FABRIMEX POWER SUPPLIES
CH-8608 Bubikon/Switzerland

FABRIMEX POWER SUPPLIES

RoHS Compliant

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

DC/DC Ultra Wide Input Converter
ECU 30 Series

DC/DC converter module with input to output isolation of 1500 VDC - Pi-filter at input - Continuous short circuit proof - High efficiency - Low output ripple and noise - Metal case with a non conductive base plate, six-sides shielded - Remote on/off control - External output voltage adjust - SMD technology - 2"x1" case

DC/DC Konverter-Modul mit galvanischer Trennung Eingang / Ausgang von 1500 VDC - Pi-Filter am Eingang - Dauerkurzschlussfest - Hoher Wirkungsgrad - Gute Werte von Ripple und Spikes - Metallgehäuse mit isolierender Bodenplatte, 6seitig abgeschirmt - Externer Ausgangsspannungsabgleich - Inhibit - SMD Technologie - 2"x1" Gehäuse

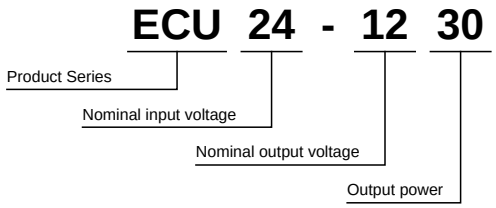
Module convertisseur CC/CC avec séparation galvanique entrée sortie 1500 VDC - Filtre en Pi à l'entrée - Protection ourtscircuits permanente - Rendement élevé - Ondulation résiduelle de sortie très faible - Boîtier en métal blindé 6 faces avec fond isolé - Ajustement externe de la tension de sortie - Inhibit - Technologie CMS - 2"x1" boîtier

Product Range Typenübersicht Sommaire des types

Model	Input		Input current @ Uin nom.		Output			Efficiency
	nominal	range	full load	no load	Uout	Iout max.	power	typ.
Single								
ECU24-3V330	24VDC	9...36VDC	1200mA	100mA	3.3VDC	7500mA	24.75W	88%
ECU24-0530	24VDC	9...36VDC	1421mA	110mA	5.0VDC	6000mA	30W	89%
ECU24-1230	24VDC	9...36VDC	1405mA	35mA	12VDC	2500mA	30W	90%
ECU24-1530	24VDC	9...36VDC	1405mA	35mA	15VDC	2000mA	30W	91%
ECU48-3V330	48VDC	18...72VDC	600mA	55mA	3.3VDC	7500mA	24.75W	88%

ECU48-0530	48VDC	18...72VDC	711mA	55mA	5.0VDC	6000mA	30W	90%
ECU48-1230	48VDC	18...72VDC	695mA	25mA	12VDC	2500mA	30W	90%
ECU48-1530	48VDC	18...72VDC	688mA	20mA	15VDC	2000mA	30W	90%
Dual								
ECU24-121230	24VDC	9...36VDC	1437mA	35mA	+12VDC -12VDC	+1250mA -1250mA	15W 15W	90%
ECU24-151530	24VDC	9...36VDC	1437mA	35mA	+15VDC -15VDC	+1000mA -1000mA	15W 15W	90%
ECU48-121230	48VDC	18...72VDC	711mA	25mA	+12VDC -12VDC	+1250mA -1250mA	15W 15W	90%
ECU48-151530	48VDC	18...72VDC	711mA	20mA	+15VDC -15VDC	+1000mA -1000mA	15W 15W	90%

Nomenclature Nomenklatur Nomenclature



Specifications Spezifikationen Specifications

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

Input Specifications

Characteristic		Conditions	min	typ	max	unit
U_{IN}	Input voltage		9 / 18	24 / 48	36 / 72	V
U_{UVLO}	Under voltage lockout					V
	Max. input current at full load		See	product	range	A
	No load input current		See	product	range	mA

Output Specifications

Characteristic		Conditions	min	typ	max	unit
U_{ACC}	Output voltage accuracy		±1.0			%
	Output voltage adjust		±10			%
	Line regulation				±0.2	%
	Load regulation			±0.2 / ±0.5		%
	Load transient recovery time	25% / 100% step load change		< 250		us
	Load transient error band	25% / 100% step load change		±5		%
	Temperature coefficient			±0.02		%/K
	Ramp up time					ms
	Start up time					ms
	Ripple and noise	BW = 20MHz	with 0.1uF MLCC: 75/100			mVpp
	Current limit					%
	Over voltage protection					%
	Short circuit protection					%

	Short circuit characteristic		continuous	

General Specifications

Characteristic		Conditions	min	typ	max	unit
U_{ISO}	Isolation voltage	in/out, in/case, out/case		1500		V
R_{ISO}	Isolation resistance			> 1000M		Ohm
R_{ISO}	Switching frequency			430		kHz
	Approvals					
	MTBF					h
	Case material			Copper, black coated		
	Compound material					
	PCB material					
	Weight			35		gr
	Dimensions			50.8 x 25.4 x 10.2		mm
	Soldering infos			275°C for 10		s

EMC Specifications

Characteristic		Conditions	min	typ	max	unit
	EMC conducted					

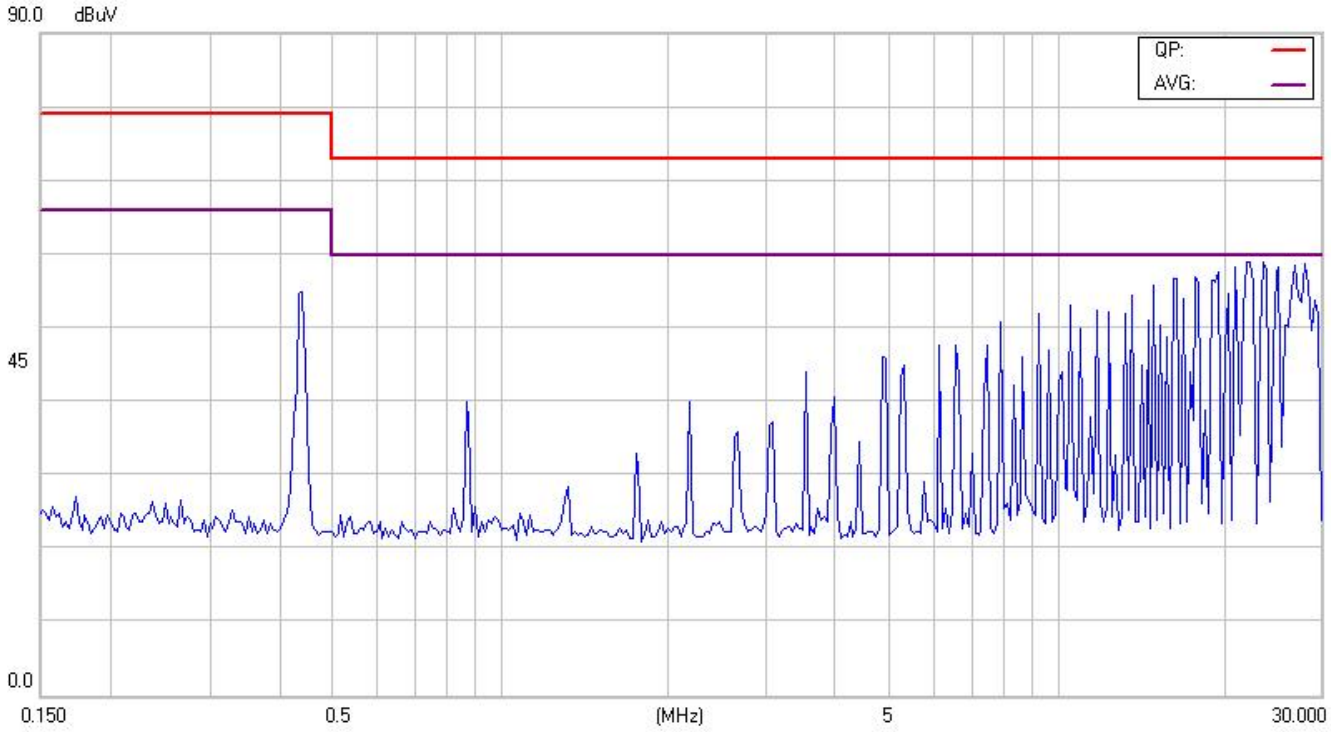
Environmental Specifications

Characteristic		Conditions	min	typ	max	unit
T_{CASE}	Operation temperature			-40...+75		°C
T_{AMB}	Storage temperature			-55...+125		°C
T_{SD}	Thermal shutdown range			Tcase = max.110		°C

Own notes Eigene Notizen Vos notices

EMC information EMV Informationen Information CEM

EMC information conducted,



No EMC filter available yet, please contact factory

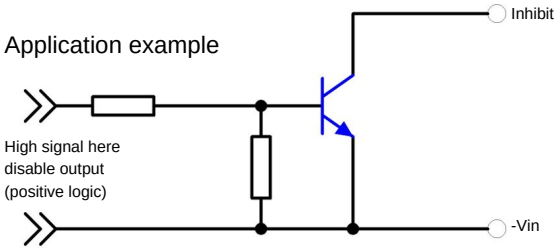
Inhibit Inhibit Inhibit

The ECU 30 Series allows the user to switch the module on and off electronicallv bv inhibit on/off feature.

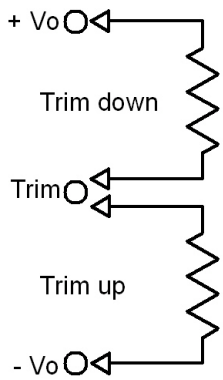
Logic table

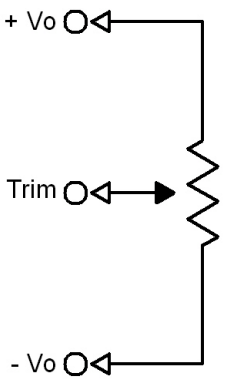
Logic state	Positive logic
Logic low	Module off
Logic high	Module on

Application example



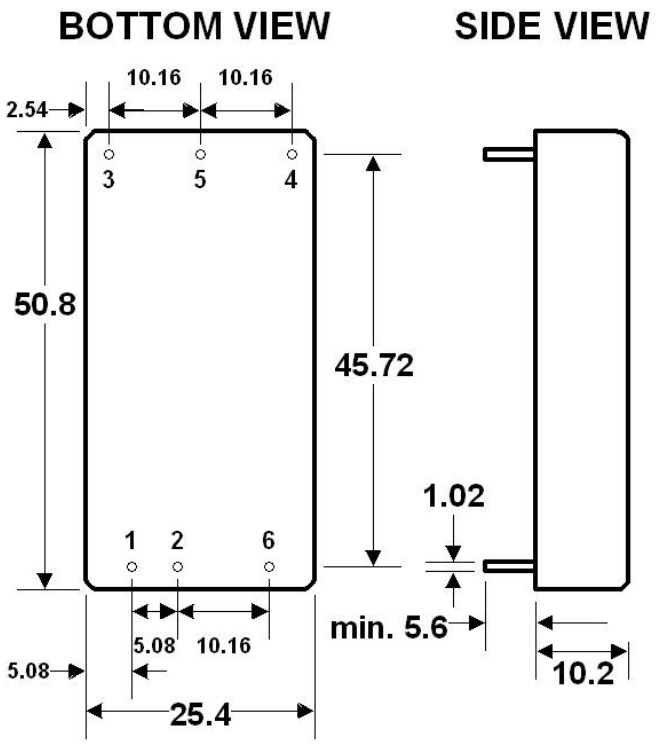
Trimming Trimmen Ajuster





Case Gehäuse Boîtier

Normal tolerance 1/10 ±0.5 mm, 1/100 ±0.25 mm; Pin tolerance ±0.5 mm diameter, NP = No pin, NC = Not conected



Pin	Single	Dual	Pin
1	+Vi	+Vi	1
2	-Vi	-Vi	2
3	+Vo	+Vo	3
4	Trim	-Vo	4
5	-Vo	Com	5
6	on/off	on/off	6

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.

Own notes Eigene Notizen Vos notices

Switzerland:
FABRIMEX AG - Techcenterstr. 2
CH-8608 Bubikon
Tel: +41 55 253 31 90 - Fax: +41 55 253 31 91
Internet: www.fabrimex.ch

Germany:
CAC FABRIMEX GmbH - D-89543 Gerstetten
Tel: 07323/ 95000 - Fax: 07323/ 95050