Cakmak Crane Inc.
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# CMK

## 4th Generation High-Technology Hoists

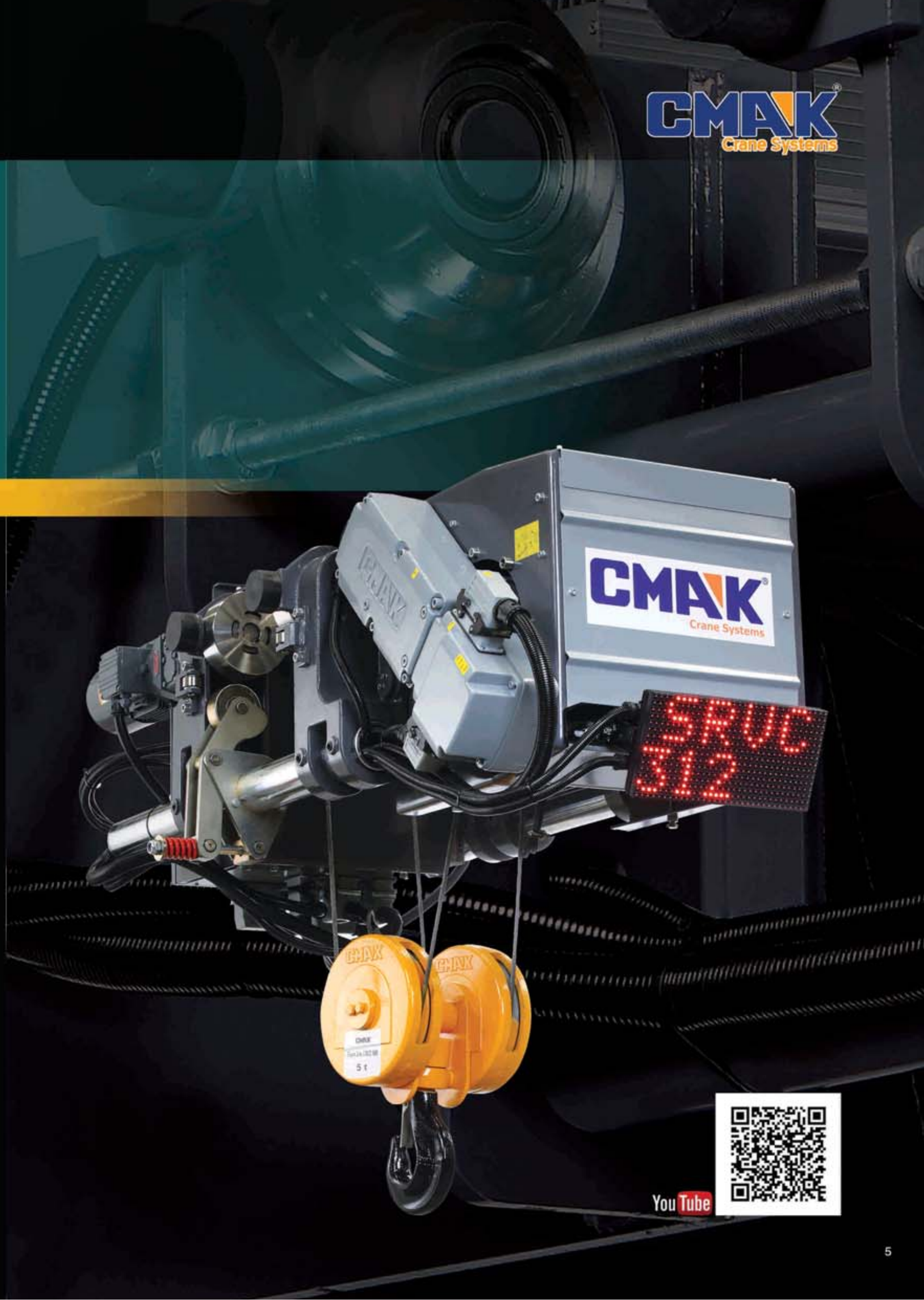
25 - 35 - 45
70 - 90
Series

CMAK
Crane Systems

# Welcome to the Technology

Gathered from the feedbacks of the relatively old design hoists, CMAK's R & D department developed a hoist that is superior and still cost effective.
Catch the future with CMK series.

Advantages
Technical Specification
HoistSense
Crane Kits



# Advantages

### Increased Falls Capability
SMART FALLS SYSTEM

With the compact pulley system, it enables CMK hoists to have higher falls without increasing the size of the hoist.

### Maximum Height of Lifting
LARGE DRUM DIAMETER

Compared to the conventional systems, CMK hoists are equipped with a large diameter rope drum, enabling it to have maximum number of reeving for easily reaching high lifting heights.

### Maximum Power Economy
REGENERATIVE ENERGY (OPTIONAL)

While lowering, the system feeds back the motors with surplus energy while decreasing the overall consumption of electricitiy between 25%-40% of crane. CMK hoists are kind to Earth.

### Minimum Hook Drift
SHORT DRUM LENGTH

Thanks to the CMK series hoists' design, lifting and lowering is done with minimal hook drift, similar to absolute vertical lifting systems.

### Maximum Reachable Area
COMPACT DESIGN

With smaller and compact design, CMK Hoists can reach more areas for better utilization of working area.

### Maximum Wire Rope Service Life
SPECIAL BENDING ANGLE

CMK Hoists' wire rope bending angle is far smaller thus increasing the service life of the wire rope by factor of 4.

### Highly Durable and Modular
EASY MAINTENANCE

Every part of the hoist can be easily disassembled and lowering to the ground for effective maintenance and part replacement. CMK Hoist, in terms of mechanical structure and electrical system, are designed with the "plug / remove" principle.

### Long Service Life
HOIST PROTECTION SYSTEM

CMK series hoists are equipped with PTC,Termic, Phase Safe-Guard, Emergency System, Double Layer Top and Bottom Limiter and Electro-Mechanical Overload Systems, thus very reliable and safely operational.

### Efficient Main Cooling
HIGHLY EFFICIENT COOLING

Main lifting motor is located inside of the drum thus benefitting from the air tunnel of the drum with enhancing the cooling operation and keeping the optimum heat level of the motor.

### Minimum Maintenance Requirement
LONG SERVICE LIFE

CMK series hoist are designed to endure severe conditions for years, also its design lowers the maintenance requirement while reducing your maintenance costs.

### Smooth Acceleration and Deceleration
EASY TO USE

Thanks to the standard electrical systems of CMK Hoist, hoists operators mistakes (like tipping) is overriden thus ensuring correct operation and minimizing the wear on mechanical parts. CMK Hoists are, as standard, equipped with Inverters which includes cross-travel and lifting / lowering, thus increasing the service life and effective operation.

### Service Optimization
INTELLEGENT MAINTENANCE SUPPORT

CMK series hoists can be equipped with HoistSense - Electronic Monitoring System, which allows the operators and service crew to optimize the service dates thus minimizes the downtime and maximizes the efficient operation time

### Special Bottom and Top Double Layer Limiter
ACCURATE AND DURABLE LIMITS

Hook top and bottom travel limits can be easily adjusted, also giving option set limits for slow down and stop for both top and bottom. This will ensure problem-free operation of the users.

### Safe Operation
EMERGENCY SYSTEM

In an emergency, users can simply press the emergency stop button, located at the bottom of the pushbutton, to cut the main power of the crane. Also in situation of power surges, CMK hoists will automatically cut the main power to avoid its systems getting damaged.

### Operator Health First
LOW CONTROL VOLTAGE

CMK Hoists' standard control voltage is 48V. In case of an insulation problem on the pushbutton, due to a direct damage, only 48V electricity is on the circuits that are close to the operators hand.

### Low Operation Noise
HIGH QUALITY OPERATION

In the case of lifting / lowering only noise you're going to hear is the working noise of the fan. Smooth and quiet operation.

### Overload Device
SAFE LOAD LIMITER

CMK Hoists' electro-mechanical overload device is very reliable and can easily adjusted with just an allen wrench thus ensure safe operation.

### Durable Rope Guide
ROPE GUIDE

CMK series rope guide ensures the wire rope to tightly rolled to the drum and it's design minimises the breakage due to it's flexibility.

### High Efficiency
HIGHLY EFFICIENT LIFTING MOTOR

CMK series hoists are capable of operating under heavy conditions with new generation 3000rpm output lifting motors.

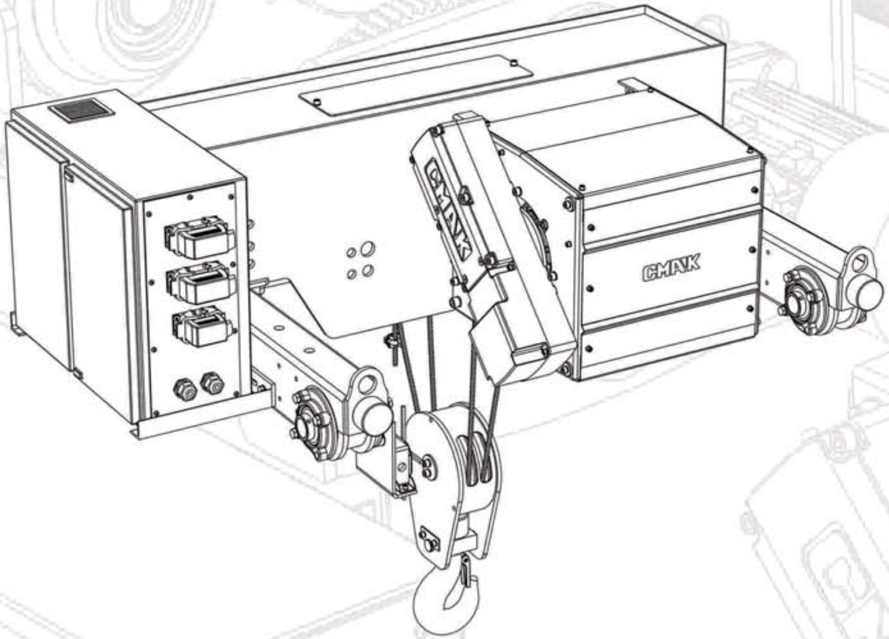
### Direct Driven Drivers
GTS TYPE TRAVEL MECHANISM

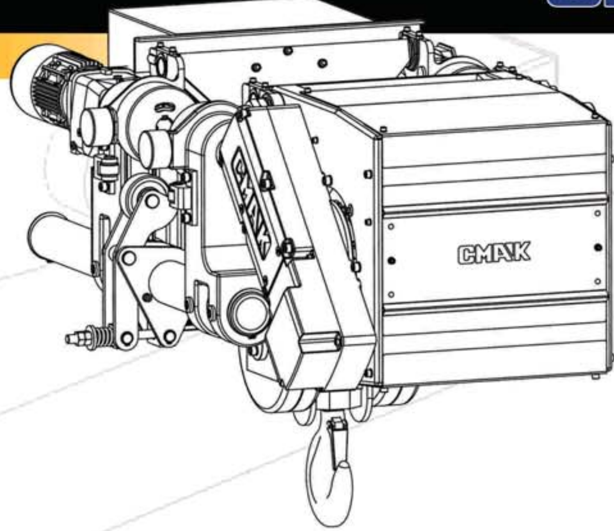
Travel wheels of the hoists are direct driven thus minimises the wear on travel mechanisms.




CMK series hoists grant you best return on investment

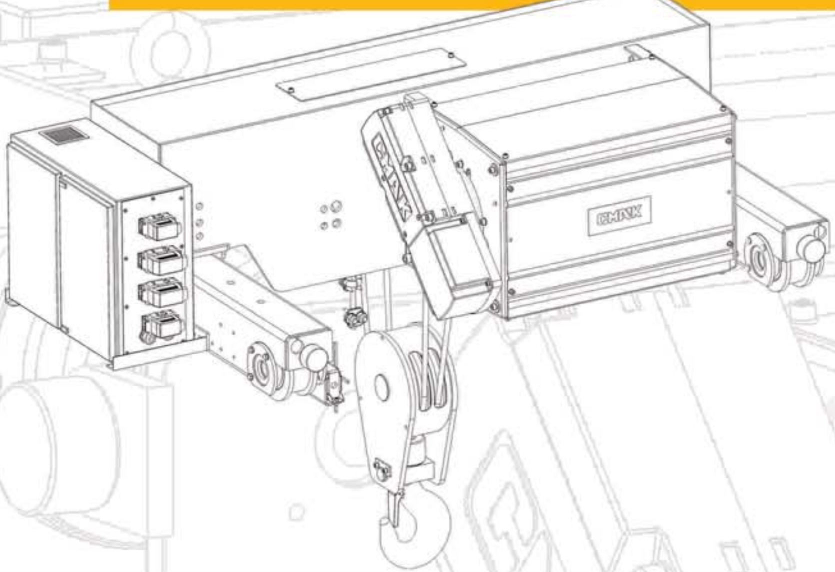
Up to 80t with vast duty and speed variations depending on your choice



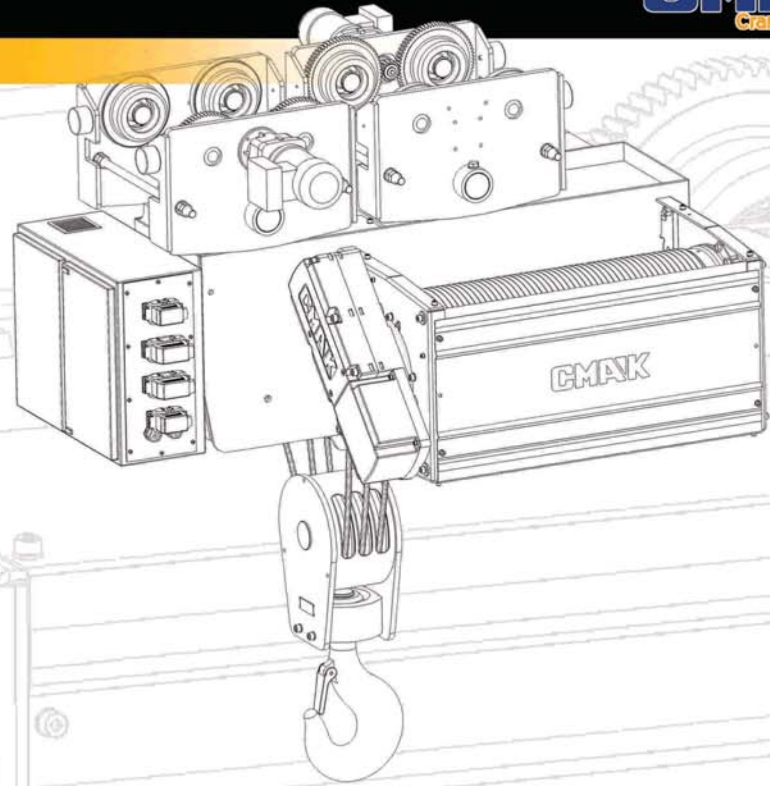




| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 1000 | 33 | 3,3 | 20 | 30 | 4 | 16 | 24 | 3m | M6 | CMK25MXS.011 | ● | ○ | ○ | ● | ○ |
| | 53 | | | | | | | | | CMK25MXA.011 | ● | ○ | ○ | ● | ○ |
| | 73 | | | | | | | | | CMK25MXB.011 | ● | ○ | ○ | ● | ○ |
| | 94 | | | | | | | | | CMK25MXC.011 | ● | ○ | ○ | ● | ○ |
| 1250 | 33 | 3,3 | 20 | 30 | 4 | 16 | 24 | 2m | M5 | CMK25MXS.011 | ● | ○ | ○ | ● | ○ |
| | 53 | | | | | | | | | CMK25MXA.011 | ● | ○ | ○ | ● | ○ |
| | 73 | | | | | | | | | CMK25MXB.011 | ● | ○ | ○ | ● | ○ |
| | 94 | | | | | | | | | CMK25MXC.011 | ● | ○ | ○ | ● | ○ |
| 1500 | 33 | 3,3 | 20 | 30 | 4 | 16 | 24 | 1Am | M4 | CMK25MXS.011 | ● | ○ | ○ | ● | ○ |
| | 53 | | | | | | | | | CMK25MXA.011 | ● | ○ | ○ | ● | ○ |
| | 73 | | | | | | | | | CMK25MXB.011 | ● | ○ | ○ | ● | ○ |
| | 94 | | | | | | | | | CMK25MXC.011 | ● | ○ | ○ | ● | ○ |
| 2000 | 16,5 | 1,8 | 10 | 15 | 4 | 16 | 24 | 3m | M6 | CMK25MXS.021 | ● | ● | ○ | ● | ○ |
| | 26,5 | | | | | | | | | CMK25MXA.021 | ● | ● | ○ | ● | ○ |
| | 36,5 | | | | | | | | | CMK25MXB.021 | ● | ● | ○ | ● | ○ |
| | 47 | | | | | | | | | CMK25MXC.021 | ● | ● | ○ | ● | ○ |
| | 31,4 | 3,4 | 20,6 | 30,9 | 4 | 16 | 24 | 3m | M6 | CMK35MZS.011 | ● | ○ | ○ | ● | ○ |
| | 50,5 | | | | | | | | | CMK35MZA.011 | ● | ○ | ○ | ● | ○ |
| | 70,6 | | | | | | | | | CMK35MZB.011 | ● | ○ | ○ | ● | ○ |
| | 89,6 | | | | | | | | | CMK35MZC.011 | ● | ○ | ○ | ● | ○ |

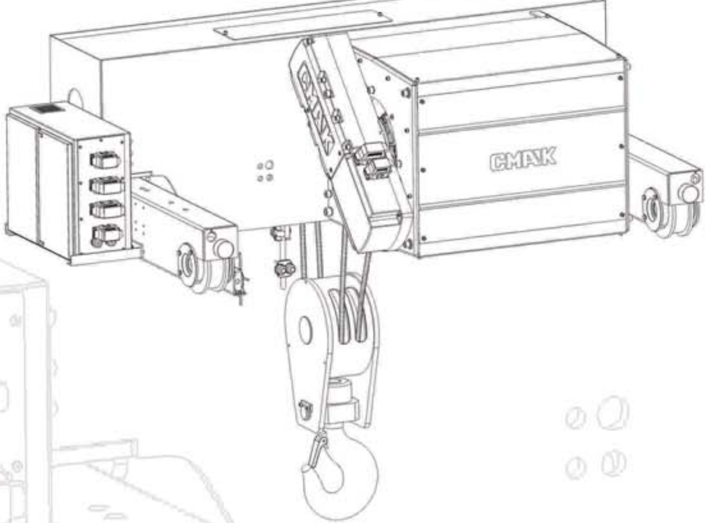
| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 2500 | 16,5 | 1,8 | 10 | 15 | 4 | 16 | 24 | 2m | M5 | CMK25MXS.021 | ● | ● | ○ | ● | ○ |
| | 26,5 | | | | | | | | | CMK25MXA.021 | ● | ● | ○ | ● | ○ |
| | 36,5 | | | | | | | | | CMK25MXB.021 | ● | ● | ○ | ● | ○ |
| | 47 | | | | | | | | | CMK25MXC.021 | ● | ● | ○ | ● | ○ |
| | 31,4 | 3,5 | 20,6 | 30,9 | 4 | 16 | 24 | 2m | M5 | CMK35MZS.011 | ● | ○ | ○ | ● | ○ |
| | 50,5 | | | | | | | | | CMK35MZA.011 | ● | ○ | ○ | ● | ○ |
| | 70,6 | | | | | | | | | CMK35MZB.011 | ● | ○ | ○ | ● | ○ |
| | 89,6 | | | | | | | | | CMK35MZC.011 | ● | ○ | ○ | ● | ○ |
| 3000 | 16,5 | 1,8 | 10 | 15 | 4 | 16 | 24 | 1Am | M4 | CMK25MXS.021 | ● | ● | ○ | ● | ○ |
| | 26,5 | | | | | | | | | CMK25MXA.021 | ● | ● | ○ | ● | ○ |
| | 36,5 | | | | | | | | | CMK25MXB.021 | ● | ● | ○ | ● | ○ |
| | 47 | | | | | | | | | CMK25MXC.021 | ● | ● | ○ | ● | ○ |
| | 31,4 | 3,5 | 20,6 | 30,9 | 4 | 16 | 24 | 1Am | M4 | CMK35MZS.011 | ● | ○ | ○ | ● | ○ |
| | 50,5 | | | | | | | | | CMK35MZA.011 | ● | ○ | ○ | ● | ○ |
| | 70,6 | | | | | | | | | CMK35MZB.011 | ● | ○ | ○ | ● | ○ |
| | 89,6 | | | | | | | | | CMK35MZC.011 | ● | ○ | ○ | ● | ○ |
| 3200 | 30,4 | 2,7 | 16 | 24 | 4 | 16 | 24 | 3m | M6 | CMK45MXS.011 | ● | ○ | ○ | ● | ○ |
| | 51,2 | | | | | | | | | CMK45MXA.011 | ● | ○ | ○ | ● | ○ |
| | 68,4 | | | | | | | | | CMK45MXB.011 | ● | ○ | ○ | ● | ○ |
| | 87,4 | | | | | | | | | CMK45MXC.011 | ● | ○ | ○ | ● | ○ |
| 4000 | 8,2 | 0,9 | 5 | 7,5 | 4 | 16 | 24 | 3m | M6 | CMK25MXS.041 | ● | ● | ○ | ● | ○ |
| | 13,2 | | | | | | | | | CMK25MXA.041 | ● | ● | ○ | ● | ○ |
| | 18,2 | | | | | | | | | CMK25MXB.041 | ● | ● | ○ | ● | ○ |
| | 23,5 | | | | | | | | | CMK25MXC.041 | ● | ● | ○ | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 3m | M6 | CMK35MZS.021 | ● | ● | ○ | ● | ○ |
| | 25,2 | | | | | | | | | CMK35MZA.021 | ● | ● | ○ | ● | ○ |
| | 35,3 | | | | | | | | | CMK35MZB.021 | ● | ● | ○ | ● | ○ |
| | 44,8 | | | | | | | | | CMK35MZC.021 | ● | ● | ○ | ● | ○ |
| | 30,4 | 2,7 | 16 | 24 | 4 | 16 | 24 | 2m | M5 | CMK45MXS.011 | ● | ○ | ○ | ● | ○ |
| | 51,2 | | | | | | | | | CMK45MXA.011 | ● | ○ | ○ | ● | ○ |
| | 68,4 | | | | | | | | | CMK45MXB.011 | ● | ○ | ○ | ● | ○ |
| | 87,4 | | | | | | | | | CMK45MXC.011 | ● | ○ | ○ | ● | ○ |




| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 5000 | 8,2 | 0,9 | 5 | 7,5 | 4 | 16 | 24 | 2m | M5 | CMK25MXS.041 | ● | ● | ○ | ● | ○ |
| | 13,2 | | | | | | | | | CMK25MXA.041 | ● | ● | ○ | ● | ○ |
| | 18,2 | | | | | | | | | CMK25MXB.041 | ● | ● | ○ | ● | ○ |
| | 23,5 | | | | | | | | | CMK25MXC.041 | ● | ● | ○ | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 2m | M5 | CMK35MZS.021 | ● | ● | ○ | ● | ○ |
| | 25,2 | | | | | | | | | CMK35MZA.021 | ● | ● | ○ | ● | ○ |
| | 35,3 | | | | | | | | | CMK35MZB.021 | ● | ● | ○ | ● | ○ |
| | 44,8 | | | | | | | | | CMK35MZC.021 | ● | ● | ○ | ● | ○ |
| | 30,4 | 2,7 | 16 | 24 | 4 | 16 | 24 | 1Am | M4 | CMK45MXS.011 | ● | ○ | ○ | ● | ○ |
| | 51,2 | | | | | | | | | CMK45MXA.011 | ● | ○ | ○ | ● | ○ |
| | 68,4 | | | | | | | | | CMK45MXB.011 | ● | ○ | ○ | ● | ○ |
| | 87,4 | | | | | | | | | CMK45MXC.011 | ● | ○ | ○ | ● | ○ |
| 6000 | 8,2 | 0,9 | 5 | 7,5 | 4 | 16 | 24 | 1Am | M4 | CMK25MXS.041 | ● | ● | ○ | ● | ○ |
| | 13,2 | | | | | | | | | CMK25MXA.041 | ● | ● | ○ | ● | ○ |
| | 18,2 | | | | | | | | | CMK25MXB.041 | ● | ● | ○ | ● | ○ |
| | 23,5 | | | | | | | | | CMK25MXC.041 | ● | ● | ○ | ● | ○ |
| | 8,8 | 0,6 | 3,3 | 4,95 | 4 | 16 | 24 | 3m | M6 | CMK25OXA.061 | ● | ○ | ● | ● | ○ |
| | 12,1 | | | | | | | | | CMK25OXB.061 | ● | ○ | ● | ● | ○ |
| | 15,6 | | | | | | | | | CMK25OXC.061 | ● | ○ | ● | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 1Am | M4 | CMK35MZS.021 | ● | ● | ○ | ● | ○ |
| | 25,2 | | | | | | | | | CMK35MZA.021 | ● | ● | ○ | ● | ○ |
| | 35,3 | | | | | | | | | CMK35MZB.021 | ● | ● | ○ | ● | ○ |
| | 44,8 | | | | | | | | | CMK35MZC.021 | ● | ● | ○ | ● | ○ |
| 6300 | 15,2 | 1,36 | 8 | 12 | 4 | 16 | 24 | 3m | M6 | CMK45MXS.021 | ● | ● | ○ | ● | ○ |
| | 25,6 | | | | | | | | | CMK45MXA.021 | ● | ● | ○ | ● | ○ |
| | 34,2 | | | | | | | | | CMK45MXB.021 | ● | ● | ○ | ● | ○ |
| | 43,7 | | | | | | | | | CMK45MXC.021 | ● | ● | ○ | ● | ○ |

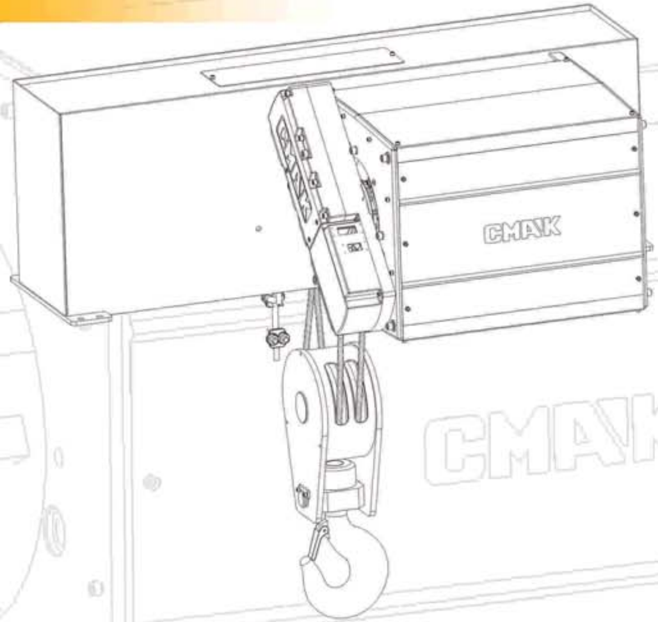



| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 7500 | 8,8 | 0,52 | 3,3 | 5 | 4 | 16 | 24 | 2m | M5 | CMK25OXA.061 | ● | ○ | ● | ● | ○ |
| | 12,1 | | | | | | | | | CMK25OXB.061 | ● | ○ | ● | ● | ○ |
| | 15,6 | | | | | | | | | CMK25OXC.061 | ● | ○ | ● | ● | ○ |
| 8000 | 9,1 | 0,4 | 2,5 | 3,75 | 4 | 16 | 24 | 3m | M6 | CMK25OXB.081 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK25OXC.081 | ● | ○ | ● | ● | ○ |
| | 7,8 | 0,82 | 5,1 | 7,65 | 4 | 16 | 24 | 3m | M6 | CMK35MZS.041 | ● | ● | ○ | ● | ○ |
| | 12,6 | | | | | | | | | CMK35MZA.041 | ● | ● | ○ | ● | ○ |
| | 17,6 | | | | | | | | | CMK35MZB.041 | ● | ● | ○ | ● | ○ |
| | 22,4 | | | | | | | | | CMK35MZC.041 | ● | ● | ○ | ● | ○ |
| | 15,2 | 1,28 | 8 | 12 | 4 | 16 | 24 | 2m | M5 | CMK45MXS.021 | ● | ● | ○ | ● | ○ |
| | 25,6 | | | | | | | | | CMK45MXA.021 | ● | ● | ○ | ● | ○ |
| | 34,2 | | | | | | | | | CMK45MXB.021 | ● | ● | ○ | ● | ○ |
| | 43,7 | | | | | | | | | CMK45MXC.021 | ● | ● | ○ | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 3m | M6 | CMK70MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,2 | | | | | | | | | CMK70MXA.042 | ● | ○ | ○ | ● | ● |
| | 35,3 | | | | | | | | | CMK70MXB.042 | ● | ○ | ○ | ● | ● |
| | 44,8 | | | | | | | | | CMK70MXC.042 | ● | ○ | ○ | ● | ● |
| 9000 | 8,8 | 0,52 | 3,3 | 5 | 4 | 16 | 24 | 1Am | M4 | CMK25OXA.061 | ● | ○ | ● | ● | ○ |
| | 12,1 | | | | | | | | | CMK25OXB.061 | ● | ○ | ● | ● | ○ |
| | 15,6 | | | | | | | | | CMK25OXC.061 | ● | ○ | ● | ● | ○ |

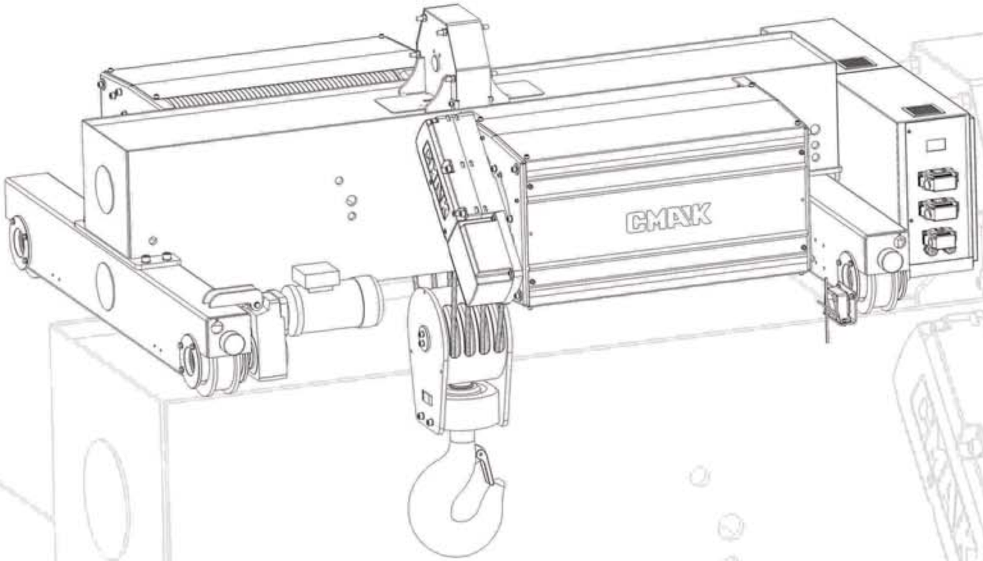


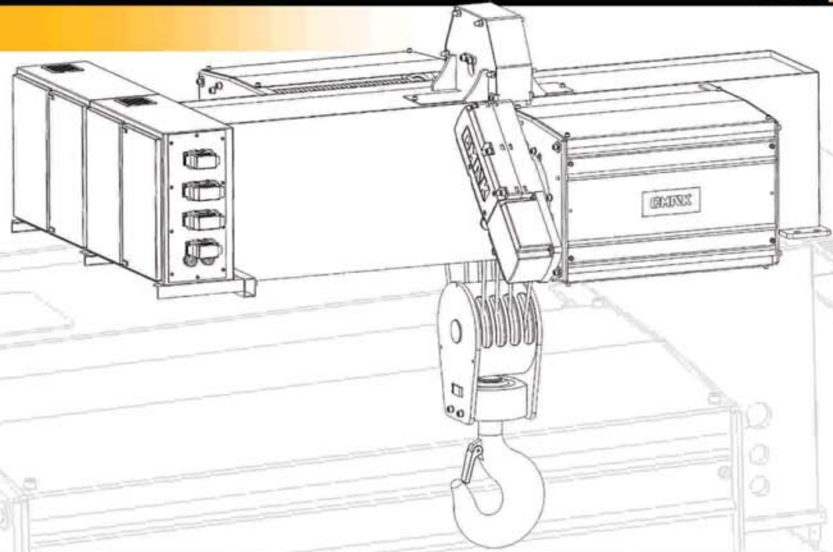
| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 10000 | 9,1 | 0,4 | 2,5 | 3,75 | 4 | 16 | 24 | 2m | M5 | CMK25OXB.081 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK25OXC081 | ● | ○ | ● | ● | ○ |
| | 7,8 | 0,82 | 5,1 | 7,65 | 4 | 16 | 24 | 2m | M5 | CMK35MZS.041 | ● | ● | ○ | ● | ○ |
| | 12,6 | | | | | | | | | CMK35MZA.041 | ● | ● | ○ | ● | ○ |
| | 17,6 | | | | | | | | | CMK35MZB.041 | ● | ● | ○ | ● | ○ |
| | 22,4 | | | | | | | | | CMK35MZC.041 | ● | ● | ○ | ● | ○ |
| | 15,2 | 1,28 | 8 | 12 | 4 | 16 | 24 | 1Am | M4 | CMK45MXS.021 | ● | ● | ○ | ● | ○ |
| | 25,6 | | | | | | | | | CMK45MXA.021 | ● | ● | ○ | ● | ○ |
| | 34,2 | | | | | | | | | CMK45MXB.021 | ● | ● | ○ | ● | ○ |
| | 43,7 | | | | | | | | | CMK45MXC.021 | ● | ● | ○ | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 2m | M5 | CMK70MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,2 | | | | | | | | | CMK70MXA.042 | ● | ○ | ○ | ● | ● |
| | 35,3 | | | | | | | | | CMK70MXB.042 | ● | ○ | ○ | ● | ● |
| | 44,4 | | | | | | | | | CMK70MXC.042 | ● | ○ | ○ | ● | ● |
| 12000 | 9,1 | 0,4 | 2,5 | 3,75 | 4 | 16 | 24 | 1Am | M4 | CMK25OXB.081 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK25OXC.081 | ● | ○ | ● | ● | ○ |
| | 7,8 | 0,82 | 5,1 | 7,65 | 4 | 16 | 24 | 1Am | M4 | CMK35MZS.041 | ● | ● | ○ | ● | ○ |
| | 12,6 | | | | | | | | | CMK35MZA.041 | ● | ● | ○ | ● | ○ |
| | 17,6 | | | | | | | | | CMK35MZB.041 | ● | ● | ○ | ● | ○ |
| | 22,4 | | | | | | | | | CMK35MZC.041 | ● | ● | ○ | ● | ○ |
| | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 3m | M6 | CMK35OZA.061 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK35OZB.061 | ● | ○ | ● | ● | ○ |
| | 14,9 | | | | | | | | | CMK35OZC.061 | ● | ○ | ● | ● | ○ |
| | 15,7 | 1,76 | 10,3 | 15,5 | 4 | 16 | 24 | 1Am | M4 | CMK70MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,2 | | | | | | | | | CMK70MXA.042 | ● | ○ | ○ | ● | ● |
| | 35,3 | | | | | | | | | CMK70MXB.042 | ● | ○ | ○ | ● | ● |
| | 44,8 | | | | | | | | | CMK70MXC.042 | ● | ○ | ○ | ● | ● |





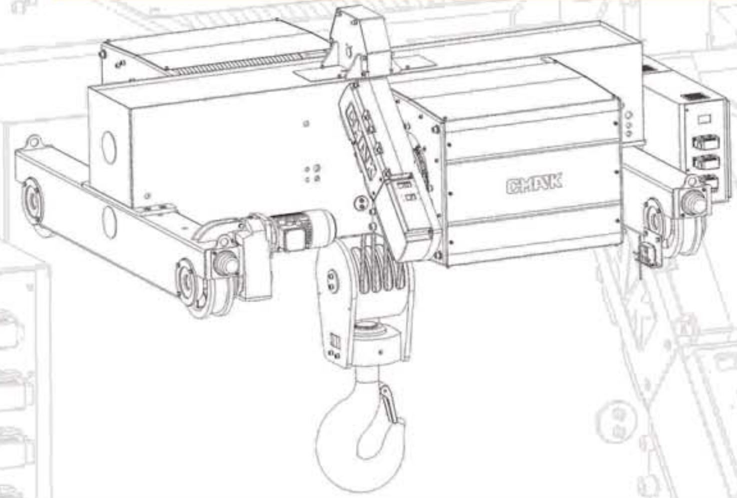
| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 12500 | 7,5 | 0,64 | 4 | 6 | 4 | 16 | 24 | 3m | M6 | CMK45MXS.041 | ● | ● | ○ | ● | ○ |
| | 12,8 | | | | | | | | | CMK45MXA.041 | ● | ● | ○ | ● | ○ |
| | 17 | | | | | | | | | CMK45MXB.041 | ● | ● | ○ | ● | ○ |
| | 21,8 | | | | | | | | | CMK45MZC.041 | ● | ● | ○ | ● | ○ |
| | 15,2 | 1,28 | 8 | 12 | 4 | 16 | 24 | 3m | M6 | CMK90MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,6 | | | | | | | | | CMK90MXA.042 | ● | ○ | ○ | ● | ● |
| | 34,2 | | | | | | | | | CMK90MXB.042 | ● | ○ | ○ | ● | ● |
| | 43,7 | | | | | | | | | CMK90MXC.042 | ● | ○ | ○ | ● | ● |
| 15000 | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 2m | M5 | CMK35OZA.061 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK35OZB.061 | ● | ○ | ● | ● | ○ |
| | 14,9 | | | | | | | | | CMK35OZC.061 | ● | ○ | ● | ● | ○ |
| 16000 | 8,8 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 3m | M6 | CMK35OZB.081 | ● | ○ | ● | ● | ○ |
| | 11,2 | | | | | | | | | CMK35OZC.081 | ● | ○ | ● | ● | ○ |
| | 7,5 | 0,64 | 4 | 6 | 4 | 16 | 24 | 2m | M5 | CMK45MXS.041 | ● | ● | ○ | ● | ○ |
| | 12,8 | | | | | | | | | CMK45MXA.041 | ● | ● | ○ | ● | ○ |
| | 17 | | | | | | | | | CMK45MXB.041 | ● | ● | ○ | ● | ○ |
| | 21,8 | | | | | | | | | CMK45MXC.041 | ● | ● | ○ | ● | ○ |
| | 7,8 | 0,83 | 5,15 | 7,73 | 4 | 16 | 24 | 3m | M6 | CMK70MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,6 | | | | | | | | | CMK70MXA.082 | ● | ○ | ○ | ● | ● |
| | 17,6 | | | | | | | | | CMK70MXB.082 | ● | ○ | ○ | ● | ● |
| | 22,4 | | | | | | | | | CMK70MXC.082 | ● | ○ | ○ | ● | ● |
| | 15,2 | 1,28 | 8 | 12 | 4 | 16 | 24 | 2m | M5 | CMK90MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,6 | | | | | | | | | CMK90MXA.042 | ● | ○ | ○ | ● | ● |
| | 34,2 | | | | | | | | | CMK90MXB.042 | ● | ○ | ○ | ● | ● |
| | 43,7 | | | | | | | | | CMK90MXC.042 | ● | ○ | ○ | ● | ● |





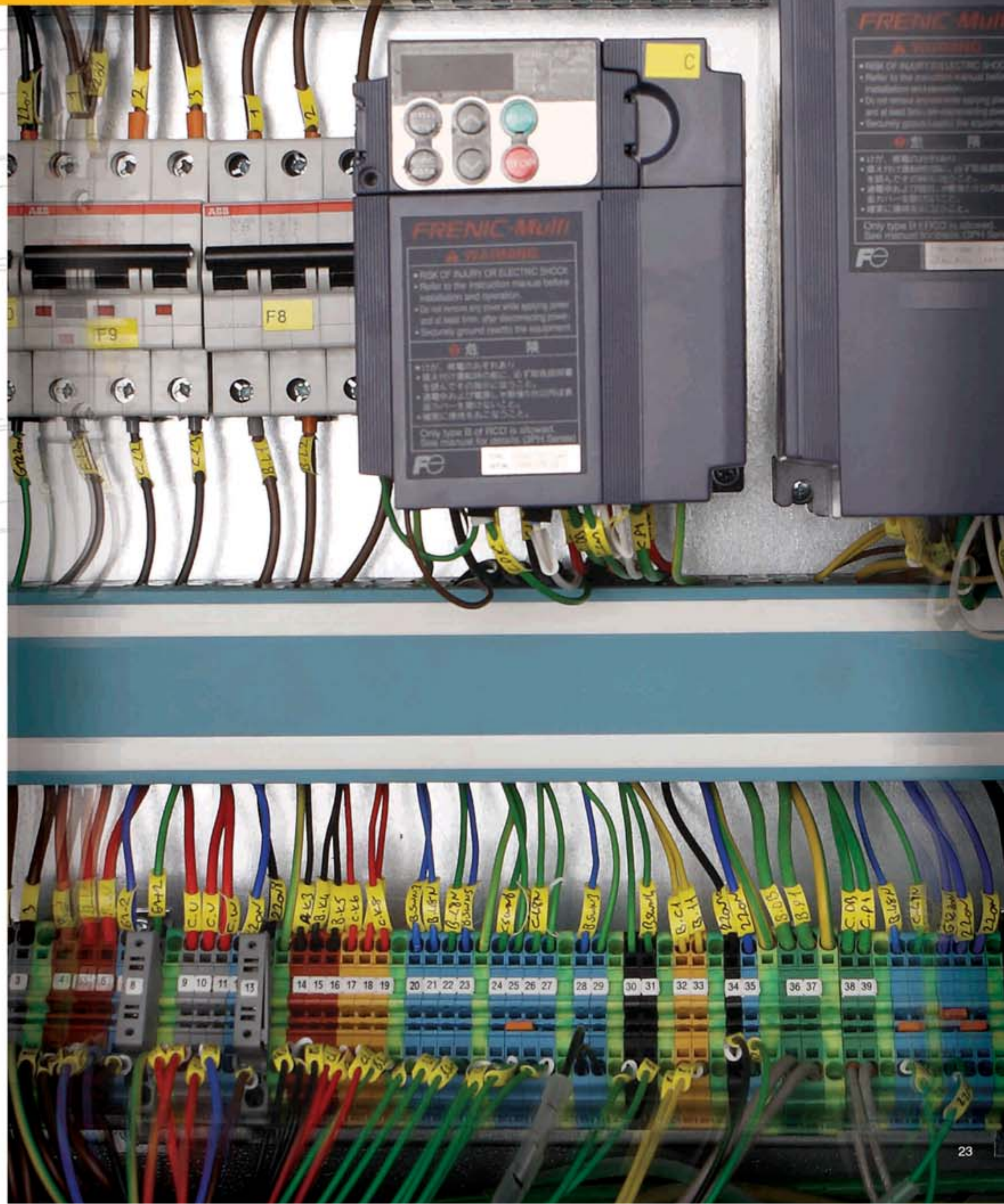
| Capacity Kg | Height of Lift m | Hoisting Speed Slow m/min | Hoisting Speed Fast m/min | Hoisting Speed Ultraspeed m/min | Cross-Travel Speed Slow m/min | Cross-Travel Speed Fast m/min | Cross-Travel Speed Ultraspeed m/min | FEM | ISO | Type | Hoist Type (S) | (ML) | (MN) | (DY) | True Vertical Lift |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18000 | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 1Am | M4 | CMK35OZA.061 | ● | ○ | ● | ● | ○ |
| | 11,7 | | | | | | | | | CMK35OZB.061 | ● | ○ | ● | ● | ○ |
| | 14,9 | | | | | | | | | CMK35OZC.061 | ● | ○ | ● | ● | ○ |
| 20000 | 8,8 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 2m | M5 | CMK35OZB.081 | ● | ○ | ● | ● | ○ |
| | 11,2 | | | | | | | | | CMK35OZC.081 | ● | ○ | ● | ● | ○ |
| | 7,5 | 0,64 | 4 | 6 | 4 | 16 | 24 | 1Am | M4 | CMK45MXS.041 | ● | ● | ○ | ● | ○ |
| | 12,8 | | | | | | | | | CMK45MXA.041 | ● | ● | ○ | ● | ○ |
| | 17 | | | | | | | | | CMK45MXB.041 | ● | ● | ○ | ● | ○ |
| | 21,8 | | | | | | | | | CMK45MXC.041 | ● | ● | ○ | ● | ○ |
| | 8,5 | 0,44 | 2,7 | 4 | 4 | 16 | 24 | 3m | M6 | CMK45OXA.061 | ● | ○ | ○ | ● | ○ |
| | 11,4 | | | | | | | | | CMK45OXB.061 | ● | ○ | ○ | ● | ○ |
| | 14,5 | | | | | | | | | CMK45OXC.061 | ● | ○ | ○ | ● | ○ |
| | 7,8 | 0,83 | 5,15 | 7,73 | 4 | 16 | 24 | 2m | M5 | CMK70MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,6 | | | | | | | | | CMK70MXA.082 | ● | ○ | ○ | ● | ● |
| | 17,6 | | | | | | | | | CMK70MXB.082 | ● | ○ | ○ | ● | ● |
| | 22,4 | | | | | | | | | CMK70MXC.082 | ● | ○ | ○ | ● | ● |
| | 15,2 | 1,28 | 8 | 12 | 4 | 16 | 24 | 1Am | M4 | CMK90MXS.042 | ● | ○ | ○ | ● | ● |
| | 25,6 | | | | | | | | | CMK90MXA.042 | ● | ○ | ○ | ● | ● |
| | 34,2 | | | | | | | | | CMK90MXB.042 | ● | ○ | ○ | ● | ● |
| | 43,7 | | | | | | | | | CMK90MXC.042 | ● | ○ | ○ | ● | ● |
| 24000 | 8,8 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 1Am | M4 | CMK35OZB.081 | ● | ○ | ● | ● | ○ |
| | 11,2 | | | | | | | | | CMK35OZC.081 | ● | ○ | ● | ● | ○ |
| | 7,8 | 0,83 | 5,15 | 7,73 | 4 | 16 | 24 | 1Am | M4 | CMK70MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,6 | | | | | | | | | CMK70MXA.082 | ● | ○ | ○ | ● | ● |
| | 17,6 | | | | | | | | | CMK70MXB.082 | ● | ○ | ○ | ● | ● |
| | 22,4 | | | | | | | | | CMK70MXC.082 | ● | ○ | ○ | ● | ● |

| Capacity Kg | Height of Lift m | Hoisting Speed Slow m/min | Hoisting Speed Fast m/min | Hoisting Speed Ultraspeed m/min | Cross-Travel Speed Slow m/min | Cross-Travel Speed Fast m/min | Cross-Travel Speed Ultraspeed m/min | FEM | ISO | Type | Hoist Type (S) | (ML) | (MN) | (DY) | True Vertical Lift |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25000 | 8,5 | 0,44 | 2,7 | 4 | 4 | 16 | 24 | 2m | M5 | CMK45OXA.061 | ● | ○ | ○ | ● | ○ |
| | 11,4 | | | | | | | | | CMK45OXB.061 | ● | ○ | ○ | ● | ○ |
| | 14,5 | | | | | | | | | CMK45OXC.061 | ● | ○ | ○ | ● | ○ |
| | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 3m | M6 | CMK45OXB.081 | ● | ○ | ○ | ● | ○ |
| | 10,9 | | | | | | | | | CMK45OXC.081 | ● | ○ | ○ | ● | ○ |
| | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 3m | M6 | CMK70OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,7 | | | | | | | | | CMK70OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,9 | | | | | | | | | CMK70OXC.122 | ● | ○ | ○ | ● | ● |
| | 7,5 | 0,64 | 4 | 6 | 4 | 16 | 24 | 3m | M6 | CMK90MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,8 | | | | | | | | | CMK90MXA.082 | ● | ○ | ○ | ● | ● |
| | 17 | | | | | | | | | CMK90MXB.082 | ● | ○ | ○ | ● | ● |
| | 21,8 | | | | | | | | | CMK90MXC.082 | ● | ○ | ○ | ● | ● |
| 30000 | 8,5 | 0,44 | 2,7 | 4 | 4 | 16 | 24 | 1Am | M4 | CMK45OXA.061 | ● | ○ | ○ | ● | ○ |
| | 11,4 | | | | | | | | | CMK45OXB.061 | ● | ○ | ○ | ● | ○ |
| | 14,5 | | | | | | | | | CMK45OXC.061 | ● | ○ | ○ | ● | ○ |
| | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 2m | M5 | CMK70OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,7 | | | | | | | | | CMK70OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,9 | | | | | | | | | CMK70OXC.122 | ● | ○ | ○ | ● | ● |
| 32000 | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 2m | M5 | CMK45OXB.081 | ● | ○ | ○ | ● | ○ |
| | 10,9 | | | | | | | | | CMK45OXC.081 | ● | ○ | ○ | ● | ○ |
| | 8,4 | 0,55 | 3,4 | 5,1 | 4 | 16 | 24 | 1Am | M4 | CMK70OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,7 | | | | | | | | | CMK70OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,9 | | | | | | | | | CMK70OXC.122 | ● | ○ | ○ | ● | ● |
| | 6,3 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 3m | M6 | CMK70OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,8 | | | | | | | | | CMK70OXB.162 | ● | ○ | ○ | ● | ● |
| | 11,2 | | | | | | | | | CMK70OXC.162 | ● | ○ | ○ | ● | ● |
| | 7,5 | 0,64 | 4 | 6 | 4 | 16 | 24 | 2m | M5 | CMK90MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,8 | | | | | | | | | CMK90MXA.082 | ● | ○ | ○ | ● | ● |
| | 17 | | | | | | | | | CMK90MXB.082 | ● | ○ | ○ | ● | ● |
| | 21,8 | | | | | | | | | CMK90MXC.082 | ● | ○ | ○ | ● | ● |

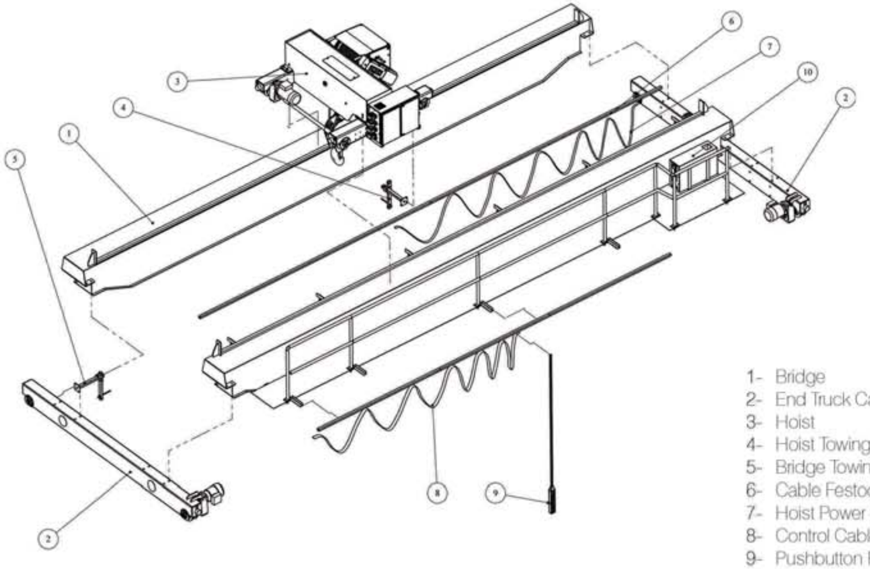


| Capacity | Height of Lift | Hoisting Speed | | | Cross-Travel Speed | | | FEM | ISO | Type | Hoist Type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kg | m | Slow m/min | Fast m/min | Ultraspeed m/min | Slow m/min | Fast m/min | Ultraspeed m/min | | | | (S) | (ML) | (MN) | (DY) | True Vertical Lift |
| 37500 | 8,5 | | | | | | | | | CMK90OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,4 | 0,44 | 2,67 | 4 | 4 | 16 | 24 | 3m | M6 | CMK90OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,5 | | | | | | | | | CMK90OXC.122 | ● | ○ | ○ | ● | ● |
| 40000 | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 1Am | M4 | CMK45OXB.081 | ● | ○ | ○ | ● | ○ |
| | 10,9 | | | | | | | | | CMK45OXC.081 | ● | ○ | ○ | ● | ○ |
| | 6,3 | | | | | | | | | CMK70OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,8 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 2m | M5 | CMK70OXB.162 | ● | ○ | ○ | ● | ● |
| | 11,2 | | | | | | | | | CMK70OXC.162 | ● | ○ | ○ | ● | ● |
| | 7,5 | | | | | | | | | CMK90MXS.082 | ● | ○ | ○ | ● | ● |
| | 12,8 | 0,64 | 4 | 6 | 4 | 16 | 24 | 1Am | M4 | CMK90MXA.082 | ● | ○ | ○ | ● | ● |
| | 17 | | | | | | | | | CMK90MXB.082 | ● | ○ | ○ | ● | ● |
| | 21,8 | | | | | | | | | CMK90MXC.082 | ● | ○ | ○ | ● | ● |
| 48000 | 6,3 | | | | | | | | | CMK70OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,8 | 0,42 | 2,6 | 3,9 | 4 | 16 | 24 | 1Am | M4 | CMK70OXB.162 | ● | ○ | ○ | ● | ● |
| | 11,2 | | | | | | | | | CMK70OXC.162 | ● | ○ | ○ | ● | ● |
| 50000 | 8,5 | | | | | | | | | CMK90OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,4 | 0,44 | 2,67 | 4 | 4 | 16 | 24 | 2m | M5 | CMK90OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,5 | | | | | | | | | CMK90OXC.122 | ● | ○ | ○ | ● | ● |
| | 6,4 | | | | | | | | | CMK90OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 3m | M6 | CMK90OXB.162 | ● | ○ | ○ | ● | ● |
| | 10,9 | | | | | | | | | CMK90OXC.162 | ● | ○ | ○ | ● | ● |
| 60000 | 8,5 | | | | | | | | | CMK90OXA.122 | ● | ○ | ○ | ● | ● |
| | 11,4 | 0,44 | 2,67 | 4 | 4 | 16 | 24 | 1Am | M4 | CMK90OXB.122 | ● | ○ | ○ | ● | ● |
| | 14,5 | | | | | | | | | CMK90OXC.122 | ● | ○ | ○ | ● | ● |
| 63000 | 6,4 | | | | | | | | | CMK90OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 2m | M5 | CMK90OXB.162 | ● | ○ | ○ | ● | ● |
| | 10,9 | | | | | | | | | CMK90OXC.162 | ● | ○ | ○ | ● | ● |
| 80000 | 6,4 | | | | | | | | | CMK90OXA.162 | ● | ○ | ○ | ● | ● |
| | 8,5 | 0,3 | 2 | 3 | 4 | 16 | 24 | 1Am | M4 | CMK90OXB.162 | ● | ○ | ○ | ● | ● |
| | 10,9 | | | | | | | | | CMK90OXC.162 | ● | ○ | ○ | ● | ● |

*UltraSpeed for CMK70 & CMK90 electric wire rope hoists and optional for the rest.

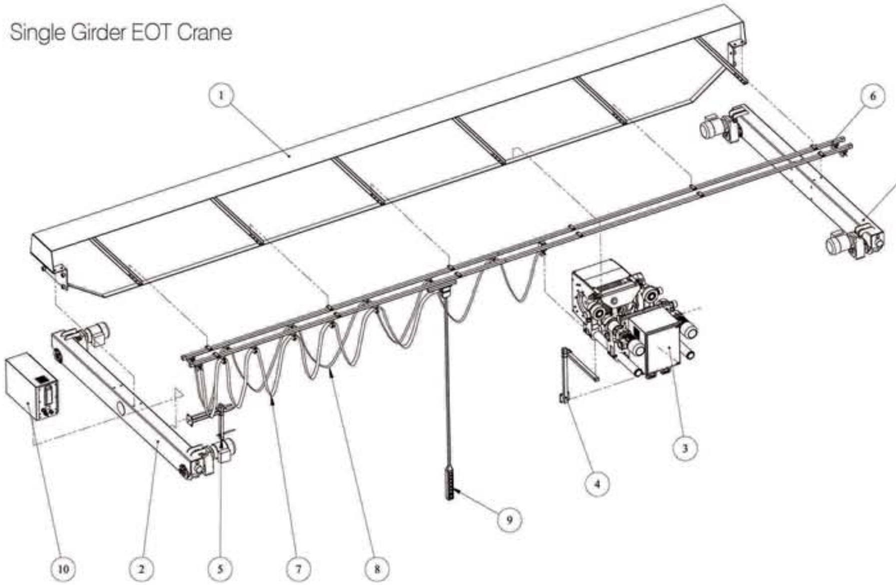


## Double Girder EOT Crane



1- Bridge
2- End Truck Carriage
3- Hoist
4- Hoist Towing Arm
5- Bridge Towing Arm
6- Cable Festoon System
7- Hoist Power Cable
8- Control Cable
9- Pushbutton Pendant
10- Crane Control Box

## Single Girder EOT Crane



## STANDARD FEATURES

- Frequency inverter controlled hoisting (standard 6:1 ratio) and cross-travel drives.
- Higher lifting heights with Compact 8 strand 2160N/mm2 galvanized wire rope.
- Very quite and smooth operation.
- Mechanical structure and electrical systems have modular design with the 'plugs and sockets' principle.
- Thermal protection against overheating in hoisting motor.
- Lifting and lowering actions with minimal hook drift.
- Electromagnetic DC brake with rubber seal.
- Electro-mechanical overload device to avoid damage the machinary, system and building.
- 4 layer rotary limit switch with slow-down/stop functions in upper and lower positions.
- Direct driven cross-travel mechanisms.
- Articulated crab to ensure positive contact of all wheels with rails.
- GGG70 Graphite Cast Iron Rope Guide with higher flexibility and durability.
- Ergonomic and durable Pushbutton with emergency-stop.
- Operating feed: 380-415V @50 Hz / Control voltage: 48V
- Lifting components are covered with high quality Acrylic + Epoxy paint.
- IP55

## OPTIONAL FEATURES

- Hoistsense:
  - Real-time monitoring (SWP, remaining duration of service)
  - Increased efficiency with ultraspeed function
  - Weighing display
  - Service optimization
  - Informative Display
- Radio Remote Control.
- Regenerative system: 25-40% power saving
- Transformer + Main Contactor for standalone operability
- Suitability to non-standard feeding voltages.
- Special modiciations for hot zone, cold zone , humid zone (from -40 °C to +55 °C.)
- Encoder for Hoisting & Cross-travel.
- Anti-Sway Application
- Anti-Collision Systems.
- Manual Brake Release for Hoisting Drive.
- External Hoisting and Cross-Travel Cooling Fans.
- Non-standard creep/fast speed ratio
- Surface Hardened Wheels
- Marine Paint





CMAK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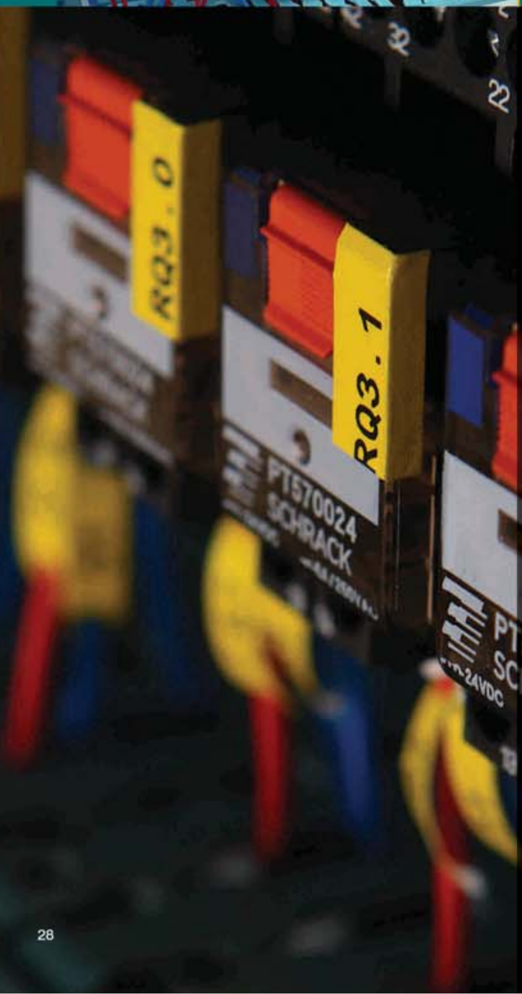
Crane Systems
7,5 + 7,5 t
2011

CMAK Crane Systems

# Hoist Sense®

**Electronic Hoist Monitor & Control Unit**

## Increase your profitability

HoistSense is an advanced electronic system that constantly keeps track of usage, load and critical incidents; while using these information to the advantage of the user to further increase the efficiency and decrease the downtime of the hoist.

## Features

- Real-Time Monitoring
  - Permanent SWP ( Safe Working Period ) calculation.
  - Up-to-date information about the remaining duration of service
  - Comply with the Regulations.
- Increased Efficiency
  - With UltraSpeed function enabled, HoistSense increases speed to 150% nominal speed on all motions when the load is below 15% of the SWL ( Safe Working Load ).
- Safe Working
  - Continuous overload protection with precisely calculated strain gauge load measuring system.
- Weighing Display
  - Real-time display of the loads via strain gauge sensor
- Service Optimization
  - Available Alarms for preventive maintenance periods
  - Tracking of Past Maintenances
- Informative Display
  - With its display mounted on hoist, the HoistSense informs the operator and maintenance crew for critical information ( Total runtime, Number of Overloads, Next Service Hour - Dynamic, Remaining SWP%, Number of Starts, Average Load )
  - Comply with the regulations.
- Easy to Use
  - HoistSense does not add more buttons or require constantly checking the pushbutton pendant, as the system will start displaying the load on the large display attached to the hoist - easily visible- immediately after the operator starts commanding the crane. And the stored information will be shown on the large display after the hoists stays idle for a short period of time.
- Stand-alone Application
  - Can be integrated to any of your hoists.

## Stored Parameters

- Remaining Safe Working Period (SWP) of the hoist
- Current load on the hook
- Total number of overload incident
- Total running time of the hoisting motor
- Mean load
- Load Spectrum ( Light, Medium, Heavy, Very Heavy )
- Total number of starts
- Time to next maintenance ( depending on the usage - Dynamic )
- Duty

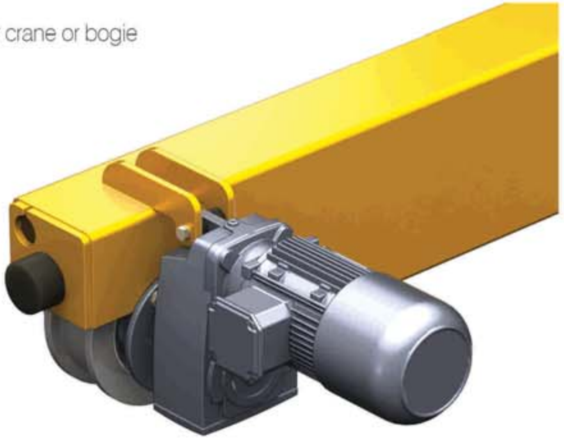
## Functions

- Weighing and Informative Display
- Overload Limiter
- Faster speeds depending on the load
- Dynamic Service Timer

# End Truck Carriages

## Standard Features

* GGG70 grey cast iron / forged
* Easily replaceable wheels
* Zinc enhanced epoxy primer coating
* Up to 4m wheel base with 4 wheels per crane or bogie type with up to 8 wheels per crane
* Two flanged wheels
* Maintenance free bearings
* Anti-derail
* Available for top connection, side connection, and top & side connection



## Optional Features

* Manual parking lever
* HRC45 surface hardening
* Rail sweepers and lateral guide rollers

| Wheel Diameter | Suitable Standard Rail Width | Standard Wheel Groove | Custom Wheel Groove | Dynamic Wheel Load | Suitable Drive |
|---|---|---|---|---|---|
| mm | mm | mm | mm | kgf | |
| GTS125 | 40 | 50 | 50-110 | 2670 | CD12 |
| GTS160 | 50 | 60 | 50-110 | 4520 | CD12,CK13 |
| GTS200 | 50 | 60 | 50-110 | 5660 | CD12,CD22,CK13,CKG13,CK23 |
| GTS250 | 50 | 60 | 50-110 | 7640 | CD22,CD32,CK13,CKG13,CK23 |
| GTS315 | 60 | 70 | 50-110 | 11920 | CD32,CD42,CD43,CK23,CK33,CK43 |
| GTS400 | 70 | 80 | 50-110 | 18200 | CD32,CD42,CD43,CD52,CD62,CD63,CK33,CK43,CK53 |
| GTS500 | 70 | 80 | 50-110 | 23430 | CD42,CD43,CD52,CD62,CD63,CK43,CK53,CK63,CK73 |

Wheel loads in accordance with FEM 2m(ISO M5) and 40m/min nominal speed.
Subject to change without prior notice.



# Crane Wheel Blocks

## Standard Features

* GGG70 grey cast iron / forged
* Easily replaceable wheels
* Zinc enhanced epoxy primer coating
* Various connection types
* Two flanged wheels
* Anti-derail
* Maintenance free bearings
* Very modular and flexible for modernizations or new systems

| Wheel diameter | Suitable Standard Rail Width | Standard Wheel Groove | Dynamic Wheel Load |
|---|---|---|---|
| mm | mm | mm | kgf |
| GTS160 | 50 | 60 | 4520 |
| GTS200 | 50 | 60 | 5660 |
| GTS250 | 50 | 60 | 7640 |
| GTS315 | 60 | 70 | 11920 |
| GTS400 | 70 | 80 | 18200 |

Wheel loads in accordance with FEM 2m(ISO M5) and 40m/min nominal speed.
Subject to change without prior notice.

## Optional Features

* HRC45 surface hardening

| Wheel Rolling Diameter | Code | Description | Groove width | Suitable Drive Types | | | |
|---|---|---|---|---|---|---|---|
| | | | | CD12 | CD22 | CD32 | CD42 |
| | | | | CK13 | CK23 | CK33 | |
| mm | | | mm | | | | |
| 160 | G.160 | GTS160 Wheel Block Non Driven | 60 | | | | |
| | G.160T1 | GTS160 Wheel Block Driven Ø30 | 60 | X | | | |
| 200 | G.200 | GTS200 Wheel Block Non Driven | 60 | | | | |
| | G.200T1 | GTS200 Wheel Block Driven Ø30 | 60 | X | | | |
| | G.200T2 | GTS200 Wheel Block Driven Ø35 | 60 | | Only CD22 | | |
| 250 | G.250 | GTS250 Wheel Block Non Driven | 60 | | | | |
| | G.250T1 | GTS250 Wheel Block Driven Ø35 | 60 | | X | | |
| 315 | G.315 | GTS315 Wheel Block Non Driven | 75 | | | | |
| | G.315T1 | GTS315 Wheel Block Driven Ø35 | 75 | | Only CD22 | | |
| | G.315T2 | GTS315 Wheel Block Driven Ø40 | 75 | | | Only CD22 | |
| 400 | G.400 | GTS400 Wheel Block Non Driven | 80 | | | | |
| | G.400T1 | GTS400 Wheel Block Driven Ø40 | 80 | | | Only CD22 | |
| | G.400T2 | GTS400 Wheel Block Driven Ø50 | 80 | | | | X |

* "X" means both options are available
Subject to change without prior notice.