



## **Lithium-ion battery**

### **24 V / 48 V / 80 V**

Jungheinrich lithium-ion batteries are long-lasting and powerful and are a reliable source of energy for your forklift trucks. Be it a pallet truck, electric forklift truck or tow tractor – the efficient overall system comprising truck, battery and charger guarantees maximum warehouse productivity.

Our powerful lithium-ion batteries are quick to charge and have an impressive battery life: three times longer

than conventional lead-acid batteries. An inbuilt battery management system and clever energy recovery ensure optimum energy management.

Maximum performance, a constant voltage curve in 24/7 operation and maintenance free to save costs – these are additional benefits you can enjoy with Jungheinrich Li-ion power.

# Lithium-ion battery, 24 V

24 V	Case	S	M	LS	LSF	LB	LBV	SBE	IM1
Nominal capacity	40 Ah	110 Ah		260 Ah/390 Ah					130/260 Ah
Nominal energy content		2816 Wh		6656 Wh/9984 Wh					3328 or 6656
Nominal voltage of battery		25.6 V							
Nominal voltage of truck		24 V							
Cell chemistry		Lithium iron phosphate LFP							
Operating temperature during operation		-20 °C to 55 °C							
Operating temperature for charging		-20 °C* to 55 °C							
Energy efficiency in accordance with DIN EN 16796-1:2017:		110 Ah: 93 %		260 Ah: 90 %					
Protection rating/ impact		IP54/same as truck control system							
Weight incl. additional weight		139 kg	210 kg	370 kg	295 kg	288 kg	288 kg	288 kg	76/98 kg
Dimensions in mm		660 x 145 x 590	624 x 207 x 627	800 x 213 x 875	792 x 212 x 635	624 x 284 x 683	624 x 284 x 627	624 x 284 x 627	775 x 214 x 341
Charge status indicator		On truck display and, when charging, on the charger							
Charging time for 100 % nominal capacity with external SLH 300i charger (24 V/300 A)	80 min**	80 min***		75/80 min				68 min	
Boost charging time for 50 % nominal capacity with external SLH 300i charger (24 V/300 A)	30 min**	30 min***		30/35 min				30 min	
Pallet trucks	EJE 112i/114i	EJE 114 EJE 116-120 EJE C20	EJE 116-120 EJE 222-235 EJE 220r/225r	ESE 220/320			EJE 116-120 EJE 222/225 ERE 120/125 ERE 225/230	EJE 116-120 EJE 222/225 ERE 120/125 ERE 225 ESE 120	
Stacker trucks	EMD 115i	EJC 110/112(z) EMD 118 EJD 118	EJC 112z EJC 212(z)-216(z) EJC 230 EJG 106-112 EJD 118 EJD 220	ESC 214(z)/216(z) ESC 316(z) ESD 220	EJC 212z-220z ERC 212z-220z	EJC 212-220 ERE 230 EJC B14/B16 ERC 212-220 ERD 220		EJC 212-220 ESE 120 EJC B14/B16 ERC 212-220 ERD 220 ESD 120 ESD 220	ERC 216zi
Order pickers & tow tractors			EZS 130	ECE 220-225 ECE 310-320 ECD 320 EZS C40 EZS 350					
Reach & front-stacking trucks									
System trucks						EKS 110		EKS 110	
Special-build forklift trucks									

\* Different temperatures may affect battery performance (in relation to battery temperatures)

\*\* Charger type: SLH 040i

\*\*\* Charger type: 24/50 SLH 300i (24 V/300 A)

# Lithium-ion battery, 24 V

	24 V	TM	TSL	TSM	TXL	TXXL	TSH	TMH	TLH
Technical data	Nominal capacity	208 Ah	260 Ah	260 Ah	572 Ah	572 Ah	416 Ah	572 Ah	624 Ah
	Nominal energy content	5387 Wh	6734 Wh	6734 Wh	14,815 Wh	14,815 Wh	10,774 Wh	14,815 Wh	16,161 Wh
	Nominal voltage of battery	25.9 V							
	Nominal voltage of truck	24 V							
	Cell chemistry	Lithium Nickel Manganese Cobalt Oxide NMC							
	Operating temperature during operation	-20 °C to 50 °C							
	Operating temperature for charging	-20 °C* to 55 °C							
	Energy efficiency in accordance with DIN EN 16796-1:2017:	n/a							
	Protection rating/ impact	IP54/same as truck control system							
	Weight incl. additional weight	204 kg	464 kg	250 kg	570 kg	650 kg	630 kg	750 kg	930 kg
Dimensions in mm	624 x 212 x 628	1208 x 258 x 535	1010 x 211 x 535	830 x 435 x 627	830 x 489 x 627	832 x 328 x 784	832 x 382 x 784	832 x 490 x 784	
Charging	Charge status indicator	On truck display and, when charging, on the charger							
	Charging time for 100 % nominal capacity with external SLH 300i charger (24 V/300 A)	60 min	60 min	60 min	115 min	115 min	84 min	115 min	125 min
	Boost charging time for 50 % nominal capacity with external SLH 300i charger (24 V/300 A)	30 min	30 min	30 min	58 min	58 min	42 min	58 min	63 min
Forklift trucks	Pallet trucks	ERE 120/125 ERE 225(dP)							
	Stacker trucks	ERC 2/2z/2b EJC 2/2z/2b ERD 120 ERD 220(dP)							
	Order pickers & tow tractors								EKS 408/412
	Reach & front-stacking trucks				EFG 113	EFG 115			
	System trucks						EKS 210	EKS 308/310	
	Special-built forklift trucks		ERV 308	ERM 312d					

# Lithium-ion battery, 48 V

	48 V	IM	MH	LH	XS	S	SB	MB	LB	
Technical data	Nominal capacity in Ah	260/390	390/520	390/520	260	390/520	390/520	390/520	390/520	
	Nominal energy content in Wh	13,312/19,968	19,968/26,624	19,968/26,624	13,312	19,968/26,624	19,968/26,624	19,968/26,624	19,968/26,624	
	Nominal voltage of battery	51.2 V								
	Nominal voltage of truck	48 V								
	Cell chemistry	Lithium iron phosphate LFP								
	Operating temperature during operation	-20 °C to 55 °C								
	Operating temperature for charging	-20 °C* to 55 °C								
	Energy efficiency in accordance with DIN EN 16796-1:2017:	91 %	91%/93 %	91%/93 %	92 %	91%/93 %	91%/93 %	91%/93 %	91%/93 %	
	Protection rating/ impact	IP54/same as truck control system								
	Weight incl. additional weight	400/460 kg	1005 kg	1,210 kg	195 kg	375 kg	708 kg	856 kg	1013 kg	
Dimensions in mm	1136 x 476 x 720	1,220 x 352 x 784	1,220 x 424 x 784	817 x 414 x 312	817 x 414 x 618	830 x 522 x 627	830 x 630 x 627	830 x 738 x 627		
Charging	Charge status indicator	On truck display and, when charging, on the charger								
	Charging time for 100 % nominal capacity with external SLH 300i charger (48 V/300 A)	70/80 min	80/90 min	80/90 min	70 min	80/90 min	80/90 min	80/90 min	80/90 min	
	Boost charging with external SLH 300i charger (48 V/300 A) (50 % of nominal capacity)	30/35 min	35/45 min	35/45 min	30 min	35/45 min	35/45 min	35/45 min	35/45 min	
Forklift trucks	Order pickers & tow tractors				EZS 570–590			EZS 570–590 XL		
	Reach & front-stacking trucks	ETV 216i	ETV 214/216 ETV 318–325 ETV Q20/Q25 ETV C16/C20	ETV 214/216 ETV 318–325 ETV Q20/Q25 ETV C16/C20			EFG 213/215	EFG 216k/218k EFG 316–320	EFG 216–220 EFG 316–320	
	System trucks					EKX 410 EKX 412 EKS 210/215a	EKS 312 EFX 410/413			

\* Different temperatures may affect battery performance (in relation to battery temperatures)

# Lithium-ion battery, 48 V

48 V	TXS	TXS	TM	TM	TXL	TXL
Nominal capacity in Ah	156	260	364	416	364	520
Nominal energy content in Wh	8081	13,468	18,855	21,549	18,885	26,936
Nominal voltage of battery	51.2 V					
Nominal voltage of truck	48 V					
Cell chemistry	Lithium Nickel Manganese Cobalt Oxide NMC					
Operating temperature during operation	-20 °C to 50 °C					
Operating temperature for charging	-20 °C* to 55 °C					
Energy efficiency in accordance with DIN EN 16796-1:2017:	n/a	n/a	n/a	n/a	n/a	n/a
Protection rating/ impact	IP54/same as truck control system					
Weight incl. additional weight	528 kg		890 kg		2,141 kg	
Dimensions in mm	1035 x 263 x 784		1035 x 443 x 784		1223 x 499 x 784	
Charge status indicator	On truck display and, when charging, on the charger					
Charging time for 100 % nominal capacity with external SLH 300i charger (48 V/300 A)	60 min	60 min	73 min	84 min	73 min	104 min
Boost charging with external SLH 300i charger (48 V/300 A) (50 % of nominal capacity)	30 min	30 min	37 min	42 min	37 min	52 min
Order pickers & tow tractors						
Reach & front-stacking trucks	ETV 110/112	ETV 110/112	ETM 214/216	ETM 214/216	ETV 318-325	ETV 318-325
System trucks						

# Lithium-ion battery, 80 V

	80 V	S	M	L	TXS	TXL	TXXL
Technical data	Nominal capacity in Ah	500			468	1,248	
	Nominal energy content in Wh	43,200			38,095	101,587	
	Nominal voltage of battery	86.4 V			81.4 V		
	Nominal voltage of truck	80 V					
	Cell chemistry	Lithium iron phosphate LFP			Lithium Nickel Manganese Cobalt Oxide NMC		
	Operating temperature during operation	-10 °C to 55 °C			-20 °C to 50 °C		
	Operating temperature for charging	-10 °C* to 55 °C			-20 °C* to 55 °C		
	Energy efficiency in accordance with DIN EN 16796-1:2017:	94 %			n/a	n/a	n/a
	Protection rating/ impact	IP54/same as truck control system					
	Weight incl. additional weight	1558 kg	1,863 kg	2,173 kg	1,180 kg	2,627 kg	2,977 kg
Dimensions in mm	1028 x 711 x 784	1,028 x 855 x 784	1,028 x 999 x 784	1028 x 567 x 784	1287 x 1037 x 784	1287 x 1220 x 784	
Charging	Charge status indicator	On truck display and, when charging, on the charger					
	Charging time for 100 % nominal capacity with external SLH 090i charger (80 V/290 A)	105 min			97 min	259 min	259 min
	Boost charging for 50 % nominal capacity with external SLH 090i charger (80 V/290 A)	53 min			49 min	130 min	130 min
Forklift trucks	Order pickers & tow tractors	EZS 7280		EZS 7280			
	Reach & front-stacking trucks	EFG 425k/430k	EFG 425-S30 EFG 535k-545k	EFG 540-S50		EFG 660k-S90k	EFG 660-S90
	System trucks	EKX 516(k) ETX 515	ETX 515		EKX 514 ETX 513		

\* Different temperatures may affect battery performance (in relation to battery temperatures)

## Jungheinrich Aktiengesellschaft

Friedrich-Ebert-Damm 129  
22047 Hamburg  
Germany  
Telephone +49 40 6948-0  
Telefax +49 40 6948-1777

info@jungheinrich.com  
www.jungheinrich.com

The German production facilities  
in Norderstedt, Moosburg  
and Landsberg are certified.

ISO 9001  
ISO 14001

Jungheinrich trucks  
conform to the European  
Safety Requirements.



**JUNGHEINRICH**