

Applicant:

SIEL S.p.A.

Manufacturer:

SIEL S.p.A.

Equipment under Test:

Solar photovoltaic inverter

Type:

SOLEIL DSPX 416 TLH 380

Ratings:

Rated power = 416 kW
AC side: 380 ±15% V; 50/60 Hz
DC side: 560 ÷ 780 V_{DC} (MPPT DC voltage range)

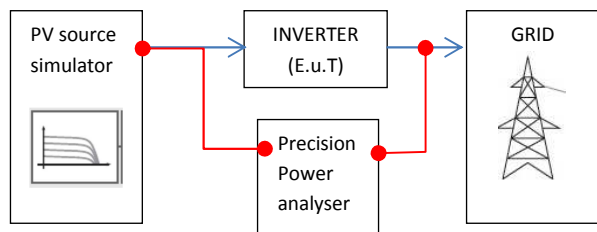
TEST REPORT N° EPT.15.NRG.0153/53443

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 (η_{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 ± 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

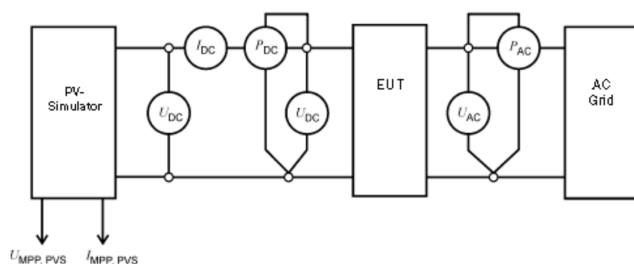


Fig. 1

MEASUREMENT RESULTS

DC Power Steps [%P _n]	η_{conv}	Weighing factor – α_{EU_i}
5	88.64	0.03
10	94.68	0.06
20	97.40	0.13
30	98.40	0.10
50	98.99	0.48
100	99.02	0.20

EVALUATION – CALCULATION of the power CONVERSION EFFICIENCY

98.16

Date:

21/05/2015

Test engineer

Giovanni Bellenda

Signature:

