DC
Electromagnetic
Clutch-Brake
Combinations

Type 14.800
Foot / Flange Mounted Clutch-Brake
(Normally OFF)

Type 14.125
Foot / Flange Mounted Clutch-Brake
(Normally OFF)

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Electromagnetic clutch-brake units are frequently used in switched mode systems with synchronous drive systems. **14.800 clutch-brake turns a continuous motion at the input to intermittent motion at the output shaft in a torque range 7.5-120 Nm. Rapid acceleration & deceleration at constant motor speed is its unique feature. Available with patented wear compensation system makes it easy to maintain. The unit comes with foot or no foot configuration, B5/B14 flange adapters at input side and output side with B5 flange. Units are also available with hollow or solid input & output shafts, using specially designed over excitation switching device, extremely high switching frequencies can be obtained. Zero backlash armatures are available upon request.**

The **14.125 clutch-brake** can be used for continuous start stop function in any drive transmission arrangement of any machine or mechanism. The standard unit comes with an input and output shaft which can be coupled with any other input and output shaft or other items. Flange mounted option for either input or output or both is also available and hollow shaft instead of solid shaft in input or output or both is also available which facilitates an outside driving or driven shaft to be inserted inside the unit.

**Applications**
- Machine Tools
- Welding Machines
- Conveyors
- Packaging Machines
- Spl. Purpose Machines

**Salient Features of Type 14.800**
- Torque in 7.5 to 120 Nm.
- Five sizes from 7.5 to 120 Nm.
- Non asbestos friction linings.
- Patented air-gap adjustment from outside without dismantling the unit.
- Two axis heights available for each size.
- Rivet less low inertia armature.
- Coil with Class ‘F’ insulation.
- Dimensioning for 100% duty time.
- Totally enclosed design.
- Strong bearing design.
- Simple wear compensation adjustment.
- Stationery field (No Slip Rings). Low inertia of rotating parts.
- Fast switching times. Coil with Class ‘F’ insulation.
- Single plate dry type. Slotted armature for torque stability.
- High operating reliability. Special friction disc.
- Consistent operating characteristics.
- Simple to fit.
- High operating reliability.
- Simple to fit.
- High operating reliability. Special friction disc.
- Fast switching times. Coil with Class ‘F’ insulation.
- Fast switching times.
- Enclosure IP 44.
- Compact flange mounted designs available.

**Salient Features of Type 14.125**
- Torque in 7.5 to 2500 Nm.
- Simple to fit.
- Ready in assembled form.
- Strong bearing design.
- Totally enclosed unit.
- Air-gap adjustable without dismantling the unit.
- Good heat dissipation.
- Backlash free torque transmission.
- High operating frequency.
- Long life.
- Single plate dry type. Slotted armature for torque stability.
- Fast switching times. Coil with Class ‘F’ insulation.
- Fast switching times.
- Consistent operating characteristics.
- Simple to fit.
- High operating reliability. Special friction disc.
- Fast switching times.
- Consistency operating characteristics.
- Simple to fit.
- High operating reliability. Special friction disc.
- Fast switching times.
- Consistent operating characteristics.
- Standard asbestos friction liner. German liner available on request.

**Switching Type 14.800**
Our Clutch-Brake combinations require D.C. supply voltage which is obtained through A.C./D.C. rectification. Normally switching is carried out on the A.C. side. However, for much faster engagement/disengagement time switching is carried out on the D.C. side for which a suitable arc suppressor and a capacitor is a must to protect the coil, switches etc. from high induction voltages produced during switching off power supply.

Engagement/disengagement time is a function of nominal release distance (airgap) and type of switching.

**Switching Type 14.125**
When D.C. power is supplied to clutch coil, rotor attracts armature assembly, thus transmitting torque from drive connected to output shaft via clutch to the load connected through output shaft. On withdrawal of current from clutch, relay contractor or some suitable circuit when used automatically diverts the current to brake coil, thus instantaneously disengaging drive and simultaneously stopping output shaft connected to load via brake.

**Mounting Type 14.800**
When mounted vertically, the original position free of residual torque even when stressed spring pulls the armature back into its original position free of residual torque even when mounted vertically.

**Mounting Type 14.125**

**Working Type 14.800**
When supplied with D.C. voltage the armature is attracted towards the friction material of the rotor and transmits the torque free of backlash. When the supply is interrupted, the pre-stressed spring pulls the armature back into its original position free of residual torque even when mounted vertically.

**Working Type 14.125**
When D.C. power is supplied to clutch coil, rotor attracts armature assembly, thus transmitting torque from drive connected to output shaft via clutch to the load connected through output shaft. On withdrawal of current from clutch, relay contractor or some suitable circuit when used automatically diverts the current to brake coil, thus instantaneously disengaging drive and simultaneously stopping output shaft connected to load via brake.
### PARAMETERS

**All dimensions are in mm**

#### Feet

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### DESIGN AVAILABLE

#### Type 14.800..10.1 [8]

- **Input**
- **Output**

#### Type 14.800..10.2 [8]

- **Input**
- **Output**

#### Type 14.800..10.3 [8]

- **Input**
- **Output**

### IMPORTANT

1. 1 Nm = 0.102 kgm = 0.737 lb ft
2. MK: Dynamic Torque
3. Standard Voltage: 24 V.D.C. (other Voltages on request)
4. @ keyways to DIN 6885/IS : 2048
5. P: Coil Power at 20°C

### ORDERING DATA

**General - 1. Type 2. Size 3. Design 4. Coil Voltage**
- Variants: Input Flange Diameter
- Input Flange Diameter
- Output Flange Diameter

**Specifications are subject to change without notice.**
### Basic Design 14.800... .10.4[9]

### Parameters

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**Dimensions**

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**Symbols:**
- **W**: Basic Footprint Width
- **D**: Basic Footprint Depth
- **H**: Height
- **P**: Power Input
- **T**: Torque

**Specifications:**
- All dimensions are in mm
- Specifications are subject to change without notice.

**Important Notes:**
1. 1kW = 0.125 kNm = 0.737 lb ts. 8
2. Torque: 96, 190 V.D.C.
3. Other Volumes on Request.