

**MINERVA**

**4 - 5 t**

G3 series AC Electric Forklift Truck



## G3 SERIES 4-5 t

### Perfect Combination of Aesthetics and Functional Design

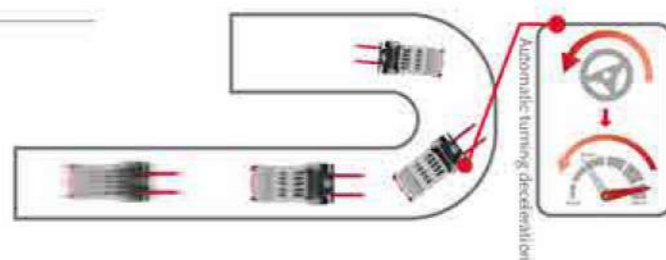
New generation with characteristics of smart, safe, high efficiency, energy saving and environment friendly

#### High Reliability

- Maintenance-free integrated axle which is mature and has been tested by market is used on the truck.
- Oil-cooled wet disc type brake is free from maintenance.
- Maintenance-free AC motors are used for driving and pump motors.
- World famous controller is used.
- Large smart instrument can monitor the truck state overall and it is safe and reliable.

#### High Safety

- Tail-free structure reduces the center of gravity and improves lateral stability.
- High strength and integrated type welded overhead guard improves safety.
- Side-pulling battery changing way is standard configuration and improves battery changing efficiency.
- Middle-positioned battery reduces the center of gravity and improves stability.
- High positioned rotation point of rear axle improves lateral stability of the truck.
- Automatic deceleration when steering improves working safety.
- Mast lifting buffering improves operation safety.



#### More Energy Saving

- LED lights are more energy saving.
- Independent steering system is energy saving and high efficiency.
- Special tyres for electric trucks are adopted and make travelling more energy saving.
- Steering unit with super low torque is more energy saving.

#### Improved man-machine comfort

- Mast lifting and falling buffering makes operation safe and comfortable.
- The truck has lower pedal height and larger egress and ingress space.
- Standard configuration of steering activated by steering wheel reduces steering process.
- Suspension seat and wide view must improve driving experience.
- Optimal battery layout and design of counterbalance improve the rear view.
- Lower layout of tilting cylinder improves the space for legs.

#### Easy Maintenance

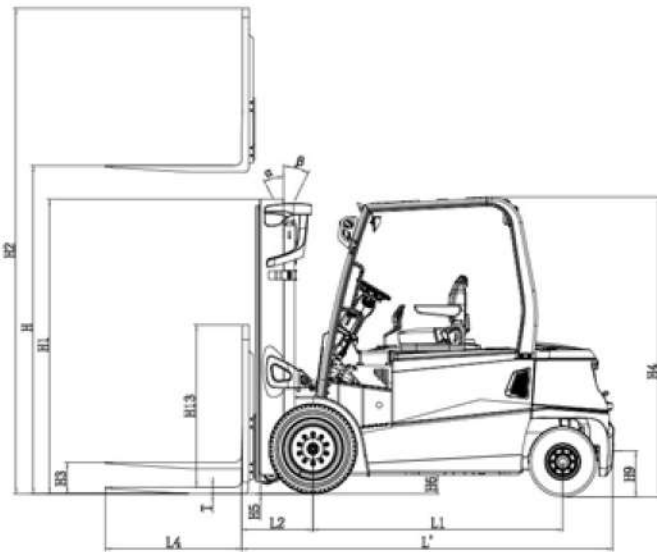
- The controller is inside of the balanceweight and it is easy for maintenance.
- Removable oil tank and floor board make maintenance easier.



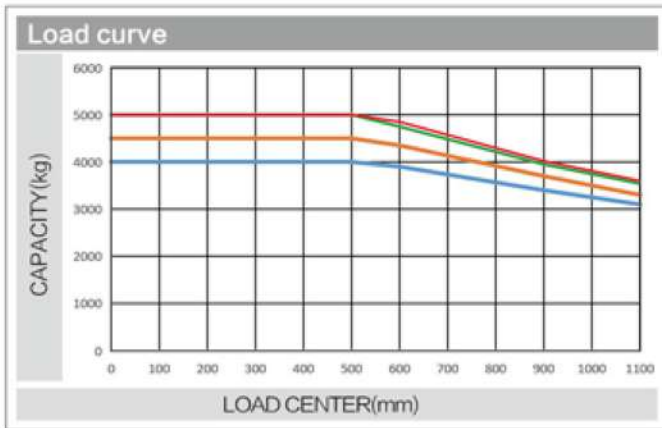
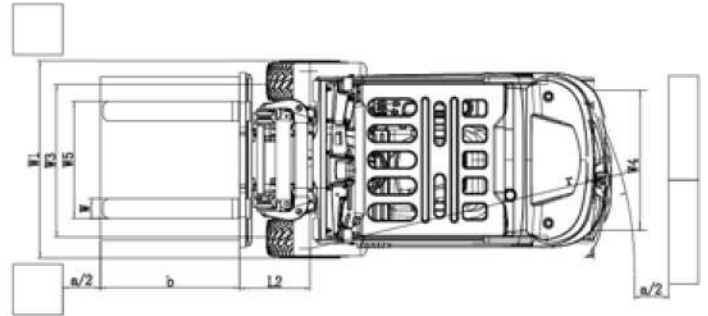
# G3 SERIES 4-5 t

## Manufacturer's Data and Design Characteristics

Character		MINEVA					
1.01	Manufacturer						
1.02	Model			CPD40	CPD45	CPD50	CPD50
1.03	Configuration number			GB2/GB3	GB2/GB3	GB2/GB3	GD2/GD3
1.04	Rated capacity	Q	kg	4000	4500	5000	5000
1.05	Load center distance	c	mm	500	500	500	500
1.06	Power mode			Electric	Electric	Electric	Electric
1.07	Driving mode			Seated	Seated	Seated	Seated
1.08	Wheel base	L1	mm	1960	1960	1960	2100
	Tyre						
2.01	Tyre type			SE	SE	SE	SE
2.02	Wheel number,front/rear			2/2	2/2	2/2	2/2
2.03	Track width,front	W3	mm	1120	1120	1189	1189
2.04	Track width,rear	W4	mm	1070	1070	1070	1070
2.05	Tyre Size, front			250-15	250-15	28x12.5-15	28 x 12.5-15
2.06	Tyre Size, rear			21x8-9	21x8-9	21x8-9	21X8-9
	Size						
3.01	Front overhang	L2	mm	560	560	560	560
3.02	Mast tilt angle , front/rear	$\alpha/\beta$	°	6/8	6/8	6/8	6/8
3.03	Height, mast lowered	H1	mm	2240	2240	2230	2230
3.04	Free lift	H3	mm	150	150	150	150
3.05	Standard mast lifting height	H	mm	3000	3000	3000	3000
3.06	Height, mast extended	H2	mm	4235	4235	4225	4225
3.07	Overhead guard height	H4	mm	2275	2275	2270	2270
3.08	Fork size: thickness/width/length	T×W×L	mm	50/150/1070	50/150/1070	50/150/1070	50 x 150 x 1070
3.09	Fork carriage DIN standard	4	mm	3A	3A	3A	3A
3.10	Overall length,without forks			2920	2920	2920	3060
3.11	Overall width	L'	mm	1350	1350	1500	1500
3.12	Turning radius	W1	mm	2580	2580	2580	2695
3.13	Ground clearance,laden,under mast	r	mm	140	140	130	130
3.14	Ground clearance,laden,centre of wheelbase	H5	mm	145	145	135	135
3.15	Right angle stacking aisle width (Pallet1000x1000mm, clearance 200mm)	H6	mm	4340	4340	4340	4460
3.16	Right angle stacking aisle width (Pallet1200x1200mm, clearance 200mm)	Ast	mm	4540	4540	4540	4670
3.17	Lateral fork adjustment Outside of forks, max/min	Ast	mm	1280/300	1280/300	1280/300	1280/300
	Performance						
4.01	Travelling speed, laden/unladen		km/h	13/14	13/14	13/14	13/14
4.02	Lifting speed, laden/unladen		mm/s	310/450	280/450	260/450	260/450
4.03	Lowering speed, laden/unladen		mm/s	500/450	500/450	500/450	500/450
4.04	Maximum gradeability, laden/unladen		%	16/27	15/26	14/25	14/25
4.05	Maximum traction force, laden		N	21000	21000	21000	21000
	Weight						
5.01	Service weight, with/without battery			6720/5130	6960/5130	7300/5470	7400/5250
5.02	Axle load, unladen, front/rear		kg	3350/3370	3475/3485	3455/3845	3626/3774
5.03	Axle load, laden, front/rear		kg	9470/1250	10380/1080	11190/1110	11200/1200
	Battery						
6.01	Battery voltage/capacity k5		V/Ah	80/600	80/700	80/700	80/840
6.02	Battery weight		kg	1590	1830	1830	2150
6.03	Battery standard			DIN 43536A	DIN 43536A	DIN 43536A	DIN 43536A
	Motor and controller						
7.01	Drive motor power, S2-60minutes		kW	18	18	18	18
7.02	Lifting motor power, S3-15%		kW	26.5	26.5	26.5	26.5
7.03	Steering motor power,S3-15%		kW	2.5	2.5	2.5	2.5
7.04	Drive motor controlling mode					MOSFET/AC	
7.05	Lifting motor controlling mode					MOSFET/AC	
7.06	Steering motor controlling mode					MOSFET/AC	
	Others						
8.01	Service brake/parking brake			Hydraulic/mechanical	Hydraulic/mechanical	Hydraulic/mechanical	Hydraulic/mechanical
8.02	Hydraulic system working pressure		Mpa	20	20	21.5	21.5
8.03	Type of drive control			ZAPI/INMOTION	ZAPI/INMOTION	ZAPI/INMOTION	ZAPI/INMOTION



Ast: Right angle stacking aisle width  
a: Clearance, 200mm



CPD40-GB2/GB3  
CPD50-GB2/GB3

CPD45-GB2/GB3  
CPD50-GD2/GD3

Note: The vertical axis stands for load capacity and the horizontal axis stands for load center which is calculated from the front surface of the forks to the gravity of the standard load. the standard load means a cubic with 1000mm edge length. When mast is tilted forward, using non-standard forks or loading large goods, the load capacity will be reduced. The load capacity of standard mast at different load center can be known from this load chart.

WIDE VIEW MAST											
Mast model	Lifting height (mm)	Load capacity (Load center 500mm) (kg)			Mast overall height (Fork to the ground) (mm)		Free lift	Service weight (kg)			Mast tilt angle Front/Rear
		CPD40	CPD45	CPD50	Mast lowered (mm)	Fork lifted (With backrest) (mm)		CPD40	CPD45	CPD50	
M250	2500	4000	4500	5000	1980	3733	150	6665	6905	7245	6-8°
M300	3000	4000	4500	5000	2230	4233	150	6720	6960	7300	6-8°
M330	3300	4000	4500	5000	2380	4533	150	6750	6990	7330	6-8°
M350	3500	4000	4500	5000	2480	4733	150	6770	7010	7350	6-8°
M370	3700	4000	4450	4900	2580	4933	150	6795	7035	7375	6-8°
M400	4000	4000	4350	4750	2780	5233	150	6835	7075	7415	6-8°
M425	4250	4000	4250	4650	2905	5483	150	6860	7100	7440	6-8°
M450	4500	4000	4150	4500	3030	5733	150	6890	7130	7470	6-8°
M475	4750	3900	4100	4400	3155	5983	150	6915	7155	7495	6-8°
M500	5000	3800	4000	4300	3280	6233	150	6945	7185	7525	6-8°
M550	5500	3650	3800	4150	3580	6733	150	7005	7245	7585	6-5°
M600	6000	3400	3450	3850	3830	7233	150	7060	7300	7640	3-5°

Free lift without backrest will increase by 271mm.

### WIDE VIEW FULL FREE 2-STAGE MAST

Mast model	Lifting height (mm)	Load capacity (Load center 500mm) (kg)			Mast overall height (Fork to the ground) (mm)		Free lift (With backrest)	Service weight (kg)			Mast tilt angle Front/Rear
		CPD40	CPD45	CPD50	Mast lowered (mm)	Fork lifted (With backrest) (mm)		CPD40	CPD45	CPD50	
ZM250	2500	4000	4500	5000	1980	3733	777	6760	7000	7340	6-8°
ZM261	2610	4000	4500	5000	2035	3792	832	6770	7010	7350	6-8°
ZM300	3000	4000	4500	5000	2230	4233	1027	6820	7060	7400	6-8°
ZM330	3300	4000	4500	5000	2380	4533	1177	6853	7093	7433	6-8°
ZM350	3500	4000	4500	4900	2480	4733	1277	6883	7123	7463	6-8°
ZM370	3700	4000	4400	4800	2580	4933	1377	6915	7155	7495	6-8°
ZM400	4000	4000	4300	4650	2780	5233	1577	6965	7205	7545	6-8°
ZM425	4250	4000	4200	4550	2905	5483	1702	6995	7235	7575	6-8°
ZM450	4500	3950	4100	4450	3030	5733	1827	7033	7273	7613	6-8°
ZM475	4750	3850	4050	4350	3155	5983	1952	7065	7305	7645	6-8°
ZM500	5000	3750	3950	4250	3280	6233	2077	7100	7340	7680	6-8°
ZM550	5500	3600	3750	4100	3580	6733	2377	7165	7405	7745	6-5°
ZM600	6000	3350	3400	3800	3830	7233	2627	7220	7460	7800	3-5°

Free lift without backrest will increase by 271mm.

### WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Lifting height (mm)	Load capacity (load center 500mm) (kg)			Mast overall height (Fork to the ground) (mm)		Free lift (With backrest)	Service weight (kg)			Mast tilt angle Front/Rear
		CPD40	CPD45	CPD50	Mast lowered (mm)	Fork lifted (With backrest) (mm)		CPD40	CPD45	CPD50	
ZSM360	3600	4000	4350	4900	1930	4833	727	7130	7370	7545	6-8°
ZSM400	4000	3950	4200	4750	2070	5233	867	7180	7420	7595	6-8°
ZSM435	4350	3850	4050	4450	2180	5583	977	7210	7450	7625	6-8°
ZSM450	4500	3800	4000	4400	2230	5733	1027	7240	7480	7645	6-8°
ZSM470	4700	3700	3950	4300	2345	6033	1142	7280	7520	7670	6-8°
ZSM500	5000	3600	3850	4200	2480	6233	1277	7330	7570	7715	6-8°
ZSM540	5400	3450	3700	4050	2615	6633	1412	7450	7690	7845	6-5°
ZSM600	6000	3250	3350	3650	2850	7233	1647	7540	7780	7935	6-5°
ZSM650	6500	2650	2750	3150	3015	7733	1812	7600	7840	7995	6-5°
ZSM700	7000	2150	2250	2650	3215	8233	2012	7670	7910	8065	3-5°

Free lift without backrest will increase by 292mm.



## Reliable special designed Instrument



Reliable special meter display the whole truck's working condition, fault detect and other important information completely which make the operator master the whole truck condition directly and conveniently.

### Standard configuration

- standard mast
- Standard fork
- Class III standard carrier
- Two-spools valve
- Battery
- Automatic water filling for battery
- Full suspension seat
- Overhead guard
- Solid tyres
- Traction pin
- LED signal light, LED warning light(flashing)
- USB interface
- Automatic steering slow down device
- Colour screen instrument(INMOTION)

### Optional device

- Mast with other lifting height
- Full free lift mast
- Side shifter(Integral)
- Other attachments
- Fork with other length
- No marking tyre
- Cab
- Left and right rearview mirror
- Rear work light
- Fire extinguisher
- Rotating warning light, voice buzzer
- Blue warning light
- Germany HOPPECKER battery
- Italy FAAM battery
- MINERVA smart fleet management system



檢測 CNAS L7098

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