

ORION ASTRA SERIES

5 KVA Online UPS with Isolation Transformer
(ASTRA Series 5KVA)

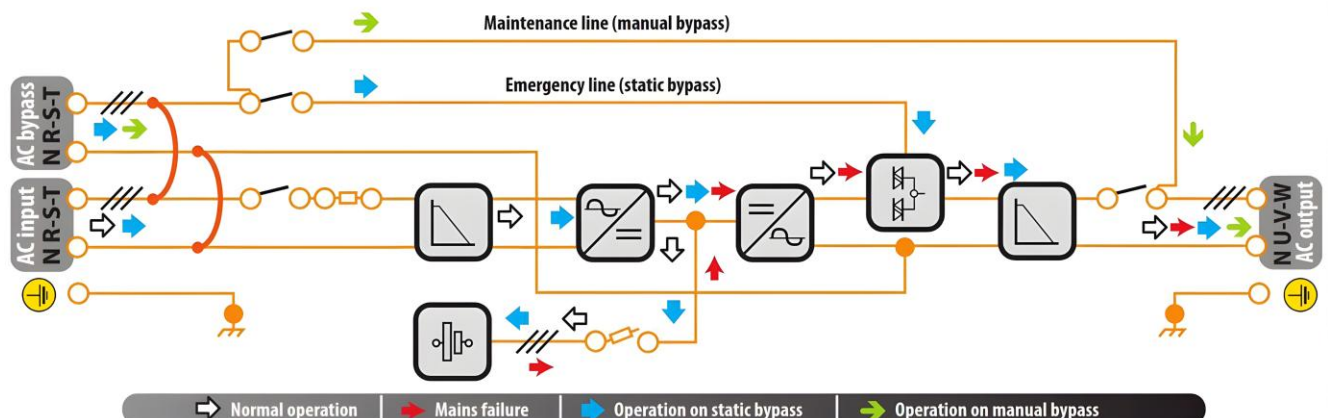


ORION ASTRA SERIES 5 KVA ON-LINE UPS

The ORION ASTRA Series On-Line UPS features Single phase Input and Single Phase output Double Conversion On - Line Technology (CVFI) with an integrated isolation transformer. The Load is supplied continuously by the inverter with clean, stabilized and regulated sine-wave output power. Input & Output filters increase the immunity of load from power disturbances and surges. The ASTRA series UPS is used for mission critical applications like Server Rooms, Telecom, Network Infrastructure, Healthcare, Industrial Automation, Process Control etc. The ASTRA series UPS features state-of-the-art microprocessor or/DSP based advanced technology design. These UPS are also available with power management software which can be used for monitoring various parameters of the UPS and can also be useful for remote monitoring/control on the web by adding SNMP Card.



- Double Conversion IGBT based On-Line UPS VFI-SS-111 as per IEC 62040-3
- Advanced IGBT based Rectifier Design
- High Efficiency and Low Distortion
- Digital PWM DSP/Microprocessor based Controls
- Inbuilt Isolation Transformer
- High Input Power Factor
- Float Cum Boost Charger
- Soft Start & Cold Start Facility
- Sinewave with Distortion less than 2%
- Crystal Controlled Output Frequency (50 Hz $\pm$ 0.01 %)
- High Crest Factor > 4 : 1
- Advanced Battery Management
- Extended Battery Runtimes
- Superior Dynamic Performance
- Internal anticorrosion air filters
- Electronic Short Circuit & Overload Protection
- Integrated Surge Protection Designed for Harsh Environments
- Generator Compatible
- Remote Monitoring Facility
- ECO Mode



TECHNICAL SPECIFICATIONS

AC INPUT PARAMETERS	Nominal Input Voltage 230 V, Single Phase, 2 Wire + G, Variation	: 160-300 V AC, 110-300VAC (Load dependent) (UPS with higher Input Range can also be supplied on request)
	Input Power Factor	: ≥0.99
	Input Frequency	:: 50/60 Hz (Range: 40~70 Hz) (Can also work on Generators)
DC OUTPUT (RECTIFIER)	UPS Capacity 5 KVA	: DC Output Voltage (Nominal) : 168V/180V/192V/240VDC
	Battery Recharge Time	: 4-8 hours from fully discharged condition
	Charging Current	: 10-20 Amperes
OUTPUT PARAMETERS	Output Voltage (Nominal)	: 220/230 V AC Single Phase
	Voltage Stability	: ± 1 % for DC Input variation & Output load variations.
	Frequency	: 50 Hz ± 0.05 Hz (Crystal Controlled)
	Waveform	: Sinewave
	Harmonic Distortion	: < 1% (for linear loads) & <3% (for non-linear loads)
	Efficiency	: ≥94% (≥98% in Green Eco Mode)
	Power Factor	: 1.0 i.e. (5KVA/5KW)
	Overload	: 110% for 60 mins, 125% for 10 mins, 150% for 60 seconds
	Crest Factor	: 4 : 1
	Transient Response	: Dynamic variation ± 5%; recovery Within 3 cycles.
PROTECTION & SELF DIAGNOSTIC FEATURES	Transfer Time	: No Break Transfer (0 msec) - Mains to Batt and Vice Versa : Fast Transfer (2 msec) - Inverter to Bypass and Vice Versa
	Audible Noise	: <45 dB at 1 metre
INDICATORS	An electronics circuit with digital logics continuously searches for the following faults & trips the system with audio-visual indication: Battery Over Voltage/Under Voltage, Output AC Over/Under Voltage, Input Over/Under Voltage, Bypass abnormal Output Overload, Short Circuit, Over Temperature, Battery Deep Discharge, Earth Leakage Protection, AC & DC Breakers	
	Load on Mains/Battery/Bypass, Inverter On, Overload, Fault, Battery / Load Level, Battery capacity, Battery Low, Over temperature,	
AMBIENT CONDITIONS	• Operating Temp: 0°C - 45°C (0°C - 50°C with derating) • Storage Temp.: 0°C - 60°C	
	• Relative Humidity : 0~95 % RH • Altitude : upto 3000 meters • Ingress : IP20 (IP 21 available as option)	
LCD DISPLAY & MONITORING	Input/Output/Bypass-Voltage/Current/Frequency, Power (KVA/KW) Battery-Voltage / Current/ Charge Level / Remaining Back-up time/Self-test, Fault Codes & Alarms, Overload/Short Circuit/Low Batt, Temperature, Charging Current, Event Logs	
	Main Input Fault, General Fault, Battery Fault, Bypass Static Switch Fault, Parallel Fault, DC Bus Fault, Output High/Low, Over Load, Short Circuit, Over Temperature, CAN Fault, Charger Fail, Battery Open, DC High/Low, Fan Lock, Line Phase Error, Parallel System Configuration Error, EPO enable/disable	
FAULT INDICATION (ON LCD)	• Parallel Redundancy (N+1) upto 4 units and Series Redundancy (Hot Standby)	
	• Manual & Static Bypass Switch, Serial RS 232 Interface/USB, REPO, Remote Indicator Panel	
OTHER FEATURES	• Auto Restart with Delay, Automatic Battery Test • Integrated Isolation Transformer (Input/Output)	
	• SNMP Web Management Software, Modbus Communication (Modbus RTU Protocol)	

All specifications are subject to change without notice due to continuous technology upgradation. All trademarks are the property of their respective owners.

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Odalbakra, Near Sabitri Bharali ME School, Guwahati - 781034 Assam

Phone: 9678008031, 9678008032, e-mail: info@dssystems.in | www.dssystems.in



Local Area Telecommunication
Network (LAN)



Data
Centre



Electro-Medical
Device



Storage
PLCS



Emergency
Alarm
Devices



E-Business
(Server Farms,
ISP/ASP/POP)

ORION ASTRA SERIES

10 KVA Online UPS with Isolation Transformer
(ASTRA Series 10KVA)

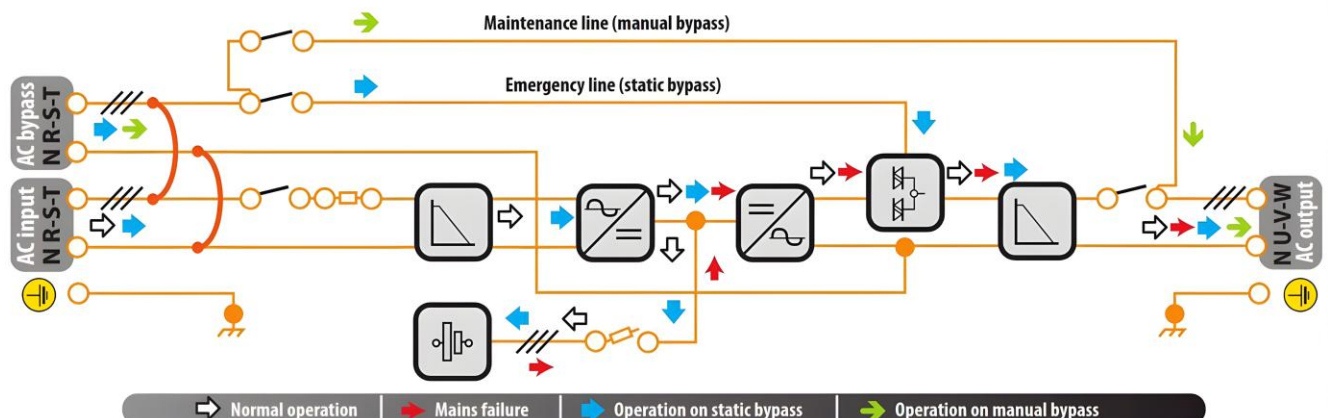


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TECHNICAL SPECIFICATIONS

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DC OUTPUT (RECTIFIER)	UPS Capacity 10 KVA Battery Recharge Time Charging Current	: DC Output Voltage (Nominal) : 180V/192V/240VDC : 4-8 hours from fully discharged condition : 10-20 Amperes
OUTPUT PARAMETERS	Output Voltage (Nominal) Voltage Stability Frequency Waveform Harmonic Distortion Efficiency Power Factor Overload Crest Factor Transient Response Transfer Time Audible Noise	: 220/230 V AC Single Phase : $\pm 1\%$ for DC Input variation & Output load variations. : 50 Hz ± 0.05 Hz (Crystal Controlled) : Sinewave : $< 1\%$ (for linear loads) & $< 3\%$ (for non-linear loads) : $\geq 94\%$ ($\geq 98\%$ in Green Eco Mode) : 1.0 i.e. (10KVA/10KW) : 110% for 60 mins, 125% for 10 mins, 150% for 60 seconds : 4 : 1 : Dynamic variation $\pm 5\%$; recovery Within 3 cycles. : No Break Transfer (0 msec) - Mains to Batt and Vice Versa : Fast Transfer (2 msec) - Inverter to Bypass and Vice Versa : < 45 dB at 1 metre
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