



Standard Power Supplies for Industrial Applications







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About us



Delta Group is the world's largest provider of switching power supplies and a major source for power management solutions, components, visual displays, industrial automation, networking products and renewable energy solutions. Established in 1971, Delta Group has sales offices worldwide and manufacturing plants in Taiwan, Thailand, China, Mexico and Europe.

As a global leader in power electronics, Delta is committed to environment protection and has implemented green, lead-free production and recycling and waste management programs for many years. Delta's mission continues to be: "To provide innovative, clean and efficient energy solutions for a better tomorrow."

With vigorous business growth of 18% per year since 1994, Delta achieved annual sales of 5.2 billion USD in 2007. Currently, Delta Electronics Group has more than 50,000 employees worldwide working in sales, R&D and manufacturing facilities.



Delta CliQ Series DIN Rail Power Supply

The new CliQ series DIN Rail Power Supply is the latest offering from one of the world's largest leading power supply manufacturers and solution providers – Delta.

The product range offers a nominal output voltage of 24V, a wide temperature range from -20°C to +75°C and a highly dependable minimum holdup time. The state-of-the-art design is made to withstand harsh industrial environments. The rugged, ultra-compact metal case and plastic case are both shock and vibration resistant according to IEC60068-2.

The CliQ series provides overvoltage, overload and thermal protection. Using a wide input voltage range design, Delta's CliQ power supply is usable worldwide. Its output terminal type and locations are also thoughtfully designed for fast wiring and easy installation.

For more details on the product specifications, please refer to the Product Specifications section in this catalogue.



60W 1 Phase Plastic CliQ Power Supply

DRP024V060W1AZ



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORING diode)
- RoHS compliant








INPUT SPECIFICATIONS

| | |
|--|---|
| Input voltage range | 85 - 264Vac (DC input range 120 - 375Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 1.1A @ 115Vac, 0.7A @ 230Vac |
| Inrush current limitation I _t (+25°C) | < 40A @ 115Vac, < 80A @ 230Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 85% typ. |
| Leakage current | < 1mA |

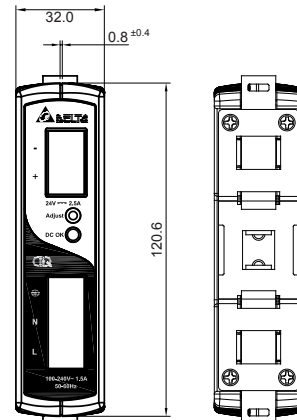
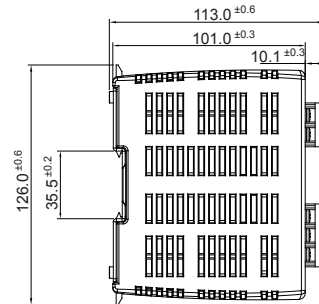
OUTPUT SPECIFICATIONS

| | |
|--|--|
| Output power | 60W |
| Output voltage range | 22 - 28V |
| Output current | 2.5A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 20ms @ 115Vac, > 125ms @ 230Vac |
| Line regulation | < 0.5% typ. (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47: EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| |      |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | D0116888 |

Mechanical drawings



60W 1 Phase Metal CliQ Power Supply

DRP024V060W1AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant








INPUT SPECIFICATIONS

| | |
|--|---|
| Input voltage range | 85 - 264Vac (DC input range 120 - 375Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 1.1A @ 115Vac, 0.7A @ 230Vac |
| Inrush current limitation I _t (+25°C) | < 40A @ 115Vac, < 80A @ 230Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 85% typ. |
| Leakage current | < 1mA |

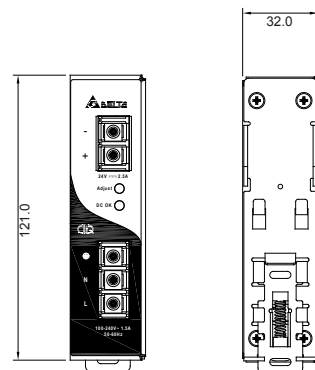
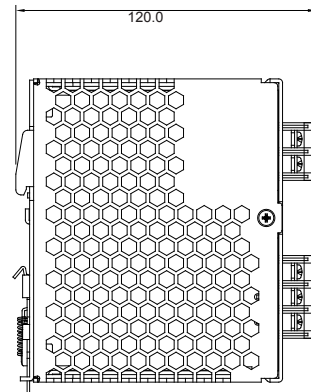
OUTPUT SPECIFICATIONS

| | |
|--|--|
| Output power | 60W |
| Output voltage range | 22 - 28V |
| Output current | 2.5A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 20ms @ 115Vac, > 125ms @ 230Vac |
| Line regulation | < 0.5% typ. (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| |      |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE11010006 |

Mechanical drawings



120W 1 Phase CliQ Power Supply

DRP024V120W1AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--|---|
| Input voltage range | 85 - 264Vac (DC input range 120 - 375Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 1.4A @ 115Vac, 0.8A @ 230Vac |
| Inrush current limitation I _t (+25°C) | < 80A @ 115Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 84% typ. |
| Leakage current | < 1mA |

OUTPUT SPECIFICATIONS

| | |
|--|--|
| Output power | 120W |
| Output voltage range | 22 - 28V |
| Output current | 5A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 35ms @ 115Vac, > 70ms @ 230Vac |
| Line regulation | < 0.5% typ. (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

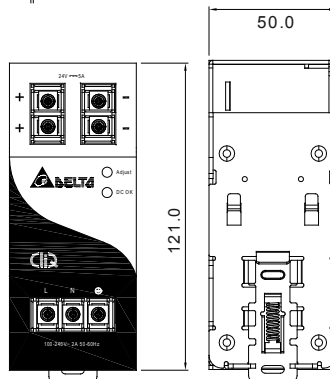
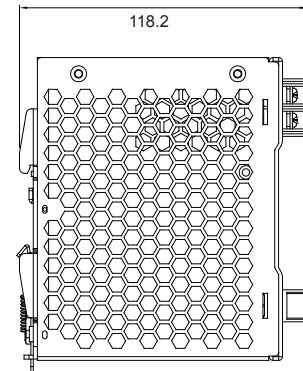
SAFETY

| | |
|-----------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No. 107.1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |



| | |
|--------------------|---|
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE12010002 |

Mechanical drawings



240W 1 Phase CliQ Power Supply

DRP024V240W1AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant








INPUT SPECIFICATIONS

| | |
|---|---|
| Input voltage range | 85 - 264Vac (DC input range 120 - 375Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 2.9A @ 115Vac, 1.5A @ 230Vac |
| Inrush current limitation I _{rt} (+25°C) | No damage & I _{rt} rating of all I/P devices shall not exceed their rating |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 84% typ. |
| Leakage current | < 3.5mA |

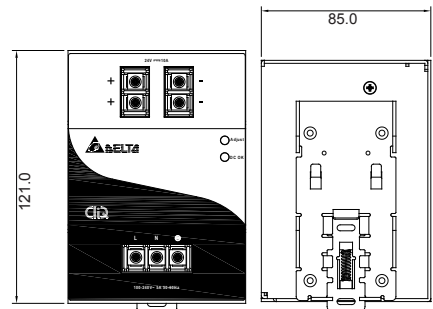
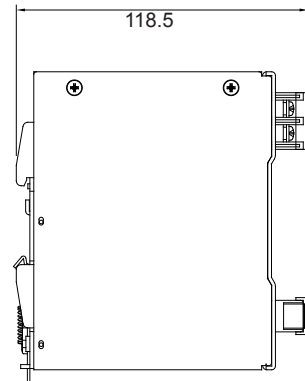
OUTPUT SPECIFICATIONS

| | |
|--|--|
| Output power | 240W |
| Output voltage range | 22 - 28V |
| Output current | 10A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 20ms @ 115Vac & 230Vac |
| Line regulation | < 0.5% typ. (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| |      |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE12010005 |

Mechanical drawings



480W 1 Phase CliQ Power Supply

DRP024V480W1AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORING diode)
- RoHS compliant








INPUT SPECIFICATIONS

| | |
|---|---|
| Input voltage range | 85 - 264Vac (DC input range 120 - 375Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 5.7A @ 115Vac, 2.8A @ 230Vac |
| Inrush current limitation I _{rt} (+25°C) | No damage & I _{rt} rating of all I/P devices shall not exceed their rating |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 86% typ. |
| Leakage current | < 1mA |

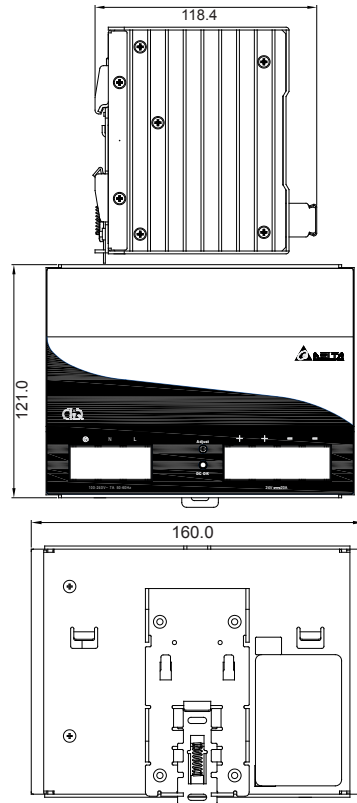
OUTPUT SPECIFICATIONS

| | |
|--|--|
| Output power | 480W |
| Output voltage range | 22 - 28V |
| Output current | 20A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 20ms @ 115Vac & 230Vac |
| Line regulation | < 0.5% typ. (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No. 107.1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| |      |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac |
| Reference no. | EOE13010007 |

Mechanical drawings



60W 3 Phase CliQ Power Supply

DRP024V060W3AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--|--|
| Input voltage range | 320 - 575Vac (DC input range 450 - 800Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 0.3A @ 400Vac approx. |
| Inrush current limitation I _t (+25°C) | < 30A @ 400Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 86% @ 3 x 400Vac, > 85% @ 3 x 500Vac |
| Leakage current | < 3.5mA |

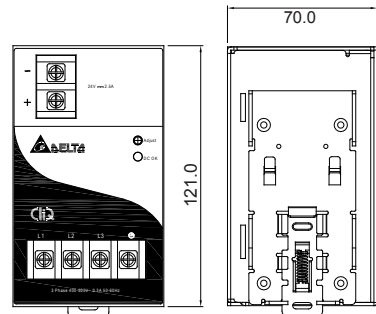
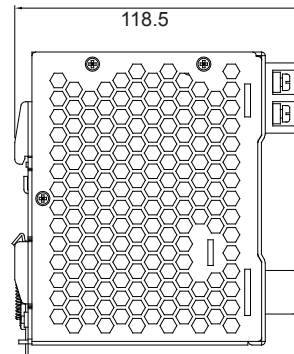
OUTPUT SPECIFICATIONS

| | |
|--|---|
| Output power | 60W |
| Output voltage range | 22 - 28V |
| Output current | 2.5A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 30ms @ 3 x 400Vac > 60ms @ 3 x 500Vac |
| Line regulation | < 0.5% typ. (@ 320 - 575Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| | |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE11010007 |

Mechanical drawings



120W 3 Phase CliQ Power Supply

DRP024V120W3AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--|--|
| Input voltage range | 320 - 575Vac (DC input range 450 - 800Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 0.5A @ 400Vac approx. |
| Inrush current limitation I _t (+25°C) | < 30A @ 400Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 86% @ 3 x 400Vac, > 85% @ 3 x 500Vac |
| Leakage current | < 3.5mA |

OUTPUT SPECIFICATIONS

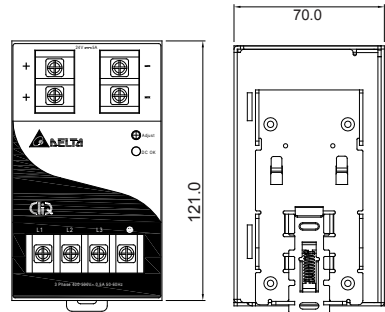
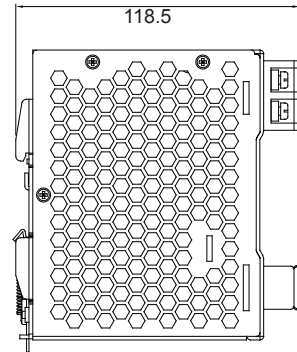
| | |
|--|---|
| Output power | 120W |
| Output voltage range | 22 - 28V |
| Output current | 5A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 30ms @ 3 x 400Vac > 70ms @ 3 x 500Vac |
| Line regulation | < 0.5% typ. (@ 320 - 575Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No. 107.1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4kVAc Input to ground: 1.5kVAc Output to ground: 1.5kVAc |
| Reference no. | EOE12010006 |



Mechanical drawings



240W 3 Phase CliQ Power Supply

DRP024V240W3AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORing diode)
- RoHS compliant









INPUT SPECIFICATIONS

| | |
|--|--|
| Input voltage range | 320 - 575Vac (DC input range 450 - 800Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 0.8A @ 400Vac approx. |
| Inrush current limitation I _t (+25°C) | < 40A @ 400Vac |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 87% @ 3 x 400Vac, > 86% @ 3 x 500Vac |
| Leakage current | < 3.5mA |

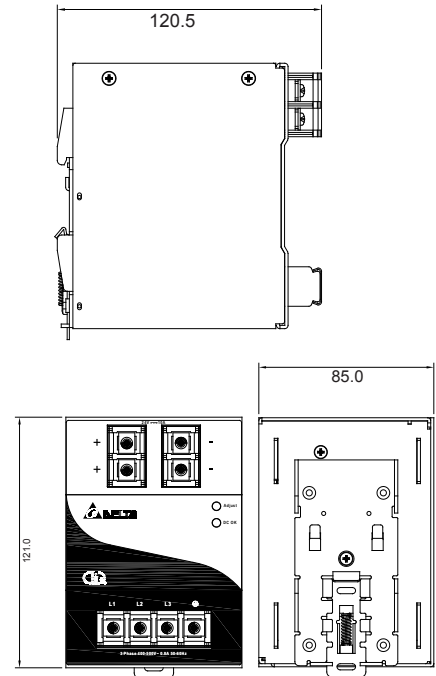
OUTPUT SPECIFICATIONS

| | |
|--|---|
| Output power | 240W |
| Output voltage range | 22 - 28V |
| Output current | 10A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 35ms @ 3 x 400Vac > 60ms @ 3 x 500Vac |
| Line regulation | < 0.5% typ. (@ 320 - 575Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| |       |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE12010007 |

Mechanical drawings



480W 3 Phase CliQ Power Supply

DRP024V480W3AA



Features:

- Ease of wire connection to terminals
- Compact design for easy handling
- Overload protection
- Overvoltage protection
- Thermal protection
- Power boost 150% for 3 seconds
- Expected life time: 10 years
- Redundancy: Yes (with external ORING diode)
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--------------------------------------|--|
| Input voltage range | 320 - 575Vac (DC input range 450 - 800Vdc) |
| Input frequency | 47 - 63Hz |
| Nominal current | 1.6A @ 400Vac approx. |
| Inrush current limitation Pt (+25°C) | < 50A @ 400VAC |
| Power factor | Conform to EN61000-3-2 STD |
| Efficiency | > 87% @ 3 x 400Vac, > 86% @ 3 x 500Vac |
| Leakage current | < 3.5mA |

OUTPUT SPECIFICATIONS

| | |
|--|---|
| Output power | 480W |
| Output voltage range | 22 - 28V |
| Output current | 20A |
| Residual ripple / peak switching (20MHz) | < 50mV / < 240mVpp (@ nominal values) |
| Mains buffering @ nominal load (typ.) | > 20ms @ 3 x 400Vac > 40ms @ 3 x 500Vac |
| Line regulation | < 0.5% typ. (@ 320 - 575Vac input, 100% load) |
| Load regulation | < 1% typ. (with rated input, 0 - 100% load) |

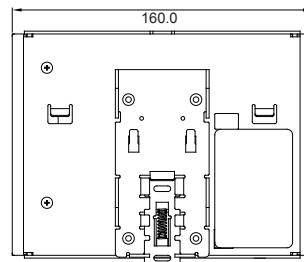
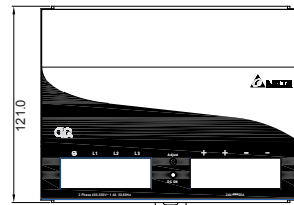
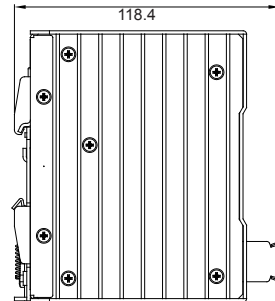
SAFETY

| | |
|-----------------|---|
| EMC / Emissions | Class B / EN55022, CISPR22, Class B; FCC Title 47; EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3:1995/A1:2001/A2:2005 |
| Immunity | EN55024:1998/A1:2001/A2:2003 |
| Safety standard | UL508, CSA C22.2 No.107.1-01, UL60950-1, CSA C22.2 No.60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |



| | |
|--------------------|---|
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 4KVac Input to ground: 1.5KVac Output to ground: 1.5KVac |
| Reference no. | EOE13010010 |

Mechanical drawings







3 Phase CliQ DIN Rail Power Supply

| DRP024V480W1AA EOE13010007 | DRP024V060W3AA EOE11010007 | DRP024V120W3AA EOE12010006 | DRP024V240W3AA EOE12010007 | DRP024V480W3AA EOE13010010 |
|--|--|--|--|--|
| 480W | 60W | 120W | 240W | 480W |
| 22 - 28V | 22 - 28V | 22 - 28V | 22 - 28V | 22 - 28V |
| 20A | 2.5A | 5A | 10A | 20A |
| < 50mV / < 240mVpp | < 50mV / < 240mVpp | < 50mV / < 240mVpp | < 50mV / < 240mVpp | < 50mV / < 240mVpp |
| > 20ms @ 115Vac & 230Vac | > 30ms @ 3 x 400Vac, > 60ms @ 3 x 500Vac | > 35ms @ 3 x 400Vac, > 70ms @ 3 x 500Vac | > 35ms @ 3 x 400Vac, > 60ms @ 3 x 500Vac | > 20ms @ 3 x 400Vac, > 40ms @ 3 x 500Vac |
| < 0.5% typ. (@ 85 - 264Vac input, 100% load) | < 0.5% typ. (@ 320 - 575Vac input, 100% load) | < 0.5% typ. (@ 320 - 575Vac input, 100% load) | < 0.5% typ. (@ 320 - 575Vac input, 100% load) | < 0.5% typ. (@ 320 - 575Vac input, 100% load) |
| < 1% typ. (with rated input, 0 - 100% load) | < 1% typ. (with rated input, 0 - 100% load) | < 1% typ. (with rated input, 0 - 100% load) | < 1% typ. (with rated input, 0 - 100% load) | < 1% typ. (with rated input, 0 - 100% load) |
| 85 - 264Vac (DC input range 120 - 375Vdc) | 320 - 575Vac (DC input range 450 - 800Vdc) | 320 - 575Vac (DC input range 450 - 800Vdc) | 320 - 575Vac (DC input range 450 - 800Vdc) | 320 - 575Vac (DC input range 450 - 800Vdc) |
| 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz |
| 5.7A @ 115Vac, 2.8A @ 230Vac | 0.3A @ 400Vac approx. | 0.5A @ 400Vac approx. | 0.8A @ 400Vac approx. | 1.6A @ 400Vac approx. |
| > 86% typ. | > 86% @ 3 x 400Vac, > 85% @ 3 x 500Vac | > 86% @ 3 x 400Vac, > 85% @ 3 x 500Vac | > 87% @ 3 x 400Vac, > 86% @ 3 x 500Vac | > 87% @ 3 x 400Vac, > 86% @ 3 x 500Vac |
| Conform to EN61000-3-2 STD | Conform to EN61000-3-2 STD | Conform to EN61000-3-2 STD | Conform to EN61000-3-2 STD | Conform to EN61000-3-2 STD |
| No damage at P _T ratings for all I/P devices shall not exceed their rating | < 30A @ 400Vac | < 30A @ 400Vac | < 40A @ 400Vac | < 50A @ 400Vac |
| < 1mA | < 3.5mA | < 3.5mA | < 3.5mA | < 3.5mA |
| Aluminium (Al5052) | Aluminium (Al5052) | Aluminium (Al5052) | Aluminium (Al5052) | Aluminium (Al5052) |
| 121mm x 160mm x 115mm | 121mm x 70mm x 118.5mm | 121mm x 70mm x 118.5mm | 121mm x 85mm x 120.5mm | 121mm x 160mm x 115mm |
| 1.800kg | 0.560kg | 0.720kg | 0.990kg | 1.710kg |
| > 300,000 hrs | > 500,000 hrs | > 500,000 hrs | > 300,000 hrs | > 300,000 hrs |
| Sound pressure level (SPL) < 40dBA | Sound pressure level (SPL) < 40dBA | Sound pressure level (SPL) < 40dBA | Sound pressure level (SPL) < 40dBA | Sound pressure level (SPL) < 40dBA |
| Convection | Convection | Convection | Convection | Convection |
| M4 x 3 | M4 x 4; 600V rating | M4 x 4; 600V rating | M4 x 4; 600V rating | M4 x 4; 600V rating |
| M4 x 2 (2 pcs.) | M4 x 2 (2 pcs); 600V rating | M4 x 2 (2 pcs); 600V rating | M4 x 2 (2 pcs); 600V rating | M4 x 2 (2 pcs); 600V rating |
| Standard TS35 mounting rail | Standard TS35 mounting rail | Standard TS35 mounting rail | Standard TS35 mounting rail | Standard TS35 mounting rail |
| IEC60068-2-27 | IEC60068-2-27 | IEC60068-2-27 | IEC60068-2-27 | IEC60068-2-27 |
| IEC60068-2-6 | IEC60068-2-6 | IEC60068-2-6 | IEC60068-2-6 | IEC60068-2-6 |
| EN60950 meet IPX0 | EN60950 meet IPX0 | EN60950 meet IPX0 | EN60950 meet IPX0 | EN60950 meet IPX0 |
| Class B / EN55022, CISPR22, Class B, FCC Title 47, EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3: 1995/A1:2001/A2:2005 | Class B / EN55022, CISPR22, Class B, FCC Title 47, EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3: 1995/A1:2001/A2:2005 | Class B / EN55022, CISPR22, Class B, FCC Title 47, EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3: 1995/A1:2001/A2:2005 | Class B / EN55022, CISPR22, Class B, FCC Title 47, EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3: 1995/A1:2001/A2:2005 | Class B / EN55022, CISPR22, Class B, FCC Title 47, EN61204-3 (Class B on AC & Class A on DC side), EN55022:2006 Class B, EN61000-3-2:2006, EN61000-3-3: 1995/A1:2001/A2:2005 |
| EN55024:1998/A1:2001/A2:2003 | EN55024:1998/A1:2001/A2:2003 | EN55024:1998/A1:2001/A2:2003 | EN55024:1998/A1:2001/A2:2003 | EN55024:1998/A1:2001/A2:2003 |
| UL508, CSA C22.2 No. 107, 1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 | UL508, CSA C22.2 No. 107, 1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 | UL508, CSA C22.2 No. 107, 1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 | UL508, CSA C22.2 No. 107, 1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 | UL508, CSA C22.2 No. 107, 1-01, UL60950-1, CSA C22.2 No. 60950-1, IEC60950-1, EN60950-1, EN50178, IEC62103 and IEC60204-1 |
| | | | | |
| Conform to EN61000-4-11 | Conform to EN61000-4-11 | Conform to EN61000-4-11 | Conform to EN61000-4-11 | Conform to EN61000-4-11 |
| Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac | Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac | Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac | Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac | Input to output: 4kVac Input to ground: 1.5kVac Output to ground: 1.5kVac |
| -20°C ~ 75°C * | -20°C ~ 75°C * | -20°C ~ 75°C * | -20°C ~ 75°C * | -20°C ~ 75°C * |
| -25°C ~ 85°C | -25°C ~ 85°C | -25°C ~ 85°C | -25°C ~ 85°C | -25°C ~ 85°C |
| < 95% | < 95% | < 95% | < 95% | < 95% |
| * Operating amb. > 50°C derate power by 2.5% / °C | * Operating amb. > 50°C derate power by 2.5% / °C | * Operating amb. > 50°C derate power by 2.5% / °C | * Operating amb. > 50°C derate power by 2.5% / °C; Operating amb. > 70°C derate power by 4% / °C | * Operating amb. > 50°C derate power by 2.5% / °C |





Delta Panel Mount Power Supply

The new Panel Mount Power Supply is the latest offering from one of the world's largest leading power supply manufacturers and solution providers – Delta. The product range offers a nominal output voltage of 24V, a wide temperature range from 0°C to +70°C and a highly dependable minimum holdup time. The state-of-the-art design is made to withstand harsh industrial environments. What makes the product stand out from the crowd is its lightweight full aluminum body design which can withstand shock and vibration according to IEC60068-2.

Delta's panel mount power supply also offers overvoltage and overload protection. Using a wide input voltage range design, it is compatible worldwide. The input also includes DC operating voltage from 100-375Vdc. Best of all, this excellent design and quality does not come with a big price tag.



35W 1 Phase Panel Mount Power Supply

PMC-24V035W1AA



Features:

- Full aluminium casing for lightweight and corrosion resistant handling
- Universal AC input
- Overload protection
- Overvoltage protection
- Thermal protection
- MTBF: > 700,000 hrs.
- Efficiency > 85% typ.
- Expected life time: 10 years
- 2 year warranty
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--|---|
| Input voltage range | 85 - 264Vac; 100 - 375Vac |
| Input frequency | 47 - 63Hz |
| Max. input current | 1.0A max. (0.72A max. @ 115Vac, 0.4A max. @ 230Vac) |
| Inrush current limitation I _t (+25°C) | < 30A @ 115Vac, 60A @ 230Vac |
| Efficiency | > 85% (typical) |
| Leakage current | < 1mA @ 240Vac |

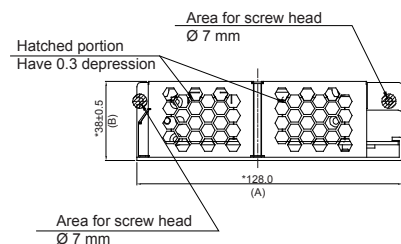
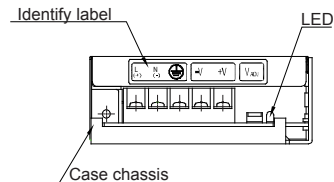
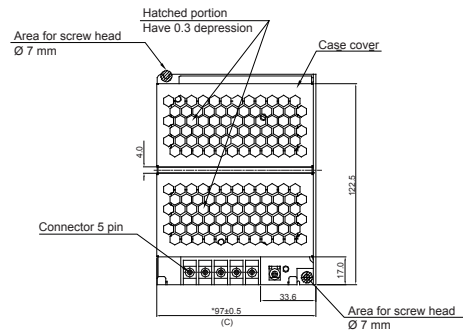
OUTPUT SPECIFICATIONS

| | |
|----------------------|--|
| Output power | 35W |
| Output voltage range | 22 - 28Vdc |
| Output current | 1.46A (35W max.) |
| PARD (20MHz) | < 150mVpp (@ nominal values) |
| Hold-up time | > 15ms @ 115Vac, > 80ms @ 230Vac with 35W load |
| Line regulation | < 0.5% typical (@ 85-264Vac input, 100% load) |
| Load regulation | < 1% typical (@ 85-264Vac input, 0 to 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | FCC Title 47, Class B / EN55022; CISPR22, Class B |
| Immunity | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEE C62.41; EN61000-3-2, 1994 |
| Approvals | UR/cUR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive), NEMKO |
| | |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 3KVac Input to ground: 1.5KVac Output to ground: 0.5KVac |
| Reference no. | EOE11010118 |

Mechanical drawings



50W 1 Phase Panel Mount Power Supply

PMC-24V050W1AA



Features:

- Full aluminium casing for lightweight and corrosion resistant handling
- Universal AC input
- Overload protection
- Overvoltage protection
- Thermal protection
- MTBF: > 700,000 hrs.
- Efficiency > 86% typ.
- Expected life time: 10 years
- 2 year warranty
- RoHS compliant




INPUT SPECIFICATIONS

| | |
|--|--|
| Input voltage range | 85 - 264Vac; 100 - 375Vac |
| Input frequency | 47 - 63Hz |
| Max. input current | 1.5A max. (1.1A max. @ 115Vac, 0.7A max. @ 230Vac) |
| Inrush current limitation I _t (+25°C) | < 30A @ 115Vac, 60A @ 230Vac |
| Efficiency | > 86% (typical) |
| Leakage current | < 1mA @ 240Vac |

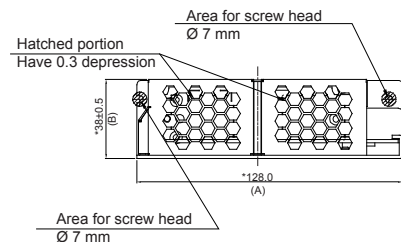
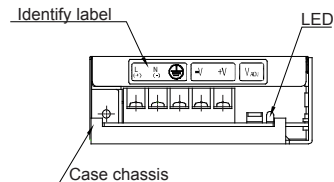
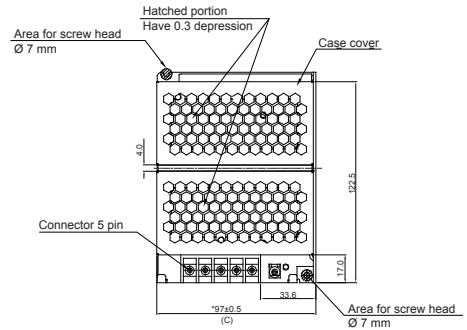
OUTPUT SPECIFICATIONS

| | |
|----------------------|--|
| Output power | 50W |
| Output voltage range | 22 - 28Vdc |
| Output current | 2.1A (50W max.) |
| PARD (20MHz) | < 150mVpp (@ nominal values) |
| Hold-up time | > 15ms @ 115Vac, > 90ms @ 230 Vac with 50W load (25°C) |
| Line regulation | < 0.5% typical (@ 85-264Vac input, 100% load) |
| Load regulation | < 1% typical (@ 85-264Vac input, 0 to 100% load) |

SAFETY

| | |
|--------------------|--|
| EMC / Emissions | FCC Title 47, Class B / EN55022; CISPR22, Class B |
| Immunity | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEEC62.41; EN61000-3-2, 1994 |
| Approvals | UR/cUR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive). NEMKO |
| |  |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 3KVac Input to ground: 1.5KVac Output to ground: 0.5KVac |
| Reference no. | EOE11010119 |

Mechanical drawings



100W 1 Phase Panel Mount Power Supply

PMC-24V100W1AA



Features:

- Full aluminium casing for lightweight and corrosion resistant handling
- Universal AC input
- Overload protection
- Overvoltage protection
- Thermal protection
- MTBF: > 700,000 hrs.
- Efficiency > 86% typ.
- Expected life time: 10 years
- 2 year warranty
- RoHS compliant



INPUT SPECIFICATIONS

| | |
|--|--|
| Input voltage range | 85 - 264Vac; 100 - 375Vac |
| Input frequency | 47 - 63Hz |
| Max. input current | 3.0A max. (2.0A max. @ 115Vac, 1.1A max. @ 230Vac) |
| Inrush current limitation I _t (+25°C) | < 50A @ 115Vac, 100A @ 230Vac (no damage, all input devices must be within their I _t ratings) |
| Efficiency | > 86% (typical) |
| Leakage current | < 1mA @ 240Vac |

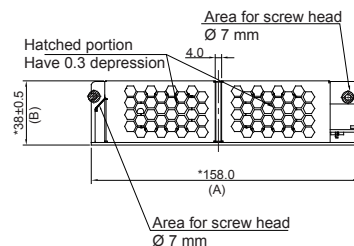
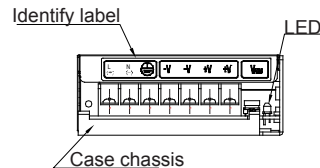
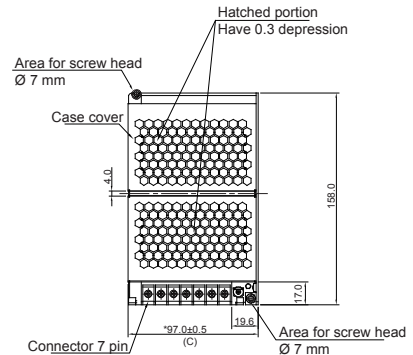
OUTPUT SPECIFICATIONS

| | |
|----------------------|---|
| Output power | 100W |
| Output voltage range | 22 - 28Vdc |
| Output current | 4.17A (100W max.) |
| PARD (20MHz) | < 150mVpp (@ nominal values) |
| Hold-up time | > 15ms @ 115Vac, > 90ms @ 230 Vac with 100W load (25°C) |
| Line regulation | < 0.5% typical (@ 85-264Vac input, 100% load) |
| Load regulation | < 1% typical (@ 85-264Vac input, 0 to 100% load) |

SAFETY

| | |
|--------------------|---|
| EMC / Emissions | FCC Title 47, Class B / EN55022; CISPR22, Class B |
| Immunity | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEE C62.41; EN61000-3-2, 1994 |
| Approvals | UR/cULR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive). NEMKO |
| | |
| Voltage dips | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 3KVac Input to ground: 1.5KVac Output to ground: 0.5KVac |
| Reference no. | EOE11010120 |




Mechanical drawings





Panel Mount Product Specification

1 Phase Panel Mount power supplies

| Model number | PMC-24V035W1AA | PMC-24V050W1AA | PMC-24V100W1AA |
|--------------------------------------|---|---|--|
| Reference no. | EOE11010118 | EOE11010119 | EOE11010120 |
| OUTPUT (DC) | | | |
| Output power | 35W | 50W | 100W |
| Output voltage range | 22 - 28Vdc | 22 - 28Vdc | 22 - 28Vdc |
| Output current | 1.46A (35W max.) | 2.1A (50W max.) | 4.17A (100W max.) |
| PARD (20MHz) | < 150mVpp (@ nominal values) | < 150mVpp (@ nominal values) | < 150mVpp (@ nominal values) |
| Start-up time | < 250ms @ 100% load (25°C) and typical line input | < 250ms @ 100% load (25°C) and typical line input | < 100ms @ 100% load (25°C) and typical line input |
| Hold-up time | > 15ms @ 115Vac, > 80ms @ 230Vac with 35W load (25°C) | > 15ms @ 115Vac, > 90ms @ 230Vac with 50W load (25°C) | > 15ms @ 115Vac, > 90ms @ 230Vac with 100W load (25°C) |
| Rise time | < 30ms @ 100% load (25°C) | < 30ms @ 100% load (25°C) | < 30ms @ 100% load (25°C) |
| Line regulation | < 0.5% typical (@ 85 - 264Vac input, 100% load) | < 0.5% typical (@ 85 - 264Vac input, 100% load) | < 0.5% typical (@ 85 - 264Vac input, 100% load) |
| Load regulation | < 1% typical (@ 85 - 264Vac input, 0 to 100% load) | < 1% typical (@ 85 - 264Vac input, 0 to 100% load) | < 1% typical (@ 85 - 264Vac input, 0 to 100% load) |
| INPUT (AC) | | | |
| Input voltage range | 85 - 264Vac; 100 - 375Vdc | 85 - 264Vac; 100 - 375Vdc | 85 - 264Vac; 100 - 375Vdc |
| Input frequency | 47 - 63Hz | 47 - 63Hz | 47 - 63Hz |
| Max. input current | 1.0A max. (0.72A max. @ 115Vac, 0.4A max. @ 230Vac) | 1.5A max. (1.1A max. @ 115Vac, 0.7A max. @ 230Vac) | 3.0A max. (2.0A max. @ 115Vac, 1.1A max. @ 230Vac) |
| Inrush current limitation Ft (+25°C) | < 30A @ 115Vac, 60A @ 230Vac | < 30A @ 115Vac, 60A @ 230Vac | < 50A @ 115Vac, 100A @ 230Vac (no damage, all input devices must be within their Ft ratings) |
| Efficiency | > 85% (typical) | > 86% (typical) | > 86% (typical) |
| Leakage current | < 1mA @ 240Vac | < 1mA @ 240Vac | < 1mA @ 240Vac |
| MECHANICAL DESIGN | | | |
| Case cover | Aluminium (AL1100) | Aluminium (AL1100) | Aluminium (AL1100) |
| Dimensions (L x W x H) | 128mm x 97mm x 38mm | 128mm x 97mm x 38mm | 158mm x 97mm x 38mm |
| Unit weight / box | 0.237kg | 0.255kg | 0.410kg |
| MTBF | > 700,000 hrs. | > 700,000 hrs. | > 700,000 hrs. |
| Noise | Sound pressure level (SPL) < 40 dBA | Sound pressure level (SPL) < 40 dBA | Sound pressure level (SPL) < 40 dBA |
| Cooling | Convection | Convection | Convection |
| Input / output terminal | Terminal block 5 pin rated 300V/20A | Terminal block 5 pin rated 300V/20A | Terminal block 7 pin rated 300V/20A |
| Input / output wire | AWG22-14 | AWG22-14 | AWG22-14 |
| Shock test | IEC 60068-2-27 | IEC 60068-2-27 | IEC 60068-2-27 |
| Vibration | IEC 68000-2-6 | IEC 68000-2-6 | IEC 68000-2-6 |
| SAFETY / ENVIRONMENTAL | | | |
| EMC / Emissions | FCC Title 47, Class B/EN55022;CISPR22, Class B | FCC Title 47, Class B/EN55022;CISPR22, Class B | FCC Title 47, Class B/EN55022;CISPR22, Class B |
| Immunity | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEEC62.41; EN61000-3-2, 1994 | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEEC62.41; EN61000-3-2, 1994 | EN 61000-4-2, 1995; EN61000-4-3, 1998; EN61000-4-4, 1995; IEC61000-4-5, 1995; EN61000-4-6, 1996; EN61000-4-8 or IEC61000-4-12 or IEEEC62.41; EN61000-3-2, 1994 |
| Approvals | UR/cUR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive), NEMKO  | UR/cUR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive), NEMKO  | UR/cUR recognized to UL60950-1 and CSA C22.2 No.60950-1; CB test certificate and report to IEC60950-1; CE (EMC and low voltage directive), NEMKO  |
| Voltage dips | Conform to EN61000-4-11 | Conform to EN61000-4-11 | Conform to EN61000-4-11 |
| Galvanic isolation | Input to output: 3 KVdc; Input to ground: 1.5 KVdc; Output to ground: 0.5 KVdc | Input to output: 3 KVdc; Input to ground: 1.5 KVdc; Output to ground: 0.5KVdc | Input to output: 3 KVdc; Input to ground: 1.5 KVdc; Output to ground: 0.5KVdc |
| Operating temperature | -10°C to +70°C * | -10°C to +70°C * | -10°C to +70°C * |
| Storage temperature | -25°C to +85°C | -25°C to +85°C | -25°C to +85°C |
| Operating humidity | < 95% RH non-condensing | < 95% RH non-condensing | < 95% RH non-condensing |
| Note (*) | * Operation to 70°C possible with a linear derating to half power from 50°C to 70°C | * Operation to 70°C possible with a linear derating to half power from 50°C to 70°C | * Operation to 70°C possible with a linear derating to half power from 50°C to 70°C |







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