



Modulera

Modular UPS 3 Phase In - 3 Phase Out / 30 - 800 kVA

- True Online Double Conversion Technology with 3-Level Inverter Topology
- Hot Swappable Decentralized Parallel Architecture
- DSP (Digital Signal Processor) Controlled Technology
- Modular N+X Parallel Redundancy
- Plug & Play Type Hot Swappable easy replaceable Power Modules
- Independent control of each individual power module
- Common Battery use between parallel Frames
- Parallel connection availability of UPS Frames up to 4pcs
- Wide Input Voltage Window (305Vac ~ 485Vac)
- Wide input frequency range (40Hz ~ 70Hz)
- Transformerless Design with High Overall Efficiency
- Increased Output Power Factor (PF: 1.0)
- Unity Input Power Factor (PF: ≥ 0.99)
- Low Input Total Harmonic Distortion Level (THDi down to 3%)
- Increased Output Energy Quality with low harmonics (THDv <2%)
- Touch-screen LCD display for user's friendly operation
- EPO (Emergency Power Off)
- Programmable Battery Voltage (32/ 34 / 36 / 38 / 40 blocks of 12V Batteries)
- Three Level Battery Charge system with smart charge current adjustment
- Powerful charger built in each Modular UPS Power Module
- RS232 & 485 Ports as standard communication
- Megatec/Mod Bus protocol supported
- Optional Communication Interfaces (SNMP Card or DRY contact board)
- Small footprint up to 800kVA built-in one 19" Frame



POWER MODULE SPECIFICATIONS			
MDL Module Capacity (KVA/KW)		30kVA - 30kW	50kVA - 50kW
"MDL Module Dimension (WxDxH) (mm) "		442x620x86x(2U)	442x620x130x(3U)
Weight (kg)		32	
INPUT			
Phase		3Ph+N+PE	
Nominal Voltage		380/400/415Vac	
Operating Voltage Range		305~485Vac	
Operating Frequency Range		40Hz-70Hz	
Power Factor		≥0.99	
Harmonic Distortion (THDi)		3% (100% non-linear load)	
Bypass Voltage Range		Maximum Voltage: 220V: +25% (adjustable to +10%, +15%, +25%); 230V: +20% (adjustable to +10%, +15%), 240V:+15% (adjustable to +10%) Minimum Voltage: -45% (adjustable to-10%, -20%, -30%)	
Bypass Frequency Range		±10%	
Generator Input		Support	
OUTPUT			
Phase		3Ph+N+PE	
Nominal Voltage		380/400/415Vac (adjustable from front panel)	
Power Factor		1	
Voltage Regulation		±1%	
Frequency		50/60Hz (adjustable from front panel)	
Output Frequency	Utility Mode	±1% ±2% ±4% ±5% ±10% of the rated frequency (adjustable)	
	Battery Mode	(50/60±0.1%)Hz	
Crest Factor		3:1	
Harmonic Distortion (THDv)		≤1% Linear Load, ≤4% Non-linear Load	
Output Waveform		Pure Sinewave	
Efficiency		up to ≥96%	
BATTERY			
Battery Voltage		±180V/ ±192V\±204V\±216V\±228V\±240V\±252V\±264V\±276V\±288V\±300V DC; (30/32/34/36/38/40/42/44/46/48/50 pcs) adjustable battery quantity	
Charge Current (A)	UPS Cabinet	Charge current can be set according to battery capacity installed	
	MDL Module	10A Max.	20A Max.
Transfer Time		Utility to Battery : 0ms; Utility to by-pass: 0ms	
PROTECTION			
Overload		Load 110 % last 60min; Load 125 % last 10min; Load 150 % last 1min	
Short Circuit		Hold Whole System	
Overheat		Line Mode: Switch to By-pass, Backup Mode: Shut down UPS Immediately	
Low Battery Voltage		Alarm and Switch off	
Self Diagnostics		Upon Power On and Software Control	
EPO (optional)		Shut Down UPS Immediately	
Battery		Advanced Battery Management	
COMMUNICATION			
UPS Frame		CAN, RS232, RS485, Intelligent Slot	
Optional		Dry Contact / Relay Card, SNMP Card, Battery Temperture Sensor	
Parallel		Maximum 4 cabinets can be connected in parallel	
STANDARDS			
		EN/IEC 62040-2 (EMC); EN/IEC62040-1 & EN/IEC60950-1(SAFETY), EN/IEC62040-3(PERFORMANCE)	

MODULERA FRAME SPECIFICATIONS							
Model Name	MDL3330-150K MDL3350-150K	MDL3350-200K	MDL3330-300K MDL3350-300K	MDL3350-400K	MDL3350-500K	MDL3350-600K	MDL3350-800K
Frame Power [kVA - kW]	150kVA/150kW	200kVA/200kW	300kVA/300kW	400kVA/400kW	500kVA/500kW	600kVA/600kW	800kVA/800kW
Max Module Capacity (pcs)	5pcs 30kVA 3pcs 50kVA	4pcs 50kVA	10pcs 30kVA 6pcs 50kVA	8pcs 50kVA	10pcs 50kVA	12pcs 50kVA	16pcs 50kVA
Frame Dimensions [W*D*H] (mm)	600x850x1200	600x850x1600	600x850x2000	1200x850x2000	1200x850x2000	1400x850x2000	2000x850x2000
Frame weight (kg)	170	230	260	470	650	720	1080
DISPLAY							
LCD Display	Touchscreen LCD Panel on the main Frame						
Status LED & LCD	Line Mode, Bypass Mode, Battery Low, Battery Bad, Overload & UPS Fault						
Displays on LCD Panel	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage & Internal Temperature						
ENVIRONMENT							
Operating Temperature [°C]	0°C - 40°C						
Storage Temperature [°C]	-25°C - 55°C						
Relative Humidity	0 - 95% [non-condensing]						
Operating Altitude [max.]	< 1500m						
Audible Noise Level from 1m	<63dBA	<65dBA	<66dBA	<70dBA			<73dBA
Protection Class	IP21						