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| M. Obritzhauser | | 04 | 07 | 16 | E |

EGSTON

Switch Mode Power Supply Product Name:
E2DFSW3_E 60 24V

| | |
|-----------------|-----------------------|
| Input: | 100 - 240 V AC |
| Output : | 24V / 2,5A |
| Type: | E2DFSW3_E 60 |




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1 EVOLUTION

| Edition | Date | Responsible | Reason of change |
|---------|------------|--------------|---|
| A | 17.06.2015 | Obritzhauser | First edition |
| B | 06.10.2015 | Mauritz | Housing changed |
| C | 18.04.2016 | Schmalhofer | - Update Type name - Update protective earth |
| E | 04.07.2016 | Obritzhauser | Delete 70°C ambient |


2 SCOPE

This document describes a switch mode power supply unit (AC/DC converter) with fixed output voltage.

3 TECHNICAL SPECIFICATION SHEET


3.1 Input Specification

| Parameter | Key | Min | Typ. | Max | Unit | Test Cond. |
|---------------------|-----------|-----------------------|-------------|-----|------|--|
| Input Voltage | U_{IN} | 90 | | 264 | V | AC |
| Input Current | I_{IN} | | 1400 700 | | mA | @ U_{IN} : 100V @ U_{IN} : 240V |
| Input Frequency | f_{IN} | 47 | 50 | 63 | Hz | |
| Efficiency | η | According EuP Tier II | | | % | |
| Switching Frequency | f_{sw} | | 65 | | kHz | |
| Stand-by power | P_{stb} | According EuP Tier II | | | mW | |

| | | | | | | | | |
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3.2 Safety and Environmental Conditions

| Parameter | Key | Min | Typ. | Max | Unit | Test Cond. |
|-----------------------|-----|-----|------|-----|------------------|---------------------|
| Dielectric Strength | | 3 | | | kV _{AC} | 1 Minute |
| Leakage current | | | | 250 | μA | Secondary to earth |
| Operating Temperature | | -25 | | 50 | °C | At free convection. |
| Storage Temperature | | -25 | 25 | 80 | °C | |
| Humidity | | | | 95 | % | Non condensing |

| | | | | | | | |
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3.3 Output Specification

| Parameter | Key | Min | Typ. | Max | Unit | Test Cond. |
|--------------------------|-------------|-----|--------|-----|-------------------|---------------------------------------|
| Output Voltage | U_2 | | 24* | | V | 2,5A @ 50°C Tamb 1,25A @ 70°C Tamb |
| Output voltage tolerance | T_{U2} | -4 | | +3 | % | |
| Output Power | P_2 | | | 60 | W | |
| Ripple Voltage | $U_{2,rms}$ | | 14** | 50 | mV _{rms} | 0°C – 70°C |
| | | | 41*** | 100 | mV _{rms} | -25°C – 0°C |
| | $U_{2,pp}$ | | 108** | 200 | mV _{pp} | 0°C – 70°C |
| | | | 260*** | 400 | mV _{pp} | -25°C – 0°C |

* Single output power supply with 24V constant voltage output.

** Typical values measured at 20°C Tamb.

*** Typical values measured at -10°C Tamb.

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S. Schmalhofer

SPECIFICATION

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M. Obritzhauser

Day

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Year

Revision

04

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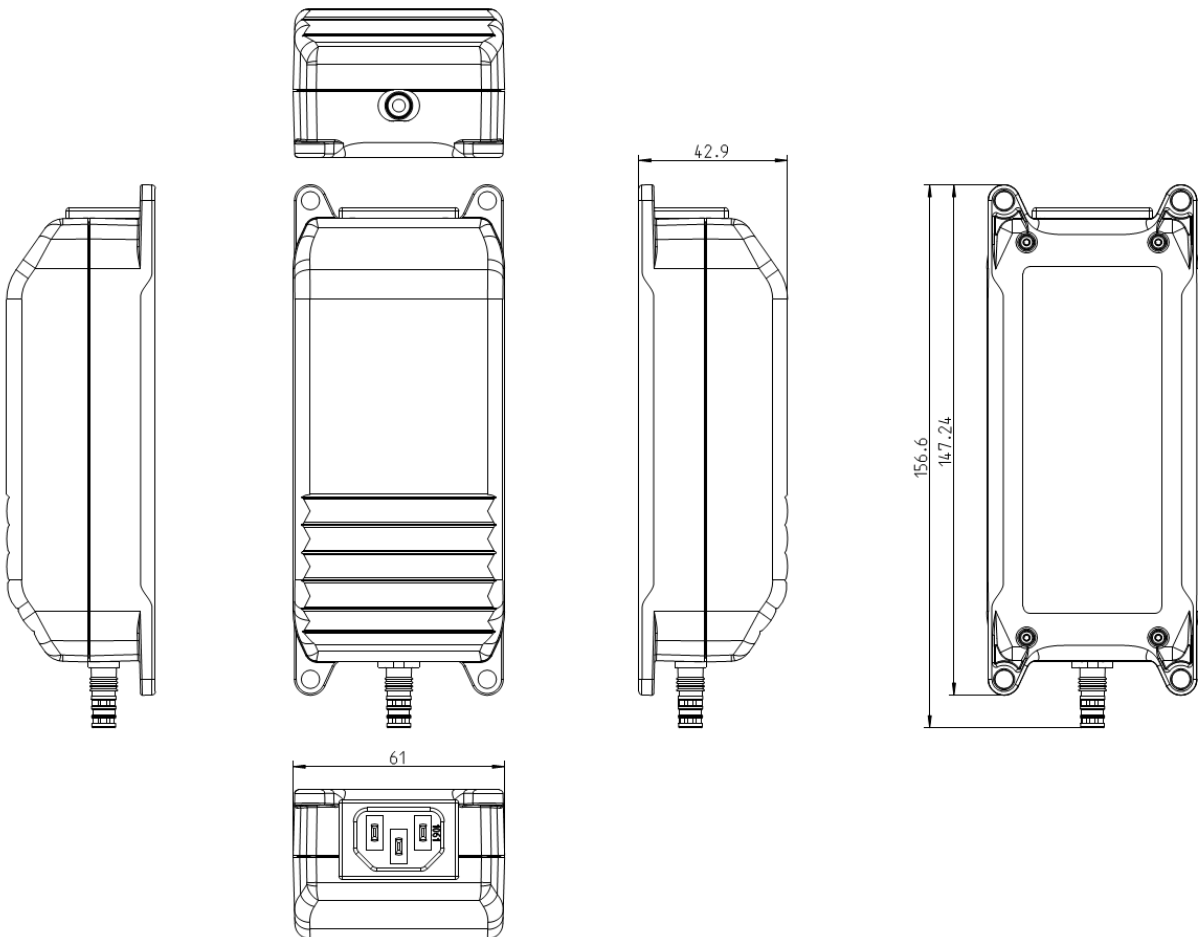
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3.4 Mechanical Parameters

3.4.1 Housing and Dimensions

Desktop Housing with IEC 320 C14 primary plug:



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3.5 Marking

Product name
 Input parameters
 Output parameters
 Date code of production
 CE marking


4 RELIABILITY

4.1 MTTF

The MTBF calculation can be performed on customer request.

4.2 Maintainability

The power supply is not to be repaired.

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5 SAFETY

5.1 Dielectric Strength

The isolation test voltage between primary and secondary is 3kV AC.

5.2 Over-current Protection


The unit is not long time over-current proof. If the unit is powered in overload conditions, the life time is reduced. Over load does not cause any damage to persons or ambient (fire, explosions, etc.).

5.3 Single Component Failure

A single component failure does not cause any damage to persons or ambient (fire, explosions, etc).

5.4 Short Circuit

The power supply is designed with a short circuit protection. A shortened output does not cause any damage to persons or ambient (fire, explosions, etc.) After removing these conditions the unit fulfills the specification.

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6 APPROVALS AND TEST STANDARDS

6.1 General

The device is galvanically isolated form primary to secondary. The output fulfills safety extra low voltage (SELV) requirements. The protective earth is connected to secondary minus, according costumers functional requirements.

6.2 Test Standards

| | |
|--------------|----------------------|
| EN 55022 | EMC standards |
| EN 55024 | |
| EN 61000-3-2 | |
| EN 61000-3-3 | |
| EN 60950-1 | IT Devices |