

Report No. 48.400.23.0957.01-00/04
Dated 2023-10-07



Technical Report

Client: Hengdian Group DMEGC Magnetics Co., LTD
Hengdian Industrial Zone, 322118 Dongyang City, Zhejiang Province P.R. China

Contact person: Wang Guoqiang

Test object: The submitted samples were received and described by client as:
Product: PV Modules
Product model refer to the APPENDIX I.

Tested sample description: Refer to next page(s).

Test specification:

- Polychlorinated terphenyls (PCTs) Content According to Regulation (EC) No.1907/2006 Annex XVII Entry 1**
Test with reference to In-house method
- Organotin Compounds According to Regulation (EC) No.1907/2006 Annex XVII Entry 20**
Test with reference to ISO 16179:2012
- Total Content of Nonylphenol (NP) content According to Regulation (EC) No.1907/2006 Annex XVII Entry 46.(a)**
Test with reference to In-house method
- Content of PAHs (Polycyclic Aromatic Hydrocarbons) According to Regulation (EC) No.1907/2006 Annex XVII Entry 50**
Test with reference to AfPS GS 2019:01 PAK
- Phthalate Content According to Regulation (EC) No.1907/2006 Annex XVII Entry 51, Entry 52**
Test with reference to In-house method
- Dimethylfumarate (DMFu) Content According to Regulation (EC) No.1907/2006 Annex XVII Entry 61**
Test with reference to In-house method
- Total Content of C9-C14 PFCAs, their salts and C9-C14 PFCA- related substances According to Regulation (EC) No.1907/2006 Annex XVII Entry 68**
Test with reference to In-house method

Conclusion:

1. Polychlorinated terphenyls (PCTs) Content	Pass
2. Organotin Content	Pass
3. Nonylphenol (NP) content	Pass
4. PAHs Content	Pass
5. Phthalates Content	Pass
6. DMFu Content	Pass
7. C9-C14 PFCAs, their salts and C9-C14 PFCA- related substances	Pass

Test results: Refer to next page(s).

Remarks:

- The tested samples were identified and appointed by client.
- Sample was tested as received.
- As the client required, the sample was tested in mixture.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 1 of 22



Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07

1. Order

1.1 Date of Purchase Order

2023-09-07

1.2 Customer's Reference

Nil

1.3 Receipt Date of Test Sample

2023-09-07

1.4 Date of Testing

2023-09-07 – 2023-10-07

1.5 Location of Testing

TÜV SÜD Certification and Testing (China) Co., Ltd.
Shanghai Branch, SHA Chemical Lab.

TEC_WUX_F_25.03E – Rev. 00 2021-06-24

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

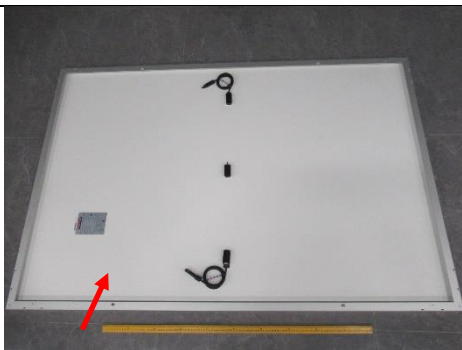
Page 2 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



2. Description of the tested specimen

Sample No.	Description	Photograph/Location
01	White plastic rear cover	
02	White plastic inner film	
03	Translucent plastic inner film	
04	Blue solar cell	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 3 of 22



Sample No.	Description	Photograph/Location
05	Silvery label	
06	White label	
07	White glue	
08	White glue	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.



Sample No.	Description	Photograph/Location
09	Purple plastic cable tie	
10	Black plastic plug enclosure	
11	Black plastic shell	
12	Black diode	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Sample No.	Description	Photograph/Location
13	Black plastic cable sleeve	
14	Black plastic sleeve	
15	Black plastic sleeve	
16	Dark grey plastic sealing ring	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

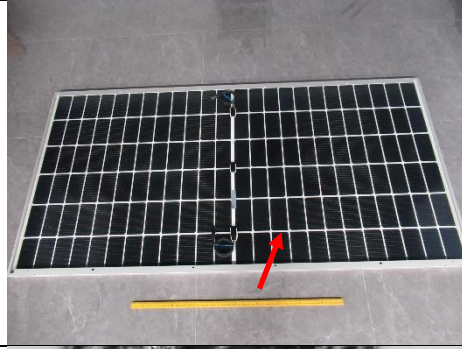
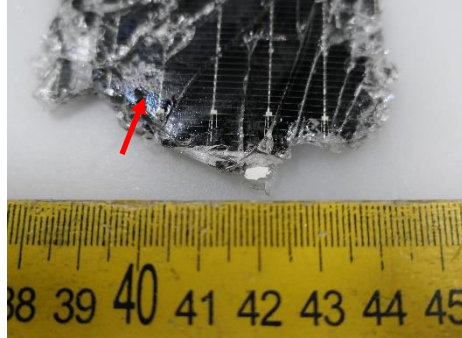
TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 6 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



Sample No.	Description	Photograph/Location
17	Black plastic cable jacket	
18	Blue plastic cable tie	
19	White ink	
20	Blue solar cell (16BB Topcon)	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

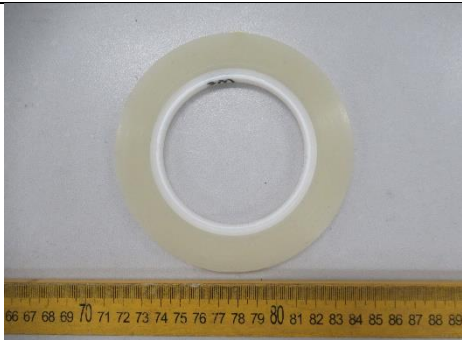
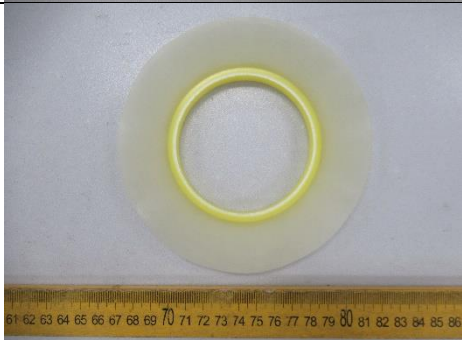
Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 7 of 22

Report No. 48.400.23.0957.01-00/04
Dated 2023-10-07



Sample No.	Description	Photograph/Location
21	Transparent plastic tape 3M	
22	Transparent plastic tape Shangrui	

TEC_WUX_F_25.03E - Rev. 00 2021-06-24

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 8 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3. Test Result

3.1 Polychlorinated terphenyls (PCTs) Content Test

Test Item(s)	Unit	MDL	Result		
			07	08	19
Polychlorinated terphenyls (PCTs)	mg/kg	5	N.D.	N.D.	N.D.
Conclusion:			Pass	Pass	Pass

Remark:

1. MDL = Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. "mg/kg" denotes "milligram per kilogram".
4. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 1: Limit is 50 mg/kg.

TEC_WUX_F_25.03E – Rev. 00 2021-06-24

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 9 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.2 Regulated Tin-Organic Compounds Content Test

Tin-Organic Compounds	Unit	MDL	Result		
			01+05+06	07+08+09	10+11+13
DBT, Dibutyltin	mg/kg	0.025	1.061	32.594	N.D.
TBT, Tributyltin	mg/kg	0.025	N.D.	0.255	N.D.
TPhT, Triphenyltin	mg/kg	0.025	N.D.	N.D.	N.D.
DOT, Dioctyltin	mg/kg	0.025	N.D.	N.D.	N.D.
Conclusion			Pass	Pass	Pass

Tin-Organic Compounds	Unit	MDL	Result	
			17+18	21+22
DBT, Dibutyltin	mg/kg	0.025	N.D.	0.090
TBT, Tributyltin	mg/kg	0.025	N.D.	N.D.
TPhT, Triphenyltin	mg/kg	0.025	N.D.	N.D.
DOT, Dioctyltin	mg/kg	0.025	N.D.	N.D.
Conclusion			Pass	Pass

Remark:

1. MDL=Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. "mg/kg" denotes "milligram per kilogram.
4. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 20: Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPhT) compounds < 0.1% by weight of tin; Dibutyltin (DBT) compounds < 0.1% by weight of tin; Dioctyltin (DOT) < 0.1% by weight of tin.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 10 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.3 Total Content of Nonylphenol (NP) Test

Test Item(s)	Unit	MDL	01+05+06	07+08+19	09+17+18
Nonylphenol (NP)	mg/kg	10	N.D.	N.D.	N.D.
Conclusion:			Pass	Pass	Pass

Test Item(s)	Unit	MDL	10+11+13	21+22
Nonylphenol (NP)	mg/kg	10	N.D.	N.D.
Conclusion:			Pass	Pass

Remark:

1. MDL=Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. "mg/kg" denotes "milligram per kilogram.
4. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 46: limit is 1000 mg/kg.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 11 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.4 PAHs Content Test

Parameter	CAS No.	Unit	MDL	01+05+06	07+08+09	10+11+13
Chrysene	218-01-9	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo(a)anthracene	56-55-3	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo(b)fluoranthene	205-99-2	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo(k)fluoranthene	207-08-9	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo[e]pyrene	192-97-2	mg/kg	0.1	N.D.	N.D.	N.D.
Benzo(a)pyrene	50-32-8	mg/kg	0.1	N.D.	N.D.	N.D.
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.1	N.D.	N.D.	N.D.
Conclusion				Pass	Pass	Pass

Parameter	CAS No.	Unit	MDL	17+18	21+22
Chrysene	218-01-9	mg/kg	0.1	N.D.	N.D.
Benzo(a)anthracene	56-55-3	mg/kg	0.1	N.D.	N.D.
Benzo(b)fluoranthene	205-99-2	mg/kg	0.1	N.D.	N.D.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	N.D.	N.D.
Benzo(k)fluoranthene	207-08-9	mg/kg	0.1	N.D.	N.D.
Benzo[e]pyrene	192-97-2	mg/kg	0.1	N.D.	N.D.
Benzo(a)pyrene	50-32-8	mg/kg	0.1	N.D.	N.D.
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.1	N.D.	N.D.
Conclusion				Pass	Pass

Remark:

1. MDL=Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. "mg/kg" denotes "milligram per kilogram.
4. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 50: each < 1 mg/kg for rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity; each < 0.5 mg/kg for rubber or plastic components of toys and childcare articles that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 12 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.5 Phthalates Content Test

Regulated Phthalates	CAS No.	Unit	MDL	Result		
				01+02+03	04	05+06+07
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	N.D.	N.D.	N.D.
Dibutyl phthalate (DBP)	84-74-2	%	0.005	N.D.	N.D.	N.D.
Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	N.D.	N.D.	N.D.
Di-isononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	N.D.	N.D.	N.D.
Di-isodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DNOP/DnOP)	117-84-0	%	0.005	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	N.D.	N.D.	N.D.
Conclusion				Pass	Pass	Pass

Regulated Phthalates	CAS No.	Unit	MDL	Result		
				08+09+10	11+12+13	14+15+16
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	N.D.	N.D.	N.D.
Dibutyl phthalate (DBP)	84-74-2	%	0.005	N.D.	N.D.	N.D.
Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	N.D.	N.D.	N.D.
Di-isononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	N.D.	N.D.	N.D.
Di-isodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DNOP/DnOP)	117-84-0	%	0.005	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	N.D.	N.D.	N.D.
Conclusion				Pass	Pass	Pass

Regulated Phthalates	CAS No.	Unit	MDL	Result	
				17+18+19	20+21+22
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	%	0.005	N.D.	N.D.
Dibutyl phthalate (DBP)	84-74-2	%	0.005	N.D.	N.D.
Benzyl butyl phthalate (BBP)	85-68-7	%	0.005	N.D.	N.D.
Di-isononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	N.D.	N.D.
Di-isodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	N.D.	N.D.
Di-n-octyl phthalate (DNOP/DnOP)	117-84-0	%	0.005	N.D.	N.D.
Diisobutyl phthalate (DIBP)	84-69-5	%	0.005	N.D.	N.D.
Conclusion				Pass	Pass

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 13 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



Remark:

1. MDL = Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. Limit quoted from Regulation (EC) No.1907/2006 Annex XVII Entry 51, Entry 52: each<0.1%, Sum of DEHP, DBP, BBP, DIBP<0.1% and Sum of DINP, DIDP, DNOP<0.1%.

TEC_WUX_F_25.03E – Rev. 00 2021-06-24

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 14 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.6 Dimethylfumarate (DMFu) Content Test

Test Item(s)	CAS No.	Unit	MDL	07	08	19
Dimethylfumarate (DMFu)	624-49-7	mg/kg	0.1	N.D.	N.D.	N.D.
Conclusion:				Pass	Pass	Pass

Remark:

1. MDL=Method Detection Limit.
2. N.D. =Not Detected (<MDL).
3. "mg/kg" denotes "milligram per kilogram.
4. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 61: limit is 0.1 mg/kg.

TEC_WUX_F_25.03E – Rev. 00 2021-06-24

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 15 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



3.7 Total Content of C9-C14 PFCAs, their salts and C9-C14 PFCA- related substances Test

Tested Items	MDL	Unit	Result	
			01	04
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Tested Items	MDL	Unit	Result	
			05	06
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 16 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



Tested Items	MDL	Unit	Result	
			07	08
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Tested Items	MDL	Unit	Result	
			10	11
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 17 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



Tested Items	MDL	Unit	Result	
			13	17
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Tested Items	MDL	Unit	Result	
			20	21
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.	N.D.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 18 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



Tested Items	MDL	Unit	Result
			22
Perfluorononanoic acid (PFNA)	<0.025	mg/kg	N.D.
Perfluorodecanoic acid (PFDA)	<0.025	mg/kg	N.D.
Perfluoroundecanoic Acid (PFUnA)	<0.025	mg/kg	N.D.
Perfluorododecanoic Acid (PFDoA)	<0.025	mg/kg	N.D.
Perfluorotridecanoic Acid (PFTrA)	<0.025	mg/kg	N.D.
Perfluorotetradecanoic Acid (PFTeA)	<0.025	mg/kg	N.D.
Ammonium perfluoropelargonate(APFN)	<0.025	mg/kg	N.D.
Sodium perfluorononanoate(PFNA-Na)	<0.025	mg/kg	N.D.
Ammonium perfluorodecanoate(APFDA)	<0.025	mg/kg	N.D.
Perfluorodecanoic acid,sodium salt(PFDA-Na)*	<0.025	mg/kg	N.D.
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	<0.025	mg/kg	N.D.
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	<0.025	mg/kg	N.D.
1H,1H,2H,2H-Perfluoro -1-dodecanol (10:2 FTOH)	<0.10	mg/kg	N.D.
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	<0.10	mg/kg	N.D.

Remark:

1. MDL=Method Detection Limit.
2. N.D.=Not Detected (<MDL)
3. "mg/kg" denotes "milligram per kilogram
4. "*" denotes the data was converted based on results of related compounds
5. Limit quoted from Regulation (EC) No. 1907/2006 Annex XVII Entry 68: sum of C9-C14 PFCAs and their salts < 0.025 mg/kg, sum of C9-C14 PFCA-related substances < 0.26 mg/kg

TÜV SÜD Certification and Testing (China) Co., Ltd.

Prepared by:



Mr. Jialong HAN

Checked by:



Mr. Feng ZHANG

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and Technological Development Zone, Wuxi Jiangsu. China

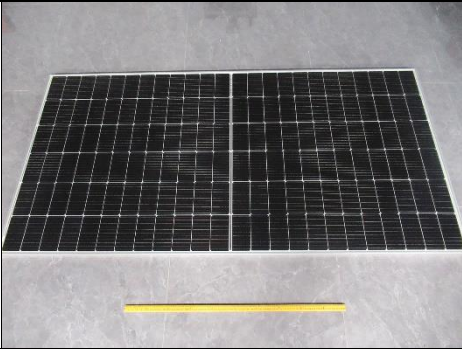
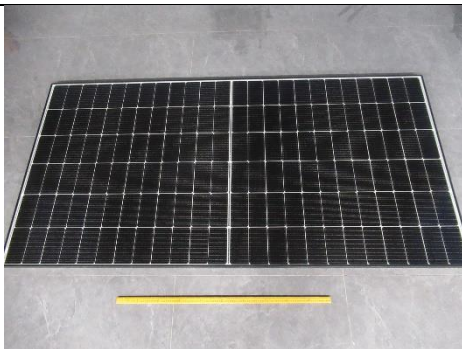
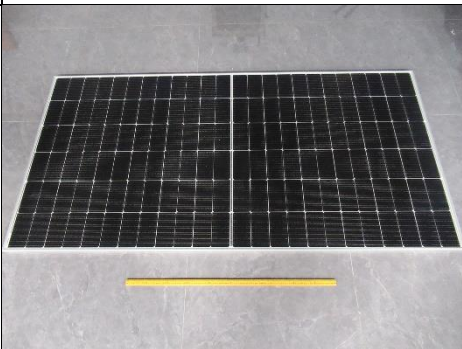
Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 19 of 22

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



APPENDIX I: Product Model

Product: PV Modules	
	
DM410M10-54HSW	DM545M10-B72HSW
	
DM575M10T-72HSW	DM570M10T-B72HSW
Additional model: TOPCon series: DMXXXM10T-54HSW, DMXXXM10T-54HBW, DMXXXM10T-54HBB, DMXXXM10T-60HSW, DMXXXM10T-60HBW, DMXXXM10T-60HBB, DMXXXM10T-66HSW, DMXXXM10T-66HBW, DMXXXM10T-66HBB, DMXXXM10T-72HSW, DMXXXM10T-72HBW, DMXXXM10T-72HBB, DMXXXM10T-78HSW, DMXXXM10T-78HBW, DMXXXM10T-78HBB, DMXXXM10T-54HSW-V, DMXXXM10T-54HBW-V, DMXXXM10T-54HBB-V, DMXXXM10T-60HSW-V, DMXXXM10T-60HBW-V, DMXXXM10T-60HBB-V, DMXXXM10T-66HSW-V, DMXXXM10T-66HBW-V, DMXXXM10T-66HBB-V, DMXXXM10T-72HSW-V, DMXXXM10T-72HBW-V, DMXXXM10T-72HBB-V, DMXXXM10T-78HSW-V, DMXXXM10T-78HBW-V, DMXXXM10T-78HBB-V, DMXXXM10T-B54HSW, DMXXXM10T-B54HBW, DMXXXM10T-B54HST, DMXXXM10T-B54HBT, DMXXXM10T-B54HBB, DMXXXM10T-B60HSW, DMXXXM10T-B60HBW, DMXXXM10T-B60HST, DMXXXM10T-B60HBT, DMXXXM10T-B60HBB, DMXXXM10T-B66HSW, DMXXXM10T-B66HBW, DMXXXM10T-B66HST, DMXXXM10T-B66HBT, DMXXXM10T-B66HBB, DMXXXM10T-B72HSW, DMXXXM10T-B72HBW, DMXXXM10T-B72HST, DMXXXM10T-B72HBT, DMXXXM10T-B72HBB,	

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737

Fax: +86-510-88203636

Page 20 of 22



DMXXXM10T-B78HSW, DMXXXM10T-B78HBW, DMXXXM10T-B78HST, DMXXXM10T-B78HBT, DMXXXM10T-B78HBB,
 DMXXXM10RT-54HSW, DMXXXM10RT-54HBW, DMXXXM10RT-54HBB, DMXXXM10RT-54HSW-V, DMXXXM10RT-54HBW-V, DMXXXM10RT-54HBB-V, DMXXXM10RT-B54HSW,
 DMXXXM10RT-B54HBW, DMXXXM10RT-B54HST,
 DMXXXM10RT-B54HBT, DMXXXM10RT-B54HBB,
 DMXXXM10RT-B54HSW-L, DMXXXM10RT-B54HBW-L, DMXXXM10RT-B54HST-L,
 DMXXXM10RT-B54HBT-L, DMXXXM10RT-B54HBB-L,
 DMXXXG12RT-66HSW, DMXXXG12RT-66HBW, DMXXXG12RT-66HBB,
 DMXXXG12RT-66HSW-V, DMXXXG12RT-66HBW-V, DMXXXG12RT-66HBB-V,
 DMXXX G12RT-B66HSW, DMXXX G12RT-B66HBW, DMXXX G12RT-B66HST,
 DMXXX G12RT-B66HBT, DMXXXG12RT-B66HBB;
 DMXXXG12T-66HSW, DMXXXG12T-66HBW, DMXXXG12T-66HBB,
 DMXXXG12T-66HSW-V, DMXXXG12T-66HBW-V, DMXXXG12T-66HBB-V,
 DMXXX G12T-B66HSW, DMXXX G12T-B66HBW, DMXXX G12T-B66HST,
 DMXXX G12T-B66HBT, DMXXXG12T-B66HBB;
 DMXXXG12T-60HSW, DMXXXG12T-60HBW, DMXXXG12T-60HBB,
 DMXXXG12T-60HSW-V, DMXXXG12T-60HBW-V, DMXXXG12T-60HBB-V,
 DMXXX G12T-B60HSW, DMXXX G12T-B60HBW, DMXXX G12T-B60HST,
 DMXXX G12T-B60HBT, DMXXXG12T-B60HBB;

PERC seires:

DMXXXM6-60HSW, DMXXXM6-60HBW, DMXXXM6-60HBB,
 DMXXXM6-72HSW, DMXXXM6-72HBW, DMXXXM6-72HBB,
 DMXXXM10-54HSW, DMXXXM10-54HBW, DMXXXM10-54HBB,
 DMXXXM10-60HSW, DMXXXM10-60HBW, DMXXXM10-60HBB,
 DMXXXM10-66HSW, DMXXXM10-66HBW, DMXXXM10-66HBB,
 DMXXXM10-72HSW, DMXXXM10-72HBW, DMXXXM10-72HBB,
 DMXXXM10-78HSW, DMXXXM10-78HBW, DMXXXM10-78HBB,
 DMXXXM6-60HSW-V, DMXXXM6-60HBW-V, DMXXXM6-60HBB-V,
 DMXXXM6-72HSW-V, DMXXXM6-72HBW-V, DMXXXM6-72HBB-V,
 DMXXXM10-54HSW-V, DMXXXM10-54HBW-V, DMXXXM10-54HBB-V,
 DMXXXM10-60HSW-V, DMXXXM10-60HBW-V, DMXXXM10-60HBB-V,
 DMXXXM10-66HSW-V, DMXXXM10-66HBW-V, DMXXXM10-66HBB-V, DMXXXM10-72HSW-V,
 DMXXXM10-72HBW-V, DMXXXM10-72HBB-V, DMXXXM10-78HSW-V, DMXXXM10-78HBW-V,
 DMXXXM10-78HBB-V,
 DMXXXM6-B60HSW, DMXXXM6-B60HBW, DMXXXM6-B60HST,
 DMXXXM6-B60HBT, DMXXXM6-B60HBB,
 DMXXXM6-B72HSW, DMXXXM6-B72HBW, DMXXXM6-B72HST,
 DMXXXM6-B72HBT, DMXXXM6-B72HBB,

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Report No. 48.400.23.0957.01-00/04

Dated 2023-10-07



DMXXXM10-B54HSW, DMXXXM10-B54HBW, DMXXXM10-B54HST, DMXXXM10-B54HBT,
DMXXXM10-B54HBB,
DMXXXM10-B60HSW, DMXXXM10-B60HBW, DMXXXM10-B60HST, DMXXXM10-B60HBT,
DMXXXM10-B60HBB,
DMXXXM10-B66HSW, DMXXXM10-B66HBW, DMXXXM10-B66HST, DMXXXM10-B66HBT,
DMXXXM10-B66HBB,
DMXXXM10-B72HSW, DMXXXM10-B72HBW, DMXXXM10-B72HST, DMXXXM10-B72HBT,
DMXXXM10-B72HBB,
DMXXXM10-B78HSW, DMXXXM10-B78HBW, DMXXXM10-B78HST, DMXXXM10-B78HBT,
DMXXXM10-B78HBB;

Greenhouse series which are with the model name start with "GH"

GH series other type:

GHXXXG1-60SW-C, GHXXXM6-B54HST-C, GHXXXM6-B54HSW-C, GHXXXM6-B66HST-C,
GHXXXM6-B66HSW-C, GHXXXM6-B72HST-C, GHXXXM6-B72HSW-C, GHXXXM10-B48HST-C,
GHXXXM10-B66HST-C, GHXXXM10-B66HSW-C, GHXXXM10-B72HST-C, GHXXXM10-B72HSW-C,
GHXXXM10T-B48HST-C, GHXXXM10T-B66HST-C, GHXXXM10T-B66HSW-C, GHXXXM10T-
B72HST-C, GHXXXM10T-B72HSW-C

XXX means module nameplate power.

Remark:

1. The report covers material testing on specified samples.
2. The tested materials covered by the report were declared by the manufacturer to be used on the additional model.

-END OF REPORT

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
Floor 1-4, Building B, No.37, Tuanjie Road(Middle), Xishan Economic and
Technological Development Zone, Wuxi Jiangsu. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
Page 22 of 22