



## Product Description:

OG-50-90K-FM String Inverter Series is the ideal solution for commercial & industrial usage. Parallel capability upto 100nos allows to simply up the scalability and enhancing the overall plant capacity. With the characteristics of dual independent input sections with four independent MPP trackers, wide MPPT tracking range, True three phase transformer-less design, IP65 harshest industrial grade protection level, convectional cooling system and embedded RS485, WIFI and optional SNMP interface, it forms Magnizon Trio String Inverter an ideal solution for medium and large PV Power Station.

## Key Features

- ❖ From 50KW/60KW/80KW/90KW
- ❖ Wide PV input voltage range
- ❖ Rapid MPPT tracking technology
- ❖ 25years of design life
- ❖ IP65 protection degree, suitable for outdoor installation, reducing
- ❖ Redundant control circuit design for more reliability
- ❖ Unique low voltage ride through (LVRT) function
- ❖ Advanced DSP control systems
- ❖ Supports SVG function, realization of power reactive compensation at night
- ❖ Supports variety of communication protocols
- ❖ 5years warranty extendable to 10years
- ❖ Superior PV energy harvest
- ❖ Transformers less design with higher operation efficiency
- ❖ Excellent natural thermal design
- ❖ High over load capability under most ambient conditions

### Full data display and communications

- ❖ Customization LCD display all the inverter operation message
- ❖ Bright LED indicators imply system status at a glance
- ❖ PC software for remote monitoring and system troubleshooting, iOS & Android based real time power monitoring software (free for life time)
- ❖ High speed RS-232, RS-485 communications port.

### Cost advantages

- ❖ Transformer less design cutting down the cost
- ❖ Light weight and small dimension, reducing shipping cost
- ❖ IP65 protection degree, suitable for outdoor installation, reducing
- ❖ Construction cost
- ❖ Low maintenance expense

## Applicable Standards:

- ❖ ISO9001: 2015, ISO14001:2015
- ❖ Compliance to RoHs & CE
- ❖ IEC62109-1, IEC62109-2, NBT/T32004, EN61000-6-2/3/4, EN61000-3-11/12
- ❖ VDE-AR-N 4105, IEC61727, G59, G83, RD1663AS4777

## Specifications:

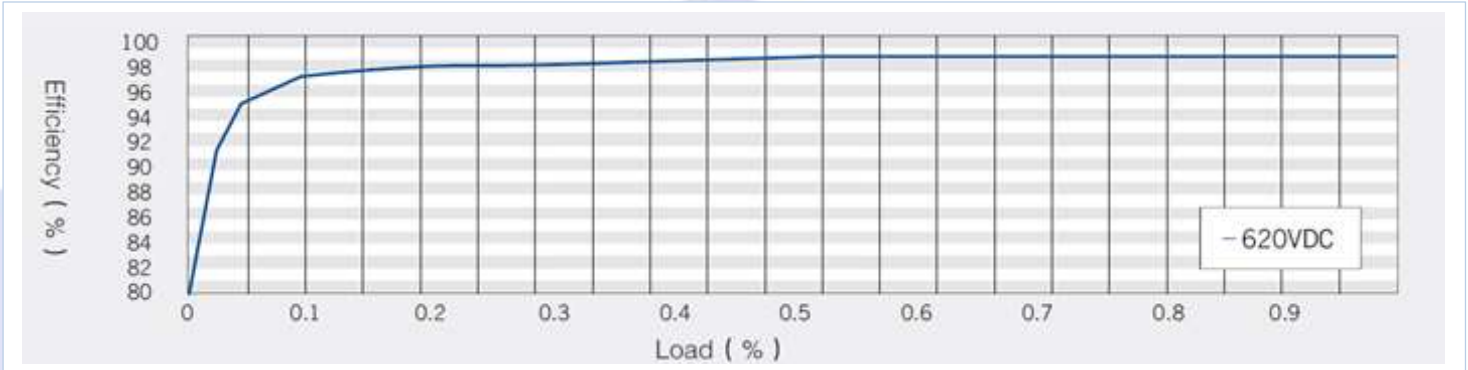
| MODEL                                    | OG-50K-FM   | OG-60K-FM             | OG-80K-FM             | OG-90K-FM             |
|--|---|-----------------------|-----------------------|-----------------------|
| <b>INPUT (DC)</b>                        |   |                       |                       |                       |
| Max. DC input power                      | 60000W  | 72000W                | 96000W                | 108000W               |
| Max.DC input voltage                     | 1100Vdc   |                       |                       |                       |
| Max. Input Current                       | 116A<br>(25/25/33/33)                                       | 132A<br>(33/33/33/33) | 146A<br>(40/40/33/33) | 160A<br>(40/40/33/33) |
| MPPT tracking voltage range              | 200~950Vdc  |                       |                       |                       |
| MPPT operating voltage range (full load) | 540-850V  |                       |                       |                       |
| Min. / start DC voltage                  | 200 / 250Vdc  |                       |                       |                       |
| Number of MPPT tracking                  | 4   | 4                     | 4                     | 4                     |
| Maximum number of PV strings             | 12(3/3/3/3)   | 12(3/3/3/3)           | 14 (4/4/3/3)          | 15 (4/4/3/3)          |
| <b>OUTPUT (AC)</b>                       |   |                       |                       |                       |
| Rated AC active power                    | 50KW  | 60KW                  | 80KW                  | 90KW                  |
| Max. AC active Power (Pf=1)              | 55KW  | 66KW                  | 88KW                  | 99KW                  |
| Max. AC apparent power                   | 55KVA   | 66KVA                 | 88KVA                 | 99KVA                 |
| Rated output voltage                     | 380/400/415Vac  |                       |                       |                       |
| AC output topology                       | 3Ph+N+PE  |                       |                       |                       |
| Output voltage range                     | (1±15%) x Normal AC Voltage (adjustable ±5%,±10%,±15%,±20%) |                       |                       |                       |
| Gird frequency range                     | 50/60Hz(±4.5Hz), (adjustable)                               |                       |                       |                       |
| Max. AC output current                   | 83A   | 92A                   | 134A                  | 150A                  |
| Power factor (cosΦ)                      | ( 0.8 leading – 0.8 lagging) (adjustable)                   |                       |                       |                       |
| Total harmonic current distortion (THDi) | <3%   |                       |                       |                       |
| DC Current Injection                     | <0.5%In   |                       |                       |                       |
| <b>Protection devices</b>                |   |                       |                       |                       |
| Input DC switch                          | YES   |                       |                       |                       |
| Anti-islanding protection                | YES   |                       |                       |                       |
| AC overcurrent protection                | YES   |                       |                       |                       |
| AC short circuit protection              | YES   |                       |                       |                       |
| DC reverse connection                    | YES   |                       |                       |                       |

**Model # OG-50-90K-FM series, 3-ph 400V AC, Grid Tie string inverters with built in 4xMPPT controllers**

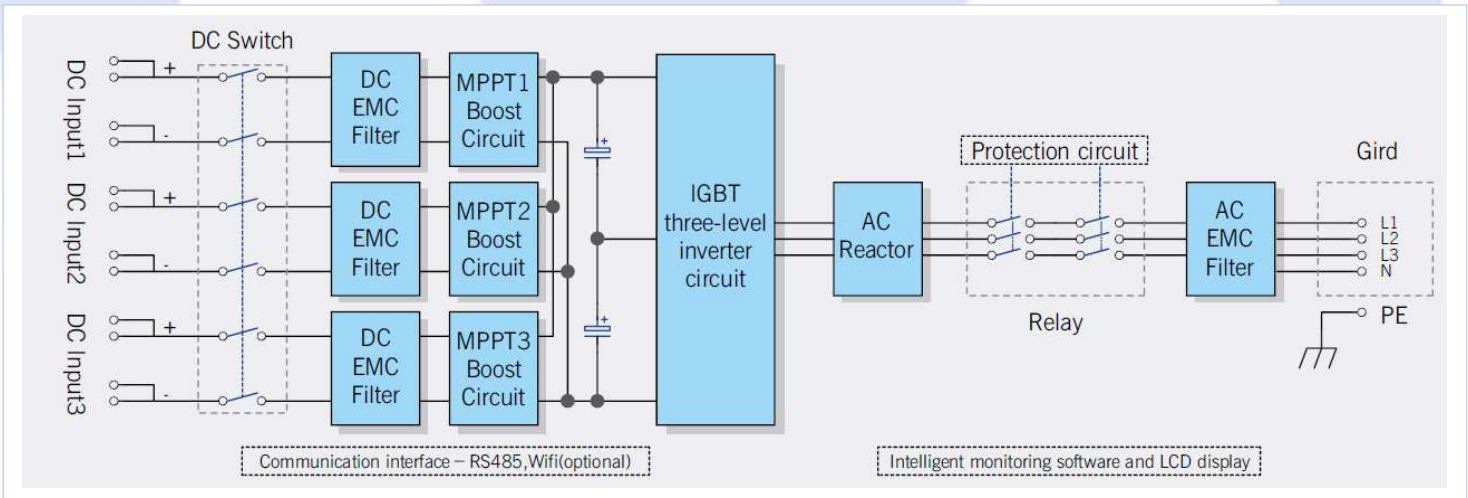
|                                      |   |       |                   |
|--------------------------------------|---|-------|-------------------|
| Anti-surge protection                | YES   |       |                   |
| Insulation resistance detection      | YES   |       |                   |
| Leakage current protection           | YES   |       |                   |
| Intelligent reactive power regulator | YES   |       |                   |
| PID                                  | YES   |       |                   |
| <b>SYSTEM FEATURES</b>               |   |       |                   |
| Topology                             | Transformer less  |       |                   |
| Max. efficiency                      | >98.8%  |       |                   |
| Euro efficiency                      | >98.4%  |       |                   |
| MPPT efficiency                      | >99%  |       |                   |
| Standby(night time) losses           | <10W  |       |                   |
| Front Panel                          | LED/LCD Display   |       |                   |
| Cooling                              | Natural Cooling   |       |                   |
| Communication interface              | RS485, WIFI, GPRS(optional)   |       |                   |
| Warranty                             | 5years(optional 10/15/20years)  |       |                   |
| <b>ENVIRONMENTAL</b>                 |   |       |                   |
| Operating temperature                | -25.0 to 60.0 °C  |       |                   |
| Humidity range                       | 0~99% (non-condensing)  |       |                   |
| Altitude                             | 4000m   |       |                   |
| Noise level                          | <30dB   |       |                   |
| Protection rating                    | IP65  |       |                   |
| <b>PHYSICAL</b>                      |   |       |                   |
| Dimension W×L×D (mm)                 | 550mm*715mm*284mm   |       | 855mm*555mm*275mm |
| Net Weight (kg)                      | 53Kgs   | 55Kgs | 67Kgs 71kgs       |
| <b>STANDARDS</b>                     |   |       |                   |
| Grid Code                            | NB/T32004, VDE-AR-N 4105, IEC 61727                                     |       |                   |
| Safety/TUV                           | IEC62109-1, IEC62109-2  |       |                   |
| EMC                                  | EN 61000-6-2 , EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12 |       |                   |
| Quality Standards                    | ISO9001:2015, ISO14001, RoHs  |       |                   |

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## Efficiency (%):



## Control Scheme:



## Bottom view:



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