

# Power Systems & Controls

## Series UPSC -- UPS Frequency Converter



The Series UPSC was designed in order to bridge the gap between Uninterruptible Power and Frequency Conversion. In an environment where a UPS is needed to support

the load, however, the input and output power are not at the same voltage or frequency, there is a single solution available. The Series UPSC is based on PS&C's time tested Series MC product family and will eliminate another single point failure when utilized. When your facility depends upon UPS

power and you are faced with a frequency conversion problem, the Series UPSC will allow you to put one piece of equipment in place to handle both requirements. The Series UPSC is available up to 300KVA.

The standard system includes:

- 100% on-line operation
- Digital metering and controls
- 100% load isolation
- PLC control and internal fault monitors
- Input voltage tolerance of +10%, -20% without use of battery
- Electrically operated input and output circuit breakers
- Input frequency tolerance from 45 Hz to 66 Hz (without battery)

### Standard Equipment Features

- AC induction motor
- Brushless synchronous generator
- +10% output voltage adjustment
- Over/under output voltage protection
- Sound and vibration isolated enclosure
- Vertical motor-generator configuration for minimum footprint (some models)
- Battery float voltage automatically adjusts for low AC input voltages
- Superior motor starting capability
- Adjustable battery current limit
- Input THD filter -- meets IEEE 519
- Air conditioning not required
- Overload protection
- Touch screen interface
- Manually activated, timed battery equalize function

### Optional Features

- Remote monitor (Status & Control)
- Remote touch screen (Standard & Fiber optic)
- Modem, serial port & profibus
- Single phase output
- Paralleling capability
- Remote Communications
- "Turn Key" Installation



# System Specifications

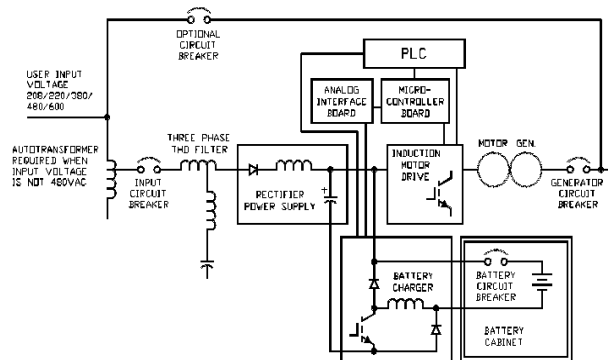
\*Note: System performance shown is typical and is dependent upon M-G sizing, options desired, and loading of the system.

INPUT		OUTPUT	
Nominal Voltage Available		Nominal Voltage Available	
➤ @ 60 Hz	208, 240, 480, 600	➤ @ 60 Hz	208, 240, 480, 600
➤ @ 50 Hz	380, 415	➤ @ 50 Hz	380, 415
➤ Phase	3 Phase 4 Wire + Ground	➤ Phase	3 Phase 4 Wire + Ground
➤ Frequency Tolerance	55 to 65 or 45 to 55	➤ Frequency Regulation	+/- 5Hz
➤ Magnitude Tolerance		➤ Adjustment	+/- 10%
➤ Continuous	+10%, -15%	➤ Regulation	
➤ Transient	1500v for 10 ms	➤ Transients	50% Block Load +/-8%
Power Factor		➤ Recovery Time	0.5 within 0.5 seconds
➤ Power Factor	0.95 lagging @ full load	➤ Steady State	+/-0.5% Δ 90° F

SERIES UPSC RATINGS, DIMENSIONS & WEIGHTS					
60HZ	KVA /KW	L (CM)	W (CM)	H (CM)	W (KGS)
UNDER 30		CONSULT FACTORY			
30 / 24		36 (91.5)	34.5 (87.6)	76 (193)	1950 (884)
50 / 40		51 (130)	34.5 (87.6)	76 (193)	3000 (1361)
75 / 60		51 (130)	34.5 (87.6)	76 (193)	3950 (1791)
100 / 80		114 (289.6)	34.5 (87.6)	76 (193)	4800 (2177)
125 / 100		114 (289.6)	34.5 (87.6)	76 (193)	5200 (2359)
150 / 120		114 (289.6)	34.5 (87.6)	76 (193)	5500 (2495)
200 / 160		114 (289.6)	34.5 (87.6)	76 (193)	6100 (2767)
250 / 200		114 (289.6)	34.5 (87.6)	76 (193)	6410 (2907)
300 / 240		120 (304.8)	34.5 (87.6)	79.5 (201.9)	7073 (3215)
50HZ	KVA /KW	W (CM)	L (CM)	H (CM)	W (KGS)
25 / 20		39 (91.5)	34.5 (87.6)	76 (193)	1950 (884)
41.5 / 33		51 (130)	34.5 (87.6)	76 (193)	3000 (1361)
62.5 / 50		51 (130)	34.5 (87.6)	76 (193)	3950 (1791)
83 / 66.5		114 (289.6)	34.5 (87.6)	76 (193)	4800 (2177)
104 / 83		114 (289.6)	34.5 (87.6)	76 (193)	5200 (2359)
125 / 100		114 (289.6)	34.5 (87.6)	76 (193)	5500 (2495)
166.5 / 133		114 (289.6)	34.5 (87.6)	76 (193)	6100 (2767)
208 / 166.5		114 (289.6)	34.5 (87.6)	76 (193)	6410 (2907)
250 / 200		120 (304.8)	34.5 (87.6)	79.5 (201.9)	7073 (3215)

\* Battery Cabinet dimensions depends upon runtime required

THD (Total Harmonic Distortion)	
➤ Single	2% Max
➤ Total	3% Max
Phase Separation	
➤ Balanced Load	120° +/- 1°
➤ 25% Unbalanced	120° +/- 3°
Overload Capacity	
➤ 100% Rating	
➤ 110%	2 Hours
➤ 125%	10 Minutes
➤ 150%	1 Minutes
➤ Power Factor	0.8
<b>ENVIRONMENT</b>	
➤ Temperature	
➤ MG	0° -120° F
➤ Console	32° -104° F
➤ Altitude	3,300 ft
➤ Humidity	0 to 95% non-condensing
➤ Noise Level	65 dBA at 1.5 meters (5 ft)



Power Systems & Controls reserves the right to improve, enhance and modify the features and specifications of its products and services without prior notification.

**POWER SYSTEMS**  
**& CONTROLS**  
**THE POWER IS ON!**