rehlko

REHLKO *EL* Series

(Single-phase 500 VA – 24 kVA
Three-phase 10 – 160 kVA)

REHLKO *EL* Series

Efficient power for emergency lighting and safety equipment.

The Rehlko EL range addresses the need for a range of high performance static inverters manufactured using state-of-the-art technology to give your operation the peace of mind it needs.

Boasting true double conversion and PWM technology, the entire Rehlko EL range is simple and easy to install with front access.

REHLKO EL Series

- Designed to fully comply with European Standard EN 50171
- True double conversion and PWM technology
- Capable of 120% continuous overload to meet European emergency lighting regulations
- Large charger for faster recharge of batteries
- Unique inverter design to suit high inrush lighting loads
- Bypass to load (changeover mode) user selectable
- LCD panel providing accurate detailed information about load, batteries and inverter with advanced diagnostics
- SNMP, RS 232 and dry contacts for communication and remote monitoring

Common applications

- Emergency lighting systems
- Central power supply systems
- Fire alarm and safety systems

Used within:

- Hospital and medical systems
- Cinemas and entertainment venues
- Retail
- Transportation
- Museums

EL 100XA series

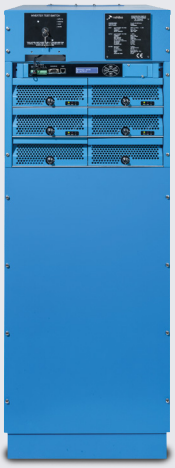
- High performance static inverter (500–3000 VA)
- Wall-mounted and floor-standing options
- Allows for an internal self-contained battery system capable of supplying standard emergency lighting for 3 hour autonomies
- Inverter comes with an internal output distribution board

EL 300 DSP series

- Three-phase input and output static inverter (10–160 kVA)
- Solution for higher power, three-phase loads
- IP41 as standard: suitable for harsher environments
- Maintenance bypass, for complete isolation of the inverter during maintenance
- BS1 kitemark certified to BS EN 50171

EL MOD series

- High performance emergency lighting inverter (4–24kVA)
- 1/1 and 3/1 configuration via display
- Hot-swap power module
- Output configurable to three modes of operation (changeover/inverter/non-maintained)
- Front access for maintenance and repair



Technical specification **REHLKO EL 100XA**

Model	EL1005XA	EL1012XA	EL1030XA
Nominal Input Voltage	230 VAC 1 phase + N		
Input Voltage Range	140 – 310 VAC		
Input Frequency Range	47–55 Hz		
Max Input current (A) @ 100% resistive load, No charge current	2.3A	5.2A	12.6A
Max Input current (A) @ 100% resistive load, Full charge current	6A	9A	24.6A
Input Power Factor	>0.99		
Output			
Frequency	50Hz		
Frequencey tolerance – Free running – Line synchronized	 ± 3% ± 10%		
Overload capability	120% Load: Continuous 125–150% Load: 1 min >150% Load : By pass		
Harmonic distortion	<5%		
Crest factor	3.0/1.0		
Nominal Output Rating (CosØ : 0.8) kVA	0.5kVA	1.25kVA	3kVA
Nominal Output Rating (CosØ : 1) W	400 Watts	1000 Watts	2400 Watts
Efficiency (Load dependant)	Upto 83% Inverter Mode / Up to 98% Changeover Mode		Upto 86% Inverter Mode / Upto 98% Changeover Mode
Batteries			
Type	Sealed Lead Acid – maintenance free		
Number of blocks	4 x 12V Batteries		
Battery Instalation	Internal		
Charger Max (A)	15A	15A	45A
Battery protection	Polarity Protection / Short Circuit Protection / Fuses		
Battery test	Standard every 6 days		
General			
Ambient operating temperature / altitude	0–40°C <1000 metres (Above sea level)		
Standards	EN 62040-1, EN 62040-2, EN 61000-2-2, EN 61000-3-2, EN 61000-4-2 EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8 EN 50171		
Ventilation	Forced		
Heat dissapation	100	250	600
Dimensions (mm) W x D x H	750 x 250 x 850	750 x 250 x 1250	750 x 400 x 1250
Weight (without battery) kgs	35	40	50
Protection level	IP20		

Technical specification – **REHLKO EL 300 DSP**

Model	EL310	EL320	EL330	EL340	EL360	EL380	EL3100	EL3120
General Specifications								
Nominal Output Rating (CosØ : 0,8) kVA	10	20	30	40	60	80	100	120
Nominal Output Rating (CosØ : 1) kW	9	18	27	36	54	72	90	108
Audible Noise	<57 dB	<62dB		<64dB		<62dB		
Efficiency (Load Dependant)	Upto 94% Inverter Mode / Upto 98% Changeover Mode							
Operating Temperature (Ambient)	0-40 °C							
Altitude	<1000 meters (Above sea level)							
Ventilation	Forced							
Relative Humidity	< 90%							
Protection Degree	IP 20							
Standards	EN 62040-1,EN 62040-2, EN62040-3, EN 60950-1 EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 60529, EN50171, ICEL1009							
Transport	Packaged and On Pallet							
Rectifier Specifications								
Nominal Input Voltage	380 / 400 VAC 3 phase + N,+20 - 25%							
Max Input current (A) per phase @100% resistive load, no charge current.	31	46	62	92	123	154	185	246
Max Input current (A) per phase @100% resistive load, Full charge current.	34	49.6	66.8	99.8	134	167	200	264
Input Frequency Range	50 Hz, +/- 5%							
Input Power Factor	>0.99							
Input Voltage distortion	<10 %							
Input THDi	<5%							
Input Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Input PFC							
Battery Specifications								
Battery Type	Sealed Lead Acid VRLA / Ni-Cad							
Number of Blocks	60 Batteries (+/-30)							
Number of Cells	360							
Float voltage	810Vdc (+/-405 Vdc)							
Battery Cut Off voltage	600Vdc (+/-300 Vdc)							
Charger Max (A)	5.5	13	14	20	27	40.5	54	72
Batttery Installation	External							
Battery Test Automatic	Standard every 72 Hours (Adjustable)							
Battery Protection	Polarity Protection/ Short Circuit Protection /Automatic Circuit Breaker / Fuses							
Inverter Specifications								
Inverter Bridge	IGBT Technology							
Nominal Output Voltage	380 / 400 VAC 3 phase + N							
Nominal Output Current	13A	26A	39A	52A	78A	104A	130A	156A
Output Frequency	50 Hz (60 Hz On Request)							
Output Frequency Tolerance - Free Running - Line Synchronized	 ± 0,2 % ± 2 %							
Overload Capability	120% Load : Continuous, 120-150% Load: 10 min, 150%-180%: 1 min, >180% Load: By pass							
Harmonic Distortion - Linear Load - Non Linear Load	 < 2 % < 5 %							
Crest Factor	3/1							
Output Waveform	Sine Wave							
Short Circuit Protection	Electronic Short Circuit Protection							
Bypass Specifications								
Primary Components	Electronic SCR Switch							
Nominal Voltage - V	380 / 400 VAC 3 phase + N							
Nominal Frequency - Hz	50 Hz ± 5%							
Retransfer: Static By-Pass to Inverter	Automatic And Manual							
Overload Capability	150 – 200% Continuously							
Manual By-Pass	Without Interruption							

Technical specification – **REHLKO ELMOD**

Model		
Power module	**ELM-04**	
Capacity	4 kVA	
Input / Output mode	Single-phase input/output	
Input PF	≥0.99	
THDI (%)	≤3%	
Overload ability	Comply to system overload requirement	
Charging power	1600W	
Weight (kg)	7kg	
System cabinet Mains / bypass input	**Single-phase Input**	**Three-phase Input**
Input Mode	1-phase +N +E	3-phase +N +E
Input voltage	220V / 230V / 240V ±25%	380V / 400V / 415V ±25%
Input frequency	50Hz±10%, 60Hz±10%	
Input Current	26A ~ 156A (26A per fitted power module)	78A (12 kVA system) 156A (24 kVA system)
Power walk-in (Sec.)	60 secs	
THDI (%)	<3%	
Input PF	≥0.99	
DC input		
Rated DC Input voltage	±240VDC	
DC Input voltage tolerance	±216V ~ ±246VDC	
DC Input current	10A ~ 60A (10A per fitted power module)	30A (12 kVA system) 60A (24 kVA system)
Battery charging		
Charging current limited	Yes	
Charging ability	12 hours (3 hours back up)	
Stability of charging voltage	±1%	
AC output		
Maximum Power	4 kVA to 24 kVA in 4 kVA steps (1 to 6 Power modules fitted)	12 kVA (3 modules fitted) OR 24 kVA (6 modules fitted) only
Power factor	0.9	
Output voltage	220 / 230 / 240VAC	
Output frequency	50 Hz / 60 Hz nominal	
Output frequency sync	Nominal ±4%; ±0.2% (on battery)	
Output current	19.2~ 115.2A (19.2A per fitted module)	57.6A (12 kVA system) 115.2A (24 kVA system)
Output voltage stability	±1%	
Output voltage recovering time	20ms (load 0 ~ 100% change)	
Overload ability	120% Continuous, 150% for 10mins, 175% for 1 min	
Transfer from mains to battery supply	0ms	
Transfer from bypass to inverter supply	<1ms	
Peak factor	3:1	
Waveform distortion	≤1% (linear load), ≤3%(non-linear load)	
Overall efficiency	≥93% (AC~AC), ≥98% (DC~AC)	
Load share precision	≤5%	
Output Short Circuit	3 x Output Current for 120ms	
Environmental		
Ambient temperature	-25˚C ~ 60˚C	
Operating temperature	-5˚C ~ 40˚C	
Maximum operation altitude	≤1500m	
Relative humidity	≤ 95% non-condensing	
Protection degree	IP30	
Cooling	Fan-assisted air cooling (front entry / rear exhaust)	
Applicable safety standards	EN62040-1-1:2003 IEC60950-1:2001 EN50171	
Electromagnetic compatibility	EN62040-2:2006	
Acoustic noise	≤55 dBA	
Heat dissipation	Changeover mode: 120W (per power module), Inverter mode: 280W (per power module) Non-maintained mode: 120W (per power module)	
Communications		
External Interface	RS232, RS485, 2 dry contact, TCP/IP adapter	
Display	LCD/LED	
Communications		
Cabinet dimensions (W x D x H)	510 x 850 x 1340 mm	
Cabinet weight	100kg cabinet + 7 kg for each power module (i.e. 107 kg with one power module up to 142 kg with six modules)	

Exceptional 24/7/365 Service Support

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Rehlko is the new name for Kohler Uninterruptible Power