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ISO 9001 CERTIFIED ORGANIZATION



**True On-Line (double conversion) Uninterruptible Power Supply
Complete with integral static and manual bypass switch**

Advanced Multi-Module

10KVA to 20KVA

**Single Phase Input / Single Phase Output
OR
Three Phase Input / Single Phase Output**



- **On-line double conversion**
- **Static and manual bypass**
- **Input power factor >0.95**
- **IGBT power electronics**
- **Parallel and redundant operation**
- **LCD screen**
- **Superior battery management**
- **50Hz or 60Hz operation**
- **Wide input voltage range**
- **Programmable output**
- **Various battery options**
- **Mimic panel indication**
- **RS-232 and contact interfaces**
- **SNMP communication options**
- **Free software**

ECONOMY MODE
increases efficiency to 98%

Specifications

MODEL	AMM 10-31		AMM 15-31		AMM 20-31	
INPUT	Single-Phase	Three-Phase	Single-Phase	Three-Phase	Single-Phase	Three-Phase
Rated Power (VA)	10000	10000	15000	15000	20000	20000
Power (W)	8000	8000	10500	12000	12000	16000

INPUT						
Nominal Input Voltage	220-230-240Vac	380-400-415Vac	220-230-240Vac	380-400-415Vac	220-230-240Vac	380-400-415Vac
Voltage Range (@ full load)	184-276Vac	320-480Vac	184-276Vac	320-480Vac	184-276Vac	320-480Vac
Frequency	45 - 65 Hz					
Power Factor	0.99	0.95	0.99	0.95	0.99	0.95
Input Current Distortion	<7%	<27%	<7%	<27%	<7%	<27%
Maximum Input Current	51A	18A	67A	26A	78A	35A

BYPASS						
Nominal Voltage	230V single phase					
Voltage Range	Selectable from $\pm 5\%$ to $\pm 25\%$					
Nominal Frequency	50/60 Hz					
Frequency Range	Selected frequency $\pm 5\%$					
Nominal Current	43A	43A	65A	65A	87A	87A

BATTERIES	
Type	Sealed lead acid, maintenance free
Recharge Time	6 hours

INVERTER OUTPUT	
Nominal Output Voltage	230Vac (adjustable from 200-243V)
Static Stability	$\pm 1\%$
Dynamic Stability	$\pm 5\%$ in 10ms
Waveform	Sinewave
Harmonic Distortion with linear load	<2%
Harmonic Distortion with non-linear load	<5%
Crest Factor	3:1
<i>Overload Capability:</i>	
100% < Load < 110%	5 hours
110% < Load < 125%	10 minutes
125% < Load < 150%	1 minute

COMMUNICATIONS INTERFACES	
RS-232 and Opto-Isolated Contacts	Yes
SNMP Solution	Optional (plug-in card)
Emergency Power Off (EPO)	Yes

ENVIRONMENT						
Operating Temperature	0 - 40°C (15 - 25°C recommended for batteries)					
Relative Humidity	95% without condensation					
Protection	Thermal on system, rectifier, by-pass and inverter. Protection against profound battery discharge.					
Heat Dissipation (full load)	640W	640W	840W	960W	960W	1280W

GENERAL DATA	
Colour	Light Grey
Audible Noise	<56 dBA @ 1m
Enclosure Protection	IP205
Compliance	EN 62040-1 EMC EN 62040-2 Directives 73/23-93/68-89/336 EEC EN 62040-3

WEIGHTS AND DIMENSIONS			
Weight (kg)	from 90 - 218	from 95 - 285	from 110 - 300
Dimensions (hwd) (mm)	1200 x 450 x 760	1200 x 450 x 760	1200 x 450 x 760

Specifications are subject to change without prior notice.

Optional Extras

- SNMP Network Interface Card
- Relay Card (Volt-free contacts)
- Galvanic Isolation Transformers
- Other Input and Output Voltages
- Extended Battery Back-up Times
- Input Harmonic Filter (THD <5%)
- Parallel/Redundant Operation
- Remote Alarm Panel
- External Manual Bypass Switch
- 19" Rack Mount Versions (12U)
- Service and Maintenance Plans
- Separate Bypass Input Supply

Modes Of Operation

- **ON-LINE** The inverter is on-line at all times to ensure the load is fully protected.
- **STANDBY-ON** The load is powered from the bypass. If the mains deviates outside tolerance, the load is transferred to inverter. When the mains returns within tolerance, the load is re-transferred to bypass.
- **STANDBY-OFF** The load is not powered until a mains failure occurs, at which time the load is powered by the inverter using battery power.
- **STABILISER** UPS operates as a voltage stabiliser only. No battery back-up available.



1. Help/Language selection
2. Input/output measurements
3. Controls/settings/customisations
4. Event log
5. Buzzer reset
6. Time/date
7. Scroll back
8. Scroll forward

Buttons 7 and 8 are used to display detailed system control information.



Left: Remote Alarm Panel

Right: Software screenshot

