



Elektrohydraulischer Linearantrieb

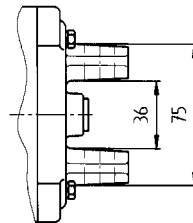
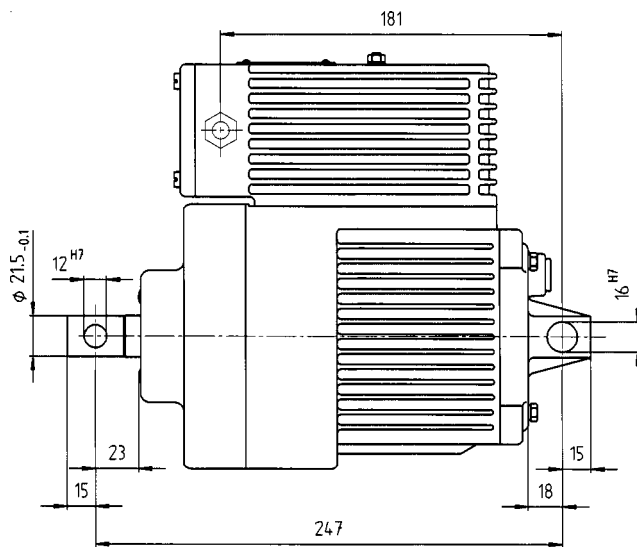
Electrohydraulic Thruster

EBC 100/30

M 1501 267 E-DE-EN

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12.2006

**Kabeleinführung / cable entry:**

vor / before 12-2006:

1x Pg9

ab / from 12-2006:

1x M16x1,5

Elektrohydraulische Linearantriebe der Reihe EBC erzeugen mit ihrer kompakten Bauform eine vergleichsweise große Hubkraft von 1000 N. Ihre Hauptanwendungsgebiete sind das Lüften von Backen- und Scheibenbremsen. Im elektrohydraulischen Linearantrieb ELHY sind alle Grundelemente einer hydraulischen Anlage in einer einzigen Baueinheit vereinigt. Es besteht aus einer Hydraulikpumpe mit elektrischem Antriebsmotor, einem Hydraulikleitsystem und dem Arbeitszylinder mit Kolben und Hubstange und wandelt elektrische Energie auf hydraulischem Wege in mechanisch geradlinige Bewegung um.

Electrohydraulic thruster ELHY series EBC generate with the compact construction a great force of 1000 N. The general applications are lifting of drum and disc brakes. The electrohydraulic thruster comprises all basic components of a hydraulic system in one single packaged unit. It consists of a hydraulic pump with electric drive motor, a closed hydraulic guide system and the working cylinder with piston and lifting rod and converts electric energy by way of hydraulics into mechanical straightline movements.

Betriebswerte

Typ
Stellkraft
Stellweg
elektrische Leistungsaufnahme
elektrische Stromaufnahme

Masse
Stellzeit mit 500 N Belastung
Rückstellzeit mit 500 N Belastung
Hydraulikmedium

Betriebsspannung
Frequenz
Betriebsart
Schutzart

Temperaturbereich

Operating Data

type
setting (lifting) force
setting (lifting) length
power consumption
current input

weight
setting time with 500N loading
resetting time with 500 N loading
hydraulic fluid

EBC 100/30
max. 1000 N
30 mm
0,2 kW
0,45 A ; bei / at 400 V AC , 50 Hz
0,22 A ; bei / at 690 V AC , 50 Hz
10 kg
0,48 s
0,36 s
Transformatoröl / transformer oil : 1,2 l
Typ / type : SHELL DIALA DX
Viskosität / viscosity :
18 mm²/s bei / at +20 °C
800 mm²/s bei / at -30 °C
3~ 220 V AC bis / to 3~ 690 V AC
50 Hz oder / or 60 Hz
S1 und / and S3 bis / to 100 % ED
IP56 für Kabel-Ø / for cable-Ø (8..10) mm
IP66 für Kabel-Ø / for cable-Ø (5..9) mm
-25 °C bis / to +40 °C

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The compact electro hydraulic thrusters series "EBC..." generate high forces up to 1.000 N. They are generally used to operate industrial drum and disc brakes. ELHY® thrusters combine a hydraulic cylinder and a power pack (electrical motor + pump) into one constructional unit .

Main advantages:

- High lifting forces
- Compact dimensions
- Smooth and continuous movement
- Various mounting positions
- Low noise level

Type	Stroke [mm]	Max. lifting force [N]	Setting time 800 N [s]	Resetting time 800 N [s]	Power [kW]	Weight [kg]
EBC 100/30	30	1.000	0,80	0,25	0,2	10

Motor

2 pole, 3 phase asynchronous motor
Designed acc. to VDE 0530
Insulation class F

Mode of operation

Intermittent operation S3, up to 600 c/h, 40% duty rate
Temperature range -25 °C up to +40 °C
(Other temperatures upon request)

Voltages and frequencies

230, 400, 500 and 690V AC / 50Hz, 3 ph
(Others available on extra charge)

Electrical connection

3 pin terminal board inside
terminal box
M16 cable gland for
connection cable 4x1.5mm² (max. 10mm diameter)

Motor protection switch

No extra motor protection required.
In the case of protect the motor by a automatic safety switch the settings should cover 50% above rated current level. Lower temperatures will increase the value. Please ask for details.

Type of enclosure

IP56 or IP66 (option) acc. to EN 60 529, DIN VDE 0470

Mounting position

Various mounting positions are possible.
The vertical position is mostly usual position with the lifting rod travel upward.

Hydraulic fluid

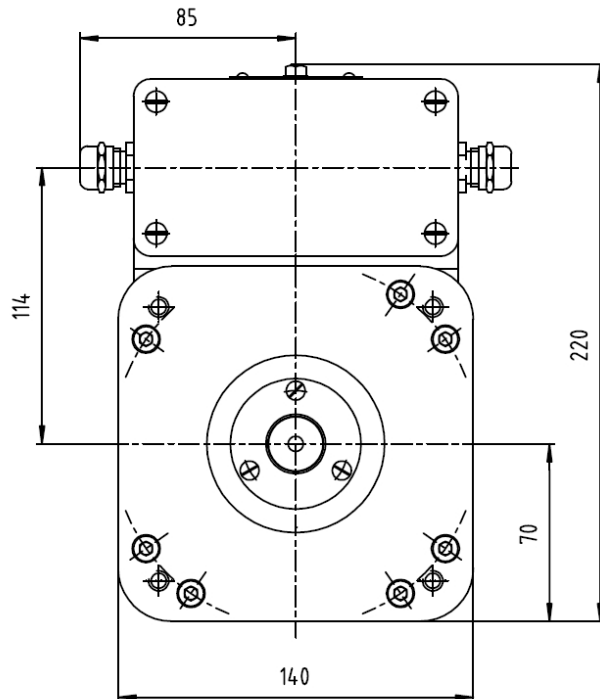
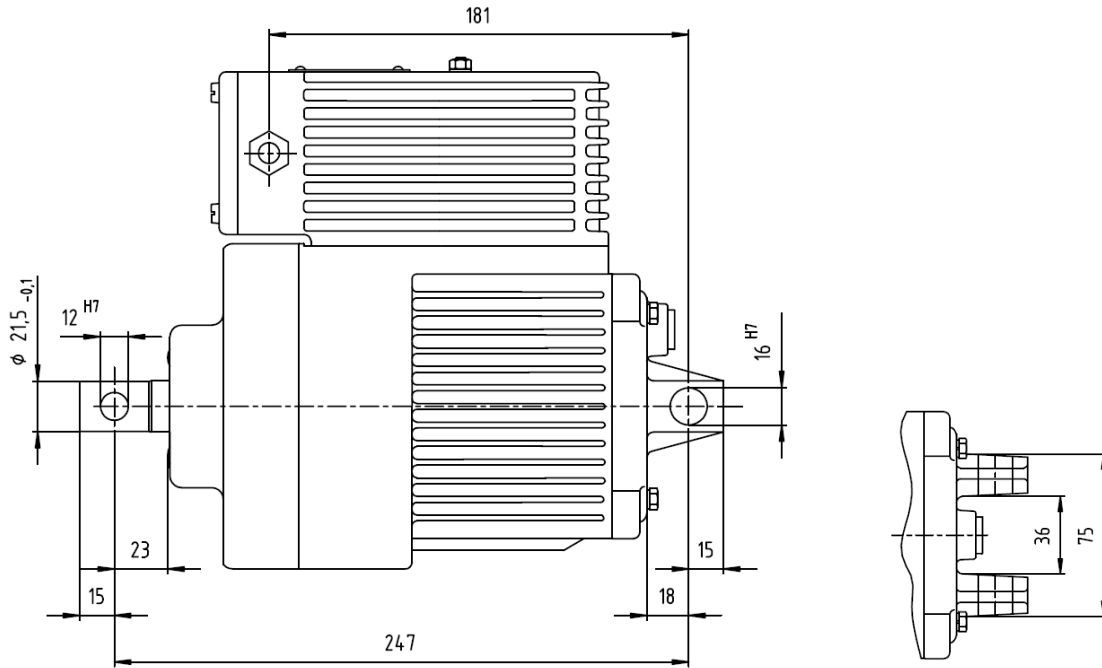
The thrusters are filled with an insulating fluid (transformer oil) SHELL DIALA OIL DX
(Viscosity: 17 mm²/s at 20 °C and 750 mm²/s at -30 °C).
It is a long life filling and there is no necessity of change unless no leaking occurs.
Please note advises inside operation manual.

Paint

Pre-treatment to DIN 559228,
Two-component single layer poly acrylic paint, scratch and wear resistant
Thickness 40 up to 60µm
Colour RAL 5008 (Other colours and increased corrosion protection available on extra charge)

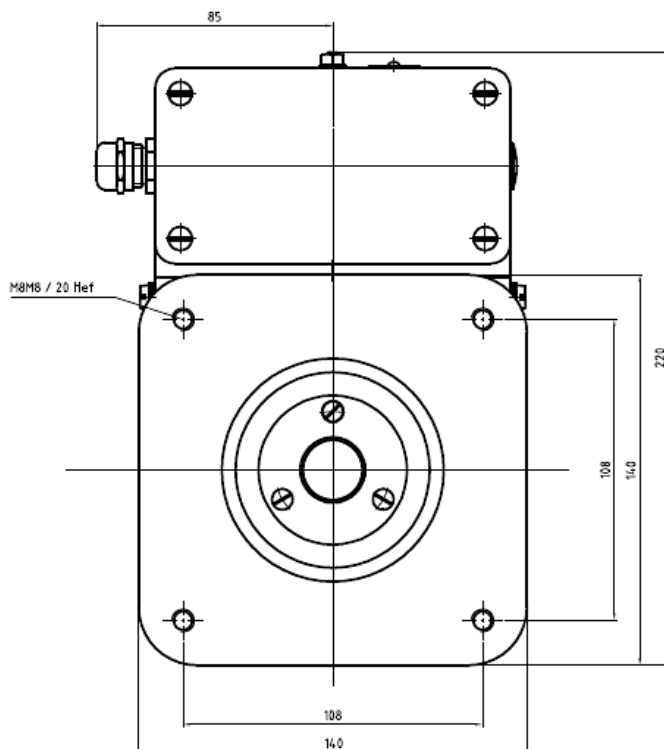
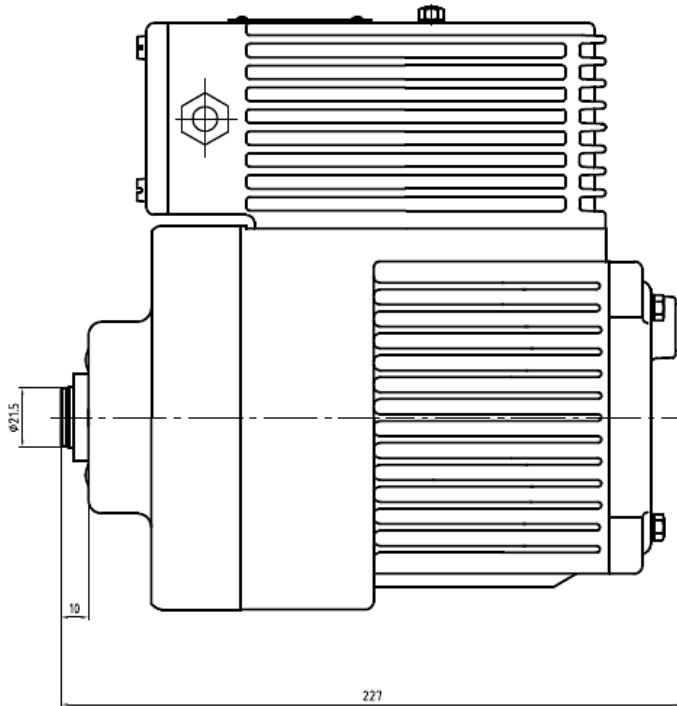
Dimensions

Standard version (EBC 100/30)
Every mounting position is possible



Version for "CB8" brake (EBC 100/30 X31)
Every mounting position is possible

Version for "CB8" brake (EBC 100/30 X36)
Only for horizontal mounting position



Only valid for EBC 100 / 30 and EBC 100 / 30 X 31

The absence of the air chamber is a specific feature of the thrusters of the type EBC. The interior space of thrusters is completely filled with hydraulic fluid. Changes in oil volume due to temperature variations or caused by piston movement are compensated through a diaphragm provided in the compensation casing. This construction has the advantage that the thruster may be installed in any desired position.

The correct oil filling volume is essential to ensure trouble-free operation of the EBC thrusters in the full temperature range between -25°C and $+40^{\circ}\text{C}$. The correct oil level can be checked by means of the indicator pin. The indicator pin must be inserted in the bore of compensation casing and screwed into the compensation piston as shown in Fig. 1. The oil filling of the EBC thruster is correct if the indicator pin marking at 20°C of thruster temperature is visible some 5 mm above the upper edge of compensation casing.

