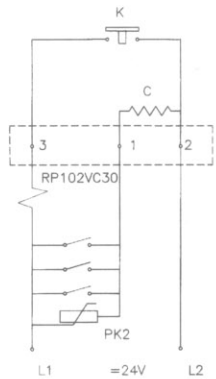


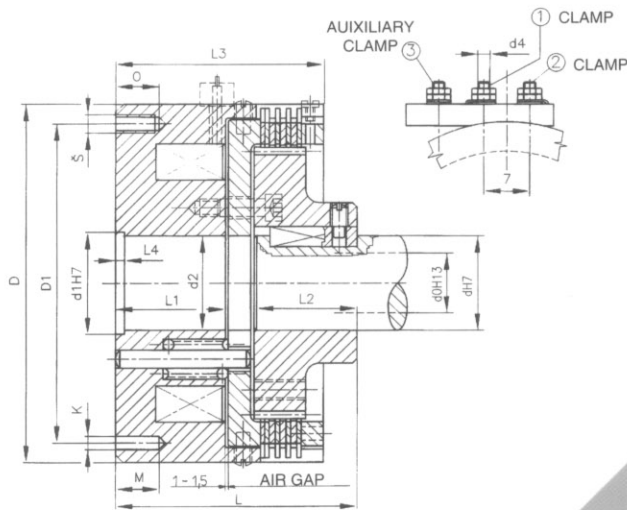


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Connection diagram  
of brake EBP



K— brake switch  
C— wind of brake coil  
RP102— auxiliary relay  
PK2— resistor



## ELECTRICALLY ACTUATED MULTI-PLATE BRAKES SWITCHED IN BY SPRINGS **EBP**

BRAKES GAIN GROUND AT MOST IN DRIVING UNITS OF MACHINE TOOLS, PROFILING MACHINES, PRESSES, MILLING MACHINES AND SO ON. THEY ARE INDISPENSABLE IN CASES, WHERE IT IS NECESSARY TO BRAKE TO STOP ROTATING MACHINE SYSTEMS IN CASE OF POWER INTERRUPTION, FUNCTIONAL OR SECURITY REASONS.

## MAIN TECHNICAL DATA AND DIMENSIONS (mm)

|  |                   |        |        |       |       |
|--|-------------------|--------|--------|-------|-------|
| Type number  |                   | 4374   | 4375   | 4376  | 4377  |
| Size   |                   | 4      | 6.3    | 10    | 16    |
| Dimensions   |                   |        |        |       |       |
| D  |                   | 135    | 135    | 165   | 165   |
| D1   |                   | 120    | 120    | 146   | 146   |
| d <sub>0</sub> H13   |                   | 18     | 18     | 25    | 25    |
| dH7  |                   | 20-30  | 25-35  | 28-40 | 30-45 |
| d1H7   |                   | 40     | 40     | 50    | 50    |
| d2   |                   | 36     | 36     | 46    | 46    |
| L  |                   | 116    | 116    | 131   | 131   |
| L1   |                   | 64     | 64     | 72    | 72    |
| L2   |                   | 40     | 40     | 45    | 45    |
| L3   |                   | 103    | 103    | 116   | 116   |
| L4   |                   | 4      | 4      | 4     | 4     |
| O  |                   | 18     | 18     | 20    | 20    |
| Number x   | S                 | 3xM8   | 3xM8   | 3xM10 | 3xM10 |
| Number x   | K                 | 3x6    | 3x6    | 3x6   | 3x6   |
|  | M                 | 18     | 18     | 20    | 20    |
| Nominal brake torque M <sub>b</sub>  | Nm <sub>1</sub>   | 40     | 63     | 100   | 160   |
| Maximal revolution   | min <sup>-1</sup> | 2000   | 2000   | 2000  | 2000  |
| Nominal voltage U  | V                 | 24     | 24     | 24    | 24    |
| Nominal current at 20°C I <sub>20</sub>  | A                 | 4.8    | 4.8    | 6.8   | 6.8   |
| Current I <sub>20</sub> after switching  | A                 | 1.2    | 1.2    | 1.72  | 1.72  |
| Input P <sub>20</sub> after switching  | W                 | 7      | 7      | 11    | 11    |
| Series resistor  | Ω                 | 15     | 15     | 10.5  | 10.5  |
| Input  | W                 | 30     | 30     | 45    | 45    |
| Moment of inertia of rotating parts J  | kgm <sup>2</sup>  | 0.0045 | 0.0045 | 0.013 | 0.013 |
| Weight   | kg                | 6.2    | 6.2    | 11.7  | 11.7  |
| Number of friction areas of dry clutch   | Pcs               | 4      | 6      | 4     | 6     |
| Number of friction areas of lubricated clutch                                      | Pcs               | 8      | 10     | 8     | 10    |
| Number of friction areas can be changed by rearranging of equal numbers of plates. |                   |        |        |       |       |

Brakes EBP consist of driven part and fixed part. Driven part is formed by carrier and set of inner plates. Fixed part is formed by magnetic body clamped to non-rotating part of machine and provided with exciting coil. Springs and outer plates are placed in magnetic body too. Breaking torque is transmitted by friction plates which are forced together by springs. As soon as current is switched into coil, metallic ring is attracted to the coil, set of plates is unclamped and brake is released. Simultaneously closing contact switches in series resistor, and thus current is lowered at value necessary for permanent disconnection. (Series resistor is not part of clutch supply.)

In the moment of current interruption springs force together friction plates which produce breaking torque. Brake require negligible maintenance only. It is necessary adjust air gap and exchange worn-out plates, the main spare parts. Brake EBP can work in both dry and lubricated surroundings. There is used combination of steelplates and metal-ceramic. Brakes can be operated manually by buttons or automatically using direct current with nominal voltage 24 V.

If there is at disposal a.c. current only, semiconductor rectifiers connected in Grätz system must be used. Brake can work in dry or lubricated surroundings and this condition is to be stated in order. Supplied brake has rough-drilled hole according to dimensions table.

### ORDERING DATA

- type number, brake size
- number of pieces
- lubricated or dry model



**PSP POHONY a.s.**

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Quality system certified  
according to DIN ISO 9001