

## GPS-1300CB A

1300 Watt



**NEW**

AC input



- ✓ 4x 12V output à 50 A
- ✓ High efficiency up to >92 %
- ✓ Designed for continuous operation 24/7
- ✓ No minimum load required!
- ✓ High reliability due to premium quality components!
- ✓ Active PFC
- ✓ Current Harmonic class D
- ✓ OVP, OCP, OTP, SCP
- ✓ Quiet fan
- ✓ International certifications
- ✓ Modular DC cable harness
- ✓ AC cable (EU) included
- ✓ 3 years warranty

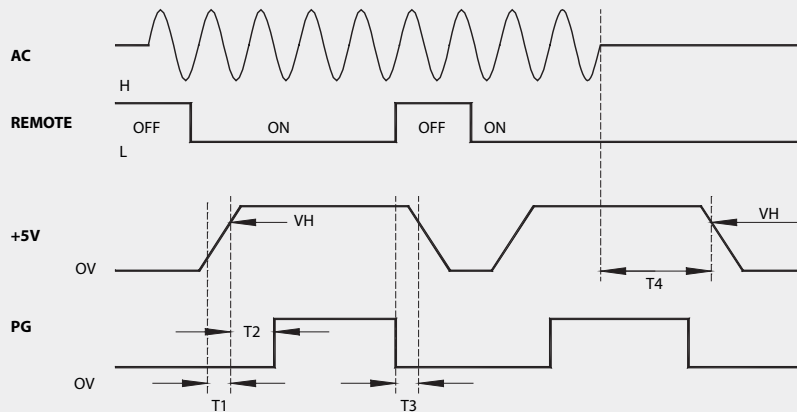
### Technical data

|                         |   |
|-------------------------|---|
| Input voltage           | 90...264VAC, active PFC   |
| Input frequency         | 50...60Hz   |
| Input current max.      | 15 A (110VAC) / 7 A (240VAC)  |
| Inrush current          | <128 A @ 264VAC   |
| Efficiency              | Up to 92 %  |
| Standby consumption     | <0.5 W  |
| Hold up time            | 10 ms at 80% load 115VAC/60Hz   |
| Power-Good-Signal       | Switch on delay 100...500 ms<br>Switch off delay 1 ms   |
| Overshoot               | At turn on or turn off shall be less than 10% of the normal value   |
| Protection              | Short circuit protection: 3.3/5/12V: shut down and latch off, +5V <sub>sb</sub> / -12 V, auto-recovery<br>Overcurrent protection: +12 V: 22...30 A, +5 V: 30...45 A, +3.3 V: 35...60 A<br>Overvoltage protection: +3.3V (+3.5...+4.8V), +5V (+5.5...+7.0V), +12V (+13.4...+16.0V) |
| Earth leakage current   | ≤3.5 mA   |
| Safety / EMC            | UL, cUL, TÜV, CB, CE, CCC, FCC, C-Tick, BSMI  |
| Temperature             | Operating: 0...+45°C / Storage: -20...+60°C   |
| MTBF                    | ≥100k hours at +70% load / 115VAC +25°C ambient temperature   |
| Max. operating altitude | 3300 m  |
| Humidity                | Operating: 5...85% RH, non-condensing / Storage: 5...95% RH, non-condensing   |
| Dimensions (WxDxH)      | 150 x 190 x 86 mm ±0.5 mm   |
| Weight (net)            | 1.9 kg  |

| Article No.  | Output voltage    | Output current |      |      | Load regulation | Ripple & Noise |
|--------------|-------------------|----------------|------|------|-----------------|----------------|
|              |                   | min            | max  | peak |                 |                |
| GPS-1300CB A | +3.3V             | 0A             | 25A  |      | ±5%             | 50mV           |
|              | +5V               | 0A             | 25A  |      | ±5%             | 50mV           |
|              | +12V1             | 0A             | 50A  | 50A  | ±5%             | 120mV          |
|              | +12V2             | 0A             | 50A  | 50A  | ±5%             | 120mV          |
|              | +12V3             | 0A             | 50A  | 50A  | ±5%             | 120mV          |
|              | +12V4             | 0A             | 50A  | 50A  | ±5%             | 120mV          |
|              | -12V              | 0A             | 0.5A |      | ±10%            | 120mV          |
|              | +5V <sub>sb</sub> | 0A             | 3.0A | 3.5A | ±5%             | 50mV           |

+3.3V and +5V total power cannot exceed 130W. +12V1, +12V2, +12V3 and +12V4 total power cannot exceed 1300W. Add a 0.1 µF ceramic disk capacitor and 10 µF tantalum capacitor at output connector terminals for Ripple & Noise measurements. Additional add a 47 µF electrolytic capacitor at output connector terminals for +3.3V Ripple & Noise measurement. This power supply is for assembly purposes only and it must not be operated in unassembled condition. The final assembly has to comply with the valid EMC standards.

## Timing Diagram



Note: (1) T1: Rise time ( $T1 < 20ms$ ).  
 (2) T2: Power good signal turn on delay time ( $100ms < T2 < 500ms$ ).  
 (3) T3: Power good signal turn off delay time (PS-ON) ( $T3 \geq 1ms$ ).  
 (4) T4: Power hold-up time ( $T4 \geq 11ms$ ,  $PG \geq 10ms$ , 115Vac/60Hz at 80% of full load).

## Protection

### OVER VOLTAGE PROTECTION

+5V, +5V<sub>SB</sub> output set at 7.0V maximum  
 +12V<sub>1</sub>, +12V<sub>2</sub>, +12V<sub>3</sub> and +12V<sub>4</sub> set at 16V maximum  
 +3.3V set at 4.5V maximum

### SHORT CIRCUIT PROTECTION

The power supply shall shut down and latch off for shorting +5V, +12V<sub>1</sub>, +12V<sub>2</sub>, +12V<sub>3</sub>, +12V<sub>4</sub>, -12V or +3.3V rails to COM and shorting +5V<sub>SB</sub> P/S can latch down or automatically recovery when the fault condition is removed.

### OVER CURRENT PROTECTION

Overload current applied to each tested output rail will cause the output to trip before reaching 110% - 130% of max current for all 12V rails and 120% - 200% for 5V & 3.3V rails. For testing purpose, the overload current should be ramped at a minimum rate of 10A/s starting from full load.

### NO LOAD OPERATION

No damage or hazardous condition will occur.

### WITH FAN SPEED CONTROL FUNCTION

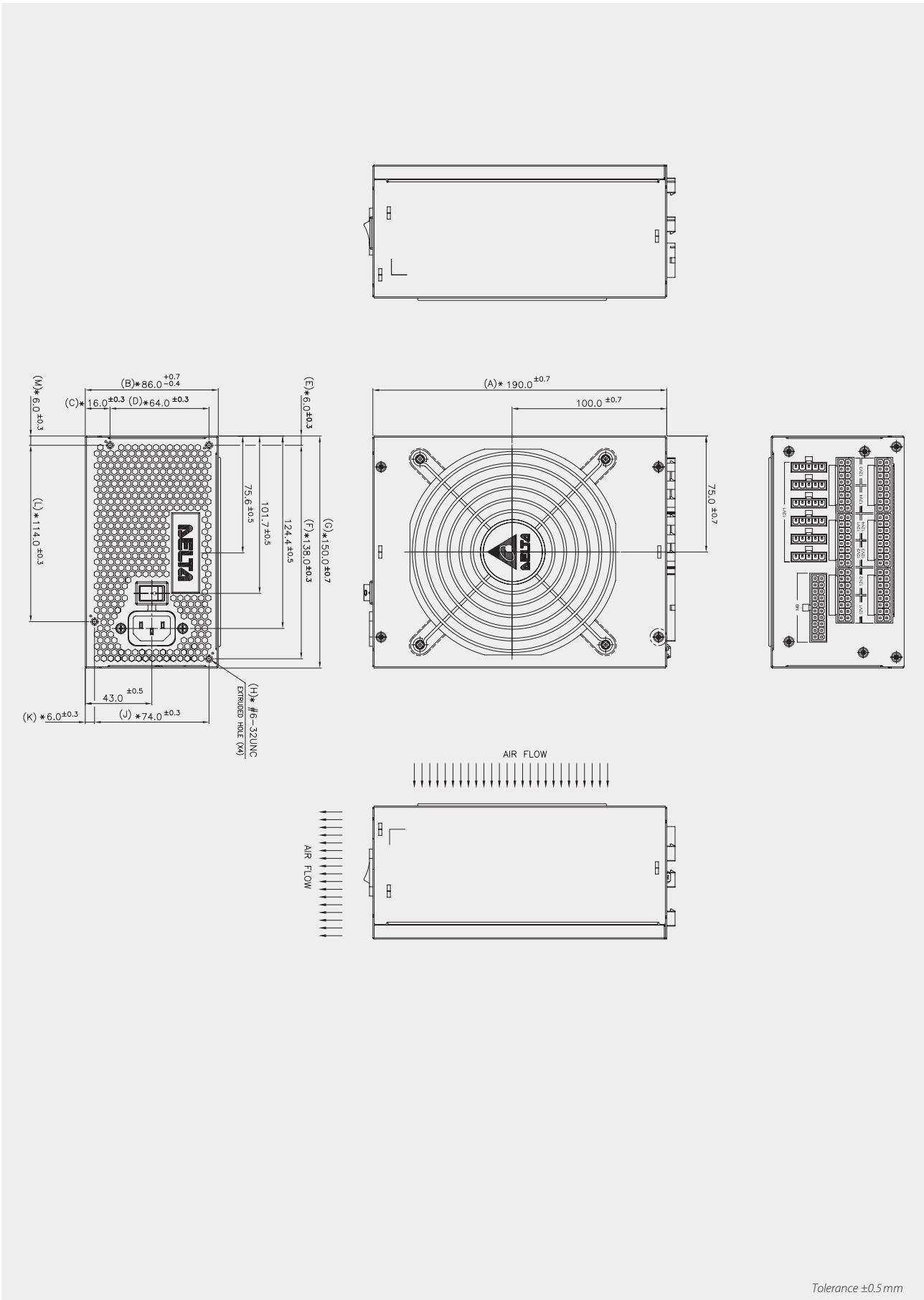
### OVER TEMPERATURE PROTECTION

When the PSU fan locked, the PSU should protected by temperature sensor can not damage the PSU.

### OVER POWER PROTECTION

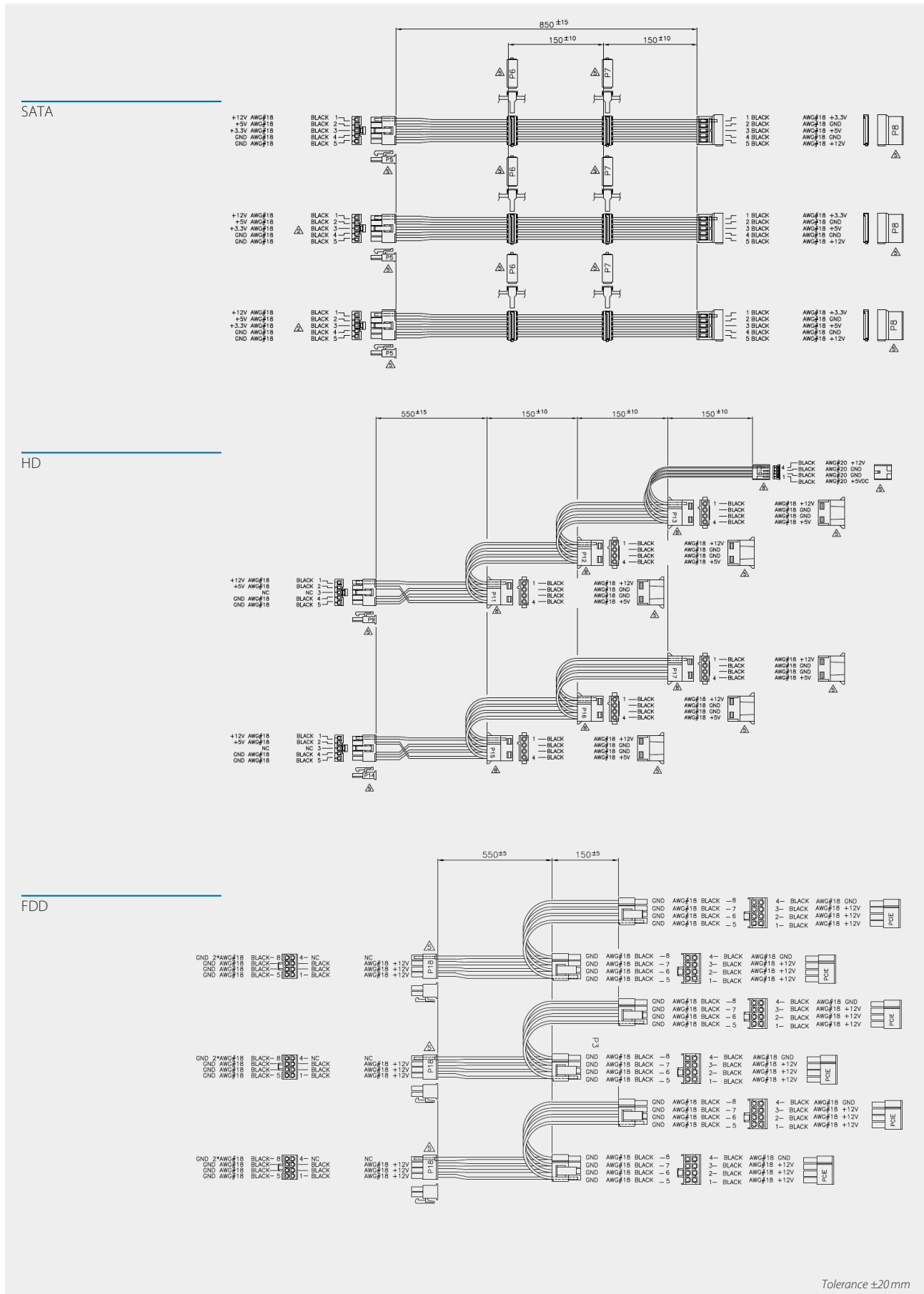
When output except 120% to 135% of max load, PSU should shutdown and latch off. Can not damage the PSU.

Drawing GPS-1300CB A

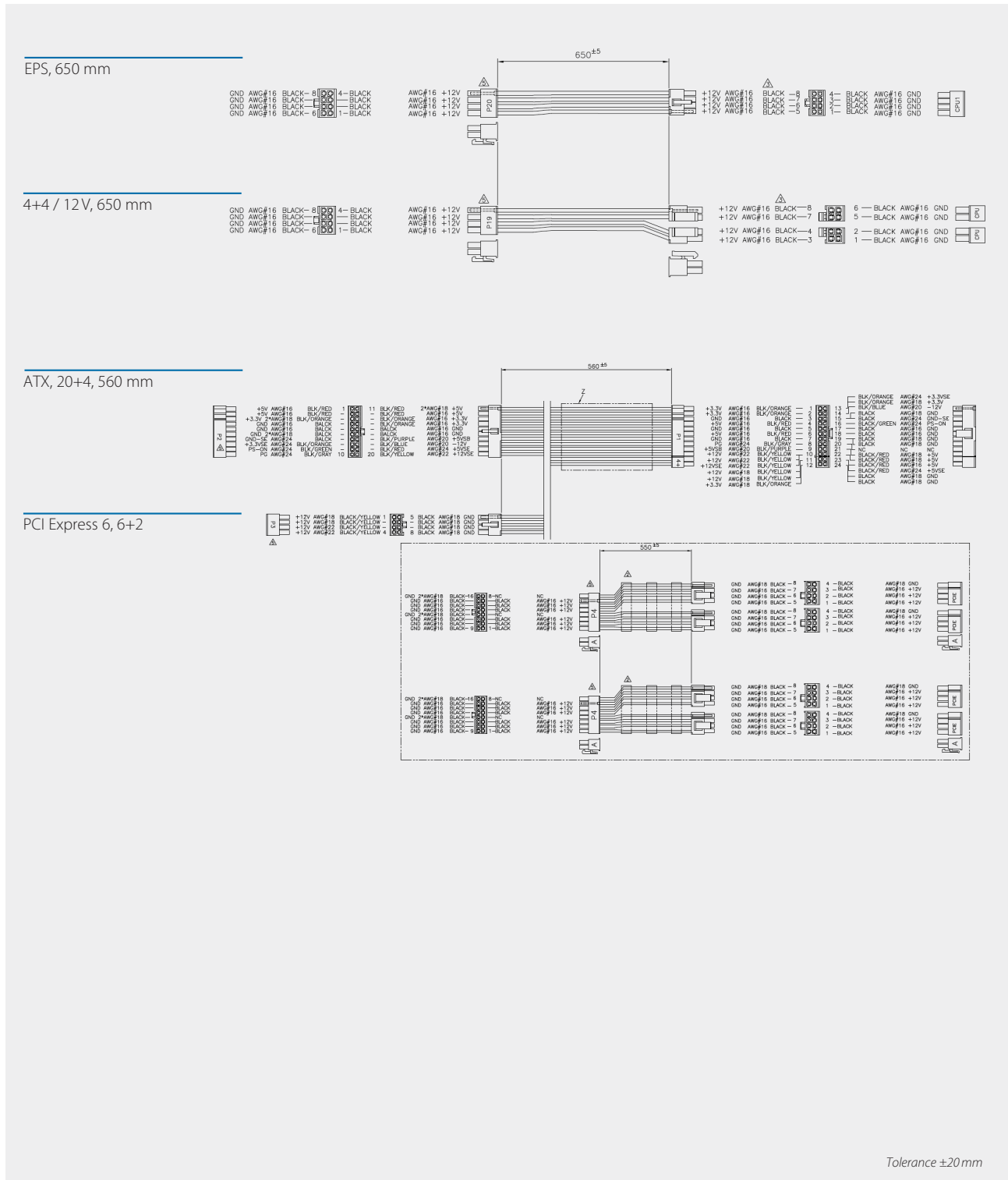


AC input

## Cable harness GPS-1300CB A – part 1



Cable harness GPS-1300CB A – part 2



Scope of delivery

- 1x Power Supply GPS-1300CB A
- 1x Modular DC cable harness
- 1x AC cable (EU) / 1800mm

Specification is subject to change without notice. Errors excepted. Status as at: 09.02.2024