THE QUALITY CHOICE
SINCE 1998
FOR ALL YOUR POWER NEEDS

PAM POWER
www.pompower.in

POM ONGRID INVERTERS

POM ONG SERIES 1 KW TO 25 KW
POM PMC SERIES 30 KW TO 350 KW



- HIGH EFFICIENCY
- WIDE VOLTAGE RANGE
- STRING CURRENT UP TO 20A
- REMOTE
- HIGH PV VOLTAGE
- LOW START UP VOLTAGE

POM ON GRID SERIES

High-Performance On-Grid Solar Inverters

The POM ONG and PMC Series represent a sophisticated line of on-grid solar inverters engineered to bridge the gap between renewable energy generation and utility infrastructure. These systems enable homeowners and commercial enterprises to optimise solar harvesting while maintaining a seamless, synchronised connection to the utility grid, ensuring that green energy is utilised with maximum efficiency and without interruption.

The POM ONG/PMC Series is the definitive choice for those seeking an efficient, safe, and highly intelligent solar integration solution. By combining high-speed processing with rugged safety features, POM ensures that your transition to solar is as reliable as it is sustainable.

Product Series & Scalability

- **POM ONG Series :** Optimised for residential and light commercial applications, ranging from 1 kW to 25 kW, with single-phase options available between 1 kW and 6 kW.
- **POM PMC Series :** Designed for heavy-duty industrial and utility-scale deployments, ranging from 30 kW to 350 kW, including three-phase support starting from 5 kW.

Advanced Operational Intelligence

The POM Ongrid ONG and PMC Series integrates smart automation and high-speed processing to ensure peak system performance through every stage of the day:

Exceptional Conversion Efficiency

The system achieves a 98.7% Peak Efficiency rating, placing it at the forefront of power electronics technology. By utilizing advanced Gallium Nitride (GaN) or Silicon Carbide (SiC) power stages (depending on the specific architecture), the inverter minimizesthermal dissipation and energy loss during the DC-to-AC conversion process. This high efficiency ensures that the maximum possible energy harvested from the PV array is delivered to the load or grid, optimizing the system's Levelized Cost of Energy (LCOE).

Advanced PV Array Oversizing (1.5x Ratio)

Designed for modern high-wattage modules, the inverter supports a 150% DC/AC oversizing ratio. This allow engineers to install up to 1.5 times the inverter's rated AC output in peak PV power.

- **Morning/Evening Boost :** The inverter reaches its full AC output capacity earlier in the day and maintains it longer into the evening.
- **Clipping Management :** The intelligent thermal management system ensures stable operation even when the DC input exceeds the AC rating, effectively "filling the curve" during low-irradiance or cloudy conditions.

Robust Environmental Protection (IP66)

The POM ONG Series is housed in an IP66-rated enclosure, providing a superior level of protection compared to standard outdoor equipment. POM ONG Series inverters are suitable for the most demanding environments, including high-humidity tropical zones, dusty industrial sites, and coastal regions.

Intelligent Safety & Arc Fault Detection

Safety is reinforced through an optional Intelligent DC Arc Fault Detection (AFCI) system. This feature uses digital signal processing (DSP) to analyse the DC current signature for high-frequency noise indicative of an electrical arc.

Grid Support & Smart Operational Modes

The inverter is equipped with a suite of "Smart Inverter" functionalities, allowing it to act as a stabilizing asset for the local electrical grid. Supported control modes include:

- **Frequency Regulation (P-F) :** Automatically modulates active power output in response to grid frequency deviations.
- **Voltage Control (Q-U) :** Adjusts reactive power based on terminal voltage to help maintain grid stability.
- **Adjustable Power Factor :** Offers a wide range (typically 0.8 leading to 0.8 lagging) to meet utility-specific requirements.
- **Intelligent Automation :** The system utilizes a "Smart Start/Stop" protocol. It initiates operation at sunrise when solar radiation reaches the required threshold and safely powers down when output drops, ensuring zero-waste operation and protecting internal components from low-power cycling.
- **Next-Gen MPPT Technology :** Featuring advanced Maximum Power Point Tracking (MPPT), the inverter constantly recalibrates to the optimal operating point of solar modules regardless of temperature or radiation fluctuations. Quad-Core Processing Power: Equipped with an intelligent quad-core processor, the series handles complex data and electrical adjustments with industry-leading speed. This enables the inverter to perform fast information processing and real-time system monitoring.

Technical Value Proposition

Feature	Performance Specification
Peak Efficiency	Achieves industry-leading high yields with a maximum efficiency of 98.8%.
Operational Stability	Robust hardware architecture supports continuous and extended output over-loading for demanding environments.
Grid Interaction	Provides a seamless DC-to-AC con-version that is fully compatible with standard utility grids.
Automated Monitoring	Performs autonomous system checks, including DC grounding detection and voltage regulation.

TECHNICAL SPECIFICATIONS

MODEL	POM 101 ONG	POM 201 ONG	POM 301 ONG	POM 401 ONG	POM 501 ONG	POM 601 ONG
INPUT						
Max. Input Power (W)	1600	3200	4800	6720	8000	9600
Start-up Voltage (V)	80					
Max. DC Input Voltage (V)	600					
Rated DC Input Voltage (V)	360					
MPPT Voltage Range (V)	100-550					
Number of MPPT Trackers	1					
Number of DC Inputs per MPPT	1					
Max. Input Current (A)	20					
Max. Short-circuit Current (A)	25					
OUTPUT						
Rated Output Power (W)	1000	2000	3000	4200	5000	6000
Max, Output Power (W)	1100	2200	3300	4620	5500	6600
Rated Output Voltage (V)	220/230V					
Rated AC Frequency (Hz)	50/60 Hz					
Max. Output Current (A)	15		25/21.7		30	
Power Factor	0.8 leading... 0.8 lagging					
Max. Total Harmonic Distortion	<3% @ Rated Output Power					
DCI	<0.5% In					
EFFICIENCY						
Max. Efficiency	98.10%					
PROTECTION	DC Reverse Polarity Protection, Insulation Resistance Protection, Over-temperature Protection, Residual Current Protection, Anti-islanding Protection, AC Short-circuit Protection, AC Over-voltage Protection					
GENERAL DATA						
Dimensions(mm)	327 *297*114				410*360*120	
Weight (kg)	13					
Protection Degree	IP66					
Operating Temperature Range (°C)	0~60					
Relative Humidity (%)	0~100					
Operating Altitude (m)	4000 (derating@>3000)					
Cooling	Natural Convection					
Noise Level (dB)	<25					
Display	OLED & LED					
Communication	RS485/WIFI/GPRS/LAN (Optional)					
Compliance	IEC62109, IEC62116, IEC61727, IEC60068, IEC61683, EN50549, EN61000					

TECHNICAL SPECIFICATIONS

MODEL	POM 501 ONG	POM 601 ONG	POM 801 ONG	POM 1001 ONG	POM 1201 ONG	POM 1501 ONG	POM 1701 ONG	POM 2001 ONG	POM 2501 ONG
INPUT									
Max. Input Power (W)	8000	9600	12800	16000	19200	24000	27200	32000	40000
Start-up Voltage (V)	180								
Max. DC Input Voltage (V)	1100								
Rated DC Input Voltage (V)	620								
MPPT Voltage Range (V)	160-1000								
Number of MPPT Trackers	2-4								
Number of DC Inputs per MPPT	1								
Max. Input Current (A)	20/20								
Max. Short-circuit Current (A)	25/25								
OUTPUT									
Rated Output Power (W)	5000	6000	8000	10000	12000	15000	17000	20000	25000
Rated Output Voltage (V)	3L/N/PE, 400 V								
Rated AC Frequency (Hz)	50/60 Hz								
Max. Output Current (A)	8.4	10	13.3	16.5	20	25	28.4	31.9	39
Power Factor	0.8 leading... 0.8 lagging								
Max. Total Harmonic Distortion	<3% @ rated output power								
DCI	< 0.5 % in								
EFFICIENCY									
Max. Efficiency	> 98.60%								
PROTECTION	DC Reverse Polarity Protection, Integrated Insulation Resistance Protection, Surge Protection, Over-temperature Protection, Residual Current Protection, Anti-islanding Protection, AC Short-circuit Protection , AC Over-voltage Protection								
GENERAL DATA									
Dimensions(mm)	550W x 410H x 175D								
Weight (kg)	29								
Protection Degree	IP66								
Self-consumption at Night (W)	<1								
Topology	Transformer less								
Operating Temperature Range (°C)	0~60								
Relative Humidity (%)	0-100								
Operating Altitude (m)	4000 (derating@>3000)								
Cooling	Natural Convection								Smart Fan Cooling
Noise Level (dB)	<25								<40
Display	OLED & LED								
Communication	RS485/WIFI/GPRS/LAN (Optional)								
Compliance	IEC62109, IEC62116, IEC61727, IEC60068, IEC61683, EN50549, EN61000								

TECHNICAL SPECIFICATIONS

MODEL	PMC SI 30K	PMC SI 33K	PMC SI 36K	PMC SI 40K	PMC SI 50K	PMC SI 60K	PMC SI 70K	PMC SI 80K	PMC SI 90K	PMC SI 100K
INPUT										
Max. Input Power (W)	48000	52800	57600	64000	70000	78000	91000	96000	108000	120000
Max. DC Input Voltage (V)	1100									
Rated DC Input Voltage (V)	620								750	
MPPT Voltage Range (V)	180-1000							200-950		
Number of MPPT Trackers	4							8		
Number of DC Inputs per MPPT	2									
Max. Input Current (A)	32									
Max. Short-circuit Current (A)	40									
OUTPUT										
Rated Output Power (W)	30000	33000	36000	40000	50000	60000	70000	80000	90000	100000
Rated Output Voltage (V)	3L/N/PE, 400V									
Rated AC Frequency (Hz)	50/60 Hz									
Max. Output Current (A)	47.8	52.6	57.4	63.8	79.7	95.7	111.6	127	143.5	158.8
Power Factor	0.8 leading ... 0.8 lagging									
Max. Total Harmonic Distortion	<3% @ Rated Output Power									
EFFICIENCY										
Max. Efficiency	98.80%									
PROTECTION	DC Reverse Polarity Protection, Insulation Resistance Protection, DC Switch, Surge Protection, Over-temperature Protection, Residual Current Protection, Anti-islanding Protection, AC Short-circuit Protection, AC Over-voltage Protection									
GENERAL DATA										
Dimensions(mm)	600W x 400H x 270D								975W x 680H x 290D	
Weight (kg)	42							79		
Protection Degree	IP66									
Self-consumption at Night (W)	< 1									
Topology	Transformer less									
Operating Temperature Range (°C)	0~60									
Operating Altitude (m)	4000 (derating@>3000)									
Cooling	Smart Fan Cooling									
Noise Level (dB)	< 50									
Display	OLED & LED									
Communication	RS485/WIFI/GPRS/LAN (Optional)									
Compliance	IEC62109, IEC62116, IEC61727, IEC60068, IEC61683, EN50549, EN61000									

OUR BRANCHES

NEW DELHI
F-128, Ground Floor & Second Floor Room No. 203
Jhandu Mention Building Mohammadpur Village
New Delhi – 110066 , Mob . 9035679578

CHENNAI
#2, Muthaiyal Street, First Floor, Little Mount, Saidapet,
Chennai - 600 015, Mob: 9108992485.

TRIVANDRUM
TC 20/1361 (1), G Floor, Amal Plaza, Kudapanakunnu P. O,
Thiruvananthapuram - 695 043 Mob. 9035032567

COIMBATORE
Skyon, # 451, Ist Floor, Kamarajar Road, Peelamedu
Coimbatore – 641004, Mob :9036180749

VISAKHAPATNAM
No : 50-27-17/4, Seethammadhara NE NRI Hospital Road,
Visakhapatnam – 530013, Mob. 9902228907

HUBBALLI
Shop No. 03, Ground Floor, Sri Lakshmi Complex
Opp. Rotory School , Deshpande Nagar, Hubballi
Dharwad (Dist) Pin 580020, Mob. 9036180742

HYDERABAD
No: 64-9/2 and 6-4-9/2/A, Bholakpur Secunderabad,
Hyderabad - 500 080, Mob. 9902231099

KOLKATA
D 2/2, Block EP & GP, Convergence Contact Centre
Sector 5, Bidhan Nagar, Salt Lake, Kolkata
Mob: 9036180747

AHMEDABAD
A-413, Supath-2 Complex, near Regenta Hotel
Opp. Old Vadaj Bus Stop, Umanpura, Ashram Road
Ahmedabad-380013, Mob . 9036180746

ERNAKULAM
VRWA - 49 , 52 / 2898 A, Kooduthotty Behind
SBI Vytilla Branch, Maplassery Road, Kochi-682019
Mob. 9035070283

PATNA
Near Shyama Villa Apartment,Road No 6 Rajapur
Boring Road, Patna-800001, Mob. 9606978032

TIRUPATI
No 16, Sri Nilayam, H No 15-191 Ground Floor
Dhanalakshmi Nagar Extn, Gandhipuram
Tirupati-517507 , Mob. 9035032565

PUNE
Plot no P 81, D 2 Block, Behind Kabre Hospital MIDC
Chinchawad, Pune - 411 038, Mob . 9036180744

MUMBAI
No. 620, Marathon Max, Mulund Goregaon Link Road,
Mulund West, Mumbai - 400 080 Mob. 9035032568

LUCKNOW
451/6 Indira Nagar, A-Block, Lucknow-226016
Mob. 9606978038

UDUPI
Door No -6-99 B-5 Manchi, 1st Cross Indrali Alevoor Road
Udupi - 576104, Mob. 9606978037

VIJAYAWADA
No : 39-9-42, SVS Temple Street, Labbipet
Vijayawada - 520 010, Mob. 9902228907

NOIDA
A321, Anthurium,Sector 73, Noida, UP-201301
Mob: 9902226370

CHANDIGARH
05, Raipur Khurd, Behind Tribune Colony
Chandigarh-160003, Mob : 9902226370



SOLAR INVERTERS
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