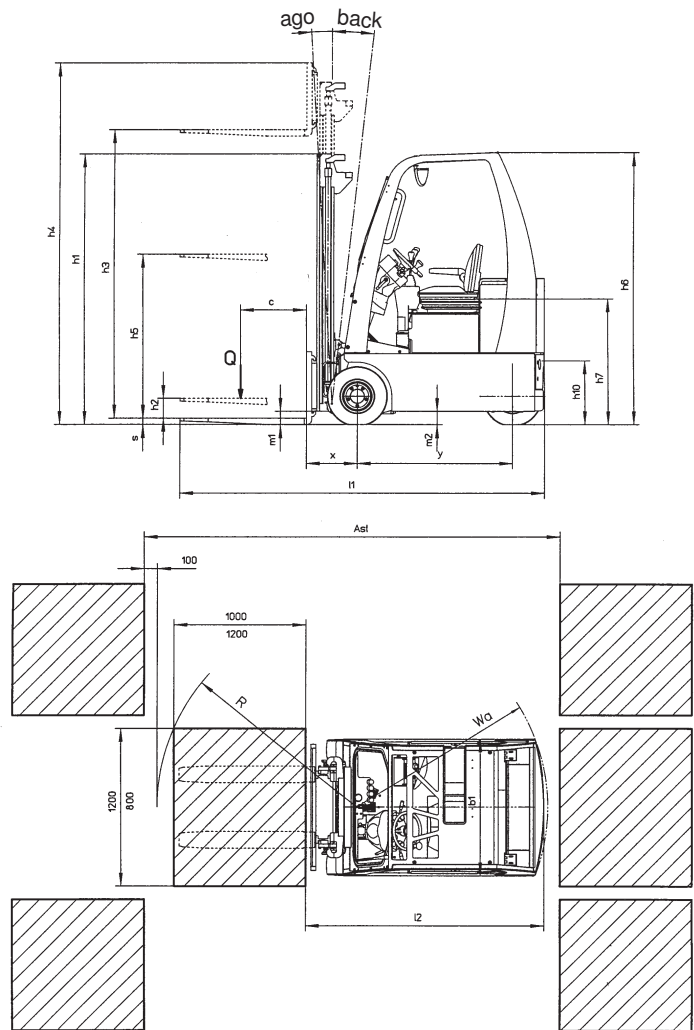


Electric Fork Lift Truck

Explosion-proof, three-phase current techn.

EFG



$$A_{st} = W_a + R + a$$

A_{st} = Aisle width between stacks

a = Safety distance = 200 mm

l_6 = Pallet width (e.g. 800 oder 1000 mm)

b_{12} = Pallet length (e.g. 1200 mm)

EFG 10-12XE3 / ..ST Technical Data

MIAG Fahrzeugbau GmbH
Kocherstr. 1, 38120 Braunschweig
Fon ++49 (0531) 8 66 01-0
Fax ++49 (0531) 8 66 01-50
www.miag.de / info@miag.de



Technical Data

Electric Fork Lift Truck (three-wheeled version)

(in accord. with VDI 2198)

EFG 10-12 XE3/..ST, explosion-proof, three-phase current technology

Explosion protection: the devices are tested and approved by the Physikalisch Technische Bundesanstalt (PTB) (Physical-Technical Federal Institute) for use in areas at risk of explosion according to the following protection classes****: Gas explosion protection - suitable for use in explosive areas, zones 1 and 2 according to BetrSichV within explosion sub-groups IIA and IIB and temperature classes T1 to T4; Dust explosion protection: - suitable for use in explosive areas, zones 21 and 22 according to BetrSichV at surface temperatures of maximum 130°C.

Description

1.1	Manufacturer (Make [abbreviation])		MIAG	MIAG		
1.2	Type designation of the manufacturer		EFG 10XE3 ..	EFG 12XE3 ..		
1.3	Drive Battery, Diesel, Petrol, fuel gas, mains current		Battery	Battery		
1.4	Operation Hand, Pedestrian, stand-on, driver-seated		driver-seated	driver-seated		
1.5	Carrying capacity / Load	Q (t)	1,0	1,2		
1.6	Load centre	c (mm)	500	500		
1.8	Load distance, mast lowered	x (mm)	385-438****	385-438****		
1.9	Wheel base	y (mm)	1180	1180		

Weights ****

2.1	Dead weight	kg	2950*****	3020*****		
2.2	Axle load laden front/rear	kg	3250 / 700	3600 / 620		
2.3	Axle load unladen front/rear	kg	1500 / 1450	1500 / 1520		

Wheels, Chassis

3.1	Tyres Pneumatic, Solid, Vulcollan		Sup.cush./Pneum.	Sup.cush./Pneum.		
3.2	Dimension in front		18x7-8	18x7-8		
3.3	Dimension at the rear		18x7-8	18x7-8		
3.5	Wheels number front / rear, x=driven		2 / 1x	2 / 1x		
3.6	Truck width front	b ₁₀ (mm)	880	880		
3.7	Truck width rear	b ₁₁ (mm)	-	-		

Base dimensions ***

4.1	Mast tilt /fork carriage, ago / back	Degree	2 / 4	2 / 4		
4.2	Height of mast, lowered	h ₁ (mm)	2055	2055		
4.3	Free lift	h ₂ (mm)	150	150		
4.4	Lift at double mast	h ₃ (mm)	2950	2950		
4.5	Height of mast, raised	h ₄ (mm)	3515	3515		
4.7	Height above overhead guard (cabin)	h ₆ (mm)	2070	2070		
4.8	Seat height (seat load)	h ₇ (mm)	1020	1020		
4.12	Height coupling	h ₁₀ (mm)	485	485		
4.19	Length total (without forks)	l ₁ (mm)	2774****	2774****		
4.20	Length including shank (retired)	l ₂ (mm)	1774****	1774****		
4.21	Width total	b ₁ (mm)	1040	1040		
4.22	Fork dimensions	s/e / l (mm)	48/128/1000	48/128/1000		
4.23	Fork carriage according to DIN 15173 / ISO 2328, A/B		A	A		
4.24	Fork carriage width	b ₃ (mm)	1040	1040		
4.31	Ground clearance with load under lifting frame	m ₁ (mm)	100	100		
4.32	Ground clearance centre wheel base (lowest point)	m ₂ (mm)	100	100		
4.33	Aisle width for pallets 1000x1200 cross	A _{st} (mm)	3154	3154		
4.34	Aisle width for pallets 800x1200 along	A _{st} (mm)	3180	3180		
4.35	Turning radius	W _a (mm)	1454	1454		

Performance

5.1	Speed travel laden / unladen	km / h	12 / 12	12 / 12		
5.2	Speed lift laden / unladen	m / s	0,36 / 0,38	0,36 / 0,38		
5.3	Speed lower laden / unladen	m / s	0,50 / 0,36	0,50 / 0,36		
5.5	draw-bar pull laden / unladen (outside expl.-proof area)	N	-	-		
5.6	max. draw-bar pull laden / unladen (outs. expl.-proof area)	N	6000 / 7500	6000 / 7500		
5.7	Climbing capacity with / without load	%	13 / 15	13 / 15		
5.8	Max. gradeability laden / unladen	%	-	-		
5.9	Acceleration period laden / unladen	s	- / -	- / -		
5.10	Service brake		electr. / hydr.	electr. / hydr.		

E-Motor

6.1	Traction motor, output / 1 hour rating	kW	8	8		
6.2	Lift motor, output / 1 hour rating	kW	5	5		
6.3	Battery according to DIN 43531 / 35 / 36, A / B / C, no		no	no		
6.4	Battery voltage / Capacity K _s	V / Ah	80/230,250	80/230,250		
6.5	Battery weight	kg	700	700		

Others

8.1	Motor control type		pulse	pulse		
8.2	Working pressure for attachments	bar	max. 160	max. 160		
8.3	Oil quantity for attachments	l / min	24	24		
8.4	Sound level at driver's ear to EN12053	dB (A)	64	64		
8.5	Coupling, Kind / Type DIN		SK3	SK3		

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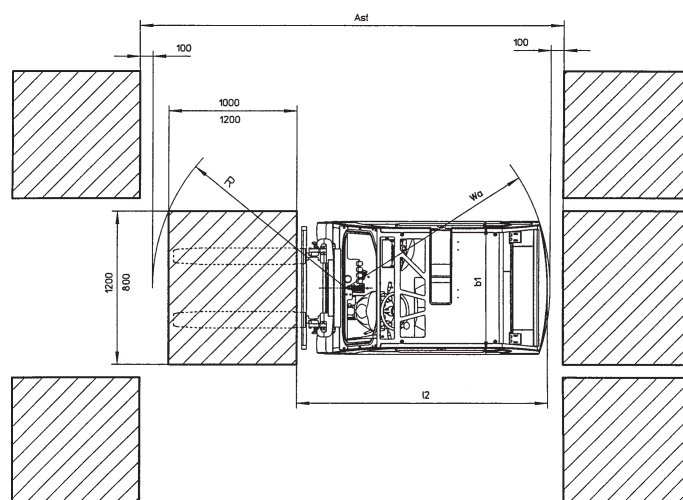
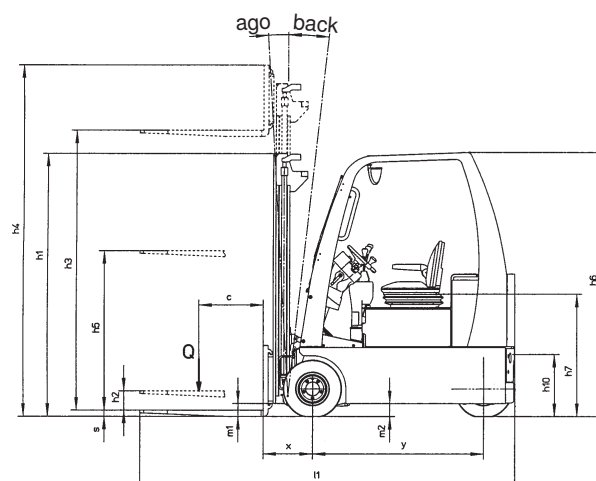
** from 3500 mm lift height reduction of carrying capacity to 80 %

*** with mast design in series, further designs on request

**** depending on device version

***** statements for design with SV mast (without integrated side shift) with basic equipment

EFG



b_{12} = Pallet length (e.g. 1200 mm)



Technical Data

(in accord. with VDI 2198)

Electric Fork Lift Truck (three-wheeled version)

EFG 10-16XE3/..ST explosion-proof, three-phase current technology

Explosion protection: the devices are tested and approved by the Physikalisch Technische Bundesanstalt (PTB) (Physical-Technical Federal Institute) for use in areas at risk of explosion according to the following protection classes****: Gas explosion protection - suitable for use in explosive areas, zones 1 and 2 according to BetrSichV within explosion sub-groups IIA and IIB and temperature classes T1 to T4; Dust explosion protection: - suitable for use in explosive areas, zones 21 and 22 according to BetrSichV at surface temperatures of maximum 130°C.

Description

1.1	Manufacturer (Make [abbreviation])		MIAG	MIAG	MIAG	
1.2	Type designation of the manufacturer		EFG 10XE3..	EFG 12XE3..	EFG 16XE3..	
1.3	Drive Battery, Diesel, Petrol, fuel gas, mains current		Battery	Battery	Battery	
1.4	Operation Hand, Pedestrian, stand-on, driver-seated		driver-seated	driver-seated	driver-seated	
1.5	Carrying capacity / Load	Q (t)	1,0	1,2	1,6	
1.6	Load centre	c (mm)	500	500	500	
1.8	Load distance, mast lowered	x (mm)	385-438****	385-438****	385-438****	
1.9	Wheel base	y (mm)	1340	1340	1340	

Weights ****

2.1	Dead weight	kg	3500*****	3550*****	3600*****	
2.2	Axle load laden front/rear	kg	3480 / 1020	3840 / 910	4520 / 680	
2.3	Axle load unladen front/rear	kg	1820 / 1680	1840 / 1710	1850 / 1750	

Wheels, Chassis

3.1	Tyres Pneumatic, Solid, Vulcollan		Sup.cush./Pneum.	Sup.cush./Pneum.	Sup.cush./Pneum.	
3.2	Dimension in front		18x7-8	18x7-8	18x7-8	
3.3	Dimension at the rear		18x7-8	18x7-8	18x7-8	
3.5	Wheels number front / rear, x=driven		2 / 1x	2 / 1x	2 / 1x	
3.6	Truck width front	b ₁₀ (mm)	880	880	880	
3.7	Truck width rear	b ₁₁ (mm)	-	-	-	

Base dimensions ***

4.1	Mast tilt /fork carriage, ago / back	Degree	2 / 4	2 / 4	2 / 4	
4.2	Height of mast, lowered	h ₁ (mm)	2055	2055	2055	
4.3	Free lift	h ₂ (mm)	150	150	150	
4.4	Lift at double mast	h ₃ (mm)	2950	2950	2950	
4.5	Height of mast, raised	h ₄ (mm)	3515	3515	3515	
4.7	Height above overhead guard (cabin)	h ₆ (mm)	2070	2070	2070	
4.8	Seat height (seat load)	h ₇ (mm)	960	960	960	
4.12	Height coupling	h ₁₀ (mm)	485	485	485	
4.19	Length total (without forks)	l ₁ (mm)	2932****	2932****	2932****	
4.20	Length including shank (retired)	l ₂ (mm)	1932****	1932****	1932****	
4.21	Width total	b ₁ (mm)	1040	1040	1040	
4.22	Fork dimensions	s/e / l (mm)	48/128/1000	48/128/1000	48/128/1000	
4.23	Fork carriage according to DIN 15173 / ISO 2328, A/B		A	A	A	
4.24	Fork carriage width	b ₃ (mm)	1040	1040	1040	
4.31	Ground clearance with load under lifting frame	m ₁ (mm)	100	100	100	
4.32	Ground clearance centre wheel base (lowest point)	m ₂ (mm)	100	100	100	
4.33	Aisle width for pallets 1000x1200 cross	A _{st} (mm)	3314	3314	3314	
4.34	Aisle width for pallets 800x1200 along	A _{st} (mm)	3340	3340	3340	
4.35	Turning radius	W _a (mm)	1605	1605	1605	

Performance

5.1	Speed travel laden / unladen	km / h	12 / 12	12 / 12	12 / 12	
5.2	Speed lift laden / unladen	m / s	0,36 / 0,38	0,36 / 0,38	0,36 / 0,38	
5.3	Speed lower laden / unladen	m / s	0,50 / 0,36	0,50 / 0,36	0,50 / 0,36	
5.5	draw-bar pull laden / unladen (outside expl.-proof area)	N	-	-	-	
5.6	max. draw-bar pull laden/unladen (outs. expl.-proof area)	N	6000 / 7500	6000 / 7500	6000 / 7500	
5.7	Climbing capacity with / without load	%	13 / 15	13 / 15	11 / 15	
5.8	Max. gradeability laden / unladen	%	-	-	-	
5.9	Acceleration period laden / unladen	s	- / -	- / -	- / -	
5.10	Service brake		electr. / hydr.	electr. / hydr.	electr. / hydr.	

E-Motor

6.1	Traction motor, output / 1 hour rating	kW	8	8	8	
6.2	Lift motor, output / 1 hour rating	kW	5	5	5	
6.3	Battery according to DIN 43531 / 35 / 36, A / B / C, no		no	no	no	
6.4	Battery voltage / Capacity K _s	V / Ah	80/345,375	80/345,375	80/345,375	
6.5	Battery weight	kg	930	930	930	

Others

8.1	Motor control type		pulse	pulse	pulse	
8.2	Working pressure for attachments	bar	max. 160	max. 160	max. 180	
8.3	Oil quantity for attachments	l / min	24	24	24	
8.4	Sound level at driver's ear to EN12053	dB (A)	64	64	64	
8.5	Coupling, Kind / Type DIN		SK3	SK3	SK3	

*

** from 3500 mm lift height reduction of carrying capacity to 80 %

*** with mast design in series, further designs on request

**** depending on device version

***** statements for design with SV mast (without integrated side shift) with basic equipment