

EN 50549-1:2019 CERTIFICATE

**Requirements for generating plants to be connected in parallel
with distribution networks -**

**Part 1: Connection to a LV Distribution Network - Generating
Plants up to and including type B**

Address	Century Center, 33-55 Au Pui Street, Fotan, Shantin, New Territories, Hong Kong
Country	Hong Kong
Manufacturer	BPE
Electrical apparatus	<i>Hybrid Inverter</i>
Trademark	BPE

Type	Rated Power
BPE-HI-SP-3.6K	3600W
BPE-HI-SP-5.5K	5500W

Our company hereby declares that our inverter fully meets the national standards and parameters of Ireland by EN50549-1:2019.

Test details:

Harmonic current emission as per BS EN61000-3-2A
Voltage fluctuation and flicker as per BS EN61000-3-2A
DC injection/Power factor
Under/Over frequency switch off
Under/Over voltage switch off
Loss of main test

BPE Hong Kong ,
2023-4-10

Director of R&D



EN 50549-1:2019

Test results sheet

Test house details:

Name and address of test house	Century Center, 33-55 Au Pui Street, Fotan, Shantin, New Territories, Hong Kong
Telephone number	+852 3962 2352
Facsimile number	+852 3962 2352
E-mail address	hello@badgerpowerelectronics.com

Test details:

Date of test	2023-4-10
Name of test Engineer	Jidehai
Remarks	
Signature of test Engineer	<i>Jidehai</i>

Power quality:

Harmonic current emission BPE-HI-SP-3.6K								
	Maximum permissible harmonic current in accordance with EN61000-3-2							
Harmonic	2nd	3rd	5th	7th	9th	11th	13th	15 th ≤ n ≤ 39 th
Limit	1	4	4	4	2	2	2	0.15 a) (15/n)
Test value	0.1	0.93	1.09	1.02	0.82	0.56	0.52	0.08
a) 50% or some other declared value close to the mid point between minimum								

Harmonic current emission BPE-HI-SP-5.5K								
	Maximum permissible harmonic current in accordance with EN61000-3-2							
Harmonic	2nd	3rd	5th	7th	9th	11th	13th	15 th ≤ n ≤ 39 th
Limit	1	4	4	4	2	2	2	0.15 a) (15/n)
Test value	0.249	2.1	1.7	1.3	1.07	0.81	0.65	0.1
a) 50% or some other declared value close to the mid point between minimum								

Voltage fluctuations and flicker				
	Maximum permissible voltage fluctuation (expressed as a percentage of nominal voltage at 100% power) and flicker in accordance with EN			
	Starting		Stopping	
Limit	3.3%		3.3%	
Test	0.13%		0.45%	
			Running	
Limit			Pst =1.0	
Test			0.45	
			Plt =0.65	
Test			0.41	

DC injection			
Limit	20mA, tested at three power levels		
Power level	10%	50%	100%
Test value	1.3	1.5	2.2
a) 50% or some other declared value close to the mid point between minimum and			

	Under frequency		Over frequency	
Parameter	Frequency[Hz]	Time[s]	Frequency[Hz]	Time[s]
Protection limit	48	0.2	50.5	0.2
Actual setting	48	0.2	50.5	0.2
Trip value	48.01	0.12	50.51	0.09

	Under voltage		Over voltage	
Parameter	Voltage [V]	Time[s]	Voltage [V]	Time[s]
Protection limit	207	0.2	253	0.2
Actual setting	207	0.2	253	0.2
Trip value	206.5	0.13	252.5	0.11

Method used	Frequency shift		
Output power level a)	10%	50%	100%
Trip setting clearance time	0.5s	0.5s	0.5s
Trip value clearance time	168ms	172ms	155ms

a) Indicative values are shown for minimum, medium and maximum power levels.

Comments:

Signed : *Ji de hai*

Position : Director of R&D

Date: 2023.4.10