

Wels, June 24th 2014

FRONIUS INVERTERS WITH BRAZILIAN SETUP

Fronius International GmbH

confirms that Fronius inverters with the Brazilian Setup have the following settings.

/ Disconnection:

Voltage Trip Limits	Voltage Trip Time
$V < 80 \%$	0.4 sec (24p)
$V > 110 \%$	0.2 sec (12p)

Frequency Trip Limits	Frequency Trip Time
$f < 57,5 \text{ Hz}$	0.2 sec (24p)
$f < 62 \text{ Hz}$	0.2 sec (12p)

/ Reconnection:

Frequency Reconnection Range	Voltage Reconnection Range	Observation Time
$59.9 \text{ Hz} < f < 60.1 \text{ Hz}$	$80 \% < V < 110 \%$	20 sec (1200p)

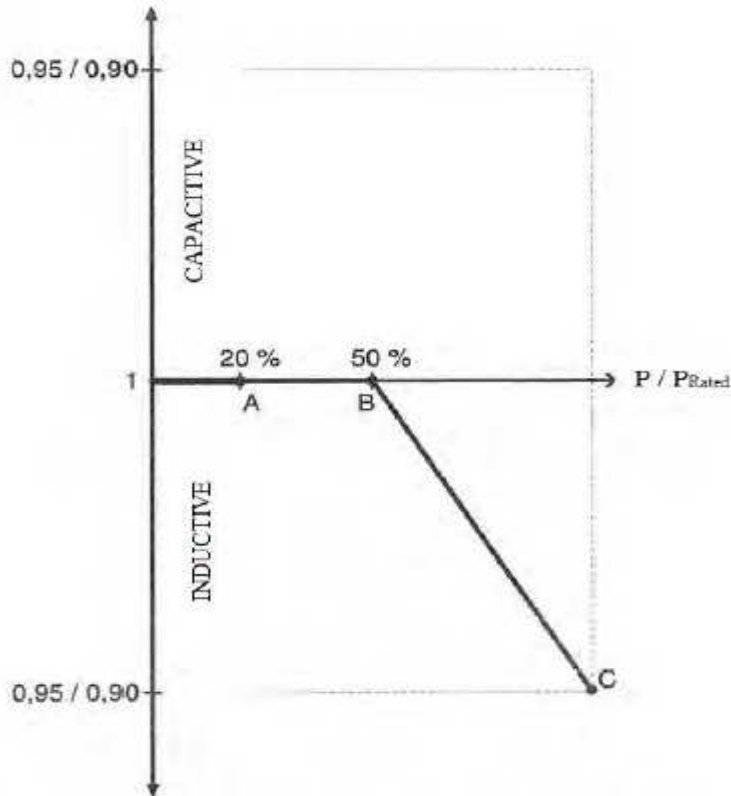
The reference voltage for this settings is 220V (single phase inverter; connection phase-phase or phase-neutral) and 380V/220V (three phase inverter WYE connection).

/ Power Factor:

A reactive power factor can be set in the range of at least 0.85 (ind) to 0.85 (cap).

For setup BR1 / S the standard setting is $\cos\phi = 1$.

For setup BR2 / M and BR3 / L the standard setting is according to this curve:



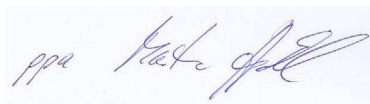
For setup BR2 / M the standard setting of point C is 0.95 (ind).

For setup BR3 / L the standard setting of point C is 0.90 (ind).

The curve is configurable.

Fronius International GmbH

Solar Energy
Froniusplatz 1
A-4600 Wels



Ing. Prok. Martin Hackl
Head of Division Solar Energy