

## Data form for critical components and material information

|                                                  |                                                                                                                                                                                                                                                                       |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant name and address .....                 | INVT Solar Technology (ShenZhen) Co., Ltd.                                                                                                                                                                                                                            |
| Manufacturer name and address .....              | 6th Floor, Block A, INVT Guangming Technology Building,<br>Kejie Fourth Road, Shutianpu Community, Matian<br>Guangming District, 518000 Shenzhen, PEOPLE'S<br>REPUBLIC OF CHINA                                                                                       |
| Name and address of<br>factory / factories ..... | Shenzhen INVT Electric Co., Ltd. (Baoan Factory)<br>4th to 1st floors of Emerson Industrial Park, No. 3, Fengtang<br>Avenue, Tangwei Community, Fuhai Street, Baoan District,<br>518000 Shenzhen, PEOPLE'S REPUBLIC OF CHINA                                          |
| Project-No./Report-No. ....                      | 64.290.22.31598.01                                                                                                                                                                                                                                                    |
| Test item description .....                      | Grid-tied Solar Inverter                                                                                                                                                                                                                                              |
| Model/Type reference.....                        | iMars XG3KTL-1M, iMars XG3KTL-2M, iMars XG3.68KTL,<br>iMars XG4KTL, iMars XG4.2KTL, iMars XG4.6KTL, iMars<br>XG5KTL, iMars XG6KTL, iMars XG7KTL, iMars XG7KTL1,<br>iMars XG8KTL, iMars XG8KTL1, iMars XG10KTL, iMars<br>XG10KTL-AU, iMars XG10KTL1, iMars XG10KTL1-AU |
| Device type .....                                | <input type="checkbox"/> component / <input type="checkbox"/> sub-assembly / <input type="checkbox"/> equipment /<br><input checked="" type="checkbox"/> system                                                                                                       |

|                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ratings.....                                                         | 230 Va.c., 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                        |
| Connection to supply.....                                            | <input checked="" type="checkbox"/> Permanent / <input type="checkbox"/> Detachable cord set /<br><input type="checkbox"/> Non detachable cord set / <input type="checkbox"/> Direct plug-in /<br><input type="checkbox"/> None / <input type="checkbox"/> Battery operated / <input type="checkbox"/> Others:                                                                                                          |
| Overvoltage category .....                                           | <input type="checkbox"/> I / <input checked="" type="checkbox"/> II / <input type="checkbox"/> III / <input type="checkbox"/> IV / <input type="checkbox"/> N/A                                                                                                                                                                                                                                                         |
| Pollution degree .....                                               | <input type="checkbox"/> 1 / <input type="checkbox"/> 2 / <input checked="" type="checkbox"/> 3 / <input type="checkbox"/> 4 / <input type="checkbox"/> N/A                                                                                                                                                                                                                                                             |
| Class of protection .....                                            | <input checked="" type="checkbox"/> Class I (PE connected)<br><input type="checkbox"/> Class II (isolated)<br><input type="checkbox"/> Class III<br><input type="checkbox"/> Others:<br><input type="checkbox"/> N/A                                                                                                                                                                                                    |
| Product with functional earthing<br>.....                            | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> N/A                                                                                                                                                                                                                                                                                                                                                 |
| Environmental conditions / Maximum<br>ambient temperature .....      | Outdoor<br>-30 °C ~ +60 °C, auto-derating above 45 °C                                                                                                                                                                                                                                                                                                                                                                   |
| Equipment mobility / Classification of<br>installation and use ..... | <input type="checkbox"/> transportable / <input type="checkbox"/> portable / <input checked="" type="checkbox"/> stationary /<br><input type="checkbox"/> mobile / <input checked="" type="checkbox"/> fixed / <input type="checkbox"/> permanently installed /<br><input type="checkbox"/> hand-held / <input type="checkbox"/> body-worn / <input type="checkbox"/> building-in /<br><input type="checkbox"/> Others: |

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|                                                        |                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating conditions .....                             | <input checked="" type="checkbox"/> Continuous / <input type="checkbox"/> Short-time / <input type="checkbox"/> Intermittent                                                                                                                                                                        |
| Overall size of equipment (mm) .....                   | 380mm*380mm*160mm                                                                                                                                                                                                                                                                                   |
| Mass of equipment (kg) .....                           | 12[kg] for iMars XG3KTL-1M, iMars XG3KTL-2M, iMars XG3.68KTL, iMars XG4KTL, iMars XG4.2KTL, iMars XG4.6KTL.<br>12.6[kg] for iMars XG5KTL, iMars XG6KTL, iMars XG7KTL, iMars XG7KTL1.<br>13[kg] for iMars XG8KTL, iMars XG8KTL1, iMars XG10KTL, iMars XG10KTL-AU, iMars XG10KTL1, iMars XG10KTL1-AU. |
| Degree of ingress protection.....                      | IP66                                                                                                                                                                                                                                                                                                |
| Noise emission [dB(A)].....                            | N/A                                                                                                                                                                                                                                                                                                 |
| Vibration [m/s <sup>2</sup> ]                          | N/A                                                                                                                                                                                                                                                                                                 |
| Connection to hydraulic power.....                     | N/A                                                                                                                                                                                                                                                                                                 |
| Connection to pneumatic power.....                     | N/A                                                                                                                                                                                                                                                                                                 |
| Connection to water installation .....                 | N/A                                                                                                                                                                                                                                                                                                 |
| Description of special features.....                   | N/A                                                                                                                                                                                                                                                                                                 |
| Data communication ports: <input type="checkbox"/> N/A |                                                                                                                                                                                                                                                                                                     |
| Wired ports.....                                       | <input type="checkbox"/> N/A <input type="checkbox"/> USB <input checked="" type="checkbox"/> LAN <input type="checkbox"/> DALI<br><input type="checkbox"/> other:                                                                                                                                  |
| Wireless ports .....                                   | <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Wifi <input type="checkbox"/> Bluetooth <input type="checkbox"/> NFC <input type="checkbox"/> 4G/LTE <input type="checkbox"/> 5G<br><input type="checkbox"/> Other:                                                                |
| Data Storage/ Processing.....                          | <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Local <input type="checkbox"/> Cloud                                                                                                                                                                                               |
| Software Version.....                                  | N/A                                                                                                                                                                                                                                                                                                 |

|                                                |                                      |
|------------------------------------------------|--------------------------------------|
| General product information and other remarks: |                                      |
| Main label / Warning Markings:                 | Refer to for page 3 for more details |
| Description of model differences:              | Refer to TRF documentation           |
| General information / Intended use:            | Refer to TRF documentation           |
| Protective earth connection:                   | Permanent                            |
| Drawing(s) / Picture(s):                       | Refer to TRF photo documentation     |

## Data form for critical components and material information

Characteristic data:

| Model                                   | iMars<br>XG3KTL-1M        | iMars<br>XG3KTL-2M | iMars<br>XG3.68KTL | iMars<br>XG4KTL | iMars<br>XG4.2KTL |
|-----------------------------------------|---------------------------|--------------------|--------------------|-----------------|-------------------|
| PV input rating                         |                           |                    |                    |                 |                   |
| Rated input voltage                     | 360 Vd.c.                 |                    |                    |                 |                   |
| Max. input voltage                      | 600 Vd.c.                 |                    |                    |                 |                   |
| MPPT voltage range                      | 80~580 Vd.c.              |                    |                    |                 |                   |
| MPPT voltage range (full load)          | 190~480 Vd.c.             | 120~480 Vd.c.      | 135~480 Vd.c.      | 145~480 Vd.c.   | 150~480 Vd.c.     |
| Number of MPP trackers                  | 1                         | 2                  |                    |                 |                   |
| Strings per MPP Tracker                 | 1                         | 1/1                |                    |                 |                   |
| Maximum continue input current per MPPT | 20 Ad.c.                  | 20/20 Ad.c.        |                    |                 |                   |
| Isc PV                                  | 26 Ad.c.                  | 26/26 Ad.c.        |                    |                 |                   |
| Gird output rating                      |                           |                    |                    |                 |                   |
| Rated output voltage                    | 1/N/PE, 230 Va.c.         |                    |                    |                 |                   |
| Rated output frequency                  | 50 Hz                     |                    |                    |                 |                   |
| Rate output active power                | 3000 W                    |                    | 3680 W             | 4000 W          | 4200 W            |
| Rate output current                     | 13 Aa.c.                  |                    | 16 Aa.c.           | 17.4 Aa.c.      | 18.3 Aa.c.        |
| Maximum output apparent power           | 3300 VA                   |                    | 3680 VA            | 4400 VA         | 4620 VA           |
| Maximum continuous output current       | 15 Aa.c.                  |                    | 16 Aa.c.           | 20 Aa.c.        | 21 Aa.c.          |
| Power factor                            | 0.8 leading ~ 0.8 lagging |                    |                    |                 |                   |
| General parameter                       |                           |                    |                    |                 |                   |
| Ingress protection rating               | IP66                      |                    |                    |                 |                   |
| Ambient temperature range               | -30°C ~+60°C              |                    |                    |                 |                   |
| Protect class                           | I                         |                    |                    |                 |                   |
| Operating Altitude                      | ≤4000 m                   |                    |                    |                 |                   |

## Data form for critical components and material information

| Model                                   | iMars<br>XG4.6KTL         | iMars<br>XG5KTL | iMars<br>XG6KTL | iMars<br>XG7KTL | iMars<br>XG7KTL1 |
|-----------------------------------------|---------------------------|-----------------|-----------------|-----------------|------------------|
| PV input rating                         |                           |                 |                 |                 |                  |
| Rated input voltage                     | 360 Vd.c.                 |                 |                 |                 |                  |
| Max. input voltage                      | 600 Vd.c.                 |                 |                 |                 |                  |
| MPPT voltage range                      | 80~580 Vd.c.              |                 |                 |                 |                  |
| MPPT voltage range (full load)          | 160~480 Vd.c.             | 170~480 Vd.c.   | 190~480 Vd.c.   | 230~480 Vd.c.   |                  |
| Number of MPP trackers                  | 2                         |                 |                 |                 |                  |
| Strings per MPP Tracker                 | 1/1                       |                 |                 |                 | 1/2              |
| Maximum continue input current per MPPT | 20/20 Ad.c.               |                 |                 |                 | 28/14 Ad.c.      |
| Isc PV                                  | 26/26 Ad.c.               |                 |                 |                 | 36.4/18.2 Ad.c.  |
| Gird output rating                      |                           |                 |                 |                 |                  |
| Rated output voltage                    | 1/N/PE, 230 Va.c.         |                 |                 |                 |                  |
| Rated output frequency                  | 50 Hz                     |                 |                 |                 |                  |
| Rate output active power                | 4600 W                    | 5000 W          | 6000 W          | 7000 W          |                  |
| Rate output current                     | 20 Aa.c.                  | 21.7 Aa.c.      | 26.1 Aa.c.      | 30.4 Aa.c.      |                  |
| Maximum output apparent power           | 5000 VA                   | 5500 VA         | 6600 VA         | 7700 VA         | 7700 VA          |
| Maximum continuous output current       | 23 Aa.c.                  | 25 Aa.c         | 30 Aa.c.        | 35 Aa.c.        | 35 Aa.c.         |
| Power factor                            | 0.8 leading ~ 0.8 lagging |                 |                 |                 |                  |
| General parameter                       |                           |                 |                 |                 |                  |
| Ingress protection rating               | IP66                      |                 |                 |                 |                  |
| Ambient temperature range               | -30°C ~+60°C              |                 |                 |                 |                  |
| Protect class                           | I                         |                 |                 |                 |                  |
| Operating Altitude                      | ≤4000 m                   |                 |                 |                 |                  |

## Data form for critical components and material information

| Model                                   | iMars<br>XG8KTL           | iMars<br>XG8KTL1 | iMars<br>XG10KTL | iMars<br>XG10KTL-<br>AU | iMars<br>XG10KTL<br>1 | iMars<br>XG10KTL1-<br>AU |
|-----------------------------------------|---------------------------|------------------|------------------|-------------------------|-----------------------|--------------------------|
| PV input rating                         |                           |                  |                  |                         |                       |                          |
| Rated input voltage                     | 360 Vd.c.                 |                  |                  |                         |                       |                          |
| Max. input voltage                      | 600 Vd.c.                 |                  |                  |                         |                       |                          |
| MPPT voltage range                      | 80~580 Vd.c.              |                  |                  |                         |                       |                          |
| MPPT voltage range (full load)          | 250~480 Vd.c.             |                  | 290~480 Vd.c.    |                         |                       |                          |
| Number of MPP trackers                  | 2                         |                  |                  |                         |                       |                          |
| Strings per MPP Tracker                 | 1/1                       | 1/2              | 1/1              |                         | 1/2                   |                          |
| Maximum continue input current per MPPT | 20/20 Ad.c.               | 28/14 Ad.c.      | 20/20 Ad.c.      |                         | 28/14 Ad.c.           |                          |
| Isc PV                                  | 26/26 Ad.c.               | 36.4/18.2 Ad.c.  | 26/26 Ad.c.      |                         | 36.4/18.2 Ad.c.       |                          |
| Grid output rating                      |                           |                  |                  |                         |                       |                          |
| Rated output voltage                    | 1/N/PE, 230 Va.c.         |                  |                  |                         |                       |                          |
| Rated output frequency                  | 50 Hz                     |                  |                  |                         |                       |                          |
| Rate output active power                | 8000 W                    |                  | 10000 W          | 9999 W                  | 10000 W               | 9999 W                   |
| Rate output current                     | 34.8 Aa.c.                |                  | 43.5 Aa.c.       |                         |                       |                          |
| Maximum output apparent power           | 8800 VA                   |                  | 10000 VA         | 9999 VA                 | 10000 VA              | 9999 VA                  |
| Maximum continuous output current       | 40 Aa.c.                  |                  | 43.5 Aa.c.       |                         |                       |                          |
| Power factor                            | 0.8 leading ~ 0.8 lagging |                  |                  |                         |                       |                          |
| General parameter                       |                           |                  |                  |                         |                       |                          |
| Ingress protection rating               | IP66                      |                  |                  |                         |                       |                          |
| Ambient temperature range               | -30°C ~+60°C              |                  |                  |                         |                       |                          |
| Protect class                           | I                         |                  |                  |                         |                       |                          |
| Operating Altitude                      | ≤4000 m                   |                  |                  |                         |                       |                          |

# Form

## Data form for critical components and material information



Product Service

Copy of marking plate:

|                                                                                                                                                                                                                                                                                    |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                                                                                                                                                                                                               |               |
| <b>iMars XG3KTL-1M</b>                                                                                                                                                                                                                                                             |               |
| DC Input                                                                                                                                                                                                                                                                           |               |
| Vmax. PV                                                                                                                                                                                                                                                                           | 600V          |
| MPPT Range                                                                                                                                                                                                                                                                         | 80V-580V      |
| Max. Current                                                                                                                                                                                                                                                                       | 20A           |
| Isc PV                                                                                                                                                                                                                                                                             | 26A           |
| AC Output                                                                                                                                                                                                                                                                          |               |
| Nominal Voltage                                                                                                                                                                                                                                                                    | 230V          |
| Max. Current                                                                                                                                                                                                                                                                       | 15A           |
| Rated Power                                                                                                                                                                                                                                                                        | 3000W         |
| Max. Output Power                                                                                                                                                                                                                                                                  | 3300VA        |
| Frequency                                                                                                                                                                                                                                                                          | 50Hz          |
| Power factor range                                                                                                                                                                                                                                                                 | 0.80un~0.80ov |
| Environment                                                                                                                                                                                                                                                                        |               |
| Temperature                                                                                                                                                                                                                                                                        | -30°C ~ +60°C |
| Protective Class                                                                                                                                                                                                                                                                   | I             |
| Inverter topology                                                                                                                                                                                                                                                                  | Non-isolated  |
| Ingress protection                                                                                                                                                                                                                                                                 | IP66          |
| <br><br><br>Made in China |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                                                                                                                                          |               |

|                                                                                                                                                                                                                                                                                    |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                                                                                                                                                                                                               |               |
| <b>iMars XG3KTL-2M</b>                                                                                                                                                                                                                                                             |               |
| DC Input                                                                                                                                                                                                                                                                           |               |
| Vmax. PV                                                                                                                                                                                                                                                                           | 600V          |
| MPPT Range                                                                                                                                                                                                                                                                         | 80V-580V      |
| Max. Current                                                                                                                                                                                                                                                                       | 20A/20A       |
| Isc PV                                                                                                                                                                                                                                                                             | 26A/26A       |
| AC Output                                                                                                                                                                                                                                                                          |               |
| Nominal Voltage                                                                                                                                                                                                                                                                    | 230V          |
| Max. Current                                                                                                                                                                                                                                                                       | 15A           |
| Rated Power                                                                                                                                                                                                                                                                        | 3000W         |
| Max. Output Power                                                                                                                                                                                                                                                                  | 3300VA        |
| Frequency                                                                                                                                                                                                                                                                          | 50Hz          |
| Power factor range                                                                                                                                                                                                                                                                 | 0.80un~0.80ov |
| Environment                                                                                                                                                                                                                                                                        |               |
| Temperature                                                                                                                                                                                                                                                                        | -30°C ~ +60°C |
| Protective Class                                                                                                                                                                                                                                                                   | I             |
| Inverter topology                                                                                                                                                                                                                                                                  | Non-isolated  |
| Ingress protection                                                                                                                                                                                                                                                                 | IP66          |
| <br><br><br>Made in China |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                                                                                                                                          |               |

|                                                                                                                                                                                                                                                                                          |               |
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| <b>invt</b> Grid-tied Solar Inverter                                                                                                                                                                                                                                                     |               |
| <b>iMars XG3.68KTL</b>                                                                                                                                                                                                                                                                   |               |
| DC Input                                                                                                                                                                                                                                                                                 |               |
| Vmax. PV                                                                                                                                                                                                                                                                                 | 600V          |
| MPPT Range                                                                                                                                                                                                                                                                               | 80V-580V      |
| Max. Current                                                                                                                                                                                                                                                                             | 20A/20A       |
| Isc PV                                                                                                                                                                                                                                                                                   | 26A/26A       |
| AC Output                                                                                                                                                                                                                                                                                |               |
| Nominal Voltage                                                                                                                                                                                                                                                                          | 230V          |
| Max. Current                                                                                                                                                                                                                                                                             | 16A           |
| Rated Power                                                                                                                                                                                                                                                                              | 3680W         |
| Max. Output Power                                                                                                                                                                                                                                                                        | 3680VA        |
| Frequency                                                                                                                                                                                                                                                                                | 50Hz          |
| Power factor range                                                                                                                                                                                                                                                                       | 0.80un~0.80ov |
| Environment                                                                                                                                                                                                                                                                              |               |
| Temperature                                                                                                                                                                                                                                                                              | -30°C ~ +60°C |
| Protective Class                                                                                                                                                                                                                                                                         | I             |
| Inverter topology                                                                                                                                                                                                                                                                        | Non-isolated  |
| Ingress protection                                                                                                                                                                                                                                                                       | IP66          |
| <br><br><br>Made in China |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                                                                                                                                                |               |

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|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG4KTL</b>                                                                 |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 20A/20A       |
| Isc PV                                                                              | 26A/26A       |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 20A           |
| Rated Power                                                                         | 4000W         |
| Max. Output Power                                                                   | 4400VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

|                                                                                     |               |
|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG4.2KTL</b>                                                               |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 20A/20A       |
| Isc PV                                                                              | 26A/26A       |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 21A           |
| Rated Power                                                                         | 4200W         |
| Max. Output Power                                                                   | 4620VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

|                                                                                       |               |
|---------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                  |               |
| <b>iMars XG4.6KTL</b>                                                                 |               |
| DC Input                                                                              |               |
| Vmax. PV                                                                              | 600V          |
| MPPT Range                                                                            | 80V-580V      |
| Max. Current                                                                          | 20A/20A       |
| Isc PV                                                                                | 26A/26A       |
| AC Output                                                                             |               |
| Nominal Voltage                                                                       | 230V          |
| Max. Current                                                                          | 23A           |
| Rated Power                                                                           | 4600W         |
| Max. Output Power                                                                     | 5000VA        |
| Frequency                                                                             | 50Hz          |
| Power factor range                                                                    | 0.80un~0.80ov |
| Environment                                                                           |               |
| Temperature                                                                           | -30°C ~ +60°C |
| Protective Class                                                                      | I             |
| Inverter topology                                                                     | Non-isolated  |
| Ingress protection                                                                    | IP66          |
|  |               |
|  |               |
| Made in China                                                                         |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                             |               |

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|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG5KTL</b>                                                                 |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 20A/20A       |
| Isc PV                                                                              | 26A/26A       |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 25A           |
| Rated Power                                                                         | 5000W         |
| Max. Output Power                                                                   | 5500VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

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|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG6KTL</b>                                                                 |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 20A/20A       |
| Isc PV                                                                              | 26A/26A       |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 30A           |
| Rated Power                                                                         | 6000W         |
| Max. Output Power                                                                   | 6600VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

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|---------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                  |               |
| <b>iMars XG7KTL</b>                                                                   |               |
| DC Input                                                                              |               |
| Vmax. PV                                                                              | 600V          |
| MPPT Range                                                                            | 80V-580V      |
| Max. Current                                                                          | 20A/20A       |
| Isc PV                                                                                | 26A/26A       |
| AC Output                                                                             |               |
| Nominal Voltage                                                                       | 230V          |
| Max. Current                                                                          | 35A           |
| Rated Power                                                                           | 7000W         |
| Max. Output Power                                                                     | 7700VA        |
| Frequency                                                                             | 50Hz          |
| Power factor range                                                                    | 0.80un~0.80ov |
| Environment                                                                           |               |
| Temperature                                                                           | -30°C ~ +60°C |
| Protective Class                                                                      | I             |
| Inverter topology                                                                     | Non-isolated  |
| Ingress protection                                                                    | IP66          |
|  |               |
|  |               |
| Made in China                                                                         |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                             |               |

## Data form for critical components and material information

|                                                                                     |               |
|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG7KTL1</b>                                                                |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 28A/14A       |
| Isc PV                                                                              | 36.4A/18.2A   |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 35A           |
| Rated Power                                                                         | 7000W         |
| Max. Output Power                                                                   | 7700VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

|                                                                                     |               |
|-------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                |               |
| <b>iMars XG8KTL</b>                                                                 |               |
| DC Input                                                                            |               |
| Vmax. PV                                                                            | 600V          |
| MPPT Range                                                                          | 80V-580V      |
| Max. Current                                                                        | 20A/20A       |
| Isc PV                                                                              | 26A/26A       |
| AC Output                                                                           |               |
| Nominal Voltage                                                                     | 230V          |
| Max. Current                                                                        | 40A           |
| Rated Power                                                                         | 8000W         |
| Max. Output Power                                                                   | 8800VA        |
| Frequency                                                                           | 50Hz          |
| Power factor range                                                                  | 0.80un~0.80ov |
| Environment                                                                         |               |
| Temperature                                                                         | -30°C ~ +60°C |
| Protective Class                                                                    | I             |
| Inverter topology                                                                   | Non-isolated  |
| Ingress protection                                                                  | IP66          |
|  |               |
| Made in China                                                                       |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                           |               |

|                                                                                       |               |
|---------------------------------------------------------------------------------------|---------------|
| <b>invt</b> Grid-tied Solar Inverter                                                  |               |
| <b>iMars XG8KTL1</b>                                                                  |               |
| DC Input                                                                              |               |
| Vmax. PV                                                                              | 600V          |
| MPPT Range                                                                            | 80V-580V      |
| Max. Current                                                                          | 28A/14A       |
| Isc PV                                                                                | 36.4A/18.2A   |
| AC Output                                                                             |               |
| Nominal Voltage                                                                       | 230V          |
| Max. Current                                                                          | 40A           |
| Rated Power                                                                           | 8000W         |
| Max. Output Power                                                                     | 8800VA        |
| Frequency                                                                             | 50Hz          |
| Power factor range                                                                    | 0.80un~0.80ov |
| Environment                                                                           |               |
| Temperature                                                                           | -30°C ~ +60°C |
| Protective Class                                                                      | I             |
| Inverter topology                                                                     | Non-isolated  |
| Ingress protection                                                                    | IP66          |
|  |               |
| Made in China                                                                         |               |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                             |               |

## Data form for critical components and material information

|                                                                                                                                                                         |               |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>invt</b>                                                                                                                                                             |               | Grid-tied<br>Solar Inverter |
| <b>iMars XG10KTL</b>                                                                                                                                                    |               |                             |
| DC Input                                                                                                                                                                |               |                             |
| Vmax. PV                                                                                                                                                                | 600V          |                             |
| MPPT Range                                                                                                                                                              | 80V-580V      |                             |
| Max. Current                                                                                                                                                            | 20A/20A       |                             |
| Isc PV                                                                                                                                                                  | 26A/26A       |                             |
| AC Output                                                                                                                                                               |               |                             |
| Nominal Voltage                                                                                                                                                         | 230V          |                             |
| Max. Current                                                                                                                                                            | 45.5A         |                             |
| Rated Power                                                                                                                                                             | 10000W        |                             |
| Max. Output Power                                                                                                                                                       | 10000VA       |                             |
| Frequency                                                                                                                                                               | 50Hz          |                             |
| Power factor range                                                                                                                                                      | 0.80un~0.80ov |                             |
| Environment                                                                                                                                                             |               |                             |
| Temperature                                                                                                                                                             | -30°C ~ +60°C |                             |
| Protective Class                                                                                                                                                        | I             |                             |
| Inverter topology                                                                                                                                                       | Non-isolated  |                             |
| Ingress protection                                                                                                                                                      | IP66          |                             |
|   |               |                             |
|                                                                                      |               |                             |
| Made in China                                                                                                                                                           |               |                             |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                               |               |                             |

|                                                                                                                                                                            |               |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>invt</b>                                                                                                                                                                |               | Grid-tied<br>Solar Inverter |
| <b>iMars XG10KTL1</b>                                                                                                                                                      |               |                             |
| DC Input                                                                                                                                                                   |               |                             |
| Vmax. PV                                                                                                                                                                   | 600V          |                             |
| MPPT Range                                                                                                                                                                 | 80V-580V      |                             |
| Max. Current                                                                                                                                                               | 28 /14 Ad.c.  |                             |
| Isc PV                                                                                                                                                                     | 36.4/18.2Ad.c |                             |
| AC Output                                                                                                                                                                  |               |                             |
| Nominal Voltage                                                                                                                                                            | 230V          |                             |
| Max. Current                                                                                                                                                               | 45.5A         |                             |
| Rated Power                                                                                                                                                                | 10000W        |                             |
| Max. Output Power                                                                                                                                                          | 10000VA       |                             |
| Frequency                                                                                                                                                                  | 50Hz          |                             |
| Power factor range                                                                                                                                                         | 0.80un~0.80ov |                             |
| Environment                                                                                                                                                                |               |                             |
| Temperature                                                                                                                                                                | -30°C ~ +60°C |                             |
| Protective Class                                                                                                                                                           | I             |                             |
| Inverter topology                                                                                                                                                          | Non-isolated  |                             |
| Ingress protection                                                                                                                                                         | IP66          |                             |
|   |               |                             |
|                                                                                        |               |                             |
| Made in China                                                                                                                                                              |               |                             |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                                  |               |                             |

## Data form for critical components and material information

|                                                                                                                                                                         |               |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>invt</b>                                                                                                                                                             |               | Grid-tied<br>Solar Inverter |
| <b>iMars XG10KTL-AU</b>                                                                                                                                                 |               |                             |
| DC Input                                                                                                                                                                |               |                             |
| Vmax. PV                                                                                                                                                                | 600V          |                             |
| MPPT Range                                                                                                                                                              | 80V-580V      |                             |
| Max. Current                                                                                                                                                            | 20A/20A       |                             |
| Isc PV                                                                                                                                                                  | 26A/26A       |                             |
| AC Output                                                                                                                                                               |               |                             |
| Nominal Voltage                                                                                                                                                         | 230V          |                             |
| Max. Current                                                                                                                                                            | 45.5A         |                             |
| Rated Power                                                                                                                                                             | 9999W         |                             |
| Max. Output Power                                                                                                                                                       | 9999VA        |                             |
| Frequency                                                                                                                                                               | 50Hz          |                             |
| Power factor range                                                                                                                                                      | 0.80un~0.80ov |                             |
| Environment                                                                                                                                                             |               |                             |
| Temperature                                                                                                                                                             | -30°C ~ +60°C |                             |
| Protective Class                                                                                                                                                        | I             |                             |
| Inverter topology                                                                                                                                                       | Non-isolated  |                             |
| Ingress protection                                                                                                                                                      | IP66          |                             |
|   |               |                             |
| <div style="border: 1px dashed black; width: 200px; height: 40px; margin: 0 auto;"></div>                                                                               |               |                             |
| Made in China                                                                                                                                                           |               |                             |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                               |               |                             |

|                                                                                                                                                                            |               |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>invt</b>                                                                                                                                                                |               | Grid-tied<br>Solar Inverter |
| <b>iMars XG10KTL1-AU</b>                                                                                                                                                   |               |                             |
| DC Input                                                                                                                                                                   |               |                             |
| Vmax. PV                                                                                                                                                                   | 600V          |                             |
| MPPT Range                                                                                                                                                                 | 80V-580V      |                             |
| Max. Current                                                                                                                                                               | 28 /14 Ad.c.  |                             |
| Isc PV                                                                                                                                                                     | 36.4/18.2Ad.c |                             |
| AC Output                                                                                                                                                                  |               |                             |
| Nominal Voltage                                                                                                                                                            | 230V          |                             |
| Max. Current                                                                                                                                                               | 45.5A         |                             |
| Rated Power                                                                                                                                                                | 9999W         |                             |
| Max. Output Power                                                                                                                                                          | 9999VA        |                             |
| Frequency                                                                                                                                                                  | 50Hz          |                             |
| Power factor range                                                                                                                                                         | 0.80un~0.80ov |                             |
| Environment                                                                                                                                                                |               |                             |
| Temperature                                                                                                                                                                | -30°C ~ +60°C |                             |
| Protective Class                                                                                                                                                           | I             |                             |
| Inverter topology                                                                                                                                                          | Non-isolated  |                             |
| Ingress protection                                                                                                                                                         | IP66          |                             |
|   |               |                             |
| <div style="border: 1px dashed black; width: 200px; height: 40px; margin: 0 auto;"></div>                                                                                  |               |                             |
| Made in China                                                                                                                                                              |               |                             |
| INVT Solar Technology (Shenzhen) Co.,Ltd.                                                                                                                                  |               |                             |

## Data form for critical components and material information

## Critical components and material information:

| Object / part No.                                                                                                                                                                                        | Manufacturer/ trademark                        | Type / model                 | Technical data                      | Standard No. and Edition year | Mark(s) of conformity |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------|-------------------------------|-----------------------|
| Metal Enclosure                                                                                                                                                                                          | INVT Electric CO., Ltd.                        | Sheet metal                  | L*W*H: 380*380*160mm                | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| DC switch                                                                                                                                                                                                | ProJoy Electric Co.,Ltd.                       | PEDS150-HM32                 | 32A/600V, -40 °C ~ 70 °C            | IEC/EN 60947                  | TUV R50417016         |
| --Alternative (iMars XG3KTL-1M, iMars XG3KTL-2M, iMars XG3.68KTL, iMars XG4KTL, iMars XG4.2KTL, iMars XG4.6KTL, iMars XG5KTL, iMars XG6KTL, iMars XG7KTL, iMars XG8KTL, iMars XG10KTL, iMars XG10KTL-AU) | ProJoy Electric Co.,Ltd.                       | PEDS150-HM25                 | 25A/600V, -45 °C ~ 85 °C            | IEC/EN 60947                  | TUV R50417016         |
| --Alternative                                                                                                                                                                                            | Beijing People Electrical Appliance Co. LTD    | GHX5-32P                     | 40A/750V, -40 °C ~70 °C             | IEC/EN 60947                  | TUV R50439884         |
| --Alternative                                                                                                                                                                                            | Zhejiang Benyi Electrical Co., Ltd.            | BYSS.1-32-T-4P               | 40A/800V, -40 °C ~85 °C             | IEC/EN 60947                  | UL E482690            |
| --Alternative                                                                                                                                                                                            | SANTON                                         | XBHP+                        | 30A/600V, -40 °C ~85 °C             | IEC/EN 60947                  | AZ 69025024           |
| 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     | IEC/EN628 52                  | TUVR504 92180         |
| --Alternative                                                                                                                                                                                            | amphenol                                       | H4LMBOTM(+)<br>H4LFBOTM(-)   | 1100Vdc,29Adc, IP68, -40 °C~ 90 °C, | IEC/EN628 52                  | TUV R50157783         |
| --Alternative                                                                                                                                                                                            | Jiangxi Jinko PV Material Co.,Ltd.             | PV-JK01M                     | 1100Vd.c,30A,IP68,-40°C to 85°C     | IEC/EN628 52                  | TUV R50519334         |

## Data form for critical components and material information

| Object / part No.                                                                    | Manufacturer/ trademark               | Type / model                   | Technical data                                 | Standard No. and Edition year | Mark(s) of conformity |
|--------------------------------------------------------------------------------------|---------------------------------------|--------------------------------|------------------------------------------------|-------------------------------|-----------------------|
| --Alternative                                                                        | STAUBLI                               | PV-KST4<br>PV-KBT4             | 1100Vd.c,39A,IP68,-40°C to 85°C                | IEC/EN628 52                  | TUV R6012719 0        |
| AC connector (XG3-6K)                                                                | VPAC03EP-3P5                          | 35A/500Vac, IP67, -40°C ~ 85°C | Dongguan Vaconn Electronic Technology Co., Ltd | EN 61984                      | TUV R5042236 0        |
| AC connector (XG7-10K)                                                               | VPAC03EP-3P                           | 60A/500Vac, IP67, -40°C ~ 85°C | Dongguan Vaconn Electronic Technology Co., Ltd | EN 61984                      | TUV R5042236 0        |
| AC connector (XG3-6K)                                                                | PVAC-03CRBA40-02                      | 40A/500Vac, IP67, -40°C ~ 85°C | SHENZHEN CONECTION ELECTRONIC CO.,LTD.         | EN 61984                      | TUV B1083380 005      |
| AC connector (XG7-10K)                                                               | PVAC-03CRBA65-02                      | 65A/500Vac, IP67, -40°C ~ 85°C | SHENZHEN CONECTION ELECTRONIC CO.,LTD.         | EN 61984                      | TUV B1083380 005      |
| Fan<br>iMars<br>XG7KTL1<br>iMars<br>XG8KTL1<br>iMars<br>XG10KTL<br>iMars<br>XG10KTL1 | 109P0412S7 12                         | 12Vdc, 0.2A, -20°C ~ 70°C      | SANYO                                          | UL 507                        | UL E46810             |
| --Alternative                                                                        | DA04015B12 HR                         | 12V,0.18A,-10°C ~ 70°C         | SHENZHEN HUAXIA HENGTAI ELECTRONIC COLTD       | UL 507                        | UL E254715            |
| --Alternative                                                                        | 04015KA12M AT01                       | 12V,0.15A,-10°C ~ 70°C         | MinebeaMitsumi Inc.                            | UL 507                        | UL E89936             |
| --Alternative                                                                        | MGT5012ZB-O20 C                       | 12V,0.21A,-10°C ~ 70°C         | DONGGUAN PROTECHNIC ELECTRIC CO LTD            | UL 507                        | UL E187236            |
| --Alternative                                                                        | 05020VE12R CT                         | 12V,0.32A,-10°C ~ 85°C         | MinebeaMitsumi Inc.                            | UL 507                        | UL E89936             |
| Boost inductor                                                                       | KS226-075-HF<br>NPH226075<br>RH571075 | 541uHq,NPH22 6075,180°C        | INVT ELECTRIC Co., Ltd.                        | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| INV inductor                                                                         | KS226-075-HF<br>NPH226075<br>RH571075 | 466uH,NPH226 075,180°C         | INVT ELECTRIC Co., Ltd.                        | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| INV inductor                                                                         | KS226-075-HF<br>NPH226075<br>RH571075 | 668uH,NPH226 075,180°C         | INVT ELECTRIC Co., Ltd.                        | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |

## Data form for critical components and material information

| Object / part No.                                                                    | Manufacturer/ trademark                                                        | Type / model         | Technical data                    | Standard No. and Edition year | Mark(s) of conformity  |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------|-----------------------------------|-------------------------------|------------------------|
| PV lead wire                                                                         | JIANGYIN<br>HAOCHENG<br>ELECTRIC<br>APPLIANCE<br>WIRE &<br>CABLE MFG<br>CO LTD | 10269                | 12AWG,VW-<br>1,105°C,1000Vdc      | UL 758                        | UL<br>E227587          |
| AC lead wire                                                                         | JIANGYIN<br>HAOCHENG<br>ELECTRIC<br>APPLIANCE<br>WIRE &<br>CABLE MFG<br>CO LTD | 1015                 | 10AWG,VW-<br>1,105°C,600Vac       | UL 758                        | UL<br>E227587          |
| PE wire<br>between cover<br>and enclosure                                            | Dongguan<br>XSD Cable<br>Technology<br>Co Ltd                                  | 10269                | 12AWG,VW-<br>1,105°C,1000Vdc      | UL 758                        | UL<br>E506386          |
| AC connector<br>(XG3-6K)                                                             | Dongguan<br>Vaconn<br>Electronic<br>Technology<br>Co., Ltd                     | VPAC03EP-3P5         | 35A/500Vac, IP67, -40°C ~<br>85°C | EN 61984                      | TUV<br>R5042236<br>0   |
| AC connector<br>(XG7-10K)                                                            | Dongguan<br>Vaconn<br>Electronic<br>Technology<br>Co., Ltd                     | VPAC03EP-3P          | 60A/500Vac, IP67, -40°C ~<br>85°C | EN 61984                      | TUV<br>R5042236<br>0   |
| AC connector<br>(XG3-6K)                                                             | SHENZHEN<br>CONNECTION<br>ELECTRONI<br>C CO.,LTD.                              | PVAC-<br>03CRBA40-02 | 40A/500Vac, IP67, -40°C<br>~ 85°C | EN 61984                      | TUV<br>B1083380<br>005 |
| AC connector<br>(XG7-10K)                                                            | SHENZHEN<br>CONNECTION<br>ELECTRONI<br>C CO.,LTD.                              | PVAC-<br>03CRBA65-02 | 65A/500Vac, IP67, -40°C ~<br>85°C | EN 61984                      | TUV<br>B1083380<br>005 |
| Fan<br>iMars<br>XG7KTL1<br>iMars<br>XG8KTL1<br>iMars<br>XG10KTL<br>iMars<br>XG10KTL1 | SANYO                                                                          | 109P0412S712         | 12Vdc, 0.2A, -20°C ~ 70°C         | UL 507                        | UL<br>E46810           |
| --Alternative                                                                        | SHENZHEN<br>HUAXIA<br>HENGTAI<br>ELECTRONI<br>C COLTD                          | DA04015B12HR         | 12V,0.18A,-10°C ~ 70°C            | UL 507                        | UL<br>E254715          |

## Data form for critical components and material information

| Object / part No.                                                 | Manufacturer/ trademark                     | Type / model                    | Technical data              | Standard No. and Edition year | Mark(s) of conformity |
|-------------------------------------------------------------------|---------------------------------------------|---------------------------------|-----------------------------|-------------------------------|-----------------------|
| --Alternative                                                     | MinebeaMitsumi Inc.                         | 04015KA12MAT01                  | 12V,0.15A,-10°C ~ 70°C      | UL 507                        | UL E89936             |
| --Alternative                                                     | DONGGUAN PROTECHNICAL ELECTRIC CO LTD       | MGT5012ZB-O20 C                 | 12V,0.21A,-10°C ~ 70°C      | UL 507                        | UL E187236            |
| --Alternative                                                     | MinebeaMitsumi Inc.                         | 05020VE12RCT                    | 12V,0.32A,-10°C ~ 85°C      | UL 507                        | UL E89936             |
| Boost inductor                                                    | INVT ELECTRIC Co., Ltd.                     | KS226-075-HF NPH226075 RH571075 | 541uHq,NPH226075,180°C      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| INV inductor                                                      | INVT ELECTRIC Co., Ltd.                     | KS226-075-HF NPH226075 RH571075 | 466uH,NPH226075,180°C       | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| INV inductor                                                      | INVT ELECTRIC Co., Ltd.                     | KS226-075-HF NPH226075 RH571075 | 668uH,NPH226075,180°C       | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| INV inductor                                                      | INVT ELECTRIC Co., Ltd.                     | KS226-075-HF NPH226075 RH571075 | 993uH,NPH226075,180°C       | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| Hall Sensor (SN3,SN4)(SN5)                                        | Sinomags Technology Co., Ltd.               | STK-32HD/K                      | 5V,32A, -40°C to 105°C      | UL 508                        | UL E507664            |
| --Alternative                                                     | Sinomags Technology Co., Ltd.               | STB-50CAS-K-F                   | 5V,50A, -40°C to 105°C      | UL 508                        | UL E507664            |
| --Alternative                                                     | Sinomags Technology Co., Ltd.               | STB-75CAS-K-F                   | 5V,75A, -40°C to 105°C      | UL 508                        | UL E507664            |
| --Alternative                                                     | LEM International SA                        | CKSR series                     | 5V,50A, -40°C to 105°C      | UL508                         | UL E189713            |
| PV Cap (C152,C153)                                                | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD | FDG series                      | 800VDC,14uF, 85°C           | UL 810                        | UL E500537            |
| Bus Cap (C158, C159, C160, C161, C162, C163, C164, C165) (XG3-6K) | Fengbin Electronics Co. LTD                 | UL102M315P45 0A00A              | 1000uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |

## Data form for critical components and material information

| Object / part No.                                                | Manufacturer/ trademark            | Type / model       | Technical data              | Standard No. and Edition year | Mark(s) of conformity |
|------------------------------------------------------------------|------------------------------------|--------------------|-----------------------------|-------------------------------|-----------------------|
| --Alternative                                                    | Nantong Jianghai Capacitor Co.,Ltd | CD297 series       | 1000uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative                                                    | Aihua                              | ELT2FM102R45 KT    | 1000uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| Bus Cap (C158, C159, C160, C161, C162 C163, C164, C165) (XG7-8K) | Aihua                              | ELT2FM122R50 KTZP  | 1200uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative                                                    | Fengbin Electronics Co. LTD        | UL122M315P50 0A00A | 1200uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative                                                    | Nantong Jianghai Capacitor Co.,Ltd | CD297 series       | 1200uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| Bus Cap (C158, C159, C160, C161, C162 C163, C164, C165) (XG10K)  | Aihua                              | ELT2FM152R60 KT    | 1500uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative                                                    | Nantong Jianghai Capacitor Co.,Ltd | CD297 series       | 1500uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative                                                    | Fengbin Electronics Co. LTD        | UL152M315P65 0A00A | 1500uF, 315V, -25°C ~ 105°C | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| AC Cap (C187,C221)                                               | TDK (Zhuhai FTZ) Co., Ltd.         | B32924H3475M 004   | 4.7uF,305Vac                | IEC 60384-14                  | UL E97863             |
| --Alternative                                                    | XIAMEN FARATRONI C CO LTD          | C4BR2475MBW C000   | 4.7uF,350Vac                | IEC 60384-14                  | UL E186600            |
| --Alternative                                                    | Aihua                              | FXT35M475G40 2GL5  | 4.7uF,350Vac                | IEC 60384-14                  | VDE 40052137          |
| --Alternative                                                    | Hongfarad                          | HMKP475M310 REAL   | 4.7uF,310Vac                | IEC 60384-14                  | VDE 40044173          |
| --Alternative                                                    | XIAMEN FARATRONI C CO LTD          | C42Q2106KFW C000   | 10uF,305Vac                 | IEC 60384-14                  | VDE 40000358          |

## Data form for critical components and material information

| Object / part No.                                                | Manufacturer/ trademark                                 | Type / model        | Technical data                                    | Standard No. and Edition year | Mark(s) of conformity |
|------------------------------------------------------------------|---------------------------------------------------------|---------------------|---------------------------------------------------|-------------------------------|-----------------------|
| --Alternative                                                    | Aihua                                                   | FXT30K106K39 2KL5   | 10uF,305Vac                                       | IEC 60384-14                  | VDE 40051583          |
| Y Cap (C144, C145, C146, C147, C148, C149, C150, C151)           | TDK                                                     | CD series           | 4.7nF, 400Vac (used in series), Y1, -25°C to 85°C | IEC 60384-14                  | VDE4002 9780          |
| --Alternative                                                    | Guangdong Fenghua Advanced Technology Holding Co., Ltd  | CT7 series          | 4.7nF, 400Vac, Y1,                                | --                            | UL E219015            |
| --Alternative                                                    | XIAMEN FARATRONI C CO., LTD.                            | MKP63 series        | 4.7nF,300Vac, 110°C                               | UL 60384-14                   | UL E186600            |
| --Alternative                                                    | TDK (Zhuhai FTZ) Co., Ltd.                              | B3202               | 4.7nF, 300Vac,Y2,                                 | IEC 60384-14                  | VDE4001 8909          |
| --Alternative                                                    | TDK                                                     | CD series           | 4.7nF,400Vac, -25°C to 105°C                      | IEC 60384                     | VDE4002 9780          |
| --Alternative                                                    | JYA-NAY co.,ltd                                         | JN15E472M           | 4.7nF, 400Vac, Y1, 125°C                          | UL 60384-14                   | UL E201384            |
| Y Cap (C183,C184,C185,C186)                                      | XIAMEN FARATRONI C CO LTD                               | MKP63 series        | 10nF,300Va.c, -40°C to 110°C                      | UL 60384-14                   | UL E186600            |
| --Alternative                                                    | JYA-NAY CO LTD                                          | JY16F103MD03 N      | 10nF,250Vac, -25°C ~ 125°C                        | UL 60384-14                   | UL E201384            |
| --Alternative                                                    | GUANGDON G FENGHUA ADVANCED TECHNOLOGY HOLDING CO., LTD | CT7 series          | 10nF,250Va.c, -25°C to 105°C                      | UL 60384-14                   | UL E219015            |
| Y Cap (C173, C174, C175, C176, C177, C178)                       | Shantou high-new zone songtian enterprise co.,ltd       | CD                  | 470pF,250Vac, -25°C ~ 125°C                       | EN 60384-14                   | VDE4002 5754          |
| --Alternative                                                    | muRata                                                  | DE1B3KX471KA 4BN01F | 250VAC,470pF,250Vac                               | IEC60384-14                   | VDE4000 2831          |
| IGBT (IGBT1,IGBT2, IGBT8, IGBT9, IGBT10, IGBT11, IGBT12, IGBT13) | MACMIC                                                  | MM75G5U65BX         | 650V,75A, 175°C,TO-247                            | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |

## Data form for critical components and material information

| Object / part No.   | Manufacturer/ trademark              | Type / model         | Technical data                              | Standard No. and Edition year | Mark(s) of conformity |
|---------------------|--------------------------------------|----------------------|---------------------------------------------|-------------------------------|-----------------------|
| --Alternative       | SILAN                                | SGTP75V65SD B1P7     | 650V,75A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | STARPOWER Semiconduct or Ltd.        | DG75X07T2L           | 650V,75A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | Infinition                           | IKW75N65ES5          | 650V,75A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | Infinition                           | IKW50N65ES5          | 650V,50A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | Infinition                           | IKW50N65H5           | 650V,50A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | Infinition                           | IKW75N65SS5          | 650V,75A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| --Alternative       | MAGNACHIP                            | MBQ50T65FMS          | 650V,50A, 175°C,TO-247                      | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| Relay (K1,K2,K3,K4) | XIAMEN HONGFA ELECTROACOUSTIC CO LTD | HF161F-W             | 12Vdc 33A/277Vac                            | UL 508                        | UL E134517            |
| --Alternative       | Panasonic Industry Co., Ltd.         | ALFG2PF121           | 12Vdc 33A/250Vac                            | IEC/EN 61810-1                | UL E43028             |
| --Alternative       | ZETTLER RELAY (XIAMEN) CO LTD        | AZSR131-1AE-12D(200) | 12Vdc, 35A/277Vac, 85°C, contact gap: 2.3mm | IEC/EN 61810-1                | UL E365652            |
| --Alternative       | ZETTLER RELAY (XIAMEN) CO LTD        | AZSR143-1AE-12D(103) | 50A,277 VAC,12V                             | IEC/EN 61810-1                | UL E365652            |
| --Alternative       | DONGGUAN CHUOD ELECTRONICS CO LTD    | CHFN-V-112HA2F(35A)  | 12Vdc 35A/277Vac                            | IEC/EN 61810-1                | UL E341422            |

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| Object / part No.                    | Manufacturer/ trademark                                                 | Type / model                | Technical data                                    | Standard No. and Edition year | Mark(s) of conformity |
|--------------------------------------|-------------------------------------------------------------------------|-----------------------------|---------------------------------------------------|-------------------------------|-----------------------|
| --Alternative                        | XIAMEN HONGFA ELECTROACOUSTIC CO LTD                                    | HF161F-40W/12-HTF(456)(967) | 12Vdc 43A/277Vac                                  | UL508                         | UL E134517            |
| X Cap (C181,C182)                    | XIAMEN FARATRONIC CO LTD                                                | C4BR2225MBW C000            | 350VAC,2.2uF,±20%                                 | IEC 60384-14                  | UL E186600            |
| --Alternative                        | AIHUA INFINITY CAPACITORS (SUZHOU) CO., LTD                             | FXT35M225G32 2GL5           | 350VAC,2.2uF,±20%                                 | IEC 60384-14                  | UL E500538            |
| --Alternative                        | DONG GUAN HONGFARAD ELECTRONICS CO LTD                                  | HMKP225K310 RHXL            | 350VAC,2.2uF,±20%                                 | IEC 60384-14                  | UL E484578            |
| Varistor (RV1,RV2,RV5, R V6,RV7,RV8) | SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMENT ZONE SONGTIAN ENTERPRISE CO LTD | 20D821K                     | 510Vac, 820Vdc, -40°C ~ 125°C                     | UL 1449                       | UL E330837            |
| --Alternative                        | BESTBRIGHT ELECTRONICS CO LTD                                           | 821KD20                     | 820Vdc±10%-D20mm-6500A                            | UL 1449                       | UL E327997            |
| --Alternative                        | SHAANXI HUAXING ELECTRONIC GROUP CO LTD                                 | MYG20 series                | 820Vdc±10%-D20mm-6500A                            | UL 1449                       | UL E329651            |
| --Alternative                        | TDK (Zhuhai FTZ) Co., Ltd.                                              | 20D821K                     | 820Vdc±10%-D20mm-6500A                            | UL 1449                       | UL E321126            |
| Transformer (TR2)                    | INVT ELECTRIC Co., Ltd.                                                 | TR2                         | N1:N2:N3:N4:N5:N6:N7:N8 =25:2:3:5:8:10:8:25,1.3mH | IEC 62109-1<br>IEC 62109-2    | Test with Appliance   |
| -Bobbin                              | CHANG CHUN PLASTICS CO., LTD                                            | T375HF                      | 150°C, 94V-0                                      | UL 94                         | UL E59481             |
| --Alternative                        | SUMITOMO BAKELITE CO LTD                                                | PM-9823                     | 150°C, 94V-0                                      | UL 746C                       | UL E41429             |

## Data form for critical components and material information

| Object / part No.                             | Manufacturer/ trademark                          | Type / model      | Technical data                                          | Standard No. and Edition year | Mark(s) of conformity |
|-----------------------------------------------|--------------------------------------------------|-------------------|---------------------------------------------------------|-------------------------------|-----------------------|
| -Copper Wire                                  | HENG YA ELECTRIC (DONGGUAN) LTD                  | MW79-C(UFWF)      | 155°C                                                   | UL 1446                       | UL E197768            |
| --Alternative                                 | TA YA ELECTRIC WIRE & CABLE CO LTD               |                   |                                                         | UL 1446                       | UL E84201             |
| --Alternative                                 | TAI-I ELECTRIC WIRE & CABLE CO LTD               |                   |                                                         | UL 1446                       | UL E85640             |
| --Alternative                                 | FENG CHING METAL CORP                            |                   |                                                         | UL 1446                       | UL E172395            |
| -Tube                                         | CHANGYUAN ELECTRONICS GROUP CO LTD               | CB-TT-L           | 200°C                                                   | UL224                         | UL E180908            |
| -Varnish                                      | KYOCERA CHEMICAL CORP                            | TVB2180T(+)(@)    | 130°C/155°C                                             | UL 1446                       | UL E83702             |
| -EPOXY                                        | DONGGUAN HONGCHUAN ELECTRONIC TECHNOLOGY CO.,LTD | HCJ800            | V-0                                                     | UL 746A                       | UL E504240            |
| Opto-couple (PC11PC12,PC13PC14PC15,PC16,PC17) | LITE-ON Technology Corporation                   | LTV1009-TP1-V-G   | 200%~400%,18us,18us,5kV,SOP-4                           | UL1577                        | UL E113898            |
| --Alternative                                 | EVERLIGHT ELECTRONICS CO LTD                     | EL1019(TA)-V-G    | 200%~400%,18us,18us,5kV,SOP-4                           | UL 1577                       | UL E214129            |
| PCB                                           | KINGBOARD LAMINATES HOLDINGS LTD                 | KB-6160C (FR-4.0) | TG>130°C, CTI>175, min think ≥ 1.40mm                   | UL 796, UL 796F               | UL E123995            |
| Opto-couple (U13/U14)                         | Texas Instruments Incorporated                   | ISO3082DWR        | Viso=4000Vrms,CL>8.34mm, CR>8.1mm ,CTI>600 , -40°to 85° | UL 1577                       | UL E181974            |

# Form



Product Service

## Data form for critical components and material information

| Object / part No.              | Manufacturer/ trademark                   | Type / model | Technical data                                         | Standard No. and Edition year | Mark(s) of conformity |
|--------------------------------|-------------------------------------------|--------------|--------------------------------------------------------|-------------------------------|-----------------------|
| --Alternative                  | Suzhou Novosense Microelectronics Co.,Ltd | Nsi83085A    | Viso=5000Vrms,CL>8 mm, CR>8 mm ,CTI>600 , - 40°to 105° | UL 1577                       | UL E500602            |
| Plastics board (for LCD cover) | KINGFA SCI & TECH CO LTD                  | JH830T (ccc) | Length x Width: 60*35mm, V0                            | UL 94                         | UL E171666            |

### Routine Test (Safety, Security, ...):

Final inspection requirements for production are described in: IEC 62477-1:2012/ IEC 62040-1:2017.

☒ Required

☐ Not Required

Reason:

☐ Class III product

☐ Other:

#### Test Details:

☒ visual inspection

#### Test Points:

To check features such as adequacy of labelling, warnings and other safety aspects

#### Test Values:

IP, labelling, warnings

☒ a.c. or d.c. voltage test

AC & PV terminal to metal enclosure/PE

2420 V d.c., 60 s, No breakdown

☒ protective equipotential bonding test

PE terminal to the farthest end of the enclosure

60 A, 6 min, < 2.5 V

### Test Report History:

| Rev | Project No.        | History         |
|-----|--------------------|-----------------|
| 0   | 64.290.22.31598.01 | Initial Version |

### Signature of the Certification Holder:

|                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| Name, seal and signature of Certificate Holder: | INVT Solar Technology (ShenZhen) Co., Ltd. |
| Date:                                           | 2023-02-27                                 |

