is based on a single +12V line design with a maximum of 70.8A, allowing full power utilization to power the most important components: GPU and CPU. Combined with a DC to DC circuit, the +5V and +3.3V voltages are generated from the main +12V line, allowing for greater stability and reduced power loss. This solution facilitates load management and reduces the risk of overloading individual lines.

Advanced cooling

The power supply uses a 120mm fan with a hydro-dynamic bearing, which features quiet operation and long life. The fan starts only when the load reaches 30%, and its speed increases proportionally to the cooling demand. The case is designed with square (top) and hexagonal (rear) perforations, which ensures efficient airflow. This solution keeps noise levels low during office operation and ensures efficient cooling under heavy load.

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Modular design and cabling

The Darkflash PMT850A3 features a modular cable system, allowing you to connect only the cables you need. Flat, flexible 18AWG cables are included, making it easy to arrange the case interior and improve airflow. The entire case is designed to be compatible with both the latest motherboards and classic configurations with multiple drives and expansion cards.

Premium security features

The power supply is equipped with a set of 7 protections - against overvoltage (OVP), overload (OPP), over-current (OCP), under-voltage (UVP), short-circuit (SCP), overheating (OTP) and no-load (NLP). In addition, it meets 4kV surge immunity standards (Surge 4K), effectively protecting computer components from the effects of lightning and network disturbances. The protections operate in real time and respond automatically to any voltage irregularities or overloads, increasing the safety of the entire platform.

Reliability of components

High-quality Japanese capacitors with resistance up to 105°C ensure voltage stability even under prolonged load. An efficient impulse transformer guarantees adequate power without overheating, and an EMI filter eliminates interference from the power grid. Heat sinks in the power supply efficiently dissipate heat, keeping internal components cool.

Compact ATX format

Despite its high power output, the power supply fits into a standard ATX chassis measuring 140 × 150 × 86 mm. This makes it a perfect fit for most modern cases and allows for better use of internal space.

Included:

- Darkflash PMT850A3 power supply unit
- Power cord
- 20+4 pin cable (600 mm)

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- CPU cable 4+4 pin (700 mm) x2
- PCI-E 6+2 cable (600+150 mm) x2
- PCIe 12VHPWR cable (12+4 pin, 650 mm)
- SATA+SATA+SATA+P cable (450+150+150+150 mm)
- SATA+SATA+P+P cable (450+150+150+150 mm) x2
- Cable cover
- Mounting screws
- Cable ties
- Gloves
- User manual

Manufacturer	Darkflash
Model	PMT850A3 Black
Dimensions	140 × 150 × 86 mm
Efficiency certificate	80 PLUS GOLD
Standard	ATX 12V version 3.1
Fan	120 mm, low noise
Fan bearing	Hydro Bearing (hydraulic bearing)
Capacitors	Japanese, suitable for 105°C operation
Topology	Active PFC / Half Bridge LLC / Synchronous Rectification (SRC) / DC to DC
Protection	OVP / OCP / OPP / SCP / OTP / UVP / NLP
Power Good signal activation time	100-250 ms
Holding time	≥16 ms at 100% load

Gross weight: 2320, Net weight: 1630, Box length: 28,00, Box width: 11,50, Box height: 19,00, GPSR
 Link: https://psr-assets.innpro.pl/gaming/sg_gaming_pc_power_supplies.pdf

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