



TOUGHPower GF A3



TOUGHPower GF A3

650W

DATASHEET



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TOUGHPower SERIES
POWER SUPPLY**TOUGHPower GF A3****Specification**

AC Input	Input Voltage: 100-240V~				
	Input Current: 12A-6A				
	Frequency: 50Hz/60Hz				
DC Output	+3.3V	+5V	+12V	-12V	+5VSB
Max Output Current	18A	18A	54.17A	0.3A	3A
Max Output Power	100W		650W	3.6W	15W
Total Power	650W				

GENERAL INFO

P/N	PS-TPD-0650FNFAGU-L
Max. Output Capacity	650W
Color	Black
Dimension	150mm(W)x86mm(H)x140mm(D)
PFC	Active PFC
Power Good Signal	100-150 msec
Hold-Up Time	> 17msec
Cooling System	12cm FDB Fan
Weigh (Main Body)	1.54 KG

ENVIRONMENT

Operating Temperature	5°C to + 45°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® Gold at 115Vac input.
MTBF	100,000 hrs minimum
Safety Approval	FCC/ICES/CB/cTUVus

PCIe CONNECTOR

PCIe 6+2pin	4
PCIe 12+4pin (300W)	1

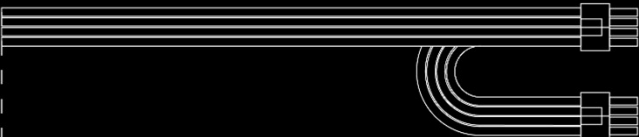
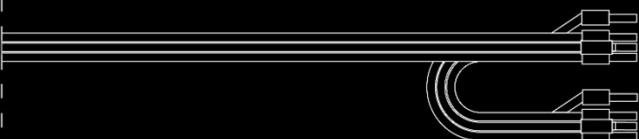
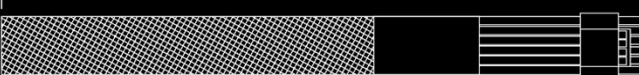
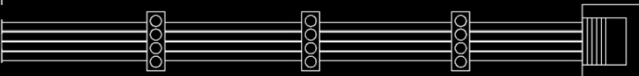


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TOUGHPower Series Power Supply

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Connector and Cable Specification

Connector Type	Connector Quantity		Cable Quantity	Cable Length
Main Power (24Pin)	X 1		X 1	600mm
ATX 12V (4+4Pin)	X 2		X 1	650mm+150mm
PCIe (6+2Pin)	X 4		X 2	500mm+150mm
PCIe (12+4Pin) 300W	X 1		X 1	600mm
SATA (5Pin)	X 8		X 2	500mm+150mm +150mm+150mm
Peripheral (4Pin)	X 4		X 1	500mm+150mm +150mm+150mm
FDD Adapter	X 1		X 1	150mm



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TOUGHPower SERIES
POWER SUPPLY

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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	2.0~2.6V	3.3~3.9V	8.5~9.7V
Over Current Protection	24~32A	24~32A	90~115A
Over Power Protection	Protection at 160%~200% over peak load.		
Over Temperature Protection	Protection temperature is 55°C~65°C		
Short Circuit Protection	Short circuit placed on +5V,+12V,+3.3V,-12V will latch off. +5VSB will auto-recovery.		