

# PowerWAVE EL

(Single phase 500 VA – 30 kVA)

Three phase 10-160 kVA)

## Technical Specification



# PowerWAVE EL 100

Model	EL104	EL105	EL106	EL108	EL110	EL112
Power rating kVA/kW	4 / 2.8	5 / 3.5	6 / 4.2	8 / 5.6	10/7	12.5 / 8.75
Power factor	0.7					
<b>Input</b>						
Voltage / tolerance	230 VAC single phase, +/- 15%					
By-pass voltage	230 VAC single phase					
Input frequency	50Hz +/- 5%					
Max RFI	EN50091-2 Class A					
<b>Output</b>						
Voltage	230 VAC single phase					
Voltage stability	Static (balanced load) +/-1%, static (unbalanced load) +/-2%, dynamic (step load 0-100%) +/-5%					
Voltage recovery time	After step load 0-100% max. 20ms					
Frequency	50Hz					
Frequency tolerance	Line synchronised +/- 1% / free running +/- 0.2%					
Efficiency at 100% load	>87-91%					
Crestfactor	3:1					
Short circuit protection	Electronic short circuit					
Overload capacity	120% continuous, 120–150% load 10min. 150–180% 1min					
Total harmonic distortion (THD)	Linear Load <3%					
<b>Batteries</b>						
Type	Sealed lead acid – maintenance free					
Number of 12V blocks	16	18			20	
Float charging voltage	216Vdc	243Vdc			270Vdc	
End of discharge voltage	160Vdc	180Vdc			200Vdc	
Battery ambient temperature	20°C					
Battery protection	Circuit breaker					
Battery test	Automatic battery test once a week					
<b>General</b>						
Serial communication	Dry contacts plus RS232					
Software	T-Mon standard / SNMP module optional					
Protection degree	IP41					
Ambient operating temperature / altitude	0°C to 40°C / <1000m (above sea level)					
Standard	Emergency lighting EN 50171					
Ventilation	Forced air cooling					
Acoustic noise at 1m distance	<56 dB					
Weight (kgs)	85	95	110	125	150	155
Dimensions (mm) WxDxH	570 x 370 x 1210					

See page 60 for full product overview.

# PowerWAVE EL 100XA

Model	EL1005XA	EL1012XA	EL1030XA
Power rating VA / W	500 / 400	1250 / 1000	3000 / 2400
Power factor	0.8		
<b>Input</b>			
Voltage / Tolerance	230VAC single phase / 184V ~ 285V		
Frequency	50Hz +5%		
Max. RFI	EN50091-2 CLASSA		
<b>Output</b>			
Voltage	230VAC Single phase		
Voltage stability	Changeover mode +10% / battery mode +3%		
Voltage recovery time	After step load 0-100%. Max. 20ms.		
Frequency	50Hz		
Frequency tolerance	±1% in battery mode		
Efficiency at 100% load	>97%		
Crest Factor	3:1		
Short circuit protection	Electronic short circuit		
Overload capacity	120% continuous		
<b>Batteries</b>			
Type	Sealed lead acid –maintenance free		
Number of 12V blocks (Internal)	4	4	4 or 8
Float charging voltage	54VDC	54VDC	54VDC
End of discharge voltage	42VDC	42VDC	42VDC
Battery ambient temperature	20°C	20°C	20°C
Battery protection	Double pole DC circuit breaker		
Battery test	Automatic battery test / smart battery management		
<b>General</b>			
Serial communication	Drycontacts plus RS232		
Software	Optional monitoring & shutdown / optional SNMP module		
Protection degree	IP21		
Ambient operating temperature / altitude	0°C to 40°C / <1000m above sea level		
Standard	Emergency lighting EN50171		
Ventilation	Forced air cooling		
Acoustic Noise at 1m distance	<56 dB		
Dimensions (mm) WxDxH	750 x 250 x 850	750 x 250 x 1250	750 x 400 x 1250

# PowerWAVE EL 200

Model	EL210	EL215	EL220
Power rating kVA/kW	10 / 7	15 / 10.5	20 / 14
Power factor	0.8		
<b>General</b>			
Serial communication	Dry contacts plus RS232		
Software	T-Mon standard / SNMP module optional		
Protection degree	IP41		
Ambient operating temperature / altitude	0°C to 40°C / <1000m (above sea level)		
Standard	Emergency lighting EN 50171		
Ventilation	Forced air cooling		
Relative humidity	10–90% max (non-condensing)		
Acoustic noise at 1m distance	<60 dB		
<b>Input</b>			
Voltage / tolerance	230/400 VAC 3phase, 4wires, +ground, +/- 15%		
By-pass voltage	230 VAC single phase		
Input frequency	50Hz +/- 5%		
Max RFI	EN50091-2 Class A		
<b>Output</b>			
Voltage	230 VAC single phase		
Voltage stability	Static (balanced load) +/-1%, Static (unbalanced load) +/-2%, Dynamic (stop load 0-100%) +/-5%		
Voltage recovery rime	After step load 0-100% max. 20ms		
Frequency	50Hz		
Frequency rolance	Line synchronised +/- 1% / free running +/- 0.2%		
Efficiency at 100% load	>87-91%		
Crest factor	3:1		
Short circuit protection	Electronic short circuit		
Overload capacity	120% continuous, 120–150% load 10min. 150–180% 1min		
Total harmonic distortion (THD)	Linear load <3%		
<b>Batteries</b>			
Type	Sealed lead acid – maintenance free		
Number of 12V blocks	30		
Float charging voltage	405		
End of discharge voltage	300VDC		
Battery ambient temperature	20°C		
Battery protection	Circuit breaker		
Battery test	Automatic battery test once a week		
<b>Weight/Dimensions</b>			
Weight (kgs) excluding batteries	250		
Dimensions (mm) WxDxH	545 x 730 x 1250		

# PowerWAVE EL 300 DSP

Model	EL310 DSP	EL320 DSP	EL330 DSP	EL340 DSP	EL360 DSP	EL380 DSP	EL3100 DSP	EL3120 DSP	EL3160 DSP	
Power rating kVA/kW	10 / 9	20 / 18	30 / 27	40 / 36	60 / 54	80 / 72	100 / 90	120 / 108	160 / 144	
Power factor	0.8									
<b>General</b>										
Serial communication	Dry contacts plus RS232									
Software	T-Mon standard / SNMP module optional									
Protection degree	IP41									
Ambient operating temperature / altitude	0°C to 40°C / <1000m (above sea level)									
Standard	Emergency lighting EN 50171									
Ventilation	Forced air cooling									
Relative humidity	10–90% (non-condensed)									
Acoustic noise at 1m distance	<62 dB				<64 dB		<68 dB			
<b>Input</b>										
Voltage / tolerance	380/400/415 VAC (3PH + N + PE)									
By-pass voltage	230/400 VAC three phase									
Input frequency	50Hz +/- 5%									
Max RFI	EN50091-2 Class A									
Harmonic distortion	<5% @ 100% load									
<b>Output</b>										
Voltage	230/400 VAC three phase									
Voltage stability	Static (balanced load) +/-1%, Static (unbalanced load) +/-2%, Dynamic (stop load 0-100%) +/-5%									
Voltage recovery time	After step load 0–100% max. 20ms									
Frequency	50Hz									
Frequency tolerance	Line synchronised +/- 1% / free running +/- 0.2%									
Efficiency at 100% load	>87-91%									
Crest factor	3:1									
Short circuit protection	Electronic short circuit									
Overload capacity	120% continuous, 120–150% load 10min. 150–180% 1min									
Total harmonic distortion (THD)	Linear load <3%									
<b>Batteries</b>										
Type	Sealed lead acid – maintenance free									
Number of 12V blocks	30									
Float charging voltage	405									
End of discharge voltage	300VDC									
Battery ambient temperature	20°C									
Battery protection	Circuit breaker									
Battery test	Automatic battery test once a week									
<b>Weight/Dimensions</b>										
Weight (kgs) excluding batteries	91	100	173	197	209	220	232	265	482	
Dimensions (mm) WxDxH	400 x 815 x 1040				515 x 855 x 1440				880 x 775 x 1900	

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