

# Kalmar Shuttle Carrier

Data sheet



# A Flexible range for you.

Every Kalmar Shuttle Carrier features a modular design that can be tailored to meet the needs of your business. You have three different shuttle carrier models to choose from:

## **Kalmar FastCharge™ Shuttle Carrier.**

The Kalmar FastCharge Shuttle Carrier uses electric drive units with the latest battery technology, which can be charged on the go. You may include a small diesel engine which will allow you to move your machine around your yard when it isn't charged.



## **Kalmar Hybrid Shuttle Carrier.**

The Kalmar Hybrid Shuttle Carrier delivers all the power you're used to, with up to 40% reduction in fuel consumption and up to 50 tons less CO2 emissions per annum than a traditional diesel-electric machine. A regenerative energy system captures electrical braking and spreader-lowering energy and stores this for re-use in Lithium-ion batteries.



## **Kalmar (Diesel-electric) Shuttle Carrier.**

The Kalmar Diesel-electric Shuttle Carrier offers high performance, excellent fuel efficiency, and low noise. Featuring a diesel-electric drive, this shuttle carrier complies with the latest exhaust emission regulations.



## Thinking of automating?

Kalmar AutoShuttles™ is a proven automation solution for container terminals. All Kalmar Shuttle Carriers can be delivered automation ready or can be retrofitted for automation at a later date.

### Key benefits

- Superior versatility for every need
- Decreased fuel consumption, up to 40% with hybrid
- Lower noise, lower emissions
- Zero emissions with Kalmar FastCharge™ Shuttle Carrier
- Increased manoeuvrability
- Advanced safety
- Superior ergonomics
- Longer service intervals
- Secure and fast container handling
- Automation-ready



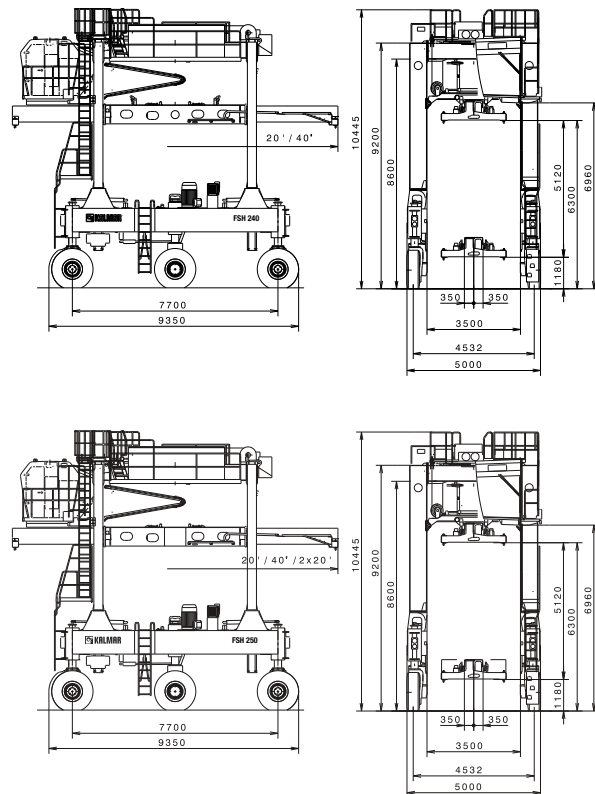
# Kalmar FastCharge™ Shuttle Carrier

## Technical Data

2-HIGH MODELS		FSH 240	FSH 250
<b>OPERATING DATA</b>			
Capacity under spreader	ton	40	50
Service weight	ton	51	52
Wheel load fully loaded	ton	15.2	17.0
<b>DIMENSIONS</b>			
Lifting height, max.	mm	6300	
Pick-up height, min.	mm	1180	
Inside clear width	mm	3500	
Turning radius, inside	mm	3550	
Turning radius, outside	mm	10500	
<b>SPREADER</b>			
Twistlocks		ISO	
Positions	ft	20, 40	20, 40/2x20*
Side shift	mm	± 350	
Slew angle	deg.	± 6	
<b>SPEEDS</b>			
Max. travel speed, empty	km/h	30	
Max. travel speed, loaded	km/h	30	22
Max. lifting speed, empty	m/min	20	
Max. lifting speed, loaded	m/min	13	9
Max. lowering speed, empty	m/min	18	
Max. lowering speed, loaded	m/min	13	9
<b>POWER UNIT</b>			
Type		Fully electric	
Charging System		Kalmar FastCharge	
Energy storage		Lithium-ion battery (LTO)	
<b>ENGINE (OPTIONAL) **</b>			
Power	kW	77	
Torque	Nm	425	
Displacement	dm³	4,4	
Emission level		EU stage II/ EU stage IV/ US Tier 4f	
<b>DRIVE SYSTEM</b>			
Type		2-wheel drive	
Control		AC-frequency control	
Electric motors		2 induction motors	
<b>TYRES</b>			
Size		480/95R25	
<b>BRAKES</b>			
Service brakes		Wet disc in four wheels	
Parking brakes		Spring actuated, wet disc in two wheels	
<b>HOIST SYSTEM</b>			
Type		Winch rope hoist	
Control		AC-frequency control	
Electric motor		1 induction motor	
<b>CONTROL SYSTEM</b>			
Type		PLC	

\* Also available extendable twinlift 45 ft  
Subject to change without notice

\*\* Optional diesel generator for extended  
operation range

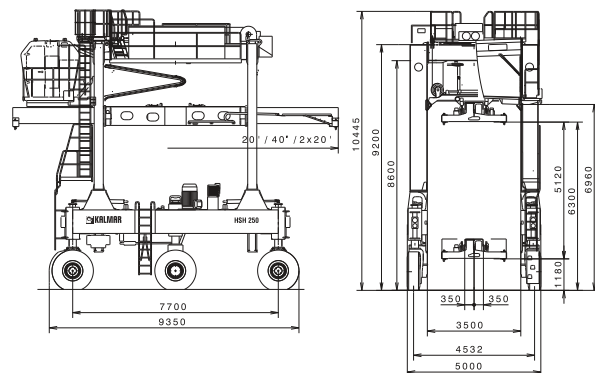
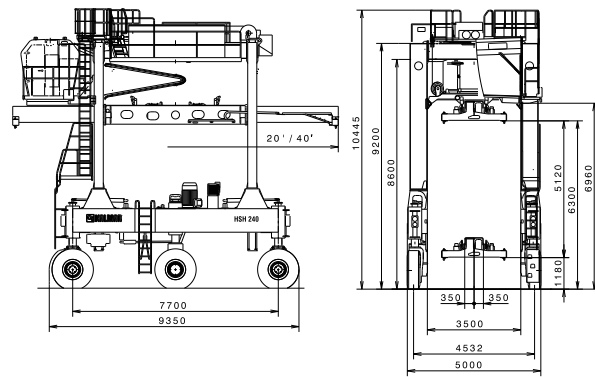




# Kalmar Hybrid Shuttle Carrier

## Technical Data

2-HIGH MODELS		HSH 240	HSH 250
<b>OPERATING DATA</b>			
Capacity under spreader	ton	40	50
Service weight	ton	51	52
Wheel load fully loaded	ton	15.2	17.0
<b>DIMENSIONS</b>			
Lifting height, max.	mm	6300	
Pick-up height, min.	mm	1180	
Inside clear width	mm	3500	
Turning radius, inside	mm	3550	
Turning radius, outside	mm	10500	
<b>SPREADER</b>			
Twistlocks		ISO	
Positions	ft	20, 40	20, 40/2x20*
Side shift	mm	± 350	
Slew angle	deg.	± 6	
<b>SPEEDS</b>			
Max. travel speed, empty	km/h	30	
Max. travel speed, loaded	km/h	30	22
Max. lifting speed, empty	m/min	20	
Max. lifting speed, loaded	m/min	13	9
Max. lowering speed, empty	m/min	18	
Max. lowering speed, loaded	m/min	13	9
<b>POWER UNIT</b>			
Type		Hybrid	
Charging System		Diesel generator	
Energy storage		Lithium-ion battery (LTO)	
<b>ENGINE</b>			
Power	kW	77	
Torque	Nm	425	
Displacement	dm <sup>3</sup>	4.4	
Emission level		EU stage II/EU stage IV/ US Tier 4f	
FastCharge as option			
<b>DRIVE SYSTEM</b>			
Type		2-wheel drive	
Control		AC-frequency control	
Electric motors		2 induction motors	
<b>TYRES</b>			
Size		480/95R25	
<b>BRAKES</b>			
Service brakes		Wet disc in four wheels	
Parking brakes		Spring actuated, wet disc in two wheels	
<b>HOIST SYSTEM</b>			
Type		Winch rope hoist	
Control		AC-frequency control	
Electric motor		1 induction motor	
<b>CONTROL SYSTEM</b>			
Type		PLC	
Voltage		24 V	

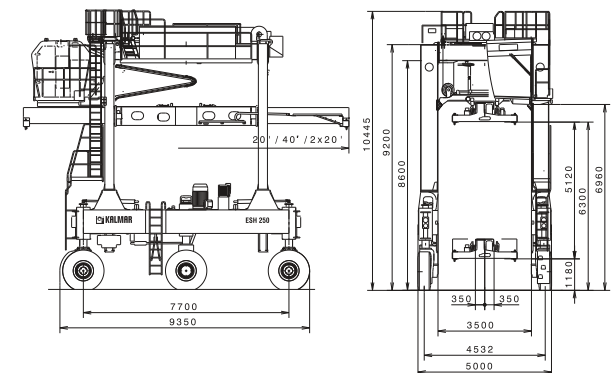
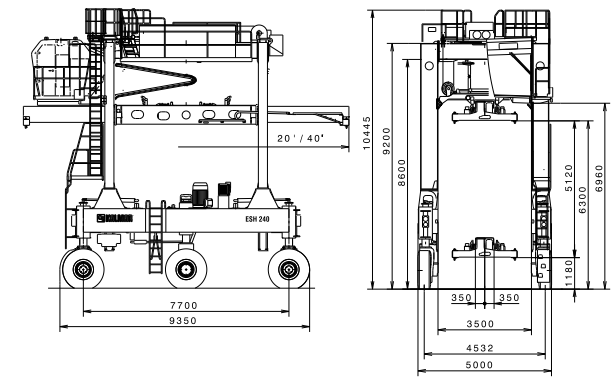


\*Also available extendable twinlift 45 ft  
Subject to change without notice

# Kalmar Diesel-electric Shuttle Carrier

## Technical Data

		ESH 240	ESH 250
<b>OPERATING DATA</b>			
Capacity under spreader	ton	40	50
Service weight	ton	51	52
Wheel load fully loaded	ton	15.2	17.0
<b>DIMENSIONS</b>			
Lifting height, max.	mm	6300	
Pick-up height, min.	mm	1180	
Inside clear width	mm	3500	
Turning radius, inside	mm	3550	
Turning radius, outside	mm	9500	
<b>SPREADER</b>			
Twistlocks		ISO	
Positions	ft	20, 40	20, 40/2x20*
Side shift	mm	± 350	
Slew angle	deg.	± 6	
<b>SPEEDS</b>			
Max. travel speed, empty	km/h	30	
Max. travel speed, loaded	km/h	30	22
Max. lifting speed, empty	m/min	20	
Max. lifting speed, loaded	m/min	13	9
Max. lowering speed, empty	m/min	18	
Max. lowering speed, loaded	m/min	13	9
<b>POWER UNIT</b>			
Type		Diesel-electric	
Power system		Variable speed AC-generator	
<b>DRIVE SYSTEM</b>			
Type		2-wheel drive	
Control		AC-frequency control	
Electric motors		2 induction motors	
<b>TYRES</b>			
Size		480/95R25	
<b>BRAKES</b>			
Service brakes		Wet disc in four wheels	
Parking brakes		Spring actuated, wet disc in two wheels	
<b>HOIST SYSTEM</b>			
Type		Winch rope hoist	
Control		AC-frequency control	
Electric motor		1 induction motor	
<b>CONTROL SYSTEM</b>			
Type		PLC	
Voltage		24 V	
<b>ENGINE OPTIONS FOR BOTH MODELS</b>			
Power	kW	285	
Torque	Nm	1938	
Displacement	dm <sup>3</sup>	10.8	
Emission level		EU stage II/ III A/ IV/ US tier 2/ 3/ 4f	



\*Also available extendable twinlift 45 ft  
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