



Certificate of Factory Production Control

This certificate has been issued to

Phono Solar Technology Co., Ltd.

of

No.1 Xinghuo Road
Nanjing Hi-tech Zone
Nanjing
Jiangsu Province
210061
People's Republic of China

whose production management system has been assessed and found to comply with the Factory Production Control Requirements of the MCS Product Certification Scheme in respect of:

Production of Photovoltaic Solar Panels

at the address(s) listed on the Annex of this certificate

and includes the ranges of

Photovoltaic Solar Panels
as detailed on the attached annex to this certificate

Signed: 

on behalf of TUV SUD B A B T UNLIMITED

Certificate Number: B A B T 8758 R5

Valid from: 27 April 2023

This Certificate expires on: 08 August 2025



CERTIFIED

The holder of this certificate is authorised to use the MCS Approved Product Mark. This certificate has been issued in accordance with the Testing and Certification Regulations of TÜV SÜD. Conditions of validity of this certificate, if any, are listed in the Annex. This certificate constitutes page 1 of the combined Certificate and Annex.

For further details related to this certification please contact BABT@tuvsud.com



1 Manufacturing Location

Facility 1
Phono Solar Technology Co., Ltd. No.1 Xinghuo Road Nanjing Hi-tech Zone Nanjing Jiangsu Province 210061 P.R.China

2 Established Conformity

2.1 Product Certification Scheme Requirements

Microgeneration Certification Scheme	Revision	Applicability
MCS 005 – Solar Photovoltaic Modules	Issue 3.1	<input checked="" type="checkbox"/>
MCS 010 – Factory Production Control Requirements	Issue 2.0	<input checked="" type="checkbox"/>
MCS 012 – Pitched Roof Installation Kits	Issue N/A	<input type="checkbox"/>
MCS 017 – Bespoke Building Integrated Photovoltaic Products	Issue N/A	<input type="checkbox"/>

2.2 Assessment Report

Assessment Report Number	Issue Number	Issue Date
BABT 8758 R5	1	26-04-2023

3 Technical Documentation

3.1 User Guide

Photovoltaic Module Installation Manual Version: IEC 2022-4 Modified 28/03/2023

3.2 Test Reports

50131863 001	Issued	31/08/2017
70.406.17.101.05-00	Issued	12/12/2017
70.406.17.101.05-01	Issued	31/07/2018
70.406.17.101.05-02	Issued	18/09/2018
70.406.17.101.05-03	Issued	26/10/2018
70.406.17.101.05-04	Issued	05/12/2018
70.406.17.101.05-06	Issued	08/08/2019
70.406.17.101.05-07	Issued	04/11/2019
70.406.17.101.05-08	Issued	21/01/2020
70.406.17.101.05-08A1	Issued	08/04/2020
70.406.17.101.05-09	Issued	13/08/2020
70.406.17.101.05-10	Issued	19/11/2020

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70.406.17.101.05-11	Issued	16/04/2021
70.406.17.101.05-12	Issued	19/05/2021
70.406.17.101.05-12A3	Issued	17/12/2021
70.406.17.101.05-13A1	Issued	27/04/2022
70.406.17.101.05-14	Issued	25/07/2022
70.406.17.101.05-14A1	Issued	17/11/2022
70.406.17.101.05-14A2	Issued	14/12/2022
70.406.17.101.05-14A3	Issued	06/03/2023
70.406.17.101.06-00	Issued	12/12/2017
70.406.17.101.06-01	Issued	08/05/2018
70.406.17.101.06-02	Issued	10/07/2018
70.406.17.101.06-03	Issued	18/09/2018
70.406.18.003.10-00	Issued	02/01/2019
70.406.18.003.10-01	Issued	01/02/2019
70.406.18.003.10-02	Issued	08/12/2020
70.406.18.003.10-04	Issued	13/05/2022
70.406.18.003.10-05	Issued	20/10/2022
70.406.18.003.10-06	Issued	06/12/2022

4 Products Within Scope of Certification

4.1 MCS 005: Solar Photovoltaic Modules

Product Type	Product Name ^{Note 1}	Power Range (W) ^{Note 2}	Certification Number
Monocrystalline	PSxxxM-24/T	325 to 385	BABT8758-101
Monocrystalline	PSxxxM-22/W	320 to 330	BABT8758-102
Monocrystalline	PSxxxM-20/U	275 to 320	BABT8758-103
Monocrystalline	PSxxxM-18/V	265 to 270	BABT8758-104
Monocrystalline	PSxxxM-12/G	175 to 180	BABT8758-105
Monocrystalline	PSxxxM-24/TH	360 to 390	BABT8758-106
Monocrystalline	PSxxxM-20/UH	300 to 325	BABT8758-107
Monocrystalline	PSxxxMH-24/T	325 to 385	BABT8758-108
Monocrystalline	PSxxxMH-22/W	320 to 330	BABT8758-109
Monocrystalline	PSxxxMH-20/U	275 to 320	BABT8758-110
Monocrystalline	PSxxxMH-18/V	265 to 270	BABT8758-111
Monocrystalline	PSxxxMH-12/G	175 to 180	BABT8758-112
Monocrystalline	PSxxxMH-24/TH	360 to 390	BABT8758-113
Monocrystalline	PSxxxMH-20/UH	300 to 325	BABT8758-114
Monocrystalline	PSxxxMGFH-20/U	280 to 310	BABT8758-115
Monocrystalline	PSxxxMGFH-24/TH	365 to 390	BABT8758-116
Monocrystalline	PSxxxMGH-24/TH	365 to 390	BABT8758-117
Monocrystalline	PSxxxMGFH-20/UH	305 to 325	BABT8758-118
Monocrystalline	PSxxxMGH-20/UH	305 to 325	BABT8758-119
Monocrystalline	PSxxxMGF-20/U	280 to 310	BABT8758-120
Monocrystalline	PSxxxMGF-24/TH	365 to 390	BABT8758-121

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Product Type	Product Name ^{Note 1}	Power Range (W) ^{Note 2}	Certification Number
Monocrystalline	PSxxxMG-24/TH	365 to 390	BABT8758-122
Monocrystalline	PSxxxMGF-20/UH	305 to 325	BABT8758-123
Monocrystalline	PSxxxMG-20/UH	305 to 325	BABT8758-124
Polycrystalline	PSxxxPH-24/T	315 to 335	BABT8758-125
Polycrystalline	PSxxxPH-22/W	285 to 305	BABT8758-126
Polycrystalline	PSxxxPH-20/U	260 to 280	BABT8758-127
Polycrystalline	PSxxxPH-18/V	235 to 250	BABT8758-128
Polycrystalline	PSxxxPH-12/G	155 to 170	BABT8758-129
Polycrystalline	PSxxxPH-24/TH	325 to 340	BABT8758-130
Polycrystalline	PSxxxPH-20/UH	270 to 280	BABT8758-131
Polycrystalline	PSxxxP-24/T	295 to 335	BABT8758-132
Polycrystalline	PSxxxP-22/W	285 to 305	BABT8758-133
Polycrystalline	PSxxxP-20/U	250 to 280	BABT8758-134
Polycrystalline	PSxxxP-18/V	235 to 250	BABT8758-135
Polycrystalline	PSxxxP-12/G	155 to 170	BABT8758-136
Polycrystalline	PSxxxP-24/TH	325 to 340	BABT8758-137
Polycrystalline	PSxxxP-20/UH	270 to 280	BABT8758-138
Polycrystalline	PSxxxPGF-20/U	260 to 270	BABT8758-139
Polycrystalline	PSxxxPGFH-20/U	260 to 270	BABT8758-140
Monocrystalline	PSxxxM1H-24/TH	375 to 435	BABT8758-141
Monocrystalline	PSxxxM1H-20/UH	310 to 360	BABT8758-142
Monocrystalline	PSxxxM1H-24/T	375 to 395	BABT8758-143
Monocrystalline	PSxxxM1H-20/U	315 to 330	BABT8758-144
Monocrystalline	PSxxxM4H-24/TH	420 to 465	BABT8758-145
Monocrystalline	PSxxxM4H-20/UH	350 to 390	BABT8758-146
Monocrystalline	PSxxxM1-24/TH	375 to 435	BABT8758-147
Monocrystalline	PSxxxM1-20/UH	310 to 360	BABT8758-148
Monocrystalline	PSxxxM1-24/T	375 to 395	BABT8758-149
Monocrystalline	PSxxxM1-20/U	315 to 330	BABT8758-150
Monocrystalline	PSxxxM4-24/TH	420 to 465	BABT8758-151
Monocrystalline	PSxxxM4-20/UH	350 to 390	BABT8758-152
Monocrystalline	PSxxxM5GFH-24/TH	430 to 465	BABT8758-153
Monocrystalline	PSxxxM5GF-24/TH	430 to 465	BABT8758-154
Monocrystalline	PSxxxM4H-22/WH	385 to 425	BABT8758-155
Monocrystalline	PSxxxM4H-18/VH	315 to 350	BABT8758-156
Monocrystalline	PSxxxM5H-24/TH	425 to 455	BABT8758-157
Monocrystalline	PSxxxM5H-22/WH	390 to 415	BABT8758-158

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Product Type	Product Name ^{Note 1}	Power Range (W) ^{Note 2}	Certification Number
Monocrystalline	PSxxxM5H-20/UH	355 to 380	BABT8758-159
Monocrystalline	PSxxxM5H-18/VH	315 to 340	BABT8758-160
Monocrystalline	PSxxxM6H-24/TH	510 to 555	BABT8758-161
Monocrystalline	PSxxxM6H-22/WH	470 to 505	BABT8758-162
Monocrystalline	PSxxxM6H-20/UH	425 to 460	BABT8758-163
Monocrystalline	PSxxxM6H-18/VH	385 to 415	BABT8758-164
Monocrystalline	PSxxxM4-22/WH	385 to 425	BABT8758-165
Monocrystalline	PSxxxM4-18/VH	315 to 350	BABT8758-166
Monocrystalline	PSxxxM5-24/TH	425 to 455	BABT8758-167
Monocrystalline	PSxxxM5-22/WH	390 to 415	BABT8758-168
Monocrystalline	PSxxxM5-20/UH	355 to 380	BABT8758-169
Monocrystalline	PSxxxM5-18/VH	315 to 340	BABT8758-170
Monocrystalline	PSxxxM6-24/TH	510 to 555	BABT8758-171
Monocrystalline	PSxxxM6-22/WH	470 to 505	BABT8758-172
Monocrystalline	PSxxxM6-20/UH	425 to 460	BABT8758-173
Monocrystalline	PSxxxM6-18/VH	385 to 415	BABT8758-174
Monocrystalline	PSxxxM5GFH-20/UH	360 to 385	BABT8758-175
Monocrystalline	PSxxxM8GFH-24/TH	525 to 555	BABT8758-176
Monocrystalline	PSxxxM8GFH-22WH	485 to 510	BABT8758-177
Monocrystalline	PSxxxM8GFH-20/UH	440 to 460	BABT8758-178
Monocrystalline	PSxxxM8GFH-18/VH	390 to 420	BABT8758-179
Monocrystalline	PSxxxM5GF-20/UH	360 to 385	BABT8758-180
Monocrystalline	PSxxxM8GF-24/TH	525 to 555	BABT8758-181
Monocrystalline	PSxxxM8GF-22WH	485 to 510	BABT8758-182
Monocrystalline	PSxxxM8GF-20/UH	440 to 460	BABT8758-183
Monocrystalline	PSxxxM8GF-18/VH	390 to 420	BABT8758-184
Monocrystalline	PSxxxM8H-24/TH	520 to 560	BABT8758-185
Monocrystalline	PSxxxM8H-22/WH	480 to 510	BABT8758-186
Monocrystalline	PSxxxM8H-20/UH	435 to 465	BABT8758-187
Monocrystalline	PSxxxM8H-18/VH	390 to 420	BABT8758-188
Monocrystalline	PSxxxM8-24/TH	520 to 560	BABT8758-189
Monocrystalline	PSxxxM8-22/WH	480 to 510	BABT8758-190
Monocrystalline	PSxxxM8-20/UH	435 to 465	BABT8758-191
Monocrystalline	PSxxxM8-18/VH	390 to 420	BABT8758-192
Monocrystalline	PSxxxM8GFH-24/TNH	535 to 570	BABT8758-193
Monocrystalline	PSxxxM8GFH-22/WNH	490 to 520	BABT8758-194
Monocrystalline	PSxxxM8GFH-20/UNH	445 to 475	BABT8758-195

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Product Type	Product Name ^{Note 1}	Power Range (W) ^{Note 2}	Certification Number
Monocrystalline	PSxxxM8GFH-18/VNH	405 to 430	BABT8758-196
Monocrystalline	PSxxxM8GF-24/TNH	535 to 570	BABT8758-197
Monocrystalline	PSxxxM8GF-22/WNH	490 to 520	BABT8758-198
Monocrystalline	PSxxxM8GF-20/UNH	445 to 475	BABT8758-199
Monocrystalline	PSxxxM8GF-18/VNH	405 to 430	BABT8758-200

Note 1: where xxx = output power rating in W
Note 2: in steps of 5 W

5 Additional Information


All products within the scope of this certification shall be listed on the MCS Installations Database for the duration of this certificates validity. The database shall contain an entry for each individual power rating for the certified product, where the power rating shall be suffixed to the certificate number as listed on this certificate.

6 Conditions of Validity

This certificate authorizes the manufacturer or their authorized representative to apply the MCS Approved Product Mark to the range of products listed within this certification in accordance with the MCS Manufacturers / Distributors agreement dated **25th September 2020**.

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved equipment or the approved quality system, which have not been notified to, and agreed with TUV SUD BABT UNLIMITED or a person appointed by TUV SUD BABT UNLIMITED to perform that role.

The manufacturer must immediately cease affixing the MCS Approved Product Mark on any product subject to expiry, withdrawal or suspension of this certification.

Signature: 	Date: <u>2023-04-27</u>
Print Name: Stephen Milliken	
On behalf of TUV SUD BABT UNLIMITED	