



DC/DC Wide Input Converter ECW 15 Watt



15 Watt DC/DC Converter line with wide input range and single or dual output models

DC/DC converter module with input to output isolation of 500 VDC • Pi-filter at input • Continuous short circuit proof • High efficiency • No derating up to 70°C • Low output ripple and noise • Low silhouette • Metal case with non conductive base plate, six sides shielded • SMD technology

15 Watt DC/DC Konverter Serie mit weitem Eingangsbereich und Einfach- oder Doppelausgang

DC/DC Konverter-Modul mit galvanischer Trennung Eingang / Ausgang von 500 VDC • Pi-Filter am Eingang • Dauerkurzschlussfest • Hoher Wirkungsgrad • Keine Lastminderung bis zu einer Umgebungstemperatur von 70°C • Gute Werte von Ripple und Noise • Geringe Bauhöhe • Metallgehäuse mit isolierender Bodenplatte, 6seitig abgeschirmt • SMD Technologie

15 Watt convertisseur CC/CC avec large gamme d'entrée et sortie simple ou double

Module convertisseur CC/CC avec séparation galvanique entrée sortie 500 VDC • Filtre en Pi à l'entrée • Protection courts-circuits permanente • Rendement élevé • Pas de dérive jusqu' à 70°C • Ondulation résiduelle de sortie très faible • Profilé bas • Boîtier en métal blindé 6 faces avec fond isolé • Technologie CMS

Product range

Typenübersicht

Sommaire des types

| Model | Input nominal | Input range | Input current max. at Uin | Output Uout | Output Iout | Operating temperature | Efficiency typ. |
|--------------|---------------|-------------|---------------------------|-------------|-------------|---|-----------------|
| ECW12-0315 | 12 VDC | 9...18 VDC | 1178 mA | 3.3 VDC | 3000 mA | For all models: -25...+70°C or max. case temperature of 100°C | 70% |
| ECW12-0515 | 12 VDC | 9...18 VDC | 1660 mA | 5.1 VDC | 3000 mA | | 75% |
| ECW12-1215 | 12 VDC | 9...18 VDC | 1625 mA | 12.0 VDC | 1250 mA | | 78% |
| ECW12-1515 | 12 VDC | 9...18 VDC | 1625 mA | 15.0 VDC | 1000 mA | | 78% |
| ECW24-0315 | 24 VDC | 18...36 VDC | 557 mA | 3.3 VDC | 3000 mA | For all models: -25...+70°C or max. case temperature of 100°C | 74% |
| ECW24-0515 | 24 VDC | 18...36 VDC | 812 mA | 5.1 VDC | 3000 mA | | 78% |
| ECW24-1215 | 24 VDC | 18...36 VDC | 772 mA | 12.0 VDC | 1250 mA | | 81% |
| ECW24-1515 | 24 VDC | 18...36 VDC | 772 mA | 15.0 VDC | 1000 mA | | 81% |
| ECW48-0315 | 48 VDC | 36...72 VDC | 271 mA | 3.3 VDC | 3000 mA | For all models: -25...+70°C or max. case temperature of 100°C | 76% |
| ECW48-0515 | 48 VDC | 36...72 VDC | 390 mA | 5.1 VDC | 3000 mA | | 80% |
| ECW48-1215 | 48 VDC | 36...72 VDC | 381 mA | 12.0 VDC | 1250 mA | | 82% |
| ECW48-1515 | 48 VDC | 36...72 VDC | 381 mA | 15.0 VDC | 1000 mA | | 82% |
| ECW12-050515 | 12 VDC | 9...18 VDC | 1620 mA | ±5.1 VDC | ±1500 mA | For all models: -25...+70°C or max. case temperature of 100°C | 77% |
| ECW12-121215 | 12 VDC | 9...18 VDC | 1620 mA | ±12.0 VDC | ±625 mA | | 77% |
| ECW12-151515 | 12 VDC | 9...18 VDC | 1620 mA | ±15.0 VDC | ±500 mA | | 77% |
| ECW24-050515 | 24 VDC | 18...36 VDC | 780 mA | ±5.1 VDC | ±1500 mA | For all models: -25...+70°C or max. case temperature of 100°C | 80% |
| ECW24-121215 | 24 VDC | 18...36 VDC | 780 mA | ±12.0 VDC | ±625 mA | | 80% |
| ECW24-151515 | 24 VDC | 18...36 VDC | 780 mA | ±15.0 VDC | ±500 mA | | 80% |
| ECW48-050515 | 48 VDC | 36...72 VDC | 386 mA | ±5.1 VDC | ±1500 mA | For all models: -25...+70°C or max. case temperature of 100°C | 81% |
| ECW48-121215 | 48 VDC | 36...72 VDC | 386 mA | ±12.0 VDC | ±625 mA | | 81% |
| ECW48-151515 | 48 VDC | 36...72 VDC | 386 mA | ±15.0 VDC | ±500 mA | | 81% |

El. characteristics

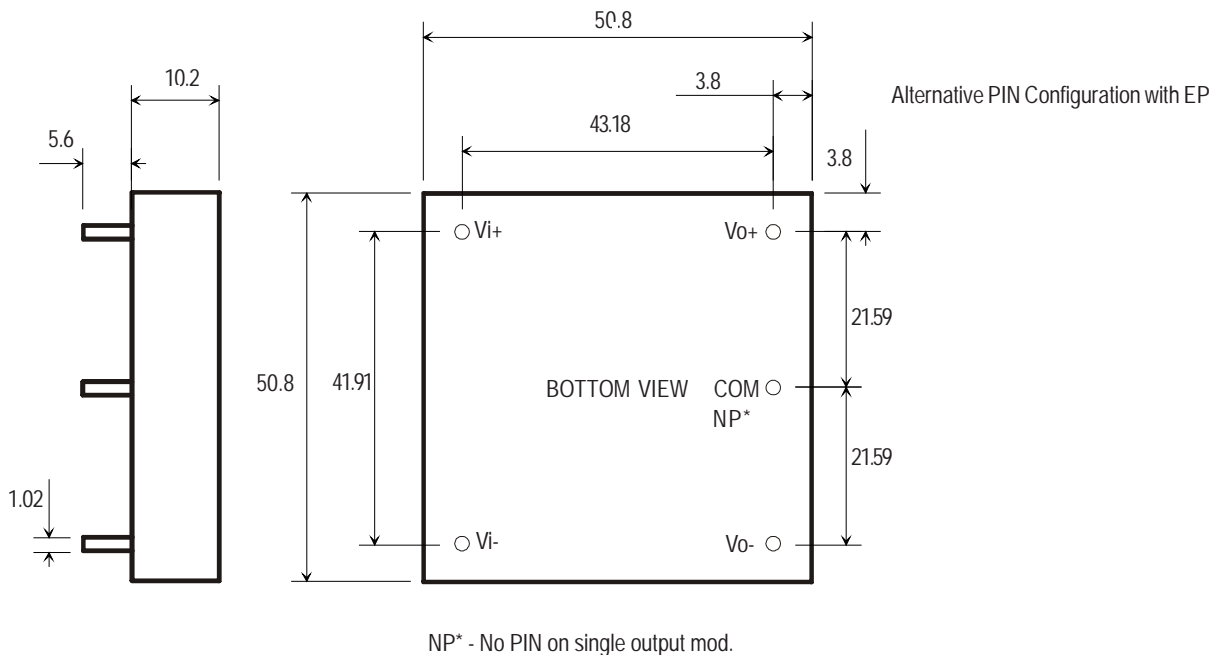
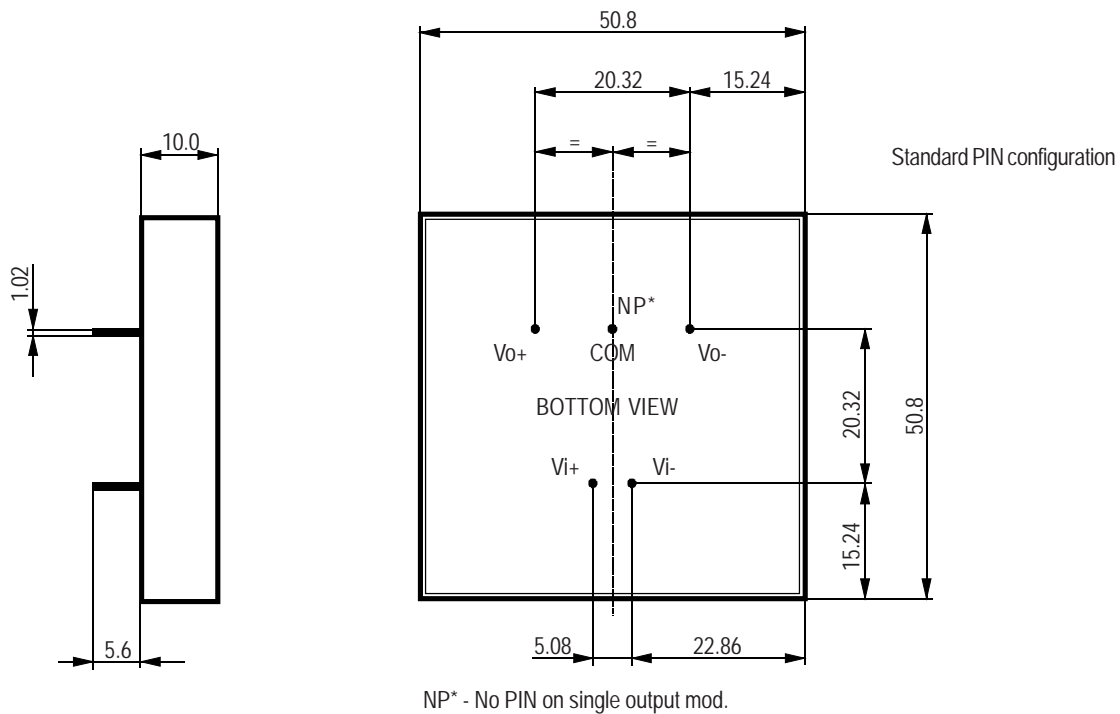
El. Eigenschaften

Caractéristiques él.

All values refer to an ambient temperature of 25°C and nominal rated values where nothing else is specified

| | | | |
|------------------------------------|-------------------------------------|---|---|
| Output voltage accuracy | Ausgangsspannungsgenauigkeit | Précision tension de sortie | ±1% of Uout nom.; single ±3% of Uout nom.; dual |
| Output voltage balance | Abgleich zwischen den Ausgängen | Balance des sorties | ±1%; dual |
| Residual output ripple (BW 20 MHz) | Ausgangsspannungsrippel (BW 20 MHz) | Ondulation résiduelle de sortie (BW 20 MHz) | 75 mVpp |
| Short circuit protection | Kurzschlussfestigkeit | Protection courts-circuits | typ. 120...140% of Iout nom. |
| No load input current | Leerlaufeingangsstrom | Courant d'entrée à vide | 35, 25, 20 mA (12, 24, 48 VDC) |
| Line regulation (max...min) | Leitungsregulierung (max...min) | Régulation ligne (max...min) | ±0.2% at Iout nom. |
| Load regulation (100...25%) | Lastregulierung (100...25%) | Régulation charge (100...25%) | 1.0% single; 2.0% dual |
| Isolation voltage | Isolationsspannung | Tension d'isolement | 500 VDC |
| Isolation resistance | Isolationswiderstand | Résistance d'isolement | > 1 GOhm |
| Isolation capacitance | Isolationskapazität | Capacitance d'isolement | typ. 1 nF |
| Switching frequency | Schaltfrequenz | Fréquence de découpage | typ. 200 kHz |
| MTBF (MIL-HB 217E at 25°C) | MTBF (MIL-HB 217E bei 25°C) | MTBF (MIL-HB 217E à 25°C) | >1'000'000 hrs. |
| Temperature coefficient | Temperaturkoeffizient | Coefficient de température | typ. ±0.02% per °C |
| EMI / RFI | EMI / RFI | EMI / RFI | Metal case with non conductive base plate, six sides shielded EN55022 Class B |
| Storage temperature | Lagertemperatur | Température de stockage | -40...+105°C |
| Soldering information | Lötinformationen | Information de soudage | 275°C for 10 sec. |
| Weight | Gewicht | Poids | approx. 56 g |

View from bottom; Normal tolerance ± 0.2 mm; Pin distance tolerance ± 0.05 mm



Cleaning

Waschen

Lavage

The modules are cleanable with the today's known and in the electronics industry usually used products.

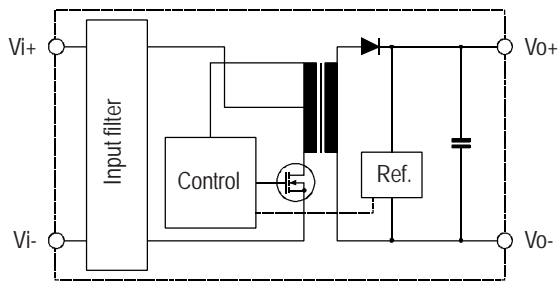
Due to the different cleaning processes and new available products, we highly recommend to do a compatibility test when using the converters the first time.

Die Module sind waschbar mit den heute bekannten und in der Elektronikindustrie üblichen Reinigungsmitteln.

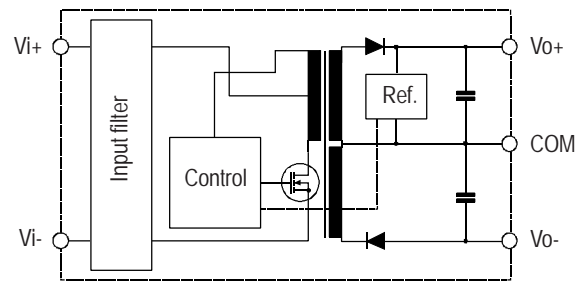
Bedingt durch die verschiedenen Reinigungsprozesse und neu auf den Markt kommende Mittel, raten wir dringend beim Ersteinsatz der Konverter eine Verträglichkeitsprüfung vorzunehmen.

Les modules sont lavables avec les solvants couramment utilisés dans l'industrie électronique.

Dû aux différents processus de lavage et aux nouveaux détergents disponibles sur le marché, il est strictement recommandé de faire un test de compatibilité avant la première utilisation.



Single output converter block diagram



Dual output converter block diagram

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use.

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