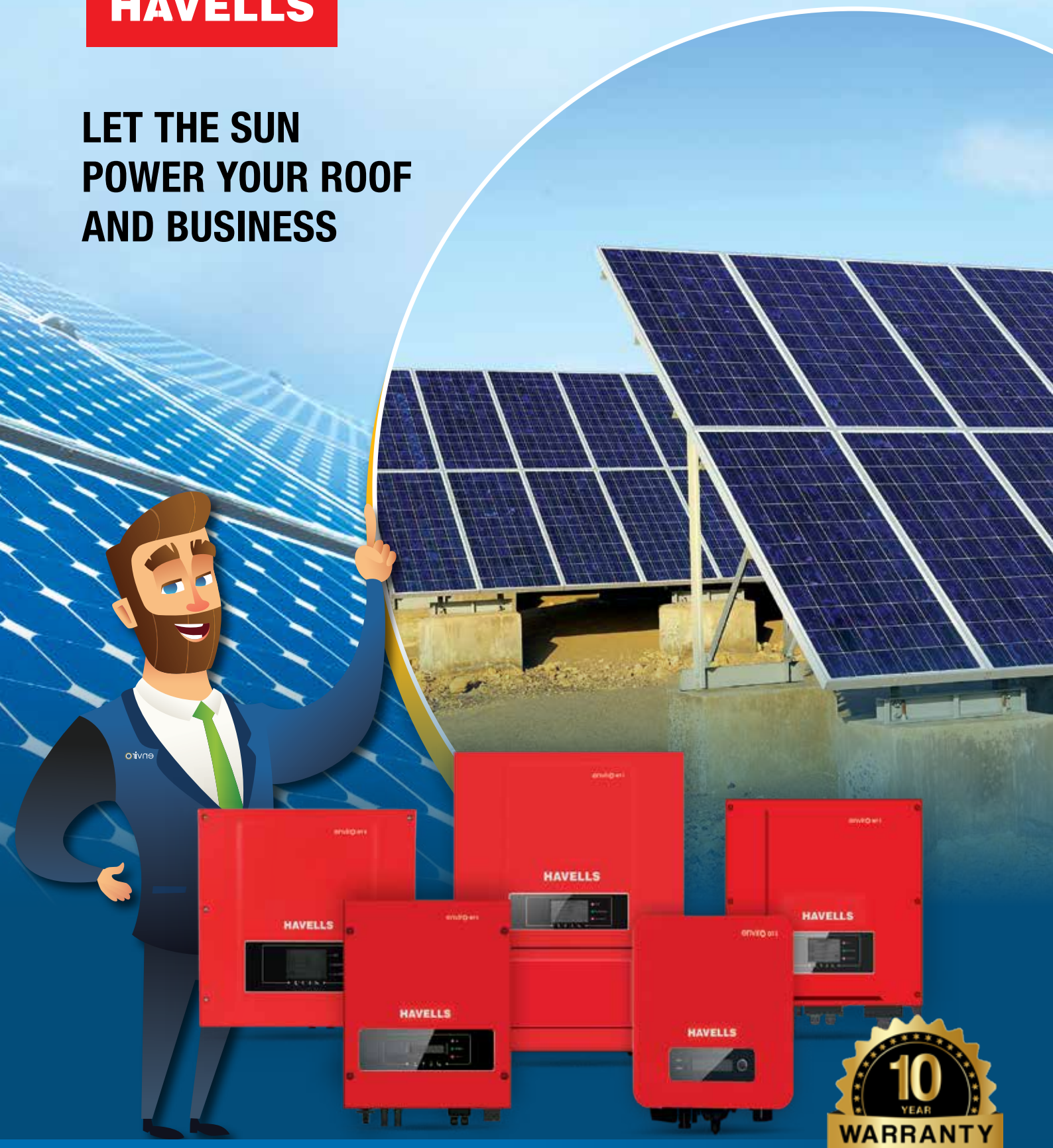
HAVELLS

enviro
HARNESSING LIGHT. HARVESTING ENERGY.

LET THE SUN POWER YOUR ROOF AND BUSINESS



HAVELLS SOLAR GRID-TIE INVERTER
1 kW TO 100 kW



Introduction of

Havells

Havells India Limited is a leading Fast Moving Electrical Goods (FMEG) Company and a major power distribution equipment manufacturer with a strong global presence. Havells enjoys enviable market dominance across a wide spectrum of products, including Industrial & Domestic Circuit Protection Devices, Cables & Wires, Motors, Fans, Modular Switches, Home Appliances, Air Conditioners, Electric Water Heaters, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial and Industrial Applications.

Today, Havells owns some of the most prestigious brands like Havells, Lloyd, Crabtree, Standard and Promptec. Its network constitutes of 4000 professionals, over 7575 dealers and 40 branches in the country. Our products are avaiLevel in 40 countries. The company has twelve state-of-the-art manufacturing plants in India located at Haridwar, Baddi, Sahibabad, Faridabad, Assam, Alwar and Neemrana, manufacturing globally acclaimed products, synonymous with excellence and precision in the electrical industry.

The company pioneered the concept of exclusive brand showroom in the electrical industry with 'Havells Galaxy'. Today over 415 Havells Galaxies across the country are helping customers, both domestic and commercial, to choose from a wide variety of products for different applications. Havells became the first FMEG Company to offer door step service via its initiative 'Havells Connect'. Thanks to the quality of products and quicker service, it has minimum customer complaints and highest customer satisfaction.

Today, Havells alongwith its brands, have earned the distinction of being the preferred choice of electrical products for discerning individuals and industrial consumers both in India and abroad. Havells offers same quality products for both Indian and International markets. It is committed to keep powering the world with its state-of-the-art innovations and energy-efficient solutions. Currently over 90% of its product offerings are energy efficient and manufactured in-house.

Social and environmental responsibility has been at the forefront of Havells Operating Philosophy and as a result the company consistently contributes to socially responsible activities. For instance, the company is providing mid-day meal in government schools in Alwar district, covering more than 57000 students per day. The group company, QRG Healthcare runs a 140 bed hospital in Faridabad. In the past, the company has generously contributed to the society during various national calamities like the Bihar Flood, Tsunami and Kargil National Relief Fund, etc.

The essence of Havells' success lies in the expertise of its fine team of professionals, strong relationships with associates and the ability to adapt quickly & efficiently, coupled with the vision to always think ahead.

ENVIRO GTI SINGLE PHASE AND THREE PHASE



- Models - Enviro GTi 1100 NG - 1.1 kW, 2200 NG - 2.2 kW, 3000 NG - 3 kW & 3300 NG - 3.3 kW
- BIS and IEC Certified
- Single Phase Single MPPT suitable for Residential application
- High efficiency inverter up to 97.7 %
- Built-in Zero Export Feature
- WiFi / GPRS Data logger, RS485
- USB port for software update

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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- Models - Enviro GTi 4000 D - 4 kW, 5000 D - 5 kW, 6000 D - 6 kW
- BIS and IEC Certified
- Single Phase DUAL MPPT suitable for Residential application
- High efficiency inverter up to 98 %
- Built-in Zero Export Feature
- WiFi / GPRS Data logger, RS485
- SD card for 25 years data storage locally

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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- Models - Enviro GTi 4000 D - NG, 5000 D - NG, 6000 D - NG.
- IEC Certified
- High efficiency inverter up to 98.4 %
- Built-in Zero Export Feature
- 1.5 times DC Over loading per MPPT
- WiFi / GPRS Data logger USB Type
- Online Software Upgrade

ENVIRO GTI SINGLE PHASE AND THREE PHASE



- Models - Enviro GTi 5500 TX - 5 kW, 6600 TX - 6 kW, 8800 TX - 8 kW & 11000 TX - 10 kW
- BIS and IEC Certified
- Three Phase DUAL MPPT suitable for Commercial application
- High efficiency inverter up to 98.3 %
- Built in DC Switch
- 4 inch LCD display for generation data
- WiFi / GPRS Data logger, RS485
- SD card for 25 years data storage locally
- Anti-Reverse Power control (APRC) - Optional

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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- Models - Enviro GTi 5000 TX NG - 5 kW, 6600 TX NG - 6 kW, 8800 TX NG - 8 kW, 11000 TX NG - 10 kW
- IEC Certified
- 1.5 times DC Over loading per MPPT
- High efficiency inverter up to 98.6 %
- Maximum DC input Voltage 1100 V
- Inbuilt type II-SPD for DC & AC Side
- String Level Monitoring
- Online Software Upgrade
- WiFi / GPRS Data logger USB Type



- Models - Enviro GTi 15 KT NG -15 kW, 20 KT NG - 20 kW, 24 KT NG - 24 kW,
- IEC Certified
- 1.5 times DC Over loading per MPPT
- High efficiency inverter up to 98.6 %
- Maximum DC input Voltage 1100 V
- Inbuilt type II - SPD for DC & AC Side
- String Level Monitoring
- Online Software Upgrade
- WiFi / GPRS Data logger USB Type

ENVIRO GTI SINGLE PHASE AND THREE PHASE



- Models - Enviro GTi 20000 TD - 20 kW & 30000 TD - 30 kW
- Three Phase DUAL MPPT suitable for Commercial application
- High efficiency inverter up to 98.6 %
- Built in DC Switch
- 4 inch LCD display for generation data
- BIS and IEC Certified
- WiFi / GPRS Data logger, RS485
- SD card for 25 years data storage locally
- Anti - Reverse Power control (APRC) - Optional

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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- Models - Enviro GTi 25 KT NG - 25 kW, 30 KT NG - 30 kW, 40 KT NG - 40 kW, 50 KT NG - 50 kW,
- IEC Certified
- 3 / 4 MPPT with1.5 times DC Overloading
- Maximum DC input Voltage 1100 V
- High efficiency inverter up to 98.9 %
- Inbuilt type II-SPD for DC & AC Side
- String Level Monitoring
- Online Software Upgrade
- WiFi / GPRS Data logger USB Type



- Models - Enviro GTi 50 KT - 50 kW & 60 KT - 60 kW
- Three Phase THREE MPPT suitable for Commercial application
- High efficiency inverter up to 98.6 %
- Built in DC Switch, DC SPD Type II
- 4 inch LCD display for generation data
- BIS and IEC Certified
- WiFi / GPRS Data logger, RS485, RRCR Port
- SD card for 25 years data storage locally
- Anti - Reverse Power control (APRC) – Optional

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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ENVIRO GTI SINGLE PHASE AND THREE PHASE



- Models - Enviro GTi 80 KT - 80 kW & 100 KT - 100 kW
- Three Phase, 8 to 10 MPPTs
- High efficiency inverter up to 98.7 %
- Built in DC Switch,
- Inbuilt DC SPD Type II, AC SPD Type II
- WiFi / GPRS Data logger, RS485
- IEC Certified

IS 16221 (PART 2):2015/IEC 62109-2 :2011
IS 16169 :2014/IEC 62116 :2008

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- Models - Enviro GTi 60 KT NG - 60 kW,
  80 KT NG - 80 kW,
- IEC Certified
- 6 MPPT with1.5 times DC Overloading
- Maximum DC input Voltage 1100 V
- High efficiency inverter up to 98.7 %
- Inbuilt type II - SPD for DC & AC Side
- String Level Monitoring
- Online Software Upgrade
- WiFi / GPRS Data logger USB Type

TECHNICAL SPECIFICATION OF SINGLE PHASE SOLAR GRID TIE INVERTER

DATASHEET	Enviro GTi 1100 NG	Enviro GTi 2200 NG	Enviro GTi 3000 NG	Enviro GTi 3300 NG
Input (DC)				
Recommended Max. PV input power	1500 Wp	3000 Wp	4100 Wp	4500 Wp
Max. Input voltage	500 V	500 V	550 V	550 V
Start-up voltage	70 V	70 V	70 V	70 V
Rated input voltage	360 V	360 V	360 V	360 V
MPPT operating voltage range	50 V - 500 V	50 V - 500 V	50 V - 550 V	50 V - 550 V
Full power MPPT voltage range	110 - 450 V	200 - 450 V	270-500 V	300 V - 500 V
Max. Input current MPPT	12 A	12 A	12 A	12 A
Maxnimun DC input short circuit current per MPPT	15 A	15 A	15 A	15 A
Number of MPPT / String per MPPT	1/1	1/1	1/1	1/1
Input terminal type	MC4 / H4	MC4 / H4	MC4 / H4	MC4 / H4
Output (AC)				
Rated Power	1100 W	2200 W	3000 W	3300 W
Max. AC Power	1100 VA	2200 VA	3000 VA	3300 VA
Rated Output current	4.8 A	9.6 A	13 A	14.3 A
Max. Output Current	5.3 A	10.6 A	14.5 A	16 A
Nominal Grid Voltage	L / N / PE, 220 Vac, 230 Vac, 240 Vac			
Grid Voltage Range	180 Vac - 276 Vac (According to local standard)			
Nominal Frequency	50 Hz / 60 Hz			
Grid Frequency Range	45~55 Hz			
THDi	<3 %			
Power factor	1default (adjustable+/- 0.8)			
Efficiency				
Max. efficiency	97.5 %	97.5 %	97.7 %	97.7 %
European weighted efficiency	96.9 %	96.9 %	97.2 %	97.2 %
Self Consumption at night	< 1 W			
MPPT Efficiency	> 99.9 %			
Protection				
Anti-Islanding protection	Yes			
DC reverse polarity protection	Yes			
Over temp protection	Yes			
Leakage current protection	Yes			
Over voltage protection	Yes			
Over current protection	Yes			
Earth fault protection	Yes			
SPD	MOV: Type III standard			
Communication				
Standard Communication Mode	RS485, WiFi/GPRS/Ethernet(optional), USB			
General Data				
Topology	Transformerless			
Ambient temperature range	-30 °C ~+60 °C			
Allowable relative humidity range	0~100 %			
Noise	<25 dB			
DC switch	optional			
Cooling	Natural			
Max. Operating altitude	2000 m			
Dimension [mm]	303 x 260.5 x 118 mm	303 x 260.5 x118 mm	321 x 260.5 x 131.5 mm	321 x 260.5 x 131.5 mm
Support bracket	Wall Mounted			
Weight	5.5 kg	5.5 kg	6.3 kg	6.3 kg
Display	LCD+LED			
Degree of protection	IP65			
Warranty	10 years			
Standard				
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4,			
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 62109-1/2			
BIS Certified	IS 16221 (PART 2) : 2015/IEC 62109-2 : 2011 & IS 16169 : 2014/IEC 62116 : 2008			

TECHNICAL SPECIFICATION OF SINGLE PHASE SOLAR GRID TIE INVERTER

DATASHEET	Enviro GTi 4000 D	Enviro GTi 5000 D	Enviro GTi 6000 D
Input (DC)			
Max. Input power	5320 Wp	6650 Wp	7980 Wp
Max. DC power for single MPPT	3500 W	3500 W	3500 W
Number of independent MPPT	2		
Number of DC inputs	1/1		
Max. input voltage	600 V		
Start-up input voltage	120 V		
Rated input voltage	360 V		
MPPT Operating voltage range	90 V - 580 V		
Full power MPPT voltage range	200 V - 520 V	250 V - 520 V	300 V - 520 V
Max. input current per MPPT	11 A / 11 A		
Maximum DC input Isc per MPPT	13.2 A		
Output (AC)			
Rated Power	4000 W	5000 W	6000 W
Max. AC Power	4000 VA	5000 VA	6000 VA
Max. Output Current	18.2 A	22.8 A	27.3 A
Nominal Grid Voltage	L / N / PE, 220 V ac, 230 V ac, 240 V ac		
Grid Voltage Range	180 V ac~276 V ac (According to local standard)		
Nominal Frequency	50 Hz / 60 Hz		
Grid Frequency Range	45 Hz~55 Hz (According to local standard)		
Active power adjustable range	0~100 %		
THDi	<3 %		
Power factor	1 (adjustable +/- 0.8)		
Power Limit export	Zero export or adjustable power limit export		
Performance			
Max. efficiency	98.0 %		
Weighted eff. (EU/CEC)	97.5 %		
Self-consumption at night	<1 W		
MPPT efficiency	>99.9 %		
Protection			
DC Reverse Polarity Protection Yes	Yes		
DC Switch	optional		
Protection class/overvoltage catagory	I / III		
Input / output MOV (III)	Yes		
Safety protection	Anti islanding, RCMU, Ground fault monitoring		
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30), IEC 62109 -1/2, IEC 61000. IP65		
SPD	MOV : Type III standard		
Communication			
Power management unit	According to certification and request		
Standard Communication Mode	RS485 WiFi/GPRS (optional), SD card		
Operation Data Storage	25 years		
General Data			
Ambient temperature range	-25 °C~+60 °C		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0....100 %		
Max. operating altitude	2000 m		
Noise	<25 dB		
Weight	11.5 kg		
Cooling	Natural		
Dimension	405 mm x 315 mm x 135 mm		
Display	LCD display		
Warranty	10 years		
BIS Certified	IS 16221 (PART 2):2015/IEC 62109-2 :2011 & IS 16169 :2014/IEC 62116 :2008		

TECHNICAL SPECIFICATION OF SINGLE PHASE - NG SERIES

DATASHEET	Enviro GTi 4000 D-NG	Enviro GTi 5000 D-NG	Enviro GTi 6000 D-NG
Input (DC)			
Recommended Max. PV input power	6000 Wp	7500 Wp	9000 Wp
Max. DC power for single MPPT	3500 W	3750 W	4500 W
Number of MPP trackers	2		
Number of DC inputs	1 for each MPPT		
Max. Input voltage	600 V		
Start-up voltage	90 V		
Rated input voltage	380 V		
MPPT operating voltage range	80 V - 550 V		
Full power MPPT voltage range	200 V - 500 V	210 V - 500 V	260 V - 500 V
Max. Input MPPT current	15 A / 15 A		
Max. input short circuit current per MPPT	22.5 A / 22.5 A		
Output (AC)			
Rated Power	4000 W	5000 W	6000 W
Max. AC Power	4400 VA	5500 VA	6000 VA
Nominal output current	18.2 A	22.7 A	27.3 A
Max. Output current	20 A	25 A	29 A
Nominal grid voltage	L/N/PE, 220 Vac, 230 Vac, 240 Vac		
Grid voltage range	180 Vac-276 Vac (According to local standard)		
Nominal frequency	50 Hz / 60 Hz		
Grid frequency range	45 Hz - 55 Hz (According to local standard)		
Active power adjustable range	0~100 %		
THDi	<3 %		
Power factor	1default (adjustable+/-0. 8)		
Performance			
Max. efficiency	98.2 %	98.4 %	98.4 %
European efficiency	97.3 %	97.5 %	97.5 %
Protection			
DC Reverse Polarity Protection	Yes		
DC Switch	optional		
AFCI protection	optional		
Protection class/overvoltage category	I / III		
Safety protection	Anti islanding, RCMU, Ground fault monitoring		
SPD	MOV: Type III standard		
Communication			
Standard communication mode	RS485 / USB, Optional: WiFi / GPRS		
General Data			
Ambient temperature range	-30 °C ~+60 °C		
Self-consumption at night	<1 W		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0~100 %		
Max. Operating altitude	4000 m		
Noise	<25 dB		
Weight	9.2 kg	10 kg	10 kg
Cooling	Natural		
Dimension	349 mm x 344 mm x 164 mm		
Display	LCD		
Warranty	10 years		
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4,		
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 62109-1/2		

TECHNICAL SPECIFICATION OF THREE PHASE SOLAR GRID TIE INVERTER

DATASHEET	Enviro GTi 5500TX	Enviro GTi 6600TX	Enviro GTi 8800TX	Enviro GTi 11000TX
Input (DC)				
Typical PV Power	7320 Wp	8780 Wp	11710 Wp	14630 Wp
Max. DC power per MPPT	5700 W	6250 W	6200 W	6200 W
Number of independent MPPT	2			
Number of DC inputs	1 for each MPPT			
Max. input voltage	1000 V			
Start-up input voltage	200 V			
Rated input voltage	600 V			
MPPT Operating voltage range	160 V - 960 V			
Full Power MPPT Voltage Range	240 V - 850 V	290 V - 850 V	380 V - 850 V	480 V - 850 V
Max. input current per MPPT	11 A / 11 A			
Input short circuit current for each Mppt	14 A			
Output (AC)				
Rated Power	5000 W	6000 W	8000 W	10000 W
Max. AC Power	5500 VA	6600 VA	8800 VA	11000 VA
Max. Output Current	8.0 A	9.6 A	12.8 A	15.9 A
Nominal Grid Voltage	3 / N / PE, 220 V / 380 V or 3/N/PE, 240 V / 415 V or 3/N/PE, 230 Vac /400 Vac			
Grid Voltage Range	310 Vac - 480 Vac (According to local standard)			
Nominal Frequency	50 Hz / 60 Hz			
Grid Frequency Range	45 Hz- 55 Hz (According to local standard)			
Active power adjustable range	0~100 %			
THDi	<3 %			
Power factor	1 (adjustable +/- 0.8)			
Power limit export	Zero Export or adjustable power limit export			
Performance				
Max. efficiency	98.0 %	98.0 %	98.3 %	
Weighted eff. (EU/CEC)	97.5 %	97.5 %	98 %	
Self-consumption at night	<1 W			
MPPT efficiency	>99.9 %			
Protection				
DC Reverse Polarity Protection	Yes			
DC Switch	Yes			
Safety protection	Anti islanding, RCMU, Ground fault monitoring			
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30), IEC 62109 -1/2, IEC61000 IP65			
ARPC	Anti Reverse Power Controller(optional)			
Communication				
Power management unit	According to certification and request			
Standard Communication Mode	RS485 WiFi/GPRS (optional), SD card			
Operation Data Storage	25 years			
General Data				
Ambient temperature range	-25 °C~+60 °C			
Topology	Transformerless			
Degree of protection	IP65			
Allowable relative humidity range	0....100 %			
Max. operating altitude	2000 m			
Noise	<29 dB			
Weight	21 kg	21 kg	22 kg	
Cooling	Natural			
Dimension	457 mm x 452 mm x 202 mm		457 mm x 452 mm x 202 mm	
Display	LCD display			
Warranty	10 years			
BIS Certified	IS 16221 (PART 2): 2015/IEC 62109-2 : 2011 & IS 16169 : 2014/IEC 62116 : 2008			

TECHNICAL SPECIFICATION OF THREE PHASE - NG SERIES

DATASHEET	Enviro GTi 5500 TX-NG	Enviro GTi 6000 TX-NG	Enviro GTi 8800 TX-NG	Enviro GTi 11000 TX-NG
Input (DC)				
Recommended Max. PV input power	7500 Wp	9000 Wp	12000 Wp	15000 Wp
Number of MPP trackers	2			
Number of DC inputs	1/1	1/1	1/1	1/1
Max. Input voltage	1100 V			
Start-up voltage	160 V			
Rated input voltage	650 V			
MPPT operating voltage range	140 V -1000 V			
Full power MPPT voltage range	240 V - 850 V	290 V - 850 V	380 V - 850 V	420 V - 850 V
Max. Input MPPT current	15 A / 15 A	15 A / 15 A	15 A / 15 A	15 A / 15 A
Max. input short circuit current per MPPT	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A
Output (AC)				
Rated Power	5000 W	6000 W	8000 W	10000 W
Max. AC Power	5500 VA	6600 VA	8800 VA	11000 VA
Max. Output current	8.3 A	10 A	13.3 A	16.7 A
Nominal grid voltage	3 / N / PE, 220 V / 380 Vac, 230 V / 400 Vac			
Grid voltage range	310 Vac - 480 Vac (According to local standard)			
Nominal frequency	50 Hz / 60 Hz			
Grid frequency range	45 Hz - 55 Hz (According to local standard)			
Active power adjustable range	0~100 %			
THDi	<3 %			
Power factor	1 default (adjustable+/-0. 8)			
Performance				
Max. efficiency	98.40 %	98.40 %	98.50 %	98.50 %
European efficiency	97.50%	97.50%	98.00%	98.00%
Protection				
DC Reverse Polarity Protection	Yes			
Anti-islanding protection	Yes			
Leakage current protection	Yes			
Ground fault monitoring	Yes			
PV-array string fault monitoring	Yes			
Anti reverse power function	Yes			
DC switch	Yes			
AFCI protection	Optional			
Input / output SPD	PV: type II standard, AC: type II standard			
Communication				
Standard communication mode	RS485/ USB/ Bluetooth, Optional: WiFi / GPRS			
General Data				
Ambient temperature range	-30 °C ~+60 °C			
Self-consumption at night	<1 W			
Topology	Transformerless			
Degree of protection	IP65			
Allowable relative humidity range	0~100%			
Max. Operating altitude	4000 m			
Noise	<40 dB			
Weight	17 kg	17 kg	18 kg	18 kg
Cooling	Natural			
Dimension	430 mm x 385 mm x 82 mm			
Display	LCD			
Standard warranty	10 years			
Standard				
EMC	EN61000-3-2, EN61000-3-3,EN61000-3-11, EN61000-3-12,EN61000-6-1, EN61000-6-3			
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC61683, IEC60068(1,2,14,30)			

TECHNICAL SPECIFICATION OF THREE PHASE SOLAR GRID TIE INVERTER

DATASHEET	ENVIRO GTi 15000TNG	ENVIRO GTi 20000TD	ENVIRO GTi 25000TD	ENVIRO GTi 30000TD
Input (DC)				
Max. Input Power	19950 Wp	26600 Wp	33250 Wp	39900 Wp
Max DC Power for Single of MPPT	11000 W (MPPT 1) / 7500 (MPPT 2)	13000 W	16000 W	18000 W
Number of independent MPPT	2			
Number of DC Inputs	2+1	2 for each MPPT	3 for each MPPT	3 for each MPPT
Max. input voltage	1000 V	1100 V		
Start-up input voltage	200 V	250 V		
Rated input voltage	600 V	620 V		
MPPT voltage range	160 V - 960 V	230 V - 960 V		
Full power MPPT voltage range	300 V - 840 V	480 V - 850 V	460 V - 850 V	520 V - 850 V
Max. input current	21 A / 11 A	24 A / 24 A	28 A / 28 A	30 A / 30 A
Maximum DC input Isc per MPPT	30 A / 15 A	30 A	35 A	37.5 A
Output (AC)				
Rated Power	15000 W	20000 W	25000 W	30000 W
Max. AC Power	16500 VA	22000 VA	27500 VA	33000 VA
Max. Output Current	3*24 A	32 A	40 A	48 A
Nominal Grid Voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac, (According to local standard) 240 / 415 Vac			
Grid Voltage Range	310 Vac - 480 Vac			
Nominal Frequency	50 Hz / 60 Hz			
Grid Frequency Range	45 Hz ~ 55 Hz (According to local standard)			
Active power adjustable range	0~100 %			
THDi	<3 %			
Power factor	>0.99			
Performance				
Max. efficiency	98.3 %	98.2 %	98.4 %	98.4 %
European weighted efficiency	98.0 %	98.0 %	98.2 %	98.2 %
Self-consumption at night	<1 W			
MPPT efficiency	>99.9 %			
Protection				
DC reverse polarity protection	Yes			
DC switch	Yes			
Protection class / overvoltage category	I/III			
Safety protection	Anti islanding, RCMU, Ground fault monitoring			
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30), IEC 62109-1/2, IEC 61000 IP65			
ARPC	Anti Reverse power controller (optional)			
Communication				
Power management unit	According to certification and request			
Standard Communication Mode	RS485, Wifi / GPRS (optional), SD Card, Multi-function relay			
Operation Data Storage	25 years			
General Data				
Ambient temperature range	-25 °C...+60 °C			
Topology	Transformerless			
Degree of Protection	IP65			
Allowable relative humidity range	0-100 %			
Max. operating altitude	2000 m			
Noise	<45 dB	<30 dB	<45 dB	<45 dB
Weight	25 kg	37 kg		
Cooling	Natural	Natural	Fan	Fan
Dimension	539 mm x 452 mm x 202 mm	666 mm x 512 mm x 254 mm		
Display	LCD display			
Warranty	10 years			
BIS Certified	IS 16221 (PART 2): 2015/IEC 62109-2 : 2011 & IS 16169 :2014/IEC 62116 : 2008			

TECHNICAL SPECIFICATION OF THREE PHASE - NG SERIES

DATASHEET	Enviro GTi 15 KT-NG	Enviro GTi 20 KT-NG	Enviro GTi 24 KT-NG
Input (DC)			
Recommended Max. PV input power	22500 Wp	30000 Wp	36000 Wp
Number of MPP trackers	2		
Number of DC inputs	2/2		
Max. Input voltage	1100 V		
Start-up voltage	160 V		
Rated input voltage	650 V		
MPPT operating voltage range	140 V - 1000 V		
Full power MPPT voltage range	420 V - 850 V	480 V - 850 V	540 V - 850 V
Max. Input MPPT current	26 A / 26 A	26 A / 26 A	26 A / 26 A
Max. input short circuit current per MPPT	36 A / 36 A	36 A / 36 A	36 A / 36 A
Output (AC)			
Rated Power	15000 W	20000 W	24000 W
Max. AC Power	16500 VA	22000 VA	26400 VA
Max. Output current	23.9 A	31.9 A	38.3 A
Nominal grid voltage	3/N/PE, 220V/380Vac, 230V/400Vac		
Grid voltage range	310Vac-480Vac (According to local standard)		
Nominal frequency	50 Hz / 60 Hz		
Grid frequency range	45 Hz - 55 Hz (According to local standard)		
Active power adjustable range	0~100 %		
THDi	<3 %		
Power factor	1default (adjustable +/-0. 8)		
Performance			
Max. efficiency	98.60 %		
European efficiency	98.20 %		
Protection			
DC Reverse Polarity Protection	Yes		
Anti-islanding protection	Yes		
Leakage current protection	Yes		
Ground fault monitoring	Yes		
PV-array string fault monitoring	Yes		
Anti reverse power function	Optional		
DC switch	Yes		
AFCI protection	Optional		
Input / output SPD	PV: type II standard, AC: type II standard		
Communication			
Standard communication mode	RS485 / USB / Bluetooth, Optional: WiFi / GPRS		
General Data			
Ambient temperature range	-30 °C ~+60 °C		
Self-consumption at night	<1 W		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0~100%		
Max. Operating altitude	4000 m		
Noise	<40 dB		
Weight	20 kg	22 kg	23 kg
Cooling	Fan		
Dimension	520 mm x 430 mm x 189 mm		
Display	LCD		
Standard warranty	10 years		
Standard			
EMC	EN61000-6-1, EN61000-6-3, EN61000-6-3-11,EN61000-6-3-12		
Safety standards	IEC62109-1/2, IEC62116, IEC61727, IEC61683, IEC60068(1,2,14,30)		

TECHNICAL SPECIFICATION OF THREE PHASE SOLAR GRID TIE INVERTER

DATASHEET	ENVIRO GTi 50KT	ENVIRO GTi 60KT
Input (DC)		
Max. Input Power	66500 Wp	79800 Wp
Max DC Power for Single of MPPT	22000 W / 16000 W / 16000 W	22000 W / 22000 W / 22000 W
Number of independent MPPT	3	
Number of DC Inputs	4 / 3 / 3	4 / 4 / 4
Max. input voltage	1000 V	
Start-up input voltage	350 V	
Rated input voltage	600 V	600 V
MPPT voltage range	250 V - 950 V	
Full Power MPPT voltage range	530 V - 800 V	530 V - 800 V
Max. input MPPT current	40 A / 30 A / 30 A	40 A / 40 A / 40 A
Max. input current per string	12 A	
Maximum DC input Isc per MPPT	48 A I 36 A I 36 A	48 A
Output (AC)		
Rated Power (@230 V, 50 Hz)	50000 W	60000 W
Max. AC Power	50000 VA	60000 VA
Max. Output Current	80 A	90 A
Nominal Grid Voltage	3/ N/ PE, 220 / 380 Vac, 230 / 400 Vac, 240 / 415 Vac	
Grid Voltage Range	310 Vac - 480 Vac (according to local standard)	
Nominal Frequency	50 Hz / 60 Hz	
Grid Frequency Range	45 Hz- 55 Hz (according to local standards)	
Active power adjustable range	0~100 %	
THDi	<3 %	
Power factor	(adjustable +/- 0.8)	
Performance		
Max. efficiency	98.5 %	98.6 %
European weighted efficiency	98.3 %	98.4 %
Self-consumption at night	<1 W	
MPPT efficiency	>99.9 %	
Protection		
DC reverse polarity protection	Yes	
DC switch	Yes	
Protection class / overvoltage category	I/III	
Input/output SPD (II)	PV : Type II Standard, AC Type II Optional	
Safety protection	Anti islanding, RCMU, Ground fault monitoring	
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 62109-1/2, IEC 61000 IP65.	
ARPC	Anti Reverse power controller (optional)	
Communication		
Power management unit	According to certification and request	
Standard Communication Mode	RS485, WiFi / GPRS (optional), SD Card, Multi-function relay	
Operation Data Storage	25 years	
General Data		
Ambient temperature range	-25 °C...+60 °C	
Topology	Transformerless	
Degree of Protection	IP65	
Allowable relative humidity range	0-100 %	
Max. operating altitude	4000 m	
Noise	<60 dB	<60 dB
Weight	68 kg	70 kg
Cooling	Fan	
Dimension	713 mm x 737 mm x 297 mm	
Display	LCD display	
Warranty	10 years	
BIS Certified	IS 16221 (PART 2):2015/IEC 62109-2 : 2011 & IS 16169 : 2014/IEC 62116 : 2008	

TECHNICAL SPECIFICATION OF THREE PHASE - NG SERIES

DATASHEET	Enviro GTi 25 KT-NG	Enviro GTi 30 KT-NG	Enviro GTi 40 KT-NG	Enviro GTi 50 KT-NG
Input (DC)				
Recommended Max. PV input power	37500 Wp	45000 Wp	60000 Wp	75000 Wp
Max. DC power for single MPPT	20000 Wp			
Number of MPP trackers	3	3	4	4
Number of DC inputs	6	6	8	8
Max. input voltage	1100 V			
Start-up voltage	200 V			
Rated input voltage	620 V	620 V	620 V	620 V
MPPT operating voltage range	180 V -1000 V			
Full power MPPT voltage range	480 V - 850 V	480 V - 850 V	480 V - 850 V	540 V - 850 V
Max. Input MPPT current	3*40 A		4*40 A	
Max. input short circuit current per MPPT	3*50 A		4*50 A	
Output (AC)				
Rated Power	25000 W	30000 W	40000 W	50000 W
Max. AC Power	28000 VA	34000 VA	44000 VA	55000 VA
Rated output current	37.9 A	45.5 A	60.6 A	75.8 A
Max. Output current	42.4 A	51.5 A	66.7 A	83.3 A
Nominal grid voltage	3 / N / PE, 220 / 380 Vac, 230 / 400 Vac, 240 / 415 Vac			
Grid voltage range	310 Vac - 480 Vac (According to local standard)			
Nominal frequency	50 Hz / 60 Hz			
Grid frequency range	45 Hz - 55 Hz (According to local standard)			
Active power adjustable range	0~100%			
THDi	<3%			
Power factor	1 (adjustable+/-0.8)			
Efficiency				
Max. efficiency	98.60 %	98.60 %	98.80 %	98.80 %
European efficiency	98.20 %			
Protection				
DC Reverse Polarity Protection	Yes			
Anti-islanding protection	Yes			
Leakage current protection	Yes			
Ground fault monitoring	Yes			
PV-array string fault monitoring	Yes			
Anti reverse power function	Yes			
DC switch	Yes			
AFCI protection	Optional			
Anti-PID function	Optional			
Input/ output SPD	PV:Type II standard, AC:Type II standard			
Communication				
Communication	RS485/USB/Bluetooth, Optional:WiFi /GPRS			
General Data				
Ambient temperature range	-30 °C ~+60 °C			
Self-consumption at night	<3 W			
Topology	Transformerless			
Degree of protection	IP65			
Allowable relative humidity range	0~100 %			
Max. Operating altitude	4000 m			
Noise	<60 dB			
Weight	36 kg		37 kg	
Cooling	Fan			
Dimension	585 mm x 480 mm x 220 mm			
Display	LCD			
Standard warranty	10 years			
Standard				
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12			
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 60255			

TECHNICAL SPECIFICATION OF THREE PHASE SOLAR GRID TIE INVERTER

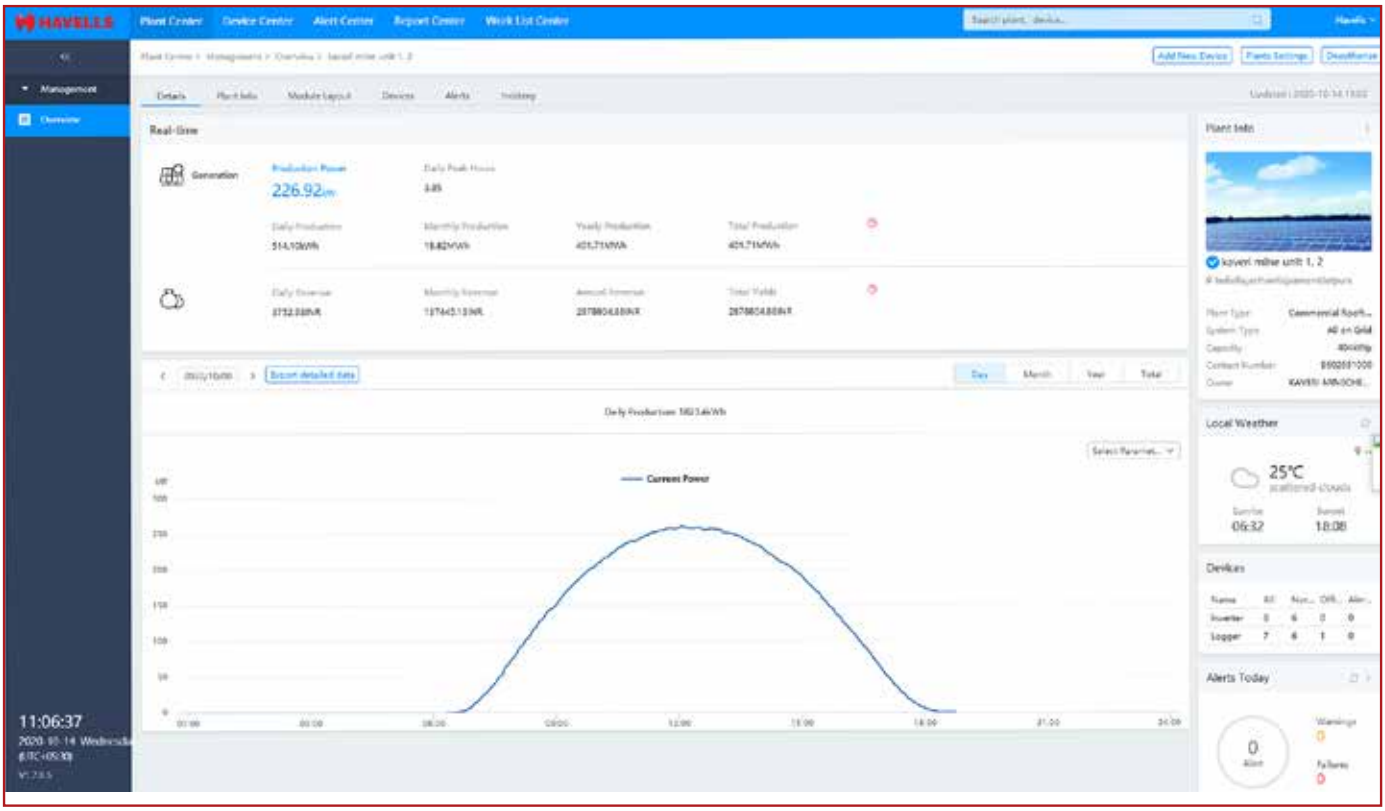
DATASHEET	Enviro GTi 80 KT	ENVIRO GTi 100 KT
Input (DC)		
Max. Input voltage	1100 V	
Max. Input Power	120 kW	150 kW
Rated input voltage	625 V	625 V
Start-up voltage	200 V	
MPPT operating voltage range	180 V -1000 V	
Full power MPPT voltage range	500 - 850 V	500 - 850 V
Number of MPP trackers	8	10
Number for DC inputs	16	20
Max. input current per MPPT	26 A	
Max. input short circuit current per MPPT	40 A	
Output (AC)		
Rated Power	80 kW	100 kW
Max. AC Power	88 kVA	110 kVA
Rated output current	116 A	144 A
Max. Output Current	128 A	160 A
Nominal Grid Voltage	3/N/PE, 230 V / 400 Vac, 220 V / 380 Vac	
Grid Voltage Range	310 - 480 Vac	310 - 480 Vac
Nominal Frequency	50 Hz / 60 Hz	
Grid Frequency Range	45 Hz-55 Hz / 54 Hz - 66 Hz (According to local standard)	
Active power adjustable range	0~100 %	
THDi	<3 %	
Power factor	1default (adjustable+ / -0.8)	
Performance		
Max. efficiency	98.60 %	98.70 %
European weighted efficiency	98.20 %	98.30 %
MPPT efficiency	>99.9 %	
Protection		
DC reverse polarity protection	Yes	
Anti-islanding protection	Yes	
Leakage current protection	Yes	
Ground fault monitoring	Yes	
PV-array string fault monitoring	Yes	
Zero voltage ride through	Yes	
DC switch	Yes	
Anti-PID protection	Optional	
AFCI	Optional	
Protection class/ Overvoltage category	I/III	
Input/ Output SPD	PV: type II standard, AC: type II standard	
Certification	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30), IEC 62109-1/2, IEC 61000 IP65.	
Communication		
Power management unit	According to certification and request	
Communication	RS485, Optional: WiFi / GPRS / PLC	
General Data		
Ambient temperature range	-25 °C...+60 °C	
Topology	Transformerless	
Degree of Protection	IP66	
Allowable relative humidity range	0-100 %	
Max. operating altitude	4000 m	
Noise	<60 dB	
Weight	85 kg	90 kg
Cooling	Smart forced air cooling	
Dimension	995.5 mm x 693.5 mm x 368 mm	
Display	LCD	
Warranty	10 years	

TECHNICAL SPECIFICATION OF THREE PHASE-NG SERIES

DATASHEET	Enviro GTi 60 KT - NG	Enviro GTi 80 KT - NG
Input (DC)		
Recommended max. input power (Wp)	90000 Wp	120000 Wp
Number of MPP trackers	6	
Number of DC inputs	2 per MPPT	
Max. input voltage (V)	1100	
Start-up voltage (V)	200	
Rated input voltage (V)	620	
MPPT operating voltage range (V)	180 - 1000	
Full power MPPT voltage range (V)	550 - 800	
Max. input MPPT current (A)	6*32 A	6*40 A
Max. input short circuit current (A)	6*50 A	6*60 A
Output (AC)		
Rated power (W)	60000 W	80000 W
Max. AC power (VA)	66000 VA	88000 VA
Max. output current (A)	100 A	133.3 A
Rated grid voltage	3 / N / PE, 230 / 400 Vac	
Grid voltage range	310 - 480 Vac (according to local standard)	
Rated grid frequency	50 / 60 Hz	
Grid frequency range	45 Hz-55 Hz (according to local standard)	
Active power adjustable range	0~100 %	
THDi	<3 %	
Power factor	1default (adjustable+ / -0.8)	
Performance		
Max. efficiency	98.70 %	
European efficiency	98.20 %	
Protection		
DC reverse polarity protection	Yes	
Anti-islanding protection	Yes	
Leakage current protection	Yes	
Ground fault monitoring	Yes	
PV-array string fault monitoring	Yes	
Anti reverse power function	Yes	
DC switch	Yes	
Input / output SPD	PV: type II standard, optional: type I. AC: type II standard	
Communication		
Communication	RS485/Bluetooth Optional: WiFi/Ethernet	
General Data		
Ambient temperature range	-25 °C...+60 °C	
Self-comsumption at night (W)	< 2 W	
Topology	Transformerless	
Degree of protection	IP66	
Allowable relative humidity range	0-100 %	
Max. operating altitude	4000 m	
Weight	<50 dB	
Cooling	Fan	
Dimension	687 mm x 561 mm x 275 mm	
Display	LCD	
Standard warranty	10 years	
Standard		
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12	
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 60255	

FEATURES

- Web based Remote monitoring
- User-friendly & easy access via Internet
- Real Time Data-logging and historical data storage for analysis
- Data availLevel with various graph and format options for easy understanding and analysis
- Automatic alarms for any malfunctions via Email





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