

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 specialises 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 authorised 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 organisation 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 authorised dealer or when you visit our website [www.mitforklift.com.sg](http://www.mitforklift.com.sg)

Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, 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.

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FMIT0185 (01/2022)



ESR20-23N2(LN), EDR18N2(LN) 1.5-2.25 TONS

# PANTOGRAPH REACH TRUCK



**A NEW LEVEL OF PERFORMANCE IS WITHIN YOUR REACH**



# ROBUST AND EFFICIENT

State-of-the-art technology saves energy and time for advanced productivity.

- Runs up to two shifts on one battery charge\*
- Dynamic lift speeds – up to 165 ft. / minute
- Efficient design, advanced AC technology
- Lower total cost of ownership

The reliability and dependability of the ESR and EDR series delivers the performance that your operation requires.

## Outstanding Performance, Exceptional Value:

Mitsubishi Forklift Trucks developed the ESR and EDR series of reach trucks to deliver superior performance – at an exceptional value. With its advanced AC technology, this series is designed to reach new heights quickly and efficiently for greater productivity, shift after shift.

\* in most applications



## Advanced Technology and Performance

AC technology is integrated into the reach truck design for increased efficiency and productivity.

Your business will benefit from:

- Low energy consumption
- Longer run times
- Powerful acceleration
- Excellent lift speeds
- Efficient energy management
- Smooth directional changes
- Less maintenance

Combined, these benefits lead to a lower cost of ownership and a better bottom line.

## Industry-Leading Run Times:

The ESR and EDR series of reach trucks has the ability to run up to two shifts on one battery charge, leading to significant operational profitability. All major components – software, motors and controllers – are designed into one synchronous, advanced system for superior energy efficiency, productivity and speed.

## Dynamic Lift Speeds:

Built to efficiently move product, this series of reach trucks can reach exceptional lift and travel speeds without compromising on control. The reach truck's hydraulic system reaches lifting speeds of up to 165 feet per minute – one of the fastest in the industry - helping your operators move more product in less amount of time.

## Advanced Brake Performance:

The ESR / EDR series uses advanced regenerative braking, which puts energy back into the battery when the truck slows down. This intuitive design also requires fewer parts and less maintenance. All of these features result in longer run times while maintaining consistent performance levels for even greater productivity and reduced maintenance costs.

## Sealed Components For Greater Reliability:

These reach trucks feature sealed components for added protection in severe conditions, such as cooler or freezer applications, against dust and moisture. Sealed components offer greater reliability and require less maintenance over time, lowering your overall cost of operation today and in the future.



Ask your local dealer about additional performance and operator comfort options.





# METICULOUS CONTROL.

Enhanced Design And Stability Keep Operators In Charge.

- Excellent stability at high lift heights
- Precise operation with intuitive controls
- Adjustable performance settings

These features help keep your operators productive and focused, shift after shift.

## Designed For Stability From The Ground Up

The ESR / EDR series delivers exceptional stability that is unmatched at high lift heights.

- 1 Rigid mast design provides excellent load stability and smooth pantograph performance
- 2 Suspended articulating drive axle helps to evenly spread loading forces between the drive and caster wheels
- 3 Dual-articulating load wheels provide more contact area to the floor, helping to more evenly distribute load forces at very high lift heights

The result? Greater operator confidence and less risk of product damage.

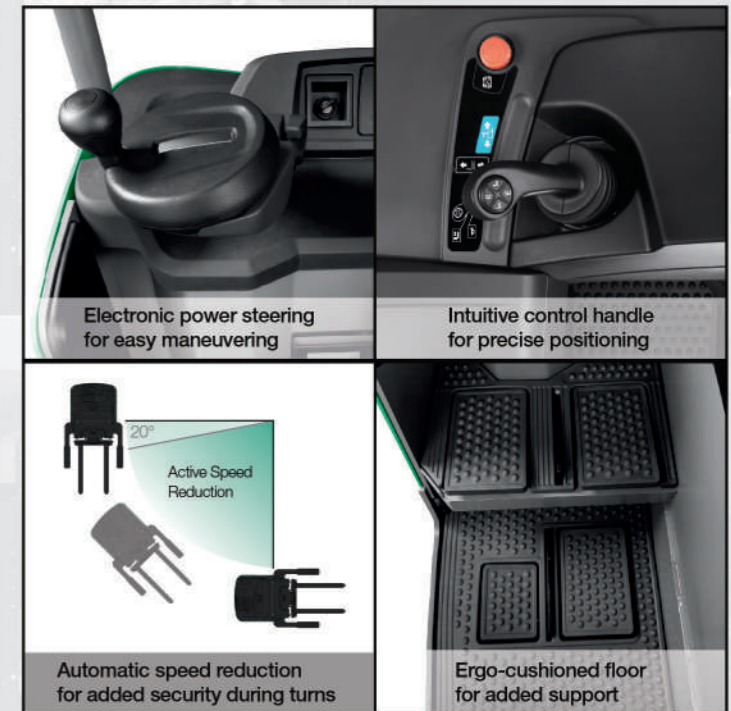


## Exceptional Comfort And Control:

- Electronic power steering makes maneuvering in and out of aisles easy, while allowing the operator to experience less fatigue.
- Spacious operator compartment with surrounding padding and sit-down operation capability on the wide chassis models helps to keep operators fresh.

## Additional Features:

- Automatic speed reduction – reduces travel speed when the truck turns past a predetermined angle overriding operator speed commands.
- Automatic parking brake – The electromagnetic brake is mounted to the top of the drive motor and is only deactivated when the operator commands travel. It is automatically set when power is turned off or the operator steps off the traction pedal.



Electronic power steering for easy maneuvering

Intuitive control handle for precise positioning

Active Speed Reduction

Automatic speed reduction for added security during turns

Ergo-cushioned floor for added support



## Excellent Visibility:

Operators experience confidence with this series' design. Features such as wide channel spacing, stacked hydraulic hosing and a robust overhead guard with angled bars provide excellent visibility to the load and the surrounding area.



## Informative Display:

Through one easy-to-read screen, operators can quickly view key indicators, such as the current battery charge level, hour meter and performance modes.



# SPECIFICATIONS

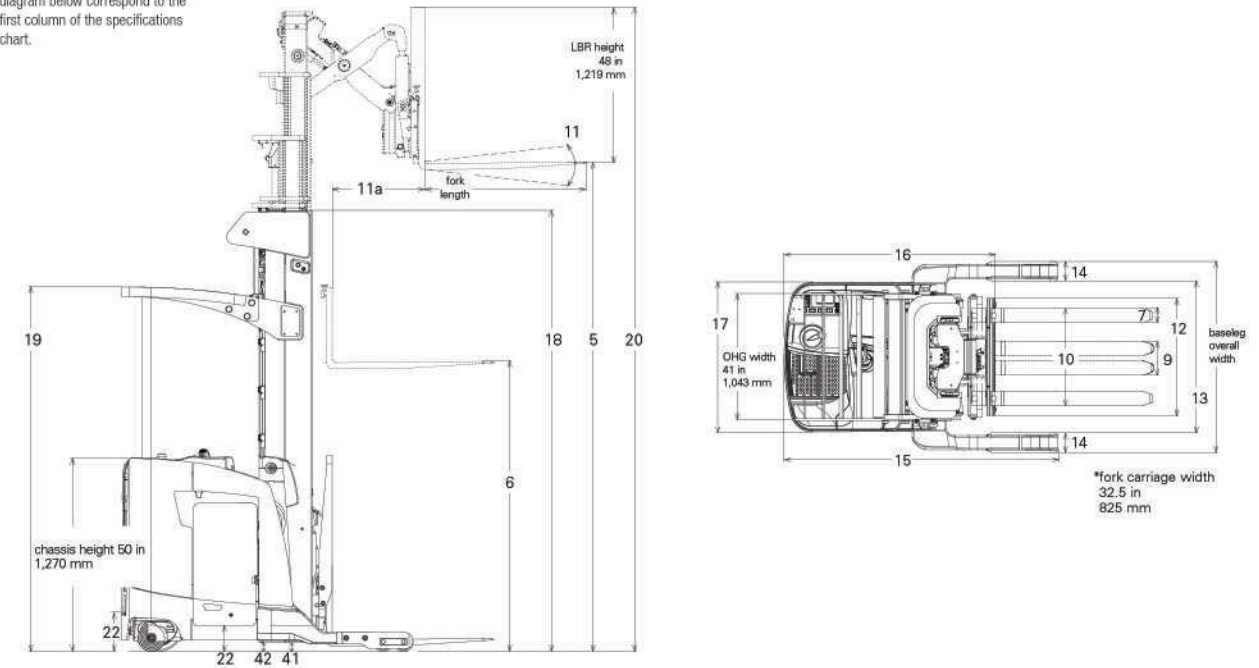
# PANTOGRAPH REACH TRUCK EDR18N2

CHARACTERISTICS		ESR20N2		ESR23N2		ESR23LN		EDR18N2		EDR18LN	
1	Type	Single Reach		Single Reach		Single Reach		Double Deep Reach		Double Reach	
2	Power voltage	36		36		36		36		36	
3	Capacity at rated load center	lb	kg	4,000	1,814	4,500	2,041	4,500	2,041	3,500	1,588
4	Capacity load center - distance from fork face	in	mm	24	600	24	600	24	600	24	600
<b>DIMENSIONS</b>											
5	Maximum fork height	in	mm	450	11,430	450	11,430	450	11,430	450	11,430
6	Free fork height	in	mm	59	1,500	59	1,500	59	1,500	59	1,500
7	Fork width	in	mm	3.9	100	3.9	100	3.9	100	3.9	100
8	Fork thickness	in	mm	1.6	40	1.6	40	1.6	40	1.4	35
9	Fork spacing - out-to-out minimum	in	mm	12	305	12	305	14.2	360	14.2	360
10	Fork spacing - out-to-out maximum <sup>1)</sup>	in	mm	31.5	802	31.5	802	32.5	825	32.5	825
11	Tilt angle - forward / backward	deg		3° / 4°		3° / 4°		3° / 4°		3° / 4°	
11a	Reach stroke			24	610	24	610	42	1,067	42	1,067
12	Mast width <sup>2)</sup>	in	mm	32.2	816	32.2	816	32.5	825	32.5	825
13	Baseleg opening	in	mm	33 - 49	839 - 1,245	33 - 49	839 - 1,245	33 - 49	839 - 1,245	33 - 49	839 - 1,245
14	Baseleg width <sup>3)</sup>	in	mm	5.5	140	5.5	140	5.5	140	5.5	140
15	Overall length	in	mm	76.1	1,932	76.1	1,932	98.1	2,492	78.1	1,983
16	Length to fork face	in	mm	55	1,397	55	1,397	56.0	1,422	62.3	1,582
17	Overall chassis width	in	mm	41.5	1,054	41.5	1,054	48	1,220	41.5	1,054
18	Overall lowered height	in	mm	107	2,720	107	2,720	107	2,720	107	2,720
19	Overall height to top of overhead guard	in	mm	95	2,413	95	2,413	92.5	2,349	95	2,413
20	Overall height with extended mast	in	mm	290	7,370	290	7,370	290	7,370	290	7,370
21	Step height	in	mm	9.8	250	9.8	250	9.8	250	9.8	250
22	Battery roller height	in	mm	7	178	7	178	7	178	7	178
23	Minimum outside turning radius	in	mm	70.74	1,797	70.74	1,797	73.1	1,858	70.74	1,797
24	Minimum aisle - 90° stack - zero clearance	in	mm	Please consult your Mitsubishi forklift truck dealer							
<b>PERFORMANCE</b>											
26	Grade clearance <sup>4)</sup>	%		15.5		15.5		14		15.5	
27	Travel speed loaded/empty - standard <sup>5)</sup>	mph km/h		7.5 / 7.5	12.1 / 12.1	7.5 / 7.5	12.1 / 12.1	-	-	7.5 / 7.5	12.1 / 12.1
28	Travel speed loaded / empty - high performance <sup>6)</sup>	mph km/h		7.5 / 8.0	12.1 / 12.9	7.5 / 8.0	12.1 / 12.9	7.5 / 8.0	12.1 / 12.9	7.5 / 8.0	12.1 / 12.9
29	Lift speed loaded / empty (triplex) - standard	fpm m/s		75 / 120	0.38 / 0.60	75 / 120	0.38 / 0.60	-	-	75 / 120	0.38 / 0.60
30	Lift speed loaded / empty (triplex) - high performance	fpm m/s		90 / 160	0.45 / 0.80	90 / 160	0.45 / 0.80	90 / 160	0.45 / 0.80	90 / 160	0.45 / 0.80
31	Lower speed loaded / empty (triplex) - standard	fpm m/s		110 / 110	0.55 / 0.55	110 / 110	0.55 / 0.55	-	-	110 / 110	0.55 / 0.55
32	Lower speed loaded / empty (triplex) - high perfor	fpm m/s		110 / 110	0.55 / 0.55	110 / 110	0.55 / 0.55	110 / 110	0.55 / 0.55	110 / 110	0.55 / 0.55
33	Gradeability - loaded / empty - maximum	%		9 / 9		9 / 9		9 / 10		9 / 10	
<b>WEIGHT</b>											
34	Truck weight - empty - without battery	lb	kg	7,050	3,200	7,050	3,200	7,050	3,200	7,400	3,350
35	Battery weight - min	lb	kg	2,000	910	2,000	910	2,000	910	2,000	910
36	Battery weight - max	lb	kg	2,300	1,050	2,300	1,050	2,300	1,050	2,300	1,050
<b>CHASSIS</b>											
37	Chassis type (stand/sit)			Stand		Stand		Sit / Stand		Stand	
38	Wheelbase	in	mm	61.5	1,562	61.5	1,562	62.9	1,597	61.5	1,562
39	Ground clearance - center of wheelbase	in	mm	2.4	61	2.4	61	2.4	61	2.4	61
40	Ground clearance - lowest point at mast	in	mm	2.4	61	2.4	61	2.4	61	2.4	61
41	Tire size - steer	in	mm	13.5 x 5.5	343 x 140	13.5 x 5.5	343 x 140	13.5 x 5.5	343 x 140	13.5 x 5.5	343 x 140
42	Tire size - caster	in	mm	7 x 4	180 x 100	7 x 4	180 x 100	7 x 4	180 x 100	7 x 4	180 x 100
43	Tire size - load wheels	in	mm	5 x 3.62	127 x 92	5 x 3.62	127 x 92	5 x 3.62	127 x 92	5 x 3.62	127 x 92
44	Brake type			Electromagnetic Disc		Electromagnetic Disc		Electromagnetic Disc		Electromagnetic Disc	
<b>ELECTRICAL</b>											
45	Traction / pump / steer motor type			AC Induction		AC Induction		AC Induction		AC Induction	
46	Traction motor output (60 minute rating) - standard	hp	kW	6.0	4.5	6.0	4.5	9.2	6.9	6.0	4.5
47	Traction motor output (60 minute rating) - high perfor	hp	kW	9.2	6.9	9.2	6.9	-	-	9.2	6.9
48	Pump motor output (5 minute rating)	hp	kW	27.2	20	27.2	20	27.2	20	27.2	20
49	Steer motor output (60 minute rating)	hp	kW	1.0	0.7	1.0	0.7	1.0	0.7	1.0	0.7
<b>OTHER</b>											
50	Battery maximum capacity - A/H (6 hour rating)			1,120		1,120		1,120		1,120	
51	Battery compartment length <sup>7)</sup>	in	mm	16.25	413	16.25	413	16.25	413	16.25	413
52	Battery compartment width	in	mm	38.42	976	38.42	976	38.86	987	38.42	976
53	Battery compartment height	in	mm	31.65	804	31.65	804	34.17	868	31.65	804

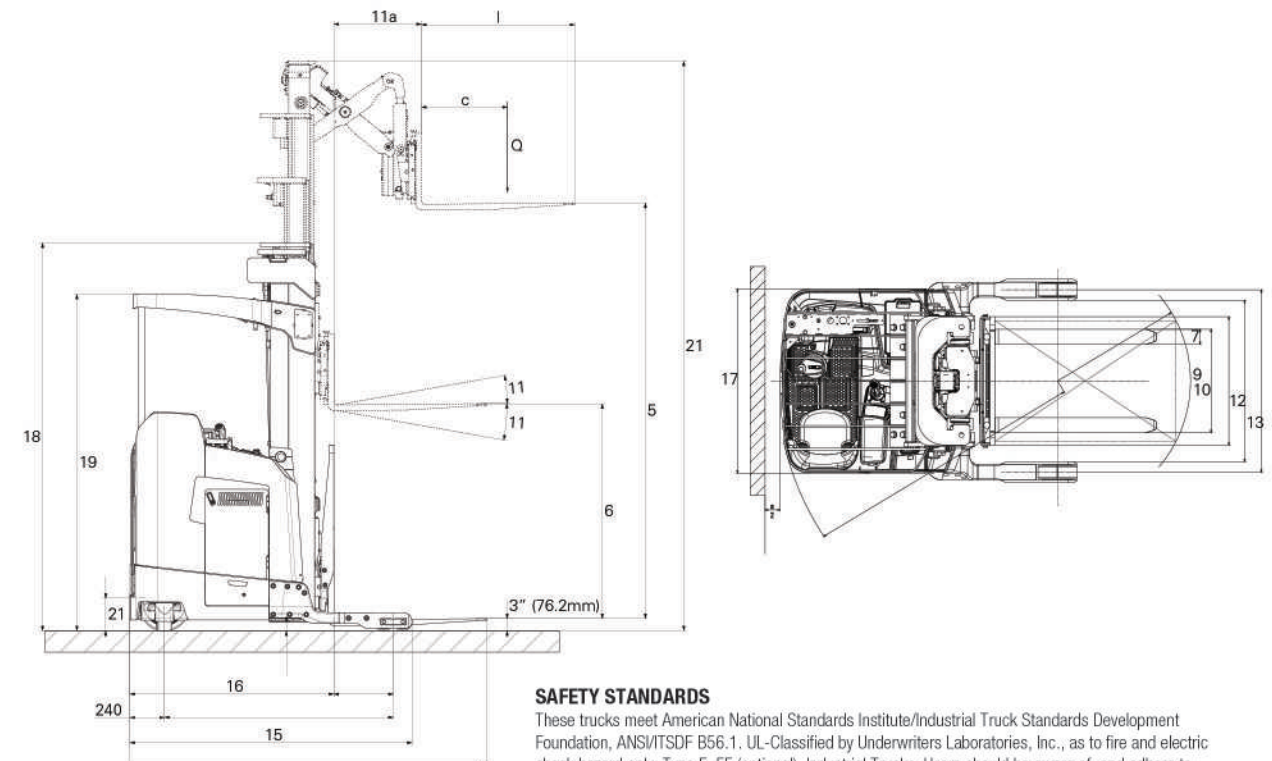
- 1) Maximum fork spacing 27.5 inches (698 mm) with 33 inch BLO.
- 2) Out-to-out dimension across mast outer channels.
- 3) 5.9 inches (150 mm) on single reach chassis with MFH over 332 inches (8430 mm).
- 4) 7.3 inches (186 mm) on single reach chassis with mast MFH above 332 inches (8430 mm).
- 5) Reduce grade clearance by 1.5% with 18.25 inch (463 mm) battery compartment length or 21.25 inch (539 mm) battery compartment length vs. 16.25 inch (412 mm) length.
- 6) Maximum speed attainable, after break-in period, varies with travel direction, truck weight, rolling resistance, mast height, options and battery condition.
- 7) 21.25 inch (539 mm) battery compartment length standard on chassis with MFH over 332 inches (8430 mm).

Note: Equipping this model (these models) with a power source (e.g. Hydrogen Fuel cell, etc.) that has not been previously approved by the factory is considered modification. Per OSHA 1910.178 and tion. Per OSHA 1910.178 and ANSI/ITSDF B56.1, please consult with your factory representative prior to installing any non-OEM power source that has not been previously approved.

Call-out numbers shown in the diagram below correspond to the first column of the specifications chart.



# ESR23LN - EDR18LN



### SAFETY STANDARDS

These trucks meet American National Standards Institute/Industrial Truck Standards Development Foundation, ANSI/ITSDF B56.1. UL-Classified by Underwriters Laboratories, Inc., as to fire and electric shock hazard only; Type E, EE (optional), Industrial Trucks. Users should be aware of, and adhere to, applicable codes and regulations regarding operator training, use, operation and maintenance of powered industrial trucks, including:

- ANSI/ITSDF B56.1.
- NFPA 505, fire safety standard for powered industrial trucks - type designations, areas of use, maintenance and operation.
- Occupational Safety and Health Administration (OSHA) regulations that may apply.

Specifications, equipment, technical data, photos and illustrations based on information at time of printing and subject to change without notice. Some products may be shown with optional equipment.