

**ENERGY DIRECTORATE**

TYPE TESTED INVERTERS/EQUIPMENT IN TERMS OF NRS 097-2-1

2023/06/07

| Make                 | Model                      | Inverter / Equipment type        | Test House           | Certificate date | Certificate valid until | Report number         | Certificate Compliance number | NRS 097-2-1: 2017 Ed2 Certification | NRS 097-2-1: 2017 Ed 2.1 Certification | Comments  |
|----------------------|----------------------------|----------------------------------|----------------------|------------------|-------------------------|-----------------------|-------------------------------|-------------------------------------|--|---|
| ABB                  | TRIO-TM-50 0-400           | Grid-tied PV inverter            | TUV Rheinland        | 2019/07/15       |                         | 28110833 031          | AK 60141064 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | PVS - 50 - TL              | Grid-tied PV inverter            | TUV Rheinland        | 2020/01/22       |                         | 28111830 029          | AK 60146346 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | PVS - 50 - TL - S          | Grid-tied PV inverter            | TUV Rheinland        | 2020/01/22       |                         | 28111830 029          | AK 60146346 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | PVS - 50 - TL - SX         | Grid-tied PV inverter            | TUV Rheinland        | 2020/01/22       |                         | 28111830 029          | AK 60146346 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | PVS - 50 - TL - SX2        | Grid-tied PV inverter            | TUV Rheinland        | 2020/01/22       |                         | 28111830 029          | AK 60146346 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | PVS-100-TL                 | Grid-tied PV inverter            | TUV Rheinland        | 2019/11/29       |                         | 28110923 035          | AK 60144898 0001              | Yes                                 |  | Inverter may only be used in plants according to Category A3-100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| ABB                  | REACT2-UNO-3.6-TL          | Grid-tied PV inverter            | TUV Rheinland        | 2018/11/07       |                         | 28111587 003          | AK 60134062 0001              | Yes                                 |  | A maximum of three REACT2 -BATT may be used in combination with this inverter unit  |
| ABB                  | REACT2-UNO-S.0-TL          | Grid-tied PV inverter            | TUV Rheinland        | 2018/11/07       |                         | 28111587 003          | AK 60134062 0001              | Yes                                 |  | A maximum of three REACT2 -BATT may be used in combination with this inverter unit  |
| ABB                  | CM-UPD.M31M and CM-UPD.M31 | Network & system relay           | TUV SÜD              | 2022/10/28       |                         | 713200958-000         | ESY 044250043 Rev.00          | No                                  | No                                     | Network and system grid protection voltage and frequency relay only in accordance with VDE-AR-N 4105:2018. Must be programmed to NRS 097-2-1 or the applicable South African Grid Codes and may only be used in conjunction with approved NRS 097-2-1 type tested inverters on this list. |
| Afore                | HNS3000HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS3600HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS4000HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS4600HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS5000HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS5500HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS6000HS                  | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/17       |                         | 6076139 50            | 6076139.01AOC                 | Yes                                 |  |   |
| Afore                | HNS3000HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS3600HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS4000HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS4600HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS5000HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS5500HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | HNS6000HS-HV               | Hybrid PV inverter grid-tied     | Dekra                | 2020/09/18       |                         | 6076141 50            | 6076141.01AOC V1.1            | Yes                                 |  |   |
| Afore                | AF3K-SL                    | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF3.6K-SL                  | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF4K-SL                    | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF4.6K-SL                  | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF5K-SL                    | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF5.5K-SL                  | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Afore                | AF6K-SL                    | Hybrid PV inverter grid-tied     | Dekra                | 2021/03/10       |                         | 6098057 50            | 6098057.01AOC                 | Yes                                 |  |   |
| Atess                | HPS 30                     | Hybrid PV inverter grid-tied     | Shenzhen Balun       | 2020/10/09       |                         | BL-DG2080269-B01      | BL-DG2080269D01               | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 820 V as declared by the inverter manufacturer.   |
| Atess                | HPS 50                     | Hybrid PV inverter grid-tied     | Shenzhen Balun       | 2020/10/09       |                         | BL-DG2080269-B01      | BL-DG2080269D01               | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 820 V as declared by the inverter manufacturer.   |
| Atess                | HPS100                     | Hybrid PV inverter grid-tied     | Shenzhen Balun       | 2020/10/09       |                         | BL-DG2080269-B02      | BL-DG2080269D02               | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 820 V as declared by the inverter manufacturer.   |
| Atess                | HPS120                     | Hybrid PV inverter grid-tied     | Shenzhen Balun       | 2020/10/09       |                         | BL-DG2080269-B02      | BL-DG2080269D02               | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 820 V as declared by the inverter manufacturer.   |
| Atess                | HPS150                     | Hybrid PV inverter grid-tied     | Shenzhen Balun       | 2020/10/09       |                         | BL-DG2080269-B02      | BL-DG2080269D02               | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 820 V as declared by the inverter manufacturer.   |
| Alpha                | SMILES-INV                 | Battery based inverter grid-tied | Bureau Veritas       | 2019/03/22       |                         | ABYD-19JA1440FCSPH    | U19-0178                      | Yes                                 |  |   |
| Alpha                | Storion-SMILE-B3           | Battery based inverter grid-tied | Bureau Veritas       | 2020/08/19       |                         | ABYD-ESH-P20071636    | U20-0680                      | Yes                                 |  |   |
| Blue Mountain Energy | BME-3P-WP-12 TWIN          | Hybrid PV inverter grid-tied     | Huachuang Technology | 2023/03/20       |                         | 23110JHA009-EG-ZA-002 | 23110JHA009-EG-ZA-C002        | Yes                                 | Yes                                    |   |
| Blue Mountain Energy | BME-3P-WP-15 TWIN          | Hybrid PV inverter grid-tied     | Huachuang Technology | 2023/03/20       |                         | 23110JHA009-EG-ZA-002 | 23110JHA009-EG-ZA-C002        | Yes                                 | Yes                                    |   |
| Canadian Solar       | CSI-20, 25 and 30KTL-GI-FL | Grid-tied PV inverter            | TUV Rheinland        | 2018/05/07       |                         | 50128276 002          | AK 50408933 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-40KTL-GI-FL            | Grid-tied PV inverter            | TUV Rheinland        | 2018/05/03       |                         | 50131287 002          | AK 50406675 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-50KTL-GI               | Grid-tied PV inverter            | TUV Rheinland        | 2018/05/03       |                         | 50131287 002          | AK 50406675 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-25K-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2020/04/13       |                         | 50344275 002          | AK 50464349 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-30K-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2020/04/13       |                         | 50344275 002          | AK 50464349 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-33K-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2020/04/13       |                         | 50344275 002          | AK 50464349 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-36K-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2020/04/13       |                         | 50344275 002          | AK 50464349 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-40K-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2020/04/13       |                         | 50344275 002          | AK 50464349 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI 75 K-T400GL02-E        | Grid-tied PV inverter            | TUV Rheinland        | 2020/10/21       |                         | 50376758 002          | AK 50483986 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI 100 K-T400GL02-E       | Grid-tied PV inverter            | TUV Rheinland        | 2020/10/21       |                         | 50376758 002          | AK 50483986 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI 110 K-T400GL02-E       | Grid-tied PV inverter            | TUV Rheinland        | 2020/10/21       |                         | 50376758 002          | AK 50483986 0001              | Yes                                 |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-50K-T400GL03-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/08/27       |                         | CN21F7XT 0002         | AK 50516584 0001              | Yes                                 | Yes                                    | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-60K-T400GL03-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/08/27       |                         | CN21F7XT 0002         | AK 50516584 0001              | Yes                                 | Yes                                    | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-60K-T500GL03-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/08/27       |                         | CN21F7XT 0002         | AK 50516584 0001              | Yes                                 | Yes                                    | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-70K-T500GL03-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/08/27       |                         | CN21F7XT 0002         | AK 50516584 0001              | Yes                                 | Yes                                    | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Canadian Solar       | CSI-xxK-T400GL02-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/10/29       |                         | 50 376 758 007        | AK 50522798 0001              | Yes                                 | Yes                                    | (xx=80, 100, 110); The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Canadian Solar       | CSI-xxK-T400GL03-E         | Grid-tied PV inverter            | TUV Rheinland        | 2021/10/29       |                         | 50 376 758 007        | AK 50522798 0001              | Yes                                 | Yes                                    | (xx=80, 100, 110); The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Canadian Solar       | CSI-xxK-T400GL02-ZA        | Grid-tied PV inverter            | TUV Rheinland        | 2021/10/29       |                         | 50 376 758 007        | AK 50522798 0001              | Yes                                 | Yes                                    | (xx=80, 100, 110); The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Canadian Solar       | CSI-xxK-T400GL03-ZA        | Grid-tied PV inverter            | TUV Rheinland        | 2021/10/29       |                         | 50 376 758 007        | AK 50522798 0001              | Yes                                 | Yes                                    | (xx=80, 100, 110); The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |

|                |                       |                                  |                           |            |                             |                  |  |     |
|----------------|-----------------------|----------------------------------|---------------------------|------------|-----------------------------|------------------|--|-----|
| Deye           | SUN-8K-SG01LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-7.6K-SG01LP1-EU   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-6K-SG01LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-5K-SG01LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-3.6K-SG01LP1-EU   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-8K-SG01LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-7.6K-SG01LP1-EU-B | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-6K-SG01LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-5K-SG01LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-3.6K-SG01LP1-EU-B | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-8K-SG02LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-7.6K-SG02LP1-EU   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-6K-SG02LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-5K-SG02LP1-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-3.6K-SG02LP1-EU   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-8K-SG02LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-7.6K-SG02LP1-EU-B | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-6K-SG02LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-5K-SG02LP1-EU-B   | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-3.6K-SG02LP1-EU-B | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/16 | BL-DG21C0114-B01 (G1)       | BL-DG21C0114D02  |  | Yes |
| Deye           | SUN-6K-SG04LP3-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2021/06/09 | BL-DG2141024-B01            | BL-DG2141024D01  |  | Yes |
| Deye           | SUN-8K-SG04LP3-EU     | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2021/06/09 | BL-DG2141024-B01            | BL-DG2141024D01  |  | Yes |
| Deye           | SUN-10K-SG04LP3-EU    | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2021/06/09 | BL-DG2141024-B01            | BL-DG2141024D01  |  | Yes |
| Deye           | SUN-12K-SG04LP3-EU    | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2021/06/09 | BL-DG2141024-B01            | BL-DG2141024D01  |  | Yes |
| Deye           | SUN-12K-SG01LP1-EU    | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/24 | CN22M50 001                 | AK 50544599 0001 |  | Yes |
| Deye           | SUN-14K-SG01LP1-EU    | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/24 | CN22M50 001                 | AK 50544599 0001 |  | Yes |
| Deye           | SUN-16K-SG01LP1-EU    | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/24 | CN22M50 001                 | AK 50544599 0001 |  | Yes |
| Deye           | SUN-3K-SG04LP1-EU     | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/13 | CN22M63 001                 | AK 50567952 0001 |  | Yes |
| Deye           | SUN-3K-SG04LP1-24-EU  | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/13 | CN22M63 001                 | AK 50567952 0001 |  | Yes |
| Deye           | SUN-3.6K-SG04LP1-EU   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/13 | CN22M63 001                 | AK 50567952 0001 |  | Yes |
| Deye           | SUN-5K-SG04LP1-EU     | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/13 | CN22M63 001                 | AK 50567952 0001 |  | Yes |
| Deye           | SUN-6K-SG04LP1-EU     | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/13 | CN22M63 001                 | AK 50567952 0001 |  | Yes |
| Eaton          | XSTH1P036P048V01      | Hybrid PV inverter grid-tied     | Bureau Veritas            | 2019/12/10 | PVZA190716C26 163818-743394 | U19-0642         |  | Yes |
| Eaton          | XSTH1P046P048V01      | Hybrid PV inverter grid-tied     | Bureau Veritas            | 2019/12/10 | PVZA190716C26 163818-743394 | U19-0642         |  | Yes |
| Eaton          | XSTH1P060P048V01      | Hybrid PV inverter grid-tied     | Bureau Veritas            | 2019/12/10 | PVZA190716C26 163818-743394 | U19-0642         |  | Yes |
| Enphase Energy | IQT7A-72-V-W-Y-Z      | Grid-tied PV inverter            | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| Enphase Energy | IQT7B-96-V-W-Y-Z      | Grid-tied PV inverter            | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| Enphase Energy | IQT7LUS-72-V-W-Y-Z    | Grid-tied PV inverter            | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| Enphase Energy | IQT7-60-V-W-Y-Z       | Grid-tied PV inverter            | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| Enphase Energy | Q-RELAY-1P-INT        | Disconnect device                | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| Enphase Energy | Q-RELAY-3P-INT        | Disconnect device                | EnTest                    | 2020/11/06 | P2020082402                 | COC2020082402    |  | Yes |
| FOXESS         | H1-6.0-E              | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | H1-5.0-E              | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | H1-4.6-E              | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | H1-3.7-E              | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | H1-3.0-E              | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-H1-6.0            | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-H1-5.0            | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-H1-4.6            | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-H1-3.7            | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-H1-3.0            | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AC1-6.0-E             | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AC1-5.0-E             | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AC1-4.6-E             | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AC1-3.7-E             | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AC1-3.0-E             | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-AC1-6.0           | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-AC1-5.0           | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-AC1-4.6           | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-AC1-3.7           | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | AIO-AC1-3.0           | Hybrid PV inverter grid-tied     | TUV NORD & Dongguan Balun | 2021/05/17 | TRPVP03014/21E/02           | COC2020082402    |  | Yes |
| FOXESS         | KH7                   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KH8                   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KH9                   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KH10                  | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KH10.5                | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KA7                   | Battery based inverter grid-tied | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KA8                   | Battery based inverter grid-tied | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KA9                   | Battery based inverter grid-tied | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KA10                  | Battery based inverter grid-tied | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| FOXESS         | KA10.5                | Battery based inverter grid-tied | TUV Rheinland             | 2022/05/05 | CN22E2YS 001                | AK 50542790 0001 |  | Yes |
| Fronius        | Primo 3.0-1           | Grid-tied PV inverter            | TUV Rheinland             | 2020/09/22 | 28119635 003                | AK 60152048 0001 |  | Yes |

1. Legend: Where V=2, 5, E or blank; W = blank or ACM; Y = INT; Z = blank, RMA or NA.
2. The inverter installation must be provided with an external RCD type B.
3. Q-RELAY may only be used with these Enphase Energy inverters.

|         |                      |                                  |                |            |                    |                      |     |   |
|---------|----------------------|----------------------------------|----------------|------------|--------------------|----------------------|-----|---|
| Fronius | Primo 3.5-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 3.6-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 4.0-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 4.6-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 5.0-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 6.0-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Primo 8.2-1          | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 003       | AK 60152048 0001     | Yes |   |
| Fronius | Symo 10.0-3-M        | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 005       | AK 60152048 0001     | Yes |   |
| Fronius | Symo 12.5-3-M        | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 005       | AK 60152048 0001     | Yes |   |
| Fronius | Symo 15.0-3-M        | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 005       | AK 60152048 0001     | Yes |   |
| Fronius | Symo 17.5-3-M        | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 005       | AK 60152048 0001     | Yes |   |
| Fronius | Symo 20.0-3-M        | Grid-tied PV inverter            | TUV Rheinland  | 2020/09/22 | 28119635 005       | AK 60152048 0001     | Yes |   |
| Fronius | Symo GEN24 X.X Plus  | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT2157N9 001       | AK 60156753 0001     | Yes | X.X can be 10.0; 9.0; 8.0; 7.0 and 6.0  |
| Fronius | Symo GEN24 X.X       | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT2157N9 001       | AK 60156753 0001     | Yes | X.X can be 10.0; 9.0; 8.0; 7.0 and 6.0  |
| Fronius | Symo GEN24 X.X Lite  | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT2157N9 001       | AK 60156753 0001     | Yes | X.X can be 10.0; 9.0; 8.0; 7.0 and 6.0  |
| Fronius | Primo GEN24 X.X Plus | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT21WUZG 001       | AK 60156751 0001     | Yes | X.X can be 3.0; 3.6; 4.0; 4.6; 5.0 and 6.0  |
| Fronius | Primo GEN24 X.X      | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT21WUZG 001       | AK 60156751 0001     | Yes | X.X can be 3.0; 3.6; 4.0; 4.6; 5.0 and 6.0  |
| Fronius | Primo GEN24 X.X Lite | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/19 | IT21WUZG 001       | AK 60156751 0001     | Yes | X.X can be 3.0; 3.6; 4.0; 4.6; 5.0 and 6.0  |
| Fronius | ECO 25.0-3-S         | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/05 | IT210G4J 003       | AK 60156511 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | ECO 27.0-3-S         | Grid-tied PV inverter            | TUV Rheinland  | 2021/05/05 | IT210G4J 003       | AK 60156511 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 50-3-P     | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 50-3-D     | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 99-3-P     | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 99-3-D     | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 100-3-P    | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO ECO 100-3-D    | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/25 | IT2227D0 001       | AK 60161549 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO 50-3-P         | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/27 | IT221Y5I 001       | AK 60161577 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Fronius | TAURO 50-3-D         | Grid-tied PV inverter            | TUV Rheinland  | 2022/01/27 | IT221Y5I 001       | AK 60161577 0001     | Yes | Inverter may only be used in plants according to category k.s. 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. |
| Goodwe  | GW3648-ES            | Hybrid PV inverter grid-tied     | TUV SUD        | 2018/11/12 | 704091815302-00    | D 083373 0039 Rev.00 | Yes |   |
| Goodwe  | GW5048-ES            | Hybrid PV inverter grid-tied     | TUV SUD        | 2018/11/12 | 704091815302-00    | D 083373 0039 Rev.00 | Yes |   |
| Goodwe  | GW3048-EM            | Hybrid PV inverter grid-tied     | TUV Rheinland  | 2017/07/14 | 50085060 001       | AK 50383738 0001     | Yes |   |
| Goodwe  | GW3648-EM            | Hybrid PV inverter grid-tied     | TUV Rheinland  | 2017/07/14 | 50085060 001       | AK 50383738 0001     | Yes |   |
| Goodwe  | GW5048-EM            | Hybrid PV inverter grid-tied     | TUV Rheinland  | 2017/07/14 | 50085060 001       | AK 50383738 0001     | Yes |   |
| Goodwe  | GW4K-DT              | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW8K-DT              | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW8K-DT              | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW8K-DT              | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW10KT-DT            | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW12KT-DT            | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW15KT-DT            | Grid-tied PV inverter            | Bureau Veritas | 2019/11/20 | ZEM-190C0893FTSHP  | U19-0609             | Yes |   |
| Goodwe  | GW500S-BP            | Battery based inverter grid-tied | TUV Rheinland  | 2018/11/12 | 50180648 001       | AK 50419930 0001     | Yes |   |
| Goodwe  | GW360S-BP            | Battery based inverter grid-tied | TUV Rheinland  | 2018/11/12 | 50180648 001       | AK 50419930 0001     | Yes |   |
| Goodwe  | GW5K-ET              | Hybrid PV inverter grid-tied     | Bureau Veritas | 2019/05/23 | PVZA190507N014     | 1988AP0507N014001    | Yes |   |
| Goodwe  | GW8K-ET              | Hybrid PV inverter grid-tied     | Bureau Veritas | 2019/05/23 | PVZA190507N014     | 1988AP0507N014001    | Yes |   |
| Goodwe  | GW10K-ET             | Hybrid PV inverter grid-tied     | Bureau Veritas | 2019/05/23 | PVZA190507N014     | 1988AP0507N014001    | Yes |   |
| Goodwe  | GW25K-MT             | Grid-tied PV inverter            | Bureau Veritas | 2020/03/05 | PVZA181008N021-R1  | 1888AP1008N021015    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW30K-MT             | Grid-tied PV inverter            | Bureau Veritas | 2020/03/05 | PVZA181008N021-R1  | 1888AP1008N021015    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW36K-MT             | Grid-tied PV inverter            | Bureau Veritas | 2020/03/05 | PVZA181008N021-R1  | 1888AP1008N021015    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW50K-MT             | Grid-tied PV inverter            | Bureau Veritas | 2022/05/06 | PVZA180903N057-R2  | 1888AP0903N057004    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW60K-MT             | Grid-tied PV inverter            | Bureau Veritas | 2022/05/06 | PVZA180903N057-R2  | 1888AP0903N057004    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW50KN-MT            | Grid-tied PV inverter            | Bureau Veritas | 2022/05/06 | PVZA180903N057-R2  | 1888AP0903N057004    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW60KN-MT            | Grid-tied PV inverter            | Bureau Veritas | 2022/05/06 | PVZA180903N057-R2  | 1888AP0903N057004    | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW 3000-NS           | Grid-tied PV inverter            | Bureau Veritas | 2020/01/19 | PVZA190627N029     | 1988AP0627N0290001   | Yes |   |
| Goodwe  | GW 3600-NS           | Grid-tied PV inverter            | Bureau Veritas | 2020/01/19 | PVZA190627N029     | 1988AP0627N0290001   | Yes |   |
| Goodwe  | GW 4200-NS           | Grid-tied PV inverter            | Bureau Veritas | 2020/01/19 | PVZA190627N029     | 1988AP0627N0290001   | Yes |   |
| Goodwe  | GW 5000-NS           | Grid-tied PV inverter            | Bureau Veritas | 2020/01/19 | PVZA190627N029     | 1988AP0627N0290001   | Yes |   |
| Goodwe  | GW 6000-NS           | Grid-tied PV inverter            | Bureau Veritas | 2020/01/19 | PVZA190627N029     | 1988AP0627N0290001   | Yes |   |
| Goodwe  | GW 20KN-DT           | Grid-tied PV inverter            | Bureau Veritas | 2020/04/17 | ASBJ-190C2322FTSHS | U20-0270             | Yes |   |
| Goodwe  | GW 17KN-DT           | Grid-tied PV inverter            | Bureau Veritas | 2020/04/17 | ASBJ-190C2322FTSHS | U20-0270             | Yes |   |
| Goodwe  | GW 15KN-DT           | Grid-tied PV inverter            | Bureau Veritas | 2020/04/17 | ASBJ-190C2322FTSHS | U20-0270             | Yes |   |
| Goodwe  | GW 12KN-DT           | Grid-tied PV inverter            | Bureau Veritas | 2020/04/17 | ASBJ-190C2322FTSHS | U20-0270             | Yes |   |
| Goodwe  | GW 100K-HT           | Grid-tied PV inverter            | TUV Rheinland  | 2020/12/24 | CN20W6U3 001       | AK 50490607 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW 110K-HT           | Grid-tied PV inverter            | TUV Rheinland  | 2020/12/24 | CN20W6U3 001       | AK 50490607 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW 120K-HT           | Grid-tied PV inverter            | TUV Rheinland  | 2020/12/24 | CN20W6U3 001       | AK 50490607 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW 136K-HTH          | Grid-tied PV inverter            | TUV Rheinland  | 2020/12/24 | CN20W6U3 001       | AK 50490607 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW5000-EHB           | Hybrid PV inverter grid-tied     | SGS            | 2021/11/11 | 2220/0404-E1       | 2620/0404-E1-CER     | Yes | Inverter may only be used in plants connected to the grid via an external customer MV/LV AC transformer.  |
| Goodwe  | GW6500-EHB           | Hybrid PV inverter grid-tied     | SGS            | 2021/11/11 | 2220/0404-E1       | 2620/0404-E1-CER     | Yes |   |
| Goodwe  | GW8600-EHB           | Hybrid PV inverter grid-tied     | SGS            | 2021/11/11 | 2220/0404-E1       | 2620/0404-E1-CER     | Yes |   |
| Goodwe  | GW0010-EHB           | Hybrid PV inverter grid-tied     | SGS            | 2021/11/11 | 2220/0404-E1       | 2620/0404-E1-CER     | Yes |   |
| Goodwe  | GW 17KT-DT           | Hybrid PV inverter grid-tied     | TUV Rheinland  | 2022/04/15 | 60395681 002       | AK 50540008 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |
| Goodwe  | GW 20KT-DT           | Hybrid PV inverter grid-tied     | TUV Rheinland  | 2022/04/15 | 60395681 002       | AK 50540008 0001     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.   |

|          |                 |                              |                          |            |  |                         |                      |     |     |  |
|----------|-----------------|------------------------------|--------------------------|------------|--|-------------------------|----------------------|-----|-----|--|
| Goodwe   | GW 25KT-DT      | Hybrid PV inverter grid-tied | TUV Rheinland            | 2022/04/15 |  | 60395681 002            | AK 50540008 0001     |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Goodwe   | GW50KS-MT       | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2022/06/07 |  | TRPVP11058/21E/02       | COCPVP11058/21E-04   |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Goodwe   | GW60KS-MT       | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2022/06/07 |  | TRPVP11058/21E/02       | COCPVP11058/21E-04   |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Goodwe   | GWx-ES-20       | Hybrid PV inverter grid-tied | TUV Rheinland            | 2022/07/06 |  | CN22SCQU 001            | AK 50550767 0001     |     | Yes | Where x = 3000, 3600, 5000, 6000   |
| Goodwe   | GW-M-ES-20      | Hybrid PV inverter grid-tied | TUV Rheinland            | 2022/07/06 |  | CN22SCQU 001            | AK 50550767 0001     |     | Yes | Where x = 3600, 5000, 6000   |
| Goodwe   | GWx-SBP-20      | Hybrid PV inverter grid-tied | TUV Rheinland            | 2022/07/06 |  | CN22SCQU 001            | AK 50550767 0001     |     | Yes | Where x = 3600, 5000, 6000   |
| Goodwe   | GW80K-MT        | Grid-tied PV inverter        | Bureau Veritas           | 2022/08/10 |  | PVZA191217N016-R2       | 2288AP080035001      |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growatt  | SPH3000TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growatt  | SPH3600TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growatt  | SPH4000TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growatt  | SPH4600TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growatt  | SPH5000TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growatt  | SPH6000TL BL-UP | Hybrid PV inverter grid-tied | Intertek                 | 2019/10/25 |  | 190719102GZU-001        | CN-PV-190037         | Yes |     |  |
| Growcol  | GHYper-3000     | Hybrid PV inverter grid-tied | Dekra                    | 2021/08/20 |  | 6111798.51              | 6111798.02AOC        |     | Yes |  |
| Growcol  | GHYper-3680     | Hybrid PV inverter grid-tied | Dekra                    | 2021/08/20 |  | 6111798.51              | 6111798.02AOC        |     | Yes |  |
| Growcol  | GHYper-5000     | Hybrid PV inverter grid-tied | Dekra                    | 2021/08/20 |  | 6111798.51              | 6111798.02AOC        |     | Yes |  |
| Growcol  | GX25KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX25KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX30KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX30KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX33KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX33KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX36KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX36KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX40KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX40KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120058GZU-001, Rev 1 | CN-PV-220040R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX50KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX50KT-L        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX50KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX60KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX60KT-L        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX60KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX66KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX66KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX70KT          | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX70KT-S        | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220120057GZU-001, Rev 1 | CN-PV-220039R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX100KT         | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX100KT-F       | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX110KT         | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX110KT-F       | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX136KT-L       | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX136KT-LF      | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX136KT-X       | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GX136KT-XF      | Grid-tied PV inverter        | Intertek                 | 2022/06/27 |  | 220307041GZU-001, Rev 1 | CN-PV-220070R1       | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| Growcol  | GW-MPS0030      | Hybrid PV inverter grid-tied | TUV NORD (Hangzhou)      | 2022/05/24 |  | TRPVP040042/22E01       | COCPVP04002/22E-01   | Yes |     |  |
| Growcol  | GW-MPS0050      | Hybrid PV inverter grid-tied | TUV NORD (Hangzhou)      | 2022/05/24 |  | TRPVP040042/22E01       | COCPVP04002/22E-01   | Yes |     |  |
| Growcol  | GW-MPS0100      | Hybrid PV inverter grid-tied | TUV NORD (Hangzhou)      | 2022/05/24 |  | TRPVP040042/22E01       | COCPVP04002/22E-01   | Yes |     |  |
| Growcol  | GW-MPS0150      | Hybrid PV inverter grid-tied | TUV NORD (Hangzhou)      | 2022/05/24 |  | TRPVP040042/22E01       | COCPVP04002/22E-01   | Yes |     |  |
| Growcol  | GW8KS1          | Hybrid PV inverter grid-tied | TUV SUD                  | 2022/10/14 |  | 64.290.22.31173.01      | D 118596 0001 Rev.00 | Yes |     |  |
| Growcol  | GW-MPS0250      | Hybrid PV inverter grid-tied | TUV Rheinland            | 2023/02/23 |  | CN299F6J 003            | AK 50573567 0001     | Yes |     |  |
| Growcol  | GW-MPS0500      | Hybrid PV inverter grid-tied | TUV Rheinland            | 2023/02/23 |  | CN299F6J 003            | AK 50573567 0001     | Yes |     |  |
| Hoymiles | MI-500          | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/10 |  | BMH-18JA0880FCSP-R1     | U18-0374             | Yes |     | Hoymiles MI-500, 600 and 700 micro inverters are not equipped with an internal disconnection device and an external City listed network and system grid protection voltage and frequency relay must be provided in the photovoltaic system with appropriately sized two in series contactors according to NRS 097-2-1 requirements and default settings. |
| Hoymiles | MI-600          | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/10 |  | BMH-18JA0880FCSP-R1     | U18-0374             | Yes |     |  |
| Hoymiles | MI-700          | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/10 |  | BMH-18JA0880FCSP-R1     | U18-0374             | Yes |     |  |
| Hoymiles | MI-1000         | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/27 |  | ZEM-18AP0889FCSPH       | U18-0435             | Yes |     |  |
| Hoymiles | MI-1000T        | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/27 |  | ZEM-18AP0889FCSPH       | U18-0435             | Yes |     |  |
| Hoymiles | MI-1200         | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/27 |  | ZEM-18AP0889FCSPH       | U18-0435             | Yes |     |  |
| Hoymiles | MI-1200T        | Grid-tied PV inverter        | Bureau Veritas           | 2018/07/27 |  | ZEM-18AP0889FCSPH       | U18-0435             | Yes |     |  |
| Hoymiles | HM-500          | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2021/11/19 |  | TRPVP03078/21B/02       | COCPVP03078/21B-02   | Yes |     |  |
| Hoymiles | HM-500T         | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2021/11/19 |  | TRPVP03078/21B/02       | COCPVP03078/21B-02   | Yes |     |  |
| Hoymiles | HM-600          | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2021/11/19 |  | TRPVP03078/21B/02       | COCPVP03078/21B-02   | Yes |     |  |
| Hoymiles | HM-600T         | Grid-tied PV inverter        | TUV NORD & Donguan Balun | 2021/11/19 |  | TRPVP03078/21B/02       | COCPVP03078/21B-02   | Yes |     |  |



|          |                                       |                                  |                     |            |            |                    |                      |  |  |     |   |
|----------|---------------------------------------|----------------------------------|---------------------|------------|------------|--------------------|----------------------|--|--|-----|---|
| Ingeteam | Ingecon Sun Storage 1Play 3TL M Basic | Hybrid PV inverter grid-tied     | SGS                 | 2022/02/28 | 2026/05/11 | 2220/0119-E-E1     | 2620/0119-E-E1-CER   |  |  | Yes |   |
| Ingeteam | Ingecon Sun Storage 1Play 6TL M Basic | Hybrid PV inverter grid-tied     | SGS                 | 2022/02/28 | 2026/05/11 | 2220/0119-E-E1     | 2620/0119-E-E1-CER   |  |  | Yes |   |
| Ingeteam | Ingecon Sun Storage 1Play 6TL M Basic | Hybrid PV inverter grid-tied     | SGS                 | 2022/02/28 | 2026/05/11 | 2220/0119-E-E1     | 2620/0119-E-E1-CER   |  |  | Yes |   |
| INVT     | BD3KTL-RL-1-1                         | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD3K6TL-RL-1-1                        | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD4KTL-RL-1-1                         | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD4K6TL-RL-1-1                        | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD5KTL-RL-1-1                         | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD6KTL-RL-1-1                         | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31834.01 | D 072237 0134 Rev.00 |  |  | Yes |   |
| INVT     | BD8KTL-RL-1-1                         | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/03/01 |            | 64.290.22.31835.01 | D 072237 0135 Rev.00 |  |  | Yes |   |
| INVT     | BD3KTL-RL1                            | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| INVT     | BD3K6TL-RL1                           | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| INVT     | BD4KTL-RL1                            | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| INVT     | BD4K6TL-RL1                           | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| INVT     | BD5KTL-RL1                            | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| INVT     | BD6KTL-RL1                            | Hybrid PV inverter grid-tied     | TUV SUD             | 2022/01/27 |            | 64.290.22.30050.01 | D 093811 0053 Rev.00 |  |  | Yes |   |
| Jinko    | JKH30LTA                              | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2023/03/08 |            | TRPVP01087/23E-01  | COCPVP01087/23E-01   |  |  | Yes |   |
| Jinko    | JKH50LTA                              | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2023/03/08 |            | TRPVP01087/23E-01  | COCPVP01087/23E-01   |  |  | Yes |   |
| Jinko    | JKH100LTA                             | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2023/03/08 |            | TRPVP01087/23E-01  | COCPVP01087/23E-01   |  |  | Yes |   |
| Jinko    | JKH150LTA                             | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2023/03/08 |            | TRPVP01087/23E-01  | COCPVP01087/23E-01   |  |  | Yes |   |
| Jinko    | JKH250LTA                             | Hybrid PV inverter grid-tied     | TUV Rheinland       | 2023/02/21 |            | CN229F6J 002       | AK 5057 4863 0001    |  |  | Yes |   |
| Jinko    | JKH500LTA                             | Hybrid PV inverter grid-tied     | TUV Rheinland       | 2023/02/21 |            | CN229F6J 002       | AK 5057 4863 0001    |  |  | Yes |   |
| Jinko    | JKS-3HLVS-HI                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Jinko    | JKS-3.6HLVS-HI                        | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Jinko    | JKS-4HLVS-HI                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Jinko    | JKS-4.6HLVS-HI                        | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Jinko    | JKS-5HLVS-HI                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Jinko    | JKS-6HLVS-HI                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2023/04/14 |            | 64.290.23.30521.01 | D 118443 0019 Rev.00 |  |  | Yes |   |
| Kehua    | BCS50K-A                              | Battery based inverter grid-tied | TUV SUD             | 2022/09/22 |            | 64.290.22.30151.01 | D 115067 0036 Rev.00 |  |  | Yes | The energy storage inverter is not equipped with integrated network and system (NS) protection. External to the converter NS protection required with a City listed NS grid protection voltage and frequency relay and appropriately sized two in series contactors according to NRS 097-2-1 requirements and default settings. |
| Kehua    | BCS100K-A                             | Battery based inverter grid-tied | TUV SUD             | 2022/09/22 |            | 64.290.22.30151.01 | D 115067 0036 Rev.00 |  |  | Yes | The energy storage inverter is not equipped with integrated network and system (NS) protection. External to the converter NS protection required with a City listed NS grid protection voltage and frequency relay and appropriately sized two in series contactors according to NRS 097-2-1 requirements and default settings. |
| Kehua    | BCS250K-A                             | Battery based inverter grid-tied | TUV SUD             | 2022/09/22 |            | 64.290.22.30151.01 | D 115067 0036 Rev.00 |  |  | Yes | The energy storage inverter is not equipped with integrated network and system (NS) protection. External to the converter NS protection required with a City listed NS grid protection voltage and frequency relay and appropriately sized two in series contactors according to NRS 097-2-1 requirements and default settings. |
| Kehua    | BCS500K-A                             | Battery based inverter grid-tied | TUV SUD             | 2022/09/22 |            | 64.290.22.30151.01 | D 115067 0036 Rev.00 |  |  | Yes | The energy storage inverter is not equipped with integrated network and system (NS) protection. External to the converter NS protection required with a City listed NS grid protection voltage and frequency relay and appropriately sized two in series contactors according to NRS 097-2-1 requirements and default settings. |
| Kodak    | Kodak I3.0                            | Gnd-tied PV inverter             | Dekra               | 2019/12/10 |            | 6065813.50         | 6065813.01AOC        |  |  | Yes |   |
| Kodak    | Kodak I3.6                            | Gnd-tied PV inverter             | Dekra               | 2019/12/10 |            | 6065813.50         | 6065813.01AOC        |  |  | Yes |   |
| Kodak    | Kodak I4.6                            | Gnd-tied PV inverter             | Dekra               | 2019/12/10 |            | 6065813.50         | 6065813.01AOC        |  |  | Yes |   |
| Kodak    | Kodak H3.0                            | Hybrid PV inverter grid-tied     | TUV Rheinland       | 2019/12/17 |            | 50173405 002       | AK 50454890 0001     |  |  | Yes |   |
| Kodak    | Kodak H3.6                            | Hybrid PV inverter grid-tied     | TUV Rheinland       | 2019/12/17 |            | 50173405 002       | AK 50454890 0001     |  |  | Yes |   |
| Kodak    | Kodak H4.6                            | Hybrid PV inverter grid-tied     | TUV Rheinland       | 2019/12/17 |            | 50173405 002       | AK 50454890 0001     |  |  | Yes |   |
| Koyoe    | KY-IHybrid-5k0-H                      | Hybrid PV inverter grid-tied     | Intertek            | 2021/01/22 |            | 201102063GZU-001   | CN-PV-210016         |  |  | Yes |   |
| Koyoe    | KY-Hybrid-5k0-HA                      | Hybrid PV inverter grid-tied     | Intertek            | 2021/06/21 |            | 210525156GZU-001   | CN-PV-210154         |  |  | Yes |   |
| Koyoe    | KY-EST08KHA                           | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST08KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST10KH-A                          | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST12KH-A                          | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST15KH-A                          | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST20KH-A                          | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/12/30 |            | TRPVP04039/21E-09  | COCPVP04039/21E-02   |  |  | Yes |   |
| Koyoe    | KY-EST06KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST08KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST10KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST12KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST15KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST17KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| Koyoe    | KY-EST20KH                            | Hybrid PV inverter grid-tied     | TUV NORD            | 2021/10/15 |            | TRPVP04039/21E-04  | COCPVP04039/21E-01   |  |  | Yes |   |
| KSTAR    | Blue-S 3680D                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/09/23 |            | 64.290.20.30989.03 | D 075386 0136 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-S 5000D                          | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/09/23 |            | 64.290.20.30989.03 | D 075386 0136 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-S 3680D-M1                       | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/09/23 |            | 64.290.20.30989.03 | D 075386 0136 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-S 5000D-M1                       | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/09/23 |            | 64.290.20.30989.03 | D 075386 0136 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3000S                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3000S-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3000D                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3000D-M0                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3000D-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3600D                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3600D-M0                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 3600D-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4000D                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4000D-M0                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4000D-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4200D                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4200D-M0                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4200D-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4600D                          | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| KSTAR    | Blue-G 4600D-M1                       | Gnd-tied PV inverter             | TUV SUD             | 2021/09/23 |            | 64.290.21.30004.03 | D 075386 0137 Rev.02 |  |  | Yes |   |
| Lifelink | Life3.5Hyb02                          | Hybrid PV inverter grid-tied     | Dongguan Balun      | 2022/05/19 |            | BL-DG2240044-B01   | BL-DG2240044D01      |  |  | Yes |   |
| Lifelink | Life3.3Hyb02                          | Hybrid PV inverter grid-tied     | Dongguan Balun      | 2022/05/19 |            | BL-DG2240044-B01   | BL-DG2240044D01      |  |  | Yes |   |



|             |                |                                     |                |            |                             |                        |     |  |  |
|-------------|----------------|-------------------------------------|----------------|------------|-----------------------------|------------------------|-----|--|--|
| SMA         | SHP75-10       | Grid-tied PV inverter               | Bureau Veritas | 2018/09/26 | 14TH0075-NRS 097-2-1_3      | U18-0451               | Yes |  | inverter may only be used in plants according to category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SMA         | STPS 60-10     | Battery based PV inverter grid-tied | Bureau Veritas | 2018/09/26 | 14TH0075-NRS 097-2-1_3      | U18-0451               | Yes |  | inverter may only be used in plants according to category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SMA         | SB3.0-1AV-41   | Grid-tied PV inverter               | Bureau Veritas | 2023/01/20 | 16TH0348-NRS 097-2-1_1      | U23-0041               | Yes |  |  |
| SMA         | SB3.6-1AV-41   | Grid-tied PV inverter               | Bureau Veritas | 2023/01/20 | 16TH0348-NRS 097-2-1_1      | U23-0041               | Yes |  |  |
| SMA         | SB4.0-1AV-41   | Grid-tied PV inverter               | Bureau Veritas | 2023/01/20 | 16TH0348-NRS 097-2-1_1      | U23-0041               | Yes |  |  |
| SMA         | SB5.0-1AV-41   | Grid-tied PV inverter               | Bureau Veritas | 2023/01/20 | 16TH0348-NRS 097-2-1_1      | U23-0041               | Yes |  |  |
| SMA         | SB6.0-1AV-41   | Grid-tied PV inverter               | Bureau Veritas | 2023/01/20 | 16TH0348-NRS 097-2-1_1      | U23-0041               | Yes |  |  |
| SMA         | STP 15000TL-30 | Grid-tied PV inverter               | Bureau Veritas | 2020/08/13 | 14TH0304-NRS 097-2-1-2017_0 | U20-0641               | Yes |  |  |
| SMA         | STP 20000TL-30 | Grid-tied PV inverter               | Bureau Veritas | 2020/08/13 | 14TH0304-NRS 097-2-1-2017_0 | U20-0641               | Yes |  |  |
| SMA         | STP 25000TL-30 | Grid-tied PV inverter               | Bureau Veritas | 2020/08/13 | 14TH0304-NRS 097-2-1-2017_0 | U20-0641               | Yes |  |  |
| SMA         | STP 110-40     | Grid-tied PV inverter               | TÜV SÜD        | 2021/01/21 | 704092001861-00             | D 070122019 Rev. 00    | Yes |  | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used.  |
| SMA         | STP5.0-3AV-40  | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP4.0-3AV-40  | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP5.0-3AV-40  | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP6.0-3AV-40  | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP8.0-3AV-40  | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP10.0-3AV-40 | Grid-tied PV inverter               | Bureau Veritas | 2021/07/14 | 18TH0325-NRS-2-1_0          | U21-0661               | Yes |  |  |
| SMA         | STP5.0-3SE-40  | Hybrid PV inverter grid-tied        | TUV Rheinland  | 2022/02/21 | CN210918 001                | AK 50510847 0001       | Yes |  |  |
| SMA         | STP6.0-3SE-40  | Hybrid PV inverter grid-tied        | TUV Rheinland  | 2022/02/21 | CN210918 001                | AK 50510847 0001       | Yes |  |  |
| SMA         | STP8.0-3SE-40  | Hybrid PV inverter grid-tied        | TUV Rheinland  | 2022/02/21 | CN210918 001                | AK 50510847 0001       | Yes |  |  |
| SMA         | STP10.0-3SE-40 | Hybrid PV inverter grid-tied        | TUV Rheinland  | 2022/02/21 | CN210918 001                | AK 50510847 0001       | Yes |  |  |
| SMA         | STP12-50       | Grid-tied PV inverter               | TUV SUD        | 2023/04/03 | 713254379-006               | ESY 070122 0044 Rev.00 | Yes |  |  |
| SMA         | STP15-50       | Grid-tied PV inverter               | TUV SUD        | 2023/04/03 | 713254379-006               | ESY 070122 0044 Rev.00 | Yes |  |  |
| SMA         | STP20-50       | Grid-tied PV inverter               | TUV SUD        | 2023/04/03 | 713254379-006               | ESY 070122 0044 Rev.00 | Yes |  |  |
| SMA         | STP25-50       | Grid-tied PV inverter               | TUV SUD        | 2023/04/03 | 713254379-006               | ESY 070122 0044 Rev.00 | Yes |  |  |
| Solar Solar | HYD 6000-ES    | Hybrid PV inverter grid-tied        | Intertek       | 2019/07/16 | 190603089GZU-001            | 190603089GZU-001       | Yes |  |  |
| Solar Solar | HYD 5000-ES    | Hybrid PV inverter grid-tied        | Intertek       | 2019/07/16 | 190603089GZU-001            | 190603089GZU-001       | Yes |  |  |
| Solar Solar | HYD 4000-ES    | Hybrid PV inverter grid-tied        | Intertek       | 2019/07/16 | 190603089GZU-001            | 190603089GZU-001       | Yes |  |  |
| Solar Solar | HYD 3600-ES    | Hybrid PV inverter grid-tied        | Intertek       | 2019/07/16 | 190603089GZU-001            | 190603089GZU-001       | Yes |  |  |
| Solar Solar | HYD 3000-ES    | Hybrid PV inverter grid-tied        | Intertek       | 2019/07/16 | 190603089GZU-001            | 190603089GZU-001       | Yes |  |  |
| Solar Solar | 60000TL        | Grid-tied PV inverter               | Intertek       | 2019/12/19 | 191025090GZU-001            | CN-PV-190090           | Yes |  |  |
| Solar Solar | 50000TL        | Grid-tied PV inverter               | Intertek       | 2019/12/19 | 191025090GZU-001            | CN-PV-190090           | Yes |  |  |
| Solar Solar | HYD 8KTL-3PH   | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | HYD 6KTL-3PH   | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | HYD 8KTL-3PH   | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | HYD 10KTL-3PH  | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | HYD 15KTL-3PH  | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | HYD 20KTL-3PH  | Hybrid PV inverter grid-tied        | Shenzhen Balun | 2020/07/10 | BL-DG2060517-B01            | BL-DG2060517D01        | Yes |  |  |
| Solar Solar | 3KTLM-G3       | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 3.6KTLM-G3     | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 4KTLM-G3       | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 4.6KTLM-G3     | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 5KTLM-G3       | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 5KTLM-G3-A     | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| Solar Solar | 6KTLM-G3       | Grid-tied PV inverter               | Intertek       | 2021/08/09 | 210715145GZU-002            | CN-PV-210185           | Yes |  |  |
| SolarEdge   | SE25K          | Grid-tied PV inverter               | Bureau Veritas | 2020/12/19 | 19TH0534-NRS 097-2-1_2      | U20-1043               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE27.6K        | Grid-tied PV inverter               | Bureau Veritas | 2020/12/19 | 19TH0534-NRS 097-2-1_2      | U20-1043               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE30K          | Grid-tied PV inverter               | Bureau Veritas | 2020/12/19 | 19TH0534-NRS 097-2-1_2      | U20-1043               | Yes |  | For 277 Vac L-N / 480 Vac L-L, grid inverter may only be used in plants according to Category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer. Grid connection inverter with 230 V, L-N / 400Vac, L-L output is intended with and without AC transformer for Category A2 and A3 plant. |
| SolarEdge   | SE33.3K        | Grid-tied PV inverter               | Bureau Veritas | 2020/12/19 | 19TH0534-NRS 097-2-1_2      | U20-1043               | Yes |  | For 277 Vac L-N / 480 Vac L-L, grid inverter may only be used in plants according to Category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SolarEdge   | SE40K          | Grid-tied PV inverter               | Bureau Veritas | 2020/12/19 | 19TH0534-NRS 097-2-1_2      | U20-1043               | Yes |  | For both 230 V, L-N / 400Vac, L-L and 277 Vac L-N / 480 Vac L-L output, inverter may only be used in plants according to Category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SolarEdge   | SE50K          | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE55K          | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE66.6K        | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE82.8K        | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE100K         | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Grid connection inverter for 230 V, L-N / 400Vac, L-L output only and is intended with and without AC transformer for Category A2 and A3 plant.  |
| SolarEdge   | SE66.6K*       | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | Model with AC output voltage 277 VAC L-N / 480 VAC L-L, is intended for grid connection with an external customer MV/LV AC transformer and only for plants with Category A3: 100 kVA - 1MVA.   |
| SolarEdge   | SE80K*         | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | For both 230 V, L-N / 400Vac, L-L and 277 Vac L-N / 480 Vac L-L output, inverter may only be used in plants according to Category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SolarEdge   | SE120K*        | Grid-tied PV inverter               | Bureau Veritas | 2021/06/07 | 20TH0532-NRS 097-2-1_0      | U21-0499               | Yes |  | For both 230 V, L-N / 400Vac, L-L and 277 Vac L-N / 480 Vac L-L output, inverter may only be used in plants according to Category A3: 100 kVA - 1MVA and connection to the grid via an external customer MV/LV AC transformer.   |
| SolarEdge   | SE75K          | Grid-tied PV inverter               | Bureau Veritas | 2021/04/01 | 17TH0209-NRS 097-2-1_2      | U21-0295               | Yes |  |  |





|           |                              |                                  |                           |            |                     |                       |     |     |   |
|-----------|------------------------------|----------------------------------|---------------------------|------------|---------------------|-----------------------|-----|-----|---|
| Solplanet | ASW40K-LT-G2                 | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Solplanet | ASW45K-LT-G2                 | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Solplanet | ASW50K-LT-G2                 | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Solplanet | ASW40K-LT-G2 Pro             | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Solplanet | ASW45K-LT-G2 Pro             | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Solplanet | ASW50K-LT-G2 Pro             | Grid-tied PV inverter            | TÜV SÜD                   | 2022/07/25 | 70.409.22.286.25-00 | D 099567 0067 Rev.00  |     | Yes | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Soltaro   | SOL-10KW-3P                  | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2019/07/28 | 6429018047301A      | D 104877 0003         | Yes |     |   |
| Sungrow   | SH4K-20                      | Hybrid PV inverter grid-tied     | Dekra                     | 2018/05/31 | 6025450 51          | 6025450 02AOC         | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SH4K-30                      | Hybrid PV inverter grid-tied     | Dekra                     | 2020/03/27 | 6072682 50          | D 072682 01AOC        | Yes |     |   |
| Sungrow   | SG36KTL-M                    | Grid-tied PV inverter            | TÜV SÜD                   | 2018/03/26 | 704091708604-01     | D180373342197         | Yes |     |   |
| Sungrow   | SG60KTL                      | Grid-tied PV inverter            | TÜV SÜD                   | 2018/02/08 | 704091708605-01     | D180173342198         | Yes |     |   |
| Sungrow   | SG80KTL                      | Grid-tied PV inverter            | Dekra                     | 2018/07/11 | 6035428 50          | 6035428.01AOC         | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG80KTL-20                   | Grid-tied PV inverter            | Dekra                     | 2018/07/11 | 6035428 50          | 6035428.01AOC         | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG33CX                       | Grid-tied PV inverter            | TUV NORD & Shenzhen Balun | 2020/03/19 | TRSHV11090/19/01_R2 | COCSHV11090/19-01_R1  | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG40CX                       | Grid-tied PV inverter            | TUV NORD & Shenzhen Balun | 2020/03/19 | TRSHV11090/19/01_R2 | COCSHV11090/19-01_R1  | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG50CX                       | Grid-tied PV inverter            | TUV NORD & Shenzhen Balun | 2020/03/19 | TRSHV11090/19/01_R2 | COCSHV11090/19-01_R1  | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG110CX                      | Grid-tied PV inverter            | TUV NORD & Shenzhen Balun | 2020/03/19 | TRSHV11090/19/02_R2 | COCSHV11090/19-02_R1  | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SH5.0RT                      | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2020/07/24 | TRSHV11090/19/03    | COCSHV11090/19-04     | Yes |     |   |
| Sungrow   | SH6.0RT                      | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2020/07/24 | TRSHV11090/19/03    | COCSHV11090/19-04     | Yes |     |   |
| Sungrow   | SH8.0RT                      | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2020/07/24 | TRSHV11090/19/03    | COCSHV11090/19-04     | Yes |     |   |
| Sungrow   | SH10RT                       | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2020/07/24 | TRSHV11090/19/03    | COCSHV11090/19-04     | Yes |     |   |
| Sungrow   | SC50HV                       | Battery based inverter grid-tied | TÜV SÜD                   | 2021/08/09 | 704092103524-00     | D 0733420345 Rev.00   | Yes |     |   |
| Sungrow   | SC50HV-20                    | Battery based inverter grid-tied | TÜV SÜD                   | 2021/08/09 | 704092103524-00     | D 0733420345 Rev.00   | Yes |     |   |
| Sungrow   | SH3.0RS                      | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/03/15 | CN220HJH 001        | AK 50536847 0001      | Yes |     |   |
| Sungrow   | SH3.6RS                      | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/03/15 | CN220HJH 001        | AK 50536847 0001      | Yes |     |   |
| Sungrow   | SH4.0RS                      | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/03/15 | CN220HJH 001        | AK 50536847 0001      | Yes |     |   |
| Sungrow   | SH5.0RS                      | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/03/15 | CN220HJH 001        | AK 50536847 0001      | Yes |     |   |
| Sungrow   | SH6.0RS                      | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/03/15 | CN220HJH 001        | AK 50536847 0001      | Yes |     |   |
| Sungrow   | SG75CX-P2                    | Grid-tied PV inverter            | TUV Rheinland             | 2022/03/16 | CN224TCO 001        | AK 50536779 0001      | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG100CX-P2                   | Grid-tied PV inverter            | TUV Rheinland             | 2022/03/16 | CN224TCO 001        | AK 50536779 0001      | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sungrow   | SG125CX-P2                   | Grid-tied PV inverter            | TUV Rheinland             | 2022/03/16 | CN224TCO 001        | AK 50536779 0001      | Yes |     | The maximum DC voltage is depended on PV array and may not exceed 1000V when this inverter is used. |
| Sunpro    | SP3KL1                       | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunpro    | SP3K6L1                      | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunpro    | SP4KL1                       | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunpro    | SP4K6L1                      | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunpro    | SP5KL1                       | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunpro    | SP6KL1                       | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2022/08/16 | 64.290.22.30154.01  | D 107931 0034 Rev.00  | Yes |     |   |
| Sunsynk   | Sunsynk-8K-SG01LP1           | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Sunsynk-7.6K-SG01LP1         | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Sunsynk-6K-SG01LP1           | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Sunsynk-5K-SG01LP1           | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Sunsynk-3.6K-SG01LP1         | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Sunsynk-8K-SG02LP1           | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-7.6K-SG02LP1            | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-6K-SG02LP1              | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-5K-SG02LP1              | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-3.6K-SG02LP1            | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-8K-SG02LP1-B            | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-7.6K-SG02LP1-B          | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-6K-SG02LP1-B            | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-5K-SG02LP1-B            | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-3.6K-SG02LP1-B          | Hybrid PV inverter grid-tied     | Dongguan Balun            | 2022/03/30 | BL-DG2220307-B01    | BL-DG2220307D03       | Yes |     |   |
| Sunsynk   | Synk-12K-SG01LP1             | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/31 | CN222MISO 002       | AK 50546025 0001      | Yes |     |   |
| Sunsynk   | Synk-14K-SG01LP1             | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/31 | CN222MISO 002       | AK 50546025 0001      | Yes |     |   |
| Sunsynk   | Synk-16K-SG01LP1             | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/05/31 | CN222MISO 002       | AK 50546025 0001      | Yes |     |   |
| Sunsynk   | SYNK-8K-SG04LP3              | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2021/06/10 | BL-DG2160287-B01    | BL-DG2160288D01       | Yes |     |   |
| Sunsynk   | SYNK-8K-SG04LP3              | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2021/06/10 | BL-DG2160287-B01    | BL-DG2160288D01       | Yes |     |   |
| Sunsynk   | SYNK-10K-SG04LP3             | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2021/06/10 | BL-DG2160287-B01    | BL-DG2160288D01       | Yes |     |   |
| Sunsynk   | SYNK-12K-SG04LP3             | Hybrid PV inverter grid-tied     | TUV NORD & Shenzhen Balun | 2021/06/10 | BL-DG2160287-B01    | BL-DG2160288D01       | Yes |     |   |
| Sunsynk   | SUNSYNK-29.9K-SG01HP3-EU-BM3 | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/05 | CN22G75A 002        | AK 50567025 0001      | Yes |     |   |
| Sunsynk   | SUNSYNK-30K-SG01HP3-EU-BM3   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/05 | CN22G75A 002        | AK 50567025 0001      | Yes |     |   |
| Sunsynk   | SUNSYNK-35K-SG01HP3-EU-BM3   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/05 | CN22G75A 002        | AK 50567025 0001      | Yes |     |   |
| Sunsynk   | SUNSYNK-40K-SG01HP3-EU-BM4   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/05 | CN22G75A 002        | AK 50567025 0001      | Yes |     |   |
| Sunsynk   | SUNSYNK-50K-SG01HP3-EU-BM4   | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2022/12/05 | CN22G75A 002        | AK 50567025 0001      | Yes |     |   |
| Sunsynk   | SYNK-3K-SG04LP1              | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2023/01/05 | CN22MT63 002        | AK 50570087 0001      | Yes |     |   |
| Sunsynk   | SYNK-3K-SG04LP1-24           | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2023/01/05 | CN22MT63 002        | AK 50570087 0001      | Yes |     |   |
| Sunsynk   | SYNK-3.6K-SG04LP1            | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2023/01/05 | CN22MT63 002        | AK 50570087 0001      | Yes |     |   |
| Sunsynk   | SYNK-6K-SG04LP1              | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2023/01/05 | CN22MT63 002        | AK 50570087 0001      | Yes |     |   |
| Sunsynk   | SYNK-8K-SG04LP1              | Hybrid PV inverter grid-tied     | TUV Rheinland             | 2023/01/05 | CN22MT63 002        | AK 50570087 0001      | Yes |     |   |
| Sunways   | STH-4KTL-HT                  | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2021/01/14 | 704092001222-00     | D 104339 0044 Rev. 00 | Yes |     |   |
| Sunways   | STH-5KTL-HT                  | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2021/01/14 | 704092001222-00     | D 104339 0044 Rev. 00 | Yes |     |   |
| Sunways   | STH-6KTL-HT                  | Hybrid PV inverter grid-tied     | TÜV SÜD                   | 2021/01/14 | 704092001222-00     | D 104339 0044 Rev. 00 | Yes |     |   |

|                         |                                |                                  |                     |            |  |                        |                       |  |     |   |
|-------------------------|--------------------------------|----------------------------------|---------------------|------------|--|------------------------|-----------------------|--|-----|---|
| Sunways                 | STH-8KTL-HT                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/01/14 |  | 704092001222-00        | D 104339 0044 Rev. 00 |  | Yes |   |
| Sunways                 | STH-10KTL-HT                   | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/01/14 |  | 704092001222-00        | D 104339 0044 Rev. 00 |  | Yes |   |
| Sunways                 | STH-12KTL-HT                   | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/01/14 |  | 704092001222-00        | D 104339 0044 Rev. 00 |  | Yes |   |
| Sunways                 | STH-3KTL-HSS                   | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-3KTL-HS                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-3.6KTL-HSS                 | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-3.6KTL-HS                  | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-4.2KTL-HS                  | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-4.6KTL-HS                  | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-5KTL-HS                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-6KTL-HS                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-7KTL-HS                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| Sunways                 | STH-8KTL-HS                    | Hybrid PV inverter grid-tied     | TUV SUD             | 2021/12/08 |  | 704092101617-00        | D 104339 0065 Rev.00  |  | Yes |   |
| TBB Power               | Apollo Matrix 3.0S             | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2022/03/03 |  | TRPVP12002/21B/01      | COCPVP12002/21B-01    |  | Yes |   |
| TBB Power               | Apollo Matrix 3.0M             | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2022/03/03 |  | TRPVP12002/21B/01      | COCPVP12002/21B-01    |  | Yes |   |
| TBB Power               | Apollo Matrix 5.0S             | Hybrid PV inverter grid-tied     | TUV NORD (Hangzhou) | 2022/03/03 |  | TRPVP12002/21B/01      | COCPVP12002/21B-01    |  | Yes |   |
| TELE Haase Steuergerate | NA003                          | Network & system relay           | Primara             | 2018/09/20 |  | 14PP035-12             | 18-315-00             |  | Yes | Network and system grid protection voltage and frequency relay only and may only be used in conjunction with approved NRS 097-2-1 type tested inverters on this list. |
| Tesla                   | AC Powerwall 1092170-xx-y      | Battery based inverter grid-tied | Intertek            | 2020/05/20 |  | 102591059CRT-051c      | 102591059CRT-051c     |  | Yes |   |
| Tesla                   | AC Powerwall 2012170-xx-y      | Battery based inverter grid-tied | Intertek            | 2020/05/20 |  | 102591059CRT-051c      | 102591059CRT-051c     |  | Yes |   |
| Victron                 | MultiGrid 12/3000/120-50       | Battery based inverter grid-tied | Primara             | 2017/11/20 |  | 16PP183-06 1           | 17-303-00             |  | Yes |   |
| Victron                 | MultiGrid 24/3000/70-50        | Battery based inverter grid-tied | Primara             | 2017/11/20 |  | 16PP183-06 1           | 17-303-00             |  | Yes |   |
| Victron                 | MultiGrid 48/3000/35-50        | Battery based inverter grid-tied | Primara             | 2017/11/20 |  | 16PP183-06 1           | 17-303-00             |  | Yes |   |
| Victron                 | MultiGrid - II 48/3000/35-32   | Battery based inverter grid-tied | Primara             | 2018/10/02 |  | 17PP264-07 1           | 18-320-01             |  | Yes |   |
| Victron                 | MultiPlus - II 48/3000/35-32   | Battery based inverter grid-tied | Kiwa Primara        | 2019/08/22 |  | 17PP264-07 3           | 18-320-01             |  | Yes |   |
| Victron                 | MultiPlus - II 48/3000/35-32GX | Battery based inverter grid-tied | Kiwa Primara        | 2019/08/22 |  | 17PP264-07 3           | 18-320-01             |  | Yes |   |
| Victron                 | MultiPlus - II 48/5000/70-50   | Battery based inverter grid-tied | Kiwa Primara        | 2019/08/22 |  | 17PP264-07 3           | 18-320-01             |  | Yes |   |
| Voltronic               | InfiniSolar 10k                | Hybrid PV inverter grid-tied     | Bureau Veritas      | 2020/10/30 |  | PVZA180904N057-R1      | 2088AP0923N001001     |  | Yes |   |
| Ziehl                   | UFR1001E relay                 | Network & system relay           | Bureau Veritas      | 2018/06/07 |  | 11TH0501-NRS 097-2-1 1 | U18-0308              |  | Yes | Network and system grid protection voltage and frequency relay only and may only be used in conjunction with approved NRS 097-2-1 type tested inverters on this list. |

RCMU - residual current monitoring unit  
 RCD - residual current device  
 RCM - residual current monitoring  
 SPD - surge protection device

**Notes:**

1. The City shall not incur any liability of any nature whatsoever arising out of the publication by it of this list, or arising out of the selection by the user of a particular device. This includes liability for any losses incurred as a result of safety issues or negligence relating to the design, construction, installation, commissioning, operation and maintenance of any device listed on the list.
2. This list is for City purposes only and the use thereof as a guideline for the selection of a device is at the sole risk of the user.
3. The City does not guarantee the functionality or suitability of any device listed on the list.
4. Type testing certifications for inverters and ancillary equipment that must be added to the City's inverter list, shall be in accordance with latest NRS 097-2-1, currently NRS 097-2-1: 2017 Edition 2.1 (amended [2021-04-30]).
5. All grid-tied hybrid inverters shall be equipped with a separate suitably interlocked change-over switch if interlocked with the grid as specified in the Requirements for small scale embedded generation (SSEG) document.

<http://eamsites.capetown.gov.za/sites/esprotelmeas/ilePages/Home/asp/reference/PI Documents/voms/Approved inverter and equipment lfo NRS 097-2-1>  
 2023-06-07