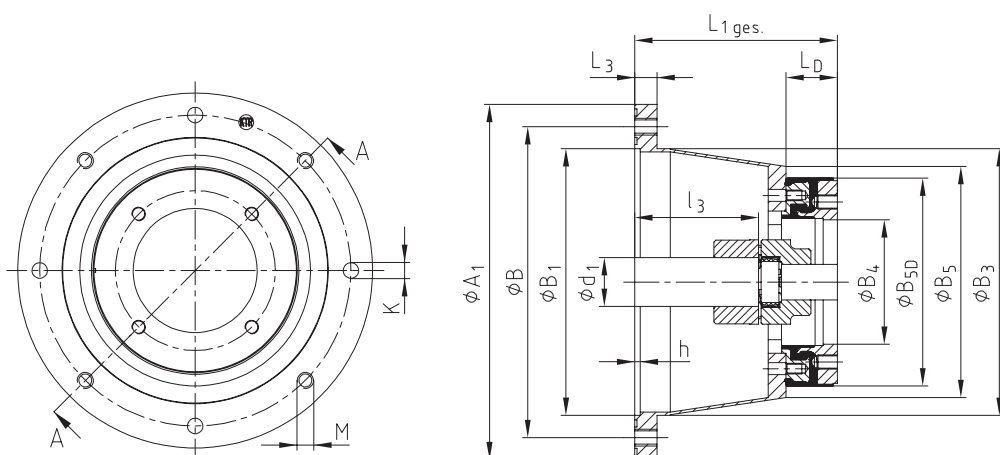


### Damping rings in combination with bellhousings



For IEC motor from size 225S/225M 8 tapped holes and through holes on the periphery (thread offset by 22.5° to the verticle).

Please mention in your order if a design with or without venting holes or oil bleeds, respectively, is requested  
For dimensions see page 192/193.

Please specify in the order if the bellhousing is needed in oilproof design! (Extra charge)

| Damping rings D in combination with bellhousings <sup>1)</sup> |                      |                  |                   |                   |                 |     |                |                      |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|--|----------------------|------------------|-------------------|-------------------|-----------------|-----|----------------|----------------------|----------------|-----|-----|----|----------------|----------------|----------------|----------------|-----------------|-----|------|--|------|--|
| IEC motor size (shaft end) d <sub>1</sub> x l <sub>3</sub>     | kW with n = 1500 rpm | Bellhousing size | Damping ring size | Foot flange size  | Dimensions [mm] |     |                |                      |                |     |     |    |                |                |                |                |                 |     | min. |  | max. |  |
|  |                      |                  |                   |                   | A <sub>1</sub>  | B   | B <sub>1</sub> | L <sub>1</sub> total | L <sub>3</sub> | K   | M   | h  | L <sub>D</sub> | B <sub>3</sub> | B <sub>4</sub> | B <sub>5</sub> | B <sub>5D</sub> |     |      |  |      |  |
| 90S/90L (24x50)  | 1,1<br>1,5           | PK 200/11/..     | D 150/..          | PTFL 200          | 200             | 165 | 130            | 90                   | 16             | 11  | M10 | 4  | 45             | 145            | 18             | 83             | 145             | 148 |      |  |      |  |
|  |                      | PL 200/11/..     |                   |                   |                 |     |                | 100                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 200/30/..     |                   |                   |                 |     |                | 124                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
| 100L/112M (28x60)  | 2,2<br>3             | PK 250/15/..     | D 150/..          | PTFL 250          | 250             | 215 | 180            | 106                  | 18             | 14  | M12 | 5  | 45             | 190            | 18             | 83             | 187             | 190 |      |  |      |  |
|  |                      | PL 250/15/..     |                   |                   |                 |     |                | 124                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 250/17/..     | 145               |                   |                 |     |                |                      |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 250/15/..     | 106               |                   |                 |     |                |                      |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 250/15/..     | 124               |                   |                 |     |                |                      |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 250/17/..     | 145               |                   |                 |     |                |                      |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
| 132S/132M (38x80)  | 5,5<br>7,5           | PK 300/8/..      | D 150/..          | PTFL 300          | 300             | 265 | 230            | 155                  | 20             | 14  | M12 | 5  | 45             | 234            | 30             | 121            | 231             | 190 |      |  |      |  |
|  |                      | PK 300/9/..      |                   |                   |                 |     |                | 130                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 300/9/..      |                   |                   |                 |     |                | 144                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/15/..     |                   |                   |                 |     |                | 179                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 300/15/..     |                   |                   |                 |     |                | 195                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/8/..      |                   |                   |                 |     |                | 155                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/9/..      |                   |                   |                 |     |                | 130                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 300/9/..      |                   |                   |                 |     |                | 144                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/15/..     |                   |                   |                 |     |                | 183                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 300/15/..     |                   |                   |                 |     |                | 195                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/8/..      |                   |                   |                 |     |                | 168                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 300/9/..      |                   |                   |                 |     |                | 143                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
| 160M/160L (42x110)   | 11<br>15             | PK 350/11/..     | D 150/..          | PTFL 350/PTFS 350 | 350             | 300 | 250            | 175                  | 17             | M16 | 6   | 45 | 260            | 30             | 121            | 244            | 252             | 148 |      |  |      |  |
|  |                      | PL 350/11/..     |                   |                   |                 |     |                | 190                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 350/18/..     |                   |                   |                 |     |                | 204                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 350/18/..     |                   |                   |                 |     |                | 229                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 350/18/..     |                   |                   |                 |     |                | 175                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 350/11/..     |                   |                   |                 |     |                | 188                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 350/18/..     |                   |                   |                 |     |                | 204                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 350/11/..     |                   |                   |                 |     |                | 229                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 350/11/..     |                   |                   |                 |     |                | 188                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 350/11/..     |                   |                   |                 |     |                | 204                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PK 350/18/..     |                   |                   |                 |     |                | 217                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |
|  |                      | PL 350/18/..     |                   |                   |                 |     |                | 242                  |                |     |     |    |                |                |                |                |                 |     |      |  |      |  |

# DAMPING RINGS HYDRAULIC COMPONENTS

## Damping rings in combination with bellhousings

| Damping rings D in combination with bellhousings <sup>1)</sup> |                      |                       |                   |                       |                 |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|--|----------------------|-----------------------|-------------------|-----------------------|-----------------|-----|----------------|----------------------|----------------|----|-----|---|----------------|----------------|----------------|------|----------------|-----------------|----------|----------|-----|-----|-----|-----|--|----|-----|---|----|-----|-----|-----|-----|-----|
| IEC motor size (shaft end) d <sub>1</sub> x l <sub>3</sub>     | kW with n = 1500 rpm | Bellhousing size      | Damping ring size | Foot flange size      | Dimensions [mm] |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      |                       |                   |                       | A <sub>1</sub>  | B   | B <sub>1</sub> | L <sub>1</sub> total | L <sub>3</sub> | K  | M   | h | L <sub>D</sub> | B <sub>3</sub> | B <sub>4</sub> |      | B <sub>5</sub> | B <sub>5D</sub> |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      |                       |                   |                       |                 |     |                |                      |                |    |     |   |                |                | min.           | max. |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 160M/160L<br>(42x110)  | 11                   | PK 350/11/..          | D 260/..          | PTFL 350/<br>PTFS 350 | 350             | 300 | 250            | 188                  | 25             | 17 | M16 | 6 | 58             | 260            | 97             | 143  | 252            | 264             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  | 15                   | PL 350/11/..          |                   |                       |                 |     |                | 204                  | 26             |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 350/18/..          |                   |                       |                 |     |                | 217                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 180M/180L<br>(48x110)  | 18,5                 | PL 350/18/..          |                   |                       |                 |     | 242            | 25                   |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  | 22                   | PL 350/48/98          |                   |                       |                 |     | 247            |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 200L<br>(55x110)   | 30                   | PL 400/3/..           | D 190/..          | PTFS 400              | 400             | 350 | 300            | 210                  |                | 17 | M16 | 6 | 45             | 300            | 30             | 121  | 290            | 190             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 400/12/..          |                   |                       |                 |     |                | 215                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 400/12/..          |                   |                       |                 |     |                | 229                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 400/12/..          |                   |                       |                 |     |                | 228                  | 20             |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 400/12/..          |                   |                       |                 |     |                | 242                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 400/12/..          |                   |                       |                 |     |                | 228                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 400/12/..          |                   |                       |                 |     |                | 242                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| PL 400/12/98   | 247                  |                       |                   |                       |                 |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 225S/225M<br>(60x140)  | 37                   | PL 450/5/94           | D 190/..          | PTFS 450              | 450             | 400 | 350            | 230                  |                | 17 | M16 | 6 | 45             | 300            | 30             | 121  | 325            | 190             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 450/12/94          |                   |                       |                 |     |                | 249                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 450/5/96           |                   |                       |                 |     |                | 243                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 450/6/96           |                   |                       |                 |     |                | 234                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 450/12/96          |                   |                       |                 |     |                | 262                  | 25             |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 450/5/98           |                   |                       |                 |     |                | 243                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 450/6/98           |                   |                       |                 |     |                | 234                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| PK 450/12/98   | 262                  |                       |                   |                       |                 |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 250M<br>(65x140)   | 55                   | PL 550/4/94           | D 190/..          | PTFS 550              | 550             | 500 | 450            | 237                  |                | 17 | M16 | 6 | 45             | 450            | 30             | 121  | 355            | 190             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/4/94           |                   |                       |                 |     |                | 252                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 550/4/96           |                   |                       |                 |     |                | 262                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/4/96           |                   |                       |                 |     |                | 248                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 550/4/96           |                   |                       |                 |     |                | 265                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/8/96           |                   |                       |                 |     |                | 275                  | 26             |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/4/98           |                   |                       |                 |     |                | 248                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 280S/280M<br>(75x140)  | 75                   | PL 550/4/98           | D 260/..          | PTFS 660              | 660             | 600 | 550            | 265                  |                | 22 | M20 | 8 | 83             | 550            | 120            | 208  | 330            | 264             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/8/98           |                   |                       |                 |     |                | 275                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/4/..           |                   |                       |                 |     |                | 275                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PL 550/4/..           |                   |                       |                 |     |                | 290                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 550/8/..           |                   |                       |                 |     |                | 300                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | 315S/315M<br>(80x170) |                   |                       |                 |     |                | 110                  | PK 660/3/98    |    |     |   |                |                |                |      |                |                 | D 260/.. | PTFS 660 | 660 | 600 | 550 | 310 |  | 22 | M20 | 8 | 83 | 550 | 120 | 208 | 500 | 264 |
|  |                      |                       |                   |                       |                 |     |                |                      | PL 660/3/98    |    |     |   |                |                |                |      |                |                 |          |          |     |     |     | 318 |  |    |     |   |    |     |     |     |     |     |
| PK 660/3/..  | 330                  |                       | 32                |                       |                 |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| PL 660/3/..  | 343                  |                       |                   |                       |                 |     |                |                      |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 315L<br>(80x170)   | 160                  | PK 660/3/..           | D 330/..          | PTFS 660              | 660             | 600 | 550            | 330                  | 32             | 22 | M20 | 8 | 83             | 550            | 120            | 208  | 500            | 330             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 660/3/..           |                   |                       |                 |     |                | 343                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
| 315L<br>(85x170)   | 200                  | PK 660/3/..           | D 125/..          | PTFS 660              | 660             | 600 | 550            | 372                  |                | 22 | M20 | 8 | 125            | 550            | 260            | 320  | 500            | 484             |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |
|  |                      | PK 660/3/..           |                   |                       |                 |     |                | 372                  |                |    |     |   |                |                |                |      |                |                 |          |          |     |     |     |     |  |    |     |   |    |     |     |     |     |     |

<sup>1)</sup> Preferred combinations with short bellhousings, other combinations on request (see page 192 and 193), Phone: +49 5971 798-0

\* Passing from dimension B<sub>3</sub> to flange radius R=5

● Make sure your power pack provides for a separation of piping, e. g. by hoses or elastic flanges (see page 201). ● As another measure for noise reduction we recommend to use damping rods (from page 25) or DT/DTV rings (see page 24).

For the detailed order designation please refer to our PC/Internet selection programme or specify the IEC motor size and detailed pump type for selection.

|                   |                        |                         |                              |                   |                            |              |      |                            |
|-------------------|------------------------|-------------------------|------------------------------|-------------------|----------------------------|--------------|------|----------------------------|
| Ordering example: | PL                     | PK                      | 250                          | 15                | 92                         | D            | 150  | 23                         |
|                   | Bellhousing type, long | Bellhousing type, short | Flange diameter of IEC motor | Serial model code | In-house modification code | Damping ring | Size | In-house modification code |

Any questions? Please contact us.

**Morskate Aandrijvingen BV**

Oosterveldsingel 47A  
7558 PJ Hengelo (Ov)  
The Netherlands

NL

T +31 (0)74 - 760 11 11  
info@morskateaanrijvingen.nl  
www.morskateaanrijvingen.nl

DE

T +49 692 - 222 34 95  
info@morskateantriebstechnik.de  
www.morskateantriebstechnik.de

EN

T +31 (0)74 - 760 11 11  
info@morskatedrivetechnology.com  
www.morskatedrivetechnology.com