

## FI G3P-(40-50)-480

### Three Phase Grid-Tied Inverters

#### Features:

- Max. efficiency 98.8%
- 3/4 MPPT design, suitable for multi-facing roof
- AFCI protection, proactively reduces fire risk
- Nighttime PID recovery function (optional)
- Intelligent string monitoring, smart I-V curve scan
- 24-hour load consumption monitoring
- IP66

#### Models:

FI G3P-40-480

FI G3P-50-480



## DATASHEET

| Models                                  | FI G3P-40-480                                                                                                                                                                                                  |  | FI G3P-50-480 |  |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|--|
| Input DC                                |                                                                                                                                                                                                                |  |               |  |
| Recommended max. PV power               | 60 kW                                                                                                                                                                                                          |  | 75 kW         |  |
| Max. input voltage                      | 1100 V                                                                                                                                                                                                         |  |               |  |
| Rated voltage                           | 600 V                                                                                                                                                                                                          |  |               |  |
| Start-up voltage                        | 180 V                                                                                                                                                                                                          |  |               |  |
| MPPT voltage range                      | 200 - 1000 V                                                                                                                                                                                                   |  |               |  |
| Max. input current                      | 4 × 32 A                                                                                                                                                                                                       |  |               |  |
| Max. short circuit current              | 4 × 40 A                                                                                                                                                                                                       |  |               |  |
| MPPT number / Max. input strings number | 4 / 8                                                                                                                                                                                                          |  |               |  |
| Output AC                               |                                                                                                                                                                                                                |  |               |  |
| Rated output power                      | 40 kW                                                                                                                                                                                                          |  | 50 kW         |  |
| Max. apparent output power              | 44 kVA                                                                                                                                                                                                         |  | 55 kVA        |  |
| Max. output power                       | 44 kW                                                                                                                                                                                                          |  | 55 kW         |  |
| Rated grid voltage                      | 3/PE, 480 V                                                                                                                                                                                                    |  |               |  |
| Rated grid frequency                    | 50 Hz / 60 Hz                                                                                                                                                                                                  |  |               |  |
| Rated grid output current               | 48.1 A                                                                                                                                                                                                         |  | 60.1 A        |  |
| Max. output current                     | 53.0 A                                                                                                                                                                                                         |  | 66.2 A        |  |
| Power factor                            | > 0.99 (0.8 leading - 0.8 lagging)                                                                                                                                                                             |  |               |  |
| THDi                                    | < 3%                                                                                                                                                                                                           |  |               |  |
| Efficiency                              |                                                                                                                                                                                                                |  |               |  |
| Max. efficiency                         | 98.8%                                                                                                                                                                                                          |  |               |  |
| EU efficiency                           | 98.4%                                                                                                                                                                                                          |  |               |  |
| Protection                              |                                                                                                                                                                                                                |  |               |  |
| DC reverse-polarity protection          | Yes                                                                                                                                                                                                            |  |               |  |
| Short circuit protection                | Yes                                                                                                                                                                                                            |  |               |  |
| Output over current protection          | Yes                                                                                                                                                                                                            |  |               |  |
| Surge protection                        | DC Type II / AC Type II                                                                                                                                                                                        |  |               |  |
| Grid monitoring                         | Yes                                                                                                                                                                                                            |  |               |  |
| Anti-islanding protection               | Yes                                                                                                                                                                                                            |  |               |  |
| Temperature protection                  | Yes                                                                                                                                                                                                            |  |               |  |
| Strings monitoring                      | Yes                                                                                                                                                                                                            |  |               |  |
| I/V Curve scanning                      | Yes                                                                                                                                                                                                            |  |               |  |
| Multi peak scan                         | Yes                                                                                                                                                                                                            |  |               |  |
| Integrated AFCI 2.0                     | Optional                                                                                                                                                                                                       |  |               |  |
| Integrated PID recovery                 | Optional                                                                                                                                                                                                       |  |               |  |
| Integrated DC switch                    | Yes                                                                                                                                                                                                            |  |               |  |
| General Data                            |                                                                                                                                                                                                                |  |               |  |
| Dimensions (W × H × D)                  | 647 × 629 × 252 mm                                                                                                                                                                                             |  |               |  |
| Weight                                  | 42.1 kg                                                                                                                                                                                                        |  |               |  |
| Topology                                | Transformerless                                                                                                                                                                                                |  |               |  |
| Self-consumption (night)                | < 1 W                                                                                                                                                                                                          |  |               |  |
| Operating ambient temperature range     | -25 ~ +60°C                                                                                                                                                                                                    |  |               |  |
| Relative humidity                       | 0 - 100%                                                                                                                                                                                                       |  |               |  |
| Ingress protection                      | IP66                                                                                                                                                                                                           |  |               |  |
| Noise emission (typical)                | ≤ 60 dB(A)                                                                                                                                                                                                     |  |               |  |
| Cooling concept                         | Intelligent fan-cooling                                                                                                                                                                                        |  |               |  |
| Max. operation altitude                 | 4000 m                                                                                                                                                                                                         |  |               |  |
| Grid connection standard                | G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530 |  |               |  |
| Safety / EMC standard                   | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4                                                                                                                                                                   |  |               |  |
| Features                                |                                                                                                                                                                                                                |  |               |  |
| DC connection                           | MC4 connector                                                                                                                                                                                                  |  |               |  |
| AC connection                           | OT terminal                                                                                                                                                                                                    |  |               |  |
| Display                                 | LCD                                                                                                                                                                                                            |  |               |  |
| Communication                           | RS485, Optional: Wi-Fi, GPRS                                                                                                                                                                                   |  |               |  |

## FI G3P-(100-125)-480

### Three Phase Grid-Tied Inverters

#### Efficient

- 10 MPPTs, max. efficiency 99.0%
- > 150% DC/AC ratio
- High power tracking density 100MPPT/MW
- String current up to 16A, perfectly match large current bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- IP66
- AFCI protection, proactively reduces fire risk
- Nighttime PID recovery function (optional)
- Overvoltage load reduction and leakage current suppression technology, low failure rate

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector

#### Models:

FI G3P-100-480

FI G3P-125-480



## DATASHEET

| Models                                  | FI G3P-100-480 |  | FI G3P-125-480                                                                                                                                                                  |  |
|-----------------------------------------|----------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Input DC                                |                |  |                                                                                                                                                                                 |  |
| Max. input voltage                      |                |  | 1100 V                                                                                                                                                                          |  |
| Rated voltage                           |                |  | 720 V                                                                                                                                                                           |  |
| Start-up voltage                        |                |  | 195 V                                                                                                                                                                           |  |
| MPPT voltage range                      |                |  | 180 - 1000 V                                                                                                                                                                    |  |
| Max. input current                      |                |  | 10 × 32 A                                                                                                                                                                       |  |
| Max. short circuit current              |                |  | 10 × 40 A                                                                                                                                                                       |  |
| MPPT number / Max. input strings number |                |  | 10 / 20                                                                                                                                                                         |  |
| Output AC                               |                |  |                                                                                                                                                                                 |  |
| Rated output power                      | 100 kW         |  | 125 kW                                                                                                                                                                          |  |
| Max. apparent output power              | 110 kVA        |  | 137.5 kVA                                                                                                                                                                       |  |
| Max. output power                       | 110 kW         |  | 137.5 kW                                                                                                                                                                        |  |
| Rated grid voltage                      |                |  | 3/PE, 480 V                                                                                                                                                                     |  |
| Rated grid frequency                    |                |  | 50 Hz / 60 Hz                                                                                                                                                                   |  |
| Rated grid output current               | 120.3 A        |  | 150.4 A                                                                                                                                                                         |  |
| Max. output current                     | 132. A         |  | 165.4 A                                                                                                                                                                         |  |
| Power factor                            |                |  | > 0.99 (0.8 leading - 0.8 lagging)                                                                                                                                              |  |
| THDi                                    |                |  | < 3%                                                                                                                                                                            |  |
| Efficiency                              |                |  |                                                                                                                                                                                 |  |
| Max. efficiency                         | 98.8%          |  | 99.0%                                                                                                                                                                           |  |
| EU efficiency                           | 98.5%          |  | 98.6%                                                                                                                                                                           |  |
| Protection                              |                |  |                                                                                                                                                                                 |  |
| DC reverse-polarity protection          |                |  | Yes                                                                                                                                                                             |  |
| Short circuit protection                |                |  | Yes                                                                                                                                                                             |  |
| Output over current protection          |                |  | Yes                                                                                                                                                                             |  |
| Surge protection                        |                |  | DC Type II / AC Type II (AC Type I optional)                                                                                                                                    |  |
| Grid monitoring                         |                |  | Yes                                                                                                                                                                             |  |
| Anti-islanding protection               |                |  | Yes                                                                                                                                                                             |  |
| Temperature protection                  |                |  | Yes                                                                                                                                                                             |  |
| Strings monitoring                      |                |  | Yes                                                                                                                                                                             |  |
| I/V Curve scanning                      |                |  | Yes                                                                                                                                                                             |  |
| Integrated AFCI 2.0                     |                |  | Optional                                                                                                                                                                        |  |
| Integrated PID recovery                 |                |  | Optional                                                                                                                                                                        |  |
| Integrated DC switch                    |                |  | Yes                                                                                                                                                                             |  |
| Integrated AC switch                    |                |  | Optional                                                                                                                                                                        |  |
| General Data                            |                |  |                                                                                                                                                                                 |  |
| Dimensions (W × H × D)                  |                |  | 1065 × 567 × 344.5 mm                                                                                                                                                           |  |
| Weight                                  |                |  | 91 kg                                                                                                                                                                           |  |
| Topology                                |                |  | Transformerless                                                                                                                                                                 |  |
| Self-consumption (night)                |                |  | < 2 W                                                                                                                                                                           |  |
| Operating ambient temperature range     |                |  | -30 ~ +60°C                                                                                                                                                                     |  |
| Relative humidity                       |                |  | 0 - 100%                                                                                                                                                                        |  |
| Ingress protection                      |                |  | IP66                                                                                                                                                                            |  |
| Cooling concept                         |                |  | Intelligent fan-cooling                                                                                                                                                         |  |
| Max. operation altitude                 |                |  | 4000 m                                                                                                                                                                          |  |
| Grid connection standard                |                |  | VDE-AR-N 4105, VDE-AR-N 4110, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, TOR, UNE 206006, UNE 206007-1, CEI 0-21, IEC61727, DEWA |  |
| Safety / EMC standard                   |                |  | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4                                                                                                                                    |  |
| Features                                |                |  |                                                                                                                                                                                 |  |
| DC connection                           |                |  | MC4 connector                                                                                                                                                                   |  |
| AC connection                           |                |  | OT terminal (max. 185 mm²)                                                                                                                                                      |  |
| Display                                 |                |  | LCD                                                                                                                                                                             |  |
| Communication                           |                |  | RS485. Optional: Wi-Fi, GPRS, PLC                                                                                                                                               |  |