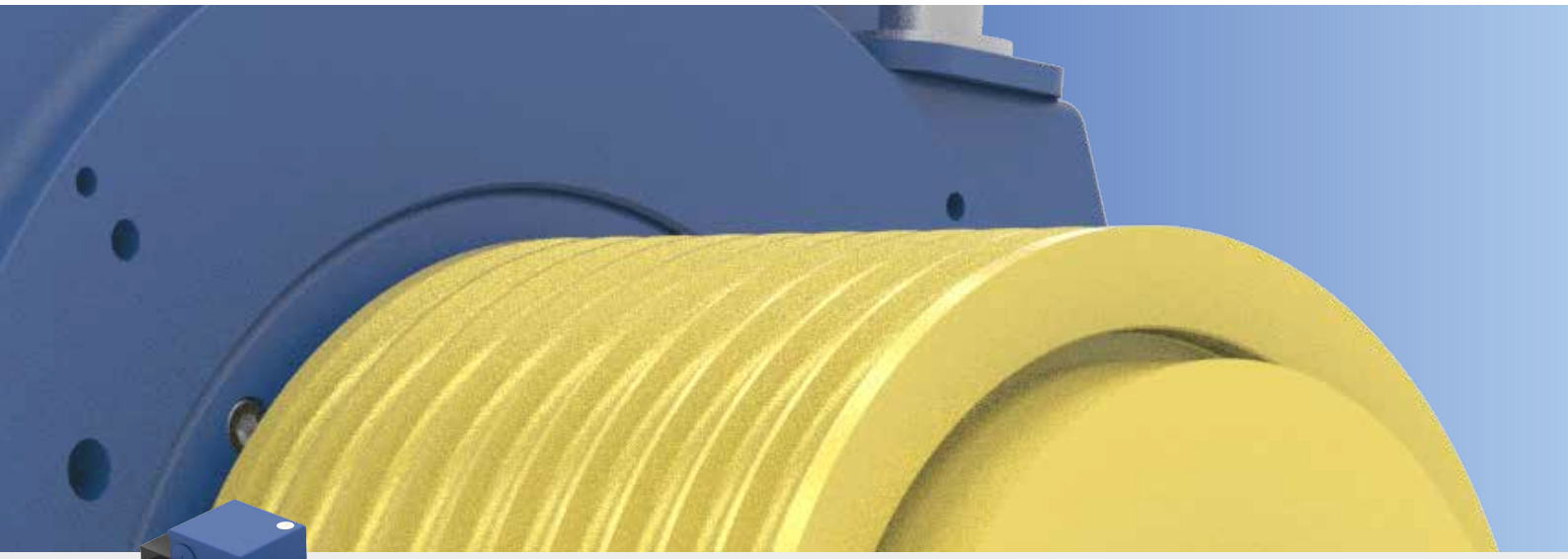
EN

Movement by Perfection



Ventilation, control and **drive technology**



Gearless Elevator Machine for Modernization

ZAtop SM205A with ZAframe MK4850A

ZIEHL-ABEGG

ZAtop SM205A
with ZAframe MK4850A

The ideal modernization solution for elevator systems

The ZAtop SM205A, in combination with the ZAframe MK4850A, provides a compact modernization concept for 1:1 suspension systems with payloads up to 1,050 kg, enabling a smooth transition from geared to gearless motor technology.

The concept includes the motor unit, frame, and deflection pulleys for plastic-coated ropes.

ZIEHL-ABEGG also supplies complementary system components, such as frequency inverters, ropes, rope terminations, and additional accessories.

The ZAtop gearless machine features an internal rotor permanent-magnet synchronous motor developed specifically for traction elevators. It is characterized by high energy efficiency, quiet operation and maximum ride comfort.

While primarily designed for machine-room installations, the slim motor design also supports machine-room-less configurations, offering maximum flexibility across a wide range of modernization projects with its two available motor lengths.



ZAtop – SM205A
Gearless elevator machine



Elevator machine:
- Permanent magnet synchronous machine
- Highest power density in small dimensions: Structural width ≤ 345 mm
- Noise emissions: < 50 dB(A)
- Insulation class F with temperature monitoring

Brake system:
- Safety component in accordance with Lift Directive 2014/33/EU
- Two independently controllable brake circuits
- Suitable for use as part of the ascending car overspeed protection means
- Deployable as part of the protection against unintended car movement

Scope of delivery

ZAtop SM205A	Standard	Options
Brake	Certified brake system	Mechanical hand release system with or without Bowden cables
Brake monitoring	Microswitch	Inductive proximity switches
Motor cable	-	5 m, 10 m, 15 m, 20 m, 25 m (halogen free)
Encoder system	EnDat	BiSS-C / SSI / SinCos / TTL
Rope retainer	2 pcs.	-
Temperature monitoring	PTC-thermistor	PT100-thermistor
Cooling	Surface cooling	Forced ventilation

Technical data

Motor	ZAtop SM205	
Motor length	.40A	.45A
Nominal torque [Nm]	600	710
Payload [kg]	up to 1,050	
Static axle load [kg]	4,850	
Suspension	1:1	
Travel speed [m/s]	1 - 1.6	
Traction sheave Ø [mm]	160 / 200	
Suspension means [mm]	Plastic-coated ropes 8.1 & 10	
Travel distance [m]	Typically up to 25	

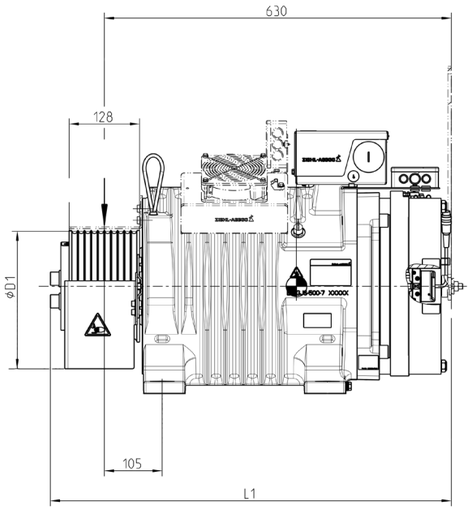
ZAtop – SM205A
Gearless elevator machine

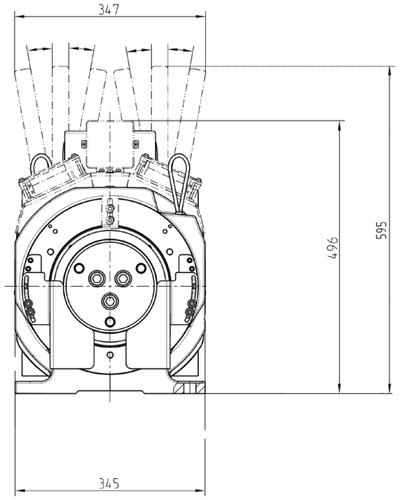
The ZAtop SM205A machines are primarily designed for machine-room installations but can also be integrated into machine-room-less configurations.

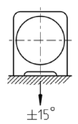
They are equipped with certified brake systems, available with or without a mechanical hand release, ensuring maximum flexibility and safety across a wide range of installation types.



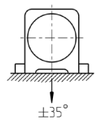
Technical drawing *(Dimensions in millimeters)*







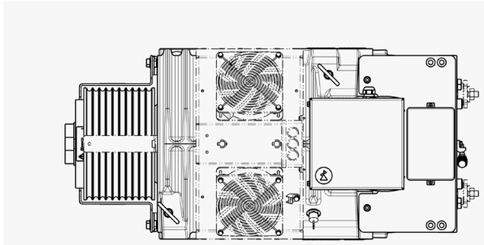
without lateral
form lock support



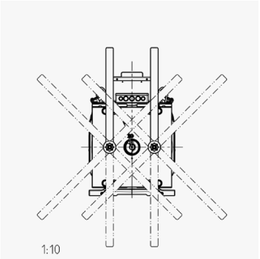
with lateral
form lock support

Motor type	L1 [mm]	Ø D1 [mm]	Weight [kg]
SM205.40A	735	160	342
SM205.45A			352
SM205.40A	728	200	351
SM205.45A			362

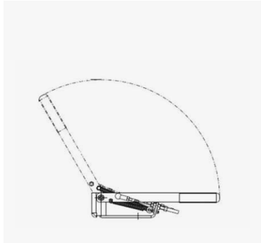
Optional



- Forced ventilation



- Mechanical hand release



- Bowden cable

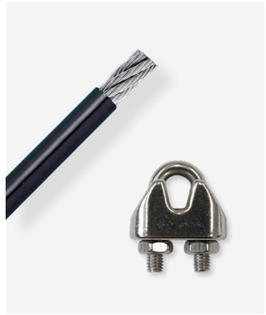
A Selection of Complementary Products



- Frequency inverters



- Rope wedge sockets

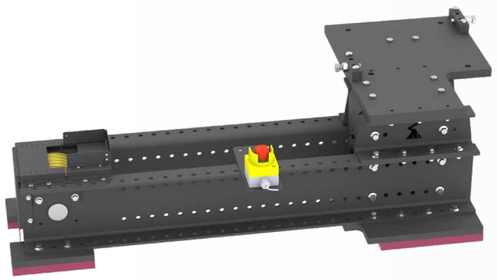


- Plastic-coated ropes
- Rope clamps



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ZAframe – MK4850A
The frame for ZAtop SM205A



Frame version, configuration “left”

Description:
- Frame with a deflection pulley
- Bolted steel structure
- Static load: up to 4,850 kg
- Maximum payload: 1,050 kg (1:1 suspension)
- Rope distance (ASL): can be adjusted on the motor side in 40 mm steps within a range of 540 to 1,280 mm
- Machine traction sheave diameter: 160 mm, 200 mm
- Deflection pulley diameter: 200 mm
- Symmetrical design allows the machine frame to be mounted on either the “left“ or “right“ side
- The frame is delivered disassembled as individual parts or as an assembly kit

Scope of delivery:
- Frame parts
- Deflection pulley with axle and spacer sleeves
- Vibration insulation
- Adapter plate
- Adjustment blocks for lateral support and precise installation for the motor
- Fastening material

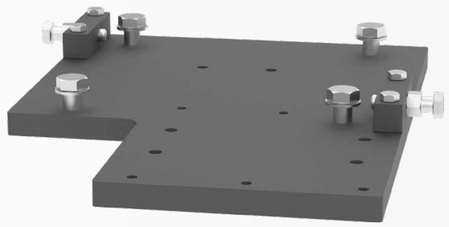
Options:
- Emergency stop switch

Adapter plate

If the existing base frame of the elevator system to be modernized is still in good condition, the adapter plate and motor unit can be mounted directly onto the existing structure.

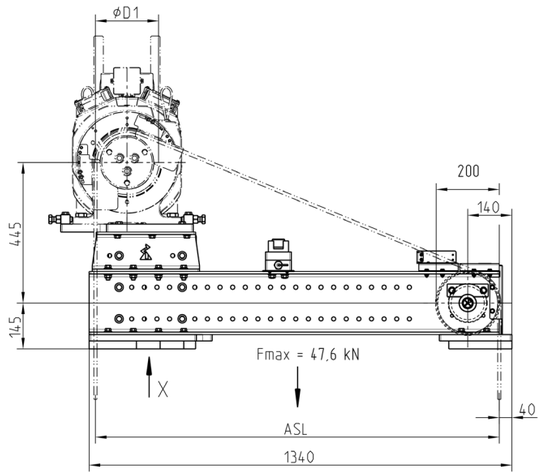
This approach not only reduces installation time and costs, it also supports sustainability by reusing intact components instead of replacing them.

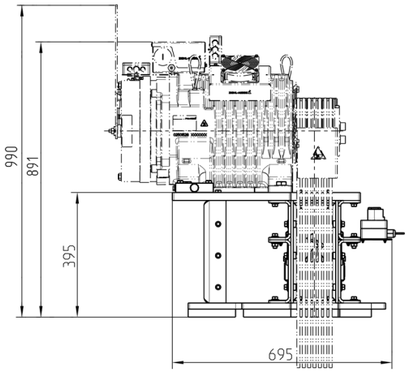
The adapter plate can be supplied separately, if required. The scope of delivery is therefore identical to the picture.



ZAframe MP4850A - Adapter plate

Technical drawing *(Dimensions in millimeters)*





Technical data

Motor	Traction sheave Ø D1 [mm]	ASL [mm]	Max. static load [kg]
SM205.40A	160	540 - 1,260	4,850
SM205.45A			
SM205.40A	200	560 - 1,280	
SM205.45A			

General notes

The information and data contained in this flyer were composed to the best of our best ability and do not absolve the user from its duty to check the suitability of the products with respect to its intended application.

The customer is obligated to inform the supplier about general information concerning the intended use, the type of installation, the operating conditions and any other conditions that need to be taken into consideration if the order is not based on catalogue information.

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