



Bureau Veritas Consumer Product Services Germany GmbH

**TEST REPORT
SEMI F47-0706**

**Specification for semiconductor processing equipment
Voltage sag immunity**

Report Reference No.: 15TH0033-SEMI F47_0

Compiled by (+ signature)

A Taubert

A Taubert
Digital unterschrieben von Anton Taubert
 DN: cn=Anton Taubert, o=Bureau Veritas CPS Germany GmbH, ou=EMC,
 email=Anton.Taubert@de.bureauveritas.com, c=DE
 Datum: 2015.03.20 16:17:01 +01'00'

Approved by (+ signature)

M Lehmann

M. Lehmann
Mario Lehmann
 Operational manager
Digitally signed by Mario Lehmann
 DN: cn=Mario Lehmann, o=Bureau Veritas, ou=ECL,
 email=mario.lehmann@de.bureauveritas.com, c=DE
 Date: 2015.03.23 10:07:51 +01'00'

Date of issue: 20-March-2015

Total number of pages: 23

Testing Laboratory: Bureau Veritas Consumer Product Services Germany GmbH

Address: Businesspark A96
86842 Türkheim

Applicant's name: Siemens AG Austria

Address: Siemensstraße 90, A-1211 Vienna, Austria

Test specification:

Standard: SEMI F47-0706

Test procedure.....: N/A

Non-standard test method.....: N/A

Test Report Form No.: EN61000-6-2_6-3_H

Test Report Form(s) Originator: Bureau Veritas Consumer Product Services Germany GmbH

Master TRF: Date 14-June-2011

Test item description: Switch mode power supply

Trade Mark: Siemens

Manufacturer.....: Siemens AG Austria

Model/Type reference.....: SITOP PSU8600
6EP3437-8MB00-2CY0
Sitop BUF8600 Buffer module 6EP4297-8HB10-0XY0

Ratings.....: Input: 3 x 400 - 500 VAC / 50/60 Hz
Output: 4 x 24VDC / each 10 A

History Sheet			
A Taubert	20 March-2015	Initial report was written	Rev. 0

Summary of testing:

1. At one sample was performed the voltage dips and short interruption test according of the SEMI F47
2. Test setup:
 - Supply is generated by a three phases AC Source without neutral connector used.
 - Load is established by means of variable wire wound resistors.
 - Input voltage and current is monitored by means of the monitor outputs of the AC source.
 - DC output voltage is monitored by means of a probe connected to the terminals of the device
3. Test procedure:
 - Voltage sags are applied between L1- L2. Because we have a symmetrical input, the effect is the same if we apply the sags on L2- L3 .L1 – L3
 - The procedure follows IEC/EN61000-4-11:2004 figure 4b) picture A (preferred method).
 - Phase to neutral sags are omitted as no neutral connector is provided by the EUT.
 - The output power good signal is monitored also.
4. Extent of the test:
 - To apply the worst case conditions a supply voltage of 400V without buffer module was chosen.
 - This is the minimum rated supply voltage specified by the manufacturer where the related supply currents are at their maximum rated values.
 - Likewise the measurements were repeated with 3 x 500V mains voltage.
 - The test is performed at 50Hz and repeated at 60Hz supply frequency.
 - At request of the customer the test was repeated with the power supply in addition with one buffer module, and supplementary with two power modules
5. Reaction of the EUT:
 - The power module operates normally during operation with only 2 phases at the lower nominal supply voltage of 400V.
 - The test shows that during short interruptions and dips according to this standard normal operation is maintained and no reaction at the EUT occurs.