



REHLKO *EW* 6000-Li

Compact, fully integrated single or three phase UPS system with internal power distribution and lithium-ion battery modules

(6-10 kVA single phase, 10-40 kVA three phase)

Innovative, compact and integrated, the EW 6000-Li makes advanced protection *simple*.

The Rehlko EW 6000-Li integrated UPS, power distribution and lithium-ion battery system reduces space, complexity and installation costs without compromising on protection or autonomy.

Start with a range of high efficiency, dependable, online double-conversion VFI UPS systems.

Add a choice of safe, intelligently managed 40 Ah, 50 Ah or 100 Ah hot-swappable lithium-ion battery modules.

Then finish with a comprehensive power distribution unit, all housed in a single cabinet.

The Rehlko EW 6000-Li reduces space and complexity, *without* reducing protection.

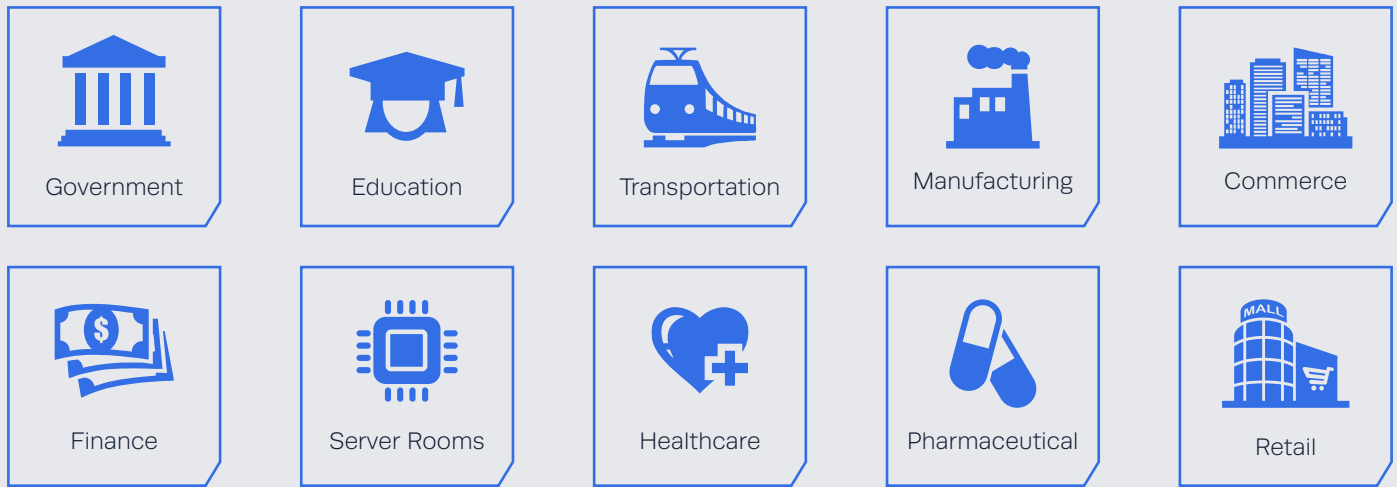


Typical Applications

The compact, integrated design of the Rehlko EW 6000-Li system makes it an ideal solution for a wide range of critical power protection applications.

An operating temperature range of -5°C to $+40^{\circ}\text{C}$ and incorporation of a full series of protective breakers further reduces the complexity of installation in many applications, whilst high energy efficiency and unity power output maximise the autonomy provided by the lithium-ion battery modules.

Ensuring peace of mind and up to date status information, the touch screen display is backed by a range of alarm and communications outputs for integration into facility management systems.



Sample Configurations

See specification table for additional variations



Single-phase 6-10 kVA UPS with 8 x 40/50Ah battery modules and no PDM



Three-phase 10-20 kVA UPS with 8 x 40/50Ah battery modules and 20 kVA PDM

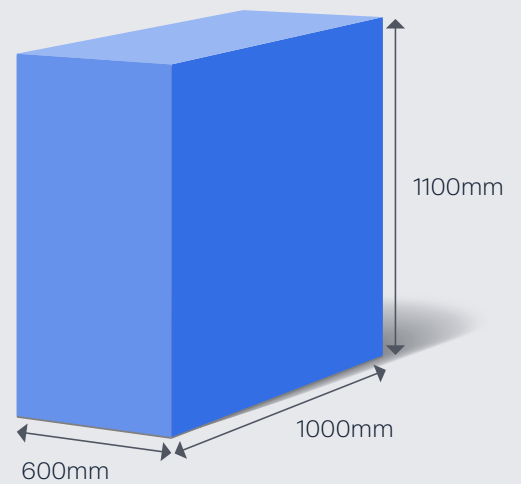


Three-phase 30-40 kVA UPS with 4 x 100Ah battery modules and 40 kVA PDM

Compact, integrated cabinet



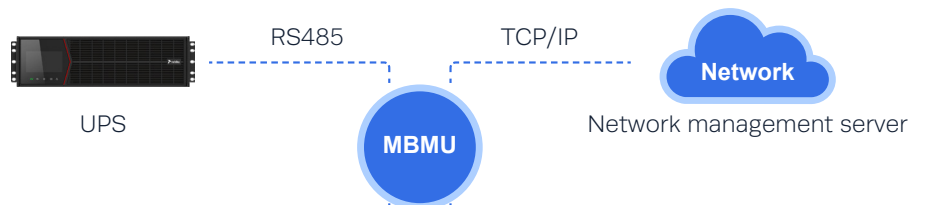
System Cabinet



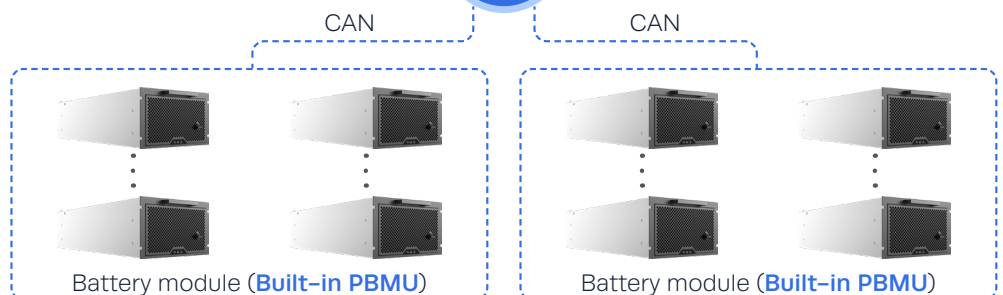
Featured Two-layer BMS Architecture

The adopted two-layer BMS architecture (PBMU/MBMU) ensures the reliability of lithium-ion battery system from cell, module and system layers.

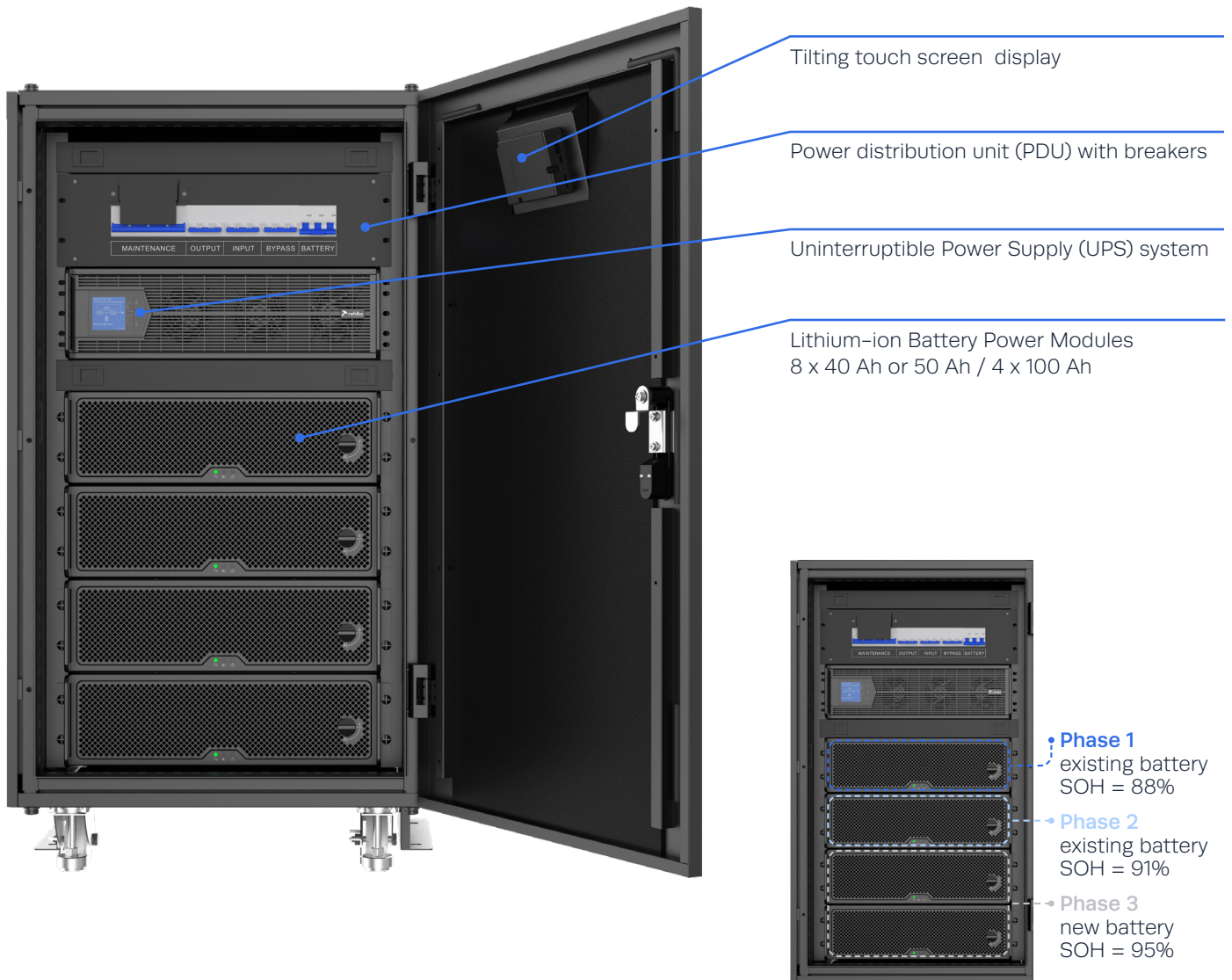
Master Battery Management Level



Module / Pack Battery Management Level



Features



Mix existing and new batteries

Key features

- | High VFI-mode (double conversion) energy efficiency
- | Hot-swappable, safe LFP lithium-ion battery modules in 40 Ah, 50 Ah or 100 Ah sizes
- | Full breaker protection - input, output, bypass, maintenance bypass and battery
- | Clear 4.3" touch screen display and menu combines UPS and battery data
- | Compact footprint cabinet, only 0.6m²
- | RS 485, Emergency Power Off (EPO) and dry contact outputs as standard. Optional SNMP card
- | Unity (1.0) output power factor
- | Parallel battery design for enhanced resilience
- | Operating temperature range up to 40°C

Battery Configurations

The Rehlko EW 6000-Li is available with a choice of three lithium-ion battery modules – up to eight 40 Ah or 50 Ah modules or up to four 100 Ah modules.

The tables below give data on the autonomy time provided for 100% load at different UPS sizes.

If greater autonomy is required additional battery cabinets can also be added – please contact Rehlko for further details if this is of interest.

Battery Configuration Table

1. 40Ah battery module for short time power backup

Battery module (mins) \ UPS capacity (kW)	1	2	3	4	5	6	7	8
6	17	34	51	68	85	102	119	136
10	10	20	30	40	50	60	70	80
20	-	10	15	30	25	30	35	40
30	-	-	10	20	16	20	23	26
40	-	-	-	10	12	15	17	20

2. 50Ah battery module for short time power backup

Battery module (mins) \ UPS capacity (kW)	1	2	3	4	5	6	7	8
6	23	46	69	92	115	138	161	184
10	15	30	45	60	75	90	105	120
20	-	15	22	30	37	45	52	60
30	-	-	15	20	25	30	35	40
40	-	-	-	15	18	22	26	30

3. 100Ah battery module for long time power backup

Battery module (mins) \ UPS capacity (kW)	1	2	3	4
6	-	95	143	191
10	-	57	86	114
20	-	-	-	58

The above configuration is for reference only, subject to actual measurement

Technical specification

MODEL	S3C040-1106 S3C050-1106 S3C100-1106	S3C040-1110 S3C050-1110 S3C100-1110	S3C040-3310 S3C050-3310 S3C100-3310	S3C040-3320 S3C050-3320 S3C100-3320	S3C040-3330 S3C050-3330	S3C040-3340 S3C050-3340
Capacity(kVA)	6	10	10	20	30	40
INPUT						
Voltage (Vac)	L-N: 80-275 (176-275 at full load)		L-L: 138-485 (305-485 at full load)			
Frequency (Hz)	40-70					
Power Factor	≥0.99					
THDi	≤3% (resistive full load), ≤5% (non-linear full load)					
Phase	1:1		1:1/3:1/3:3		3:1/3:3	
BYPASS						
Voltage (Vac)	±15%/±20% (default ±20%)		±10%/±15%/±20% (default ±20%)			
Frequency (Hz)	±5%/±10% (default ±10%)					
Overload	130%: long term, 200%:10min, above 200% 10s					
OUTPUT						
Voltage (Vac)	L-N: 208/220/230/240±1%		L-L: 380/400/415±1%			
Frequency (Hz)	50/60±0.5Hz		50/60±0.1 (battery mode)			
Power Factor	1.0					
THDv	≤1% (resistive full load), ≤3% (non-linear load)		≤2% (resistive full load), 4% (nonlinear load)			
AC/AC Efficiency (Max.)	94%	94.5%	96%			
Overload	105%: long term; 130% 30s; above 130% 500ms		105%: long term; 110%: 60min; 130% load: 10 min; 155%: 1 min; above 155%: 200ms			
Transfer Time (ms)	0 (Mains mode-Battery mode), ≤1 (Mains mode-Bypass mode)					
Crest Factor	0					
BATTERY						
Battery Type	Lithium ion, LFP type					
Internal Battery	(1~8)*40Ah/51.2V/2.05kWh/10kW or (1~8)*50Ah/57.6V/2.88kWh/10kW or (1~4)*100Ah/57.6V/5.76kWh/5kW					
GENERAL						
Communication	RS485, EPO, RS485+dry contact card Optional: SNMP card					
Display	4.3" touch screen					
Noise (dB)	<65					
Working Temperature (°C)	-5 to +40					
Altitude(m)	2000					
Relative Humidity	0 ~ 95%, no condensation					
Protection Grade	IP20					
Agency/Certification/ Conformance	UN38.3, EN 62040-1, EN 62040-2					
Dimension (WxDxH) (mm)	UPS	438x500x87 (2U)		438x500x130 (3U)		438x680x130 (3U)
	Cabinet	600x1000x1110				
Weight (kg)	UPS	10.6	12.2	20		34
	Cabinet ¹	120				

Specification is subject to change without prior notice.

1. Without built-in UPS and batteries.



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Exceptional 24/7/365
Service Support



Rehlko is the new name for Kohler Uninterruptible Power