

## Wykwalifikowany Dowieść

W badaniach przeprowadzonych przez próbkę (s) poniżej produktu jest zgodne z wymaganiami specyfikacji, o których mowa w tym czasie przeprowadzono testy t.

Wnioskodawca Nazwa i adres:

SHENZHEN GROWATT NEW ENERGY TECHNOLOGY CO., LTD  
1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park,  
#28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan  
District, Shenzhen, P.R.China

Opis produktu:  
Oceny i Zasady:  
Charakterystyka:  
Model:

Fotowoltaika siatka podłączony falownik  
Patrz Dodatek sprawdzenia testów zgodności

Nazwa marki:  
odpowiednimi normami:

Growatt 30000TL3-S, Growatt 30000TL3-SE  
Growatt 33000TL3-S, Growatt 33000TL3-SE  
Growatt 40000TL3-NS, Growatt 40000TL3-NSE  
Growatt 50000TL3-S, Growatt 50000TL3-SE  
Growatt(Nazwa marki)

Urząd weryfikacji::

Intertek Testowanie usługi Shenzhen ograniczony spółka.  
Guangzhou, oddział Block E, No.7-2 Guang Dong  
oprogramowanie Nauka ogród, Caipin Droga, Guangzhou  
Nauka Miasto, Guangzhou Gospodarczej i Rozwoju  
Technologicznego Strefa, Chiny

Data Testów:  
Sprawozdanie z badań  
liczba:

16 sierpnia., 2016 – 14 września., 2016  
160816057GZU-001

Weryfikacja ta jest częścią raportu (-ów) Pełna testowego i powinny być odczytywane w powiązaniu z nimi .

Podpis

nazwa: Grady Ye  
lokalizacja: Asyst kierownik  
Data: 25 października 2016



Weryfikacja ta jest tylko klientów Intertek i oferty na podstawie porozumienia między Intertek i jej klientów. Odpowiedzialność i obowiązek Intertek ogranicza się do warunków umowy. Za jakiegokolwiek straty wynikające z korzystania z tego wyniku walidacji, wydatki lub szkody, Intertek nie ponosi żadnej osobie innej niż klient w ramach umowy. Tylko klient ma prawo, aby umożliwić odwołanie lub dystrybucji tej weryfikacji. Jakikolwiek użycie materiałów nazwy Intertek lub jeden ze znaków na sprzedaż lub reklamę badanego produktu lub usługi muszą być zatwierdzone przez Intertek na piśmie. Obserwacji i badania / kontroli wyników weryfikacji i przytoczone tylko sprawdza test / przykładowe powiązane. Weryfikacja ta sama w sobie nie oznacza to, że materiały, produkty lub usługi zostały lub była kiedyś częścią Programu Certyfikacji Intertek.

## Test Verification of Conformity

In the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the requirements of the referenced specifications at the time the tests were carried out.

<b>Applicant Name &amp; Address:</b>	<b>SHENZHEN GROWATT NEW ENERGY TECHNOLOGY CO., LTD</b> 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P.R.China
<b>Product Description:</b>	PV Grid inverter
<b>Ratings &amp; Principle Characteristics:</b>	See Annex to Test Verification of Conformity
<b>Models:</b>	Growatt 30000TL3-S, Growatt 30000TL3-SE Growatt 33000TL3-S, Growatt 33000TL3-SE Growatt 40000TL3-NS, Growatt 40000TL3-NSE Growatt 50000TL3-S, Growatt 50000TL3-SE
<b>Brand Name:</b>	Growatt(logo)
<b>Relevant Standards</b>	EN 50438: 2013, Requirements for micro-generating plants to be connected in parallel with public low-voltage distribution networks Type Verification for Norway,Hungary,Switzerland, Turkey
<b>Verification Issuing Office:</b>	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China
<b>Date of Tests:</b>	16 Aug., 2016 – 14 Sep., 2016
<b>Test Report Number(s):</b>	160816057GZU-001

This verification is part of the full test report(s) and should be read in conjunction with them.

Signature

Name: Grady Ye  
Position: Assistant Manager  
Date: 25 Oct 2016



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## Annex to Verification of Conformity

This is an Annex to Test Verification of Conformity with Verification/Report Number(s):  
 160816057GZU-001. the issuing office is Intertek Testing Services Shenzhen Ltd. Guangzhou Branch  
 (Address: Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD,  
 Guangzhou, China).

Ratings &  
 Principle  
 Characteristics:

MODEL	Growatt 30000TL3- S, Growatt 30000TL3- SE	Growatt 33000TL3- S, Growatt 33000TL3- SE	Growatt 40000TL3- NS, Growatt 40000TL3- NSE	Growatt 50000TL3- S, Growatt 50000TL3- SE
Max PV voltage	1000Vdc			
Voltage range	200-1000Vdc			
MPPT voltage	450-800Vdc		540- 800Vdc	645- 850Vdc
Max input current	34A/34A	38A/38A		
PV Isc	64A/64A			
Max power	33.3KVA	36.6KVA	44.4KVA	53.3KVA
Output voltage	3W/N/PE 230Vac/400Vac			3W/PE, 480Vac
Nominal Frequency	50Hz			
Power Factor	0.9 Leading to 0.9 Lagging			
Ambient Temperature	-25°C - +60°C			
Protection Degree	IP65			

Signature

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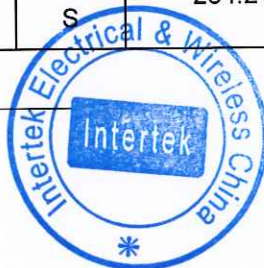
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 Guangzhou, China).

Over-/under-voltage					
		Over Voltage		Under Voltage	
Parameter		Voltage	Disconnection Time	Voltage	Disconnection Time
Protection limit		264.5V	0.1s-0.2s	195.5V	1.2s-1.5s
Actual setting (as applied to interface protection)		264.5V	0.2s	195.5V	1.5s
Trip value (test result)-1	All phases	264.3V	0.178s	195.4V	1.428s
	Phase R	264.3V	0.1900s	195.4V	1.448s
	Phase S	264.3V	0.176s	195.4V	1.418s
	Phase T	264.3V	0.191s	195.4V	1.434s
Trip value (test result)-2	All phases	264.2V	0.178s	195.4V	1.401s
	Phase R	264.2V	0.197s	195.4V	1.422s
	Phase S	264.2V	0.155s	195.4V	1.404s

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	Phase T	264.2V	0.190s	195.4V	1.404s
Trip value (test result)-3	All phases	264.3V	0.191s	195.4V	1.462s
	Phase R	264.3V	0.199s	195.4V	1.454s
	Phase S	264.3V	0.193s	195.4V	1.458s
	Phase T	264.3V	0.194s	195.4V	1.474s
Trip value (test result)-4	All phases	264.3V	0.191s	195.4V	1.450s
	Phase R	264.3V	0.173s	195.4V	1.474s
	Phase S	264.3V	0.1912s	195.4V	1.456s
	Phase T	264.3V	0.193s	195.4V	1.443s
Trip value (test result)-5	All phases	264.3V	0.196s	195.4V	1.444s
	Phase R	264.3V	0.187s	195.4V	1.442s
	Phase S	264.3V	0.193s	195.4V	1.445s
	Phase T	264.3V	0.195s	195.4V	1.441s

  
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Over-voltage stage 1*	253V (according to EN 50160), the disconnection after detection of a overvoltage at 1 or 10 min –mean-value takes place within 3s
*The calculation of the 10 min value tested and compliance.	
*The calculation of the 1 min value tested and compliance for Norway	

Over- /under-frequency				
Parameter	Over Frequency		Under Frequency	
	Frequency	Time	Frequency	Time
Protection limit	52.0Hz	0.3-0.5s	47.5Hz	0.3-0.5s
Actual setting (as applied to interface protection)	52.0Hz	0.4s	47.5Hz	0.4s
Trip value (test result)-1	52.02Hz	0.382s	47.49Hz	0.475s
Trip value (test result)-2	52.02Hz	0.388s	47.49Hz	0.414s
Trip value (test result)-3	52.02Hz	0.388s	47.49Hz	0.414s
Trip value (test result)-4	52.02Hz	0.382s	47.49Hz	0.475s
Trip value (test result)-5	52.02Hz	0.386s	47.49Hz	0.480s

LOM test						
Method used	EN 62116					
Balancing load on island network	33% of -5% Q Test 22	66% of -5% Q Test 12	100% of -5% P Test 5	33% of +5% Q Test 31	66% of +5% Q Test 21	100% of +5% P Test 10
Trip time	131.5ms	147.5ms	381.4ms	158.0ms	532.0ms	377.0ms

  
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