

## KAKKU HEAVY DUTY THRUSTOR BRAKES SERIES KBT/KED

### SPECIAL FEATURES

- Well proven performance and hence reliability is ensured.
- Ease of adjustment of torque quickly, by just turning the adjustment nut.
- Accurate manufacturing and strict adherence to engineering standards for longer working life.
- All parts are easily accessible and hence ensures quick maintenance.
- Quick adjustment of both the shoes together by just one adjustment bolt to maintain uniform shoe gap.

### SALIENT FEATURES

#### SIMPLICITY

KAKKU Brakes series KBT/ KED are robust in construction and simple in design having minimum number of parts and thus reducing maintenance problems and down time.

#### RELIABLE BRAKING ACTION

The design of KAKKU brakes ensures efficient transmission of braking force. Also the braking action is spread evenly over both the shoes providing maximum stopping power with minimum wear of shoe linings. Because of the large bearing area and close tolerances, minimum wear of supporting pins is ensured.

#### LINING

Shoe linings are made from asbestos based woven material, which has a high co-efficient of friction and low rate of wear. The linings are normally riveted to the shoe.

#### SHOE ADJUSTMENT

Uniform receding of both the shoes can be adjusted by just turning one shoe adjustor bolt, provided on the lever arm Adjustment can be locked with the help of check nut.

#### SHOE POSITIONING

The brakes are provided with shoe positioners under the brake shoe to rigidly secure the brake shoe and prevent them from tilting and riding the drum when brakes are released.

#### TORQUE SETTING

Braking torque can be set and maintained conveniently. Each position of setting can be locked to prevent any disturbance due to vibration.

#### FAIL SAFE DESIGN

KAKKU Thrustor brakes series KBT/KED are electrically released and spring set. Release of the brake shoes is effected by energising the three phase thrustor which overcomes the spring force and the shoes are moved away from the drum by the lever/ arm linkages system. On De-energising the three phase thrustor, the shoes are pressed against the drum, thus setting the brake. This makes the brake fail safe in the event of power failure.

### DIMENSIONS

For dimensional details, please refer to dimensional data sheets.

### TECHNICAL DATA

Torque Characteristics	:	See relevant dimensional sheets
Class of insulation of Thrustor	:	Class 'F'
Insulation Voltage	:	660V
Operating Voltage	:	380V / 415V / 500V, 3 Phase 50 Hz AC
Degree of protection	:	IP 65

### Power Consumption

Thrustor Type	Capacity (N)	Stroke (mm)
KED 23/5*	230	50
KED 30/5*	300	50
KED 50/6*	500	50
KED 80/6*	800	60
KED 121/6*	1250	60
KED 201/6*	2000	60
KED 301/6*	3000	60

\*VOLT. CODE  
A- 380 V

V  
V

\*\*Other models available on request

Even though the thrustors are class 'F' insulated, the temperature rise is within the limits of class 'B'. Therefore good life of insulation is ensured. The thrustors are tested as per relevant IPSS/IEC.

### SELECTION OF BRAKE SIZE

For most applications, the brake torque must be equal to or greater than motor full load torque as referred to the drum/ wheel shaft.

Thus, torque in Kg m =  $\frac{974 \times KW}{rpm}$

Where,

KW = Motor Output

rpm = Revolution per minute

With torque requirements known and the type and the duty cycle established, the brake is selected accordingly from the selection table. For certain special applications e.g. crane hoist and other overhauling loads, the brake should be capable of providing atleast 150% of motor torque.

### OPTIONAL EXTRAS

- Special epoxy paint to withstand corrosive atmosphere.
- Shoe bolted linings.

### ORDERING INFORMATION

- Give KAKKU type No.
- Specify optional extras if any.

**Please refer drawing no EPCC/KBT/KED/2010/01  
FOR DIMENSIONS**

*Product improvement is a continuous process at KAKKU. Hence data given in this catalogue is subject to revision without notice.*

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