

MSN-Pro Series

10kVA ~ 20kVA (220V/230V/240V)

3-phase in/ 1-phase out

Double Conversion Online (VFI)



Product

MSN-Pro series, ranging from 10KVA to 20KVA, is double conversion online UPS with fully DSP controlled technology. This MSN-Pro series UPS applies the advanced 3-level technology, achieving efficiency up to 95%. With its compact design of high power density (kW=kVA), MSN-Pro series make it ideal choice for computers, telecommunication equipment and other sensitive devices.

The MSN-Pro Online UPS System provide the clean power to your precise mission critical equipment, regardless of any disturbance on incoming AC power. The system offers many advance features to give maximum reliability with flexibility of various configuration at the lower cost of electricity bills. With MSN-Pro Online UPS you have complete peace of mind.

Features

- Providing more high efficient AC power, compared with the previous generation
- Full digital control technology based on DSP to achieve high reliability and power function
- Output power factor 1.0
- Digitally controlled and intelligent battery management to extend the battery life
- Operation and display with LCD and LED indicators
- Fan speed can be auto conditioned according to the loads, input voltage or working mode
- Digitally controlled charger current and voltage
- Super high power density
- Self aging function enable user to test UPS at customer site without load
- Failure waveform record function help to solve problem quickly
- Parallel operation up to 4 units

Model	MSN-Pro 3110L		MSN-Pro 3115L	MSN-Pro 3120L
Input				
Cold Start	YES , Default output frequency will be 50 Hz or settable			
Acceptable Input Voltage	L-L 190VAC~499VAC; 100% load@>305VAC			
	90% load@>266VAC; 75% load@>228VAC			
	75% load@>228VAC; 50% load@>190VAC			
Phase	Three phase in, single phase out			
Transfer Voltage Range	L-L 380/400/415VAC			
Line low transfer	190VAC			
Line low recovery	209VAC			
Line high transfer	499VAC			
Line high recovery	486VAC			
Input Current				
Rating (nominal input voltage)	16.5A/380V	25A/380V	33A/380V	
Input Power Factor	≥0.99			
Input current distortion	≤4%			
Input Frequency Range	40~70Hz			
Output				
Frequency adaptable	Settable			
Power	10KVA	15KVA	20KVA	
Power(kW)	10KW	15KW	20KW	
Waveform (Bat. Mode)	Pure Sine Wave			
Nominal voltage	L-N 220VAC/230VAC/240VAC, 200VAC/208VAC(PF=0.9)			
Voltage regulation	± 1 %			
Voltage distortion	≤1% THD, linear load, ≤3% THD, non linear load			
Synchronization range	±5Hz default, settable			
Battery mode	(50±0.1) Hz default			
Transfer Time				
Line mode to battery mode	0ms			
Inverter to bypass	0ms			
Efficiency				
Line mode with battery full charged	94%@100% load, 94.5%@70% load	94.2%@100% load, 95%@70% load	94.2%@100% load, 95%@50% load	
ECO mode	98.0%			
Noise (1m away)	<55dB	<62dB		
Overload Capability (Inverter)	105% to 110% : Transfer to bypass after 10 mins; 111% to 125% : Transfer to bypass after 1 mins.; 126% to 150% : Transfer to bypass after 30s			
Overload Capability (Bypass Mode)	less than 125% : long time running; 126% to 130% : Shutdown in 5 mins; 131% to 150% : Shutdown in 1 mins; > 150% : Shutdown in 200 ms			
Battery				
Quantity	16-24PCS settable			
DC Voltage	192VDC default, settable			
Charger				
Charging current (max)	5A max, settable			
Float Charging Voltage	2.25V/cell default, setttable via software			
Boost Charging Voltage	2.25V/cell default, setttable via software			
Indicator & Alarm				
Display	LED+LCD			
Interface				
Interface	RS232, EPO			
Option				
Smart Kit	DB9 port dry contact, Parallel kit, USB, SNMP, 12A charger (derate to P.F. 0.9)			
Environment				
Storage	-40~70°C			
Working	0~40°C, humidity 95% non condensation, attitude<3000m (@full load)			
Mechanical				
Dimension WxDxH (mm)	190*485*336	190*485*480	190*485*480	
Net Weight (KG)	20	30	30	
Package Weight (KG)	22	33	33	