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TOUGHPOWER SERIES
POWER SUPPLY

TOUGHPOWER TF3 1300W



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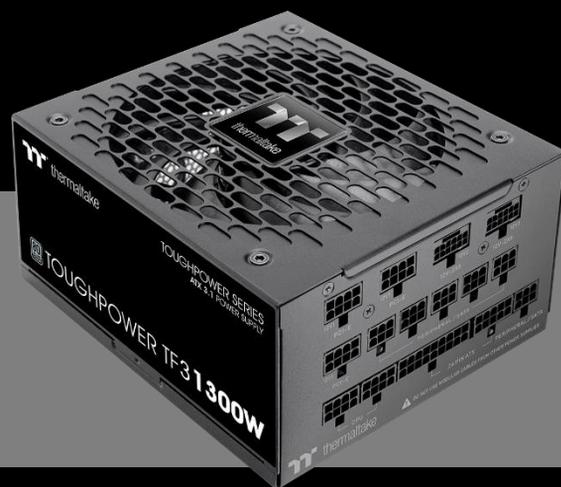
DATASHEET



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TOUGHPower SERIES POWER SUPPLY

TOUGHPower TF3 1300W



PCIe Gen 5.1 Ready
16-PIN Connector

Overclocking
Mode Switch

ATX 3.1 Compatible

100% Japanese
Electrolytic Capacitors

10 YEAR
Warranty

Features

- Fully compatible with ATX 3.1 standard and designed with native PCIe 12+4pin modular interface.
- 80 PLUS Titanium certified up to 94% efficiency.
- Fully modular low-profile etched flat cables.
- 100% High quality Japanese 105°C/221°F electrolytic capacitors.
- Overclocking Mode Switch: Enable single-rail OCP mode for enhanced overclocking performance.
- 1300W continuous output at 50°C/122°F operating environment.
- < 30mV low ripple noise design.
- Extremely strict voltage regulation < ±2%.
- DC-DC design for more precise electrical output.
- Intel C6/C7 states & ErP ready
- Built-in industry grade protections: OCP, OVP, UVP, OPP, SCP, OTP.
- 10 years warranty.
- Dimension: 150mm(W)x86mm(H)x165mm(D)



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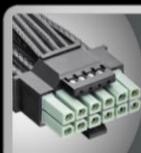
Highlighted Features

Fully Compatible With ATX 3.1 Specifications

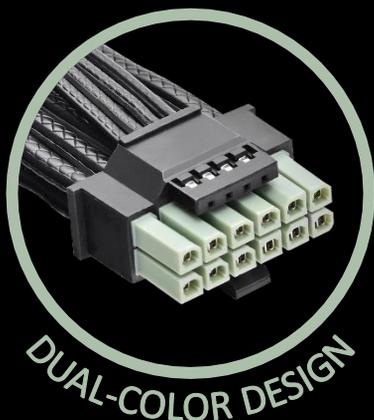
Meets all the needs of a computer system, providing powerful and stable power.

- Supports 200% power excursion
- Reaches 60% low load efficiency
- Complies with required power supply timing standards
- Designed with native 12+4pin 12V-2X6, and bundled with two PCIe Gen 5.1 cables

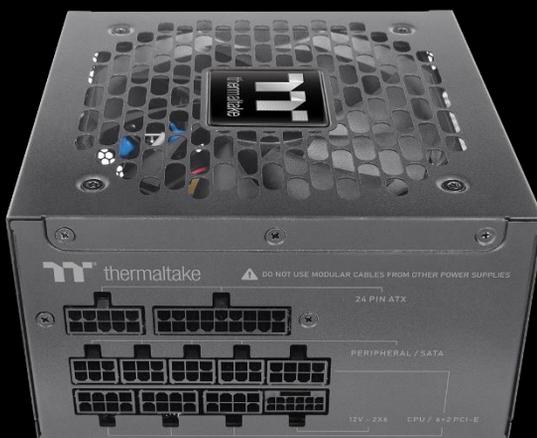
ATX 3.1 Compatible



PCIe Gen 5.1 Ready
16-PIN Connector



DUAL-COLOR DESIGN





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Highlighted Features

Overclocking Mode Switch

Enable single-rail OCP mode for enhanced overclocking performance.

- The OCM switch allows switching between two modes: A. Individual 12V rails (Multi-Rail mode) and B. Single 12V rail mode. The power supply's default is set to Multi-Rail mode, where Over Current Protection (OCP) is activated to protect components.
- When intending to overclock, you can press the OCM switch on the power supply to disable individual 12V OCP, and the power supply will switch to Single 12V rail mode. The OCM can only be switched when the system is not operating.





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Highlighted Features



100% High Quality Japanese 105°C/221°F Electrolytic Capacitors

Improves the durability and offers the highest stability and reliability.



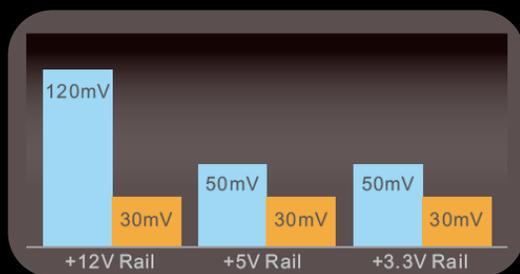
Ultra Quiet Thermaltake CT140 Cooling Fan

Specifically tuned fan blade and optimized hydraulic bearing for reliable and silent operation.



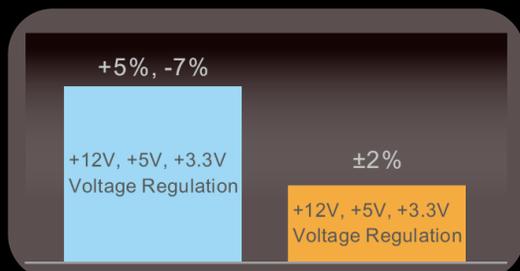
Low-Profile Etched Flat Cables

Makes cable management easier, reduces clutter and increases airflow inside the chassis.



< 30mV Low Ripple Noise Design

Top-end build quality with low ripple noise.



Extremely Strict

Voltage Regulation < ±2%

Provides steady clean power through exceptional voltage stability.

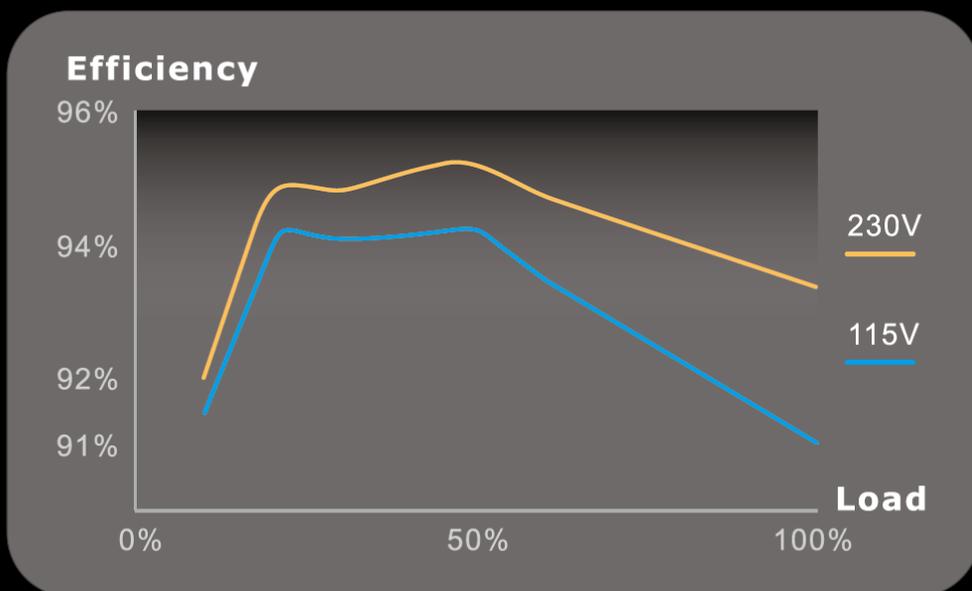


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Eco Design



80 PLUS® Titanium Certified Efficiency

Delivers top end efficiency under real world load conditions.



Supports Energy Star 5.0* energy standard

Toughpower TF3 series is suitable for use in Energy Star-compatible computers.

Supports Intel Deep Power Down C6 Status

Helps your PC system operate more power efficiently.

Corresponds to the EU directives on WEEE and RoHS

Thermaltake considers its full impact on the environment during manufacturing and maintains green facilities to ensure Toughpower TF3 series meets WEEE & RoHS requirements.



Connector and Cable Specification

Connector Type	Connector Quantity		Cable Quantity	Cable Length
Main Power (24Pin)	X 1		X 1	600mm
ATX 12V (4+4/8Pin)	X 2		X 1	750mm
			X 1	
PCle (6+2Pin)	X 5		X 1	600mm
			X 2	600mm+150mm
PCle (12+4Pin) 600W	X 2		X 2	600mm
SATA (5Pin)	X 16		X 4	600mm+150mm +150mm+150mm
Peripheral (4Pin)	X 8		X 2	600mm+150mm +150mm+150mm



Specification

AC Input	Input Voltage: 100-240V~							
	Input Current: 20 - 8A							
	Frequency: 50 - 60Hz							
DC Output	+3.3V	+5V	+12V1	+12V2	+12V3	+12V4	-12V	+5VSB
Max Output Current	20A	20A	50A	50A	50A	50A	0.3A	3.0A
Max Output Power	110W		600W	600W	600W	600W	3.6W	15W
	1300W							
Total Power	1300W							

GENERAL INFO

P/N	PS-TPD-1300FNFAT*-1
Model	TPD-1300AH3FLT
Dimension	150mm(W)x86mm(H)x165mm(D)
PFC	Active PFC
Power Good Signal	100-150 msec
Hold-Up Time	> 17msec at 80% load
Cooling System	14cm Hydraulic bearing fan
Protection	OVP/UVP/OCP/OPP/OTP/SCP

ENVIRONMENT

Operating Temperature	+5°C to +50°C
Operating Humidity	20% to 85%, non-condensing
Storage Temperature	-40°C to +55°C
Storage Humidity	10% to 95%, non-condensing

MISCELLANEOUS

Efficiency	Meet 80 PLUS® Titanium at 115Vac input.
MTBF	100,000 hrs minimum
Safety Approval	CE/UKCA/ICES/TUV/LVD/RCM/CB/ cTUVus/BSMI/CCC/BIS/S-mark/EAC

PCIe CONNECTOR

PCIe 6+2pin	5
PCIe 12+4pin (600W)	2



Total Protection

Protections	Voltage Source		
	+3.3V	+5V	+12V
Over Voltage Protection	3.76~4.3V	5.74~7.0V	13.4~15.6V
Under Voltage Protection	2.0~2.83V	3.15~4.47V	8.1~10.5V
Over Power Protection	Protection at 140%~180% over peak load.		
Over Temperature Protection	Protection temperature is 50°C~65°C		
Short Circuit Protection	Short circuit placed on +5V,+12V,+3.3V,-12V will latch off. +5VSB will auto-recovery.		

Protection	Voltage Source				
	+3.3V	+5V	+12V2	+12V3	+12V4
Over Current Protection	25~30A	25~30A	65~75A		