

MONOLINE SERIES

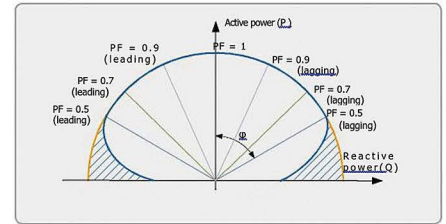
**MONO-PHASE
UPS**
From 3 to 20 kVA / kW



SINGLE PHASE OUTPUT UPS FOR INDUSTRIAL APPLICATIONS

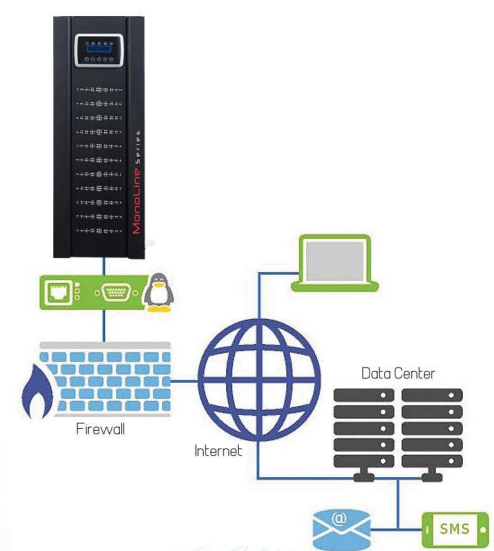
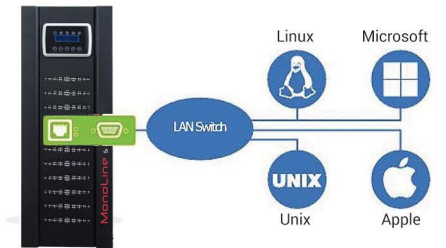
Three level Technology, Compact and Robust, Monoline is the perfect UPS to protect and supply loads in the industrial fields and critical applications.

- Three Level Technology
- Output Power Factor 1 (kVA=kW)
- On Line-Double Conversion Technology (Class VFI-SS-111)
- IGBT PWM Rectifier & Inverter Technology
- High Efficiency up to 95%
- Higher efficiency with eco mode up to 98%
- High Input Power Factor (>0.99)*
- Low Input Current THD (<3%)*
- Increase battery life time up to 35% with smart charger
- Temperature compensation battery charging
- Higher fan file time with Intelligent fan speed control
- Operate as frequency converter (50 Hz / 60 Hz)
- Short Circuit, Overload, Lightning and Surge Protection
- Perfect Generator Compatibiliy
- Easy Service with Manual bypass
- Variable input low voltage depending on loading percentage (up to -36%)
- Parallellable up to 4 units



SOFTWARE & CONNECTIVITY SOLUTIONS

- Local communication with RS232 and RS485.
- 2pcs configurable input contact.
- Relay board with alarms.
- GenSet contact.
- EPO contact.
- USB.
- Remote Monitoring Panel.
- Battery Temperature Sensor for Temperature Compensated Charging.
- JBUS, PROFIBUS Local connection.
- SNMP IT Manager monitoring.
- Environment sensors for Data Centers (Humidity, Temperature, Smoke, etc.).
- GSM, Telnet, GPRS communication.
- PC & Server shutdown.
- Web page remote monitoring.
- Building management system.
- E-mail alarm reporting.
- Remote monitoring 24/7 T.Service.



*For single phase input.

Monoline Series

1 Ph output version 400V (220-230-240V)		MNL 1106	MNL 1108	MNL 11010	MNL 31010	MNL 31015	MNL 31020
Nominal power (kVA)		6	8	10	10	15	20
Active power (kW)		6	8	10	10	15	20
1 Ph version 208V (100-110-120V)		MNU 1103	MNU 1103	MNU 1105	MNU 3105	MNU 3107,5	MNU 31010
Nominal power (kVA)		3	4	5	5	7,5	10
Active power (kW)		3	4	5	5	7,5	10
General Specs							
Technology	Three Level On-Line double conversion VFI-111						
Waveform	Sinusoidal						
Architecture	Stand Alone or Distributed Parallel up to 4 units						
Input Characteristics							
Input Voltage	220, 230, 240 V 1PH+N+PE*			380, 400, 415 V 3Ph+N+PE*			
	100-110-120 V 1PH+N+PE**			200-208-220V 3Ph+N+PE**			
Input Frequency	45-65 Hz						
Voltage Tolerance (%100 load)	(-20)% (+20)%						
Voltage Tolerance (%40 load)	(-36)% (+20)%						
Input Power Factor	>0,99			>0,95			
Input Current Harmonic	<3%***						
Output Characteristics							
Output Voltage	220, 230, 240 V 1Ph+N+PE*, 100, 110, 120V 1Ph+N+PE** (Adjustable from Front Panel)						
Output Voltage Tolerance	±1%						
Overall Efficiency (AC-AC)	Up to 96%* (Half load)						
Ecomode Efficiency	Up to 98%						
Nominal Output Frequency	50/ 60Hz +0,01 free run (Adjustable from LCD Panel)						
Crest Factor	3:1						
Output Power Factor	1			1 (0,8 at compact models)			
THD of Output Voltage	<2% (at full linear load)						
Bypass	Built in Automatic and Maintenance Bypass						
Batteries							
Battery Type	VRLA-AGM Maintenance-Free						
Battery Test	Automatic or Manual						
Battery Quantity	20 to 30 (Adjustable)						
Battery Recharge Time	<6h-8h						
Internal Battery	20 x 12V 7-9Ah	30 x 12V 7-9Ah	60 x 12V 7-9Ah (30 pcs at compact models)				
Bypass Characteristics							
Voltage Tolerance	±10%						
Transfer Time	0 ms						
Overload Capability	150% for 1 minutes						
Communication and management							
LCD Display	Graphical Icd screen, Led bar status						
Communication Ports	RS232,Genset, SNMP, Relay Contacts,Input Contacts, Modbus and USB (optional)						
Battery Temperature Sensor Contact	Available						
Emergency Power Off (Epo)	Yes						
Remote Display	Available						
Physical Characteristics							
Dimensions HxWxD(mm)	345X190X420	635X256X580	735X256X673		812x302x715 / 735X256X673**4		
Net Weight (Kg)	30	35	38	39	48	51	
Ambient conditions							
Operating Temperature	0°C - 40°C						
StorageTempature	-15°C/+ 55°C						
Proposed Temp. To Extend Battery Life	20- 25°C						
Relative Humidity (%)	<95% non condensing						
Noise at 1 m (dBA)	<55						
Protection Class	IP 20						
Compliance							
Reference Product Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)						

* 1PH 230V Output Model Version
 ** for 1Ph 110V Output Model Version
 *** for 1PH input model
 *4 At Compact Models



The company reserves the right to change specifications and designs without notice.

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