

TECHNICAL DATA

Lithium



Item number	LIRO1-2000-5.4	LIRO1-2000-8	LIRO1-3500-5.4	LIRO1-3500-8	LIRO1-3500-10.8	LIRO3-2250-5.4	LIRO3-2250-8	LIRO3-2250-10.8	LIRO3-6000-16.2	LIRO3-10500-24	LIRO3-21000-48	LIRO3-31500-72	LIRO3-42000-96	
System	Single phase AC coupled					Three phase AC coupled			Three phase AC coupled		Three phase AC coupled			
storage capacity, usable	5.4 kWh	8 kWh	5.4 kWh	8 kWh	10.8 kWh	5.4 kWh	8 kWh	10.8 kWh	16.2 kWh	24 kWh	48 kWh	72 kWh	96 kWh	
Nominal voltage of battery	48 V (dc)					48 V (dc)			48 V (dc)		48 V (dc)			
Input voltage range of the battery)*	38 - 68 V (dc)					38 - 68 V (dc)			38 - 68 V (dc)		38 - 68 V (dc)			
Max. power at 25°C)***	2000 VA		3500 VA			3 * 750 VA			3 * 2000 VA		2 * 3 * 3500 VA		3 * 3 * 3500 VA	
Max. power at 25°C, 30 min)**	2600 VA		4000 VA			3 * 1200 VA			3 * 2600 VA		2 * 3 * 4000 VA		3 * 3 * 4000 VA	
Max. power at 25°C, 3s)**	6500 VA		10500 VA			3 * 2800 VA			3 * 6500 VA		2 * 3 * 10500 VA		3 * 3 * 10500 VA	
Maximum load	until short circuit					until short circuit			until short circuit		until short circuit			
Asymmetric load max.	until continuous power					until continuous power			until continuous power		until continuous power			
Cos φ	0,1 - 1					0,1 - 1			0,1 - 1		0,1 - 1			
Efficiency electronics max.	96%					93%			96%		96%			
Own consumption Stand-By	6 W					8,5 W			25 W		50 W	75 W	100 W	
Output voltage	real sinus 230 V (ac) (+/- 2 %)					real sinus 230 V (ac) (+/- 2 %)			real sinus 230 V (ac) (+/- 2 %)		real sinus 230 V (ac) (+/- 2 %)			
Output frequency	50 Hz +/- 0.05%					50 Hz +/- 0.05%			50 Hz +/- 0.05%		50 Hz +/- 0.05%			
Distortion factor	< 2%					< 2%			< 2%		< 2%			
Overload and short circuit protection	automatic stop					automatic stop			automatic stop		automatic stop			
Overtemperature protection	acoustic warning before stop					acoustic warning before stop			acoustic warning before stop		acoustic warning before stop			
Battery charger														
Charging characteristics)*	6 steps					6 steps			6 steps		6 steps			
Max. charge power at 25°C)***	1,4 kW		2,4 kW			1,7 kW			4 kW		7 kW	14 kW	21 kW	42 kW
Temperature compensation	yes					yes			yes		yes			
Power factor correction (PFC)	EN 61000-3-2					EN 61000-3-2			EN 61000-3-2		EN 61000-3-2			
Battery														
Self-discharging battery cell	approx. 2% / year					approx. 2% / year			approx. 2% / year		approx. 2% / year			
Stand-by consumption (aktiv / sleep)	5 W / 0.126 W					5 W / 0.126 W			15 W / 0.378 W		30 W / 0.756 W	45 W / 1.134 W	60 W / 1.512 W	
Technology	Li-Ion NMC	Li-Ion NCA	Li-Ion NMC	Li-Ion NCA	Li-Ion NMC	Li-Ion NMC	Li-Ion NCA	Li-Ion NMC	Li-Ion NMC	Li-Ion NCA	Li-Ion NCA			
General data														
Input voltage range	150 to 265 V (ac)					150 to 265 V (ac)			150 to 265 V (ac)		150 to 265 V (ac)			
Input current max. / system	50 A (ac)					16 A (ac)			3 * 50 A (ac)		2 * 3 * 50 A (ac)	3 * 3 * 50 A (ac)	4 * 3 * 50 A (ac)	
Output current max. / system	56 A (ac)					20 A (ac)			3 * 56 A (ac)		2 * 3 * 56 A (ac)	3 * 3 * 56 A (ac)	4 * 3 * 56 A (ac)	
Transfer time (UPS)	<= 15 ms					<= 15 ms			<= 15 ms		<= 15 ms			
ca.-Gewicht / System	149 kg	153 kg	154 kg	157 kg	244 kg	162 kg	166 kg	257 kg	447 kg	471 kg	942 kg	1413 kg	1884 kg	
Number of individual components / unit	2					2			2		2			
max. Gewicht einer Einzelkomponente	95 kg	99 kg	95 kg	99 kg	99 kg	95 kg	99 kg	95 kg	95 kg	99 kg	99 kg			
Dimension HxBxL [mm] / unit	900 x 590 x 595					900 x 590 x 595			900 x 590 x 595		900 x 590 x 595			
Number of units	1				2	1		2	3		6	9	12	
Protection type	IP21													
CE conformity	CEM 2004/108/CE : EN61000-6-1; EN61000-6-3; EN55014; EN5522; EN61000-3-2;													
Operating temperature	+4 to +30°C, recommended room temperature: 20°C													
Noise level	< 45 dB													

The regulations of the respective countries / network operators need to be considered!

valid from: 02.09.2019

Subject to change

)* in dependence of the control unit

)** by emergency / off-grid operation

)***) in dependence of duration, frequency and temperature