

MONOLINE SERIES

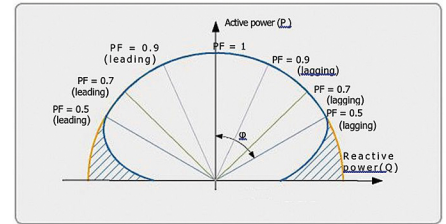
SINGLE PHASE
UPS
from 6 to 20 KVA



SINGLE PHASE OUTPUT UPS FOR INDUSTRIAL APPLICATIONS

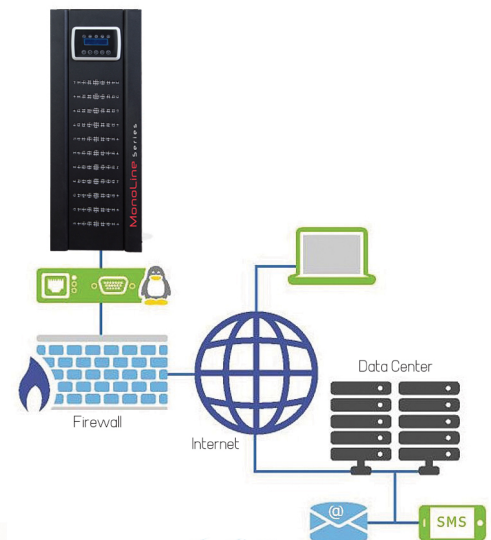
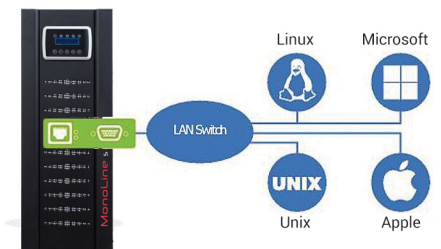
Three level Technology, Compact and Robust, Monoline is the perfect UPS to protect and supply loads in the industrial fields and critical applications.

- Three Level Technology
- 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 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 Compability
- Easy Service with Manual bypass
- Variable input low voltage depending on loading percentage (up to -36%)
- Paralellable 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 output.

MONOLINE

1 Ph output version 400V (220-230-240V)		MNL 1106	MNL 1108	MNL 11010	MNL 31010	MNL 31015	MNL 31020
Model No		MNL 1106	MNL 1110	MNL 1115	MNL 1120		
	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**	200-208-220-230-240V 3Ph+N+PE** or 1Ph+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	0,9 (1 Optional)			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 T WxDxH (mm)	345X190X420	635X256X580	735X256X673	812x302x715 / 735X256X673**4		
	Dimensions R WxDxH (mm)	19'x654x 3U					
	Net Weight (Kg)	30	35	38	39	48	51
Ambient conditions							
	Operating Temperature	0°C - 40°C					
	Storage Temperature	-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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