



1:1
PHASE

3:1
PHASE



MONOLINE R SERIES

1 - 3 Phase Input
1 - Phase Output RACK UPS
6 - 20 kVA



3 LEVEL
UPS



UPS ONLINE



RACK



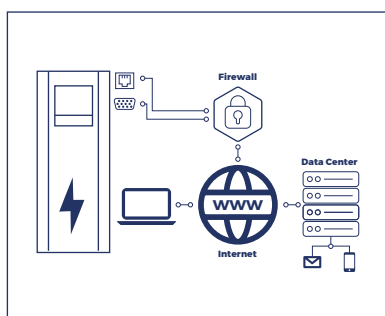
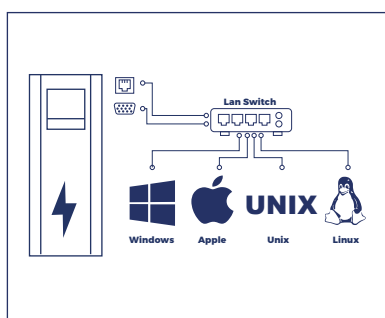
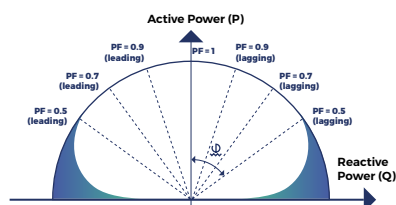
HIGH
EFFICIENCY



Li - On
READY

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 96%
- ◆ Higher efficiency with eco mode up to 98%
- ◆ High Input Power Factor (≥ 0.99)
- ◆ Low Input THD ($\leq 5\%$)*
- ◆ Increase battery life time up to 35% with smart charger
- ◆ Temperature compensation battery charging
- ◆ Higher fan life time with Intelligent fan speed control
- ◆ Operate as frequency converter (50 Hz / 60 Hz)
- ◆ Short Circuit, Overload, Lightning and Surge Protection
- ◆ Perfect Generator Compatibility
- ◆ Easy Service with Manual bypass
- ◆ Variable input low voltage depending on loading percentage (up to -40%)
- ◆ Parallelable with Common or Separate Battery Cabinet
- ◆ Realtime warnings at LCD screen

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 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 Technical Service

MONOLINE R SERIES

MODEL	MNL 1106U1R MNL 1106U2R	MNL 1110U1R MNL 1110U2R	MNL 1115U1R MNL 1115U2R	MNL 1120U3R	MNL 3110U1R MNL 3110U2R	MNL 3115U1R MNL 3115U2R	MNL 3120U1R MNL 3120U2R
Nominal power (kVA)	6	10	15	20	10	15	20
General Specs							
Technology	Three Level On-Line double conversion VFI-111						
Waveform	Sinusoidal						
Architecture	Stand Alone or Optional Parallel						
Input characteristics							
Input voltage	220, 230, 240 Vac 1FPH+N+PE				380, 400, 415 Vac 3PH+N+PE		
Input frequency	45-65 Hz						
Voltage Tolerance (%100 load)	(-20)% (+20)%						
Voltage Tolerance (%50 load)	(-40)% (+20)%						
Input Power Factor	≥0,99						
Input Current Harmonic*	≤5%						
Output characteristics							
Output Voltage	220,230,240 V 1 Ph+ N+PE (Adjustable from front panel)						
Output Voltage Tolerance	±1%						
Overall Efficiency (AC-AC)	Up to 95% (%50 load) // Up to %94 (%100 load)						
Ecomode Efficiency	Up to 98% (Optional)						
Nominal Output Frequency	50/60Hz +0.01 free run (Adjustable from LCD Panel)						
Crest Factor	3:1						
Output Power Factor	1 (U1 model) / 0,9 (U2 model) / 0,8 (U3 model)						
THD of Output Voltage	≤2% (Linear load) & ≤5% (Non-linear load)						
Bypass characteristics							
Overload Capability	150% for 1 minutes						
Bypass	Built in Automatic and Maintenance Bypass						
Voltage Tolerance	±10%						
Batteries							
Battery Type	VRLA-AGM / (GEL - NiCd - Li-On Opsiyonel)						
Battery Test	Automatic or Manual						
Battery Recharge Time	<6h-8h						
Charger Capacity							
U1/U2/U3 Model (max)	1A		4A		1A		4A
with Charger Option	4A / 13A						
Battery Quantity							
External Cabinet with Standard Charger	16 // 20(U1) pcs	20 pcs	30 // 40 pcs		20 pcs	30//40 pcs	
External Cabinet with 4A Charger Option	30-40 pcs (Default 40 pcs)						
External Cabinet with 13A Charger Option	30-40 pcs (Default 40 pcs - Adjustable from LCD Panel)						
Communication and Accessories							
LCD Display	Graphical Lcd Screen, Led Bar Status						
Communication ports (Optional)	RS485, Genset, SNMP, GSM Modem, Relay Contacts, Input Contacts, Modbus and USB						
Accessories (Optional)	Galvanic Isolation Transformer, Remote Monitoring Panel, Parallelization						
Physical Characteristics							
Dimensions W x D x H (mm)	438 x 579 (19") x 151 (3U)						
Net Weight (kg)	25	30	35	40	32	36	40
Ambient Conditions							
Operating temperature (°C)	0°C - 40°C						
StorageTempature	-15°C+ 55°C						
Relative Humidity (%)	< 95% not condensing						
Altitude	< 1500m						
Noise (at 1 meter)	<55 dBA						
Protection Class	IP 20 (Higher Ip Ratings are optional)						
Compliance							
Reference Product Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)						

*For single phase input model



INNOVATIVE ENERGY SYSTEMS

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