AXIA EX

SBR12-20N2 Series

STAND-IN STACKERS

1.2 - 2.0 tons

SMALL SPACES BIG PERFORMANCE

If you are looking to maximize the efficiency of your warehouse space, stand-in stackers may be the perfect solution for you. Combining minimal dimensions, a tight turning radius, and excellent operator protection, these stackers offer an affordable and flexible alternative to a full VNA solution. By keeping the driver completely — With an enclosed operator compartment and excellent maneuverability, especially in tight spaces, these machines combine comfort, performance and deliver results.

SPECIFICATIONS

SBR12N2
SBR16N2
SBR20N2

SBR16N2I

WHEN RELIABILITY IS EVERYTHING...

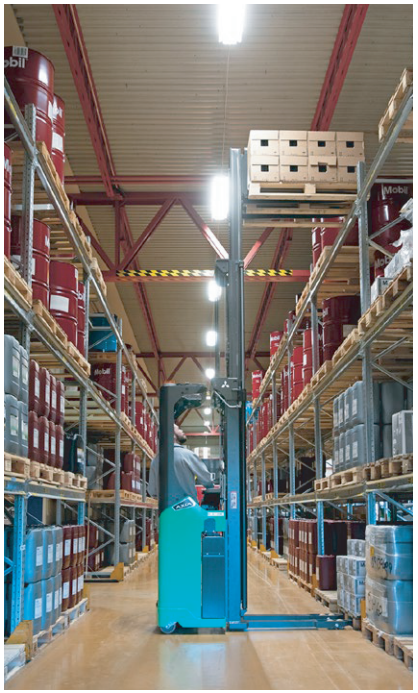
MITSUBISHI FORKLIFT TRUCKS

AXIA EX

SBR12-20N2 Series

STAND-IN STACKERS

1.2 - 2.0 tons



Designing a warehouse around stand-in stackers is up to 35% more efficient from a space standpoint compared to pedestrian stackers, typically lowering the cost per pallet position by a third. The compact profile can also potentially allow for two-way traffic in aisles vs a reach truck, allowing for increased productivity.

It is important to note that standing is perhaps the most efficient position for an operator from a working perspective, easily allowing them to frequently step on and off the truck throughout the shift. Not only is the enclosed operator compartment spacious, but it also provides operators with the comfort and confidence to optimize their productivity.

BRAKES

- **High-efficiency regenerative braking**
  This allows for more effective control and reduces brake wear.

DRIVE

- **Powerful AC drive motor**
  High torque helps to provide greater efficiency. No carbon brushes mean lower servicing requirements and lower servicing costs.
- **Intelligent Cornering System**
  The truck senses the angle of a turn and reduces speed accordingly for maximum stability and accurate cornering.
- **Automatic Speed Reduction**
  Drive speed is automatically reduced when forks are above 1.7m to allow for higher capacities above this height.
- **8 km/h standard speed (option 10 km/h)**
  Faster travel speed options are available, which could significantly increase productivity, especially in larger warehouses with longer straight-away aisles.

ELECTRICAL AND CONTROL SYSTEMS

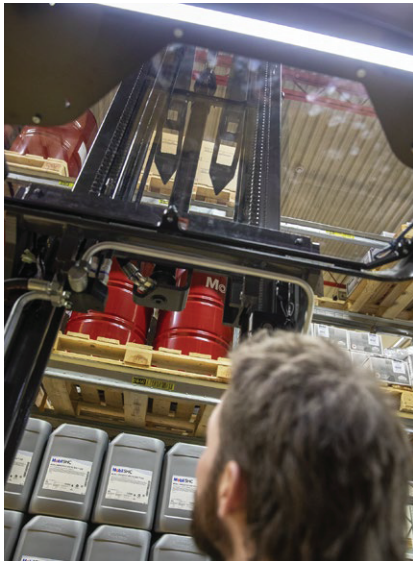
- **Combi controller lift system**
  Fingertip control for speed–regulated lifting and proportional valve for lowering.
- **Enhanced Stability System (ESS)**
  4-point chassis for maximum stability, drive speed is reduced when forks are lifted over 1.7 m.

FORKS AND MAST

- **Tapered and angled fork tips**
  Quicker and easier access to pallets.
- **Level Assistance System (option)**
  Automatically stops the forks when desired level is reached.
- **Laser positioning guide (option)**
  Aligning the red laser with rack markings allows the driver to quickly and accurately align the forks to the desired position.

FRAME AND BODY

- **Robust chassis**
  Built for intensive operations with high residual capacities. Designed to enclose the operator within the footprint of the frame.
- **Battery lock**
  Battery lock can only be unlocked when battery plug is disconnected. Battery plug can only be reconnected if battery is locked.
- **Excellent ground clearance**
  Facilitates handling on loading docks, ramps, and uneven floors.
- **RapidAccess features**
  Designed for quick and easy access to all componentry for optimized maintenance.
- **Waterproof wiring and connectors**
  Sealed compartment prevents system failure and corrosion from water and dust.
- **Overhead guard pillars**
  Helps to provide protection for the operator while still offering excellent visibility.



Continuing improvement may lead to changes in these specifications

AXIA EX

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STAND-IN STACKERS

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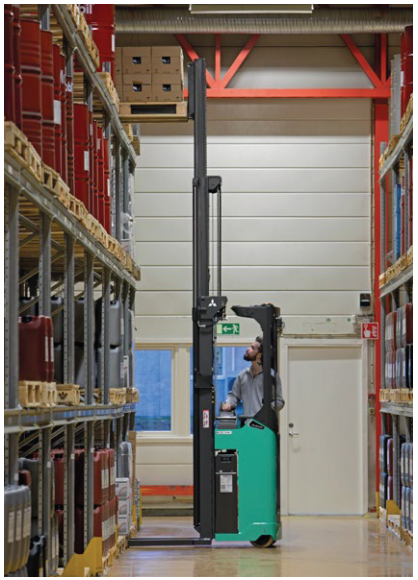


HYDRAULICS

- **Smooth, quick lifting and lowering**
  High levels of control and productivity. Low noise means less fatigue for the operator over long shifts.
- **Mast damping**
  Soft and seamless transition in the mast stages provides low noise and vibrations when lifting or lowering.

OPERATOR COMPARTMENT AND CONTROLS

- **Optical Presence Sensor**
  This feature locks all movement of the truck and its mast if the operator is not present. Driver can lift foot slightly without the brakes automatically engaging, helping to reduce muscle stress.
- **Ample storage space**
  Storage for on-board essentials such as clipboard, phone, and cups and pen, all within easy reach.
- **Ultra-low step height**
  Operators stay more productive throughout the shift thanks to easy on/off access.
- **Ergo Forks Trailing Control (option)**
  When working with forks trailing, an additional speed control allows an operator to stand in a more comfortable and ergonomic forward-facing position while travelling.

STEERING SYSTEM

- **Fully adjustable steering wheel**
  Height and distance are ergonomically adjustable to help reduce strain.
- **360-degree steering (option)**
  The operator can keep the truck in constant motion, saving seconds on every turn.
- **Dynamic Power Steering**
  Smooth, precise control with minimum effort that offers maximum comfort and stability at top speed.

VDI - PERFORMANCE & DIMENSIONS

	CHARACTERISTICS			Mitsubishi Forklift Trucks SBR12N2	Mitsubishi Forklift Trucks SBR16N2	Mitsubishi Forklift Trucks SBR20N2
1.1	Manufacturer					
1.2	Manufacturer's model designation					
1.3	Power source			Battery	Battery	Battery
1.4	Operator type			Stand-in	Stand-in	Stand-in
1.5	Load capacity	Q	kg	1250	1600	2000
1.6	Load center distance	c	mm	600	600	600
1.8	Load wheel axle to fork face (forks lowered)	x	mm	800	800	800
1.9	Wheelbase	y	mm	1422 [1]	1496 [1]	1545 [1]
	WEIGHT					
2.1a	Truck weight with load, with maximum battery weight		kg	2682	3356	4018
2.1b	Truck weight without load, with maximum battery weight		kg	1432	1756	2018
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	1127 / 1555	1389 / 1967	1613 / 2405
2.3	Axle loadings without load & with maximum battery weight, drive / load side		kg	1002 / 430	1229 / 527	1413 / 605
	WHEELS, DRIVE TRAIN					
3.1	Tires: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul	Vul / Vul	Vul / Vul
3.2	Tire dimensions, drive side		mm	250 x 105	250 x 105	250 x 105
3.3	Tire dimensions, load side	ø	mm	85 x 70	85 x 70	85 x 70
3.4	Castor wheel dimensions (diameter x width)		mm	150 x 55	150 x 55	150 x 55
3.5	Number of wheels, load / drive side (x = driven)			1 x + 2 / 4	1 x + 2/ 4	1 x + 2 / 4
3.6	Track width (center of tires), drive side	b10	mm	662	662	662
3.7	Track width (center of tires), load side	b11	mm	402	402	392
	DIMENSIONS					
4.2a	Height with mast lowered	h1	mm	see tables	see tables	see tables
4.2b	Height	h1	mm	see tables	see tables	see tables
4.3	Free lift	h2	mm	see tables	see tables	see tables
4.4	Lift height	h3	mm	see tables	see tables	see tables
4.5	Height with mast extended	h4	mm	see tables	see tables	see tables
4.6	Initial lift	h5	mm	-	-	-
4.7	Height to top of overhead guard	h6	mm	2310	2310	2310
4.8	Seat- or stand height	h7	mm	230	230	230
4.10	Height of support legs	h8	mm	82	80	83
4.15	Fork height, fully lowered	h13	mm	89	87	90
4.19	Overall length	l1	mm	1995 [1]	2069 [1]	2118 [1]
4.20	Length to fork face	l2	mm	825 [1]	899 [1]	948 [1]
4.21	Overall width	b1/b2	mm	940	940	940
4.22	Fork dimensions (thickness, width, length)	s/e/l	mm	70 / 180 / 1170	70 / 180 / 1170	70 / 195 / 1170
4.25	Outside width over forks (minimum / maximum)	b5	mm	570	570	570
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	32	25	23
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	mm	2475 [2]	2548 [2]	2593 [2]
4.33b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise	Ast3	mm	2043 [2]	2116 [2]	2161 [2]
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	2409 [2]	2481 [2]	2527 [2]
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	mm	2243 [2]	2316 [2]	2361 [2]
4.35	Turning radius	Wa	mm	1643 [2]	1716 [2]	1761 [2]
	PERFORMANCE					
5.1	Travel speed, with / without load		km/h	10.0 / 10.0	10.0 / 10.0	9.0 / 9.0
5.2	Lifting speed, with / without load		m/s	0.21 / 0.37	0.15 / 0.32	0.12 / 0.22
5.3	Lowering speed, with / without load		m/s	0.55 / 0.41	0.45 / 0.42	0.33 / 0.30
5.8	Maximum gradeability with / without load		%	9.0 / 9.0	6.7 / 6.7	5.9 / 5.9
5.9	Acceleration time (10 metres) with / without load		s	-	-	-
5.10	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric	Electric
	ELECTRIC MOTORS					
6.1	Drive motor capacity (60 min. short duty)		kW	2.7	2.7	2.7
6.2	Lift motor output at 15% duty factor		kW	4.0	4.0	4.0
6.4	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 375-775	24 / 375-775	24 / 375-775
6.5	Battery weight		kg	330 - 610	330 - 610	330 - 610
6.6a	Energy consumption according to EN16796		kWh/h			
	MISCELLANEOUS					
8.1	Type of drive control			AC	AC	AC
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ		dB(A)		67.3	
10.7.1	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ		dB(A)		71.5 / 68.9 / 53.3	

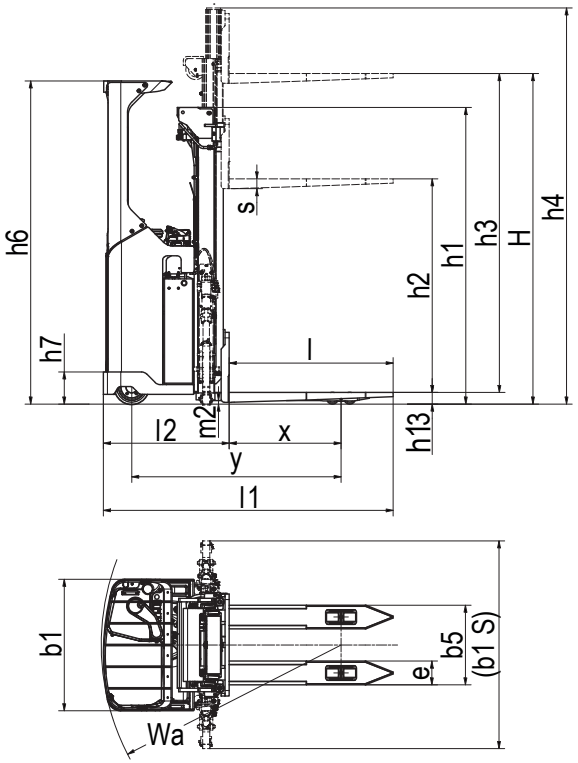
1) When SN/BC775 then add 104 mm
2) Dimensions vary depending on battery carriage and mast type. Ast dimensions available in table on page 7.

AXIA EX

SBR12 - 20N2

STAND-IN STACKERS

1.2 - 2.0 tons



Ast = Working aisle width
Ast3 = Working aisle width (b12 <1000 mm)
Ast = Wa + $\sqrt{(l6 - x)^2 + (b12 / 2)^2}$ + a
Ast3 = Wa + l6 -x +a

Wa = Turning radius
l6 = Pallet length
x = Load wheel axle to fork face
b12 = Pallet width
a = Safety clearance = 2 x 100 mm

Continuing improvement may lead to changes in these specifications

VDI - PERFORMANCE & DIMENSIONS

	CHARACTERISTICS			
1.1	Manufacturer			Mitsubishi Forklift Trucks
1.2	Manufacturer's model designation			SBR16N2I
1.3	Power source			Battery
1.4	Operator type			Stand-in
1.5	Load capacity	Q	kg	1600
1.6	Load center distance	c	mm	600
1.8	Load wheel axle to fork face (forks lowered)	x	mm	800
1.9	Wheelbase	y	mm	1541 [1]
	WEIGHT			
2.1a	Truck weight with load, with maximum battery weight		kg	3506
2.1b	Truck weight without load, with maximum battery weight		kg	1906
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	1494 / 2012
2.3	Axle loadings without load & with maximum battery weight, drive / load side		kg	1334 / 572
	WHEELS, DRIVE TRAIN			
3.1	Tires: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul
3.2	Tire dimensions, drive side		mm	250 × 105
3.3	Tire dimensions, load side	ø	mm	85 x 70
3.4	Castor wheel dimensions (diameter x width)		mm	150 x 55
3.5	Number of wheels, load / drive side (x = driven)			1 × + 2/ 4
3.6	Track width (center of tires), drive side	b10	mm	662
3.7	Track width (center of tires), load side	b11	mm	390
	DIMENSIONS			
4.2a	Height with mast lowered	h1	mm	see tables
4.2b	Height	h1	mm	see tables
4.3	Free lift	h2	mm	see tables
4.4	Lift height	h3	mm	see tables
4.5	Height with mast extended	h4	mm	see tables
4.6	Initial lift	h5	mm	110
4.7	Height to top of overhead guard	h6	mm	2310
4.8	Seat- or stand height	h7	mm	230
4.10	Height of support legs	h8	mm	87
4.15	Fork height, fully lowered	h13	mm	93
4.19	Overall length	l1	mm	2113 [1]
4.20	Length to fork face	l2	mm	943 [1]
4.21	Overall width	b1/b2	mm	940
4.22	Fork dimensions (thickness, width, length)	s/e/l	mm	70 / 180 / 1170
4.25	Outside width over forks (minimum / maximum)	b5	mm	570
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	20
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	mm	2591 [2]
4.33b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise	Ast3	mm	2159 [2]
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	2525 [2]
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	mm	2359 [2]
4.35	Turning radius	Wa	mm	1759 [2]
	PERFORMANCE			
5.1	Travel speed, with / without load		km/h	9.0 / 9.0
5.2	Lifting speed, with / without load		m/s	0.15 / 0.32
5.3	Lowering speed, with / without load		m/s	0.45 / 0.42
5.8	Maximum gradeability with / without load		%	10.0 / 16.0
5.9	Acceleration time (10 metres) with / without load		s	
5.10	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric
	ELECTRIC MOTORS			
6.1	Drive motor capacity (60 min. short duty)		kW	2.7
6.2	Lift motor output at 15% duty factor		kW	4.0
6.4	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 375-775
6.5	Battery weight		kg	330 - 610
6.6a	Energy consumption according to EN16796		kWh/h	0.878
	MISCELLANEOUS			
8.1	Type of drive control			AC
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ		dB(A)	67.3
10.7.1	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ		dB(A)	71.5 / 68.9 / 53.3

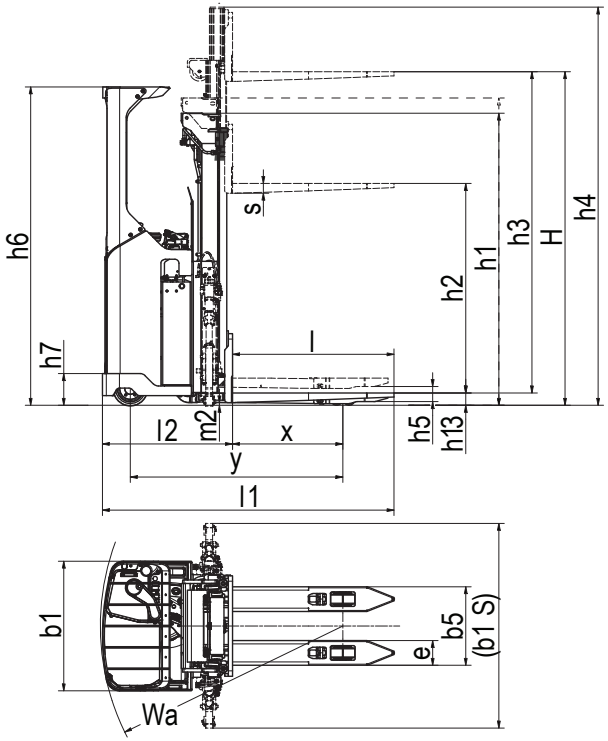
1) When SN/BC775 then add 104 mm
2) Dimensions vary depending on battery carriage and mast type. Ast dimensions available in table on page 7.

AXIA EX

SBR16N2I

STAND-IN STACKERS

1.6 tonnes



Ast = Working aisle width
Ast3 = Working aisle width (b12 <1000 mm)
Ast = Wa + $\sqrt{(l6 - x)^2 + (b12 / 2)^2}$ + a
Ast3 = Wa + l6 -x +a

Wa = Turning radius
l6 = Pallet length
x = Load wheel axle to fork face
b12 = Pallet width
a = Safety clearance = 2 x 100 mm

MAST PERFORMANCE AND CAPACITY

AXIA EM

STAND-IN STACKERS

SBR12 - 20N2

MAST TYPE	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
SBR12N2				
DS	3290	2157	3720	159 (h2=70)
	3590	2307	4020	159 (h2=70)
	4190	2607	4620	159 (h2=70)
DEV	3290	2157	3720	1726
	3590	2307	4020	1876
	4190	2607	4620	2176
SBR16N2 - SBR20N2				
DEV	3600	2350	4105	1847
	4200	2650	4705	2147
	4500	2800	5005	2297
TREV	4800	2150	5332	1667
	5400	2350	5932	1867
	5700	2450	6232	1967
	6300	2650	6832	2167
	7000	2883	7532	2400

SBR16N2I

MAST TYPE	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
SBR16N2I				
DEV	3600	2355	4112	1853
	4200	2655	4712	2153
	4500	2805	5012	2303
TREV	4800	2155	5339	1673
	5400	2355	5939	1873
	5700	2455	6239	1973
	6300	2655	6839	2173
	7000	2888	7539	2406

DS = Duplex with clear-view mast
DEV = Duplex with full free lift
TREV = Triplex with full free lift
h3+h13 = Lifting height
h1 = Lowered mast height
h4 = Raised mast height
h2+h13 = Free lift

AST dimensions, VDI2198 (4.34a)						
BASIC CAPACITY, kg		1250	1600		2000	
CHASSIS / BATTERY CARRIAGE		Junior / BC 465	Junior / BC 465	Senior / BC 775	Junior / BC 465	Senior / BC 775
MAST TYPE	INTIAL LIFT					
DS	No	2409	N/A	N/A	N/A	N/A
DEV	No	2409	2481	2583	2527	2631
TREV	No	N/A	2481	2583	2527	2631
DS	Yes	2486	N/A	N/A	N/A	N/A
DEV	Yes	2486	2525	2626	2556	2684
TREV	Yes	N/A	2525	2626	2556	2684

AST dimensions, Ast3 (4.34b)						
BASIC CAPACITY, kg		1250	1600		2000	
CHASSIS / BATTERY CARRIAGE		Junior / BC 465	Junior / BC 465	Senior / BC 775	Junior / BC 465	Senior / BC 775
MAST TYPE	INTIAL LIFT					
DS	No	2243	N/A	N/A	N/A	N/A
DEV	No	2243	2316	2417	2361	2465
TREV	No	N/A	2316	2417	2361	2465
DS	Yes	2320	N/A	N/A	N/A	N/A
DEV	Yes	2320	2359	2460	2390	2518
TREV	Yes	N/A	2359	2460	2390	2518

Continuing improvement may lead to changes in these specifications

STANDARD EQUIPMENT & OPTIONS

AXIA EX

SBR12-20N2(I)

STAND-IN STACKERS

1.2 - 2.0 tons

● = Standard
● = Option

	SBR12N2	SBR16N2	SBR16N2I	SBR20N2
GENERAL				
Standard display incl. hour meter and battery indicator	●	●	●	●
Key switch entry	●	●	●	●
Electric power steering	●	●	●	●
Speed regulated lift motor and proportional valve for lowering	●	●	●	●
Tandem load wheels Vulkollan	●	●	●	●
Overhead guard	●	●	●	●
Adjustable armrest	●	●	●	●
Adjustable steering wheel	●	●	●	●
Storage compartment under armrest	●	●	●	●
Writing desk with paper clip	●	●	●	●
Battery rollers	●	●	●	●
Initial lift	–	–	●	–
Chill store design, down to -10°C	●	●	●	●
POWER SOURCE				
Lead acid batteries	●	●	●	●
ENVIRONMENT				
Cold store design, 0C° to -30C°	●	●	●	●
DRIVE, LIFT CONTROLS				
Height adjustable steering wheel	●	●	●	●
Fingertip controls for lifting/lowering	●	●	●	●
WHEEL OPTIONS				
Vulkollan	●	●	●	●
Tractothan	●	●	●	●
Super grip	●	●	●	●
OTHER OPTIONS				
Side stabilizers	–	●	●	●
Ergo Forks Trailing Control	●	●	●	●
360-degree steering	●	●	●	●
Multifunction display incl. BDI & hour meter, PIN code login(100 codes) and graphic icons	●	●	●	●
Foldable seat	●	●	●	●
Load backrest	●	●	●	●
Key switch entry (in combination with multifunction display)	●	●	●	●
Laser positioning guide	–	●	●	●
Load weight indicator	●	●	●	●
Lift height indicator	–	●	●	●
Level assistance system	–	●	●	●
Loading assistance	–	●	●	●
Panoramic ProVision roof	●	●	●	●
12V DC Power Socket	●	●	●	●
5 V USB socket	●	●	●	●
Accessory rack	●	●	●	●
Writing desk incl. RAM C holder	●	●	●	●
Accessory rack holder RAM system size C	●	●	●	●
Accessory rack holder RAM system size C, 2 pcs	●	●	●	●
Accessory rack holder RAM size D	●	●	●	●
Working lights LED	●	●	●	●
Increased drive speed	●	●	●	●
Special RAL colour	●	●	●	●

Standard display

Storage compartment under armrest

Initial lift

Continuing improvement may lead to changes in these specifications

WHEN RELIABILITY IS EVERYTHING...

AXIA
THE ALL ROUNDER

With a name that reflects its maneuverability, AXIA combines award-winning ergonomics with high performance and low maintenance features to deliver a complete warehouse support package.

Efficient, versatile and durable, AXIA is the perfect choice for every workplace.

Like any product bearing the "MITSUBISHI" name our materials handling equipment benefits from the tremendous heritage, huge resources and cutting-edge technology of one of the world's largest corporations – Mitsubishi Heavy Industries Group.

Engineering spacecraft, jet planes, power plants and more, MHI specializes in those technologies where performance, dependability and superiority decide your success or failure...

So when we promise you quality, reliability and value for money, you know it's a guarantee we have the power to deliver.

That's why every model in our award-winning and comprehensive range of lift trucks and warehouse equipment is built to a high specification – to ensure it keeps working for you. Day after day. Year after year. Whatever the job. Whatever the conditions.

YOU'LL NEVER WORK ALONE

As your local authorized dealer, we are here to keep your trucks working – through our extensive experience, our technical excellence and our commitment to customer care.

We are your local experts, backed by efficient channels to the entire organization of Mitsubishi Forklift Trucks.

No matter where you are, we are close by – with the capability to meet your needs.

Discover how Mitsubishi Forklift Trucks give you more from your local authorized dealer or when you visit our website www.mitforklift.com

Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tires, floor or surface conditions, applications or operating environment. Trucks may be shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your distributor of Mitsubishi forklift trucks. We follow a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.

info@mitforklift.com

CESM2160 (03/22)

MITSUBISHI FORKLIFT TRUCKS