



STARLET M UPS SYSTEM



From **100 - 120Kva**

- > *Online Double Conversion (VFI)*
- > *Low Impact on Mains Supply*
- > *0.9 leading to 0.9 lagging loads*
- > *Parallel Capability for up to 6 units*
- > *“Hot System Expansion” facility*
- > *Four Configurable Operating Modes*
- > *Power “Walk-in” & “Delay” features*
- > *Variety of Remote Comms options*

The ‘Starlet M’ incorporates the benefits on-line double conversion technology with the attributes of a high frequency **transformer-less** inverter.

High efficiencies throughout the load range and an input specification of **less than 4% THDi** with a **PF of 0.99**, provides virtually zero impact on the mains supply allowing the unit to be used in locations where site mains is limited.

Performance with more Power...

The range has been designed to deliver maximum protection for critical loads from 0.9 leading to 0.9 lagging without de-rating of the unit, thus offering 15% more active power than traditional UPS designs.

High input performance helps reduce running costs and enables mains supply, cabling and associated switchgear to be downsized without any de-rating of output power. Selecting the ‘Starlet M’ helps to ensure that site conditions remain within the recommendations of **G5/4** for input distortion and also provides the sensible choice for combined UPS and Generator packages.

Parallel Systems...

For even higher levels of integrity these units offer a ‘**plug & play - auto configuration**’ parallel capability (up to 6 units) to increase system resilience or increase load capacity. Additional UPS modules can be incorporated into the system at a later date with the “**Hot System Expansion**” facility allowing the existing units to remain online to support the load.

Remote *Monitoring...*

An LCD Remote Panel is available providing operating status, measurement values and alarm conditions at a chosen location up to a maximum of 300m from the UPS. Alternatively the computer network can be utilised with our NetMAN card to provide full UPS monitoring via a web-browser with the facilities to send alarms via email, SMS, SNMP or to an existing BMS.



UPS *Display...*

The 'Starlet M' UPS incorporates a user friendly, multi-language alphanumeric graphic display. Full system operating status, alarm conditions, measurement values can be displayed and are automatically stored into an events memory providing a history of up to a maximum of 960 entries.

Technical Specification *Starlet M (100-120)*

UPS Power (kVA)	100	120
Active Power (kW)	90	108
Dimensions (mm)	1900h x 750w x 850d	
Weight (kg)	370	380
Efficiency (AC - AC)	94% (@ 75% load) >93% (@ 50% load) 98% (eco)	
Heat Dissipation (kW)	6.9	7.2
Audible Noise (dB)	<70 (@ 1m)	
Ambient Temperature (°C)	0 - 40 (batteries 25°C optimum)	
Design Standards	EN62040-1, 2 & 3	
Input		
Nominal Input Volts (Vac)	400 (+/- 20%)	
Input Current (Nom / Max)	145 / 182	172 / 215
Input Frequency (Hz)	+/- 20% (40-72Hz)	
Input Power Factor	0.99 (@ full load)	
Input Harmonic Distortion	<4% (@ full load)	
Output		
Nominal Output Volts (Vac)	380 / 400 / 415	
Output Current (0.8pf/1.0pf)	152 / 121	182 / 145
Output Frequency (Hz)	50 or 60 (configurable)	
Inverter Overload Capability (0.8pf)	115% Cont, 125% 10min, 150% 1min, 150% 5sec	
Output Voltage Distortion	<2% (linear load) <4% (non-linear load)	

Standard Features

Power Factor Corrected Rectifier	Backfeed Protection
Online Double Conversion using IGBT	Dual Input Facility (same source supply)
Integral Static and Manual Bypass Switch	RS232 and 2 x Communication Slots
Automatic and Manual Battery Test Facilities	User friendly, menu driven display
	Design Standards EN62040-1, 2 & 3

Options

Wall mounted Maintenance Bypass Switch (**Recommended**)
 Parallel Cards for higher capacity systems or N+1 redundancy (6 units max)
 Top Entry Cable Chamber
 External Temperature Probe to adjust Battery Recharge
 Bypass Isolation Transformer
 Remote Panel with LCD Screen and Audible Alarm
 SNMP Network Card / Relay Contact Card (240v)