



DC/DC Wide Input Converter ECW 7.5 Watt



DC/DC converter module with input to output isolation of 1500 VDC • Pi-filter at input • Continuous short circuit proof • High efficiency • No derating up to 70°C • Low output ripple and spikes • Low silhouette • Metal case with a non conductive base plate, six sides shielded • Inhibit as option

DC/DC Konverter-Modul mit galvanischer Trennung Eingang / Ausgang von 1500 VDC • Pi-Filter am Eingang • Dauerkurzschlussfest • Hoher Wirkungsgrad • Keine Lastminderung bis zu einer Umgebungstemperatur von 70°C • Gute Werte von Ripple und Spikes • Geringe Bauhöhe • Metallgehäuse mit isolierender Bodenplatte, 6seitig abgeschirmt • Inhibit als Option

Module convertisseur CC/CC avec séparation galvanique entrée sortie 1500 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 • Profile bas • Boîtier en métal blindé 6 faces avec fond isolé • Inhibit comme option

Product range			Typenübersicht			Sommaire des types	
Model	Input nominal	Input range	Input current max. @ full load	Output Uout	Output Iout max.	Operating temperature	Efficiency typ.
ECW12-0307(3)	12 VDC	9...18 VDC	557 mA	3.3 VDC	1500 mA	For all models:	74%
ECW12-0507(3)	12 VDC	9...18 VDC	820 mA	5.1 VDC	1500 mA	-25...+70°C	76%
ECW12-1207(3)	12 VDC	9...18 VDC	780 mA	12.0 VDC	625 mA	or maximum case	80%
ECW12-1507(3)	12 VDC	9...18 VDC	780 mA	15.0 VDC	500 mA	temperature of 90°C	80%
ECW24-0307(3)	24 VDC	18...36 VDC	271 mA	3.3 VDC	1500 mA		76%
ECW24-0507(3)	24 VDC	18...36 VDC	400 mA	5.1 VDC	1500 mA		78%
ECW24-1207(3)	24 VDC	18...36 VDC	380 mA	12.0 VDC	625 mA		82%
ECW24-1507(3)	24 VDC	18...36 VDC	380 mA	15.0 VDC	500 mA		82%
ECW48-0307(3)	48 VDC	36...72 VDC	136 mA	3.3 VDC	1500 mA		76%
ECW48-0507(3)	48 VDC	36...72 VDC	200 mA	5.1 VDC	1500 mA		78%
ECW48-1207(3)	48 VDC	36...72 VDC	192 mA	12.0 VDC	625 mA		81%
ECW48-1507(3)	48 VDC	36...72 VDC	192 mA	15.0 VDC	500 mA		81%

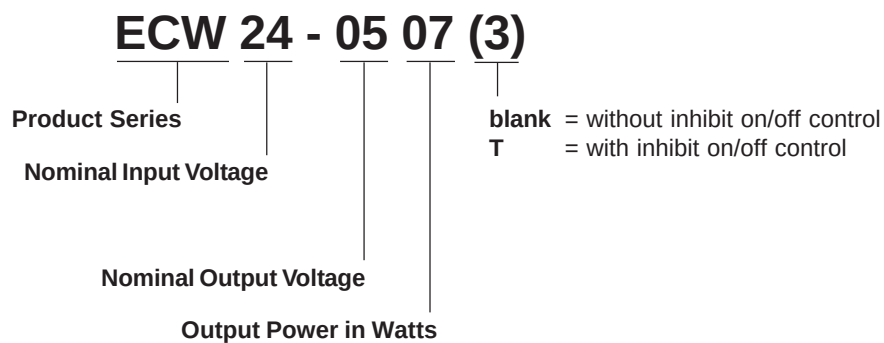
Model	Input nominal	Input range	Input current max. @ full load	Output Uout	Output Iout max.	Operating temperature	Efficiency typ.
ECW12-050507(3)	12 VDC	9...18 VDC	820 mA	±5.1 VDC	±750 mA	For all models:	76%
ECW12-121207(3)	12 VDC	9...18 VDC	775 mA	±12.0VDC	±310 mA	-25...+70°C	80%
ECW12-151507(3)	12 VDC	9...18 VDC	780 mA	±15.0VDC	±250 mA	or maximum case	80%
ECW24-050507(3)	24 VDC	18...36 VDC	400 mA	±5.1 VDC	±750 mA	temperature of 90°C	78%
ECW24-121207(3)	24 VDC	18...36 VDC	385 mA	±12.0VDC	±310 mA		81%
ECW24-151507(3)	24 VDC	18...36 VDC	385 mA	±15.0VDC	±250 mA		81%
ECW48-050507(3)	48 VDC	36...72 VDC	200 mA	±5.1 VDC	±750 mA		78%
ECW48-121207(3)	48 VDC	36...72 VDC	192 mA	±12.0VDC	±310 mA		81%
ECW48-151507(3)	48 VDC	36...72 VDC	192 mA	±15.0VDC	±250 mA		81%

(3) Add T for the version inhibit on/off control

Nomenclature

Nomenklatur

Nomenclature



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 de la tension de sortie	±2% of Uout nom.
Output voltage balance	Abgleich zwischen den Ausgängen	Balance des sorties	±1%; on dual models
Residual output ripple and noise [BW 20 MHz]	Ausgangsspannungsrippel und HF Spitzen [BW 20 MHz]	Ondulation résiduelle et bruit de sortie [BW 20 MHz]	100 mVpp (3.3/5.1) 1% pp (12/15)
Short circuit protection	Kurzschlussfestigkeit	Protection courts-circuits	continuous
Line regulation (Umax...Umin)	Leistungsregulierung (Umax...Umin)	Régulation ligne (Umax...Umin)	±0.5% @ Iout nom.
Load regulation (100...10%)	Lastregulierung (100...10%)	Régulation charge (100...10%)	±0.5%, single
Load regulation (100...25%)	Lastregulierung (100...25%)	Régulation charge (100...25%)	±1.0%, dual
No load input current	Leerlaufeingangsstrom	Courant d'entrée à vide	7.5 - 12mA (ECW12) 5 - 7.5mA (ECW24) 2 - 3mA (ECW48)
Isolation voltage	Isolationsspannung	Tension d'isolement	1500 VDC
Isolation resistance	Isolationswiderstand	Résistance d'isolement	> 1 GOhm
Switching frequency	Schaltfrequenz	Fréquence de découpage	min. 100 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.
EMC Conducted and radiated	EMV Leitungsgebunden und abgestrahlt	EMC Emis et conduit	EN55022/11 Class B

Temperature coefficient	Temperaturkoeffizient	Coefficient de température	typ. $\pm 0.05\%$ / K
Storage temperature	Lagertemperatur	Température de stockage	-40...+100°C
Case material	Gehäusematerial	Matière du boîtier	Copper, black coated with non-conductive base
Soldering information	Lötinformationen	Information de soudage	275°C for 10 sec.
Compound material	Vergussmaterial	Resine d'enrobage	Two component resin UL94-V0
Weight	Gewicht	Poids	approx. 32 g

EMC information

EMV Informationen

Information CEM

EMC information ECW24-0507 EN55022/11 Class B

Electro-Metrics

EMV Messung

Date : 04/19/00
 Technician : Urs Luessi
 Test Method : CONDUCTED EMISSION
 Equipment : ECW24-0507
 Mode of Op. :
 Serial No. :

Time : 12:42:02.56
 Test Equip. : EMC-30 MK4 44136
 Test Number : 1
 Sensor Loc. : +
 Sensor Pol. : N/A
 Ext. Atten. : 0 dB

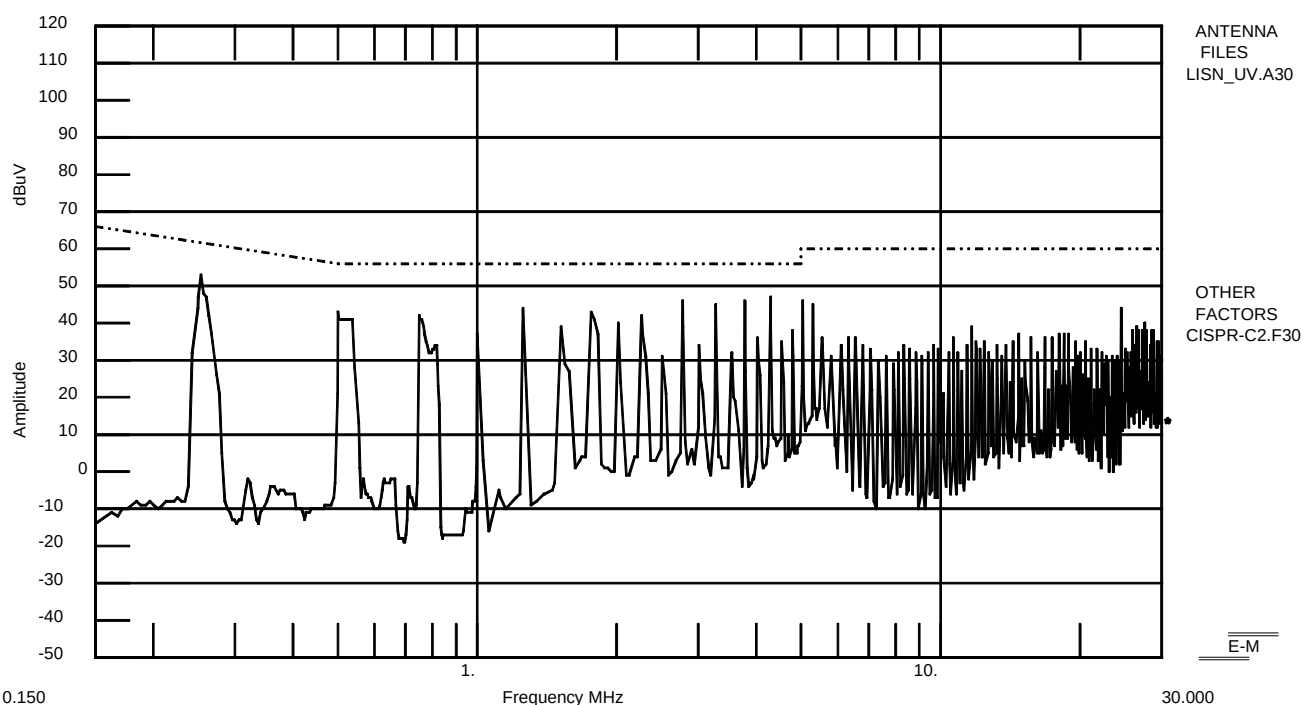
EMC-30 SETTINGS

Detector : QuasiPeak
 Bandwidth : CISPR
 Dwell : N/A
 RF Atten. : 0 dB
 IF Atten. : 0 dB

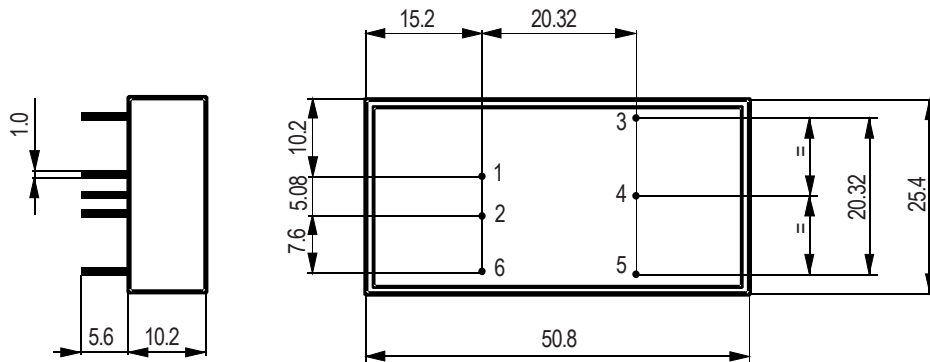
SPECS

1) EN 55022 CLASS B / QuasiPeak

Comment : with input capacitor 200uF



View from bottom; Normal tolerance ± 1.0 mm; Pin distance tolerance ± 0.05 mm; Round pins 1.0 mm diameter



Pin No.	Single Output	Dual Output
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	No Pin	Common
5	- Output	- Output
6	Inhibit*	Inhibit*

* without suffix T No Pin

Remote On/Off Control

Logic Compatibility.....CMOS or Open Collector TTL
 Output-ON..... > +5.5 VDC or Open Collector
 Output-OFF..... < 1.8 VDC
 Shutdown Idle Current..... 10 mA
 Input Resistance..... 100 kohms (Ein 0...9 VDC)
 Control Common..... Referenced to Input Minus

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 kommenden 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.

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.

Switzerland:
 FABRIMEX AG • Techcenterstrasse 2
 CH-8608 Bubikon
 Tel: +41-55 253 31 90 • Fax: +41-55 253 31 91
 Internet: www.fabrimex.com
 Germany:
 CAC FABRIMEX GmbH • D-89543 Gerstetten
 Tel: 07323/ 950-0 • Fax: 07323/ 95050



FABRIMEX
 POWER SUPPLIES