



# MUST30-120N

Modular UPS 30 - 120 kVA



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+ TELECOMMUNICATION DEVICES

+ EMERGENCY DEVICES

+ CRITICAL APPLICATION



Smart Energy  
Solutions

# Product overview

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- + HIGHEST RELIABILITY
- + MODULAR SOLUTION WITH HOT SWAP TECHNOLOGY
- + SMART FUNCTION MANAGEMENT
- + REDUCED INSTALLATION AND MAINTENANCE COSTS
- + SCALABILITY AND AVAILABILITY

**MUST 30-120** is an uninterruptible power supply with double conversion technology, the System is fully modular with three-phase input and output, the maximum rated capacity is 120kVA

The G-TEC's modularity is based on **Independent Parallel Architecture** concept, in fact each power module is a complete UPS, equipped with all individual power stages: rectifier AC/DC, batteries charger, inverter DC/AC, static transfer switch, DSP control with microprocessor technology.

The scalability of MUST-PM modules allows a gradual investment following the growth of electrical loads on site, as a matter of fact only the necessary power modules should be installed in order to satisfy the real needs.

The opportunity to configure the UPS system through 'bricks' affords to optimize the energy leakages of own UPS device, setting the working point at the best value of efficiency.



## Advantages



# The MUST system

## 1. MUST 30

MUST30N is the entry level to the MUST Family. It is the ideal solution to supply a medium load that requires the redundancy or the possibility to expand the power in the future. Its advantages win against any stand alone UPS solution as for scalability and reliability.

The solution is very compact and flexible with the possibility to expand also the autonomy adding up to 3 battery banks in the same cabinet. Power ranging from 15 kVA to 30 kVA (2 modules), 19" rack mounted with the internal battery pack.



MUST 30 kVA

## 2. MUST 60

Modular UPS three phase system ranging from 15 kVA to 60 kVA, 19" rack mounted with the internal battery pack. This solution can include 4 modules 15 kVA providing the following back up time at 75% of nominal load.

Max back up time with internal battery pack			
Nr power modules	kVA	kW at 75% of the rated load	backup time (min)
1	15	9	75
2	30	18	32
3	45	27	16
4	60	36	12

If redundancy is requested (N+1 modules) the max output power will be 45 kVA.

## 3. MUST 120

Modular UPS three phase system ranging from 15 kVA to 120 kVA, 19" rack mounted, designed for external battery cabinet. The max output power of the MUST cabinet is 120 kVA ( 8 modules 15 kVA/each). The battery pack are included in the external cabinet. If redundancy is requested ( N+1 modules) the max output power is 105 kVA.



MUST 60 kVA



MUST 120 kVA

# Technical specifications

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<b>MODEL</b>	<b>MUST 30/60/120N</b>
Nominal power	from 15kVA to 120kVA
<b>INPUT</b>	
Voltage	380V/400V/415V, 3 phases 4 wires
Voltage tolerance	294Vac to 520Vac
Frequency	50/60 ± 4Hz
Power Factor	≥ 0.99
THDi %	< 5%
<b>BYPASS</b>	
Voltage	380V/400V/415V, 3 phases 4 wires
Voltage tolerance	305Vac to 457Vac (selectable)
<b>OUTPUT</b>	
Voltage	380V/400V/415V, 3 phases 4 wires
Static voltage stability	≤ 1.5%
Frequency	50 / 60Hz ± 0,05% (battery)
Power factor	0,9
Overload protection	Load < 105% no transfer to bypass; 105% ≤ load < 115% transfer to bypass after 5 min; 115% ≤ load < 125% transfer to bypass after 1 min; load ≥ 125 % transfer after 1 sec.
<b>MODULE</b>	
Nominal power	15kVA / 13,5kW
<b>BATTERY</b>	
Battery nominal voltage	480 Vcc
Battery connections	3 wires (positive / neutral / negative)
Charger output voltage	273 ± 1% Vdc
Type	VRLA sealed
Max changing current	4,5A for each module (selectable by Lcd display)
<b>MECHANICAL</b>	
Acustical Noise (at 1 mt from the UPS with 8 modules)	≤ 62dB
Ambient operative temperature	0°C - 40°C
Relative umidity (Max)	90% (non condensing)
Ambient store temperature	-15°C / +55°C
Module weight	35kg
Module dimensions (mm)	440(W) x 700(D) x 131(H)
MUST 30 dimension (mm)	600(W) x 1000(D) x 1500(H)
MUST 60 dimensions (mm)	600(W) x 1000(D) x 2000(H)
MUST 120 dimensions (mm)	600(W) x 1000(D) x 2000(H)
<b>STANDARD</b>	
Safety	EN50091-1-1/EN62040-1-1
EMC	IEC 61000-4-2(L3); IEC 610004-3(L3); IEC 61000-4-4(L3); IEC 61000-4-5(L4); EN 50091-2(>25A) Class A

Note: UPS specification and data may subject to change for improvement without prior notice



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