



Open Frame (XLO Models)

N2Power XL65 AC-DC Multi Output Series High Efficiency Power Supplies

HIGHLIGHTS

- 65 W AC-DC
- High efficiency (up to 93.5%)
- Low standby power consumption (≤ 0.15 W)
- Wide input voltage range 85 to 264 VAC
- Supports DC-DC input from 120 to 370 VDC
- Convection cooled up to full power—no fan needed
- Built-in EMI filter
- Adjustable output voltage ($\pm 10\%$)
- Open frame dimensions 2" x 3.50" x 1.04"
- 3000VAC input to output reinforced insulation
- Protection Class I or Class II
- Low leakage current (< 75 μ A)
- Operating altitude up to 5,000 meters
- 3-year warranty



U-Frame (XLU Models)



DIN Rail (XLD Models)



Enclosed (XLE Models)

PACKAGING CHOICES

The XL65 AC-DC Series Multi Output is not only one of the smallest 65 Watt power supplies on the market, it is also available in a choice of four different packages to suit diverse application requirements; XLO Open-Frame models, XLU U-Frame models, XLE Enclosed models and XLD DIN Rail models. Despite its small size, the full 65 W output power is delivered with convection cooling only – no need for a fan

CONNECTOR OPTIONS

Choose from JST, Molex or Terminal Block connectors:



APPLICATIONS

The excellent operating characteristics of the XL65 Series plus its wide range of international compliance certifications make it the ideal choice for use in diverse applications that include personal computers, wireless networking, measurement equipment, telecom/datacom, industrial control systems and automation.

A POWER SUPPLY DESIGN LEADER

N2Power continues to lead the power density race with its small, high efficiency XL65 Series AC-DC power supplies. Our state-of-the-art technology yields a very small footprint, reduces wasted power, and offers a high power density in the 65-watt range. This unique design means reduced energy costs, a greater return on your investment, higher reliability, and longer product life.

Contact us regarding custom and modified standard supplies for unique applications.



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N2Power XL65 AC-DC Multi Output Series High Efficiency Power Supplies

Model Number	Part Number	Output 1			Output 2			Output 3		Regulation	Ripple & Noise (P&P)
		Voltage VDC	Current (Nominal) A	Current (MAX) A	Voltage VDC	Current (Nominal) A	Current (MAX) A	Voltage VDC	Current (MAX) A		
XLO65-05 N2C	400574-67-7	5	6	10	3.3	6	8			V1, ±0.5%, V2, ±1.5%	V1, V2 100 mV p-p
XLU65-05 N2C	400573-67-7										
XLE65-05 N2C	400572-67-7										
XLD65-05 N2C	400571-67-7										
XLO65-05 N2D	400574-51-1										
XLU65-05 N2D	400573-51-1										
XLE65-05 N2D	400572-51-1										
XLD65-05 N2D	400571-51-1										
XLO65-12 N3C	400574-71-9										
XLU65-12 N3C	400573-71-9										
XLE65-12 N3C	400572-71-9										
XLD65-12 N3C	400571-71-9										
XLO65-12 N3D	400574-55-2	12	3	5.42	5	6	8			V1, ±0.5%, V2, ±1.5%	V1, 120 mV p-p, V2, 100 mV p-p
XLU65-12 N3D	400573-55-2										
XLE65-12 N3D	400572-55-2										
XLD65-12 N3D	400571-55-2										
XLO65-12 N2C	400574-72-7										
XLU65-12 N2C	400573-72-7										
XLE65-12 N2C	400572-72-7										
XLD65-12 N2C	400571-72-7										
XLO65-12 N2D	400574-56-0										
XLU65-12 N2D	400573-56-0										
XLE65-12 N2D	400572-56-0										
XLD65-12 N2D	400571-56-0										
XLO65-15 N3C	400574-77-6	15	2.4	4.34	5	6	8			V1, ±0.5%, V2, ±1.5%	V1, 150 mV p-p, V2, 100 mV p-p
XLU65-15 N3C	400573-77-6										
XLE65-15 N3C	400572-77-6										
XLD65-15 N3C	400571-77-6										
XLO65-15 N3D	400574-61-0										
XLU65-15 N3D	400573-61-0										
XLE65-15 N3D	400572-61-0										
XLD65-15 N3D	400571-61-0										
XLO65-24 N3C	400574-79-1										
XLU65-24 N3C	400573-79-1										
XLE65-24 N3C	400572-79-1										
XLD65-24 N3C	400571-79-1										
XLO65-24 N3D	400574-63-6	24	1.5	2.71	5	6	8			V1, ±0.5%, V2, ±1.5%	V1, 240 mV p-p, V2, 100 mV p-p
XLU65-24 N3D	400573-63-6										
XLE65-24 N3D	400572-63-6										
XLD65-24 N3D	400571-63-6										
XLO65-28 N3C	400574-82-4										
XLU65-28 N3C	400573-82-4										
XLE65-28 N3C	400572-82-4										
XLD65-28 N3C	400571-82-4										
XLO65-28 N3D	400574-66-9										
XLU65-28 N3D	400573-66-9										
XLE65-28 N3D	400572-66-9										
XLD65-28 N3D	400571-66-9										
XLO65-05 N2MP3C	400574-68-5	5	6	10	3.3	6	8	-5	0.6	V1, ±0.5%, V2, ±1.5%	V1, V2, V3, 100 mV p-p
XLU65-05 N2MP3C	400573-68-5										
XLE65-05 N2MP3C	400572-68-5										
XLD65-05 N2MP3C	400571-68-5										
XLO65-05 N2MP3D	400574-52-9										
XLU65-05 N2MP3D	400573-52-9										
XLE65-05 N2MP3D	400572-52-9										
XLD65-05 N2MP3D	400571-52-9										
XLO65-05 N2P6C	400574-69-3										
XLU65-05 N2P6C	400573-69-3										
XLE65-05 N2P6C	400572-69-3										
XLD65-05 N2P6C	400571-69-3										
XLO65-05 N2P6D	400574-53-7	5	6	10	3.3	6	8	12	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, V2, 100 mV p-p, V3, 120 mV p-p
XLU65-05 N2P6D	400573-53-7										
XLE65-05 N2P6D	400572-53-7										
XLD65-05 N2P6D	400571-53-7										
XLO65-05 N2MP6C	400574-70-1										
XLU65-05 N2MP6C	400573-70-1										
XLE65-05 N2MP6C	400572-70-1										
XLD65-05 N2MP6C	400571-70-1										
XLO65-05 N2MP6D	400574-54-5										
XLU65-05 N2MP6D	400573-54-5										
XLE65-05 N2MP6D	400572-54-5										
XLD65-05 N2MP6D	400571-54-5										

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N2Power XL65 AC-DC Multi Output Series

High Efficiency Power Supplies

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Model Number	Part Number	Output 1			Output 2			Output 3		Regulation	Ripple & Noise (P&P)
		Voltage VDC	Current (Nominal) A	Current (MAX) A	Voltage VDC	Current (Nominal) A	Current (MAX) A	Voltage VDC	Current (MAX) A		
XLO65-12 N3MP3C	400574-73-4	12	3	5.42	5	6	8	-5	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, 120 mV p-p, V2, V3, 100 mV p-p
XLU65-12 N3MP3C	400573-73-4										
XLE65-12 N3MP3C	400572-73-4										
XLD65-12 N3MP3C	400571-73-4										
XLO65-12 N3MP3D	400574-57-8										
XLU65-12 N3MP3D	400573-57-8										
XLE65-12 N3MP3D	400572-57-8										
XLD65-12 N3MP3D	400571-57-8										
XLO65-12 N3MP6C	400574-74-2	12	3	5.42	5	6	8	-12	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, V3, 120 mV p-p, V2, 100 mV p-p
XLU65-12 N3MP6C	400573-74-2										
XLE65-12 N3MP6C	400572-74-2										
XLD65-12 N3MP6C	400571-74-2										
XLO65-12 N3MP6D	400574-58-6										
XLU65-12 N3MP6D	400573-58-6										
XLE65-12 N3MP6D	400572-58-6										
XLD65-12 N3MP6D	400571-58-6										
XLO65-12 N2P3C	400574-75-0	12	3	5.42	3.3	6	8	5	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, 120 mV p-p, V2, V3, 100 mV p-p
XLU65-12 N2P3C	400573-75-0										
XLE65-12 N2P3C	400572-75-0										
XLD65-12 N2P3C	400571-75-0										
XLO65-12 N2P3D	400574-59-4										
XLU65-12 N2P3D	400573-59-4										
XLE65-12 N2P3D	400572-59-4										
XLD65-12 N2P3D	400571-59-4										
XLO65-12 N2MP6C	400574-76-8	12	3	5.42	3.3	6	8	-12	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, V3, 120 mV p-p, V2, 100 mV p-p
XLU65-12 N2MP6C	400573-76-8										
XLE65-12 N2MP6C	400572-76-8										
XLD65-12 N2MP6C	400571-76-8										
XLO65-12 N2MP6D	400574-60-2										
XLU65-12 N2MP6D	400573-60-2										
XLE65-12 N2MP6D	400572-60-2										
XLD65-12 N2MP6D	400571-60-2										
XLO65-15 N3MP7C	400574-78-3	15	2.4	4.34	5	6	8	-15	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, V3, 150 mV p-p, V2, 100m V p-p
XLU65-15 N3MP7C	400573-78-3										
XLE65-15 N3MP7C	400572-78-3										
XLD65-15 N3MP7C	400571-78-3										
XLO65-15 N3MP7D	400574-62-8										
XLU65-15 N3MP7D	400573-62-8										
XLE65-15 N3MP7D	400572-62-8										
XLD65-15 N3MP7D	400571-62-8										
XLO65-24 N3P6C	400574-80-2	24	1.5	2.71	5	6	8	12	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, 240 mV p-p, V2, 100 mV p-p, V3 120 mV p-p
XLU65-24 N3P6C	400573-80-2										
XLE65-24 N3P6C	400572-80-2										
XLD65-24 N3P6C	400571-80-2										
XLO65-24 N3P6D	400574-64-3										
XLU65-24 N3P6D	400573-64-3										
XLE65-24 N3P6D	400572-64-3										
XLD65-24 N3P6D	400571-64-3										
XLO65-24 N3MP6C	400574-81-9	24	1.5	2.71	5	6	8	-12	0.6	V1, ±0.5%, V2, ±1.5%, V3, ±0.7%	V1, 240 mV p-p, V2, 100 mV p-p, V3 120 mV p-p
XLU65-24 N3MP6C	400573-81-9										
XLE65-24 N3MP6C	400572-81-9										
XLD65-24 N3MP6C	400571-81-9										
XLO65-24 N3MP6D	400574-65-1										
XLU65-24 N3MP6D	400573-65-1										
XLE65-24 N3MP6D	400572-65-1										
XLD65-24 N3MP6D	400571-65-1										

Note: If you can't find your preferred output voltage listed on the table above, please contact a sales representative. We can easily modify standard PSUs to meet client-specific voltage requirements.

Contact us regarding custom and modified standard supplies for unique applications. For complete specifications on all models, please visit our website at N2Power.com



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N2Power XL65 AC-DC Multi Output Series High Efficiency Power Supplies

Model Numbers Comply with Protection Class 1 and Class 2

Compliance * Safety:

IEC/ EN/ ANSI/AAMI ES 60601-1 (UL:E360199)
IEC/ EN/ UL 60950-1 (CB:UL/Demko)

EMC: EMI Conduction & Radiation

EN55032 & FCC Part 15
(Conducted: Class B; Radiated: Class A)

Other certifications:

EN 61000-3-2, EN 61000-3-3, EN55024, EN60601-1-2, EN 61000-4-2,
EN61000-4-3, EN61000-4-4, EN 61000-4-5, EN6100-4-6, EN61000-4-8,
EN 61000-11, EN61000-4-18

Notes:

1. All parameters NOT specifically mentioned are measured at 230VAC input, rated load and 25°C ambient temperature.
2. The power supply is considered a component which will be installed into a unit of equipment. The equipment itself must also be certified as EMC compliant.

CONNECTOR CONNECTIONS

CON1 – Input Connector

Pin Number	AC Input	DC Input
		Dual Output C, Dual Output D Triple Output C, Triple Output D
Pin 1	Line	DC+
Pin 3	Neutral	DC-

CON2 – Output Connector

Pin 1	Vout3
Pin 2,3	Com
Pin 4,5	Vout2
Pin 6	Vout1

*Either one of four screws holes of Chassis type can be considered as PE connection for CLASS I application.

CONNECTOR OPTIONS

Blank:	JST Type
	Mates with housing
	CON1: VHR-3N
	CON2: VHR-6N
	Crimp terminals
	CON1: SVH-21T-P1.1
	CON2: SVH-21T-P1.1

-M	Molex Type
	Mates with housing
	CON1: 09-50-8031
	CON2: 09-50-8061
	Crimp terminals
	CON1: SD-2478
	CON2: SD-2478

-T	Terminal Block
	Screw locked torque
	MAX 2Kgf.cm/0.2N.m
	Wire dimension range
	26 ~ 16AWG

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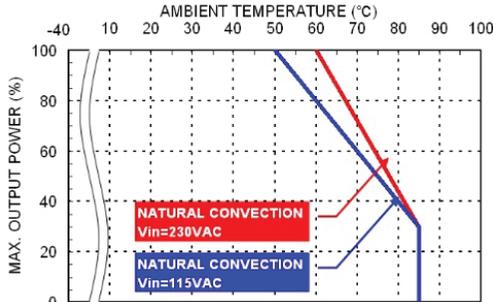


INPUT SPECIFICATIONS	
Nominal Input Voltage:	85 - 264 VAC 120 - 370 VAC
Input Frequency Range:	47 - 63 Hz
Input Current:	1.65 A @ 100 VAC 0.95 A @ 240 VAC
Safety Isolation:	3000 VAC input to output 2500 VAC input to ground
Inrush Current:	60 A @ 230 VAC, 25°C
Leakage Current:	75 µA @ 264 VAC 33 µA @ 115 VAC
OUTPUT SPECIFICATIONS	
Total Output:	65 W
Output Voltages:	5 V to 28 V
Voltage Tolerance:	±1.0%
Line Regulation:	±0.2% (2)
Hold-up Time:	Minimum 16 ms at (115 VAC input, full power load)
Efficiency:	Up to 93.5%
Minimum Load:	0.5 W
PROTECTION	
Over Voltage Protection:	Latch mode at 125-140% of V _{OUT}
Over Power Protection:	Hiccup mode at 145% of I _{OUT}
Short Circuit Protection:	Continuous protection, with auto recovery
OPERATING SPECIFICATIONS	
Operating Temperature:	-40 to +85°C
Storage Temperature:	-40 to +85°C
Relative Humidity:	5% to 95% (non-cond.)
MTBF (full load at 25°C):	1.059 x 10 ⁶

†See product specification Δsome models

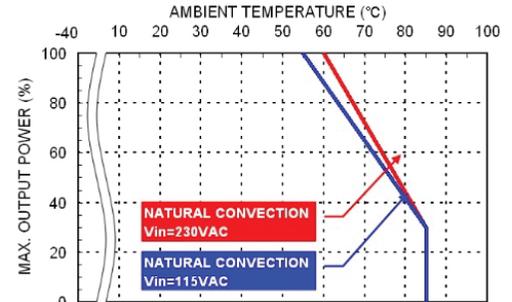
* See MTBF Report for additional temperature values
XLO models are Open Frame, XLU models are U-Frame,
XLE models are Enclosed and XLD models are DIN Rail.

N2Power XL65 AC-DC Multi Output Series High Efficiency Power Supplies



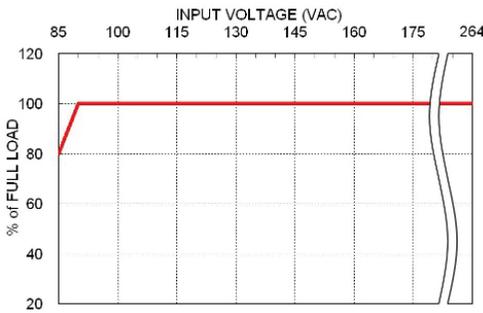
Derating Curve vs. Ambient Temperature

Dual Output Models



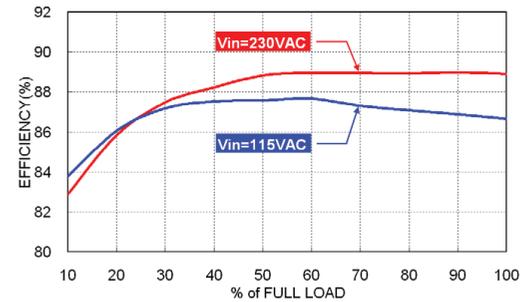
Derating Curve vs. Ambient Temperature

Triple Output Models



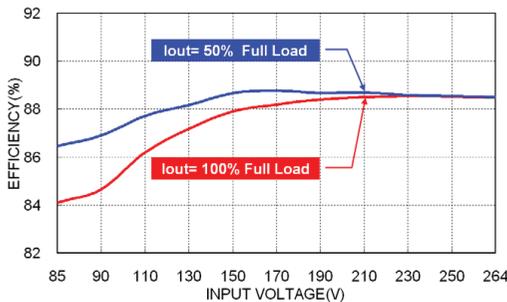
Derating Curve vs. Input Voltage

Dual Output Models



Efficiency vs. Output Load

XL65-12N3MP6D Models



Efficiency vs. Input Voltage

XL65-12N3MP6D Models

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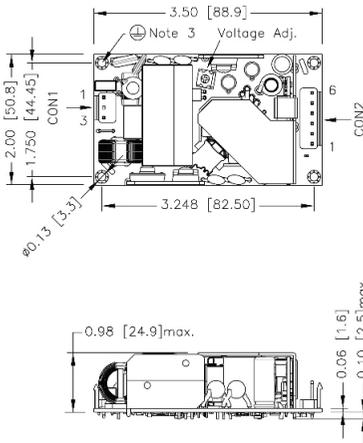
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N2Power XL65 AC-DC Multi Output Series

High Efficiency Power Supplies

Open type XLO



FRONT VIEW

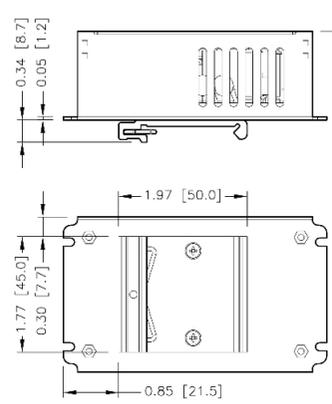
1.All dimensions in inch[mm]

Tolerance:x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]

2.The screw locked torque: MAX 5.0kgf-cm/0.49N-m

3.The screws holes can be considered as PE connection for CLASS I application.

Din rail type XLD



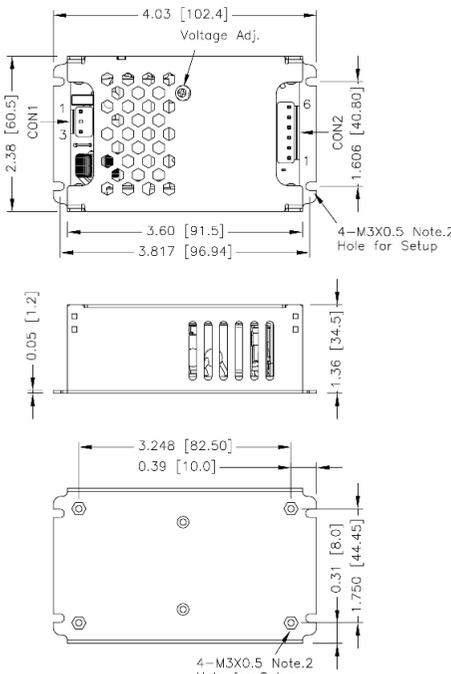
BOTTOM VIEW

1.All dimensions in inch[mm]

Tolerance:x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]

2.The screw locked torque: MAX 5.0kgf-cm/0.49N-m

Enclosed type XLE



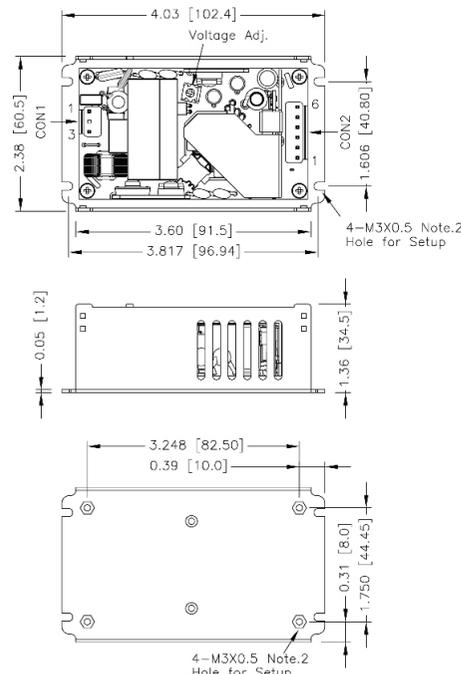
BOTTOM VIEW

1.All dimensions in inch[mm]

Tolerance:x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]

2.The screw locked torque: MAX 5.0kgf-cm/0.49N-m

U chassis type XLU



BOTTOM VIEW

1.All dimensions in inch[mm]

Tolerance:x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]

2.The screw locked torque: MAX 5.0kgf-cm/0.49N-m

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