

Applicant:

SIEL S.p.A.

Manufacturer:

**SIEL S.p.A.**

Equipment under Test:

Solar photovoltaic inverter

Type:

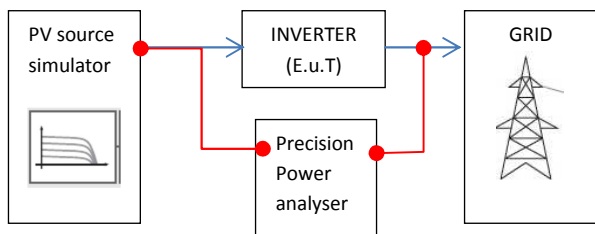
SOLEIL DSPX 660M TLH 380

Ratings:

Rated power = 660 kW

AC side: 380  $\pm$ 15% V; 50/60 Hz

DC side: 560 ÷ 780 V<sub>DC</sub> (MPPT DC voltage range)

**TEST REPORT N° EPT.15.NRG.0152/53443**
**EN 50530:2010-04 + A1:2013- “Overall efficiency of grid connected photovoltaic inverters”**
**Scope: measurements of the efficiency of a grid connected solar photovoltaic inverter**
**Test set-up**
**Test procedure**


The E.u.T. has been connected to the test equipment according to set-up shown in Fig. 1. Measurement of the efficiency of DC to AC power conversion ( $\eta_{conv}$ ) have been performed at the required levels of the PV simulator power. The ambient temperature during the test was in the range 25°C  $\pm$  5°C.

**Test equipment**

Type	Manufacturer	Mod.	s/n	Calibration date
4 channel (V,I) Precision power analyser	Yokogawa	WT1600	91G220764	27/05/2014
Current Transducer	Yokogawa	751552	105657 EBS	27/05/2014
Current Transducer	Yokogawa	751552	109556 ECS	27/05/2014
Current Transducer	Yokogawa	751552	105695 EBS	27/05/2014
Current Transducer	LEM	LT 2005-S	00-0420	27/05/2014

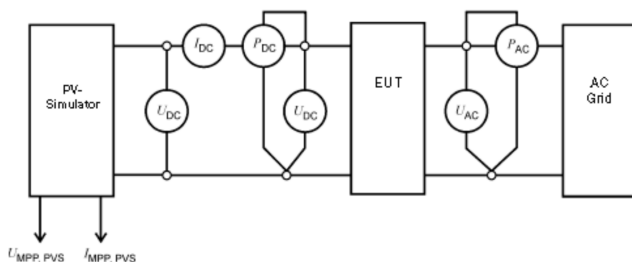


Fig. 1

**MEASUREMENT RESULTS**

DC Power Steps [%P <sub>n</sub> ]	$\eta_{conv}$	Weighing factor – $\alpha_{EU\_i}$
5	<b>93.28</b>	0.03
10	<b>96.87</b>	0.06
20	<b>98.43</b>	0.13
30	<b>98.97</b>	0.10
50	<b>99.20</b>	0.48
100	<b>99.20</b>	0.20

**EVALUATION – CALCULATION of the power CONVERSION EFFICIENCY**
**98.76**

Date:

21/05/2015

Test engineer

Giovanni Bellenda

Signature:

