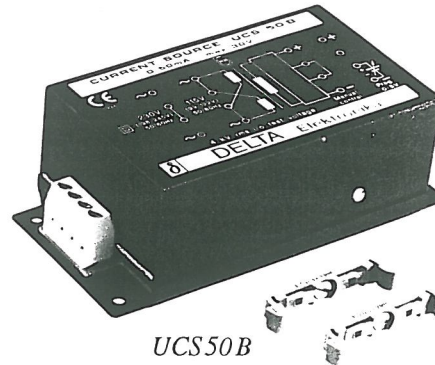


UCS 50



UCS 50B

CONSTANT CURRENT SOURCE UCS 50

With potted split bobbin transformer, providing very low leakage current and coupling capacitance.

CURRENT RANGE 0-50 mA, max 30V

Input : 198 - 245 V 50/60 Hz
99 - 122 V 50/60 Hz
Split bobbin, potted, safety transformer according to VDE 0551 EN 60742



Test voltage

Input / output : 4 kV rms (output / case shorted)
Input / case : 4 kV rms (output / case shorted)
Output / case : 500 V DC (output shorted)

Input to output

Leakage current : Typical 5 μ A
Coupling capacitance: Less than 60 pF
Insulation resistance : 1000 MOhms
Attenuation input spikes : Better than 100 dB

Safety

: IEC 950 / EN 60950

EMC

: EN 55011,
IEC 801-2, -3, -4, -5

Current adjustment

: 0-50 mA
a) By 20-tum screwdriver adj.
b) By external potmeter 10k Ω
c) By 0-5V analog programming

Programming input

0-5V, full scale error \pm 0.2%,
offset error \leq 20 μ A,
input impedance 500 kOhm.

Current regulation

Load 600 - 0 Ohm : 3 μ A
Line \pm 10% : 3 μ A

Ripple + noise : 30 μ A p-p, measured across 600 ohm // 0.1 μ F

Temp. coeff. : 0.005% per $^{\circ}$ C

Stability : 0.01% per 8 hrs after 20 min. warm up

Output impedance

DC : 10 MOhm
1 kHz : 33 kOhm
10 kHz : 3.3 kOhm
100 kHz : 0.33 kOhm

Recovery time

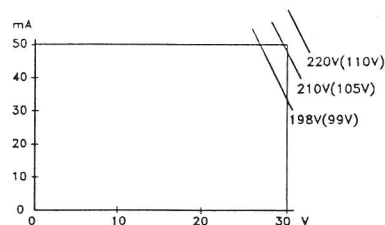
600 - 60 Ohm : 10 μ s

Open voltage limit : 33V \pm 5%

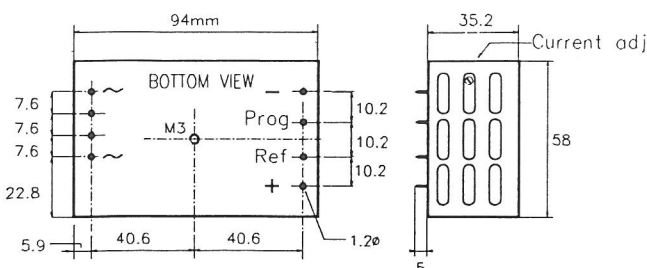
Ambient temp. : -20 to + 50 $^{\circ}$ C

Dim. and weight : 94 x 58 x 35 mm 0.38 kgs

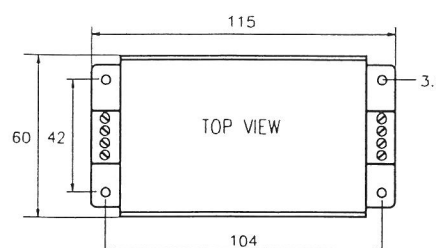
Accessories : P500 Eurocard for 2 units.
Front panel F10-3 for P500.
For more details see also U-series.



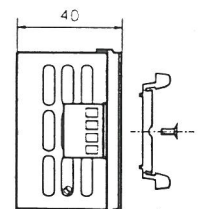
Derating of max. voltage at low line voltage



UCS 50 with solder pins for PC mounting



UCS 50B with screw terminals for wall or rail mounting



Clamp for rail mounting

UCS50

C01 = 100UF 40V CHEMI-CON
 C02 = 100UF 40V CHEMI-CON
 C03 = 47UF 63V ERO
 C04 = 0.33UF 100V MULT LAYR
 C05 = 0.33UF 100V MULT LAYR
 C06 = 2200PF 100V POLYPROP
 C07 = 22NF 100V FILM
 C08 = 47NF 100V MULT LAYR
 C09 = 22NF 100V FILM

D01 = 1N4004G PHILIPS
 D02 = 1N4004G PHILIPS
 D03 = 1N4004G PHILIPS
 D04 = BZX55-C6V2 ITT
 D05 = BZX55-C6V2 ITT
 D06 = BZX85-C6V2 ITT
 D07 = BZX55-C12 ITT
 D08 = 1N4148 PHILIPS
 D09 = 1N4148 PHILIPS
 D10 = 1N4148 PHILIPS
 D11 = BYX84 TELEF
 D12 = BYX84 TELEF

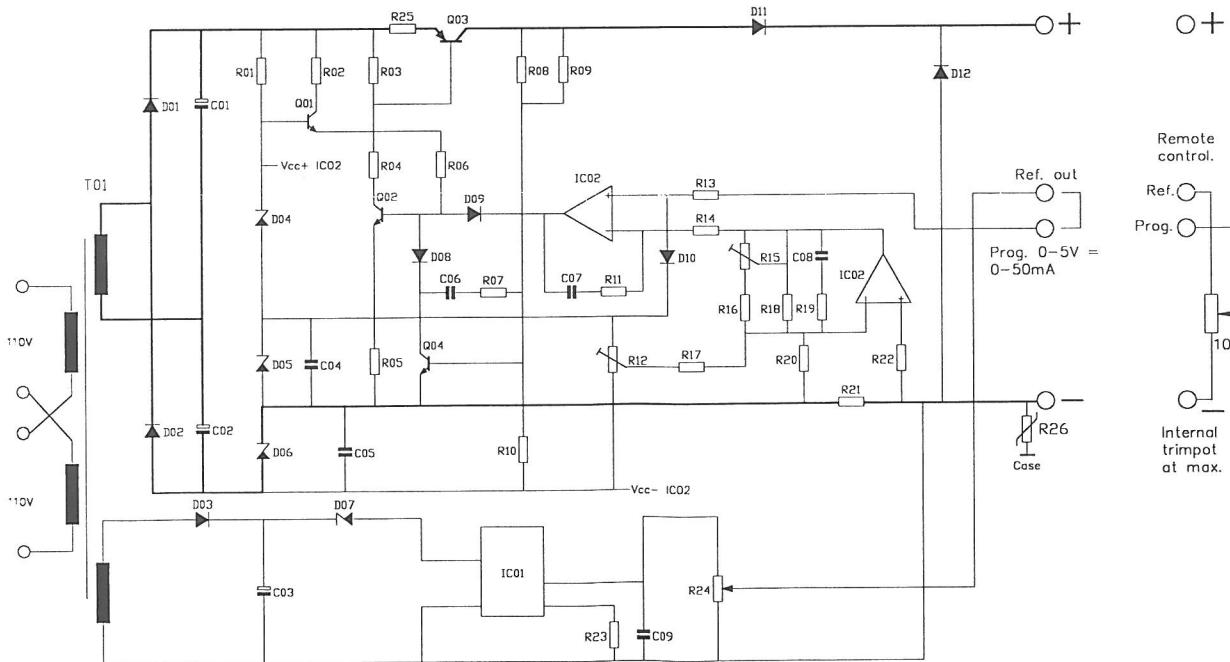
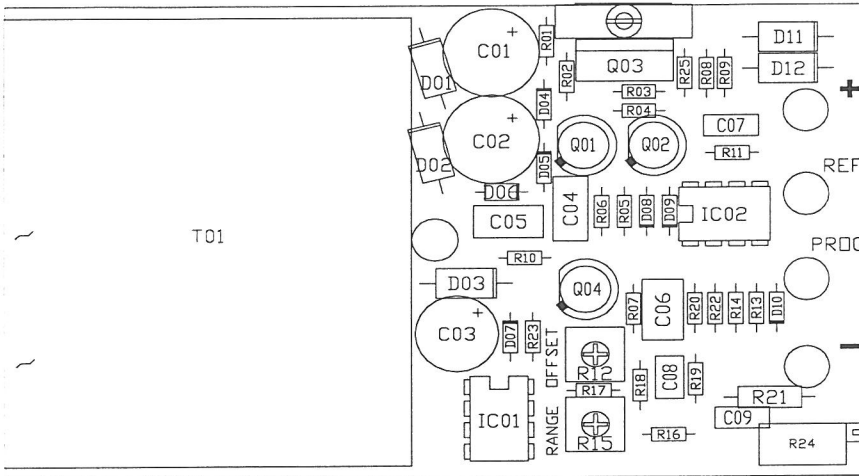
IC01 = REF02HP
 IC02 = TL082IP TEXAS

Q01 = 2N2222A MOTOROLA
 Q02 = 2N2222A MOTOROLA

Q03 = BD242B TEXAS
 Q04 = 2N2222A MOTOROLA

R01 = 15K MF/0.5W/200V
 R02 = 3.3K MF/0.5W/200V
 R03 = 1K MF/0.4W/250V
 R04 = 6.8K MF/0.5W/200V
 R05 = 1K MF/0.4W/250V
 R06 = 22K MF/0.5W/200V
 R07 = 10K MF/0.5W/200V
 R08 = 56.2K MF/0.4W/250V
 R09 = 475K MF/0.4W/250V
 R10 = 10K MF/0.5W/200V
 R11 = 2.2K MF/0.5W/200V
 R12 = 50K TRIMPOTM 1 TURN
 R13 = 1K MF/0.4W/250V
 R14 = 1K MF/0.4W/250V
 R15 = 50K TRIMPOTM 1 TURN
 R16 = 39.2K MF/0.4W/250V
 R17 = 820K MF/0.5W/200V
 R18 = 10K MF/0.5W/200V
 R19 = 1.2K MF/0.5W/200V
 R20 = 1K MF/0.4W/250V
 R21 = 12.1 MF/0.6W/350V
 R22 = 1K MF/0.4W/250V
 R23 = 33K MF/0.5W/200V
 R24 = 10K TRIM 25 TURNS
 R25 = 15 MF/0.5W/200V
 R26 = TNR12G821K MARCON

T01 = XT301 DELTA





EC Declaration of Conformity

We

Delta Elektronika
P.O. BOX 27
4300 AA Zierikzee
The Netherlands

declare under sole responsibility that the following Power Supplies:

UCS 50

meet the intent of Directive 89/336/EEC for Electromagnetic Compatibility.
Compliance was demonstrated to the following specification as listed in the
official Journal of the European Communities:

EN 50081-1 Generic Emissions:

EN 55022 Radiated, Class B
EN 55022 Conducted, Class B
EN 60555-2 Power Harmonics

EN 50082-1 Generic Immunity:

IEC 801-2	Electrostatic Discharge	Level 3, air discharge.
IEC 801-3	Radiated electromagnetic fields	Level 3.
IEC 801-4	Electrical Fast Transients / Bursts	Level 4.
IEC 801-5	Surge on DC output	Level 1.
IEC 801-5	Surge on line input	Level 4.