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Certificate of compliance

Applicant: **Renac Power Technology Co., Ltd.**
Block C-12, No. 20 Datong Road, Comprehensive Bonded Zone, Suzhou Hi-Tech District, Suzhou
China

Product: **Photovoltaic inverter**

Model: **R3-50K, R3-40K, R3-36K, R3-30K**

Applied rules and standards:

IEC 61683:1999, EN 61683:2000, DIN EN 61683:2000

Photovoltaic systems – Power conditioners – Procedure for measuring efficiency

IEC 60068-2-1:2007

Environmental testing – Part 2-1: Tests – Test A: Cold

IEC 60068-2-2:2007

Environmental testing – Part 2-2: Tests – Test B: Dry heat

IEC 60068-2-14:2009

Environmental testing – Part 2-14: Tests – Test N: Change of temperature

IEC 60068-2-27:2008

Part 2-27: Tests – Test Ea and guidance: Shock

IEC 60068-2-64:2008

Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance

IEC 60068-2-30:2005

Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12h + 12 h cycle)

At the time of issue of this certificate, the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

Report number: **ABRE-ESH-P24090124-1**
ABRE-ESH-P24090124-2

Certification Program: **NSOP-0032-DEU-ZE-V10**

Certificate number: **U24-1066**

Date of issue: **2024-11-20**

Accreditation



Certification body

Domenik Koll
Head of Energy Systems Germany



Accredited certification body by Deutsche Akkreditierungsstelle GmbH (DAKkS) according to ISO/IEC 17065. The accreditation is valid only for the scope listed in the annex of the accreditation certificate D-ZE-12024-01-00. The Deutsche Akkreditierungsstelle GmbH (DAKkS) is signatory of the multilateral arrangements of EA, ILAC and IAF for mutual recognition.

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Annex certificate of conformity No. U24-1066

Extract from test report ABRE-ESH-P24090124-1, ABRE-ESH-P24090124-2 issued by a testing laboratory accredited by "A2LA" according to ISO/IEC 17025. The accreditation is only valid for the scope listed in the annex of the accreditation certificate "2343.01".

Type Approval and declaration of compliance with the requirements of IEC 61683, EN 50530.

Manufacturer	Renac Power Technology Co., Ltd. Block C-12, No. 20 Datong Road, Comprehensive Bonded Zone, Suzhou Hi-Tech District, Suzhou China			
Product type	Photovoltaic inverter			
Static converter model	R3-50K	R3-40K	R3-36K	R3-30K
Input DC (photovoltaic)				
MPP voltage range [V]	180-1000	180-1000	180-1000	180-1000
Max. input voltage [V]	1100	1100	1100	1100
Max. input current per MPPT [A]	40/40/40/40	40/40/40/40	40/40/40	40/40/40
Output AC				
Rated AC voltage [V]	3L/N/PE, 220/380, 230/400, 50/60Hz	3L/N/PE, 220/380, 230/400, 50/60Hz	3L/N/PE, 220/380, 230/400, 50/60Hz	3L/N/PE, 220/380, 230/400, 50/60Hz
Max. output current [A]	83,3	66,6	60,0	50,0
Nom. converter output (P_{NINV}) [W]	50000	40000	36000	30000
Max. apparent power [VA]	55000	44000	39600	33000



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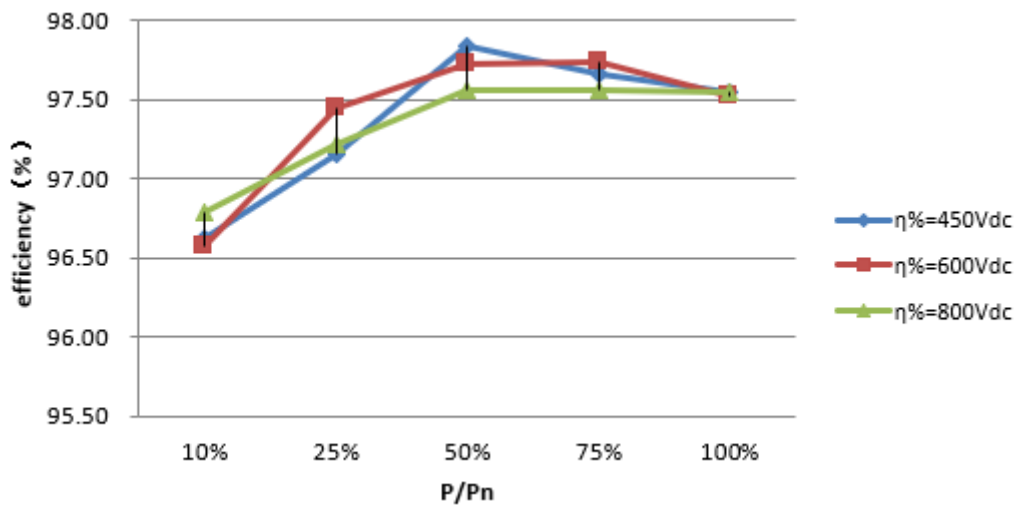
Annex certificate of conformity No. U24-1066

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Efficiency measurement conditions test results

R3-30K

Input voltage [Vdc]		Power in [W]				
		10%	25%	50%	75%	100%
V_{min}	450	96,62	97,16	97,84	97,66	97,54
$V_{nominal}$	600	96,57	97,44	97,72	97,73	97,52
V_{max} (90% MPPT)	800	96,79	97,22	97,56	97,56	97,54



Note:

Internal power consumption via auxiliary input in standby: 16W (Input: 0V, 0A; Output: 230V, 69,7mA)

Internal power consumption via auxiliary input at maximum output power: 1,4W



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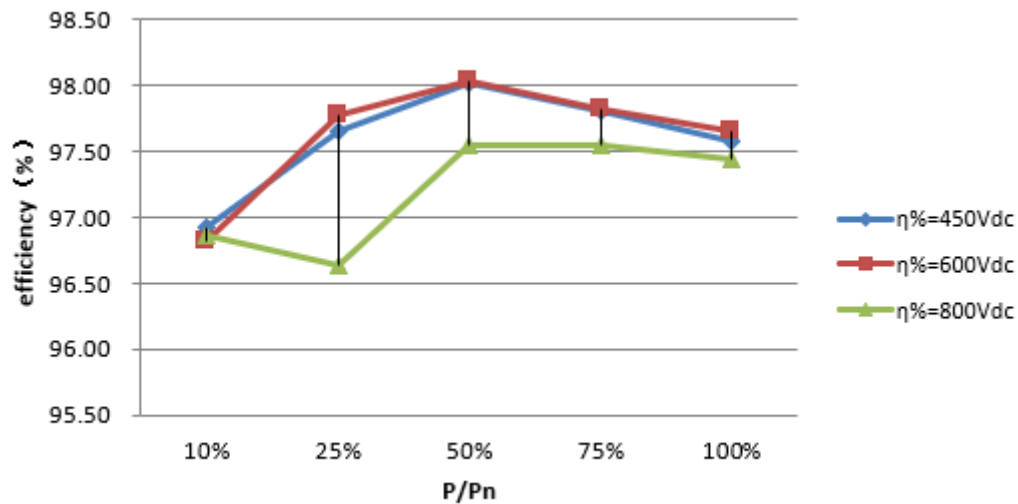
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Efficiency measurement conditions test results

R3-36K

Input voltage [Vdc]		Power in [W]				
		10%	25%	50%	75%	100%
V_{min}	450	3600	9000	13000	27000	36000
$V_{nominal}$	600	η in [%]				
V_{max} (90% MPPT)	800	96,92	97,65	98,01	97,81	97,57
		96,82	97,77	98,03	97,82	97,65
		96,86	96,64	97,54	97,54	97,44



Note:

Internal power consumption via auxiliary input in standby: 16W (Input: 0V, 0A; Output: 230V, 69,7mA)

Internal power consumption via auxiliary input at maximum output power: 1,4W



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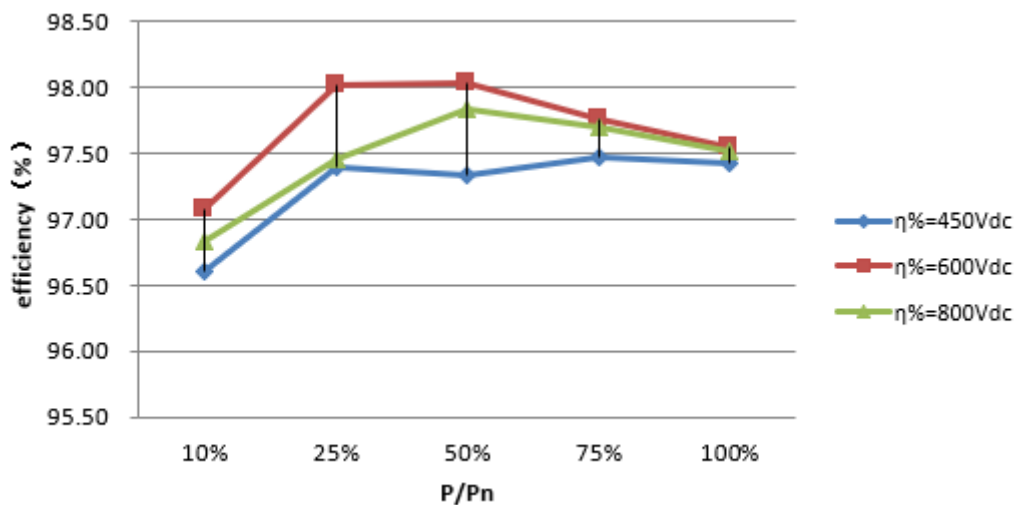
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Efficiency measurement conditions test results

R3-40K

Input voltage [Vdc]		Power in [W]				
		10%	25%	50%	75%	100%
V_{min}	450	96,61	97,39	97,34	97,47	97,43
$V_{nominal}$	600	97,08	98,01	98,03	97,76	97,55
V_{max} (90% MPPT)	800	96,83	97,46	97,83	97,69	97,51



Note:

Internal power consumption via auxiliary input in standby: 16W (Input: 0V, 0A; Output: 230V, 69,7mA)

Internal power consumption via auxiliary input at maximum output power: 1,4W



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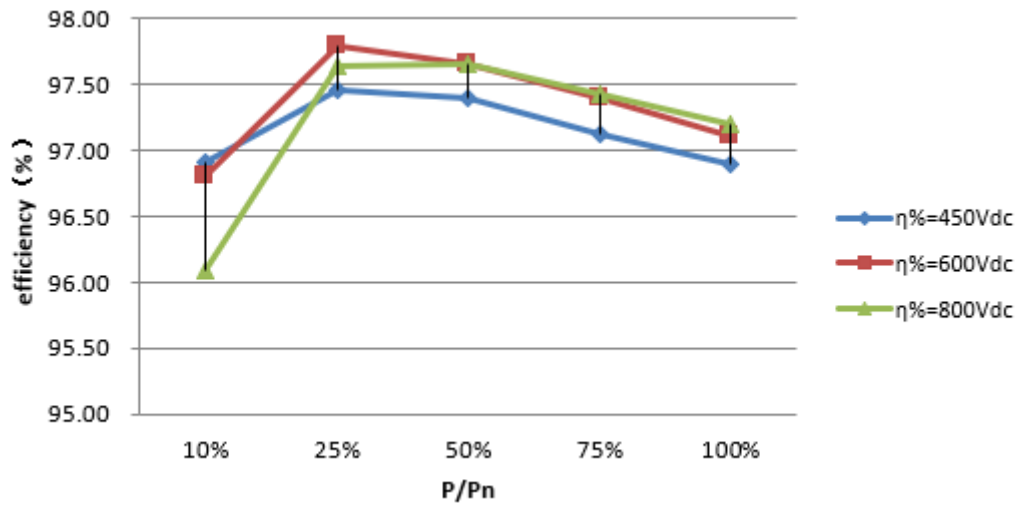
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Efficiency measurement conditions test results

R3-50K

Input voltage [Vdc]		Power in [W]				
		10%	25%	50%	75%	100%
V_{min}	450	96,91	97,46	97,40	97,12	96,89
$V_{nominal}$	600	96,81	97,79	97,65	97,39	97,11
V_{max} (90% MPPT)	800	96,09	97,63	97,65	97,43	97,20



Note:

Internal power consumption via auxiliary input in standby: 16W (Input: 0V, 0A; Output: 230V, 69,7mA)

Internal power consumption via auxiliary input at maximum output power: 1,4W