

## INGECON® SUN Lite REACTIVE POWER CAPABILITY

INGETEAM S.R.L. certifies that the inverters,

INGECON SUN 2.5TL	INGECON SUN 3TL	INGECON SUN 3.3TL
INGECON SUN 3.68TL	INGECON SUN 3.8TL	INGECON SUN 4.6TL
INGECON SUN 5TL	INGECON SUN 6TL	INGECON SUN 7.5TL
INGECON SUN 8.2TL	INGECON SUN 8.6TL	INGECON SUN 10TL
INGECON SUN 2.5	INGECON SUN 3.3	INGECON SUN 5

are designed to operate according with the reactive power capability shown in the Figure 1.

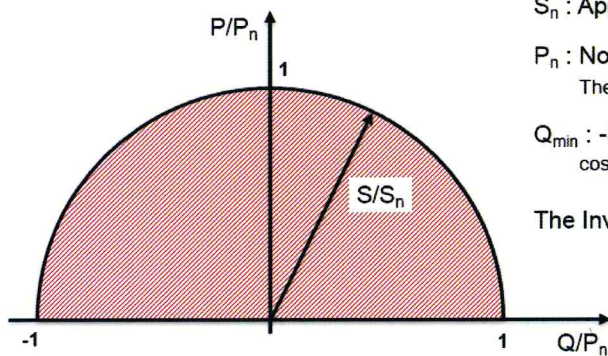


Figure 1

$S_n$  : Apparent Power of the Inverter [kVA]

$P_n$  : Nominal Power the Inverter [kW]

The Nominal Power is the Active Power with  $\cos \varphi = 1$ , so  $P_n \equiv S_n$

$Q_{min} : -S_n$  [kVAR] ,  $Q_{max} : S_n$  [kVAR]  
 $\cos \varphi$ : from 0 leading to 0 lagging

The Inverter can work anywhere in the red hatched area

In particular, the inverter can operate continuously anywhere within the red hatched area bounded by the value of the apparent power  $S_n$ , so that the maximum reactive power  $Q$  is defined by the equation:

$$Q_{max} = \sqrt{S_n^2 - P^2}$$

due to the absence of any other constraints, the Inverter is then able to operate from  $\cos \varphi = 0$  underexcited/leading to  $\cos \varphi = 0$  overexcited/lagging.

### Ingeteam

**Stefano Domenicali**  
 General Manager  
 Vice President

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Ingeteam S.r.l.