

15-90W High Reliability Linear Power Supplies

Features

- ◆ Single and Dual Outputs
- ◆ Excellent Line & Load Regulation
- ◆ Remote Programming and Current Share (NNS)
- ◆ Front Panel Voltage Taps
- ◆ Thermal Protection
- ◆ Five Year Warranty
- ◆ Low Output Ripple
- ◆ Fully Featured
- ◆ Operation from -20 to +71°C Ambient



Key Market Segments & Applications



| Specifications | | NNS15 | NNS30 | NNS50 | NND15 | NND30 |
|---------------------------|-----|---|------------|------------|--------------|--------------|
| AC Input | VAC | 85~115, 98~132, 170~230, 195~265VAC (Front panel selectable) | | | | |
| Input Frequency | Hz | 47~440Hz | | | | |
| EMI | - | FCC Class B, VDE0871 Level B | | | | |
| Output Adjustment | - | ±10% | | | | |
| Remote Sense | - | Yes | Yes | Yes | None | |
| Remote Programming | - | 1000 Ohm/Volt | | | None | |
| Parallel Operation | - | Via PC Terminal | | | None | |
| Output Indicator | - | LED = On | | | | |
| Line Regulation | % | 0.01% | | | | |
| Load Regulation | % | 0.03% | | | | |
| Cross Regulation | % | Not applicable | | | 0.03% | |
| Ripple and Noise | mV | 1mV rms, 3mV peak to peak | | | | |
| Overcurrent Protection | % | 105 to 130% | | | | |
| Overvoltage Protection | VDC | 5V: 6 ~ 7.2V, 12V: 14.5 ~ 17.2V, 15V: 18.1 ~ 21.5V, 24V: 29 ~ 34.3V | | | | |
| Cooling | - | Convection | | | | |
| Operating Temp. Range | °C | -20°C: 60%, 0 to 50°C: 100%, 60°C: 60%, 71°C: 40% | | | | |
| Storage Temperature | °C | -40 to +85°C | | | | |
| Temperature coefficient | % | ±0.02% per °C | | | | |
| Humidity (non condensing) | %RH | Operating: 20 - 95% RH, Non operating: 10 - 95% RH | | | | |
| Vibration | - | 10-55Hz Amplitude (sweep for 1 min), <2G X, Y, Z 1 hour each | | | | |
| Shock | - | <20G | | | | |
| Safety Agency Approval | - | UL60950-1, CSA60950-1, EN60950-1, CE Mark | | | | |
| Withstand Voltage | - | Input to Output: 3.75kVAC, Input to Chassis: 2.5kVAC for 1 minute | | | | |
| Isolation Resistance | - | >100M at 500VDC @ 25C & 70%RH for 1 minute | | | | |
| Weight | g | 1750 | 2930 | 4200 | 1750 | 2750 |
| Size WxHxD | mm | 60x124x124 | 80x124x178 | 97x113x200 | 60x113.5x150 | 80x113.5x164 |
| Warranty | yrs | Five years | | | | |

Note: See Installation Manual for full details, test methods of parameters and application notes

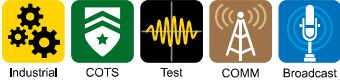
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Key Market Segments & Applications



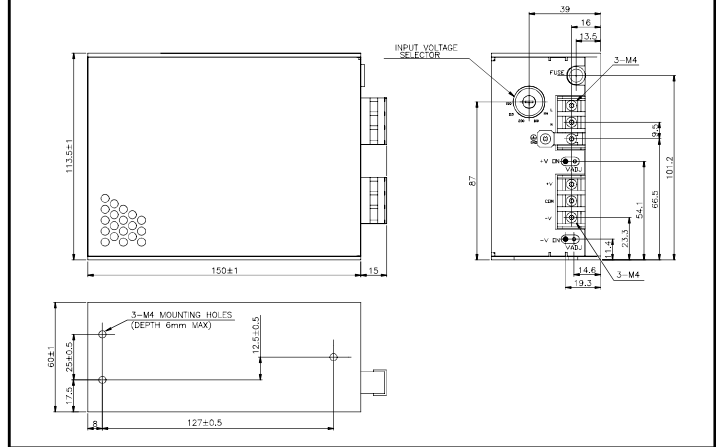
| Specifications | | NNS15 | NNS30 | NNS50 | NND15 | NND30 |
|---------------------------|-----|---|------------|------------|--------------|--------------|
| AC Input | VAC | 85~115, 98~132, 170~230, 195~265VAC (Front panel selectable) | | | | |
| Input Frequency | Hz | 47~440Hz | | | | |
| EMI | - | FCC Class B, VDE0871 Level B | | | | |
| Output Adjustment | - | ±10% | | | | |
| Remote Sense | - | Yes | Yes | Yes | None | |
| Remote Programming | - | 1000 Ohm/Volt | | | None | |
| Parallel Operation | - | Via PC Terminal | | | None | |
| Output Indicator | - | LED = On | | | | |
| Line Regulation | % | 0.01% | | | | |
| Load Regulation | % | 0.03% | | | | |
| Cross Regulation | % | Not applicable | | | 0.03% | |
| Ripple and Noise | mV | 1mV rms, 3mV peak to peak | | | | |
| Overcurrent Protection | % | 105 to 130% | | | | |
| Overvoltage Protection | VDC | 5V: 6 ~ 7.2V, 12V: 14.5 ~ 17.2V, 15V: 18.1 ~ 21.5V, 24V: 29 ~ 34.3V | | | | |
| Cooling | - | Convection | | | | |
| Operating Temp. Range | °C | -20°C: 60%, 0 to 50°C: 100%, 60°C: 60%, 71°C: 40% | | | | |
| Storage Temperature | °C | -40 to +85°C | | | | |
| Temperature coefficient | % | ±0.02% per °C | | | | |
| Humidity (non condensing) | %RH | Operating: 20 - 95% RH, Non operating: 10 - 95% RH | | | | |
| Vibration | - | 10-55Hz Amplitude (sweep for 1 min), <2G X, Y, Z 1 hour each | | | | |
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| Withstand Voltage | - | Input to Output: 3.75kVAC, Input to Chassis: 2.5kVAC for 1 minute | | | | |
| Isolation Resistance | - | >100M at 500VDC @ 25C & 70%RH for 1 minute | | | | |
| Weight | g | 1750 | 2930 | 4200 | 1750 | 2750 |
| Size WxHxD | mm | 60x124x124 | 80x124x178 | 97x113x200 | 60x113.5x150 | 80x113.5x164 |
| Warranty | yrs | Five years | | | | |

Note: See Installation Manual for full details, test methods of parameters and application notes

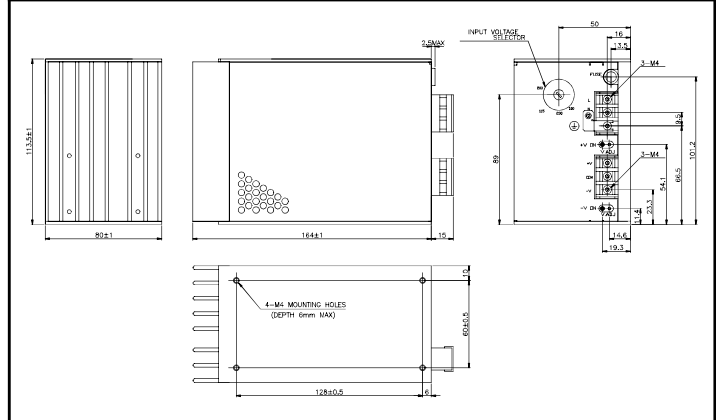
Model Selector

| | Model | O/P | O/P(V) | Max Cur.(A) | Max Pwr(W) | Eff. (%) |
|---------------|------------|-----|--------|-------------|------------|----------|
| Single Output | NNS155 | V1 | 5 | 3.0 | 15.0 | 35 |
| | NNS305 | V1 | 5 | 6.0 | 30.0 | 35 |
| | NNS505 | V1 | 5 | 10.0 | 50.0 | 42 |
| | NNS1512 | V1 | 12 | 1.7 | 20.4 | 45 |
| | NNS3012 | V1 | 12 | 4.0 | 48.0 | 45 |
| | NNS5012 | V1 | 12 | 6.5 | 78.0 | 51 |
| | NNS1515 | V1 | 15 | 1.4 | 21.0 | 46 |
| | NNS3015 | V1 | 15 | 3.4 | 51.0 | 46 |
| | NNS5015 | V1 | 15 | 5.5 | 82.5 | 53 |
| | NNS1524 | V1 | 24 | 0.9 | 21.6 | 50 |
| Dual Output | NND15-1212 | V1 | +12 | 0.75 | 18.0 | 45 |
| | | V2 | -12 | 0.75 | | |
| | NND30-1212 | V1 | +12 | 1.6 | 38.4 | 45 |
| | | V2 | -12 | 1.6 | | |
| | NND15-1515 | V1 | +15 | 0.6 | 18.0 | 45 |
| | | V2 | -15 | 0.6 | | |
| | NND30-1515 | V1 | +15 | 1.3 | 39.0 | 45 |
| | | V2 | -15 | 1.3 | | |

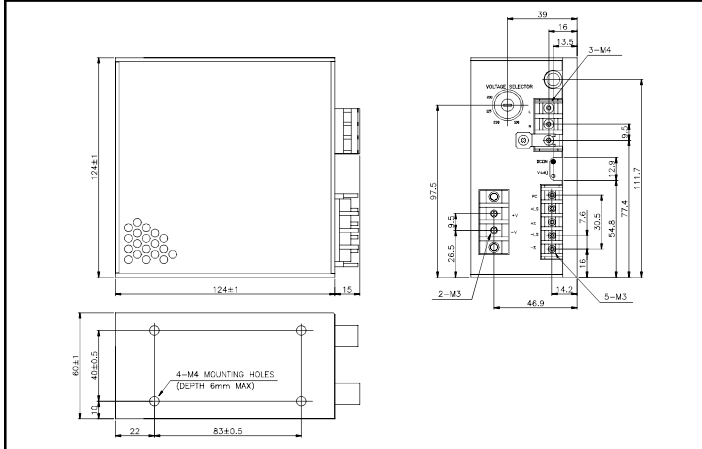
NND15 Outline Drawing



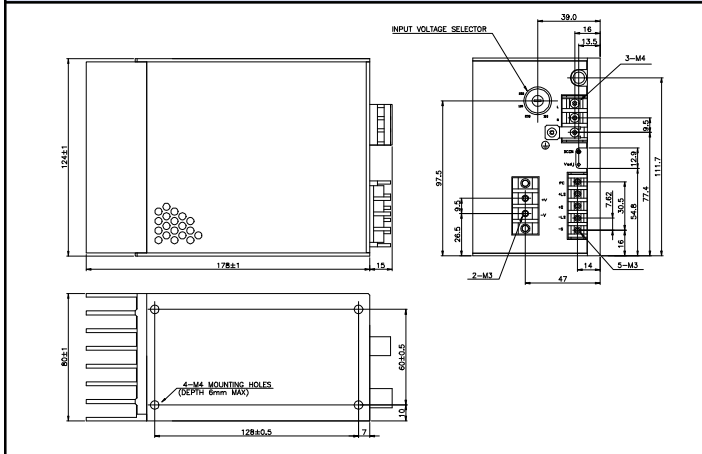
NND30 Outline Drawing



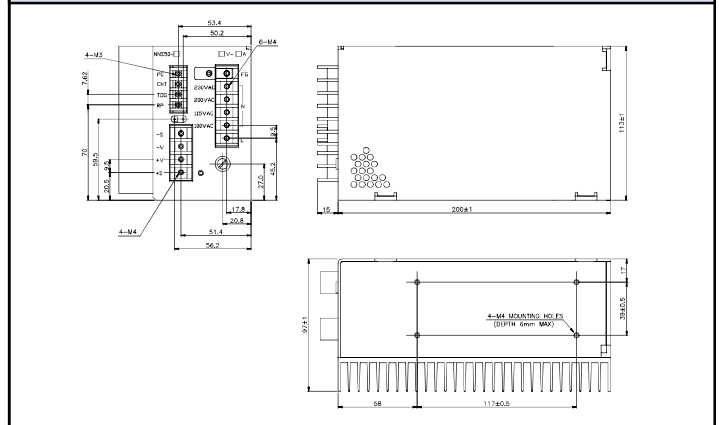
NNS15 Outline Drawing



NNS30 Outline Drawing



NNS50 Outline Drawing



Other Industrial Products

- HWS 15 to 1500W Single output, universal input switching
- ZWS 5 to 150W single output, universal input (switching)
- VSB & VSC 10 to 150W single output, 115VAC input (switching)

For Additional Information, please visit
<https://product.tdk.com/info/en/products/power/index.html>

