

INGECON® SUN Power REACTIVE POWER CAPABILITY

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

INGECON SUN 50
INGECON SUN 80

INGECON SUN 60
INGECON SUN 90

INGECON SUN 70
INGECON SUN 100

INGECON SUN 110TL B220
INGECON SUN 190TL B300
INGECON SUN 230TL B360

INGECON SUN 140TL B220
INGECON SUN 200TL B320
INGECON SUN 250TL B400

INGECON SUN 175TL B275
INGECON SUN 220TL B345
INGECON SUN 268TL B420

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

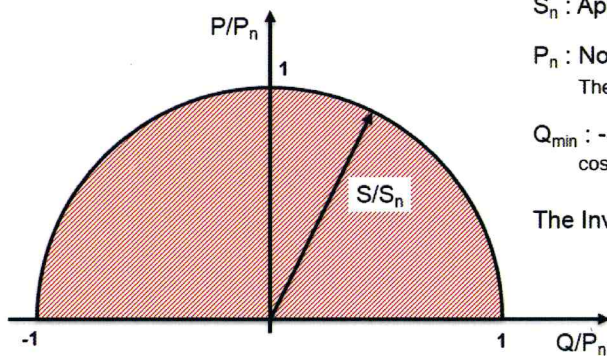


Figure 1

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
Stefano Domenicali
CEO & Vice President

Ingeteam S.r.l.