



# ED, BED SERIES EXPLOSION PROTECTED ELECTRO-HYDRAULIC THRUSTERS

Ed、BEd隔爆型电力液压推动器

致力传动安全 Committed to transmission security



# Ed.BEd隔爆型电力液压推动器

## ED.BED EXPLOSION PROTECTED ELECTRO-HYDRAULIC THRUSTERS

**应用:** 隔爆型电力液压推动器是一种集电机，离心泵，油缸为一体的，结构非常紧凑的驱动装置，被广泛用作各种块式制动器和盘式制动器的驱动装置，还可用于各种工业阀门、闸门，定向摆动和转动(<90°)装置(机构)及夹紧装置的驱动机构。

### Application:

*Electro-hydraulic thruster is a kind of drive control system, which is very compact in structure, and integrates electrical motor, centrifugal pump and oil cylinder. It is extensively used as drive mechanism of various drum and disc brakes, and as drive control of various industrial valves, penstock, directional pendulum and steering(<90°) mechanism and clamping devices.*

## 符合标准 Standards compliant:

### Ed隔爆型

Ed隔爆型电力液压推动器符合GB3836.2《爆炸性气体环境使用电气设备 第2部分 隔爆型“d”》及《GB12476.1-2000可燃性粉尘环境用电气设备 第1部分：用外壳和限制表面温度保护的电气设备 第1节：电气设备的技术要求》的规定防爆标志分别为“ExdI”、“ExdII BT4”及“DIP A20T4”，其中“ExdI”、“ExdII BT4”分别用I、IIB(II类A级、II类B级)温度组别为T1-T4组可燃性气体或蒸汽与空气形成的爆炸性混合物场所；“DIP A20T4”用于20区、21区和22区温度组别为T1-T4可燃性粉尘形成爆炸性混合物的场所。该类品经国家指定的防爆电器产品质检中心检验合格并取得合格证。

“ExdI”和“ExdII BT4”隔爆类证书编号为CNEEx03 127-134，“DIP A20T4”隔爆类证书编号为CNEEx09 0496和CNEEx09 0497。



隔爆型 Explosion protected

### Ed explosion-proof

*Ed explosion-proof electro-hydraulic thrusters comply with the rules of GB3836.2 (electric equipments used in explosive gas environment, part 2, explosion protection type "d") and (GB12476.1-2000 electric equipment used in the flammable dust environment, part 1: electric equipment with the shell and limit temperature protection, chapter 1: technical requirements of electric equipment). Explosion protection marks respectively are "Exd I", "Exd II BT4" and "DIP A20T4", of which "Exd I", "Exd II BT4" are respectively suitable for underground coal mines and explosive-mixture location formed by air and combustible gas, which indicate that the explosion-proof class in the location full with explosive mixtures formed by air, vapor and combustible gas is I, IIB (II category A class and II category B class) and temperature class is T1-T4. DIP A20T4 is used in zone 20, zone 21 and zone 22, and the temperature class in the location full with explosive mixtures formed by air, vapor and combustible gas is T1-T4. This kind of product is proved to be qualified by the inspection from explosion-proof electrical products quality testing center designated by country and has obtained certificate. Certificate No. of "Exd I" and "Exd II BT4" is CNEEx03 127-134, Certificate No. of "DIP A20T4" is CNEEx09 0496 and CNEEx09 0497.*

## BEd隔爆型

BEd隔爆型电力液压推动器符合GB3836.2《爆炸性气体环境使用电气设备第2部分隔爆型“d”》及《GB12476.1-2000可燃性粉尘环境用电气设备 第1部分：用外壳和限制表面温度保护的电气设备 第1节：电气设备的技术要求》的规定防爆标志分别为“Exd I”，符合煤矿井下场所安全标准，安标证编号为MCA130396。

### BEd explosion-proof

*BEd Explosion Protected Electro-Hydraulic Thruster complies with the rules of GB3836.2 (electric equipments used in explosive gas environment, part 2, explosion protection type "d") and (GB12476.1-2000 electric equipment used in the flammable dust environment, part 1: electric equipment with the shell and limit temperature protection, chapter: technical requirements of electric equipment). Explosion protection marks are "Exd I", meets the safety standard of underground coal mines, the certification No. of safety standard is MCA130396.*

## 主要特点 Main feature:

- 1** + 电机为非浸油式结构，F级绝缘，耐热性好，寿命长。  
*Electrical motor is of non-under-oil structure, F grade insulation, durable and good heat resistance long lifetime.*
- 2** + 电机轴和推杆采用了OPO表面处理(法国技术)，使密封件寿命大大延长。  
*The surface of motor shaft and pusher shall be OPO treated (OPO technology from France) to make the seals much more durable.*
- 3** + 油缸壳体在一侧设有平衡气室,可使推动器在0~180° 任何方向安装，从而扩大其使用范围。  
*Balancing air chamber is set at one side of oil cylinder casing, which can make the thruster to be installed at any direction within 0~180° and enlarge the using range.*
- 4** + 密封件和轴承全部采用世界名牌产品，密封可靠，寿命长。  
*All seals and bearing are all world famous products. The seal is reliable and durable.*
- 5** + 紧固件为不锈钢材质，美观耐用。  
*Fasteners are made of stainless steel, good-look and durable.*

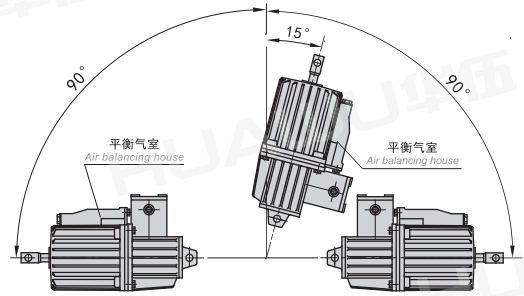
## 附加装置 Additional devices:

- 上位限位开关：可指示推动器是否打开，推杆是否推到规定位置等信息。
- 下位限位开关：可指示推动器是否正确闭合，推杆是否回到规定位置等信息，可同时设置上下限位开关。
- 增设内置式制动弹簧或复位弹簧（仅短行程推动器可以）复位弹簧力可由用户确定，但不得超过额定推力。
- 上升延时和下降延时阀或上升下降延时阀，可无级延长上升或下降时间，延时范围为5秒至30秒，具体延时值可根据用户要求调定。
  - Upper limit switch, which can indicate whether brake is open, or whether the thruster is at the right position.
  - Lower limit switch, which can indicate whether the brake is properly closed, whether the thruster return to right position. Upper and lower limit switches can be set together.
  - Build-in spring or restoring spring (only for short stroke thruster). Spring force can be decided by customers, but within the rated thrust limit (refer to parameter tables).
  - Ascending time-delay valve, descending time-delay valve or ascending/descending time-delay valve can steplessly prolong the rising and falling time, delay range is from 5s to 30s, specific delay time can be set as customers' requirements.

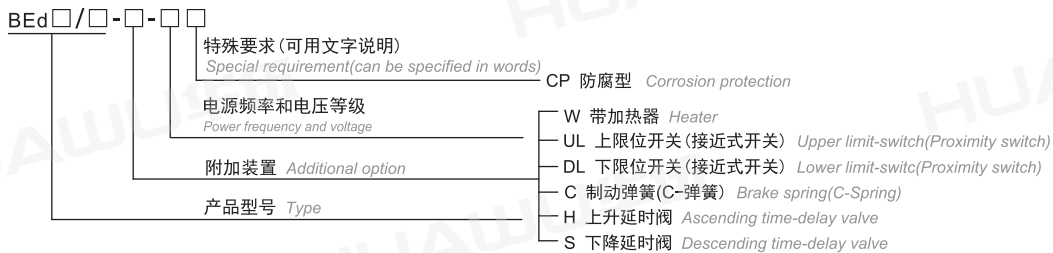
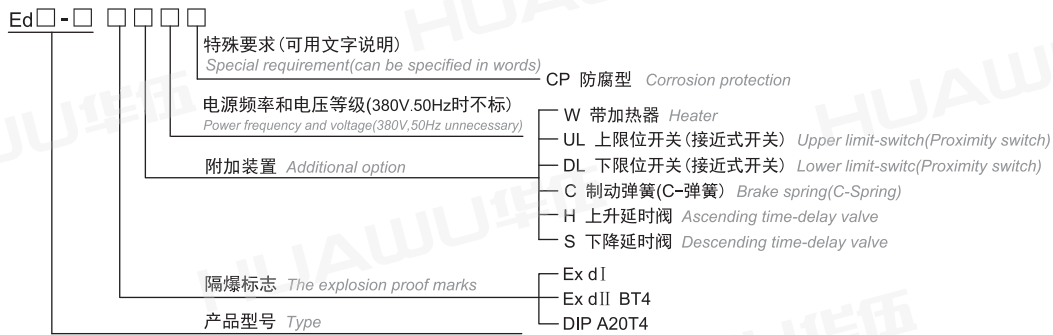
# 安装方式 Mounting:

底座均可旋转90° 安装(用户在订货时注明), 推杆头可360° 任意旋转, 全部推动器可垂直, 倾斜(15°) 安装, 也可大于15° 倾斜或水平安装, 但平衡气室应如图所示:

Foundations can be installed by revolving 90° (please note it when customers ordered), head of push rod can be turned 360° freely, all thrusters can be vertically and ( $\geq 15^\circ$ ) obliquely or horizontally installed, the balancing air chamber is shown as right figure.



# 订货标记 Order Mark



# 订货示例 Order Example

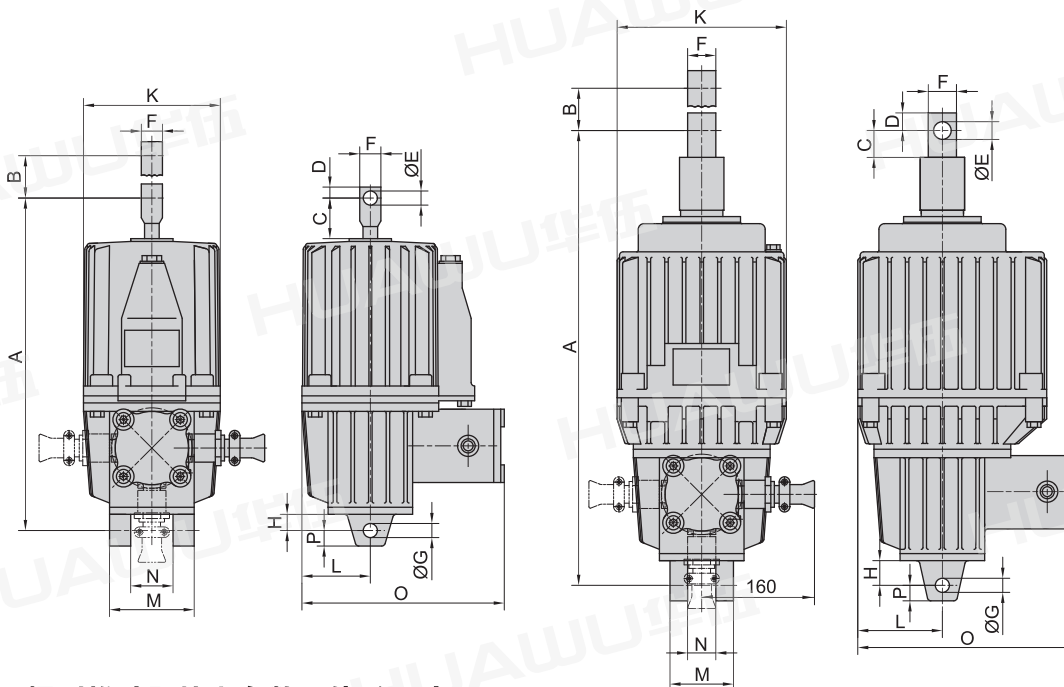
Ed500-60 Ex d I UL DL  
Ed300-50 Ex d II BT4W,S  
BEd30/5 UL DL

Ed500-60 Ex d I UL,S.460V/60Hz.CP  
Ed300-50 Ex d I  
BEd80/6 C

## 使用条件 Operating condition:

- 海拔高度:<2000m。
  - 环境温度:-20°C~+40°C。
  - 安装地点最湿月的月平均最大相对湿度不超过90%，同时该月的平均最低温度不低于+25°C,允许由于湿度变化发生在产品表面的凝露。
  - 周围环境的污染等级允许为3级。
  - 电源为三相交流:AC 220/380V 50Hz.60Hz、380/660V(Δ/Y)。
- 有特殊要求，在订货时协商确定。

- Altitude: <2000m.
  - Ambient temperature: -20°C~+40°C.
  - Relative humidity: ≤90%, minimum temperature: ≥+25°C.  
Condensed dew emerged on the surface of the products due to variation of temperature is permissible.
  - Pollution degree of the circumferential environment ≤3.
  - AC power supply of 3 phase:AC 220/380V 50Hz.60Hz ,380/660V(Δ/Y).
- Special requirements can be discussed in order.**



## Ed系列隔爆型推动器技术参数及外形尺寸

### Technical data and outline dimensions for Ed series explosion-proof thrusters

型号 Type	额定推力 Rated Thrust (N)	额定行程 Rated Stroke (mm)	额定电流 Rated Current (A)	最大操作频率 Max.Operating Frequency(1/h)	额定电压 Rated voltage (50Hz)	功率消耗 Power Consumption (W)	A	B	C	D	E	F	G	H	K	L	M	N	O	P	重量 Weight (kg)
Ed300-50 Ex Ed30-50DIP	300	50	0.78	2000	380~400V	250	410	50	34	15	16	25	16	39	160	80	80	40	270	16	21
Ed500-60 Ex Ed500-60DIP	500	60	1.34	2000	380~400V	370	490	60	36	18	20	30	24	44	194	97	120	60	287	22	32
Ed800-60 Ex Ed800-60DIP	800	60	1.34	2000	380~400V	370	490	60	36	18	20	30	24	44	194	97	120	60	287	22	34
Ed1250-60 Ex Ed1250-60DIP	1250	60	1.52	2000	380~400V	550	690	60	38	25	25	40	25	62	240	120	90	40	310	25	48
Ed1250-120 Ex Ed1250-120DIP	1250	120		750			120	72						51							
Ed2000-60 Ex Ed2000-60DIP	2000	60	1.98	2000	380~400V	750	690	60	38	25	25	40	25	62	240	120	90	40	310	25	48
Ed2000-120 Ex Ed2000-120DIP	2000	120		750			120	72						52							
Ed3000-60 Ex Ed3000-60DIP	3000	60	1.98	1500	380~400V	750	690	60	38	25	25	40	25	62	240	120	90	40	310	25	50
Ed3000-120 Ex Ed3000-120DIP	3000	120		750			120	72						54							

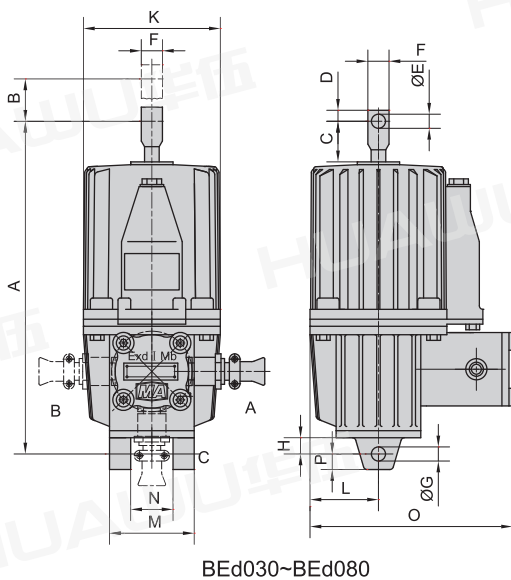
隔爆型推动器有三个电缆引入装置位置(如图所示，电缆引入装置标准设在右侧)，需注明可任选一位置安装。

There are three cable entry positions for explosion protection electro-hydraulic thruster (shown as the figure, cable entry position is on the right by standard), the customers can select any position freely.

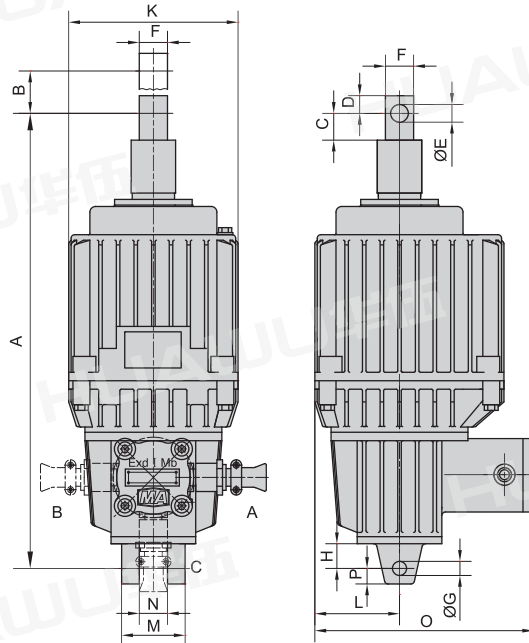
## 使用条件 Operating condition:

- 海拔高度:<2000m。
  - 环境温度:-20℃~+40℃。
  - 安装地点最湿月的月平均最大相对湿度不超过90%，同时该月的平均最低温度不高于+25℃,允许由于湿度变化发生在产品表面的凝露。
  - 周围环境的污染等级允许为3级。
  - 电源为三相交流:AC 220/380V 50Hz.60Hz、380/660V(Δ/Y)
  - 煤安证号：MCA130396
- 有特殊要求，在订货时协商确定。

- Altitude: <2000m.
  - Ambient temperature: -20℃~+40℃.
  - Relative humidity:≤90%, minimum temperature:≥+25℃. Condensed dew emerged on the surface of the products due to variation of temperature is permissible.
  - Pollution degree of the circumferential environment ≤3.
  - AC power supply of 3 phase:AC 220/380V 50Hz.60Hz ,380/660V(Δ/Y)
  - The certification No. of safety standard is MCA130396.
- Special requirements can be discussed in order.



BEd030~BEd080



BEd121/6~BEd301/12

## BEd系列隔爆型推动器技术参数及外形尺寸

### Technical data and outline dimension for BEd series explosion-proof thrusters

型号 Type	额定推力 Rated Thrust (N)	额定行程 Rated Stroke (mm)	额定电流 Rated current (A)	额定电压 Rated voltage (50Hz)	功率消耗 Power Consumption (W)	最大操作频率 Max. Operating Frequency(1/h)	安装及外形尺寸 Dimensions (mm)														重量 Weight (kg)
							A	B	C	D	E	F	G	H	K	L	M	N	O	P	
BEd30/5	300	50	0.18	1140V	250	1200	410	50	34	17	16	25	16	34	160	80	80	40	315	20	33
			0.32	660V																	
BEd50/6	500	60	0.27	1140V	370	1200	490	60	36	20	20	30	24	35	194	97	120	60	332	25	47
			0.47	660V																	
BEd80/6	800	60	0.27	1140V	370	1200	490	60	36	20	20	30	24	35	194	97	120	60	332	25	50
			0.47	660V																	
BEd121/6	1250	60	0.55	1140V	750	1200	690	60	38	25	25	40	25	40	240	120	90	40	355	25	68
			0.96	660V																	
BEd201/6	2000	60	0.55	1140V	750	1200	690	60	38	25	25	40	25	40	240	120	90	40	355	25	68
			0.96	660V																	
BEd301/6	3000	60	0.59	1140V	800	1200	690	60	38	25	25	40	25	40	240	120	90	40	355	25	70
			1.02	660V																	
BEd121/12	1250	120	0.55	1140V	750	900	750	120	38	25	25	40	25	40	240	120	90	40	355	25	73
			0.96	660V																	
BEd201/12	2000	120	0.59	1140V	800	900	750	120	38	25	25	40	25	40	240	120	90	40	355	25	74
			1.02	660V																	
BEd301/12	3000	120	0.59	1140V	800	900	750	120	38	25	25	40	25	40	240	120	90	40	355	25	75
			1.02	660V																	

隔爆型推动器有三个电缆引入装置位置(如图所示，电缆引入装置标准设在右侧)，需注明可任选一位置安装。

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