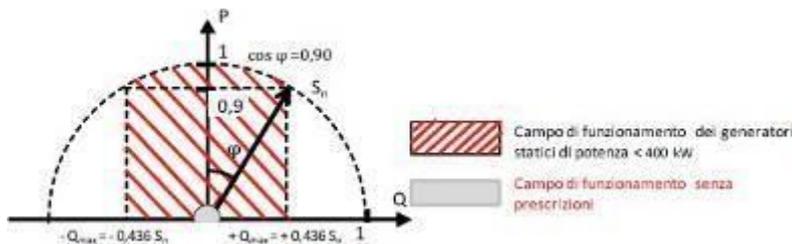


N.6.1 Verifica della capability di erogazione della potenza reattiva <i>/reactive power production capability</i>	
Potenza massima dell'impianto di destinazione: <i>Maximum power of the destination plant:</i>	<input type="checkbox"/> PV plant < 400 KW (see picture 1A) <input checked="" type="checkbox"/> PV plant ≥ 400 KW (see picture 1B) <input type="checkbox"/> Wind generator (see picture 1C)
Tolerance:	$\Delta Q \leq \pm 5\%$ for each measured points For values of $P \leq 10\% \cdot S_n \rightarrow \Delta Q \leq \pm 10\% S_n$
Sampling:	For each of the 11 levels of active power, 1 values of inductive reactive power and 1 values of capacitive reactive power must be recorded, as averaged values in 1 min , based on the measurements at the fundamental frequency in a window of 200ms ,
Ambient temperature (°C)	25
Humidity (RH %)	70
Input voltage	1160V (typical value specified by the manufacturer)

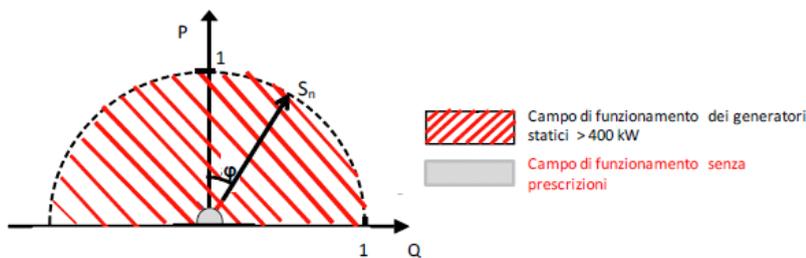
Deviation for wind generator (FC e DFIG) - N,6,1,2:

Test performed according: **IEC 61400-21 Ed, 2, §, 6,7,1 and §, 7,7,1,**

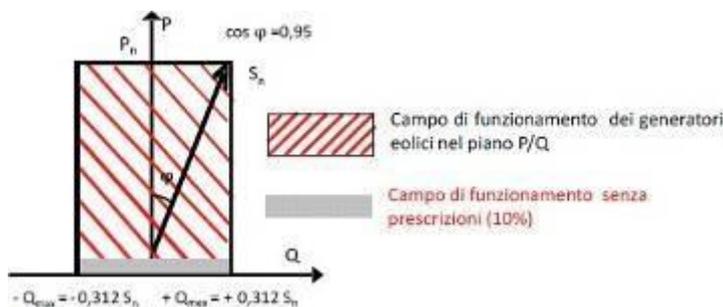
Picture 1A



Picture 1B



Picture 1C



Semicircular Curve (Inductive)							
P Desired (%Sn)	Power DC (KW)	P measured (%Sn)	S measured (%Sn)	Power factor (cos ϕ)	Q measured (%Sn)	Q desired (%Sn)	Q deviation (%Sn)
0	9.63	2.31	101.00	0.023	100.98	100.00	0.98
10	29.81	10.11	100.07	0.101	99.56	99.50	0.06
20	55.66	20.20	100.02	0.202	97.96	97.98	-0.02
30	80.62	29.94	100.03	0.299	95.45	95.39	0.06
40	106.43	40.02	100.06	0.400	91.71	91.65	0.06
50	132.19	50.10	100.08	0.501	86.65	86.60	0.05
60	157.95	60.16	100.08	0.601	79.98	80.00	-0.02
70	183.41	70.12	100.09	0.701	71.43	71.41	0.02
80	209.21	80.15	100.06	0.801	59.92	60.00	-0.08
90	235.48	90.07	100.05	0.900	43.58	43.59	-0.01
100	259.48	100.07	100.12	1.000	1.03	0.00	1.03

Semicircular Curve (Capacitive)							
P Desired (%Sn)	Power DC (KW)	P measured (%Sn)	S measured (%Sn)	Power factor (cos ϕ)	Q measured (%Sn)	Q desired (%Sn)	Q deviation (%Sn)
0	13.75	2.51	100.02	0.025	-99.97	-100.00	0.03
10	32.87	10.00	100.04	0.100	-99.52	-99.50	-0.02
20	58.35	20.04	100.05	0.200	-98.00	-97.98	-0.02
30	83.78	30.09	100.04	0.301	-95.39	-95.39	0.00
40	109.15	40.12	100.04	0.401	-91.62	-91.65	0.03
50	134.50	50.15	100.04	0.501	-86.55	-86.60	0.05
60	159.72	60.17	100.06	0.601	-79.94	-80.00	0.06
70	184.85	70.14	100.07	0.701	-71.37	-71.41	0.04
80	209.72	80.06	100.06	0.800	-60.02	-60.00	-0.02
90	234.83	90.03	100.09	0.900	-43.72	-43.59	-0.13
100	259.48	100.07	100.12	1.000	1.04	0.00	1.04

Capability for static generators in plants with power > 400 kW (semi-circular characteristic)

