## Form

# Data form for electrical and electronic equipment/components

## Aufbauübersicht für elektrische und elektronische Geräte/Komponenten



| | |
|---|---|
| **Applicant** / Auftraggeber: | INVT Solar Technology (ShenZhen) Co., Ltd.<br>6th Floor, Block A, INVT Guangming Technology Building, Kejie Fourth Road, Shutianpu Community, Matian Guangming District, 518000 Shenzhen, PEOPLE'S REPUBLIC OF CHINA |
| **Manufacturer / Hersteller:** | INVT Solar Technology (ShenZhen) Co., Ltd.<br>6th Floor, Block A, INVT Guangming Technology Building, Kejie Fourth Road, Shutianpu Community, Matian Guangming District, 518000 Shenzhen, PEOPLE'S REPUBLIC OF CHINA |
| **Authorized person** / Bevollmächtigter | Sandy Deng<br>18777351336 |
| **Factory** / Fertigungsstätte: | Shenzhen Invt Electric Co., Ltd. (Baoan Factory)<br>4th to 1st floors of Emerson Industral Park, No. 3, Fengtang Avenue, Tongwei Community, Fuhai Street, Baoan District, 518000 Shenzhen, PEOPLE'S REPUBLIC OF CHINA |
| **Type of equipment** / Geräteart: | Grid-tied Solar Inverter |
| **Type/model** / Typenbezeichnung: | iMars XG3KTR, iMars XG4KTR, iMars XG5KTR,<br>iMars XG6KTR, iMars XG8KTR, iMars XG9KTR,<br>iMars XG10KTR, iMars XG11KTR, iMars XG12KTR,<br>iMars XG15KTR1,<br>iMars XG3KTR-S, iMars XG4KTR-S, iMars XG5KTR-S,<br>iMars XG6KTR-S, iMars XG8KTR-S, iMars XG9KTR-S,<br>iMars XG10KTR-S, iMars XG11KTR-S, iMars XG12KTR-S,<br>iMars XG15KTR1-S,<br>iMars XG3KTR-AU, iMars XG4KTR-AU, iMars XG5KTR-AU,<br>iMars XG6KTR-AU, iMars XG8KTR-AU, iMars XG9KTR-AU,<br>iMars XG10KTR-AU, iMars XG11KTR-AU, iMars XG12KTR-AU,<br>iMars XG15KTR1-AU |
| **Serial no.** / Seriennr.: | N/A |
| **Rated voltage/frequency** / Nennspannung/Frequenz: | See next page |
| **Rated input power/current /** Nennaufnahme/Nennstrom: | See next page |
| **Connection to water installation** / Anschlussdaten-Wasser: | N/A |
| **Dimensions** / Abmessungen [HxWxD / HxBxT]: | 481*395*195 [mm / cm / m] |
| **Weight** / Gewicht: | 13.5 [kg] |
| **Noise emission** / Lärmemission: | N/A [dB(A)] |
| **Ambient temperature / Umgebungstemperatur** | min.: -30 °C max.: 60 °C ☒ |



**Test Report No.** / Prüfbericht Nr.: 74.290.22.304[illegible]0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / Vincent Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

**Form**

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## Aufbauübersicht für elektrische und elektronische Geräte/Komponenten



| | | | |
|---|---|---|---|
| **Operation / Einsatz:** | | < 2,000 m above sea level / < 2.000 m üNN | ☐ |
| | | up to 4000 m / bis zu 4000 m | ☒ |
| **Classification of installation and use** /: Installation und Nutzung | | Stationary / Ortsfest | ☒ |
| | | Portable / Ortsveränderlich | ☐ |
| | | Hand-held / Handgerät | ☐ |
| | | Open-frame / Einbaugerät | ☐ |
| **Protection class** / Schutzklasse: | I: | PE-connection / Schutzleiteranschluss | ☒ |
| | II: | Double insulation / Schutzisoliert | ☐ |
| | III: | SELV / internally powered / Schutzkleinspannung / interne Stromversorgung | ☐ |
| **Degree of protection** / Schutzart /: | IP | IP66 | ☒ |
| **Degree of pollution** / Verschmutzungsgrad: | | **1** ☐ **2** ☒ (inside) **3** ☒ (outside) **4** ☐ | |
| **Overvoltage category** / Überspannungskategorie: | | **I** ☐ **II** ☐ **III** ☒ **IV** ☐ | |
| **Supply connection** / Anschlussart: | | Nondetachable cord / Feste Anschlussleitung | ☐ |
| | | Permanent connection / Fester Anschluss | ☒ |
| | | Appliance inlet / Gerätesteckvorrichtung | ☐ |
| **Rated operation** / Netzbetriebsart: | | Continuous operation / Dauerbetrieb | ☒ |
| | | Intermittent operation / Aussetzbetrieb | ☐ |
| | | Short time operation / Kurzzeitbetrieb | ☐ |

**Additional information for Laser equipment, classification according to IEC/EN 60825**

Zusätzliche Angaben für Laser, Klassifizierung nach IEC/EN 60825

| | |
|---|---|
| **Class** / Klasse: | N/A |
| **Wavelength** / Wellenlänge: | N/A |
| **Pulse duration** / Pulsdauer: | N/A |

**Ratings:**

| Model: | iMars XG3KTR | iMars XG4KTR | iMars XG5KTR | iMars XG6KTR | iMars XG8KTR |
|---|---|---|---|---|---|
| PV input terminal parameters: | | | | | |
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |
| MPPT voltage range (full load) | 250-850 Vd.c. | 250-850 Vd.c. | 250-850 Vd.c. | 250-850 Vd.c. | 320-850 Vd.c. |
| Maximum number of input string per tracker | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 |
| Maximum continuous input current | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. |
| Isc PV | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. |



**Test Report No.** / Prüfbericht Nr.: 4 290 22 304[illegible] 0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]t Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| AC output rating | | | | | |
|---|---|---|---|---|---|
| Rated output voltage | 3/N/PE, 230/400 Va.c. | | | | |
| Rated output frequency | 50/60 Hz | | | | |
| Maximum continuous output current | 4.8 Aa.c. | 6.4 Aa.c. | 8 Aa.c. | 9.6 Aa.c. | 12.8 Aa.c. |
| Rate output active power | 3 kW | 4 kW | 5 kW | 6 kW | 8 kW |
| Maximum output apparent power | 3.3 kVA | 4.4 kVA | 5.5 kVA | 6.6 kVA | 8.8 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

| Model: | iMars XG9KTR | iMars XG10KTR | iMars XG11KTR | iMars XG12KTR | iMars XG15KTR1 |
|---|---|---|---|---|---|
| PV input terminal parameters: | | | | | |
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |
| MPPT voltage range (full load) | 400-850 Vd.c. | 450-850 Vd.c. | 450-850 Vd.c. | 480-850 Vd.c. | 500-850 Vd.c. |
| Maximum number of input string per tracker | 1/1 | 1/1 | 1/1 | 1/1 | 1/2 |
| Maximum continuous input current | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/28 Ad.c. |
| Isc PV | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/36 Ad.c. |
| AC output rating | | | | | |
| Rated output voltage | 3/N/PE, 230/400 Va.c. | | | | |
| Rated output frequency | 50/60 Hz | | | | |
| Maximum continuous output current | 14.4 Aa.c. | 15.9 Aa.c. | 17.5 Aa.c. | 19.1 Aa.c. | 23.9 Aa.c. |
| Rate output active power | 9 kW | 10 kW | 11 kW | 12 kW | 15 kW |
| Maximum output apparent power | 9.9 kVA | 11 kVA | 12.1 kVA | 13.2 kVA | 16.5 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

| Model: | iMars XG3KTR-S | iMars XG4KTR-S | iMars XG5KTR-S | iMars XG6KTR-S | iMars XG8KTR-S |
|---|---|---|---|---|---|

| PV input terminal parameters: | | | | | |
|---|---|---|---|---|---|
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |
| MPPT voltage range (full load) | 200-850 Vd.c. | 200-850 Vd.c. | 200-850 Vd.c. | 200-850 Vd.c. | 360-850 Vd.c. |
| Maximum number of input string per tracker | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 |
| Maximum continuous input current | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. |
| Isc PV | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. |
| AC output rating | | | | | |
| Rated output voltage | 3/N/PE, 230/400Va.c. | | | | |
| Rated output frequency | 50/60 Hz | | | | |
| Maximum continuous output current | 4.8 Aa.c | 6.4 Aa.c | 8 Aa.c. | 9.6 Aa.c. | 12.8 Aa.c. |
| Rate output active power | 3 kW | 4 kW | 5 kW | 6 kW | 8 kW |
| Maximum output apparent power | 3.3 kVA | 4.4 kVA | 5.5 kVA | 6.6 kVA | 8.8 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

| Model: | iMars XG9KTR-S | iMars XG10KTR-S | iMars XG11KTR-S | iMars XG12KTR-S | iMars XG15KTR1-S |
|---|---|---|---|---|---|
| PV input terminal parameters: | | | | | |
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |
| MPPT voltage range (full load) | 360-850 Vd.c. | 360-850 Vd.c. | 380-850 Vd.c. | 380-850 Vd.c. | 450-850 Vd.c. |
| Maximum number of input string per tracker | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 |
| Maximum continuous input current | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. |
| Isc PV | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. | 25/25 Ad.c. |
| AC output rating | | | | | |
| Rated output voltage | 3/N/PE, 230/400 Va.c. | | | | |
| Rated output frequency | 50/60Hz | | | | |
| Maximum continuous output current | 14.4 Aa.c. | 15.9 Aa.c. | 17.5 Aa.c. | 19.1 Aa.c. | 23.9 Aa.c. |
| Rate output active power | 9 kW | 10 kW | 11 kW | 12 kW | 15 kW |



**Test Report No.** / Prüfbericht Nr.: 304 290 22 304 00

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / Vincent Liang
Name Projektleiter:

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers:

Sandy Deng

| | | | | | |
|---|---|---|---|---|---|
| Maximum output apparent power | 9.9 kVA | 11 kVA | 12.1 kVA | 13.2 kVA | 16.5 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

| Model: | iMars XG3KTR-AU | iMars XG4KTR-AU | iMars XG5KTR-AU | iMars XG6KTR-AU | iMars XG8KTR- AU |
|---|---|---|---|---|---|
| PV input terminal parameters: | | | | | |
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |
| MPPT voltage range (full load) | 250-850 Vd.c. | 250-850 Vd.c. | 250-850 Vd.c. | 250-850 Vd.c. | 320-850 Vd.c. |
| Maximum number of input string per tracker | 1/1 | 1/1 | 1/1 | 1/1 | 1/2 |
| Maximum continuous input current | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/14 Ad.c. | 14/28 Ad.c |
| Isc PV | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/18 Ad.c. | 18/36 Ad.c. |
| AC output rating | | | | | |
| Rated output voltage | 3/N/PE, 230/400 Va.c. | | | | |
| Rated output frequency | 50/60 Hz | | | | |
| Maximum continuous output current | 4.3 Aa.c. | 5.8 Aa.c. | 7.2 Aa.c. | 8.7 Aa.c. | 11.6 Aa.c. |
| Rate output active power | 3 kW | 4 kW | 5 kW | 6 kW | 8 kW |
| Maximum output apparent power | 3 kVA | 4 kVA | 5 kVA | 6 kVA | 8 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

| Model: | iMars XG9KTR-AU | iMars XG10KTR- AU | iMars XG11KTR-AU | iMars XG12KTR-AU | iMars XG15KTR1-AU |
|---|---|---|---|---|---|
| PV input terminal parameters: | | | | | |
| Vmax PV | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. | 1100 Vd.c. |
| Rated input voltage | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. | 600 Vd.c. |
| MPPT voltage range | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. | 180-1000 Vd.c. |



**Test Report No.** / Prüfbericht Nr.: 74.290.22.3040.01 **Place** / Ort: **Date** / Datum: 2022-08-18

**Name of Project manager** / Vincent Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| | | | | | |
|---|---|---|---|---|---|
| MPPT voltage range (full load) | 400-850 Vd.c. | 450-850 Vd.c. | 450-850 Vd.c. | 480-850 Vd.c. | 500-850 Vd.c. |
| Maximum number of input string per tracker | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| Maximum continuous input current | 14/28 Ad.c | 14/28 Ad.c | 14/28 Ad.c | 14/28 Ad.c | 14/28 Ad.c |
| Isc PV | 18/36 Ad.c. | 18/36 Ad.c. | 18/36 Ad.c. | 18/36 Ad.c. | 18/36 Ad.c. |
| AC output rating | | | | | |
| Rated output voltage | 3/N/PE, 230/400Va.c. | | | | |
| Rated output frequency | 50/60Hz | | | | |
| Maximum continuous output current | 13 Aa.c. | 14.5 Aa.c. | 16 Aa.c. | 17.4 Aa.c. | 21.7 Aa.c. |
| Rate output active power | 9 kW | 10 kW | 11 kW | 12 kW | 15 kW |
| Maximum output apparent power | 9 kVA | 10 kVA | 11 kVA | 12 kVA | 15 kVA |
| Power factor | 0.8 leading ~ 0.8 lagging | | | | |
| General | | | | | |
| Operating temperature range | -30°C ~+60°C (derating above 45°C) | | | | |
| Protection class | I | | | | |
| Ingress protection | IP66 | | | | |
| Operating altitude range | ≤4000m | | | | |

## Form

## Data form for electrical and electronic equipment/components

### Aufbauübersicht für elektrische und elektronische Geräte/Komponenten

Product Service



**Safety relevant components: (switches, temperature regulators, heating elements, plugs, sockets, wiring, capacitors, motors and other components with windings e.g. transformers, coils, emergency off devices, 2-hand-control-devices, interlock switches, safety light barriers, safety valves, programmable electronic controllers -PLC, hydraulic controllers, pneumatic controllers, Software (Revision), housing parts, materials with contact to food etc.**

**Components for Functional Safety shall be listed in appropriate table.**

**The entry of safety relevant components into this table documents and confirms review of suitability and acceptance by the product specialist.**

Sicherheitsrelevante Bauteile: (Schalter, Temperaturregler, Heizkörper, Stecker, Fassungen, Leitungen, Kondensatoren, Motoren und sonstige Wicklungen z.B. Transformatoren, Magnetspulen, Not-Aus Geräte, 2-Handsteuerungen, Verriegelungsschalter, Sicherheits-Lichtschranken, Sicherheitsventile, Programmierbare Steuerungen-SPS, hydraulische Steuerungen, pneumatische Steuerungen , Software (Revisionsstand), Gehäuseteile, Materialien mit Kontakt zu Lebensmitteln usw.
Komponenten für Funktionale Sicherheit müssen in die entsprechende Tabelle eingetragen werden.
Der Eintrag sicherheitsrelevanter Komponenten in die Übersicht dokumentiert und bestätigt die Überprüfung der Eignung und Freigabe durch den „Product Specialist“.

| Object/part No. | Manufacturer/ Trademark | Type / Model | Technical data | Standard | Mark(s) of Conformity |
|---|---|---|---|---|---|
| **General** | | | | | |
| Metal Enclosure | Shenzhen INVT Electric CO., Ltd. | Sheet metal | L*W*H: 482*395*113mm | IEC 62109-1<br>IEC 62109-2 | Test with Appliance |
| Heat Sinking | Shenzhen INVT Electric CO., Ltd. | Sheet metal | L*W*H: 253*220*68mm, 6063 alumlnum | IEC 62109-1<br>IEC 62109-2 | Test with Appliance |
| DC swithch | ProJoy Electric Co., Ltd. | PEDS150R-HM32-3,<br>PEDS150R-HM32-4 | 1500V,27A,-40°C to 85°C | IEC/EN 60947-3 | AZ 69025269 |
| --Alternative | BENY | BYSS.1 | 1500V,25A,-40°C to 85°C | UL 508 | UL E482690 |
| --Alternative | Santon | XBE3310/2 | 800V,25A,-40°C to 85°C | IEC/EN 60947-3 | DEKRA 71-103409 |
| --Alternative | Beijing People's Electric Plant Co., Ltd. | GHX5-32P/3P | 1500V, 32A,-40°C to 70°C | IEC/EN 60947-3 | R 50439884 |
| PV Input connector | Dongguan Vaconn Electronic Technology Co.,Ltd. | VP-D4B-PHSM4<br>VP-D4B-PHSF4 | 1100Vd.c,35A,IP68,-40°C to 85°C | EN62852 | R 50492180 |
| --Alternative | STAUBLI | PV-KBT4/8II-UR<br>PV-KST4/8II-UR | 1100Vd.c,39A,IP68,-40°C to 85°C | IEC 62852:2014<br>UL 6703 | R 60127190<br>E250725 |
| PV lead wire | Various | UL10269 | 12AWG,VW-1,105°C,1000Vdc | UL 758 | UL E227587 |
| AC lead wire | Various | UL1015 | 12AWG,VW-1,105°C,600Vac | UL 758 | UL E227587 |
| AC connector | Shenzhen Lilutong Electronic Technology Co,LTD | LLT-M29-20005M2962 | 40A,250V,IP68,18-14AWG,V-0,-40°C～85°C | EN 61984 | TUV B15039023002 |
| | | LLT-M29-20005MFZ212 | 25A,250V,IP68,18-14AWG,V-0,-40°C～85°C | | |
| Fan (inside) | Shenzhen Huaxia Hengtai Electronic Co.,Ltd | DA05020B12UR | 12V,0.2A,19.44CFM,6500rpm,36dB | UL507 | E254715 |
| Fan for outside (For XR15KTR) | NMB | 06025VA12NCL01 | 12V,0.22A,30CFM,7000rpm,44dB,IP68 | UL507 | VDE 1507300<br>UL E89936 |
| --Alternative | DONGGUAN PROTECHNIC ELECTRIC CO LTD | MGT6012VB-R25_D | 12V,0.34A,35CFM,7800rpm,45dB,IP68 | UL 507 | UL E187236 |
| PCB (for control board) | KINGBOARD LAMINATES HOLDINGS LTD | PCB_PE2008_CT1 | FR-4,190*65*1.6mm,V-0,CTI>170,130°C | UL 796 | E123995 |
| PCB | KINGBOARD | PCB_PE2102_DR1 | FR-4,378*273*2mm,V- | UL 796 | E123995 |

| | | | | | |
|---|---|---|---|---|---|
| (for power board) | LAMINATES HOLDINGS LTD | | 0,CTI>170,130°C | | |
| PCB (for monitor board) | KINGBOARD LAMINATES HOLDINGS LTD | PCB_PE2102_MN1 | FR-4,120*100*1.6mm,V-0,CTI>170,130°C | UL 796 | E123995 |
| Plastics board (for LCD cover) | KINGFA SCI & TECH CO LTD | JH830T (ccc) | Length x Width: 60*35mm, V0 | UL 94 | E171666 |
| Boost inductor | INVT ELECTRIC Co., Ltd. | HX11726-DX3892 | 1.4mH,NPH184060,180°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| INV inductor (25003-00199) | INVT ELECTRIC Co., Ltd. | HX11726-DX3891 | 0.787mH,NPF184060,180°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| **POWER Board** | | | | | |
| Current Sensor (SN1,SN2,SN3, SN5) (For XR15KTR) | Sinomags Technology Co., Ltd. | STK-32PL-H | 5V,32A, -40°C to 85°C | UL 508 | E507664 |
| --Alternative | Magntek | MTC952CA-32B5 | 5V,32A, -40°C to 85°C | -- | -- |
| --Alternative | LEM | HLSR 32-P | 5V,32A, -40°C to 85°C | UL 508 | E189713 |
| --Alternative | CRRC | NACA.32T-P6/VN | 5V,32A, -40°C to 85°C | -- | -- |
| Current Sensor (SN1,SN2,SN3,SN4,SN5) (For XR12KTR) | Sinomags Technology Co., Ltd. | STK-20PL-H | 5V,20A, -40°C to 85°C | UL 508 | E 507664 |
| --Alternative | Magntek | MTC952CA-20B5 | 5V,20A, -40°C to 85°C | -- | -- |
| --Alternative | LEM | HLSR 20-P | 5V,20A, -40°C to 85°C | UL 508 | E 189713 |
| --Alternative | CRRC | NACA.32T-P6/VN | 5V,20A, -40°C to 85°C | -- | -- |
| Current Sensor (SN1,SN2,SN3) (For XR6KTR) | Sinomags Technology Co., Ltd. | STK-10PL-H | 5V,10A, -40°C to 85°C | UL 508 | E 507664 |
| --Alternative | Magntek | MTC952CA-10B5 | 5V,10A, -40°C to 85°C | -- | -- |
| --Alternative | LEM | HLSR 10-P | 5V,10A, -40°C to 85°C | UL 508 | E 189713 |
| --Alternative | CRRC | NACA.32T-P6/VN | 5V,10A, -40°C to 85°C | | |
| Filter Capacitor for PV side (C472, C473) | XIAMEN FARATRONIC CO., LTD. | C3D1M106KF02C00 | 1100VDC,10uF, 85°C | EN61071 UL 810 | R 50266108 E256238 |
| --Alternative | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FDA3MK106K324KG5 | 1100VDC,10uF, 85°C | UL 810 | E500537 |
| Bus Capacitor (C447,C448) | XIAMEN FARATRONIC CO., LTD. | C3D1U147KM0AC00 | 600V,140uF, 85°C | EN61071 UL 810 | R 50266108 E256238 |
| --Alternative | XIAMEN FARATRONIC CO., LTD. | C3D3T147KM1A452 | 550V,140uF, 85°C | EN61071 UL 810 | R 50266108 E256238 |
| --Alternative | TDK | B32778S5147K524 | 550V,140uF, 85°C | EN61071 UL 810 | E487229 |
| --Alternative | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FDA2JK147M324MD5 | 550V,140uF, 85°C | UL 810 | E500537 |
| Bus Capacitor (C447,C448) | XIAMEN FARATRONIC CO., LTD. | C3D3T117KM1A382 | 550V,110uF, 85°C | EN61071 UL 810 | R 50266108 E256238 |
| --Alternative | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FDA2JK117M204MD5 | 550V,110uF, 85°C | UL 810 | E500537 |
| Bus Capacitor (C1,C2 for XR15KTR) | XIAMEN FARATRONIC CO., LTD. | C3D1U506KFAAC00 | 600V,50uF, 85°C | EN61071 UL 810 | R 50266108 E256238 |
| --Alternative | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FDA2JK506K424MD5 | 550V,50uF, 85°C | UL 810 | E500537 |
| Filter Capacitor for AC side (C516,C517,C518 for | AIHUA INFINITY CAPACITORS (SUZHOU) | FAG35K805K322KL5 | 350VAC,8μF, 85°C | UL 810 | E500537 |

| | | | | | |
|---|---|---|---|---|---|
| XG8-15K) | | | | | |
| --Alternative | XIAMEN FARATRONIC CO., LTD. | C6AR2805-FW0 | 350VAC,8μF, 85°C | EN61071<br>UL 810 | R 50266136<br>E256238 |
| Filter Capacitor for AC side (C525,C526,C527 for XG3-6k) | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FXT35M475G402GL5 | 350VAC,4.7μF, 85°C | UL 810 | E500537 |
| --Alternative | XIAMEN FARATRONIC CO., LTD. | C6AR2405-BW0 | 350VAC,4.7μF, 85°C | EN61071<br>UL 810 | R 50266136<br>E256238 |
| Y2 capacitor (C12,C317,C466-C468,C528-C530,C536) | XIAMEN FARATRONIC CO., LTD. | MKP63 | 4.7nF,300Vac,40/110/56/B, 110°C | IEC 60384<br>UL 60384-14 | SE/0366-2C<br>E 186600 |
| --Alternative | TDK | B32021A3472 | 4.7nF, 300Vac,Y2, 5*11*13mm | IEC 60384<br>UL1414 | 40018909<br>E97863 |
| --Alternative | XIAMEN FARATRONIC CO., LTD. | MKP63 | 4.7nF, 300Vac,40/110/56/B, 110°C | IEC 60384<br>UL 60384-14 | SE/0366-2C<br>E 186600 |
| --Alternative | TDK | CD16-E2GA472MYGS | 4.7nF,400Vac, -25°C to 105°C | IEC 60384 | VDE40029780 |
| Y2 capacitor (C460-C461,C537-C539) | XIAMEN FARATRONIC CO., LTD. | MKP63Q1103M40C400 | 10nF,300Va.c, 4000Vac, -40°C to 110°C | UL 60384-14 | E 186600 |
| --Alternative | XIAMEN FARATRONIC CO., LTD. | MKP63 | 10nF,300Va.c, -40°C°to 110°C | IEC 60384-14<br>UL 60384-14 | E186600 |
| Y2 capacitor (C540-C544) | XIAMEN FARATRONIC CO., LTD. | C43Q1333K6SC000 | 33nF,300Va.c,-40°C to 110°C | IEC 60384-14<br>UL 60384-14 | E186600 |
| --Alternative | TDK | B32022A3333 | 33nF,300Vac,Y2, 8*14*18mm | EN 60384<br>UL1414 | 40018909<br>E97863 |
| --Alternative | HJC | Y2X1333K0300AB1151 | 33nF,300Vac,Y2, 9*15*18mm | EN 60384-14<br>UL 60384-14 | SE/0252-2B<br>E149075 |
| X2 capacitor for AC side (C513, C514, C515) | XIAMEN FARATRONIC CO., LTD. | C4BR2105K9WC000 | 350VAC;1.0uF;26.5*12*22mm | EN 60384-14<br>UL 60384-14 | SE/0366-6<br>E186600 |
| --Alternative | hongfarad | HMKP105K310NHXH | 350VAC;1.0uF;26.5*12*22mm | IEC 60384 | VDE40044173 |
| Diode (D3, D4) | ON | FFSH30120ADN | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Infineon | IDW30G120C5 | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Cree | C4D30120D | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | BASiC Semiconductor | B2D30120HC1 | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Xiamen San Intergrated Circuit Co., LTD. | SDS120J030G2 | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Grobal Power Technology Co., LTD. | G3S12030B | Diode,1200V,30A,TO247,-55°C to 175°C | -- | -- |
| Diode (D3, D4) | ON | FFSH20120ADN | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Infineon | IDW20G120C5 | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Cree | C4D20120D | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | BASiC Semiconductor | B2D20120HC1 | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Xiamen San Intergrated Circuit Co., LTD. | SDS120J020G2 | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Grobal Power Technology Co., LTD. | G3S12020B | Diode,1200V,20A,TO247,-55°C to 175°C | -- | -- |
| Diode (D3, D4) | ON | FFSH10120ADN | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Infineon | IDW10G120C5 | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |

| | | | | | |
|---|---|---|---|---|---|
| --Alternative | Cree | C4D10120D | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | BASiC Semiconductor | B2D10120HC1 | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Xiamen San Intergrated Circuit Co., LTD. | SDS120J010G2 | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |
| --Alternative | Grobal Power Technology Co., LTD. | G3S12010B | Diode,1200V,10A,TO247,-55°C to 175°C | -- | -- |
| IGBT (IGBT1-IGBT2,IGBT5-IGBT6,IGBT21-IGBT26) | Infineon | IKY40N120CH3 | IGBT,1200V,40A, TO247,-40°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | ST | STGWA40H120DF2 | IGBT,1200V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | ONSEMI | NGTB40N120FL3WG | IGBT,1200V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | Trinno | TGH40N135FD | IGBT,1350V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | STARPOWER Semiconductor Ltd. | DG40Q12T2L | IGBT,1200V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | MACMIC | MM40G3U120BX | IGBT,1200V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| IGBT (IGBT27-IGBT32) | MACMIC | MM40G3U65B | IGBT,650V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | Infinion | IKW40N65H5 | IGBT,650V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --Alternative | ONSEMI | FGH40T65SHD | IGBT,650V,40A, TO247, -55°C to 175°C | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| Relay (K1-K6) | HF | HF161F-W | 277Vac,33A,12Vdc | UL 508 | E134517 40031410 |
| --Alternative | Panasonic | ALFG2PF1 | 250Vac,33A,12Vdc | -- | -- |
| --Alternative | Xiamen ZETTLER Relay CO.,LTD | AZ7695-1A-12DK | 250Vac,31A,12Vdc | -- | -- |
| X capacitor (C13, C14, C15) | Xiamen Faratronic CO.,LTD. | C4BR2225MBWC000 | 2.2uF, 400Vac , -25°C to 125°C | ANSI/UL 60384-14 | UL E186600 |
| --Alternative | Hongfarad | HMKP225K310RHXL | 2.2uF, 400Vac , -25°C to 110°C | IEC 60384-14 | E484578 |
| --Alternative | Xiamen Faratronic CO.,LTD. | C4BR2105K9WC000 | 1uF,350Vac,X2, -25°C to 110°C | UL 60384 IEC 60384-14 EN 60384-14 | E186600 CQC14001118716 |
| --Alternative | Hongfarad | HMKP105K310RHXL | 1uF, 400Vac , -25°C to 110°C | IEC 60384-14 | E484578 |
| Piezoresistor (RV8,RV9,RV10,RV12) | Shanxi Huaxing Electronics Development CO.,LTD | MYG20G20K621 | 505Vdc, 6.5kA, 85°C | IEC 60384-14 | E329651 40018747 |
| --Alternative | BrightKing | 621KD20 | 560Vdc, 10kA, 85°C | IEC 60384-14 | E327997 40027827 |
| Piezoresistor (RV6,RV7,RV17) | Shanxi Huaxing Electronics Development CO.,LTD | MYG20G20K821 | 670Vdc, 6.5kA, 85°C | IEC 60384-14 | E329651 40018747 |
| --Alternative | BrightKing | 821KD20 | 670Vdc, 10kA, 85°C | IEC 60384-14 | E327997 40027827 |
| Transformer (TR1) | INVT ELECTRIC Co., Ltd. | TR1-ER35 | ER35,600μH, 84:10:8:15:15:8:84 | IEC 62109-1 IEC 62109-2 | Test with Appliance |
| --bobbin | CHANG CHUN PLASTICS CO LTD | T375HF | V0, 150°C | UL 94 | E59481 |
| --primary winding wire | HENG YA ELECTRIC (DONGGUAN) LTD | MW 75C | 0.40mm², 155°C | UL 1446 | E197768 |
| | PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO., LTD. | MW 75C | 0.40mm², 155°C | UL 1446 | E201757 |



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible] 0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]t Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| | | | | | |
|---|---|---|---|---|---|
| | TAI-I ELECTIC WIRE&CABLE.CO.LTD | MW 75C | 0.40mm², 155°C | UL 1446 | E85640 |
| --secondary wire | Asia Insulation Materials Inc | NMN | 0.2mm², 130°C | UL 1446 | E472956 |
| | E&B TECHNOLOGY CO LTD | E&B-XXXB | 0.2mm², 130°C | UL 1446 | E315265 |
| --tape | CHANGYUAN ELECTRONICS GROUP CO LTD | CB-TT-L | VW-1/150V/200°C | UL 224 | E180908 |
| --margin tape | JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD | CT | 130°C | UL 510A | E165111 |
| Opto-couple (IC3, IC4) | Texas Instruments | UCC23313DWYR | Viso=5000Vrms,CL ＞ 8.5mm, CR ＞ 8.5mm ,CTI＞600 , -40°C to 130°C | IEC/EN 60747 | VDE 40040142 |
| --Alternative | TOSHIBA | TLP5754 | Viso=5000Vrms,CL ＞ 8.5mm, CR ＞ 8.5mm ,CTI＞600 , -40°C to 125°C | UL 1577 | UL E67349 |
| --Alternative | ONSEMI | FOD8342 | Viso=5000Vrms,CL ＞ 8.5mm, CR ＞ 8.5mm ,CTI＞600 , -40°C to 125°C | IEC/EN 60747 | VDE 40043666 |
| --Alternative | EVERLIGHT | EL2501S2 | Viso=5000Vrms, CL＞8.5mm, CR＞ 8.5mm, CTI>600, -55°C to 125°C | IEC/EN 60747 | VDE 40027351 |
| --Alternative | TOSHIBA | TLP2761 | Viso=5000Vrms, CL＞8.5mm, CR＞ 8.5mm, CTI>600, -55°C to 125°C | UL 1577 | UL E67349 |
| **Main Control Board** | | | | | |
| ARM chip | ST | STM32F107VCT6 | 105°C | IEC 62109-1 | Test with Appliance |
| DSP chip | Texas Instruments | TMS320F28075PTPT | -40°C to 85°C | IEC 62109-2 | Test with Appliance |

**Label** / Typenschild

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG3KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 4.8A |
| Rated Power | 3000W |
| Max. Output Power | 3300VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG4KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 6.4A |
| Rated Power | 4000W |
| Max. Output Power | 4400VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG5KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 8A |
| Rated Power | 5000W |
| Max. Output Power | 5500VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible] 0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter:

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers:

Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG6KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 9.6A |
| Rated Power | 6000W |
| Max. Output Power | 6600VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG8KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 12.8A |
| Rated Power | 8000W |
| Max. Output Power | 8800VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG9KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 14.4A |
| Rated Power | 9000W |
| Max. Output Power | 9900VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74.290.22.3040.01

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / Vincent Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG10KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 15.9A |
| Rated Power | 10000W |
| Max. Output Power | 11000VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG11KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 17.5A |
| Rated Power | 11000W |
| Max. Output Power | 12100VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG12KTR** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/14A |
| Isc PV | 18A/18A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 19.1A |
| Rated Power | 12000W |
| Max. Output Power | 13200VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74.290.22.3040.0 **Place** / Ort: **Date** / Datum: 2022-08-18

**Name of Project manager** / Vincent Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG15KTR1** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 14A/28A |
| Isc PV | 18A/36A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 23.9A |
| Rated Power | 15000W |
| Max. Output Power | 16500VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG3KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 4.8A |
| Rated Power | 3000W |
| Max. Output Power | 3300VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG4KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 6.4A |
| Rated Power | 4000W |
| Max. Output Power | 4400VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible] 0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG5KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 8A |
| Rated Power | 5000W |
| Max. Output Power | 5500VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG6KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 9.6A |
| Rated Power | 6000W |
| Max. Output Power | 6600VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG8KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 12.8A |
| Rated Power | 8000W |
| Max. Output Power | 8800VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible] 0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG9KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 14.4A |
| Rated Power | 9000W |
| Max. Output Power | 9900VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG10KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 15.9A |
| Rated Power | 10000W |
| Max. Output Power | 11000VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG11KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 17.5A |
| Rated Power | 11000W |
| Max. Output Power | 12100VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible]0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG12KTR-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 19.1A |
| Rated Power | 12000W |
| Max. Output Power | 13200VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG15KTR1-S** | |
| DC Input | |
| Vmax. PV | 1100V |
| MPPT Range | 180V-1000V |
| Max. Current | 18A/18A |
| Isc PV | 25A/25A |
| AC Output | |
| Nominal Voltage | 3/N/PE,230V/400V |
| Max. Current | 23.9A |
| Rated Power | 15000W |
| Max. Output Power | 16500VA |
| Frequency | 50Hz/60Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter topology | Non-isolated |
| Ingress protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG3KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./14Ad.c. |
| Isc PV | 18Ad.c./18Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 4.3Aa.c. |
| Rated Apparent Power | 3000VA |
| Max. Output Power | 3000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible]0 **Place** / Ort: **Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG4KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./14Ad.c. |
| Isc PV | 18Ad.c./18Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 5.8Aa.c. |
| Rated Apparent Power | 4000VA |
| Max. Output Power | 4000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG5KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./14Ad.c. |
| Isc PV | 18Ad.c./18Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 7.2Aa.c. |
| Rated Apparent Power | 5000VA |
| Max. Output Power | 5000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG6KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./14Ad.c. |
| Isc PV | 18Ad.c./18Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 8.7Aa.c. |
| Rated Apparent Power | 6000VA |
| Max. Output Power | 6000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible]0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG8KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 11.6Aa.c. |
| Rated Apparent Power | 8000VA |
| Max. Output Power | 8000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG9KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 13Aa.c. |
| Rated Apparent Power | 9000VA |
| Max. Output Power | 9000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG10KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 14.5Aa.c. |
| Rated Apparent Power | 10000VA |
| Max. Output Power | 10000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible]0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]nt Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG11KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 16Aa.c. |
| Rated Apparent Power | 11000VA |
| Max. Output Power | 11000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG12KTR-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 17.4Aa.c. |
| Rated Apparent Power | 12000VA |
| Max. Output Power | 12000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

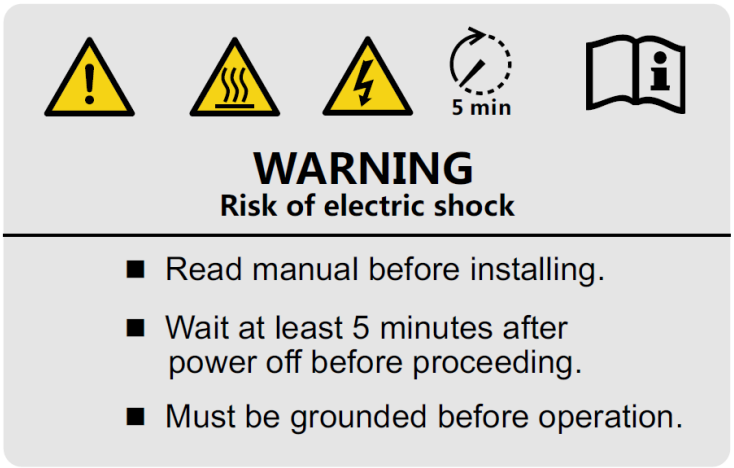
Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**

| invt | Grid-tied Solar Inverter |
|---|---|
| **iMars XG15KTR1-AU** | |
| DC Input | |
| Vmax. PV | 1100Vd.c. |
| MPPT Range | 180Vd.c.-1000Vd.c. |
| Max. Current | 14Ad.c./28Ad.c. |
| Isc PV | 18Ad.c./36Ad.c. |
| AC Output | |
| Nominal Voltage | 3/N/PE,230/400Va.c. |
| Rated Current | 21.7Aa.c. |
| Rated Apparent Power | 15000VA |
| Max. Output Power | 15000VA |
| Frequency | 50Hz |
| Power Factor Range | 0.80un ~ 0.80ov |
| Environment | |
| Temperature | -30℃ ~ +60℃ |
| Protective Class | I |
| Inverter Topology | Non-isolated |
| Overvoltage Category | II(DC), III(AC) |
| Ingress Protection | IP66 |

Made in China

**INVT Solar Technology (Shenzhen) Co.,Ltd.**




**Serial number definition:**

The serial number can trace the manufacture date of the product, it is consisted of 12 digits.



**Test Report No.** / Prüfbericht Nr.: 74 290 22 304[illegible]0

**Place** / Ort:

**Date** / Datum: 2022-08-18

**Name of Project manager** / [illegible]
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng


The fourth and fifth bit of serial number are for year: 21 for 2021, 22 for 2022 and so on. The sixth bit of serial number is for month: 1 to 9 represent January to September, A for October, B for November, C for December.

**Routine Safety Test**

**Final inspection requirements for production are described in: IEC 62109-1**

| | | |
|---|---|---|
| ☒ Required | ☐ Not Required | Reason:<br>☐ Class III product<br>☐ Other: |

| **Test Details:** | **Test Points:** | **Test Values:** |
|---|---|---|
| ☒ visual inspection | To check features such as adequacy of labelling, warnings and other safety aspects | IP, labelling, warnings |
| ☒ a.c. or d.c. voltage test | PV input and AC output circuit to enclosure | 2120 V d.c., 1 s, No breakdown |
| ☒ protective equipotential bonding test | PE terminal to the farthest end of the enclosure | 25 A, 2 min, < 2.5 V |



**Test Report No.** / Prüfbericht Nr.: 74.290.22.304[illegible]0 **Place** / Ort: **Date** / Datum: 2022-08-18

**Name of Project manager** / V[illegible]t Liang
Name Projektleiter: Vincent Liang

**Name, seal and signature of Certificate Holder** /
Name, Stempel und Unterschrift des Zertifikatinhabers: Sandy Deng