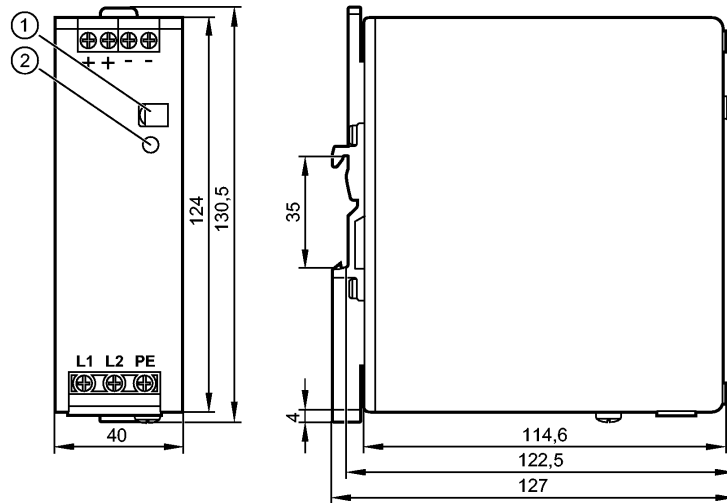


**DN4032**

PSU-2AC/24VDC-5A

Auswertesysteme, Netzteile



- 1: Potentiometer 24...28 V DC
- 2: LED DC ok



**Produktmerkmale**

Schaltnetzteil 24 V DC

120 W Ausgangsleistung

primär getaktet

Ausgangsstrom 5 A; geregelt

**Einsatzbereich**

Einsatzbereich geregelt Stromversorgung für Sensoren, Aktuatoren, Auswertelektronik und SPS

**Elektrische Daten**

|                                 |  |
|---------------------------------|--|
| Eingangsspannungsbereich [V]    | 2 x 380...480 AC; - 15 % / + 20 %                                  |
| Nennspannung [V]                | 2 x 400 AC   |
| Frequenzbereich [Hz]            | 47...64  |
| Nennfrequenz [Hz]               | 50 / 60  |
| Ausgangsspannung [V]            | 24...28 DC; einstellbar; Ausgangsspannung gemäß SELV, PELV         |
| Ausgangsstrom [A]               | 5 (24 V DC) / 4,3 (28 V DC)  |
| Ausgangsstrom kurzzeitig [A]    | 6 (24 V DC) / 5,2 (28 V DC)  |
| Ausgangsleistung [W]            | 120  |
| Ausgangsleistung kurzzeitig [W] | 144; ≤ 45 °C dauerhaft erlaubt; > 45 °C < 1 Minute alle 10 Minuten |
| Leistungsfaktor                 | 0,45 (400 V AC; 50 Hz) / 0,43 (480 V AC; 60 Hz); **)               |
| Leistungsreserve [%]            | 20   |
| Restwelligkeit [mVpp]           | < 50   |
| Einschaltspitzenstrom [A]       | 4 (400 V AC; 50 Hz) / 4 (480 V AC; 60 Hz); **)                     |
| Einschaltstrombegrenzung        | ja   |
| Wirkungsgrad [%]                | 90,4 (400 V AC; 50 Hz) / 90 (480 V AC; 60 Hz); **)                 |
| Kurzschlussfest                 | ja   |
| Überlastfest                    | ja   |
| Überlastverhalten               | Ausgangsstrom konstant   |
| Überspannungsschutz [V]         | < 32 DC  |
| Übertemperaturschutz            | ja   |
| Externe Eingangsabsicherung     | ≤ B-6 A / ≤ C-3 A  |
| Derating [W/K]                  | 3 (60...70 °C)   |

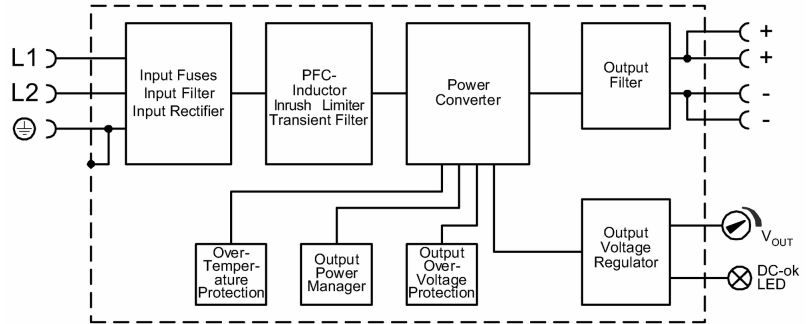
**DN4032**

PSU-2AC/24VDC-5A

Auswertesysteme, Netzteile

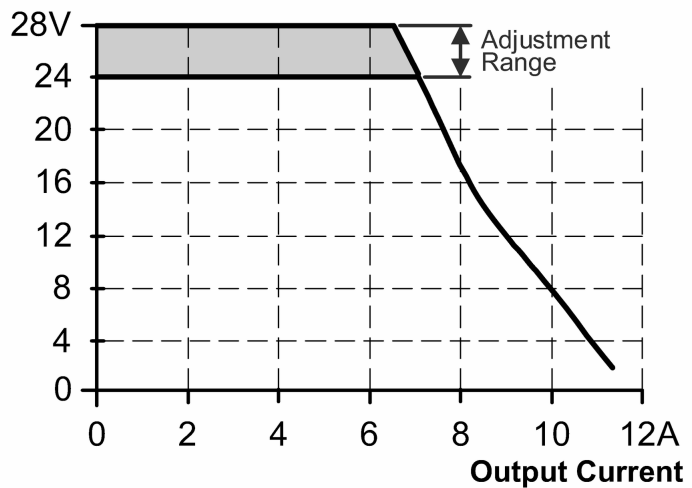
|                                   |   |
|-----------------------------------|---|
| Netzausfallüberbrückungszeit [ms] | 27 (400 V AC; 50 Hz) / 48 (480 V AC; 60 Hz); **     |
| Schutzklasse                      | I (IEC 61140)                                       |
| Eingangsstrom [A]                 | 0,75 (400 V AC; 50 Hz) / 0,68 (480 V AC; 60 Hz); ** |
| Verlustleistung [W]               | 12,7 (400 V AC; 50 Hz) / 13,3 (480 V AC; 60 Hz); ** |
| Rückspeisefestigkeit [V]          | ≤ 35 DC   |

Blockdiagramm



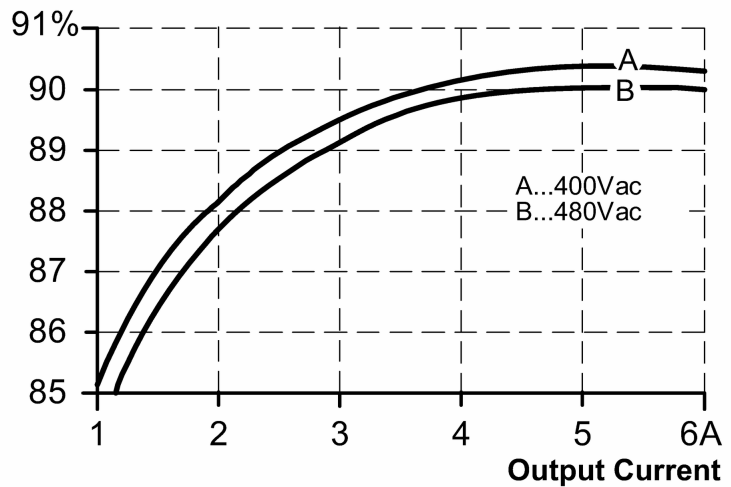
Ausgangskennlinie

**Output Voltage**



Kennlinie für Wirkungsgrad / Verlustleistung

**Efficiency**



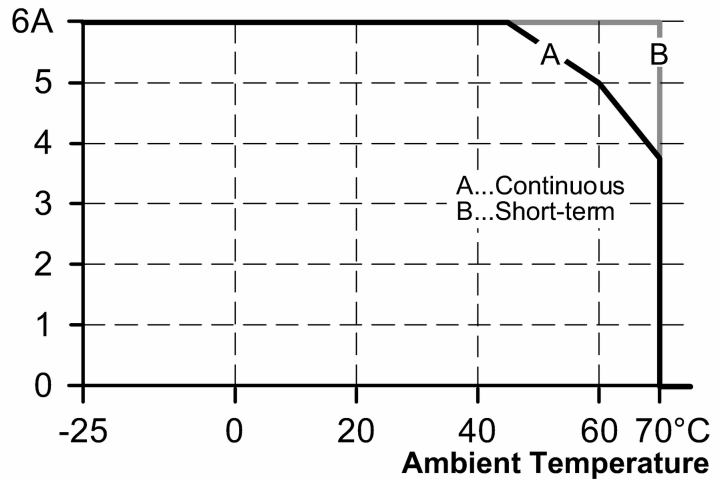
**DN4032**

PSU-2AC/24VDC-5A

Auswertesysteme, Netzteile

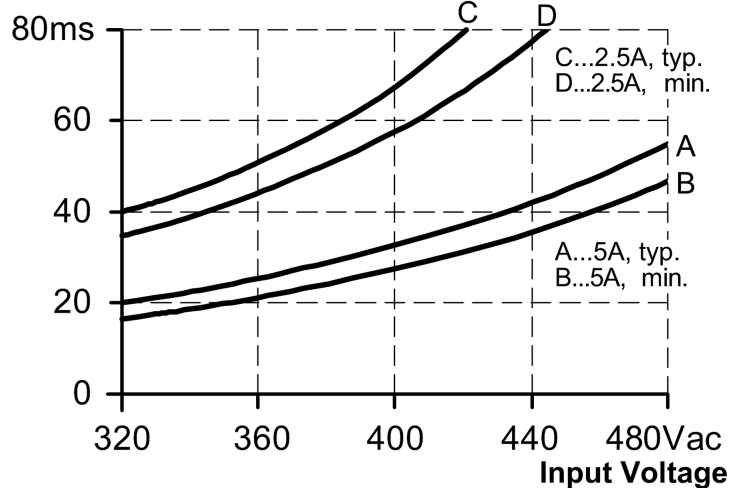
Kennlinie für Derating

**Allowed Output Current at 24V**



Kennlinie für Netzausfallüberbrückungszeit

**Hold-up Time at 24Vdc**



**Ausgänge**

Parallelschaltung von Ausgängen

ja \*)

Serienschaltung von Ausgängen

ja

**Umgebungsbedingungen**

Umgebungstemperatur [°C]

-25...70, Freiräume für Konvektion beachten (siehe Bedienungsanleitung)

Lagertemperatur [°C]

-40...85

Max. zulässige relative Luftfeuchtigkeit [%]

95, (IEC 60068-2-30)

Schutzart

IP 20; nach EN 60529

Verschmutzungsgrad

2; (IEC 62103) leitfähige Verschmutzung nicht zulässig

**Zulassungen / Prüfungen**

EMV

EN 61000-6-1  
 EN 61000-6-2  
 EN 61000-6-3  
 EN 61000-6-4  
 EN 61000-3-2  
 Klasse A

UL

UL 508 (Industrial Control Equipment)

Leistungsfaktorkorrektur (PFC)

erfüllt

Schockfestigkeit

IEC 60068-2-27  
 30 g (6 ms) / 20 g (11 ms)

## DN4032

PSU-2AC/24VDC-5A

Auswertesysteme, Netzteile

|                   |               |  |
|-------------------|---------------|--|
| Schwingfestigkeit | IEC 60068-2-6 | ±1,6 mm (2...17,8 Hz) / 2 g<br>(17,8...500 Hz) |
| MTBF [h]          |               | 1173000  |

### Mechanische Daten

|                   |  |                                   |
|-------------------|--|-----------------------------------|
| Gehäusewerkstoffe |  | Stahlblech                        |
| Montage           |  | Tragschiene TH35 (gemäß EN 60715) |
| Gewicht [kg]      |  | 0,592                             |

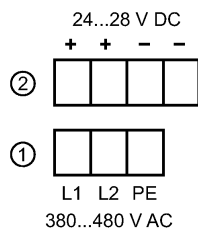
### Anzeigen / Bedienelemente

|         |  |             |
|---------|--|-------------|
| Anzeige |  | DC ok 1 LED |
|---------|--|-------------|

### Elektrischer Anschluss

|           |  |                |
|-----------|--|----------------|
| Anschluss |  | Schraubklemmen |
|-----------|--|----------------|

### Anschlussbelegung



- 1: primär  
2: sekundär

### Bemerkungen

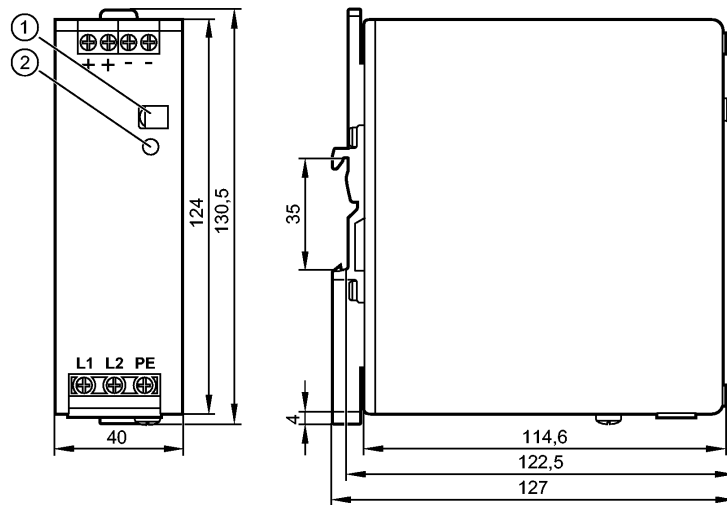
|             |  |
|-------------|--|
| Bemerkungen | <p>*) Parallelschaltung von Ausgängen: keine Stromaufteilung;<br/>Dauerbetrieb Gefahr der Überlastung; MTTF verringert sich; &gt; 45 °C<br/>thermische Abschaltung von Geräten möglich</p> <p>***) bei symmetrischer Phasenspannung<br/>Serienschaltung von Ausgängen gilt nur für gleiche Geräte bis max.<br/>150 V DC Gesamtspannung</p> |
|-------------|--|

|                            |  |   |
|----------------------------|--|---|
| Verpackungseinheit [Stück] |  | 1 |
|----------------------------|--|---|

**DN4032**

PSU-2AC/24VDC-5A

Evaluation systems, power supplies



- 1: Potentiometer 24...28 V DC
- 2: LED DC ok



**Product characteristics**

Switched-mode power supply 24 V DC

120 W power output

Primary switched mode

Output current 5 A, regulated

**Application**

Application regulated power supply for sensors, actuators, evaluation electronics and plcs

**Electrical data**

|                               |        |  |
|-------------------------------|--------|--|
| Input voltage range           | [V]    | 2 x 380...480 AC; - 15 % / + 20 %  |
| Nominal voltage               | [V]    | 2 x 400 AC   |
| Frequency range               | [Hz]   | 47...64  |
| Nominal frequency             | [Hz]   | 50 / 60  |
| Output voltage                | [V]    | 24...28 DC; adjustable; output voltage to SELV, PELV                     |
| Output current                | [A]    | 5 (24 V DC) / 4.3 (28 V DC)  |
| Output current peak           | [A]    | 6 (24 V DC) / 5.2 (28 V DC)  |
| Output power                  | [W]    | 120  |
| Output power peak             | [W]    | 144; ≤ 45 °C permitted continuously; > 45 °C < 1 minute every 10 minutes |
| Power factor                  |        | 0.45 (400 V AC; 50 Hz) / 0.43 (480 V AC; 60 Hz); **)                     |
| Power reserve                 | [%]    | 20   |
| Residual ripple               | [mVpp] | < 50   |
| Switch-on peak current        | [A]    | 4 (400 V AC; 50 Hz) / 4 (480 V AC; 60 Hz); **)                           |
| Inrush current limitation     |        | yes  |
| Efficiency                    | [%]    | 90.4 (400 V AC; 50 Hz) / 90 (480 V AC; 60 Hz); **)                       |
| Short-circuit proof           |        | yes  |
| Overload protection           |        | yes  |
| Overload performance          |        | constant output current  |
| Overvoltage protection        | [V]    | < 32 DC  |
| Excess temperature protection |        | yes  |
| External input protection     |        | ≤ B-6 A / ≤ C-3 A  |
| Derating                      | [W/K]  | 3 (60...70 °C)   |



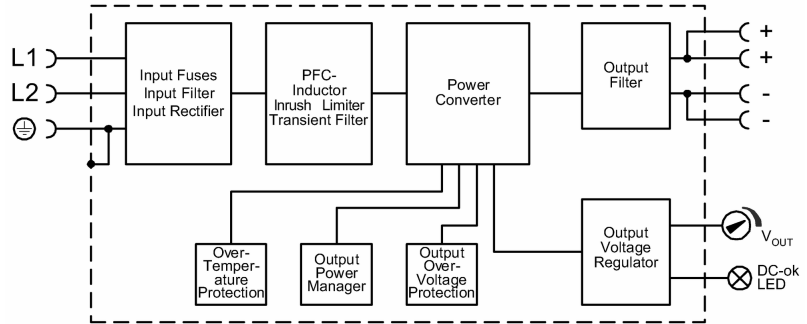
**DN4032**

PSU-2AC/24VDC-5A

Evaluation systems, power supplies

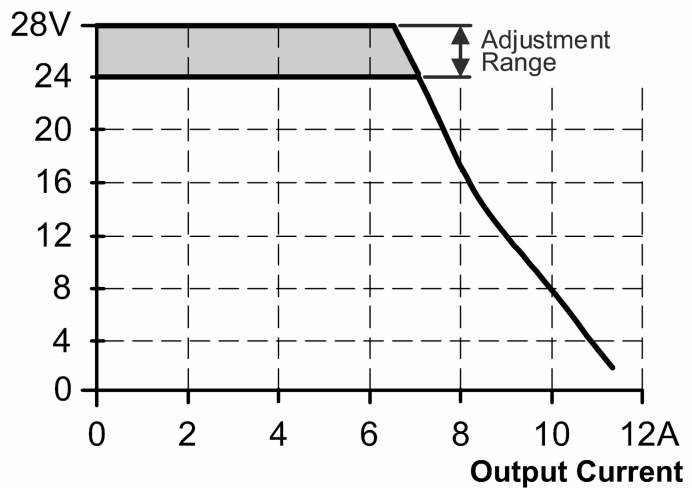
|                             |   |
|-----------------------------|---|
| Mains buffering time [ms]   | 27 (400 V AC; 50 Hz) / 48 (480 V AC; 60 Hz); **     |
| Protection class            | I (IEC 61140)                                       |
| Input current [A]           | 0.75 (400 V AC; 50 Hz) / 0.68 (480 V AC; 60 Hz); ** |
| Power loss [W]              | 12.7 (400 V AC; 50 Hz) / 13.3 (480 V AC; 60 Hz); ** |
| Back feeding protection [V] | ≤ 35 DC   |

Block diagram



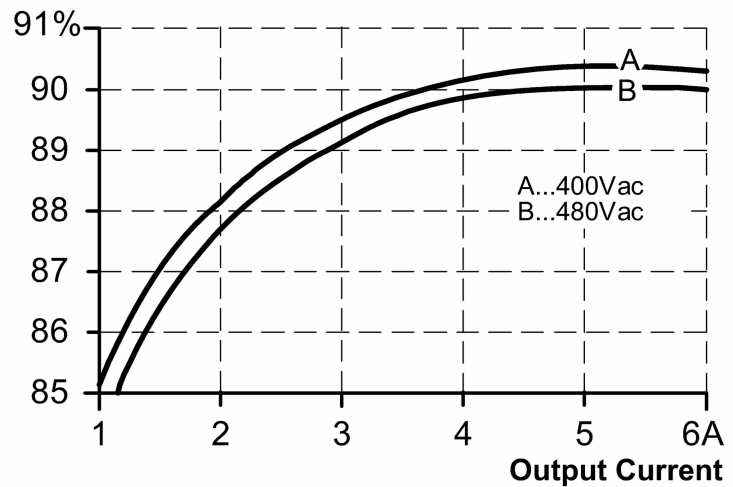
Output curve

**Output Voltage**



Characteristic curve for degree of efficiency / power loss

**Efficiency**



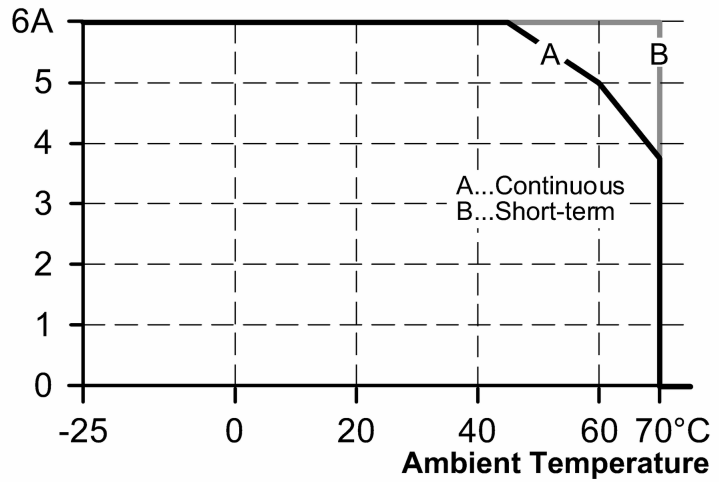
**DN4032**

PSU-2AC/24VDC-5A

Evaluation systems, power supplies

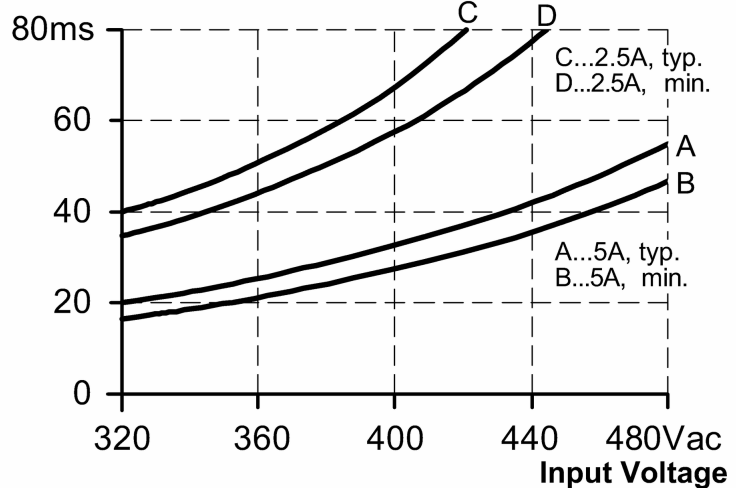
Characteristic curve for derating

**Allowed Output Current at 24V**



Characteristic curve for mains buffering time

**Hold-up Time at 24Vdc**



**Outputs**

|                                |        |
|--------------------------------|--------|
| Parallel connection of outputs | yes *) |
| Series connection of outputs   | yes    |

**Environment**

|                                |  |
|--------------------------------|--|
| Ambient temperature [°C]       | -25...70, observe the free space for convection (see operating instructions) |
| Storage temperature [°C]       | -40...85   |
| Max. relative air humidity [%] | 95, (IEC 60068-2-30)   |
| Protection                     | IP 20; to EN 60529   |
| degree of soiling              | 2; (IEC 62103) conductive soiling not permitted                              |

**Tests / approvals**

|                               |  |                            |
|-------------------------------|--|----------------------------|
| EMC                           | EN 61000-6-1<br>EN 61000-6-2<br>EN 61000-6-3<br>EN 61000-6-4<br>EN 61000-3-2 | class A                    |
| UL                            | UL 508 (Industrial Control Equipment)  |                            |
| Power Factor Correction (PFC) | met  |                            |
| Shock resistance              | IEC 60068-2-27   | 30 g (6 ms) / 20 g (11 ms) |



## DN4032

PSU-2AC/24VDC-5A

Evaluation systems, power supplies

|                      |               |  |
|----------------------|---------------|--|
| Vibration resistance | IEC 60068-2-6 | ±1.6 mm (2...25 Hz) / 2 g<br>(17.8...500 Hz) |
| MTBF [h]             | 1173000       |  |

### Mechanical data

|                   |                         |  |
|-------------------|-------------------------|--|
| Housing materials | steel sheet             |  |
| Installation      | rail TH35 (to EN 60715) |  |
| Weight [kg]       | 0.592                   |  |

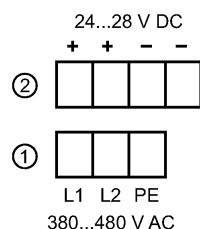
### Displays / operating elements

|         |            |  |
|---------|------------|--|
| Display | DCok 1 LED |  |
|---------|------------|--|

### Electrical connection

|            |                 |  |
|------------|-----------------|--|
| Connection | screw terminals |  |
|------------|-----------------|--|

### Wiring



- 1: primary  
2: secondary

### Remarks

|         |  |
|---------|--|
| Remarks | <p>*) Parallel connection of outputs: no distribution of current; with continuous operation risk of overload; MTTF decreases; &gt; 45 °C thermal shutdown of devices possible</p> <p>**) with symmetrical phase voltage series connection of outputs only applies to identical units up to max. 150 V DC overall voltage</p> |
|---------|--|

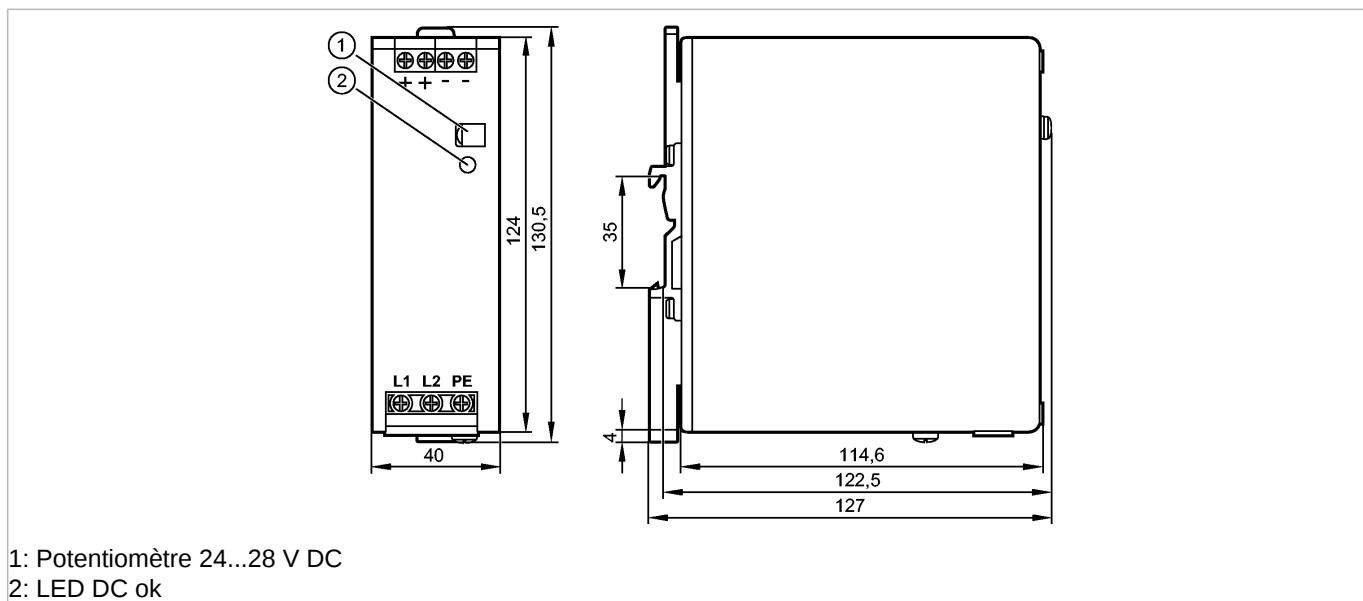
|                       |   |  |
|-----------------------|---|--|
| Pack quantity [piece] | 1 |  |
|-----------------------|---|--|



**DN4032**

PSU-2AC/24VDC-5A

Boîtiers de contrôle, alimentations



**Caractéristiques du produit**

Alimentation à découpage 24 V DC

Puissance de sortie 120 W

A synchronisation primaire

Courant de sortie 5 A, régulé

**Application**

Application : alimentation régulée pour capteurs, actionneurs, boîtiers électroniques et API

**Données électriques**

|  |  |
|--|--|
| Plage de la tension d'entrée [V]                 | 2 x 380...480 AC; - 15 % / + 20 %  |
| Tension nominale [V]                             | 2 x 400 AC   |
| Gamme de fréquence [Hz]                          | 47...64  |
| Fréquence nominale [Hz]                          | 50 / 60  |
| Tension de sortie [V]                            | 24...28 DC; réglable; tension de sortie selon TBTS, TBTP                         |
| Courant de sortie [A]                            | 5 (24 V DC) / 4,3 (28 V DC)  |
| Courant de sortie pendant une courte durée [A]   | 6 (24 V DC) / 5,2 (28 V DC)  |
| Puissance sortie [W]                             | 120  |
| Puissance de sortie pendant une courte durée [W] | 144; ≤ 45 °C admissible en permanence ; > 45 °C < 1 minute toutes les 10 minutes |
| Facteur de performance                           | 0,45 (400 V AC; 50 Hz) / 0,43 (480 V AC; 60 Hz); **                              |
| Réserve de puissance [%]                         | 20   |
| Courant résiduel [mVpp]                          | < 50   |
| Courant de démarrage max. [A]                    | 4 (400 V AC; 50 Hz) / 4 (480 V AC; 60 Hz); **                                    |
| Courant d'appel à la mise sous tension           | oui  |
| Rendement [%]                                    | 90,4 (400 V AC; 50 Hz) / 90 (480 V AC; 60 Hz); **                                |
| Résistant aux courts-circuits                    | oui  |
| Protection surcharges                            | oui  |
| Caractéristique surcharge                        | courant de sortie constant   |
| limiteur de surtension [V]                       | < 32 DC  |

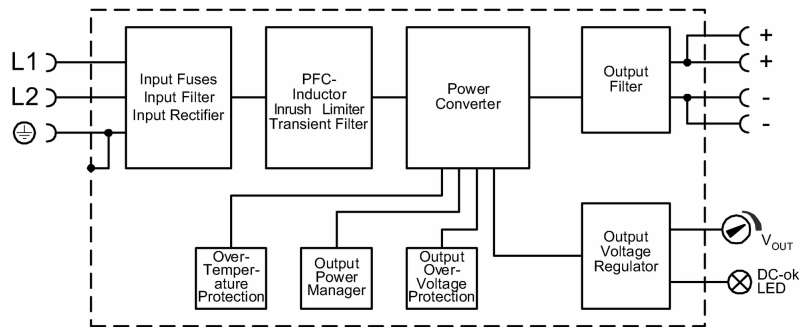
**DN4032**

PSU-2AC/24VDC-5A

Boîtiers de contrôle, alimentations

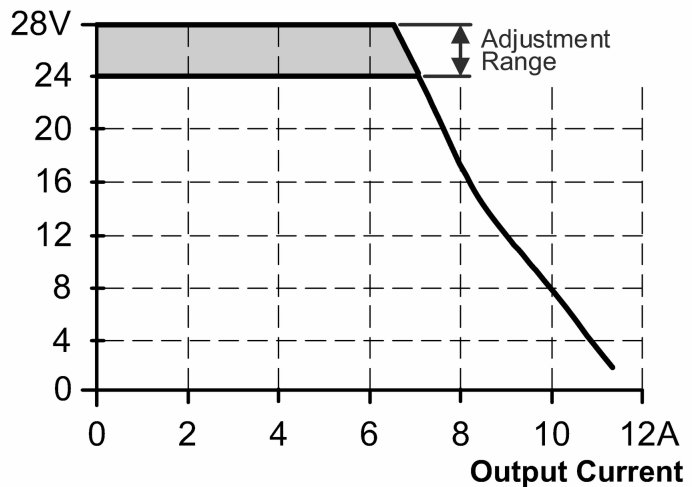
|  |   |
|--|---|
| Protection contre les pics de température    | oui   |
| Protection d'entrée en externe               | ≤ B-6 A / ≤ C-3 A                                   |
| Derating [W/K]                               | 3 (60...70 °C)                                      |
| Immunité aux coupures secteur [ms]           | 27 (400 V AC; 50 Hz) / 48 (480 V AC; 60 Hz); **     |
| Classe de protection                         | I (IEC 61140)                                       |
| Courant d'entrée [A]                         | 0,75 (400 V AC; 50 Hz) / 0,68 (480 V AC; 60 Hz); ** |
| Pertes en puissance [W]                      | 12,7 (400 V AC; 50 Hz) / 13,3 (480 V AC; 60 Hz); ** |
| Protection contre les courants de retour [V] | ≤ 35 DC   |

schéma bloc



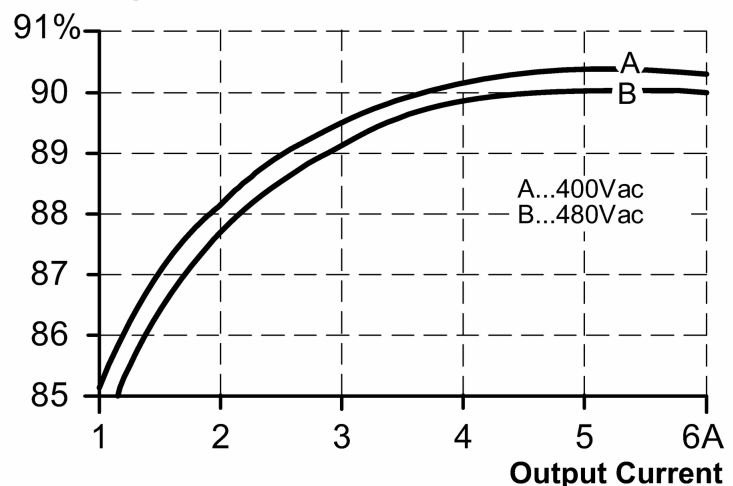
Caractéristique de sortie

**Output Voltage**



Courbe caractéristique rendement / perte en puissance

**Efficiency**



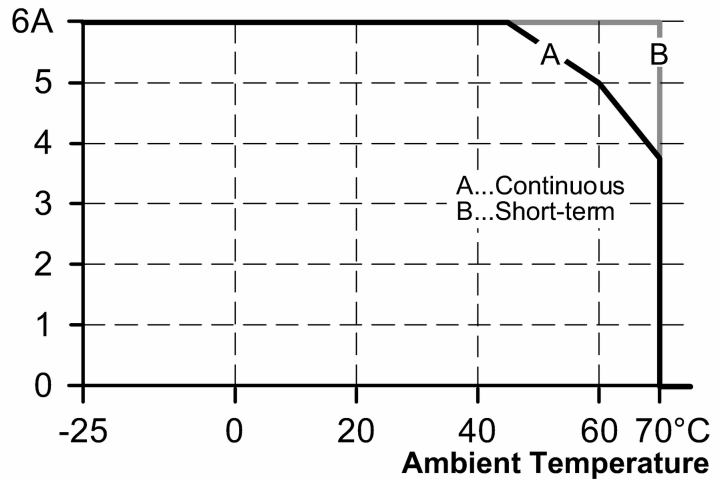
**DN4032**

PSU-2AC/24VDC-5A

Boîtiers de contrôle, alimentations

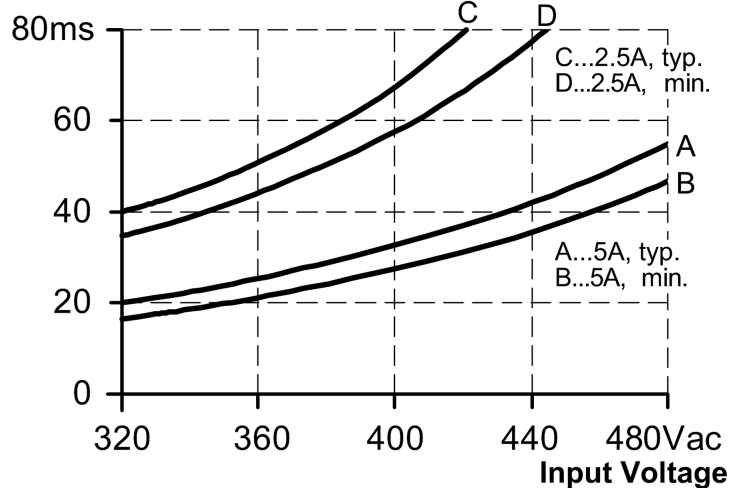
Courbe caractéristique du déclassement

**Allowed Output Current at 24V**



Courbe caractéristique de l'immunité aux coupures secteur

**Hold-up Time at 24Vdc**



**Sorties**

|                                      |        |
|--------------------------------------|--------|
| Raccordement en parallèle de sorties | oui *) |
| Raccordement en série de sorties     | oui    |

**Conditions d'utilisation**

|                                     |  |
|-------------------------------------|--|
| Température ambiante [°C]           | -25...70, respecter les espaces libres pour le refroidissement par circulation d'air (voir notice d'utilisation) |
| Température de stockage [°C]        | -40...85   |
| Humidité relative de l'air max. [%] | 95, (CEI 60068-2-30)   |
| Protection                          | IP 20; selon EN 60529  |
| degré de souillure                  | 2; (CEI 62103) la souillure conductrice n'est pas admissible   |

**Tests / Homologations**

|  |  |                            |
|--|--|----------------------------|
| CEM  | EN 61000-6-1<br>EN 61000-6-2<br>EN 61000-6-3<br>EN 61000-6-4<br>EN 61000-3-2 | classe A                   |
| UL   | UL 508 (Industrial Control Equipment)  |                            |
| Correction du facteur de performance (PFC) | oui  |                            |
| Tenue aux chocs                            | CEI 60068-2-27   | 30 g (6 ms) / 20 g (11 ms) |

**DN4032**

PSU-2AC/24VDC-5A

**Boîtiers de contrôle, alimentations**

|                      |               |  |
|----------------------|---------------|--|
| Tenue aux vibrations | CEI 60068-2-6 | ±1,6 mm (2...25 Hz) / 2 g<br>(17,8...500 Hz) |
| MTBF [h]             | 1173000       |  |

**Données mécaniques**

|                  |                            |  |
|------------------|----------------------------|--|
| Matières boîtier | tôle d'acier               |  |
| Montage          | rail TH35 (selon EN 60715) |  |
| Poids [kg]       | 0,592                      |  |

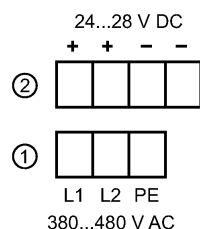
**Afficheurs / éléments de service**

|            |             |  |
|------------|-------------|--|
| Indication | DC-ok 1 LED |  |
|------------|-------------|--|

**Raccordement électrique**

|              |              |  |
|--------------|--------------|--|
| Raccordement | Bornes à vis |  |
|--------------|--------------|--|

**Branchement**



- 1: primaire
- 2: secondaire

**Remarques**

|           |  |
|-----------|--|
| Remarques | <p>*) Raccordement en parallèle de sorties : aucune répartition de courant ; danger de surcharge en service continu ; MTTF se réduit ; &gt; 45 °C désactivation thermique d'appareils possible</p> <p>**) en cas de tension de phase symétrique Raccordement en série de sorties seulement pour des appareils identiques jusqu'à une tension totale de 150 V DC au maximum</p> |
|-----------|--|

|                  |   |
|------------------|---|
| Quantité [pièce] | 1 |
|------------------|---|