



The **Power** of
tecknowledgey

Genus

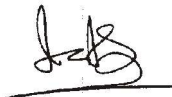
India's 1st
Sure Sine Wave™
Super Inverter™



Group Chairman's Message

Genus was conceived with the clear vision to be a significant contributor to the telecommunication revolution of the early 90's in our country. The company started out by providing critical equipment support to the domestic manufacturers of C-DOT designed telephone exchanges. Ever since, the company has carved a niche for itself, as the pioneer of cutting-edge technologies. The encouraging response from our patrons has been a great source of inspiration, enabling us to diversify our activities. Genus has created a strong resource base in Hybrid Micro Electronic Module (HMC) Manufacture, Surface Mount Technology (SMT), Automatic Test Facilities & Reliability Testing. Today, Genus is well known for its state-of-art Electronic Metering Systems & Power Conversion Products - offering a full spectrum of products in Energy Management Systems (EMS).

Our fast growth is a result of our very strong belief that R&D is the lifeline of our Industry. Our highly competent R&D team and world-class captive R&D facilities help us to have an edge over others in the new globalised world and will take us to new heights in our area of operation, we wish to assure our patrons that with these resources we shall not only meet your needs of today, but also your emerging needs of tomorrow.



I.C. Agarwal

Tecknowledgey...
it isn't merely about
technology.
Rather, it's about
people - visionaries
with the knowledge
and ability to harness
technology, to
redefine possibilities.
We call it
'tecknowledgey'.
And we believe
it is the soul
of our existence.



Mission

Delight customers with high quality, innovative products and services in electrical and electronic fields.

Values

- Exceed customer satisfaction in terms of quality, price, on-time delivery and support.
- Always adhere to proper and high business ethics
- Provide a place and nurturing environment for our employees to flourish and grow
- Develop long term relationships with the vendors/business partners to support our goals



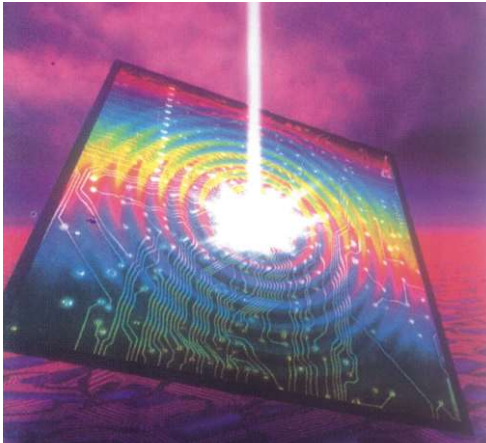
vation

The genius of
GENUS

Genus Overseas Electronics Ltd., an ISO 9001 : 2000 Public Limited Company is a part of the reputed 100 million USD Kailash Group. It was founded by Mr. I.C. Agarwal in 1994. Driven by the spirit of innovation, the company is committed to making complex technologies simple and more affordable for consumers. Already a leading name in Hybrid Microcircuits and Electronic Energy Meters in India, the company is today gaining increasing global acceptance, as a Contract Manufacturer of choice, for leading International OEMs. The success of Genus is a fascinating story of innovation and path-breaking product developments. Armed with globally competitive R&D and manufacturing facilities, Genus is a leading company offering turn-key design-to-end-product solutions in its chosen product segments.

Key Milestones

- 1994** Company founded for manufacturing Thick Film Hybrid Microcircuits & SMT PCB Assemblies
- 1996** Pioneered unique tamper proof Single & Three Phase Electronic Energy Meters in India
- 1996** Commercial Production started
- 1997** ISO 9001 : 1994 & IECQ Certifications
- 1998** Became largest manufacturers of Energy Meters
- 1999** Multi-functional & Multi-tariff Meters launched
- 2000** Facilities expanded in terms of Meter Testing
- 2000** Trivector Meters launched
- 2001** Two additional SMT Lines installed



First into the
future



- 2001** Setting up of an Advanced Product Design (CAD, CAM, Moulding) Facility
- 2002** Genus Design & Development recognised by Department of Scientific & Industrial Research, Govt. of India
- 2002** Digital Fare Meter launched (India's first ISI Digital Fare Meter)
- 2003** ISO 9001 : 2000 Certification
- 2004** Launched - India's first Sure Sine Wave™ Super Inverter™
- 2004** Preferred OEM's for LG
- 2004** Rated among top 100 Electronic companies in India by EFY
- 2005** AMR/Pre-payment Meter / Set Top Box launched
- 2005** Lean Manufacturing implemented



R&D Facilities

At Genus, Design & Development is all about the perfect balance between constant research, the latest globally proven technologies and hand-picked professionals from diverse specialities. This winning combination of man and machine is evident in the company's rapid rise over the global horizon.



Hardware, software

mind ware

The company's strong R&D team is armed with cutting-edge facilities, in its in-house R&D lab, which is recognised by the Ministry of Science and Technology, Government of India. The company's tool room rivals the world's best, with advanced CAD / CAM software, CNC machines and automatic test systems. Advanced design software, the latest manufacturing equipments, Class 10,000 and 1,00,000 Clean Room work areas, everything adds upto arm Genus with the unique capability to match global quality, at a competitive price.



Genus Sure Sine Wave Inverter

The Best Power Saving and Power Backup Solution For You

State-of-the-art DSP based Technology

The technology used in Genus Sure Sine Wave™ Super Inverter™ and Home UPS is DSP based technology that uses Auto Sense Intelligent Control (ASIC). ASIC technology gives maximum power and backup time. DSP monitors the output level and battery voltage and adjusts the amplitude and wave shape of the sine wave according to that. The DSP also corrects the Power Factor while battery charging.

Auto Reset

Genus Sure Sine Wave™ Super Inverter™ and Home UPS has auto-reset function in case of Overload Short Circuit. It will reset itself automatically and will make 6 attempts for Overload. Otherwise it will shut off and you will have to reset the inverter manually by turning ON/OFF switch on its front panel.

sure sine

Protection Circuit

The Genus Sure Sine Wave™ Super Inverter™ and Home UPS is protected from low battery voltage and over current conditions. When the inverter senses one of these situation, it will protect itself by disconnecting from the load, and will signal an error condition by displaying along with the buzzer.

Automatic Low Battery Cutout (LBCO)

The Genus Sure Sine Wave™ Super Inverter™ and Home UPS protects your batteries from damage caused by over-discharging, by automatically shutting itself off when battery voltage falls to a preset level. This feature is called the low battery cutout. The Genus Sure Sine Wave™ Super Inverter™ & Home UPS comes from the factory with the LBCO voltage set at 10 volts per battery.

Automatic High Battery Cutout

When battery voltage rises above 14.4 volts per battery, the charger stops its normal charging and comes to the trickle mode so as to take care of the self-discharging of the battery. The charger automatically resumes operation when battery voltage drops below 13.7 volts per battery.

Over Current Cutout

Genus Sure Sine Wave™ Super Inverter™ and Home UPS is protected from over current conditions. When the load being run demands more current then the inverter will shutdown automatically along with the display indication.

Battery Type Optimisation

Genus Sure Sine Wave™ Super Inverter™ and Home UPS is designed to prevent damage and extend life of your batteries by regulating the charging voltage and duration. To do this, the inverter must be configured for the type of batteries in the system.

Charge Rate Regulation

Batteries can overheat if the charge rate is too high. Genus Sure Sine Wave™ Super Inverter™ and Home UPS protects your batteries by limiting the charging current, so that the regulation can adjust the charging current to the optimum level.

Volts AC Dropout

Genus Sure Sine Wave™ Super Inverter™ and Home UPS monitors the voltage of the AC power passing through to the charger and AC loads. When AC voltage falls below the preset level, the inverter automatically transfers from AC to DC power (i.e. it comes to invert mode). This dropout voltage is factory preset at 90-110 volts. So when the AC voltage drops to 90-110 volts, the inverter automatically transfers from AC to DC power. It will revert to mains with a hysteresis of 20V.

Reduces Inverter's Power Consumption

In Genus Sure Sine Wave™ Super Inverter™ and Home UPS the circuitry design reduces power intake of the inverter when battery is in trickle charge mode and evaporation of battery electrolyte is also minimised.

wave technology

Advantages of Sine Wave over Square Wave

Sine Wave	Square Wave
<ul style="list-style-type: none">• Clean green power supply same as the Mains• 100% Assurance for quality of power supply that is safe for your appliances• Increases battery life• No humming noise• Increases gadget efficiency	<ul style="list-style-type: none">• Compromises on power quality due to inefficiency• Is harmful for life of your appliances• Decreases battery life• Produces humming noise in fans, tube-lights and other gadgets• Decreases gadget efficiency



Now run all your expensive appliances like T.V., Refrigerators, Washing Machines, Water Pumps, Microwave Ovens, Mobile Chargers etc. without any tension because only Genus Inverters ensure 100% safety of your appliances. Genus's revolutionary ASIC technology customises wave form needed by different appliances hence ensuring their 100% safety.



Sure Sine Wave™ Inverter

[600VA, 800VA - 12V / Single Battery]
[1400VA - 24V / Double Battery]

Genus Inverter Product

univ

Load Chart - Inverter*

MODEL	600 VA	800 VA	1400 VA
Fan	3	3	8
Tube Light	3	6	8
T.V.	1	1	1

*Depending on the actual VA rating/Technical specifications of the appliance. Specifications are subject to change without prior notice due to constant R&D effort. Accessories shown in the picture are not the standard part of the product.

- ✔ Keeps your expensive appliance 100% safe
- ✔ Ensures the same power quality as you get from the mains
- ✔ Delivers unmatched noise free performance
- ✔ Ensures longer battery life

Genus Features

- DSP (Digital Signal Processor) based Sine Wave Inverter
- Compact Surface Mount Technology
- ASIC (Auto Sense Intelligent Control) Technology
- Power factor controlled battery charger
- Automatic battery condition sense charger, increases battery life and minimises water topping
- Reverse Battery, Battery Fuse blown, Wiring Fault protections
- Green Mode consumes less power in no load conditions



Presenting Home UPS system with an in-built UPS to run your computers uninterrupted during power cuts. Besides running your other home appliances it also run your computer the same way like a UPS System. Genus ASIC technology customises wave form needed by different appliances ensuring 100% safety.

Sure Sine Wave™ Home UPS

[600VA, 800VA - 12V / Single Battery]
[1400VA - 24V / Double Battery]

- ✓ Ideal for Computers
- ✓ Short circuit and reverse phase protected
User selectable charging current
- ✓ With High Charging option
- ✓ User selectable UPS or Normal Mode
- ✓ Generator compatible
- ✓ Wide charging range
- ✓ Wide charging range (I/P mains 90v to 290v)
- ✓ Keeps your expensive appliance 100% safe
- ✓ Ensure the same power quality as you get from the mains
- ✓ Delivers unmatched noise free performance
- ✓ Ensure longer battery life

ersee

Genus Features

- DSP (Digital Signal Processor) based Sine Wave Inverter
- Compact Surface Mount Technology
- ASIC (Auto Sense Intelligent Control) Technology
- Power factor controlled battery charger
- Automatic battery condition sense charger, increases battery life and minimises water topping
- Reverse Battery, Battery Fuse blown, Wiring Fault Protections
- Green Mode consumes less power in no load conditions

Load Chart - Home UPS

MODEL	600 VA			800 VA			1400 VA			
	Option	1	2	3	1	2	3	1	2	3
Fan	1	3	1	2	1	4	3	5	8	
Tube Light	1	3	1	3	2	4	4	6	8	
PC (Coloured Monitor 15 Inch)	1	x	1	1	1	x	2	1	x	
Deskjet Printer	1	x	x	1	1	x	1	1	x	
T.V.	x	1	1	x	1	1	1	1	1	

*Depending on the actual VA rating/Technical specifications of the appliance. Specifications are subject to change without prior notice due to constant R&D effort. Accessories shown in the picture are not the standard part of the product.

Genus 2.5 KVA inverter with Sure Sine Wave Technology is the only Inverter in its category with a plastic front panel. It ensures 100% safety of your high load capacity and normal home appliances through Genus revolutionary ASIC technology which customises wave form needed by different appliances.

Load Chart - Inverter*

MODEL	2.5 KVA
Fan	10
Tube Light	16
T.V.	2

*Depending on the actual VA rating/Technical specifications of the appliance. Specifications are subject to change without prior notice due to constant R&D effort. Accessories shown in the picture are not the standard part of the product.

- ✓ Keeps your expensive appliance 100% safe
- ✓ Ensures the same power quality as you get from the mains
- ✓ Delivers unmatched noise free performance
- ✓ Ensures longer battery life



Sure Sine Wave™ Inverter
2.5 KVA - 48V / Four Batteries

Genus Inverter Product

univ

Genus Features

- DSP (Digital Signal Processor) based Sine Wave Inverter
- Compact Surface Mount Technology
- ASIC (Auto Sense Intelligent Control) Technology
- Power factor controlled battery charger
- Automatic battery condition sense charger, increases battery life and minimises water topping
- Reverse Battery, Battery Fuse blown, Wiring Fault Protections
- Green Mode consumes less power in no load conditions

Genus presents an alternate to Genset for running your Air-conditioners and other high load capacity appliances and systems. 5KVA & 10KVA Inverters with Sure Sine Wave Technology and ASIC technology ensures 100% safety for your appliances.



- ✓ Safely run Airconditioning units, Deep Freezers, Petrol Pumps, Photo Copiers etc.
- ✓ Ensure the same power quality as you get from the mains
- ✓ Delivers unmatched noise free performance
- ✓ Keep your expensive appliances 100% safe

Genus Features

- DSP (Digital Signal Processor) based Sine Wave Inverter
- Compact Surface Mount Technology
- ASIC (Auto Sense Intelligent Control) Technology
- Power factor controlled battery charger
- Automatic battery condition sense charger, increases battery life and minimises water topping
- Reverse Battery, Battery Fuse blown, Wiring Fault Protections
- Green Mode consumes less power in no load conditions

Sure Sine Wave™ Inverter
10 KVA - 192V / Sixteen Batteries



Load Chart*

MODEL	5 KVA		10 KVA		
	Option 1	Option 2	Option 1	Option 2	Option 3
AC 1.5 Ton	1	x	x	1	2
AC 2 Ton	x	x	1	x	x
Micro Wave Oven	x	1	1	1	x
TV	2	2	2	2	2
Fan	5	10	10	12	8
Tube Light	8	10	12	15	15

*Depending on the actual VA rating/Technical specifications of the appliance. Specifications are subject to change without prior notice due to constant R&D effort. Accessories shown in the picture are not the standard part of the product.



Sure Sine Wave™ Inverter
5 KVA - 96V / Eight Batteries

TECHNICAL SPECIFICATIONS

Home UPS		Inverter	
600, 800, 1400 VA		5 & 10 KVA	
Voltage Limits		Voltage Limits	
Mains A.C. Lower Voltage Limit	100V ± 5V in Inverter Mode 180V ± 5V in UPS Mode	Mains A.C. Lower Voltage Limit	140V ± 5V
Main A.C. Lower Recovery Voltage	110V ± 5V in Inverter Mode 190V ± 5V in UPS Mode	Mains A.C. Lower Recovery Voltage	150 ± 5V
Main A.C. Higher Voltage Limit	290V ± 5V in Inverter Mode 260V ± 5V in UPS Mode	Mains A.C. Higher Voltage Limit	280 ± 5V
Output Voltage in Home UPS mode	275V ± 5V in Inverter Mode 250V ± 5V in UPS Mode	Mains A.C. Higher Recovery Voltage	270 ± 5V
Battery Lower Voltage Limit	220V/220 ± 10%	Output Voltage in inverter mode	220V ± 10%
Out Put Frequency	10.3 ± 0.3 (For 12V System) 20.6 ± 0.5 (For 24V System)	Battery Lower Voltage Limit	80V ± 1V for 5 KVA 160V ± 2V for 10 KVA
Main Output Frequency	Same as Input	Out Put Frequency	
Output Frequency	50Hz ± 1%	Main Output Frequency	Same as Input
Battery Charging		Inverter Output Frequency	50Hz ± 1%
Battery Charging Voltage Range	90 to 290V	Battery Charging	
Maximum Charging Current	13amp ± 1amp (11 amp ± 1 amp in 600VA)	Battery Charging Voltage Range	140 to 280V
Trickle Charging Current Limit	0.5 ± 0.3amp	Maximum Charging Current	10amp ± 2amp (When Battery is fully discharged)
Battery Charger Boost Voltage	14.4 ± 0.2V (Per Battery)	Trickle Charging Current Limit	0.5 ± 0.3amp
Battery Charger Float Voltage	13.6 ± 0.2V (Per Battery)	Battery Charger Boost Voltage	14.4 ± 0.2V (Per Battery)
Overload	100V ± 3% (With Auto Reset Function)	Battery Charger Float Voltage	13.6 ± 0.2V (Per Battery)
Short Circuit Protection	> 300% Load (With Manual Reset Function)	Overload	100 ± 3% (With Auto Reset Function)
Technology	DSP based state-of-the-art technology using MOSFET's DSP controlled ASIC charger with soft start	Short Circuit Protection	> 300% Load (With Manual Reset Function)
		Technology	DSP based state-of-the-art technology using IGBT's DSP controlled ASIC charger with soft start

*Note: Specifications subject to change without prior notice.

Recognitions & Certifications

Genus stands committed to exceeding the highest standards of quality stipulated by the leading authorities, both in India and abroad. The following recognitions and certifications (only partial list) bear testimony to the company's uncompromising quality standards.



First among

equals

ISO 9001:2000



Certificate of Registration

Number SQ/ ISO 9001/090

This certificate is awarded to

Genus Overseas Electronics Limited
SPL 3, RIICO Industrial Area,
Sitapura, Jaipur – 302 022
Rajasthan
(India)

*in recognition of their establishment & maintenance of Quality Management System which
Complies with the requirements of*

ISO 9001 : 2000

The scope of this certificate of registration covers :

Design, Manufacturing and Supply of Thick Film Hybrid Micro Circuits

Design, Contract Manufacturing & Supply of PCB (SMT and through hole) assemblies

Design, Manufacturing, Supply and Servicing of Static Energy Meters

Design, Manufacturing, Supply of Inverter and UPS

Design, Manufacturing, Supply of Taxi Meters.

This certificate is valid upto: 30.01.2006

03.05.2005

Date

Originally registered on 19th Feb. 1997



STQC Certification Services
Department of Information Technology
Government of India
Electronics Niketan
6, CGO Complex, Lodi Road,
New Delhi-110003 (INDIA)

A. Mathur
(Dr A. Mathur, CEO)

For STQC Directorate



"Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained from STQC Certification Services."

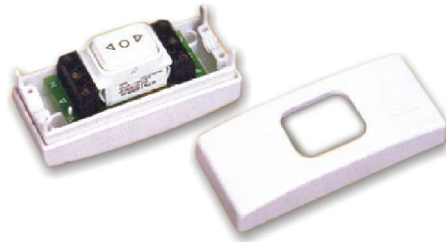
F-30, Issue 04

- ISO 9001 : 2000 certification
- R&D lab recognised by the Ministry of Science & Technology, Government of India
- CDOT approval for Line Card Hybrid & Resistor Networks & Contract Manufacturing
- IECQ for quality of Components
- ISI mark for Energy meters
- ISI mark for Fare Meters
- CE approval for Meters
- EMI/EMC certifications
- ETDC certified Inverters

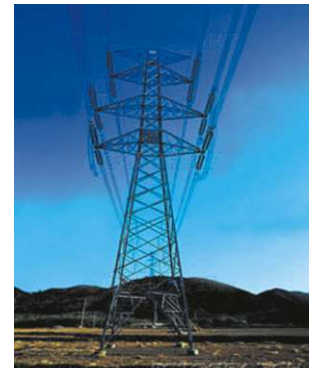
Genus Range of Products



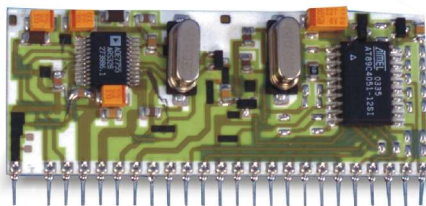
Sure Sine Wave Home UPS



Electronic Manufacturing Services (EMS)



Trunkey Projects



Thick Film Hybrid Microcircuits



Electronic Energy Meter
(Single Phase)



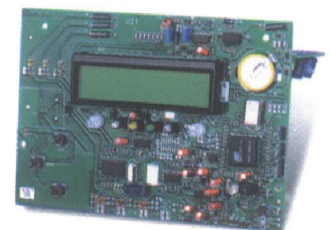
Electronic Energy Meter
(Three Phase)



Energy Management System



Digital Set Top Box



Contract Manufacturing
of PCB Assembly

The Genus Edge

Part of US\$ 100 million Kailash Group • A Leading name in Electronic Energy Meters & HMC
 • Government of India recognized R&D Lab • State-of-art manufacturing facilities • End-to-end product solutions • Turn-key Projects with Power Distribution Companies • Installed base of over 60,00,000 meters in India • OEM for LG India



Map not to scale and indicative only



Kailash Coal & Coke Co. Ltd.

(Importer and Trader of Coal and Coke)

Kailash Paper Product Ltd.

(Manufacturer of Kraft Paper and Particle Board)

Kailash Industries Ltd.

(Manufacturer of Iron Ingots)

Genus Innovation Ltd.

(Manufacturer of Energy Meters, Die & Tool Design,
Meter Cup Board Boxes & Accessories, Metal & Plastics)

Genus Electrotech Ltd.

(OEM for LG TV & Washing Machines, PCBs, Cables)

Genus Apparels Ltd.

(Manufacturer & Exporter of Designer Apparels)

Genus Overseas Electronics Ltd.

(Electronic Energy Meters, HMC, Inverters, UPS, Set Top Box,
Electronic Manufacturing Services, Power Distribution Management Projects)



Genus Overseas Electronics Ltd.

(A Kailash Group Company)

SPL-3, RIICO Industrial Area,

Sitapura, Tonk Road, Jaipur-302022 (INDIA).

Tel. : +91-141-2770003/4/9, 2770401/2, Fax : 2770319, 2220455

E-mail : info@genusoverseas.com **Website** : www.genusoverseas.com

