// Product Sheet: EMS 18/CX (DF Replacement)

Figure: Dimensions

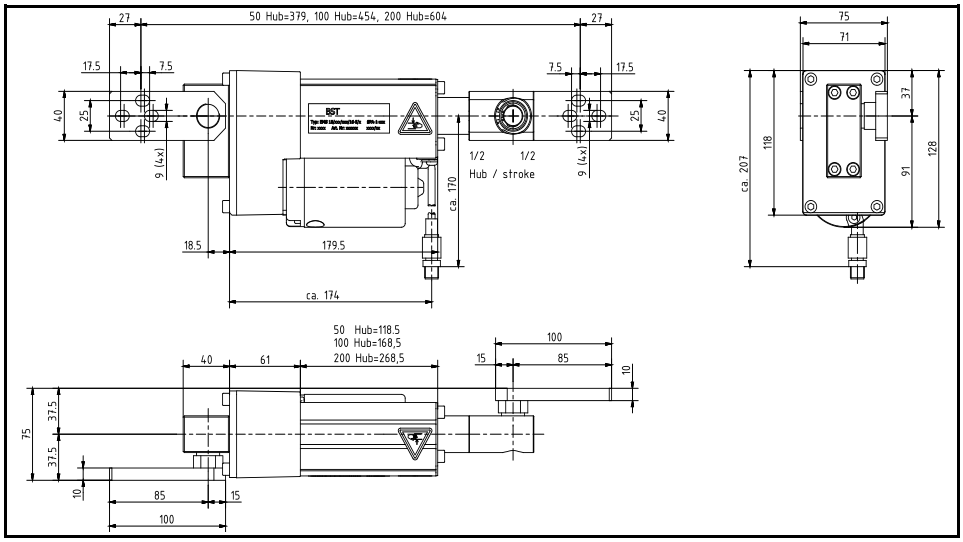
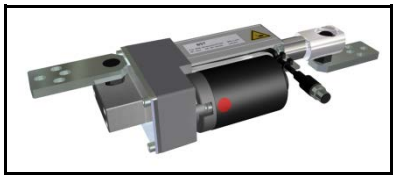


Figure: EMS 18/CX



Order Data

Model	Nominal Positioning Force F_N	Nominal Positioning Speed V_N	Available Stroke	Part.-No.
EMS 18 / 200 / 4,21 / 16x5 / CX	840 N	10 mm/s	200 mm	152458
EMS 18 / 100 / 4,21 / 16x5 / CX	840 N	10 mm/s	100 mm	152456
EMS 18 / 50 / 4,21 / 16x5 / CX	840 N	10 mm/s	50 mm	152454
EMS 18 / 200 / 2,45 / 16x5 / CX	420 N	20 mm/s	200 mm	152464
EMS 18 / 100 / 2,45 / 16x5 / CX	420 N	20 mm/s	100 mm	152462
EMS 18 / 50 / 2,45 / 16x5 / CX	420 N	20 mm/s	50 mm	152460
EMS 18 / 200 / 1,33 / 16x5 / CX	200 N	40 mm/s	200 mm	231768
EMS 18 / 100 / 1,33 / 16x5 / CX	200 N	40 mm/s	100 mm	231766
EMS 18 / 50 / 1,33 / 16x5 / CX	200 N	40 mm/s	50 mm	231764

Technical Specifications (mechanical)

Gearbox Ratio	1:4,21	1:2,45	1:1,33
Weight	50 mm stroke = 4,55 kg; 100 mm stroke = 5,05 kg; 200 mm stroke = 5,85 kg		
eCl@ss	27-02-90-90		
Noise Emission	< 70 dB		
Protection Class	IP 54		
RoHS Conformity	yes		
Storage Temperature	-10°C to +60°C		
Ambient Conditions	Temperature: 0°C to +40°C		
	Humidity: 5 % - 90 %; no condensation		

Technical Specifications (electrical)

Motor:

Nominal Voltage	24 V DC
Nominal Current	1,1 A
Nominal Power	12 W
Electrical Connection	Only via BST eltromat connection cable

Position Feedback:

Power Supply	12 – 24 V DC
Output Value	0 – 10 V ; maximum 1 mA

Application

The electric motor driven actuator EMS 18/CX is used in combination with a BST eltromat control unit and a mechanical guiding device anywhere where correction of the position of running webs, e.g. paper, plastic materials, rubber, textiles, etc., is necessary.

The complete connection-ready design enables fast and inexpensive installation in appropriate systems, and is especially suitable for upgrading or replacement in existing systems.

Special Features

- Complete actuator with maintenance-free drive
- Plug-type connection
- for curved and linear positioning
- various combinations of stroke, positioning force and positioning speed are possible

Included Parts

Actuator ***EMS 18/CX***, comprising:

- electric motor
- integral absolute position detection
- housing block with bearing and gearbox
- ball screw with push pipe
- final position damping
- mounting plates

Calculating the Nominal Positioning Force

The nominal positioning force F_N of the actuator must exceed the break-away force F_L of the equipment to be moved.

Calculation of the break-away force F_L *[N]*: $FL = G * \mu_0$

G total weight of the equipment
μ0 friction coefficient (e.g. 0.1 with reel friction)

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