



TRANSPORT

HELIOS  
POWER SOLUTIONS

# Master FC400



ONLINE



Tower



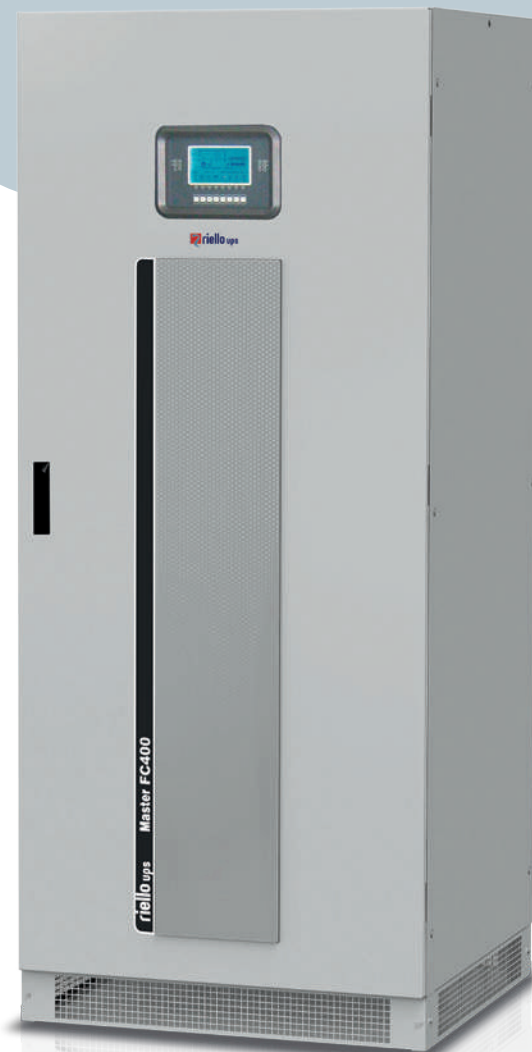
3:3 30-125 kVA



Service  
1st start



Airport/  
Shipyards



## HIGHLIGHTS

- Frequency converter 50/400 Hz
- Output voltage: 208 V - 3F
- Galvanic isolation
- Applications: airport, military and naval
- Battery backup

Master FC400 series static frequency converters are available from 30 to 125 kVA, with 50 or 60 Hz input and 400 Hz output. The result of extensive experience acquired in the UPS industry, the Master FC 400 series is distinguished by the use of technologically advanced components and for excellent reliability, ease of maintenance and ease of operation.

The Master FC400 series uses double conversion technology (VFI SS 111 voltage and frequency independent compliant with IEC EN 62040-3), with an integrated output transformer to ensure the galvanic isolation of the load from mains disturbances under all conditions.

The output voltage is 208 Vac three-phase

(adjustable 200÷215 Vac).

Thanks to high frequency IGBT technology and digital control, Master FC400 frequency converters are ideal for airport, military and naval applications.

### Minimum impact on mains – easy source

The Master FC400 was designed to reduce to a minimum the impact on the mains or generator located upstream, thanks to the low harmonic content input and the progressive start of the rectifier. These features make the Master FC400 frequency converters especially compatible with generators.

## Easy installation and maintenance

The Master FC400 requires a small space for installation (only 0,86m<sup>2</sup> for a 125 kVA model). The main assemblies of the UPS can be easily accessed for maintenance, via the removable front panel. Fans located in the top of the UPS cabinet, eliminate the need for side or rear access, and allow the UPS to be placed against a wall.

## Applications

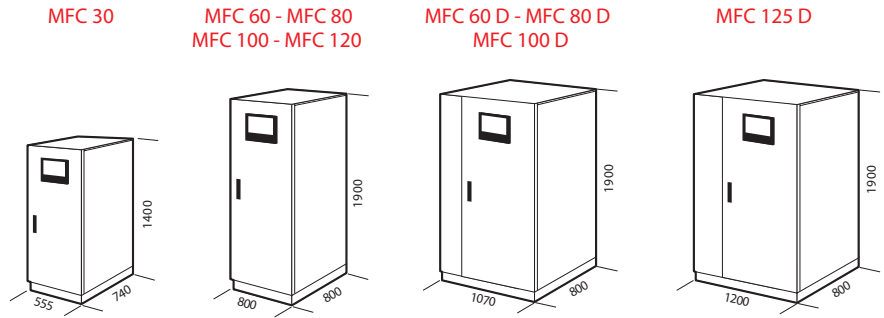
Master FC400 provides additional protection for a wide range of applications, including:

- Powering airplanes in airports
- Radar and flight-control systems
- Naval applications
- Military applications
- Power for test benches.

## Battery Back-up

MFC is also available as UPS with battery back-up.

## DIMENSIONS



## OPTIONS

### SOFTWARE & ACCESSORIES

See Master MPS

### PRODUCT ACCESSORIES

Input isolation transformer

IP rating IP31/IP42

Parallel configuration kit (Closed Loop)  
12 pulse version (D)

Filtering of 5<sup>th</sup> and 11<sup>th</sup> harmonics (HC)

Top Cable Entry cabinets

Digital I/O and Generator interface

MODELS	MFC 30	MFC 60	MFC 80	MFC 100	MFC 125
<b>INPUT</b>					
Nominal voltage	380 - 400 - 415 Vac three-phase				
Voltage tolerance	400 V ± 20%				
Frequency	45 - 65 Hz				
Current distortion	< 5% C (HC Version)				
Soft start	0 - 100% in 120" configurable				
<b>OUTPUT</b>					
Nominal power (kVA)	30	60	80	100	125
Active power (kW)	24	48	64	80	100
Nominal voltage	208 Vac three-phase + N				
Static stability	± 1%				
Dynamic stability	± 5%				
Voltage distortion	< 3% with linear load / < 4% with non-linear load				
Frequency	400 Hz				
Crest factor (Ipeak/Irms)	3/1				
Overload	110% for 60'; 125% for 10'; 150% for 1'				
<b>INFO FOR INSTALLATION</b>					
Weight (kg)	330	480	500	530	590
Dimensions (WxDxH) (mm)	555 x 740 x 1400		800 x 800 x 1900		
Remote signals	dry contacts				
Remote controls	ESD and ON/OFF				
Communications	Double RS232 + dry contacts + 2 slots for communications interface				
Operating temperature	0°C / +40°C (50°C @ 75% load)				
Relative humidity	<95% non-condensing				
Colour	Light grey RAL 7036				
Noise level at 1 m (ECO Mode)	62 dBA	65 dBA	68 dBA	70 dBA	72 dBA
IP rating	IP20 (others on request)				
Efficiency	up to 92%				
Standards	Directives LV 2006/95/EC - 2004/108/EC; Safety IEC EN 62040-1; EMC IEC EN 62040-2; Performance IEC EN 62040-3				
Classification in accordance with IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111				
Moving the UPS	transpallet				

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