

Source Control Document.

Model: DCH 80-380/13D1G-LSD-T6645
COSD: XXXX
Summary description: 80W Charger/UPS with 13.5V/6A output
Customer Name: Inkom/Sweden
Customer Part Number: Same as above



Product description:

This unit is a rugged, industrial quality UPS that provides power for the output and float charge for the battery. The battery is connected externally. The unit also has a low battery disconnect circuit to prevent damage to the battery by deep discharge during a long input failure. The use of components with established reliability results in a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: 340-420Vdc input, unit shuts down at 310V, Charger Fail alarm, Form B, $\pm 5\%$ adjustable output. Conformal coating

SPECIFICATIONS

Input Voltages

DC Input:

380Vdc nominal
 340-420Vdc operating range
 Input Current: 0.3Arms max.

Battery Input:

12V lead acid gel cell type battery

Input Protection

DC Input:

Inrush current limiting
 Varistor
 Reverse polarity protection
 Internal safety fuse
 Unit shuts down at 310V \pm 10V low input

Battery Input:

Crossbar diode and internal safety fuse for reverse battery protection
 Low Battery Disconnect circuit disengages battery at 10.5V \pm 0.3V

Warning: Battery must be fused externally, directly at the battery with a 15A fuse

Isolation

2250Vdc input to chassis
 4300Vdc input to output
 8mm spacing
 500Vdc output to chassis

Standards

Meets requirements for EN60950-1 and related standards

EMI

EN55032 Class A with margins

Switching Frequency

47kHz \pm 2kHz

Output Voltages/Currents

13.5Vdc/6A total, for load & charging
 $\pm 5\%$ adjustable. The output is floating

Output Separation Diode

Installed internally

Line/Load Regulation

$\pm 1.5\%$ combined from 10% load to full load including separation diode

Output Ripple/Noise

Better than 60mVrms or 300mVpp (@20MHz BW without battery)

Output Overload Protection (without battery)

Rectangular current limiting with hiccup type short-circuit protection
 Current Limit: 6.5A \pm 0.5A
 Internal safety fuse on battery output: 25A
 In case of an accidental shorting of the output, the external battery fuse will blow

Output Overvoltage Protection

Second regulator loop set at 15V \pm 0.5V

Efficiency

80% at full load

Operating Temperature Range

0 °C to +50°C for full specification

Battery Temperature Compensation

None on this model

Temperature Drift

0.03% per °C over operating

Cooling

Conduction via base plate and natural air convection

Environmental Protection

Basic ruggedizing
 Conformal coating
 IP66

Shock/Vibration

IEC 61373 Cat 1 A & B

Humidity

100% condensing

MTBF

140,000 hours @ 45°C

Indicators

None

Alarm Outputs

Charger Fail alarm, Form B (Fail close alarm)

Package/ Dimensions WxHxL

D1: 267 x 120 x 84mm
 (10.5" x 4.7" x 3.3")

Including mounting flanges

Weight

2.4kg (5.3 lb)

Connections

Internal 9-pole barrier type terminal block with 3/8" spacing, accessible via cable glands

RoHS Compliance


Compliant

Warranty

Two years subject to application within good engineering practice

Internal Terminal Block pin-out

DC INPUT			ALARM		BATT			LOAD	
-	+	GND	F/C	COM	+	-	-	+	
9	8	7	6	5	4	3	2	1	

Drawn by TS/ys	Date April 23, 2020
Checked by TS	Drawing No./ Rev. SCD T6645-3A
Approved by TS	

This document is the property of Absopulse Electronics Ltd. Its contents are proprietary and may neither be copied, reproduced, nor its contents disclosed to others without prior written agreement from Absopulse Electronics Ltd.