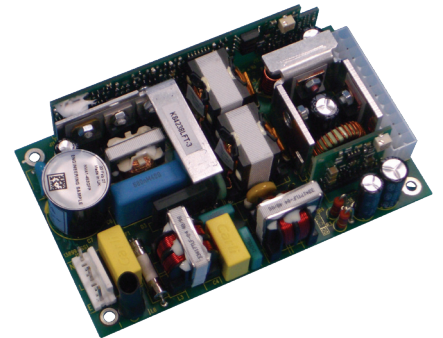




100W Configurable ac-dc power supply.

| Features | Benefits |
|---------------------------|--------------------------------------|
| • High Efficiency | Minimises heat in system |
| • Low Profile | Fits 1U Applications |
| • Single output connector | Simple and error free connection |
| • 4 outputs | Eliminates additional power supplies |
| • 3 Year Warranty | Low cost of ownership |



| Input | | | |
|-----------------------|--|-----------------|--|
| Input Voltage | 90-264Vac | Input Frequency | 45 - 63Hz (440Hz with reduced PFC - consult sales office) |
| Input Harmonics | EN61000-3-2 compliant | Inrush Current | <40A at 25°C and 264Vac (cold start) |
| Input Fuse | Time delay (not user accessible) | | |
| Earth Leakage Current | 123µA at 120Vac (60Hz), 257µA max at 240Vac (60Hz) | | |

| Isolation | | | |
|-----------------|------------------|-----------------|--------|
| Input to Output | 4.3kVdc | | |
| Input to Earth | 1.5kVac, 2.3kVdc | Output to Earth | 200Vdc |

| QUICK SELECTOR - example configurations | | | | | Additional variants available, see "How to Create a Product Description" |
|---|----------|-----------|----------|-----------|--|
| Model | Ch1 | Ch2 | Ch3 | Ch4 | |
| NVA1-453TT | 5V / 10A | 3.3V / 8A | 12V / 3A | -12V / 1A | |
| NVA1-453FF | 5V / 10A | 3.3V / 8A | 15V / 3A | -15V / 1A | |
| NVA1-4G5TT | 24V / 4A | 5V / 5A | 12V / 3A | -12V / 1A | |
| NVA1-4G5FF | 24V / 4A | 5V / 5A | 15V / 3A | -15V / 1A | |

How To Create A Product Description

Confirm availability of created product with TDK-Lambda

Number of outputs

Letter / number from 'Available Ch1 - Ch4 Outputs' table to represent output voltage

NVA1-

#o/p

Ch1

Ch2

Ch3

Ch4₁

Case Option

Blank no case
-C U chassis + cover
-U U chassis

1. For positive output channel 4, follow chosen letter by 'P'. For example, TP channel 4 = +12V / 1A.

Available Outputs

Other output options are available, please contact sales office with your requirements

| Channel 1 | Adjustment Range | Channel 2 | Adjustment Range | Channel 3 | Adjustment Range | Channel 4 ₂ | Adjustment Range |
|--------------------------------|------------------|--------------------|------------------|---|-------------------------|--|------------------|
| 5 5V / 10A ₁ | 4.75 - 5.25V | 3 3.3V / 8A | 3.14 - 3.46V | T 12V / 3A F 15V / 3A G 24V / 1.5A | Fixed Fixed Fixed | T -12V / 1A ₃ F -15V / 1A ₃ | Fixed Fixed |
| G 24V / 4A | 23 - 25V | 5 5V / 5A | 3.3 - 5.5V | T 12V / 3A F 15V / 3A | Fixed Fixed | T -12V / 1A F -15V / 1A | Fixed Fixed |

1. Total power of 5V ch1 + 3.3V ch2 must not exceed 60W 2. Follow characters in red by 'P' for positive output channel 4. 3. If channel 3 = 24V (G), channel 4 must be 'P'

Output Specification

| | | |
|-----------------------------|-----------|---|
| Turn on time | 1.5s max | at 90Vac and 100% rated output power |
| Efficiency | up to 90% | configuration dependent |
| Hold up | 16ms min | at 90Vac |
| Ripple and Noise | <1% | (or 50mV if higher) pk-pk, using EIAJ test method & 20MHz bandwidth 1.5% on channel 4 for 5V channel 1 configs. |
| Voltage Accuracy | ±1% | ±5% for Channels 3 & 4 (with Ch1 set to nominal voltage) |
| Remote Sense | Yes | Channels 1 & 2. Max 0.5V total line drop |
| Minimum Load | No | on any output. (For models with 12V or 15V ch3, a load ≥1A is required on ch3 to keep it in full regulation when Ch1 + Ch2 power ≥50W) |
| Total Regulation | 1% | Including Line (for 90-264Vac input change), Load (for 0-100% load change) and Cross (for 0-100% load change on any other output) regulation. (10% for channels 3 & 4) |
| Transient Response | <4% | of set voltage for 50% load change (in 50µs within the range 25-100% load) |
| Recovery | 500µs | for recovery to 1% of set voltage |
| Over Voltage Protection | Yes | See Application Notes for details |
| Short Circuit Protection | Yes | |
| Over Temperature Protection | Yes | |
| Total Output Power | 100W | |
| Ch1 Good Signal | Optional | Contact sales office for details |

Environment

| | | |
|-------------------|--|--|
| Temperature | 0°C to 50°C operational, -40°C to 85°C storage (max 12 months). Full load, with 2m/s air blown from input to output (approximately 10CFM) | |
| Convection Rating | 50W at 50°C. Max 50% output current on any output. See Application Notes for details | |
| Derating | 50°C to 70°C derate each output by 2.5% per °C | |
| Low Temp Startup | -20°C | |
| Humidity | 5 - 95% RH non condensing | |
| Shock | ±3 x 30g shocks in each plane, total 18 shocks 30g shock = 11ms (+/-0.5msec), half sine Conforms to EN60068-2-27, EN60068-2-47, IEC68-2-27, IEC68-2-47, JIS C0041-1987. Conforms to MIL-STD-810E/F, Method 516.5, Pro I, IV, VI | |
| Vibration | Single axis 10 - 500 Hz at 2g (sweep and endurance at resonance) in all 3 planes Conforms to EN60068-2-6, IEC68-2-6 Conforms to MIL-STD-810E, Method 514.4, Pro I, Cat 1,9 | |
| Altitude | -200 to 3000 metres operational (-200 to 5000m storage/transportation) | |
| Pollution | Degree 2, Material group IIIb | |

Immunity EN61000-6-2:2005

Criteria

| | | | | |
|---|--------------|---------|--|---|
| Electrostatic Discharge | EN61000-4-2 | Level 4 | Air discharge 15kV, Contact discharge 8kV. Not applicable to open frame units | A |
| Electromagnetic Field | EN61000-4-3 | Level 3 | 12V/m | A |
| Fast / Burst Transient | EN61000-4-4 | Level 3 | ac input tested to 2.2kV dc output tested to 1.1kV | A |
| Surge Immunity | EN61000-4-5 | Level 3 | Common mode - 2.2kV, Differential - 1.1kV | A |
| Conducted RF Immunity | EN61000-4-6 | Level 3 | 12V | A |
| Power Frequency Magnetic Field | EN61000-4-8 | Level 4 | 30A/m | A |
| Voltage Dips, Variations, Interruptions | EN61000-4-11 | Class 3 | Criteria B for 5 sec interruption and dips to 40% for 5 cycles below 220Vac nominal input [criteria A if less than 60% load] | A |

Emissions EN61000-6-3:2007

| | | |
|-------------------------|------------------|--|
| Radiated Electric Field | EN55011, EN55032 | (as per CISPR.11/22) Class B, FCC47 part 15 subpart B see application note for details. |
| Conducted Emissions | EN55011, EN55032 | (as per CISPR.11/22) Class B, FCC47 part 15 subpart B |
| Conducted Harmonics | EN61000-3-2 | Class A |
| Flicker | EN61000-3-3 | Compliant - d _{max} only |

Safety Approvals

IEC/EN 60950-1, UL60950-1 / CSA 22.2 No 60950-1

CE Mark (EN60950-1)

CB certificate and Report available on request

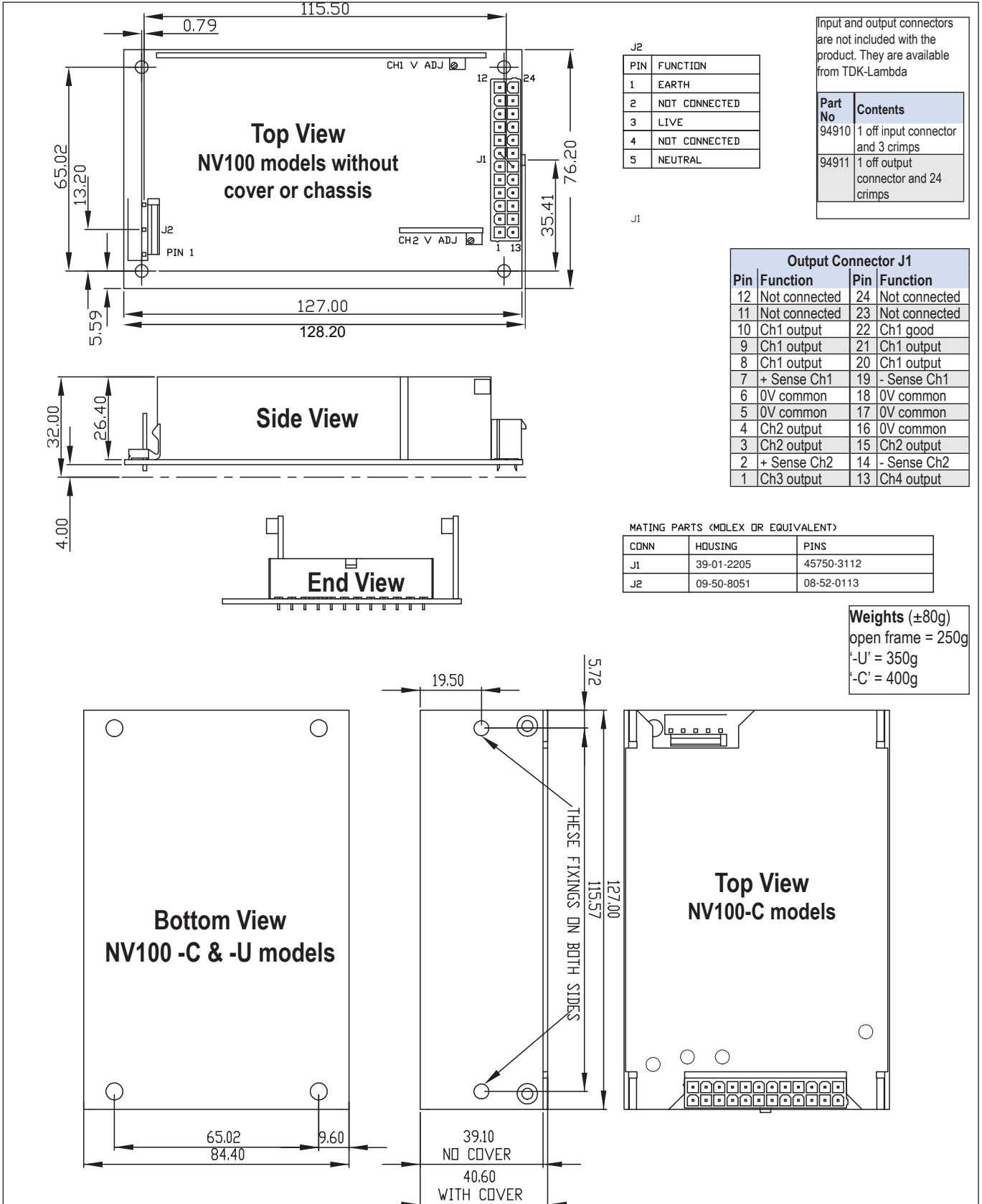
Notes

File E135494

LV Directive 2006/95/EC

Please check with technical sales for status of approvals

Outline & Connection Drawings





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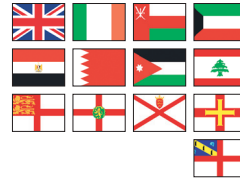
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