Model Series			AXi				AX	
Model	AX1500i	AX1200i	AX860i	AX760i	AX1200	AX860	AX850	AX760
Continuous power (W)	1500W	1200W	860W	760W	1200W	860W	850W	760W
Peak power (W)*	1650W	1320W	946W	836W	1320W	946W	935W	836W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Special technology	DSP	DSP	DSP	DSP	N/A	N/A	N/A	N/A
C-Link Digital	Yes	Yes	Yes	Yes	No	No	No	No
C-Link Ready	N/A	N/A	N/A	N/A	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C
Warranty (Years)	10	10	10	10	7	7	7	7
AC Input specs								
Input Voltage (VAC)	115 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	90 - 264V	100 - 240V
Input Frequency (Hz)	50 - 60Hz	50 - 60Hz	50 - 60Hz	50 - 60Hz	50 - 60Hz	50 - 60Hz	50 - 60Hz	50 - 60Hz
Input current (A)	15A	15A - 7.5A	12A - 6A	10A -5A	15A - 7.5A	11A - 5.5A	10A - 5A	9.5A - 4.5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	Yes	Yes	Yes	Yes	No	No	No	No
+12V (A)	125A	100.4A	71.6A	63.3A	100.4A	71A	70A	63A
+12V (W)	1500W	1204.8W	859.2W	759.6W	1204.8W	852W	840W	756W
+3.3V (A)	30A	30A	25A	25A	30A	25A	25A	25A
+5V (A)	30A	30A	25A	25A	30A	25A	25A	25A
Max. combined power 3.3V + 5V (W)	180W	180W	125W	125W	180W	125W	125W	125W
+5Vsb (A)	3.5A	3.5A	3A	3A	3.5A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.8A	0.8A	0.8A	0.5A	0.5A	0.5A
Cooling Solution								
Fanless mode	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Load for fan to turn on (%)	30%	30%	30%	30%	N/A	60%	20%	60%
Fan bearing technology	FDB	DBB	DBB	DBB	DBB	DBB	DBB	DBB
Fan size (mm)	140mm	140mm	120mm	120mm	140mm	120mm	120mm	120mm
Max. fan speed (rpm)	1,200.	1,030.	1,360.	1,035.	1,405.	2,150.	1,944.	1,650
dB(A) at 20% load (6 dB(A) noise floor)	6.0	6.0	6.0	6.0	21.0	6.0	6.0	6.0
dB(A) at 50% load	12.0	13.6	8.9	12.2	23.0	0.0	18.9	0.0
dB(A) at 100% load	30.0	22.9	28.8	23.5	31.6	29.0	33.9	24.0
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CCC (China)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GOST-R (Russia)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
IRAM (Argentina)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Titanium	Platinum	Platinum	Platinum	Gold	Platinum	Gold	Platinum
Efficiency (%) at 115V, 10% load**	0.9089	88.00%	85.21%	84.99%		88.98%		88.47%
Efficiency (%) at 115V, 20% load**	0.9272	91.00%	90.43%	90.03%	88.46%	91.73%	88.93%	91.53%
Efficiency (%) at 115V, 50% load**	0.9419	92.25%	92.33%	92.22%	90.48%	92.33%	91.02%	92.39%
Efficiency (%) at 115V,100% load**	0.9174	89.35%	90.04%	90.17%	87.62%	89.87%	87.82%	90.00%
Efficiency (%) at 230V, 10% load***	0.9071	87.45%	87.40%	85.96%		89.95%		88.93%
Efficiency (%) at 230V, 20% load***	0.9299	92.04%	92.12%	91.08%	89.44%	91.63%	88.86%	92.33%
Efficiency (%) at 230V, 50% load***	0.9478	93.50%	93.71%	93.57%	92.10%	92.10%	91.75%	93.40%
Efficiency (%) at 230V,100% load***	0.939	92.36%	92.05%	92.35%	90.32%	89.44%	89.56%	91.82%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.9W	<0.45W	<0.9W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2010	2013	2010	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Cable Type	Type 3	Type 3	Type 3	Type 3	Unique w/ Type 3 24-pin	Type 3 w/ Unique 24-pin	AX Gold Unique	Type 3 w/ Unique 24-pin
Sleeved cables	No	No	No	No	No	No	No	No
Flat cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of individual cables	23 (including C-Link cables)	19 (including C-Link cable)	15 (including C-Link cable)	15 (including C-Link cable)	19	14	15	14
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	710mm	610mm	610mm	610mm	610mm	610mm	610mm	610mm
4+4-pin (CPU, works as either 4 or 8-	2	2	2	2	2	2	2	2
CPU power cable length (mm, +/-	650mm/800mm	650mm	650mm	650mm	610mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	10	8	8	6	6	6	4	4
PCIe power cable length (mm, +/-	650mm/800mm	600mm	600mm	600mm	600mm	600mm	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	12	12	8	8	12	8	8	8
SATA 5-pin connector	20	16	12	12	16	12	12	12
Floppy power	2	2	2	2	2	2	2	2
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	224mm x 150mm x 86mm	200mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	200mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	452 x 222 x 152	390 x 153 x 224	337 x 135 x 213	337 x 135 x 213	390 x 153 x 224	293 x 135 x 213	390 x 153 x 224	293 x 135 x 213
Gross weight, retail package (kg)	5.7	4.6	3.8	3.8	4.5	2.7	1.8	1.8
Pieces per master carton	2	2	2	2	2	6	2	6
Dimensions, master carton (L x W x D), (mm)	470 x 462 x 179	465 x 410 x 170	440 x 346 x 154	440 x 346 x 154	465 x 410 x 170	425 x 310 x 445	465 x 410 x 170	425 x 310 x 445
Gross weight, mastrer carton (kg)	12.4	9.9	8.3	8.3	9.7	16.9	4.3	11.5

Model Series	AX			HXi			HX	
Model	AX750	HX1200i	HX1000i	HX850i	HX750i	HX1050	HX850	HX750
Continuous power (W)	750W	1200W	1000W	850W	750W	1050W	850W	750W
Peak power (W)*	825W	1320W	1100W	935W	825W	1155W	935W	825W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Semi modular	Semi modular	Semi modular
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	Yes	Yes	Yes	Yes	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C
Warranty (Years)	7	10	10	10	10	7	7	7
AC Input specs								
Input Voltage (VAC)	90 - 264V	100 - 240V	100 - 240V	100 -240V	100 - 240V	100 - 240V	100 - 240V	100 -240V
Input Frequency (Hz)	50 - 60Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	50 - 60 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Input current (A)	9.5A - 4.5A	15A - 7.5A	13A - 6.5A	12A - 6A	10A - 5A	13A - 6.5A	12A - 6A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	No	Yes	Yes	Yes	Yes	No	No	No
+12V (A)	62A	100A	83.3A	70.8A	62.5A	87.5A	70A	62A
+12V (W)	744W	1200W	1000W	850W	750W	1050W	840W	744W
+3.3V (A)	25A	25A	25A	25A	25A	25A	25A	25A
+5V (A)	25A	25A	25A	25A	25A	25A	25A	25A
Max. combined power 3.3V + 5V (W)	125W	150W	150W	150W	150W	150W	150W	150W
+5Vsb (A)	3A	3.5A	3A	3A	3A	3A	3A	3A
-12V (A)	0.5A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load for fan to turn on (%)	20%	40%	40%	40%	40%	20%	20%	20%
Fan bearing technology	DBB	FDB	FDB	FDB	FDB	DBB	DBB	DBB
Fan size (mm)	120mm	140mm	140mm	140mm	140mm	140mm	140mm	140mm
Max. fan speed (rpm)	1,788	1,100	1,000	950	950	1,860	1,310	1,250
dB(A) at 20% load (6 dB(A) noise floor)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
dB(A) at 50% load	11.5	12.0	12.0	12.0	12.0	20.2	16.1	16.1
dB(A) at 100% load	37.4	23.0	23.0	21.0	20.0	40.1	32.0	30.8
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	Yes	No	No	No	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	No	No	No	No	Yes	Yes	Yes
GOST-R (Russia)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	Yes	No	No	No	No	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Gold	Platinum	Platinum	Platinum	Platinum	Gold	Gold	Gold
Efficiency (%) at 115V, 10% load**		86.31%	87.54%	86.76%	86.61%	85.73%	82.23%	81.79%
Efficiency (%) at 115V, 20% load**	88.41%	91.28%	91.22%	90.52%	90.93%	89.72%	88.49%	87.60%
Efficiency (%) at 115V, 50% load**	90.80%	92.54%	92.26%	92.25%	92.26%	90.76%	90.53%	90.24%
Efficiency (%) at 115V,100% load**	88.11%	90.00%	89.28%	89.47%	89.30%	87.33%	87.73%	87.69%
Efficiency (%) at 230V, 10% load***		87.53%	87.66%	87.85%	87.68%	84.81%	82.40%	82.60%
Efficiency (%) at 230V, 20% load***	89.29%	92.38%	91.65%	91.58%	91.77%	89.55%	88.86%	88.27%
Efficiency (%) at 230V, 50% load***	92.05%	93.90%	92.83%	93.19%	92.82%	91.46%	91.04%	91.00%
Efficiency (%) at 230V,100% load***	90.31%	92.28%	90.43%	91.10%	91.01%	89.58%	89.59%	89.14%
Power consumption in standby (W)	<0.9W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2010	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Fully modular	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular
Cable Type	AX Gold Unique	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3
Sleeved cables	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of individual cables	15	18 (including C-Link cables)	17 (including C-Link cables)	16 (including C-Link cables)	15 (including C-Link cables)	17	16	13
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	610mm	710mm	610mm	610mm	610mm	610mm	610mm	610mm
4+4-pin (CPU, works as either 4 or 8-	2	2	2	2	2	2	2	1
CPU power cable length (mm, +/-	650mm	650mm/800mm	650mm/800mm	650mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	4	8	8	6	6	6	6	4
PCIe power cable length (mm, +/-	600mm	750mm	750mm	750mm	750mm	600mm	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	8	12	12	12	8	12	12	8
SATA 5-pin connector	12	16	12	12	12	12	12	12
Floppy power	2	2	2	2	2	2	2	2
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	160mm x 150mm x 86mm	200mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	150mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	390 x 153 x 224	392 x 152 x 225	392 x 152 x 225	393 x 152 x 225	394 x 152 x 225	390 x 153 x 224	390 x 153 x 224	390 x 153 x 224
Gross weight, retail package (kg)	1.8	4.4	3.6	3.9	3.8	2.7	2.5	2.4
Pieces per master carton	2	2	2	2	2	2	2	2
Dimensions, master carton (L x W x D), (mm)	465 x 410 x 170	470 x 405 x 170	473 x 408 x 173	473 x 408 x 173	473 x 408 x 173	465 x 410 x 170	465 x 410 x 170	465 x 410 x 170
Gross weight, mastrer carton (kg)	4.3	9.8	9.3	8.8	8.6	6.1	5.7	5.5

Model Series	HX			RMi			RMx	
Model	HX650	RM1000i	RM850i	RM750i	RM650i	RM1000x	RM850x	RM750X
Continuous power (W)	650W	1000W	850W	750W	650W	1000W	850W	750W
Peak power (W)*	715W	1100W	935W	825W	715W	1100W	935W	825W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Semi modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	Yes	Yes	Yes	Yes	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C
Warranty (Years)	7	10	10	10	10	10	10	10
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V
Input Frequency (Hz)	50 - 60 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Input current (A)	9A - 4.5A	13A - 6.5A	12A - 6A	10A - 5A	10A - 5A	13A - 6.5A	12A - 6A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	No	Yes	Yes	Yes	Yes	No	No	No
+12V (A)	54A	83.3A	70.8A	62.5A	54A	83.3A	70.8A	62.5A
+12V (W)	648W	1000W	850W	750W	650W	1000W	850W	750W
+3.3V (A)	20A	25A	25A	25A	25A	25A	25A	25A
+5V (A)	20A	25A	25A	25A	25A	25A	25A	25A
Max. combined power 3.3V + 5V (W)	100W	150W	150W	150W	130W	150W	150W	150W
+5Vsb (A)	2.5A	3A	3A	3A	3A	3A	3A	3A
-12V (A)	0.3A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load for fan to turn on (%)	20%	40%	40%	40%	40%	40%	40%	40%
Fan bearing technology	DBB	FDB	FDB	FDB	FDB	Rifled	Rifled	Rifled
Fan size (mm)	140mm	140mm	140mm	140mm	140mm	140mm	140mm	140mm
Max. fan speed (rpm)	2,195	1,010	950	950	950	1,010	950	1,130
dB(A) at 20% load (6 dB(A) noise floor)	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
dB(A) at 50% load	21.6	12.0	12.0	12.0	12.0	12.0	12.0	8.7
dB(A) at 100% load	46.9	23.2	21.0	20.0	21.0	23.2	21.0	25.0
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	No	No	No	No	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	No	No	No	No	Yes	Yes	Yes
GOST-R (Russia)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Gold	Gold	Gold	Gold	Gold	Gold	Gold	Gold
Efficiency (%) at 115V, 10% load**	84.32%	85.40%	85.86%	84.46%	85.36%	86.33%	86.04%	89.80%
Efficiency (%) at 115V, 20% load**	88.41%	90.83%	90.31%	89.22%	88.90%	90.39%	90.54%	92.72%
Efficiency (%) at 115V, 50% load**	90.43%	91.56%	91.06%	90.54%	90.79%	91.13%	92.35%	92.35%
Efficiency (%) at 115V,100% load**	87.94%	88.20%	87.86%	87.50%	88.45%	87.94%	89.90%	89.36%
Efficiency (%) at 230V, 10% load***	84.75%	88.20%	87.42%	87.03%	86.40%	87.97%	86.62%	91.99%
Efficiency (%) at 230V, 20% load***	89.94%	91.72%	90.93%	89.76%	89.86%	91.82%	91.51%	94.10%
Efficiency (%) at 230V, 50% load***	92.12%	92.98%	92.16%	91.66%	92.04%	92.50%	93.25%	93.48%
Efficiency (%) at 230V,100% load***	89.69%	90.74%	90.32%	90.12%	90.02%	90.00%	91.60%	90.37%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Semi modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Cable Type	HX650 Specific	Type 4	Type 4	Type 4	Type 4	Type 4	Type 4	Type 4
Sleeved cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of individual cables	10	17 (including C-Link cables)	15 (including C-Link cables)	12 (including C-Link cables)	11 (including C-Link cables)	15	13	10
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	610mm	610mm	610mm	610mm	610mm	610mm	610mm	610mm
4+4-pin (CPU, works as either 4 or 8-	1	2	2	1	1	2	2	1
CPU power cable length (mm, +/-	650mm	650mm	650mm	650mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	2	8	6	4	4	8	6	4
PCIe power cable length (mm, +/-	600mm	750mm	750mm	750mm	750mm	750mm	750mm	750mm
4-pin Peripheral power connector ("Molex", HDD)	8	11	8	7	7	11	8	7
SATA 5-pin connector	8	12	10	8	8	12	10	8
Floppy power	2	1	1	1	1	2	2	2
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	150mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	160mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	293 x 135 x 213	392 x 150 x 225	392 x 150 x 225	338 x 135 x 214	293 x 135 x 214	392 x 150 x 225	392 x 150 x 225	338 x 135 x 214
Gross weight, retail package (kg)	2.4	4.3	4.0	3.6	3.3	4.3	4.0	3.6
Pieces per master carton	6	2	2	2	6	2	2	2
Dimensions, master carton (L x W x D), (mm)	425 x 310 x 445	470 x 165 x 405	470 x 165 x 405	354 x 232 x 288	425 x 310 x 445	470 x 165 x 405	470 x 165 x 405	354 x 232 x 288
Gross weight, mastrer carton (kg)	15.1	9.1	8.6	7.9	20.3	9.1	8.6	7.9

Model Series		RMx		SF Series			RM	
Model	RM650x	RM550x	SF600	SF450	RM1000	RM850	RM750	RM650
Continuous power (W)	650W	550W	600W	450W	1000W	850W	750W	650W
Peak power (W)*	715W	605W	660W	495W	1100W	935W	825W	715W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	No	No	No	Yes (Basic)	Yes (Basic)	Yes (Basic)	Yes (Basic)
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	50°C	50°C	40°C	40°C	40°C	40°C	40°C	40°C
Warranty (Years)	10	10	7	7	5	5	5	5
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V
Input Frequency (Hz)	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Input current (A)	10A - 5A	10A - 5A	10A - 5A	10A - 5A	13A - 6.5A	12A - 6A	10A - 5A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	No	No	No	No	No	No	No	No
+12V (A)	54A	45.8A	50A	37.5A	83.3A	70.8A	62.5A	54A
+12V (W)	650W	550W	600W	450W	1000W	850W	750W	650W
+3.3V (A)	25A	25A	20A	15A	25A	25A	25A	25A
+5V (A)	25A	25A	20A	20A	25A	25A	25A	25A
Max. combined power 3.3V + 5V (W)	130W	130W	120W	100W	150W	150W	150W	130W
+5Vsb (A)	3A	3A	2.5A	2.5A	3A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.3A	0.3A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load for fan to turn on (%)	40%	40%	30%	30%	40%	40%	40%	40%
Fan bearing technology	Rifled	Rifled	Rifled	Rifled	Rifled	Rifled	Rifled	Rifled
Fan size (mm)	140mm	140mm	92mm	92mm	140mm	140mm	140mm	140mm
Max. fan speed (rpm)	1,100	1,025	2,750	2,010	1,105	1,060	745	1,050
dB(A) at 20% load (6 dB(A) noise floor)	0.0	0.0	8.0	0.0	6.0	6.0	6.0	6.0
dB(A) at 50% load	9.0	8.9	15.6	15.5	10.9	12.4	12.4	10.9
dB(A) at 100% load	24.0	21.6	35.5	27.8	26.7	23.0	23.0	24.8
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	No	No	No	No	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GOST-R (Russia)	Yes	Yes	No	No	No	No	No	No
EAC (Russia)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	Yes	Yes	No	No	Yes	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Gold	Gold	Gold	Gold	Gold	Gold	Gold	Gold
Efficiency (%) at 115V, 10% load**	90.58%	90.34%	85.19%	84.07%	87.79%	85.05%	83.79%	85.76%
Efficiency (%) at 115V, 20% load**	92.76%	92.64%	89.47%	89.03%	90.68%	88.97%	88.64%	89.67%
Efficiency (%) at 115V, 50% load**	92.16%	91.63%	91.05%	91.41%	91.13%	90.43%	90.23%	90.76%
Efficiency (%) at 115V,100% load**	87.66%	88.20%	89.22%	89.97%	87.32%	87.53%	87.94%	87.33%
Efficiency (%) at 230V, 10% load***	92.74%	92.70%	85.60%	84.36%	88.92%	84.91%	84.19%	86.16%
Efficiency (%) at 230V, 20% load***	94.16%	94.20%	90.97%	90.50%	91.72%	89.98%	89.54%	90.34%
Efficiency (%) at 230V, 50% load***	92.84%	93.01%	92.77%	92.97%	92.36%	91.84%	91.84%	91.87%
Efficiency (%) at 230V,100% load***	88.52%	88.94%	91.99%	92.14%	89.42%	89.90%	90.38%	89.26%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular	Fully modular
Cable Type	Type 4	Type 4	Type 4	Type 4	Type 3	Type 3	Type 3	Type 3
Sleeved cables	Yes	Yes	No	No	No	No	No	No
Flat cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of individual cables	9	9	6	6	15	13	10	10
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	610mm	610mm	300mm	300mm	610mm	610mm	610mm	610mm
4+4-pin (CPU, works as either 4 or 8-	1	1	1	1	2	2	1	1
CPU power cable length (mm, +/-	650mm	650mm	400mm	400mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	4	2	2	2	8	6	4	4
PCIe power cable length (mm, +/-	750mm	750mm	400mm	400mm	750mm	750mm	750mm	750mm
4-pin Peripheral power connector ("Molex", HDD)	7	4	1	1	11	8	7	7
SATA 5-pin connector	8	6	1	1	12	10	8	8
Floppy power	1	1	0	0	2	1	1	1
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	160mm x 150mm x 86mm	160mm x 150mm x 86mm	125mm x 100mm x 63.5mm	125mm x 100mm x 63.5mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	180mm x 150mm x 86mm	160mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	293 x 135 x 214	293 x 135 x 214	105 x 247 x 180	105 x 247 x 180	390 x 153 x 224	390 x 153 x 224	390 x 153 x 224	293 x 135 x 213
Gross weight, retail package (kg)	3.3	3.3	1.6	1.6	3.6	3.9	3.7	3.0
Pieces per master carton	6	6	6	6	2	2	2	6
Dimensions, master carton (L x W x D), (mm)	425 x 310 x 445	425 x 310 x 445	340 x 500 x 165	340 x 500 x 165	470 x 405 x 170	470 x 405 x 170	470 x 405 x 170	425 x 310 x 445
Gross weight, mastrer carton (kg)	20.3	20.3	8.7	8.7	8.1	8.7	8.3	18.8

Model Series	RM		TX-M			TX		
Model	RM550	RM450	TX850M	TX750M	TX650M	TX850	TX750	TX650
Continuous power (W)	550W	450W	850W	750W	650W	850W	750W	650W
Peak power (W)*	605W	495W	935W	825W	715W	935W	825W	715W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Fully modular	Fully modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	None (fixed cables)
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	Yes (Basic)	Yes (Basic)	No	No	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	40°C	40°C	50°C	50°C	50°C	50°C	50°C	50°C
Warranty (Years)	5	5	5	5	5	5	5	5
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	90 - 264V	100 - 240V	100 - 240V	90 - 264V
Input Frequency (Hz)	47 - 63 Hz	47 - 63 Hz	50 - 60 Hz	50 - 60 Hz	47 - 63 Hz	50 - 60 Hz	50 - 60 Hz	47 - 63 Hz
Input current (A)	10A - 5A	10A - 5A	12A - 6A	12A - 6A	10A - 5A	12A - 6A	12A - 6A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	No	No	No	No	No	No	No	No
+12V (A)	45.8A	37.5A	70A	62A	54A	70A	62A	54A
+12V (W)	550W	450W	840W	744W	648W	840W	744W	648W
+3.3V (A)	25A	24A	30A	30A	30A	30A	30A	30A
+5V (A)	25A	22A	30A	30A	30A	30A	30A	30A
Max. combined power 3.3V + 5V (W)	130W	110W	150W	150W	150W	150W	150W	150W
+5Vsb (A)	3A	3A	3A	3A	3A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load for fan to turn on (%)	40%	40%	30%	30%	30%	30%	30%	30%
Fan bearing technology	Rifled	Rifled	DBB	DBB	DBB	DBB	DBB	DBB
Fan size (mm)	140mm	140mm	140mm	140mm	140mm	140mm	140mm	140mm
Max. fan speed (rpm)	924	924	2,202	1,212	1,546	2,082	1,305	1,316
dB(A) at 20% load (6 dB(A) noise floor)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
dB(A) at 50% load	10.9	10.9	25.9	21.9	15.8	25.9	21.9	15.8
dB(A) at 100% load	21.1	21.1	39.2	30.4	33.1	39.2	30.4	33.1
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	No	No	No	No	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GOST-R (Russia)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	Yes	Yes	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Gold	Gold	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze
Efficiency (%) at 115V, 10% load**	84.68%	82.18%	80.26%	78.63%	78.14%	80.40%	78.76%	78.14%
Efficiency (%) at 115V, 20% load**	88.60%	87.86%	85.59%	84.58%	84.47%	85.53%	84.82%	82.75%
Efficiency (%) at 115V, 50% load**	90.58%	90.43%	87.76%	87.64%	86.36%	97.91%	87.78%	85.66%
Efficiency (%) at 115V,100% load**	87.70%	87.51%	84.12%	84.59%	82.11%	83.88%	85.11%	82.69%
Efficiency (%) at 230V, 10% load***	84.96%	82.29%	81.58%	80.67%	78.67%			78.67%
Efficiency (%) at 230V, 20% load***	89.26%	88.25%	87.25%	87.48%	85.85%			85.85%
Efficiency (%) at 230V, 50% load***	91.92%	91.47%	89.72%	89.57%	87.71%			87.71%
Efficiency (%) at 230V,100% load***	89.53%	89.74%	86.53%	87.35%	85.42%			85.42%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Fully modular	Fully modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	None (fixed cables)
Cable Type	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3
Sleeved cables	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	Yes	Yes	Yes	No	No	No
No. of individual cables	7	7	12	12	10	12	12	10
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	610mm	610mm	600mm	600mm	600mm	600mm	600mm	600mm
4+4-pin (CPU, works as either 4 or 8-	1	1	2	2	1	2	2	1
CPU power cable length (mm, +/-	650mm	650mm	650mm	650mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	2	2	4	4	2	4	4	2
PCIe power cable length (mm, +/-	750mm	750mm	600mm	600mm	600mm	600mm	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	4	4	8	8	8	8	8	8
SATA 5-pin connector	6	6	8	8	8	8	8	8
Floppy power	1	1	2	2	2	2	2	2
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213
Gross weight, retail package (kg)	2.7	2.8	2.4	2.3	2.2	2.7	2.6	2.5
Pieces per master carton	6	6	6	6	6	6	6	6
Dimensions, master carton (L x W x D), (mm)	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445
Gross weight, mastrer carton (kg)	17.3	17.6	15.1	14.5	13.9	16.9	16.3	15.7

Model Series	CS-M					GS		
Model	CS850M	CS750M	CS650M	CS550M	CS450M	GS800	GS700	GS600
Continuous power (W)	850W	750W	650W	550W	450W	800W	700W	600W
Peak power (W)*	935W	825W	715W	605W	495W	880W	770W	660W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	None (fixed cables)
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	No	No	No	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	40°C	40°C	40°C	40°C	30°C	40°C	40°C	40°C
Warranty (Years)	3	3	3	3	3	3	3	3
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V
Input Frequency (Hz)	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Input current (A)	12A - 6A	10A - 5A	10A - 5A	10A - 5A	6.3A - 3.15A	12A	10A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	10.0	10.0	10.0	10.0	10.0	16.0	16.0	16.0
DC Output specs								
Ability to toggle single/multiple +12V	No	No	No	No	No	No	No	No
+12V (A)	70.8A	62A	51A	43A	35.5A	66A	58A	49A
+12V (W)	849.6W	750W	612W	516W	426W	792W	696W	588W
+3.3V (A)	25A	25A	25A	25A	20A	25A	25A	25A
+5V (A)	25A	25A	25A	20A	20A	25A	25A	25A
Max. combined power 3.3V + 5V (W)	130W	130W	130W	120W	110W	150W	150W	150W
+5Vsb (A)	3A	3A	3A	3A	3A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	No	No	No	No	No	Yes	Yes	Yes
Load for fan to turn on (%)	N/A	N/A	N/A	N/A	N/A	20%	20%	20%
Fan bearing technology	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	DBB	DBB	DBB
Fan size (mm)	120mm	120mm	120mm	120mm	120mm	140mm	140mm	140mm
Max. fan speed (rpm)	1,360	1,750	1,277	1,017	1,062	2,221	1,890	1,742
dB(A) at 20% load (6 dB(A) noise floor)	15.5	11.4	7.7	8.3	7.5	6.0	6.0	6.0
dB(A) at 50% load	15.8	11.5	8.3	9.5	8.6	25.4	23.5	17.5
dB(A) at 100% load	27.0	27.9	21.1	21.0	20.7	47.4	45.8	42.3
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cTÜVs	No	No	No	No	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GOST-R (Russia)	No	No	No	No	No	Yes	Yes	Yes
EAC (Russia)	Yes	Yes	Yes	Yes	Yes	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	No	No	No	No	No	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Gold	Gold	Gold	Gold	Gold	Bronze	Bronze	Bronze
Efficiency (%) at 115V, 10% load**	87.65%	85.30%	86.65%	84.58%	85.45%	82.66%	78.58%	77.30%
Efficiency (%) at 115V, 20% load**	90.74%	89.92%	90.61%	89.43%	89.47%	85.53%	83.62%	82.72%
Efficiency (%) at 115V, 50% load**	90.48%	90.34%	90.91%	90.31%	90.41%	87.30%	86.52%	85.86%
Efficiency (%) at 115V,100% load**	87.11%	87.26%	87.76%	87.60%	87.34%	82.45%	83.23%	82.89%
Efficiency (%) at 230V, 10% load***	89.31%	86.19%	87.41%	85.91%	86.32%	82.00%	78.86%	77.68%
Efficiency (%) at 230V, 20% load***	92.23%	91.17%	91.34%	90.53%	90.72%	85.82%	84.70%	83.72%
Efficiency (%) at 230V, 50% load***	91.81%	92.17%	92.34%	91.87%	92.16%	88.05%	87.56%	86.83%
Efficiency (%) at 230V,100% load***	88.19%	89.46%	89.98%	89.77%	89.87%	85.65%	85.94%	85.16%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	None (fixed cables)
Cable Type	Type 3	Type 3	Type 3	Type 3	Type 3	N/A	N/A	N/A
Sleeved cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	Yes	Yes	Yes	No	No	No
No. of individual cables	10	10	8	7	7	10	8	8
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	610mm	600mm	600mm	600mm	600mm	600mm	600mm	600mm
4+4-pin (CPU, works as either 4 or 8-	1	1	1	1	1	1	1	1
CPU power cable length (mm, +/-	650mm	650mm	650mm	650mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	4	4	4	2	1	4	2	2
PCIe power cable length (mm, +/-	750mm	750mm	750mm	750mm	600mm	600m	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	8	7	4	4	3	8	6	6
SATA 5-pin connector	8	8	6	5	4	8	8	8
Floppy power	2	2	1	1	1	1	1	1
Multi-GPU ready	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	140 x 150mm x 86mm	140 x 150mm x 86mm	140 x 150mm x 86mm	140 x 150mm x 86mm	140 x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	290 x 129 x 210	293 x 135 x 213	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190	293 x 135 x 213	293 x 135 x 213	293 x 135 x 213
Gross weight, retail package (kg)	2.2	2.7	2.3	2.2	2.1	2.4	2.4	2.4
Pieces per master carton	6	6	6	6	6	6	6	6
Dimensions, master carton (L x W x D), (mm)	440 x 315 x 415	425 x 310 x 445	402 x 315 x 228	402 x 315 x 228	402 x 315 x 228	425 x 310 x 445	425 x 310 x 445	425 x 310 x 445
Gross weight, mastrer carton (kg)	18.0	17.2	14.9	14.1	13.8	15.1	15.1	15.1

Model Series	Vengeance M		Vengeance		CX-M (2015 Edition)			
Model	650M	550M	500	400	CX850M	CX750M	CX650M	CX550M
Continuous power (W)	650W	550W	500W	400W	850W	750W	650W	550W
Peak power (W)*	715W	605W	550W	440W	935W	825W	715W	605W
ATX12V Version	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	Semi modular	Semi modular	Semi modular	Semi modular
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	No	No	No	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	40°C	40°C	40°C	40°C	40°C	40°C	40°C	40°C
Warranty (Years)	5	5	5	5	5	5	5	5
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V
Input Frequency (Hz)	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz
Input current (A)	10A - 5A	10A - 5A	10A - 5A	6A - 3A	12A - 6A	12A - 6A	10A - 5A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	1.99	2.99	3.99	4.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold-up time (ms at 80% load)	16.0	16.0	16.0	16.0	10.0	10.0	10.0	10.0
DC Output specs								
Ability to toggle single/multiple +12V	No	No	No	No	No	No	No	No
+12V (A)	54A (4x 25A Each)	45.8A (3x 25A Each)	41.6A (3x 25A Each)	33.3A (3x 25A Each)	70A	62A	54A	45.8A
+12V (W)	648W	549.6W	499.2W	399.6W	840W	744W	648W	550W
+3.3V (A)	25A	25A	25A	20A	25A	25A	25A	20A
+5V (A)	25A	20A	20A	20A	25A	25A	25A	20A
Max. combined power 3.3V + 5V (W)	130W	120W	120W	110W	130W	130W	130W	120W
+5Vsb (A)	3A	3A	3A	3A	3A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	No	No	No	No	No	No	No	No
Load for fan to turn on (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fan bearing technology	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve
Fan size (mm)	120mm	120mm	120mm	120mm	120mm	120mm	120mm	120mm
Max. fan speed (rpm)	1,510	1,440	1,440	1,440	2,084	1,996	1,565	1,557
dB(A) at 20% load (6 dB(A) noise floor)	14.0	14.0	14.0	14.0	19.5	19.4	12.6	13.5
dB(A) at 50% load	14.9	14.9	14.9	14.9	19.5	19.4	14.1	15.1
dB(A) at 100% load	30.9	30.1	30.1	30.1	37.0	42.2	32.2	32.4
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	Yes	Yes	Yes	Yes	Yes	Yes	No	No
cTÜVs	No	No	No	No	No	No	Yes	Yes
CCC (China)	No	No	No	No	Yes	Yes	Yes	Yes
BSMI (Taiwan)	No	No	No	No	Yes	Yes	Yes	Yes
GOST-R (Russia)	No	No	No	No	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No	No	No
KC Mark (Korea)	No	No	No	No	Yes	Yes	Yes	Yes
IRAM (Argentina)	No	No	No	No	Yes	Yes	No	No
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	No	No	No	No	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze
Efficiency (%) at 115V, 10% load**	82.16%	78.78%	76.75%	75.43%	83.18%	77.71%	79.40%	77.44%
Efficiency (%) at 115V, 20% load**	86.97%	85.28%	85.32%	83.25%	87.30%	83.25%	83.56%	83.12%
Efficiency (%) at 115V, 50% load**	88.17%	87.30%	87.63%	86.90%	88.34%	86.59%	85.44%	85.48%
Efficiency (%) at 115V,100% load**	83.53%	83.59%	83.81%	84.83%	83.42%	84.21%	82.56%	82.66%
Efficiency (%) at 230V, 10% load***	83.77%	80.23%	78.37%	76.84%	84.41%	79.12%	79.74%	77.95%
Efficiency (%) at 230V, 20% load***	88.58%	86.57%	86.84%	84.62%	88.68%	85.08%	84.69%	83.62%
Efficiency (%) at 230V, 50% load***	90.10%	89.15%	89.41%	88.71%	89.98%	88.49%	86.84%	86.45%
Efficiency (%) at 230V,100% load***	86.53%	86.35%	86.39%	87.24%	86.13%	86.94%	84.93%	84.98%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)	Semi modular	Semi modular	Semi modular	Semi modular
Cable Type	Type 3	Type 3	N/A	N/A	Type 3	Type 3	Type 3	Type 3
Sleeved cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	No	No	Yes	Yes	Yes	Yes
No. of individual cables	8	7	7	6	8	10	7	7
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	600mm	600mm	600mm	600mm	600mm	600mm	600mm	600mm
4+4-pin (CPU, works as either 4 or 8-	1	1	1	1	1	1	1	1
CPU power cable length (mm, +/-	600mm	600mm	600mm	600mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	4	2	2	2	4	4	2	2
PCIe power cable length (mm, +/-	750mm	750mm	700mm	700mm	600mm	600mm	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	4	4	3	3	6	6	4	4
SATA 5-pin connector	5	5	5	4	8	8	6	5
Floppy power	1	1	1	1	2	1	1	1
Multi-GPU ready	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	266 x 184 x 96	266 x 184 x 96	266 x 184 x 96	266 x 184 x 96	290 x 130 x 216	293 x 135 x 213	268 x 98 x 190	268 x 98 x 190
Gross weight, retail package (kg)	2.38	2.3	2.2	2.1	3.3	2.2	2.2	2.2
Pieces per master carton	6.	6	6	6	6	6	6	6
Dimensions, master carton (L x W x D), (mm)	388 x 310 x 284	388 x 310 x 284	388 x 310 x 284	388 x 310 x 284	599 x 231 x 429	425 x 310 x 445	410 x 322 x 295	410 x 322 x 295
Gross weight, mastrer carton (kg)	14.8	14.0	13.6	14.8	21.7	13.9	13.9	13.9

Model Series	CX-M (2015 Edition)			CX-M				CX
Model	CX450M	CX850M	CX750M	CX600M	CX500M	CX430M	CX750	CX600
Continuous power (W)	450W	850W	750W	600W	500W	430W	750W	600W
Peak power (W)*	495W	935W	825W	660W	550W	473W	825W	660W
ATX12V Version	2.4	2.4	2.4	2.31	2.31	2.31	2.4	2.31
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)
Special technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No	No	No
C-Link Ready	No	No	No	No	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	40°C	30°C	30°C	30°C	30°C	30°C	30°C	30°C
Warranty (Years)	5	3	3	3	3	3	3	3
AC Input specs								
Input Voltage (VAC)	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V	100 - 240V
Input Frequency (Hz)	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz
Input current (A)	6.3A - 3.15A	12A - 6A	12A - 6A	10A - 5A	10A - 5A	6.3A - 3.15A	12A - 6A	10A - 5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	Yes	Yes	Yes	No	No	No	Yes	No
Hold-up time (ms at 80% load)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
DC Output specs								
Ability to toggle single/multiple +12V	No	No	No	No	No	No	No	No
+12V (A)	37.4A	70A	62A	46A	38A	32A	62A	46A
+12V (W)	448.8W	840W	744W	552W	456W	384W	744W	552W
+3.3V (A)	20A	25A	25A	25A	25A	20A	25A	25A
+5V (A)	20A	25A	25A	25A	20A	20A	25A	25A
Max. combined power 3.3V + 5V (W)	110W	130W	130W	130W	120W	110W	130W	130W
+5Vsb (A)	3A	3A	3A	3A	3A	3A	3A	3A
-12V (A)	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A	0.8A
Cooling Solution								
Fanless mode	No	No	No	No	No	No	No	No
Load for fan to turn on (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fan bearing technology	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve
Fan size (mm)	120mm	120mm	120mm	120mm	120mm	120mm	120mm	120mm
Max. fan speed (rpm)	1,540	2,084	1,996	1,565	1,557	1,540	1,980	1,665
dB(A) at 20% load (6 dB(A) noise floor)	14.6	19.5	19.4	12.6	13.5	14.6	20.4	11.9
dB(A) at 50% load	14.8	19.5	19.4	14.1	15.1	14.8	20.7	17.0
dB(A) at 100% load	31.0	37.0	42.2	32.2	32.4	31.0	39.9	34.0
Protections & safety certifications								
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cUL	No	Yes	Yes	No	No	No	Yes	No
cTÜVs	Yes	No	No	Yes	Yes	Yes	No	Yes
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GOST-R (Russia)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	No	Yes	Yes	No	No	No	Yes	No
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Efficiency								
80 PLUS certification level	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze
Efficiency (%) at 115V, 10% load**	78.35%	83.18%	77.71%	79.40%	77.44%	78.35%	77.71%	79.40%
Efficiency (%) at 115V, 20% load**	82.78%	87.30%	83.25%	83.56%	83.12%	82.78%	83.25%	83.56%
Efficiency (%) at 115V, 50% load**	85.54%	88.34%	86.59%	85.44%	85.48%	85.54%	86.59%	85.44%
Efficiency (%) at 115V,100% load**	82.83%	83.42%	84.21%	82.56%	82.66%	82.83%	84.21%	82.56%
Efficiency (%) at 230V, 10% load***	78.57%	84.41%	79.12%	79.74%	77.95%	78.57%	79.12%	79.74%
Efficiency (%) at 230V, 20% load***	83.71%	88.68%	85.08%	84.69%	83.62%	83.71%	85.08%	84.69%
Efficiency (%) at 230V, 50% load***	86.96%	89.98%	88.49%	86.84%	86.45%	86.96%	88.49%	86.84%
Efficiency (%) at 230V,100% load***	85.34%	86.13%	86.94%	84.93%	84.98%	85.34%	86.94%	84.93%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	5	5	5	5	5	5
ErP Lot 6	2013	2013	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables								
Modular cable management	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	Semi modular	None (fixed cables)	None (fixed cables)
Cable Type	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	N/A	N/A
Sleeved cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
No. of individual cables	6	8	10	7	7	6	No	7
Motherboard cable (20+4 pin)	1	1	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	600mm	600mm	600mm	600mm	600mm	600mm	600mm	600mm
4+4-pin (CPU, works as either 4 or 8-	1	1	1	1	1	1	1	1
CPU power cable length (mm, +/-	650mm	650mm	650mm	650mm	650mm	650mm	650mm	650mm
PCIe 6+2 pin (GPU)	1	4	4	2	2	1	2	2
PCIe power cable length (mm, +/-	600mm	600mm	600mm	600mm	600mm	600mm	600mm	600mm
4-pin Peripheral power connector ("Molex", HDD)	3	6	6	4	4	3	6	4
SATA 5-pin connector	4	8	8	6	5	4	8	6
Floppy power	1	2	1	1	1	1	1	1
Multi-GPU ready	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Misc								
Dimensions without cable (L x W x D), (mm)	140mm x 150mm x 86mm	160mm x 150mm x 86mm	160mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	160mm x 150mm x 86mm	140mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data								
Dimensions, package (L x W x D),	268 x 98 x 190	290 x 130 x 216	293 x 135 x 213	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190	293 x 135 x 213	268 x 98 x 190
Gross weight, retail package (kg)	2.2	3.3	2.2	2.2	2.2	2.2	2.3	2.2
Pieces per master carton	6	6	6	6	6	6	6	6
Dimensions, master carton (L x W x D), (mm)	410 x 322 x 295	599 x 231 x 429	425 x 310 x 445	410 x 322 x 295	410 x 322 x 295	410 x 322 x 295	425 x 310 x 445	410 x 322 x 295
Gross weight, mastrer carton (kg)	13.9	21.7	13.9	13.9	13.9	13.9	14.5	13.7

Model Series	CX			VS		
Model	CX500	CX430	VS650	VS550	VS450	VS350
Continuous power (W)	500W	430W	650W	550W	450W	350W
Peak power (W)*	550W	473W	715W	605W	495W	385W
ATX12V Version	2.31	2.31	2.31	2.31	2.31	2.31
EPS12V Version	2.92	2.92	2.92	2.92	2.92	2.92
Modular cable management	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)
Special technology	N/A	N/A	N/A	N/A	N/A	N/A
C-Link Digital	No	No	No	No	No	No
C-Link Ready	No	No	No	No	No	No
Operating temperature range (°C)	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C	0° to 50° C
Continuous output rated temperature	30°C	30°C	40°C	40°C	40°C	40°C
Warranty (Years)	3	3	3	3	3	3
AC Input specs						
Input Voltage (VAC)	100 - 240V	100 - 240V	200 - 240V	200 - 240V	200 - 240V	200 - 240V
Input Frequency (Hz)	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz
Input current (A)	10A - 5A	6.3A - 3.15A	5A	5A	5A	5A
PFC	Yes	Yes	Yes	Yes	Yes	Yes
Power factor at 100% load	0.99	0.99	0.99	0.99	0.99	0.99
Intel C6/C7 sleep state compatible	No	No	No	No	No	No
Hold-up time (ms at 80% load)	10.0	10.0	10.0	10.0	10.0	10.0
DC Output specs						
Ability to toggle single/multiple +12V	No	No	No	No	No	No
+12V (A)	38A	32A	50A	42A	34A	25A
+12V (W)	456W	384W	600W	504W	408W	300W
+3.3V (A)	25A	20A	20A	18A	16A	14A
+5V (A)	20A	20A	20A	18A	16A	14A
Max. combined power 3.3V + 5V (W)	120W	110W	120W	110W	100W	90W
+5Vsb (A)	3A	3A	2.5A	2.5A	2.5A	2.5A
-12V (A)	0.8A	0.8A	0.3A	0.3A	0.3A	0.3A
Cooling Solution						
Fanless mode	No	No	No	No	No	No
Load for fan to turn on (%)	N/A	N/A	N/A	N/A	N/A	N/A
Fan bearing technology	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve
Fan size (mm)	120mm	120mm	120mm	120mm	120mm	120mm
Max. fan speed (rpm)	1,632	1,560	1,665	1,771	1,985	1,540
dB(A) at 20% load (6 dB(A) noise floor)	12.1	10.7	15.0	21.3	20.1	18.5
dB(A) at 50% load	14.0	11.3	17.4	21.7	20.4	18.4
dB(A) at 100% load	33.4	30.5	37.6	37.2	36.1	30.9
Protections & safety certifications						
OVP (over voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes
UVP (under voltage protection)	Yes	Yes	Yes	Yes	Yes	Yes
SCP (short circuit protection)	Yes	Yes	Yes	Yes	Yes	Yes
OTP (over temperature protection)	Yes	Yes	Yes	Yes	Yes	Yes
OPP (over power protection)	Yes	Yes	Yes	Yes	Yes	Yes
CE	Yes	Yes	Yes	Yes	Yes	Yes
CB	Yes	Yes	Yes	Yes	Yes	Yes
TÜV	Yes	Yes	Yes	Yes	Yes	Yes
FCC	Yes	Yes	No	No	No	No
cUL	No	No	No	No	No	No
cTÜVs	Yes	Yes	No	No	No	No
CCC (China)	Yes	Yes	Yes	Yes	Yes	Yes
BSMI (Taiwan)	Yes	Yes	No	No	No	No
GOST-R (Russia)	Yes	Yes	Yes	Yes	Yes	Yes
EAC (Russia)	No	No	No	No	No	No
KC Mark (Korea)	Yes	Yes	Yes	Yes	Yes	Yes
IRAM (Argentina)	No	No	Yes	Yes	Yes	Yes
RCM (C-Tick, A-Tick, RCM) (Aus/NZ)	Yes	Yes	No	No	No	No
Efficiency						
80 PLUS certification level	Bronze	Bronze	N/A	N/A	N/A	N/A
Efficiency (%) at 115V, 10% load**	77.44%	78.35%	N/A	N/A	N/A	N/A
Efficiency (%) at 115V, 20% load**	83.12%	82.78%	N/A	N/A	N/A	N/A
Efficiency (%) at 115V, 50% load**	85.48%	85.54%	N/A	N/A	N/A	N/A
Efficiency (%) at 115V,100% load**	82.66%	82.83%	N/A	N/A	N/A	N/A
Efficiency (%) at 230V, 10% load***	77.95%	78.57%	81.48%	79.46%	76.84%	78.68%
Efficiency (%) at 230V, 20% load***	83.62%	83.71%	85.14%	84.60%	83.31%	84.06%
Efficiency (%) at 230V, 50% load***	86.45%	86.96%	86.09%	85.82%	85.45%	85.42%
Efficiency (%) at 230V,100% load***	84.98%	85.34%	82.94%	82.66%	82.83%	82.70%
Power consumption in standby (W)	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W	<0.45W
Energy Star	5	5	N/A	N/A	N/A	N/A
ErP Lot 6	2013	2013	2013	2013	2013	2013
WEEE	Yes	Yes	Yes	Yes	Yes	Yes
RoHS	Yes	Yes	Yes	Yes	Yes	Yes
DC Output cables						
Modular cable management	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)	None (fixed cables)
Cable Type	N/A	N/A	N/A	N/A	N/A	N/A
Sleeved cables	Yes	Yes	Yes	Yes	Yes	Yes
Flat cables	No	No	No	No	No	No
No. of individual cables	7	6	6	6	6	6
Motherboard cable (20+4 pin)	1	1	1	1	1	1
Motherboard cable length (mm, +/- 10mm)	600mm	600mm	550mm	550mm	550mm	550mm
4+4-pin (CPU, works as either 4 or 8-	1	1	1	1	1	1
CPU power cable length (mm, +/-	650mm	650mm	550mm	550mm	550mm	550mm
PCIe 6+2 pin (GPU)	2	1	2	2	2	1
PCIe power cable length (mm, +/-	600mm	600mm	450mm	450mm	450mm	450mm
4-pin Peripheral power connector ("Molex", HDD)	4	3	4	4	4	3
SATA 5-pin connector	5	4	3	3	3	2
Floppy power	1	1	1	1	1	1
Multi-GPU ready	Yes	No	Yes	Yes	Yes	No
Misc						
Dimensions without cable (L x W x D), (mm)	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm	140mm x 150mm x 86mm
Color	Black	Black	Black	Black	Black	Black
Material	Steel	Steel	Steel	Steel	Steel	Steel
Logistical data						
Dimensions, package (L x W x D),	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190	268 x 98 x 190
Gross weight, retail package (kg)	2.2	2.2	2.2	2.2	2.2	2.2
Pieces per master carton	6	6	6	6	6	6
Dimensions, master carton (L x W x D), (mm)	410 x 322 x 295	410 x 322 x 295	410 x 322 x 295	410 x 322 x 295	410 x 322 x 295	410 x 322 x 295
Gross weight, mastrer carton (kg)	13.7	13.7	13.6	13.6	13.6	13.6