FABRIMEX POWER SUPPLIES
CH-8603 Schwerzenbach/Switzerland

FABRIMEX
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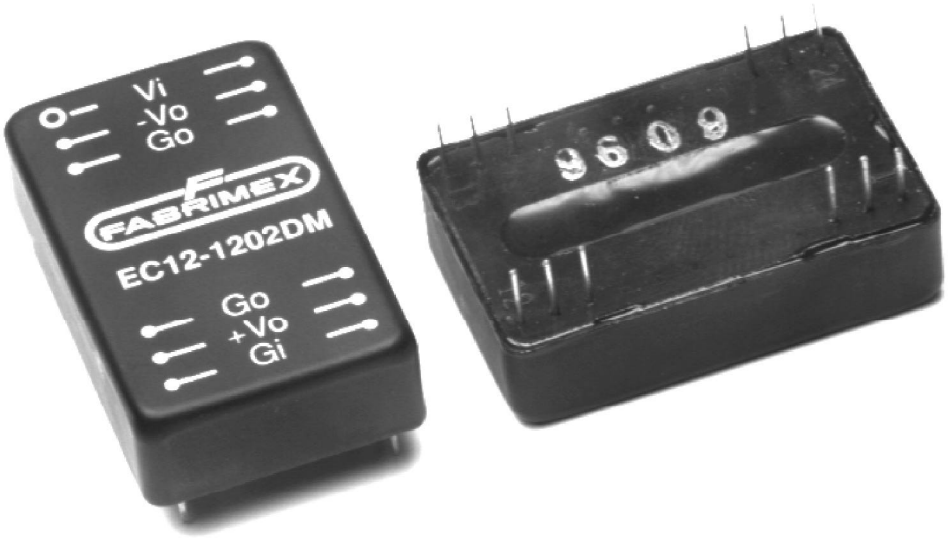
Certified
Management-System
SQS
ISO 9001
Reg. Nr. 12666

DC/DC Converter DIL-24
EC 1.5 Watt



1.5 Watt DC/DC Converter line with single or dual output models

DC/DC converter modules with input to output isolation of 500 VDC • Pi-filter at input • Short circuit protection • Linear regulation • No derating up to 70°C • Low output ripple and noise • Low silhouette • Metal case with non conductive base plate, six sides shielded

1.5 Watt DC/DC Konverter Serie mit Ein- oder Zweifachausgang

DC/DC Konverter-Modul mit galvanischer Trennung Eingang / Ausgang von 500 VDC • Pi-Filter am Eingang • Kurzschluss-fest • Linear nachgeregelt • Keine Last-minderung bis zu einer Umgebungs-temperatur von 70°C • Gute Werte von Ripple und Noise • Geringe Bauhöhe • Metallgehäuse mit isolierender Boden-platte, 6seitig abgeschirmt

1.5 Watt convertisseur CC/CC avec sortie simple ou double

Module convertisseur CC/CC avec sépa-ration galvanique entrée sortie 500 VDC • Filtre en Pi à l'entrée • Protection courts-circuits • Régulation linéaire • Pas de dérive jusqu' à 70°C • Ondulation résiduelle de sortie très faible • Profile bas • Boîtier en métal blindé 6 faces avec fond isolé

El. characteristics | El. Eigenschaften | Charactéristiques 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	±4% of Uout nom.
Output voltage balance	Abgleich zwischen den Ausgängen	Balance des sorties	±4%; dual
Residual output ripple (BW 20 MHz)	Ausgangsspannungsrippel (BW 20 MHz)	Ondulation résiduelle de sortie (BW 20 MHz)	50 mVpp (5 VDC) 70 mVpp (12/15 VDC)
Short circuit protection	Kurzschlussfestigkeit	Protection courts-circuits	Momentary
No load input current	Leerlaufeingangsstrom	Courant d'entrée à vide	110 mA, 40 mA (5, 12 VDC) 20 mA, 15 mA (24, 48 VDC)
Line regulation (max...min)	Leitungsregulierung (max...min)	Régulation ligne (max...min)	±0.3% at Iout nom.
Load regulation	Lastregulierung	Régulation charge	0.5%; single (100...10%) 0.5%; dual (100...10%)
Isolation voltage	Isolationsspannung	Tension d'isolement	500VDC for M / 3000VDC for V
Isolation resistance	Isolationswiderstand	Résistance d'isolement	1 GOhm
Switching frequency	Schaltfrequenz	Fréquence de découpage	typ. 20 kHz
MTBF (MIL-HB 217E at 25°C)	MTBF (MIL-HB 217E bei 25°C)	MTBF (MIL-HB 217E à 25°C)	>250'000 hrs.
Temperature coefficient	Temperaturkoeffizient	Coefficient de température	typ. ±0.02% per °C
Storage temperature	Lagertemperatur	Température de stockage	-40...+100°C
Soldering information	Lötinformationen	Information de soudage	275°C for 10 sec.
Weight	Gewicht	Poids	approx. 15 g; Copper Case

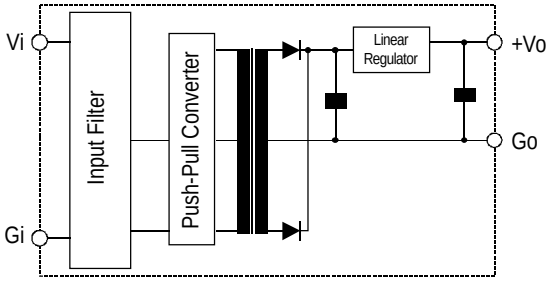
Cleaning | Waschen | Lavage

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.

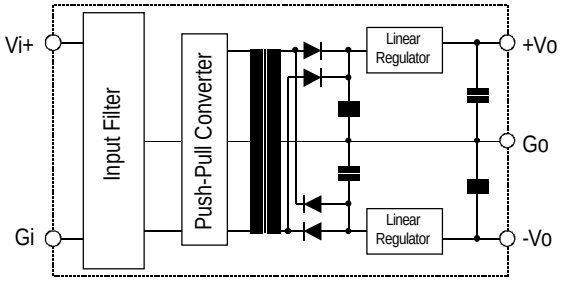
Die Module sind waschbar mit den heute bekannten und in der Elektronikindustrie üblichen Reinigungsmitteln.
Bedingt durch die verschiedenen Reinigungsprozesse und neu auf den Markt kommende Mittel, raten wir dringend beim Ersteinsatz der Konverter eine Verträglichkeitsprüfung vorzunehmen.

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

Functional block diagram | Blockschema | Synoptique



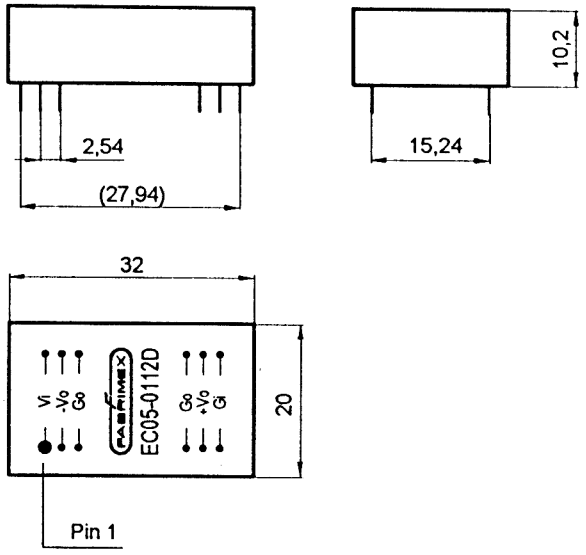
Single output converter block diagram



Dual output converter block diagram

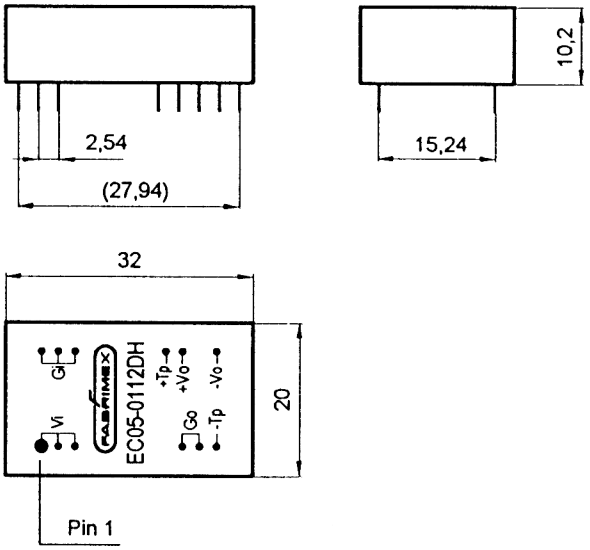
Case Gehäuse Boîtier

Mechanical design of Standard EC-Series



All dimensions in mm; Pinout DIL-24 compatible
Pin Diameter: 0.50 mm

Mechanical design of High Isolation EC-Series



All dimensions in mm; Pinout DIL-24 compatible
Pin Diameter: 0.50 mm

Case Material

Non-conductive black plastic for standard models
or on request black coated copper with a non-conductive base plate.

High isolation models with black plastic only.

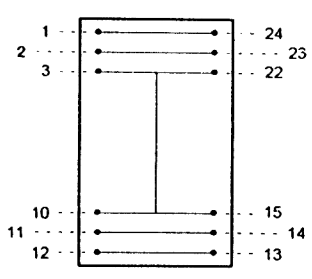
NP = No pin
NC = No internal connection to existing pin
TP = Test point

Pin No.	500 VDC Isolation		3000 VDC Isolation	
	Single Output	Dual Output	Single Output	Dual Output
1	+Vin	+Vin	+Vin	+Vin
2	NC	Vout neg.	+Vin	+Vin
3	NC	COM out	+Vin	+Vin
10	-Vout	COM out	NP	COM out
11	+Vout	Vout pos.	NP	COM out
12	-Vin	-Vin	-Vout	-TP
13	-Vin	-Vin	+Vout	-Vout
14	+Vout	Vout pos.	NP	NP
15	-Vout	COM out	NP	+Vout
16	NP	NP	NP	+TP
17	NP	NP	+TP	NP
22	NC	COM out	-Vin	-Vin
23	NC	Vout neg.	-Vin	-Vin
24	+Vin	+Vin	-Vin	-Vin

EC-Series
Dual output
500 VDC isolation voltage

view from top

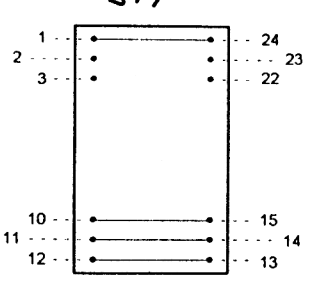
DM



EC-Series
Single output
500 VDC isolation voltage

view from top

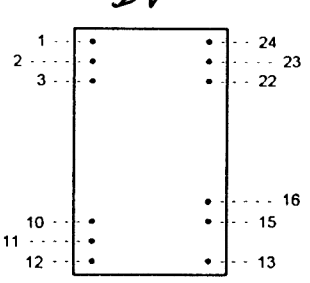
SM



EC-Series
Dual output
3000 VDC isolation voltage

view from top

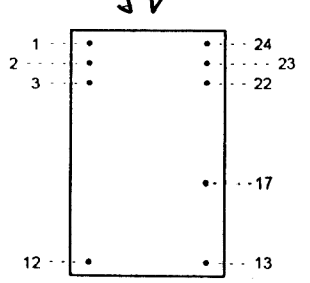
DV



EC-Series
Single output
3000 VDC isolation voltage

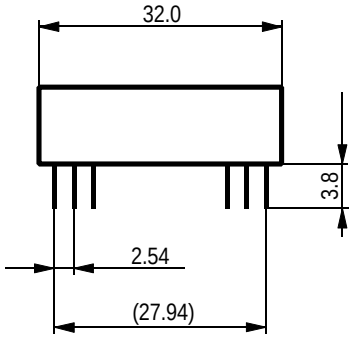
view from top

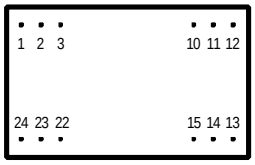
SV



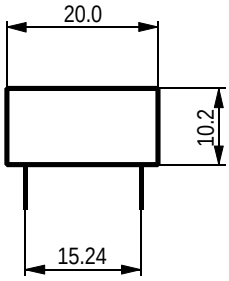
Case Gehäuse Boîtier

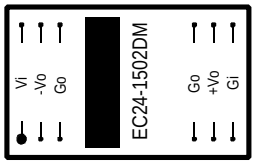
Normal tolerance ±0.2 mm; Pin distance tolerance ±0.05 mm; Pin diameter 0.5 mm





View from bottom





View from top

Mechanical data for converters with
500 VDC isolation voltage

Pin	Single	Dual	Pin
1	Vi	Vi	1
2	NC	-Vo	2
3	NC	Go	3
10	Go	Go	10
11	+Vo	+Vo	11
12	Gi	Gi	12
13	Gi	Gi	13
14	+Vo	+Vo	14
15	Go	Go	15
22	NC	Go	22
23	NC	-Vo	23
24	Vi	Vi	24

NC = No connection internal to pin

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