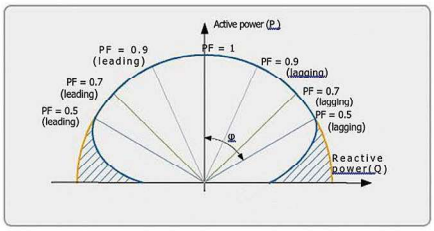
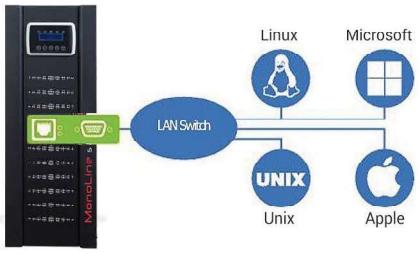
SINGLE PHASE OUTPUT
UPS FOR INDUSTRIAL APPLICATIONS

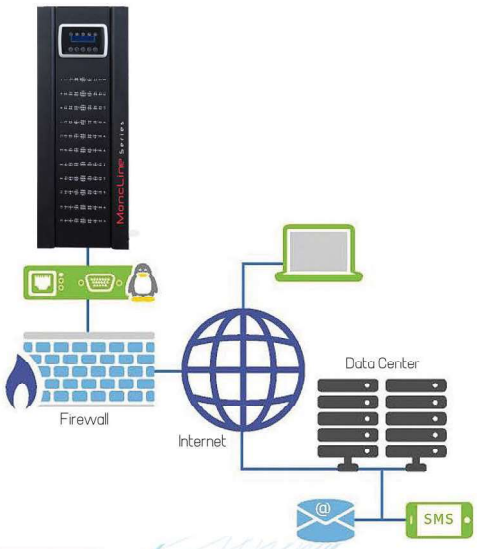
Three level Technology, Compact and Robust, Monoline is the perfect UPS to protect and supply loads in the industrial fields and critical applications.



- Three Level Technology
- Output Power Factor 1 (kVA=kW)
- On Line-Double Conversion Technology (Class VFI-SS-111)
- IGBT PWM Rectifer & 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%)
- 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 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 conversation 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* 100-110-120 V 1PH+N+PE**				380, 400, 415 V 3Ph+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 lcd 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 Tempature	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						
Referance Product Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)					

INNOVASIS

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