

# FPG-DM

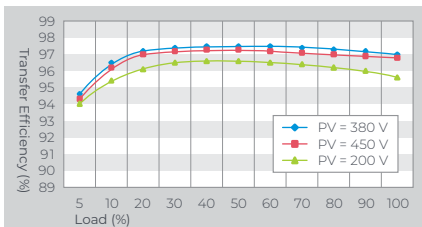
1-PHASE, DOUBLE MPPT  
GRID-TIED PV INVERTER

3.2 KW ~  
**5KW**  
MAX. OUTPUT



EFFICIENCY UPTO **97.5%** RATED **IP65**

## OVERVIEW



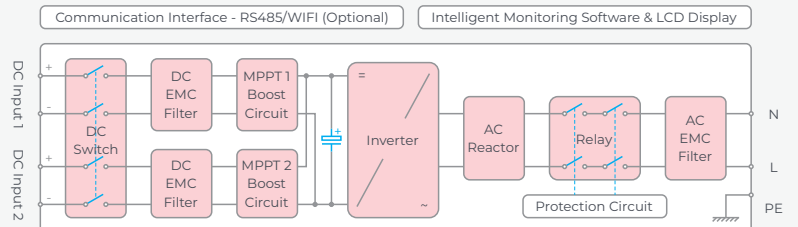
## CHOOSING FREDTON

Specialized vendor with ability to supply all the elements like PV module, inverter, mounting system, and also UPS system.

Reliable partner of distributors, installers and system integrators with local warehousing, delivery service and after sales support.

Manufacturing with international quality management standards and environment management system ISO 9001 and ISO 14001.

## Circuit Diagram



## KEY FEATURES



### Economical & Flexible

Maximum efficiency 97.5%; Maximum PV voltage up to 500V; Paralleable via RS485 port; GPRS/WIFI communication as optional.



### Safe & Reliable

Harshest IP65 industrial protection; Natural cooling; Multi-level device protection; Anti-corrosion with aluminum alloy die casting.



### Easy to Use

Smaller & lighter, simplified wall-mounting; Easy local & on-line monitoring operational status and electricity generated data.

## CERTIFICATIONS



## ELECTRICAL CHARACTERISTICS

### Input (DC)

| Part Number                       |       | FPG-DM-3.2K | FPG-DM-3.6K | FPG-DM-4K | FPG-DM-4.6K | FPG-DM-5K |
|-----------------------------------|-------|-------------|-------------|-----------|-------------|-----------|
| Maximum DC Power                  | (W)   | 3300        | 3800        | 4200      | 4600        | 5200      |
| Maximum   Norminal DC Voltage     | (VDC) | 500   380   |             |           |             |           |
| MPPT Voltage Range                | (VDC) | 100 ~ 490   |             |           |             |           |
| Full Load MPPT Voltage Range      | (VDC) | 150 ~ 400   | 145 ~ 400   | 165 ~ 400 | 200 ~ 400   | 200 ~ 400 |
| Minimum   Start DC Voltage        | (VDC) | 120   150   |             |           |             |           |
| Number of MPPT Trackers           |       | 2           |             |           |             |           |
| Strings per MPPT Tracker          |       | 1           |             |           |             |           |
| Maximum DC Power per MPPT Tracker | (W)   | 1800        | 2200        | 2500      | 3000        | 3000      |
| Maximum Current per MPPT Tracker  | (A)   | 11/11       | 13/13       | 13/13     | 13/13       | 13/13     |

### Output (AC)

|                                    |       |                           |      |      |      |      |
|------------------------------------|-------|---------------------------|------|------|------|------|
| Maximum AC Power                   | (W)   | 3000                      | 3680 | 4000 | 4600 | 5000 |
| Norminal AC Voltage   Range        | (VAC) | 230   ± 20%               |      |      |      |      |
| Norminal AC Grid Frequency   Range | (Hz)  | 50/60   ± 5               |      |      |      |      |
| Maximum Output Current             | (A)   | 14                        | 16   | 17.5 | 20   | 22   |
| Power Factor (Cos φ)               |       | 0.9 Leading ~ 0.9 Lagging |      |      |      |      |
| THDI                               |       | < 3%                      |      |      |      |      |
| AC Connection                      |       | LN+PE                     |      |      |      |      |
| Topology                           |       | Transformer-less          |      |      |      |      |

### Efficiency

|                              |     |             |  |  |  |  |
|------------------------------|-----|-------------|--|--|--|--|
| Maximum Efficiency           |     | 97.5%       |  |  |  |  |
| European Efficiency          |     | 97.0%       |  |  |  |  |
| MPPT Efficiency              |     | 99.9%       |  |  |  |  |
| Stand-by   Night Consumption | (W) | < 5   < 0.2 |  |  |  |  |

## PHYSICAL CHARACTERISTICS

| Part Number            |      | FPG-DM-3.2K     | FPG-DM-3.6K | FPG-DM-4K | FPG-DM-4.6K | FPG-DM-5K |
|------------------------|------|-----------------|-------------|-----------|-------------|-----------|
| Dimensions (W x L x D) | (mm) | 329 x 466 x 149 |             |           |             |           |
| Weight                 | (Kg) | 14.5            | 14.9        | 14.9      | 15.5        | 15.5      |

## PROTECTIONS

|                          |   |                             |      |
|--------------------------|---|-----------------------------|------|
| AC Leakage Current Fault | ■ | DC Surge                    | ■    |
| Ground Fault             | ■ | AC Surge                    | ■    |
| Anti-islanding           | ■ | DC Reverse Polarity         | ■    |
| DC Over-voltage          | ■ | Enclosure Protection Rating | IP65 |

## ENVIRONMENT

|                             |      |           |
|-----------------------------|------|-----------|
| Operating Temperature Range | (°C) | -25 ~ +60 |
| Noise Emission (Typical)    | (dB) | ≤ 25      |
| Cooling Type                |      | Natural   |

## FEATURES

|                              |   |
|------------------------------|---|
| LCD Display                  | ■ |
| DC Switch; RS485 Interface   | ■ |
| WIFI/GPRS (Overriding RS485) | □ |

## CERTIFICATIONS

|   |  |
|---|--|
| Quality Assurance                               | ISO 9001 & ISO 14001 Certified   |
| Certificates & Approvals Available upon Request | IEC 62109, IEC 61000, IEC 61727, IEC 61683, IEC 62116<br>CE, VDE 0126, EN 50438, PEA/MEA |