

GPS-850LB A

850 Watt



NEW



- ✓ +12V output / 70.84 A max.
- ✓ High efficiency up to 90%
- ✓ 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

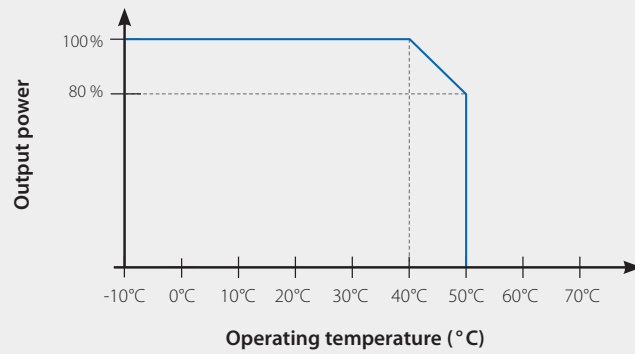
| Technical data | |
|-------------------------|--|
| Input voltage | 90...264 VAC, active PFC |
| Input frequency | 47...63 Hz |
| Input current max. | 15 A (115 VAC) / 7.5 A (230 VAC) |
| Inrush current | 140 A max @264 VAC |
| Efficiency | Up to 90% |
| Standby consumption | <0.5 W |
| Hold up time | >15 ms at 115 VAC/60Hz 80% load |
| Power-Good-Signal | Switch on delay 100...500 ms Switch off delay 1 ms |
| Overshoot | At turn on or turn off shall be less than 10% of the normal value |
| Protection | <u>Short circuit protection:</u> 3.3V/5V/+12V/-12V shut down and latch off, 5V _{sb} latch off <u>Overcurrent protection:</u> +5V (30...55 A), +12V (75...100 A), +3.3V (30...55 A), +5V _{sb} (3.5...10 A) <u>Overvoltage protection:</u> +5V (+5.5...7.5V), +5V _{sb} (+5.5...7.5V), +12V (13.2...16.5V), +3.3V (3.63...5V) |
| Earth leakage current | ≤2.5 mA |
| Safety / EMC | CB, BSMI, TÜV, CCC, CE, UL + cUL, FCC, KC, KCC |
| Temperature | Operating: 0...+50 °C / Storage: -40...+70 °C |
| Derating | From +40...+50 °C, 2% / °C |
| MTBF | >100k hours at max. load 115 VAC and +25 °C ambient temperature |
| Max. operating altitude | 5000 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 | | |
| GPS-850LB A | +3.3V | 0 A | 20 A | ±5% | 50 mV |
| | +5V | 0 A | 20 A | ±5% | 50 mV |
| | +12V | 0 A | 70.84 A | ±5% | 120 mV |
| | -12V | 0 A | 0.3 A | ±10% | 120 mV |
| | +5V _{sb} | 0 A | 3.0 A | ±5% | 50 mV |

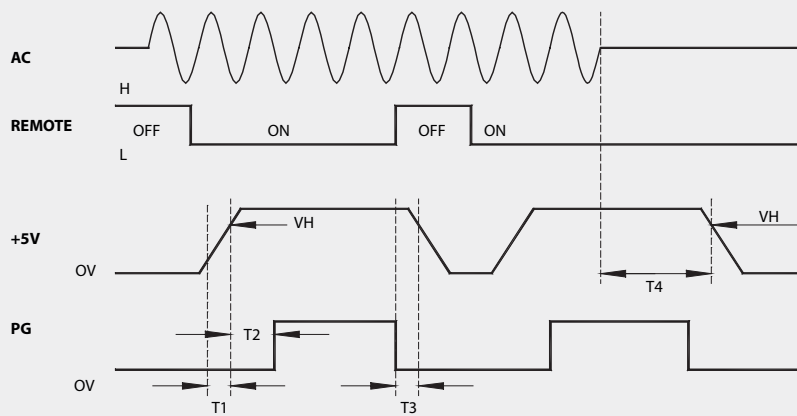
Max. output power is 850W, combined output power at +3.3V and +5V must not exceed 120W. Add a 0.1 µF ceramic disk capacitor and 10 µF tantalum capacitor at output connector terminals for Ripple & Noise measurements.

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.

Derating

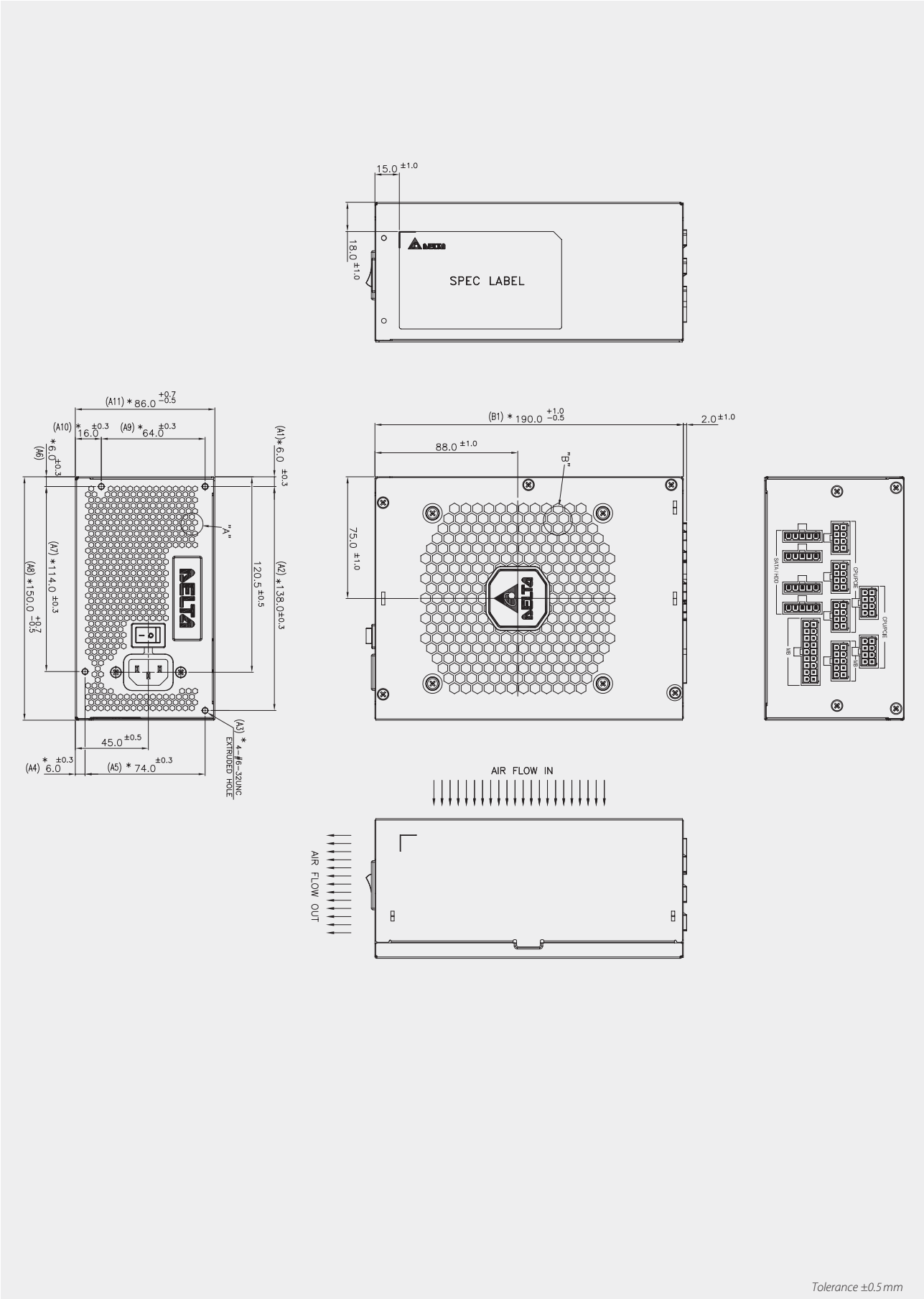


Timing Diagram



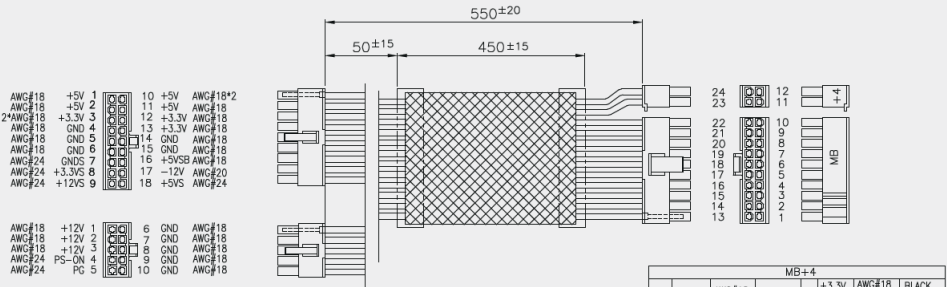
- Note: (1) T1: Rise time ($0.2ms < T1 < 20ms$).
 (2) T2: Power good signal turn on delay time ($100ms < T2 < 500ms$, 5V vs PG).
 (3) T3: Power good signal turn off delay time ($T3 \geq 1ms$; DC on/off, PG to 12V).
 (4) T4: Power hold-up time ($T4 \geq 15ms$, 115Vac/60Hz input, at 80% full load, respect to PG).
 (5) PS-ON Delay Time: 500mS max. at nominal line. PS-ON with respect to +5V.
 (6) Rise Time: Any outputs rise time from 10% to 90% of normal voltage should be $< 20ms$.

Drawing GPS-850LB A



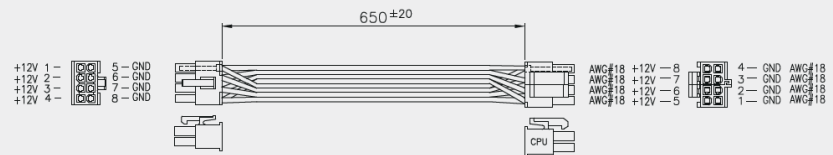
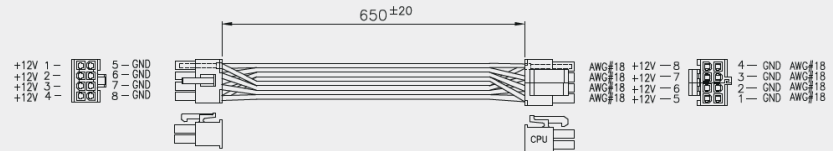
Cable harness GPS-850LB A – part 1

24Pin, 550 mm

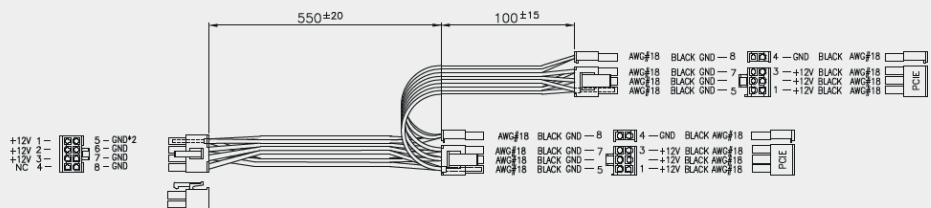
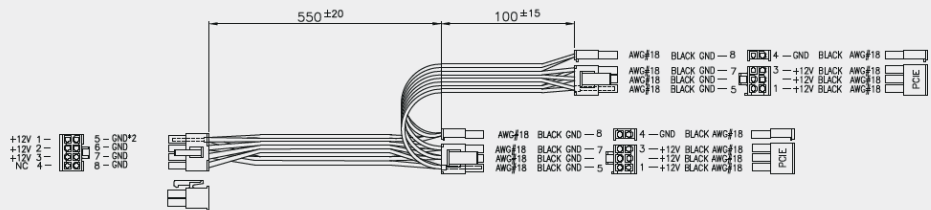
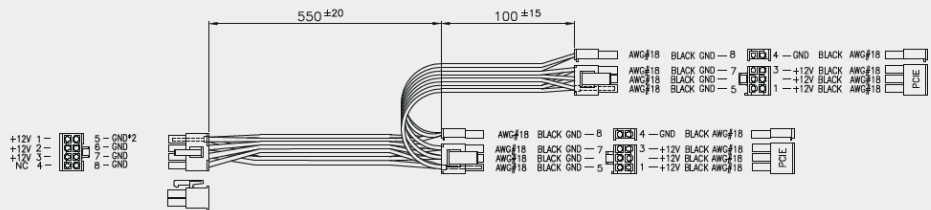


| MB+4 | | | | | | | |
|------|-------|----------|-------|----|-------|----------|-------|
| 1 | +3.3V | AWG#18 | BLACK | 13 | +3.3V | AWG#18 | BLACK |
| 2 | +3.3V | AWG#18 | BLACK | 14 | -12V | AWG#20 | BLACK |
| 3 | GND | AWG#18 | BLACK | 15 | GND | AWG#18 | BLACK |
| 4 | +5V | AWG#18 | BLACK | 16 | PS-ON | AWG#24 | BLACK |
| 5 | GND | AWG#18 | BLACK | 17 | GND | AWG#18 | BLACK |
| 6 | +5V | AWG#18 | BLACK | 18 | GND | AWG#18*2 | BLACK |
| 7 | GND | AWG#18 | BLACK | 19 | GND | AWG#18*2 | BLACK |
| 8 | PG | AWG#24 | BLACK | 20 | | | |
| 9 | +5VSB | AWG#18 | BLACK | 21 | +5V | AWG#18 | BLACK |
| 10 | +12V | AWG#18*2 | BLACK | 22 | +5V | AWG#18 | BLACK |
| | +12V | AWG#18 | BLACK | | +5V | AWG#18 | BLACK |
| 11 | +12V | AWG#24 | BLACK | 23 | +5V | AWG#24 | BLACK |
| 12 | +3.3V | AWG#18 | BLACK | 24 | GND | AWG#18 | BLACK |
| | | | | | GND | AWG#24 | BLACK |

CPU, 650 mm

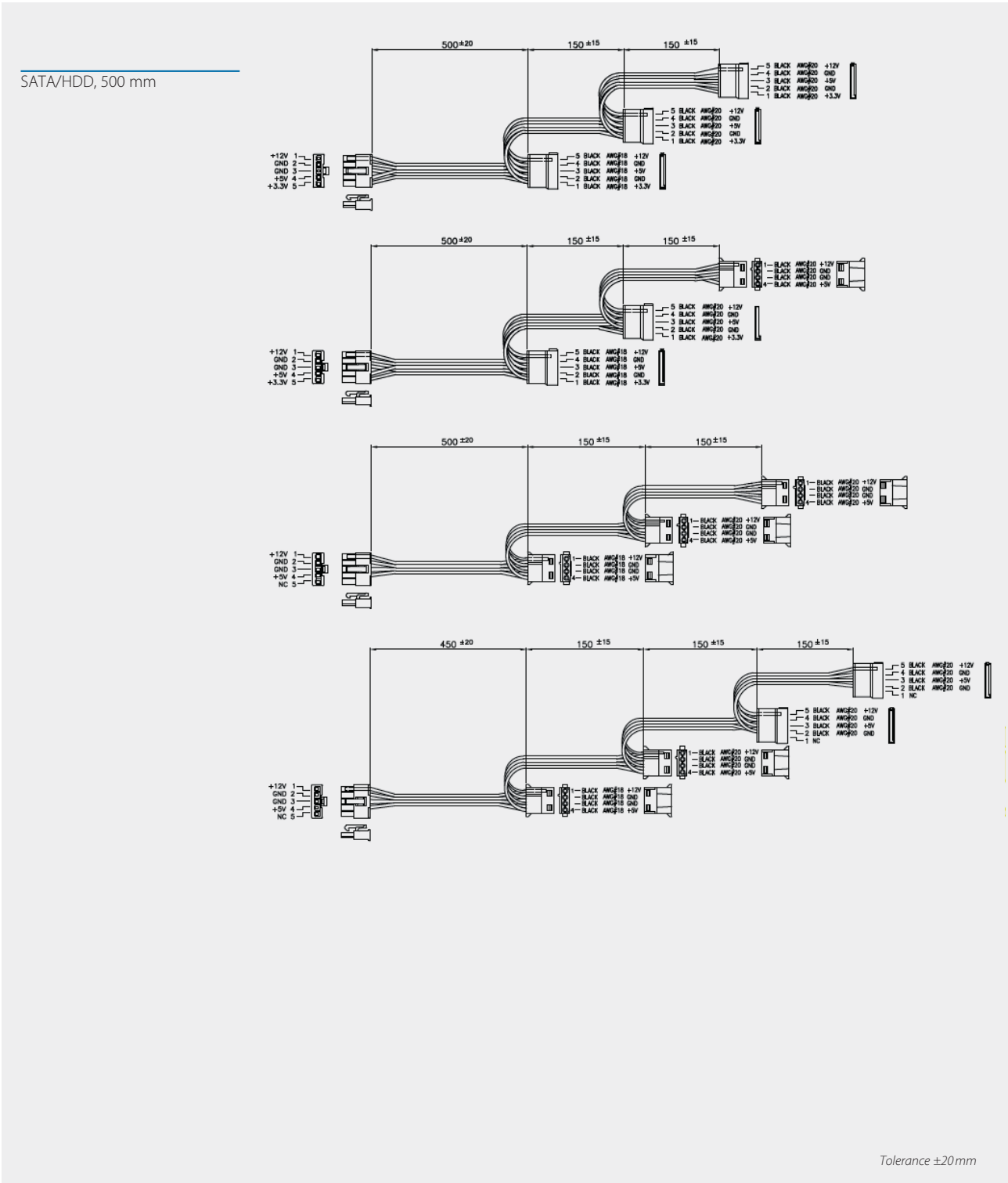


PCI-E, 550 mm



Tolerance ±20 mm

Cable harness GPS-850LB A – part 2



AC input

Specification is subject to change without notice. Errors excepted. Status as at: 18.01.2024

Scope of delivery

- 1x Power Supply GPS-850BL A
- 1x Modular DC cable harness
- 1x AC cable (EU) / 1800mm