

Jungheinrich Electric Four-Wheel Counterbalance Truck Capacity 4,000 lb

EFG-V ac 20



- **3 phase AC high performance truck with fully enclosed 2-motor front wheel drive**
- **“LISA” with five individually adjustable drive programs**
- **Cushion mounted cab**
- **Maintenance-free laminated brakes**

Application: A compact design gives high maneuverability to ensure high performance in confined spaces. Long wheel base ensures good straight ahead travel even on uneven terrain. Electric drive creates a healthier non-exhaust, low noise environment ideal for indoor and outdoor use. The 2-motor front wheel drive ensures the highest traction on smooth floors and uphill gradients.

Driver's Cab: A low step-up, high visibility cab with ample leg room, adjustable steering column, 3-way adjustable comfort seat, and conveniently located hydraulic control levers for lifting/lowering, mast tilt, drive direction and horn provides the operator with the highest ergonomic comforts. A cushion mounted chassis eliminates most vibrations to the cab and the components.

Instruments: The display and setting device LISA (LC Information and Service Display) features a digital hour meter, a steer-wheel direction indicator, and a battery discharge indicator with lift interrupt. LISA has five separate drive programs that allow the driver to adjust controls for desired applications. Furthermore, LISA warns the driver on its display and executes chronological diagnostics for the service technician.

Travel Drive: 2-motor front wheel drive. The compact drive units, comprising of motor, planetary/spur gear units, laminated brake and wheel are separately connected to the chassis.

Motors: Drive motors 2 x 4 kw = 8 kw (1 hour rating), lift motor 14 kw (15 % load factor), steering motor 0.8 kw (75 % load factor). Fully enclosed 3-phase AC asynchronous motors with high degree of efficiency – maintenance-free for life. Standard temperature control with excess temperature display (LISA). 2 year warranty.

Travel-, Lifting- and Steering Control: Standard micro processor controlled travel and hydraulics impulse control. Power transistors in MOSFET technology ensure high efficiency. Data transmitted by CAN-Bus system for interference-protected communication between the electrical components. The drive control permits sensitive starting, powerful acceleration and sensitively controlled electric motor braking with energy reclaim. The hydraulic control permits sensitive lifting, precise positioning and energy optimised working of the lifting hydraulics and hydrostatic steering.

Wheels: Superelastic tires are standard, nonmarking SE, pneumatic or solid tires are available as options.

Steering: Energy saving hydrostatic steering by power-on-demand steering motor. High maneuverability through electronic differential. Adjustable steering wheel, arranged off center on the left for maximum comfort.

Brake: Two independent braking systems upon the front wheels.

Operating brake: Foot operated hydraulic laminated brake, running wear-free in oil bath.

Additional electric motor brake with high braking torque.

Parking brake: Hand operated cable brake with operating warning light.

Hydraulics: Low noise pumps for steering, lifting, lowering, tilting and auxiliary functions. Sensitive operation through hydraulic control with MOSFET technology. Lowering brake valves limit the lowering speed of the load even in the case of a broken hose. Pressure limiting valve protects against excess pressure and overloading.

Mast: Stationary and inner moving mast made of wear-resistant steel. The carriage moves on permanently lubricated rollers. Any lateral load pressure is absorbed by angled rollers. The lift cylinder is arranged behind the slender mast sections, that provide excellent visibility of the forks and the load at any lift height. In addition, the truck features an integrated side-shifter for lateral alignment into a pallet.

Chassis: Chassis in torsion resistant mono-coque design. Battery cover, side panels, valve cover and floor plate can be opened or detached easily.

Options: Special designs and attachments are available. For instance, MULTI-PILOT hydraulic lever for all hydraulic functions, load guard, sideshift, weather protection cabs.

Safety: The trucks conform to the EU Directive CE and ANSI B56.1.



ISO-9001, ISO-14001-
Certification of the Quality and
Environment Management

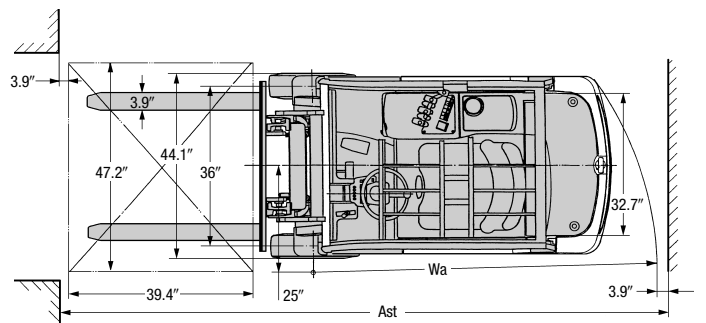
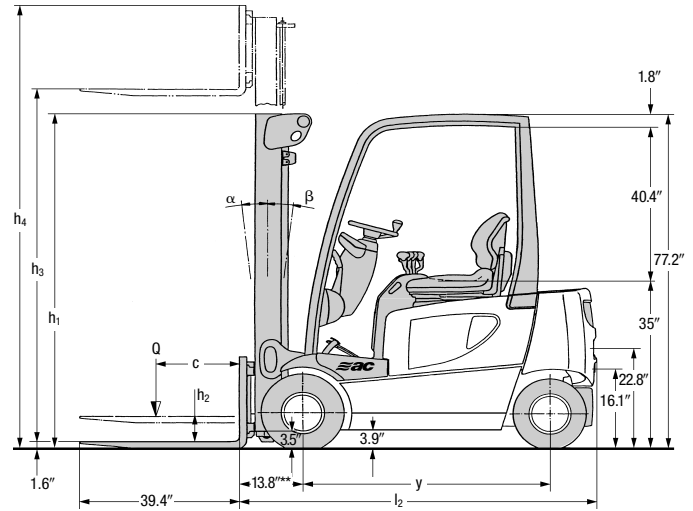
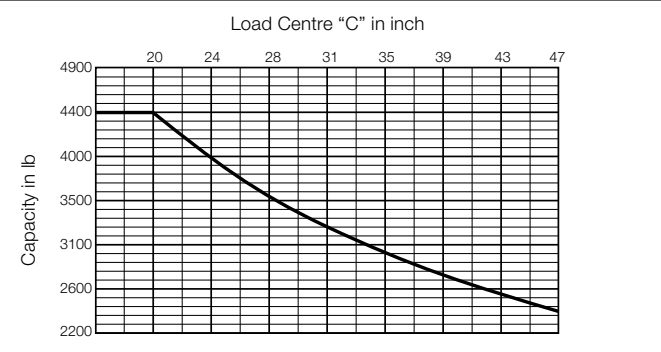
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Performance Data

Truck type	EFG-V ac 20	
Battery	48 V/660 Ah	
Two-stage Mast ZT Lift	130"	3300 mm
Travel speed with/without load	10.6/10.6 mph	17/17 km/h
Lifting speed with/without load	79/110 ft/min	0.40/0.56 m/s
Lowering speed with/without load	108/108 ft/min	0.55/0.55 m/s
Draw bar pull with/without load	427/517 lb	1900/2300 N
max. draw bar pull with/without load*	2765/2698 lb	12300/12000 N
Gradient perform. with/without load	5.5/10.5 %	5.5/10.5 %
max. gradient perform. with/without load*	24/35 %	24/35 %
Truck weight (with battery)	7121 lb	3230 kg
Axle loading with load- front/rear	10306/1224 lb	4675/555 kg
Axle loading without load- front/rear	3373/3748 lb	1530/1700 kg
Wheelbase	y	59" / 1490 mm
Length incl. back of forks**	l_2	83" / 2100 mm
Turning radius	W_a	80" / 2020 mm
Load distance**		13.8" / 350 mm
Smallest pivot point distance		25" / 635 mm
Right angle stack aisle**(incl. 8" clearance) Ast		
40 x 48" (1016 x 1220 mm) lengthwise	149.2"	3790 mm
40 x 48" (1016 x 1220 mm) crosswise	141.2"	3586 mm

* 5 minute rating ** with DZ mast plus 1 inch

Capacity Diagram



Subject to technical modifications without notice.

Mast Table

2-stage ZT

Lift height h_3	Collapsed height h_1	Free lift h_2	Max. Height h_4	forward α degrees	backward β degrees	Tilt			Capacity ³⁾ at c = 24" lb kg					
						backward $\beta^{1)}$ degrees	backward $\beta^{2)}$ degrees	backw. $\beta^{1)+2)}$ degrees						
91	2300	65	1650	6	150	114	2885	7	4	4	4	4000	1814	
118	3000	79	2000	6	150	141	3585	7	7	7	5	4	4000	1818
122	3100	81	2050	6	150	145	3685	7	7	7	5	4	4000	1814
130	3300	85	2150	6	150	153	3885	7	7	7	5	4	4000	1814
142	3600	91	2300	6	150	165	4185	7	7	7	5	4	4000	1814
157	4000	98	2500	6	150	181	4585	7	7	7	5	4	4000	1814
177	4500	110	2800	6	150	200	5085	7	7	7	5	4	4000	1814
197	5000	120	3050	6	150	220	5585	7	5	5	5	4	3610	1637
217	5500	134	3400	6	150	240	6085	7	5	5	5	4	3210	1456

2-stage ZZ

91	2300	63	1605	39	990	115	2915	7	4	4	4	3	4000	1814
118	3000	77	1955	53	1340	142	3615	7	7	6	5	3	4000	1814
122	3100	79	2005	55	1390	146	3715	7	7	6	5	3	4000	1814
130	3300	83	2105	59	1490	154	3915	7	7	6	5	3	4000	1814
142	3600	89	2255	65	1640	166	4215	7	7	6	5	3	4000	1814
157	4000	97	2455	72	1840	182	4615	7	7	6	5	3	4000	1814

3-stage DZ

171	4350	77	1955	53	1340	195	4965	7	6	6	5	4	4000	1814
177	4500	79	2005	55	1390	201	5115	7	6	6	5	4	4000	1814
189	4800	83	2105	59	1490	213	5415	7	6	6	5	4	3720	1687
197	5000	86	2180	62	1565	221	5615	7	6	6	5	4	3520	1597
217	5500	93	2355	69	1740	241	6115	7	5	5	5	4	3120	1415
236 ⁴⁾	6000	101	2555	76	1940	260	6615	7	5	5	5	4	2730	1238
256 ⁵⁾	6500	110	2805	86	2190	280	7115	7	5	5	5	4	2250	1021

¹⁾ With optional extra hydraulic function. ²⁾ With optional front screen. ³⁾ Without sideshifter ⁴⁾ Rated capacity 3710 lb ⁵⁾ Rated capacity 3610 lb