

### MICRO INVERTER ON-GRID SOLAR PACKAGES





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Self-consumption packages with TommaTech solar modules and micro-inverters are designed to increase the use of clean and unlimited solar energy in buildings. The easy-to-install system, consisting of inverter, solar module and connection cables, is a plug-and-play concept. The solar cable from the solar panel is connected to the inverter and the simple installation of the system is done by connecting the cable from the inverter to the 220/230V grid using a power outlet. This system, which paves the way for the private use of solar energy, can be easily used by placing the solar panels in a suitable location in your home or office.









#### High Conversion Efficiency High panel efficiency to guarantee high power output



#### Self-Cleaning And Anti-Reflection Glass Coating glass for self-cleaning reduces surface dust



# Outstanding Low Irradiation Glass



#### Excellent Durability Wind load up to 2400 Pa, Snow load up to 5400 Pa

0~+5W

#### $0 \sim +5W$ Positive Power Tolerance



### Easy Installation



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018











### **TOMMATECH - TT240 / 48PM12**

Maximum Power Voltage (Vmp)	27.70	28.10		
Maximum Power Current (Imp)	8.67	8.90		
Open Circuit Voltage (Voc)	32.50	32.90		
Short Circuit Current (Isc)	9.11	9.50		
Cell per Module	48 (6x8)			
<b>Cell Dimensions (mm)</b>	210x105			
Panel Dimensions (mm)	931x1	303x30		
Weight (kg)	13	.46		
Voltage (V)	1	12		
<b>Operating Temperature</b>	-40 ~	+85°C		

#### **MECHANICAL SPECIFICATIONS**

Solar Glass	3.2mm Low iron, Tempered Glass
Frame	Anodized Aluminum
Junction Box	IP67 / IP68
Cable	4mm²
Cable Length	500mm

Temp. Coeff. of (lsc)	0.050%/°C
Temp. Coeff. of (Voc)	-0.270%/°C
Temp. Coeff. of (Pmax)	-0.350%/°C

#### **PHYSICAL CHARACTERISTICS**

Unit: mm





\* The specifications are obtained under the standard test conditions: 1000W/m² solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 6%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

\* For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation not in accordance with the guidelines as outlined in the installation manual will terminate the warranty. Please refer to the installation manual and the warranty documents for further details. \* TommaTech® GmbH reserves the right to change the specification of products without prior notice.



### **MICRO INVERTER**







> The simplest and most economical system for

- > your power generation needs
- > Long service life
- > Wide operating temperature range
- > Durable metal housing
- > Easy installation
- > IP67 protection
- > Natural cooling concept

MODEL	ONG-TT-INV-300	
	240, 700	
	240~380	
MPPT operating range [V]	29~48	
Min. operating voltage [V]	22	
Operating voltage range [V]	16~60	
Max. Input voltage [V]	60	
Max. Input current [A]	11.5	
AC OUTPUT		
AC rated output power [VA]	300	
Rated output current [A]	1.36 / 1.30 / 1.25	
Nominal output voltage [V]	220 / 230 / 240	
Nominal output voltage range [V]	180-275	
Nominal frequency range [Hz]	50/45-55 or 60/55-65	
Power factor	>0.99 0.8 Leading ~ 0.8 Lacking	
THDi [nominal power] [%]	<3%	
SYSTEM DATA		
Nominal MPPT efficiency [%]	99.80	
Standby consumption [W]	<5	
Operating temperature [C]	-40 ~ +65	
Dimensions (WxHxD) [mm]	182 x 164 x 29.50	
Weight [kg]	1,98	
Protection class	IP67	
Cooling concept	Natural cooling	
Communication interface	2.4GHz RF	
Monitoring	Optional	

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## **ON-GRID PACKAGES**



PACKAGE CODE	USED SOLAR PANEL (Pcs)	AVERAGE ENERGY PRODUCTION PER DAY (Wh)	INVERTER CAPACITY (W)	USED PANEL AREA (m²)	
ONG-TT-01-INV300	TT240WP 48PM12 x 1	960	300	1.21	

Note: The usage times and generation values mentioned above have been calculated by taking the annual average sunshine duration (4 hours per day) for Türkiye as an example. The produced energy and consumption times may vary depending on weather conditions and region.

	Package Code	Product Description	Quantity	Unit
	<u>ب</u>	TommaTech 240Wp 48PM12 Half-Cut MB Solar Panel	1	Piece
	- S N	TommaTech ONG-TT-INV-300 Micro Inverter	1	Piece
	2 P	Balcony infrastructure set	1	Piece





In the above graph, the solar radiation of 1450 kWh/m2 -year and the optimal angle of the modules were calculated. The obtained data may vary depending on the installation region and module angle.

In the TommaTech Solar Power Set, all solar energy generated must be consumed immediately when the inverter is connected to the solar panel and outlet and the system is active. If there is no consumption or if the energy generated is higher than the energy consumed, the excess solar energy generated may appear as an additional payment on your bill.

### **ON-GRID PACKAGES**



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#### TT-300 2x240Wp Micro Inverter Package 2.PACKAGE CODE: ONG-TT-02-INV300



PACKAGE CODE	USED SOLAR PANEL (Pcs)	AVERAGE ENERGY PRODUCTION PER DAY (Wh)	INVERTER CAPACITY (W)	USED PANEL AREA (m²)	
ONG-TT-02-INV300	TT240WP 48PM12 x 2	1920	300	2.42	

Note: The usage times and generation values mentioned above have been calculated by taking the annual average sunshine duration (4 hours per day) for Türkiye as an example. The produced energy and consumption times may vary depending on weather conditions and region.

	Package Code	Product Description	Quantity	Unit
	₩ 200	TommaTech 240Wp 48PM12 Half-Cut MB Solar Panel	2	Piece
		TommaTech ONG-TT-INV-300 Micro Inverter	1	Piece
	9 9	Balcony infrastructure set	2	Piece





In the above graph, the solar radiation of 1450 kWh/m2 -year and the optimal angle of the modules were calculated. The obtained data may vary depending on the installation region and module angle.

In the TommaTech Solar Power Set, all solar energy generated must be consumed immediately when the inverter is connected to the solar panel and outlet and the system is active. If there is no consumption or if the energy generated is higher than the energy consumed, the excess solar energy generated may appear as an additional payment on your bill.

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# Reduce your energy costs and CO<sub>2</sub> emissions with Solar Energy

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