

3:3
FAZ



DATA CENTER



MEDICAL



INDUSTRY



TRANSPORTATION



EMERGENCY

MULTILINE HYBRID SOLAR UPS

Three-Phase Output
10 - 120 kVA



3 LEVEL
UPS



UPS ONLINE



TOWER



HIGH
EFFICIENCY



Li - On
READY



SOLAR
CONNECTION



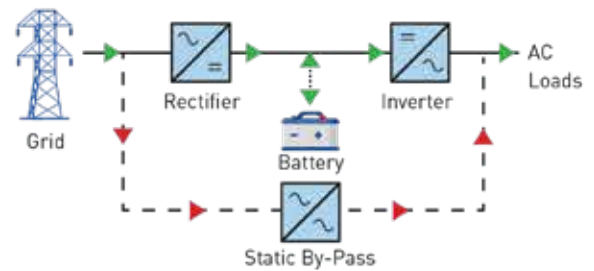
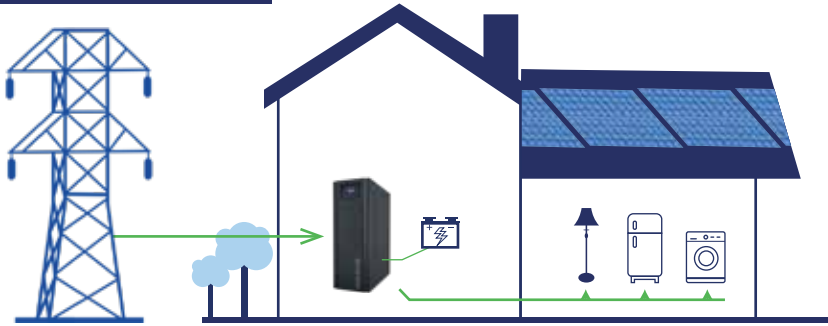
Multiline Hybrid Solar UPS

Get your energy from the sun with the new generation HYBRID SOLAR UPS.

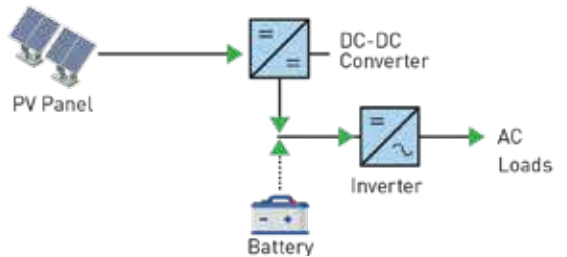
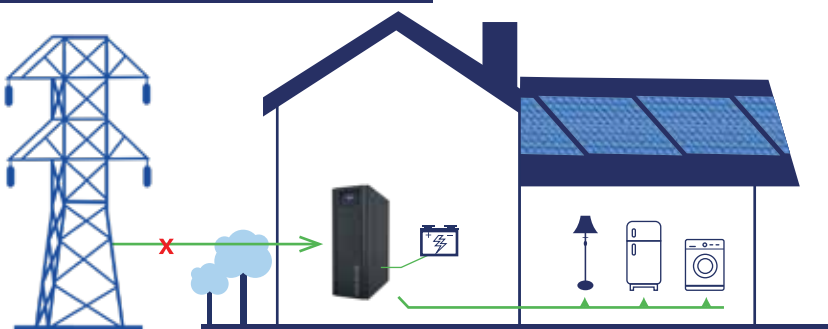
UPS + OFF-GRID INVERTER + ON-GRID INVERTER + HYBRID INVERTER + ENERGY STORAGE

- The new hybrid technology intelligently provides the most economical and ecological power option for loads.
- It is primarily fed by solar energy to amortize your investment.
- Maximum profit is achieved from the energy obtained from solar panels thanks to the MPPT algorithm.
- The clean energy produced is stored thanks to the battery bank and the system continues to be supplied with energy in the event of a power outage.
- The smart control system provides real-time information to users. In addition, smart energy management is provided according to different climates and user types.
- It provides full protection against all kinds of electrical problems without the need for any intervention like traditional on-line UPS.
- With the hybrid system, in cases where solar energy and battery are insufficient and the network is cut off, the emergency generator is automatically activated and uninterrupted power is provided to the user.

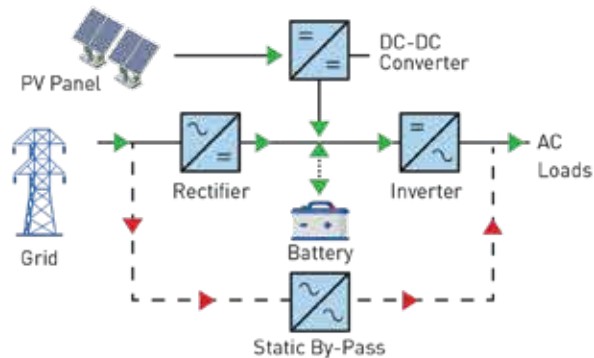
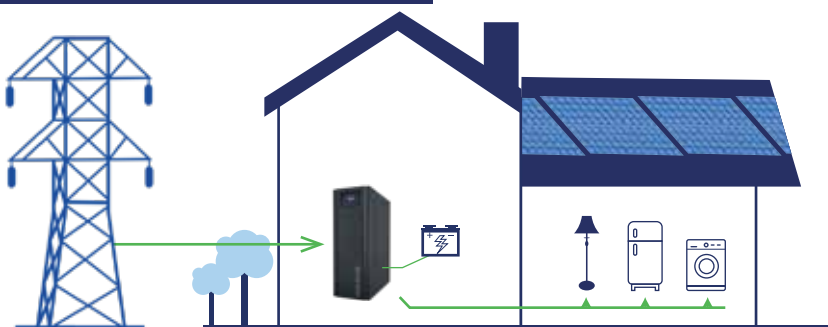
UPS Working Mode



Off-Grid Inverter Working Mode



Hybrid Inverter Working Mode



Monoline & Multiline Hybrid Solar UPS

MODEL		MNL 1106SU1	MNL 1110SU1	MTL 1110SU1	MTL 1115SU1	MTL 1120SU1
		6	10	10	15	20
UPS OPERATION (Mains-Battery)						
MAINS INPUT (AC)	Input Voltage - Number of Phases	220,230,240 Vac 1 Ph+ N+PE		380/400/415 VAC / 3Ph+N+PE		
	Input Voltage Range	195V-260V at 100% load, 145V-260V at 50% load				
	Input Frequency Tolerance	45-65 Hz				
LOAD OUTPUT (AC)	Output Voltage - Number of Phases	220,230,240 Vac 1 Ph+ N+PE				
	Output Frequency	50 / 60 Hz				
	Overload	1 min at 125% load, 10 sec at 150% load				
STATIC BY-PASS	Static Bypass Voltage Tolerance	380/400/415 VAC (Adjustable from front panel–15% +12%)				
	Statik Bypass Frekans Toleransı	47 Hz - 53 Hz (Ayarlanabilir)				
BATTERY & CHARGE CONTROL	Battery Type	Maintenance Free Dry Type (VRLA), Lithium Iron Phosphate / Gel / Lead Acid				
	Nominal Battery Voltage	192 VDC (16 Pcs 12V)		288 VDC (24 Pcs 12V)	384 VDC 32 Pcs 12V)	
	Max. Battery Charge Current	5A				
HYBRID OPERATION (Grid-Battery-PV)						
PV INPUT (DC)	Max. PV Input Power	8000 W (5000 W - 18000 W optional)				
	Max. PV Voltage/MPPT Voltage Range	350 VDC / 150-600 VDC				
	MPPT Number / Max. MPPT Input Current	1 / 30A				
MAINS OUTPUT (AC)	Network Output Voltage - Phase number	220,230,240 VAC / 1Ph+N+PE				
	Network Output Current (Per Phase)	12,1 A		18,1 A	24,2 A	
MAINS INPUT (AC)	Network Input Voltage Range	337 - 450 VAC				
	Network Input Current (Per Phase)	14,8 A		22,3 A	29,7 A	
	Automatic Operating Voltage	195-260 VAC				
BATTERY & CHARGE CONTROL	Nominal Battery Voltage	192 VDC (16 Pcs 12V)		288 VDC (24 Pcs 12V)	384 VDC 32 Pcs 12V)	
	Max. Battery Charge Current	5A				
OFF-GRID OPERATION (Battery-PV)						
PV INPUT (DC)	Max. PV Input Power	8000 W (5000 W optional)		8000 W (5000 - 8000 W optional)	8000 W (5000-18000 W optional)	
	Auto. Operating Voltage (Cold Start)	100 VDC				
	Max. PV Voltage/MPPT Voltage Range	300 VDC / 150-600 VDC				
	MPPT Number / Max. MPPT Input Current	1 / 30A				
BATTERY & CHARGE CONTROL	Nominal Battery Voltage	192 VDC (16 Pcs 12V)		288 VDC (24 Pcs 12V)	384 VDC 32 Pcs 12V)	
	Max. Battery Charge Current	5A				
LOAD OUTPUT (AC)	Output Voltage - Number of Phases	220,230,240 Vac / 1 Ph+N+PE		380/400/415 Vac / 3 Ph+N+PE		
	Output Frequency	50 / 60 Hz				
ON-GRID OPERATION (Grid-PV)						
PV INPUT (DC)	Max. PV Input Power	8000 W				
	Max. PV Voltage/MPPT Voltage Range	300 VDC / 150-600 VDC				
	MPPT Number / Max. MPPT Input Current	1 / 30A				
MAINS OUTPUT (AC)	Network Output Voltage - Phase number	220,230,240 Vac / 1 Ph+N+PE				
	Network Output Current (Per Phase)	12,1 A		18,1 A	24,2 A	
GENERAL DATA						
PRODUCTIVE	Euro Efficiency / Output Power Factor	%91,6 / 0,8~1		%91,8 / 0,8~1	%92,1 / 0,8~1	
INDICATOR	Screen	4x16 LCD, LED Display				
COMMUNICATION	Interface / Other	RS-232, USB, Emergency Power Off Button (EPO), GENSET, STS SYNC				
	Optional	RS485, DryContact, SNMP,				
ENVIRONMENTAL CONDITIONS	Storage / Operating Temperature Range	-25°C + 55°C / 0°C + 40°C				
	Humidity / Protection Class	0-95% (without condensation) / IP20				
	Working Altitude / Noise	0~1000 m / > 60dB				
	Cooling / Topology	Forced Convection / Transformerless				
PHYSICAL PROPERTIES	Dimensions W x D x H (mm)	295x620x700		295x620x875		
	Weight (Without Battery)	45 kg		50 kg		55 kg
	Weight (With 12V 9Ah Battery)	90 kg		113 kg		135 kg
	Mounting Type	Floor, Wheeled (Tower)				

Multiline Hybrid Solar UPS

MODEL		MTL 3330U1		MTL 3340U1	MTL 3360U1	MTL 3380U1	MTL 33100U1	MTL 33120U1
Rated power (kVA)		30	40	60	80	100	120	
UPS OPERATION (Mains-Battery)								
MAINS INPUT (AC)	Input Voltage - Number of Phases	380/400/415 VAC / 3Ph+N+PE						
	Input Voltage Range	195V-260V at 100% load, 145V-260V at 50% load						
	Input Frequency Tolerance	45-65 Hz						
LOAD OUTPUT (AC)	Output Voltage - Number of Phases	380/400/415 VAC / 3Ph+N+PE						
	Output Frequency	50 / 60 Hz						
	Overload	1 min at 125% load, 10 sec at 150% load						
STATIC BY-PASS	Static Bypass Voltage Tolerance	380/400/415 VAC (Adjustable from front panel-15% +12%)						
	Statik Bypass Frekans Toleransı	47 Hz - 53 Hz (Ayarlanabilir)						
BATTERY & CHARGE CONTROL	Battery Type	Maintenance Free Dry Type (VRLA), Lithium Iron Phosphate / Gel / Lead Acid						
	Nominal Battery Voltage	384 VDC (32 Pcs 12V)						
	Max. Battery Charge Current	5A						
HYBRID OPERATION (Grid-Battery-PV)								
PV INPUT (DC)	Max. PV Input Power	8000 W (27000 W - 108000 W optional)						
	Max. PV Voltage/MPPT Voltage Range	350 VDC / 150-600 VDC						
	MPPT Number / Max. MPPT Input Current	1 / 30A						
MAINS OUTPUT (AC)	Network Output Voltage - Phase number	380/400/415 VAC / 3Ph+N+PE						
	Network Output Current (Per Phase)	45,4 A	60,6 A	90,9 A	121,2 A	151,5 A	181,8 A	
MAINS INPUT (AC)	Network Input Voltage Range	337 - 450 VAC						
	Network Input Current (Per Phase)	68,1 A	90,9 A	121,2 A	181,8 A	227,2 A	272,7 A	
	Automatic Operating Voltage	195-260 VAC						
BATTERY & CHARGE CONTROL	Nominal Battery Voltage	384 VDC (32 Pcs 12V)			480 VDC (40 Pcs 12V)			
	Max. Battery Charge Current	5A (Optional 1 A - 13 A)						
OFF-GRID OPERATION (Battery-PV)								
PV INPUT (DC)	Max. PV Input Power	8000 W (27000 - 108000 W optional)						
	Auto. Operating Voltage (Cold Start)	100 VDC						
	Max. PV Voltage/MPPT Voltage Range	300 VDC / 150-600 VDC						
	MPPT Number / Max. MPPT Input Current	1 / 30A						
BATTERY & CHARGE CONTROL	Nominal Battery Voltage	384 VDC (32 Pcs 12V)			480 VDC (40 Pcs 12V)			
	Max. Battery Charge Current	5A						
LOAD OUTPUT (AC)	Output Voltage - Number of Phases	380/400/415 VAC / 3Ph+N+PE						
	Output Frequency	50 / 60 Hz						
ON-GRID OPERATION (Grid-PV)								
PV INPUT (DC)	Max. PV Input Power	8000 W						
	Max. PV Voltage/MPPT Voltage Range	300 VDC / 150-600 VDC						
	MPPT Number / Max. MPPT Input Current	1 / 30A						
MAINS OUTPUT (AC)	Network Output Voltage - Phase number	380/400/415 VAC / 3Ph+N+PE						
	Network Output Current (Per Phase)	45,4 A	60,6 A	90,9 A	121,2 A	151,5 A	181,8 A	
GENERAL DATA								
PRODUCTIVE	Euro Efficiency / Output Power Factor	%92,1 / 0,8~1						
INDICATOR	Screen	4x16 LCD, LED Display						
COMMUNICATION	Interface / Other	RS-232, USB, Emergency Power Off Button (EPO), GENSET, STS SYNC						
	Optional	RS485, DryContact, SNMP,						
ENVIRONMENTAL CONDITIONS	Storage / Operating Temperature Range	-25°C + 55°C / 0°C + 40°C						
	Humidity / Protection Class	0-95% (without condensation) / IP20						
	Working Altitude / Noise	0~1000 m / > 60dB						
	Cooling / Topology	Forced Convection / Transformerless						
PHYSICAL PROPERTIES	Dimensions W x D x H (mm)	1078 x 325 x 895	352 x 436 x 975	1078 x 325 x 895	1330 420 x 133	1257 x 432 x 918		
	Mounting Type	Floor, Wheeled (Tower)						



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