

| GRW designation | Main dimensions in<br>[mm]<br>[inch] |   |   | Load ratings<br>acc. to DIN ISO |                       | Ball set |                                  | Limiting speeds*            |                                | Preload             |                      |                     |
|-----------------|--------------------------------------|---|---|---------------------------------|-----------------------|----------|----------------------------------|-----------------------------|--------------------------------|---------------------|----------------------|---------------------|
|                 | d                                    | D | B | C <sub>0r</sub><br>[N]          | C <sub>r</sub><br>[N] | Z        | D <sub>w</sub><br>[mm]<br>[inch] | Oil<br>[min <sup>-1</sup> ] | Grease<br>[min <sup>-1</sup> ] | (L)<br>light<br>[N] | (M)<br>medium<br>[N] | (S)<br>heavy<br>[N] |

**AC bearings, open, inch**

|                  |                        |                         |                       |      |      |    |                       |         |         |    |    |     |
|------------------|------------------------|-------------------------|-----------------------|------|------|----|-----------------------|---------|---------|----|----|-----|
| SV3/16 C TA      | 4.763<br><b>.1875</b>  | 12.700<br><b>.5000</b>  | 3.967<br><b>.1562</b> | 312  | 913  | 8  | 2.381<br><b>.0937</b> | 195,000 | 161,000 | 5  | 14 | 28  |
| HYSV3/16 C TA    | 4.763<br><b>.1875</b>  | 12.700<br><b>.5000</b>  | 3.967<br><b>.1562</b> | 218  | 913  | 8  | 2.381<br><b>.0937</b> | 287,000 | 206,000 | 5  | 14 | 28  |
| SV3/16 D TA      | 4.764<br><b>.1876</b>  | 12.800<br><b>.5039</b>  | 3.967<br><b>.1562</b> | 293  | 873  | 8  | 2.381<br><b>.0937</b> | 166,000 | 136,000 | 5  | 14 | 28  |
| HYSV3/16 D TA    | 4.765<br><b>.1876</b>  | 12.900<br><b>.5079</b>  | 3.967<br><b>.1562</b> | 205  | 873  | 8  | 2.381<br><b>.0937</b> | 244,000 | 175,000 | 5  | 14 | 28  |
| SV1/4A C TA      | 6.350<br><b>.2500</b>  | 15.875<br><b>.6250</b>  | 4.978<br><b>.1960</b> | 421  | 1114 | 9  | 2.500<br><b>.0984</b> | 153,000 | 126,000 | 6  | 17 | 34  |
| HYSV1/4A C TA    | 6.350<br><b>.2500</b>  | 15.875<br><b>.6250</b>  | 4.978<br><b>.1960</b> | 295  | 1114 | 9  | 2.500<br><b>.0984</b> | 225,000 | 162,000 | 6  | 17 | 34  |
| SV1/2/001 C TA   | 12.700<br><b>.5000</b> | 28.575<br><b>1.1250</b> | 7.938<br><b>.3125</b> | 2063 | 4066 | 12 | 3.969<br><b>.1563</b> | 82,000  | 68,000  | 20 | 61 | 121 |
| HYSV1/2/001 C TA | 12.700<br><b>.5000</b> | 28.575<br><b>1.1250</b> | 7.938<br><b>.3125</b> | 1444 | 4066 | 12 | 3.969<br><b>.1563</b> | 121,000 | 87,000  | 20 | 61 | 121 |

**AC bearings. dismountable. metric and inch**

|                  |                       |                        |                       |      |      |    |                       |         |         |    |    |     |
|------------------|-----------------------|------------------------|-----------------------|------|------|----|-----------------------|---------|---------|----|----|-----|
| SV784 D L2T      | <b>4.00</b><br>.1575  | <b>9.00</b><br>.3543   | <b>2.50</b><br>.0984  | 132  | 457  | 7  | <b>1.588</b><br>.0625 | 242,000 | 199,000 | 5  | 8  | 15  |
| HYSV784 D L2T    | <b>4.00</b><br>.1575  | <b>9.00</b><br>.3543   | <b>2.50</b><br>.0984  | 94   | 457  | 7  | <b>1.588</b><br>.0625 | 355,000 | 256,000 | 5  | 8  | 15  |
| SV725 C L2T      | <b>5.00</b><br>.1969  | <b>16.00</b><br>.6299  | <b>5.00</b><br>.1969  | 737  | 1626 | 9  | <b>2.500</b><br>.0984 | 157,000 | 130,000 | 8  | 24 | 49  |
| HYSV725 C L2T    | <b>5.00</b><br>.1969  | <b>16.00</b><br>.6299  | <b>5.00</b><br>.1969  | 515  | 1626 | 9  | <b>2.500</b><br>.0984 | 231,000 | 167,000 | 8  | 24 | 49  |
| SV725 D L2T      | <b>5.00</b><br>.1969  | <b>16.00</b><br>.6299  | <b>5.00</b><br>.1969  | 737  | 1626 | 9  | <b>2.500</b><br>.0984 | 134,000 | 110,000 | 8  | 24 | 49  |
| HYSV725 D L2T    | <b>5.00</b><br>.1969  | <b>16.00</b><br>.6299  | <b>5.00</b><br>.1969  | 515  | 1626 | 9  | <b>2.500</b><br>.0984 | 197,000 | 142,000 | 8  | 24 | 49  |
| SV707 C L2T      | <b>7.00</b><br>.2756  | <b>19.00</b><br>.7480  | <b>6.00</b><br>.2362  | 1183 | 2617 | 10 | <b>3.175</b><br>.1250 | 127,000 | 105,000 | 13 | 40 | 80  |
| HYSV707 C L2T    | <b>7.00</b><br>.2756  | <b>19.00</b><br>.7480  | <b>6.00</b><br>.2362  | 828  | 2617 | 10 | <b>3.175</b><br>.1250 | 187,000 | 135,000 | 13 | 40 | 80  |
| SV7000 C L2T     | <b>10.00</b><br>.3937 | <b>26.00</b><br>1.0236 | <b>8.00</b><br>.3150  | 2550 | 4906 | 10 | <b>4.763</b><br>.1875 | 94,000  | 78,000  | 28 | 85 | 170 |
| HYSV7000 C L2T   | <b>10.00</b><br>.3937 | <b>26.00</b><br>1.0236 | <b>8.00</b><br>.3150  | 1785 | 4906 | 10 | <b>4.763</b><br>.1875 | 139,000 | 10,000  | 28 | 85 | 170 |
| SV1/8A D20 L2T   | 3.175<br><b>.1250</b> | 7.938<br><b>.3125</b>  | 2.779<br><b>.1094</b> | 207  | 609  | 7  | 1.588<br><b>.0625</b> | 266,000 | 219,000 | 5  | 8  | 16  |
| HYSV1/8A D20 L2T | 3.175<br><b>.1250</b> | 7.938<br><b>.3125</b>  | 2.779<br><b>.1094</b> | 144  | 609  | 7  | 1.588<br><b>.0625</b> | 392,000 | 282,000 | 5  | 8  | 16  |
| SV1/8B D20 L2T   | 3.175<br><b>.1250</b> | 9.525<br><b>.3750</b>  | 3.967<br><b>.1562</b> | 134  | 461  | 8  | 1.588<br><b>.0625</b> | 228,000 | 188,000 | 5  | 10 | 20  |
| HYSV1/8B D20 L2T | 3.175<br><b>.1250</b> | 9.525<br><b>.3750</b>  | 3.967<br><b>.1562</b> | 95   | 461  | 8  | 1.588<br><b>.0625</b> | 336,000 | 242,000 | 5  | 10 | 20  |

\* The indicated speed limits are guide values for spring-loaded single bearings with low load; depending on the respective application, higher or lower speed limits may apply in practice.

\*\* For use with oil lubrication, these bearings are also available without shields.  
Subject to change due to technical improvement.

# Spindle ball bearings

| GRW designation                    | Main dimensions in [mm] [inch] |                 |               | Load ratings acc. to DIN ISO |                    | Ball set |                | Limiting speeds*         |                             | Preload       |                |               |
|------------------------------------|--------------------------------|-----------------|---------------|------------------------------|--------------------|----------|----------------|--------------------------|-----------------------------|---------------|----------------|---------------|
|                                    | d                              | D               | B             | C <sub>0r</sub> [N]          | C <sub>r</sub> [N] | Z        | Dw [mm] [inch] | Oil [min <sup>-1</sup> ] | Grease [min <sup>-1</sup> ] | (L) light [N] | (M) medium [N] | (S) heavy [N] |
| <b>AC bearings, sealed, metric</b> |                                |                 |               |                              |                    |          |                |                          |                             |               |                |               |
| SV725A-2VZ C TA                    | 5.00<br>.1969                  | 16.00<br>.6299  | 5.00<br>.1969 | 647                          | 1305               | 12       | 1.984<br>.0781 | 194,000**                | 155,000                     | 7             | 20             | 40            |
| HYSV725A-2VZ C TA                  | 5.00<br>.1969                  | 16.00<br>.6299  | 5.00<br>.1969 | 453                          | 1305               | 12       | 1.984<br>.0781 | 290,000**                | 194,000                     | 7             | 20             | 40            |
| SV725A-2VZ E TA                    | 5.00<br>.1969                  | 16.00<br>.6299  | 5.00<br>.1969 | 607                          | 1248               | 12       | 1.984<br>.0781 | 165,000**                | 132,000                     | 7             | 20             | 40            |
| SV788B-2VZ C TA                    | 8.00<br>.3150                  | 16.00<br>.6299  | 4.00<br>.1575 | 723                          | 1374               | 13       | 1.984<br>.0781 | 174,000**                | 139,000                     | 7             | 21             | 42            |
| HYSV788B-2VZ C TA                  | 8.00<br>.3150                  | 16.00<br>.6299  | 4.00<br>.1575 | 506                          | 1374               | 13       | 1.984<br>.0781 | 261,000**                | 174,000                     | 7             | 21             | 42            |
| SV708B-2VZ C TA                    | 8.00<br>.3150                  | 22.00<br>.8661  | 7.00<br>.2756 | 1298                         | 2625               | 10       | 3.175<br>.1250 | 144,000**                | 115,000                     | 13            | 40             | 80            |
| HYSV708B-2VZ C TA                  | 8.00<br>.3150                  | 22.00<br>.8661  | 7.00<br>.2756 | 909                          | 2625               | 10       | 3.175<br>.1250 | 216,000**                | 144,000                     | 13            | 40             | 80            |
| SV708B-2VZ E TA                    | 8.00<br>.3150                  | 22.00<br>.8661  | 7.00<br>.2756 | 1218                         | 2510               | 10       | 3.175<br>.1250 | 122,000**                | 98,000                      | 13            | 40             | 80            |
| HYSV708B-2VZ E TA                  | 8.00<br>.3150                  | 22.00<br>.8661  | 7.00<br>.2756 | 853                          | 2510               | 10       | 3.175<br>.1250 | 183,000**                | 122,000                     | 13            | 40             | 80            |
| SV709A-2VZ C TA                    | 9.00<br>.3543                  | 24.00<br>.9449  | 7.00<br>.2756 | 1493                         | 2822               | 11       | 3.175<br>.1250 | 128,000**                | 102,000                     | 14            | 43             | 86            |
| HYSV709A-2VZ C TA                  | 9.00<br>.3543                  | 24.00<br>.9449  | 7.00<br>.2756 | 1045                         | 2822               | 11       | 3.175<br>.1250 | 191,000**                | 128,000                     | 14            | 43             | 86            |
| SV7800A-2VZ C TA                   | 10.00<br>.3937                 | 19.00<br>.7480  | 5.00<br>.1969 | 876                          | 1487               | 15       | 1.984<br>.0781 | 143,000**                | 114,000                     | 8             | 23             | 46            |
| HYSV7800A-2VZ C TA                 | 10.00<br>.3937                 | 19.00<br>.7480  | 5.00<br>.1969 | 613                          | 1487               | 15       | 1.984<br>.0781 | 215,000**                | 143,000                     | 8             | 23             | 46            |
| SV7900B-2VZ C TA                   | 10.00<br>.3937                 | 22.00<br>.8661  | 6.00<br>.2362 | 1173                         | 2047               | 13       | 2.500<br>.0984 | 128,000**                | 102,000                     | 11            | 33             | 66            |
| HYSV7900B-2VZ C TA                 | 10.00<br>.3937                 | 22.00<br>.8661  | 6.00<br>.2362 | 821                          | 2047               | 13       | 2.500<br>.0984 | 192,000**                | 128,000                     | 11            | 33             | 66            |
| SV7000A-2VZ C TA                   | 10.00<br>.3937                 | 26.00<br>1.0236 | 8.00<br>.3150 | 2030                         | 3879               | 10       | 3.969<br>.1563 | 115,000**                | 92,000                      | 20            | 60             | 120           |
| SV7000A-2VZ E TA                   | 10.00<br>.3937                 | 26.00<br>1.0236 | 8.00<br>.3150 | 1905                         | 3710               | 10       | 3.969<br>.1563 | 98,000**                 | 78,000                      | 20            | 60             | 120           |
| HYSV7000A-2VZ E TA                 | 10.00<br>.3937                 | 26.00<br>1.0236 | 8.00<br>.3150 | 1334                         | 3710               | 10       | 3.969<br>.1563 | 147,000**                | 98,000                      | 20            | 60             | 120           |
| SV7901A-2VZ C TA                   | 12.00<br>.4724                 | 24.00<br>.9449  | 6.00<br>.2362 | 1478                         | 2329               | 16       | 2.500<br>.0984 | 115,000**                | 92,000                      | 12            | 35             | 71            |
| HYSV7901A-2VZ C TA                 | 12.00<br>.4724                 | 24.00<br>.9449  | 6.00<br>.2362 | 1035                         | 2329               | 16       | 2.500<br>.0984 | 173,000**                | 115,000                     | 12            | 35             | 71            |
| SV7901A-2VZ E TA                   | 12.00<br>.4724                 | 24.00<br>.9449  | 6.00<br>.2362 | 1387                         | 2227               | 16       | 2.500<br>.0984 | 98,000**                 | 79,000                      | 12            | 35             | 71            |
| HYSV7901A-2VZ E TA                 | 12.00<br>.4724                 | 24.00<br>.9449  | 6.00<br>.2362 | 971                          | 2227               | 16       | 2.500<br>.0984 | 147,000**                | 98,000                      | 12            | 35             | 71            |
| SV7001B-2VZ C TA                   | 12.00<br>.4724                 | 28.00<br>1.1024 | 8.00<br>.3150 | 2328                         | 3603               | 16       | 3.175<br>.1250 | 101,000**                | 80,000                      | 18            | 55             | 111           |
| HYSV7001B-2VZ C TA                 | 12.00<br>.4724                 | 28.00<br>1.1024 | 8.00<br>.3150 | 1141                         | 3603               | 16       | 3.175<br>.1250 | 151,000**                | 101,000                     | 18            | 55             | 111           |
| SV7001B-2VZ E TA                   | 12.00<br>.4724                 | 28.00<br>1.1024 | 8.00<br>.3150 | 2184                         | 3446               | 16       | 3.175<br>.1250 | 85,000**                 | 68,000                      | 18            | 55             | 111           |

| GRW designation                    | Main dimensions in [mm] [inch] |                 |                | Load ratings acc. to DIN ISO |                    | Ball set |                | Limiting speeds*         |                             | Preload       |                |               |
|------------------------------------|--------------------------------|-----------------|----------------|------------------------------|--------------------|----------|----------------|--------------------------|-----------------------------|---------------|----------------|---------------|
|                                    | d                              | D               | B              | C <sub>0r</sub> [N]          | C <sub>r</sub> [N] | Z        | Dw [mm] [inch] | Oil [min <sup>-1</sup> ] | Grease [min <sup>-1</sup> ] | (L) light [N] | (M) medium [N] | (S) heavy [N] |
| <b>AC bearings, sealed, metric</b> |                                |                 |                |                              |                    |          |                |                          |                             |               |                |               |
| HYSV7001B-2VZ E TA                 | 12.00<br>.4724                 | 28.00<br>1.1024 | 8.00<br>.3150  | 1070                         | 3446               | 16       | 3.175<br>.1250 | 128,000**                | 85,000                      | 18            | 55             | 111           |
| SV7201B-2VZ E TA                   | 12.00<br>.4724                 | 32.00<br>1.2598 | 10.00<br>.3937 | 3034                         | 5373               | 11       | 4.763<br>.1875 | 80,000**                 | 64,000                      | 29            | 86             | 173           |
| HYSV7201B-2VZ E TA                 | 12.00<br>.4724                 | 32.00<br>1.2598 | 10.00<br>.3937 | 1487                         | 5373               | 11       | 4.763<br>.1875 | 120,000**                | 80,000                      | 29            | 86             | 173           |
| SV7902A-2VZ C TA                   | 15.00<br>.5906                 | 28.00<br>1.1024 | 7.00<br>.2756  | 2359                         | 3586               | 16       | 3.175<br>.1250 | 95,000**                 | 76,000                      | 18            | 55             | 110           |
| HYSV7902A-2VZ C TA                 | 15.00<br>.5906                 | 28.00<br>1.1024 | 7.00<br>.2756  | 1651                         | 3586               | 16       | 3.175<br>.1250 | 143,000**                | 95,000                      | 18            | 55             | 110           |
| SV7902A-2VZ E TA                   | 15.00<br>.5906                 | 28.00<br>1.1024 | 7.00<br>.2756  | 2213                         | 3430               | 16       | 3.175<br>.1250 | 81,000**                 | 65,000                      | 18            | 55             | 110           |
| HYSV7902A-2VZ E TA                 | 15.00<br>.5906                 | 28.00<br>1.1024 | 7.00<br>.2756  | 1549                         | 3430               | 16       | 3.175<br>.1250 | 121,000**                | 81,000                      | 18            | 55             | 110           |
| SV7002A-2VZ C TA                   | 15.00<br>.5906                 | 32.00<br>1.2598 | 9.00<br>.3543  | 3337                         | 5125               | 15       | 3.969<br>.1563 | 87,000**                 | 70,000                      | 26            | 79             | 158           |
| HYSV7002A-2VZ C TA                 | 15.00<br>.5906                 | 32.00<br>1.2598 | 9.00<br>.3543  | 2336                         | 5125               | 15       | 3.969<br>.1563 | 131,000**                | 87,000                      | 26            | 79             | 158           |
| SV7002A-2VZ E TA                   | 15.00<br>.5906                 | 32.00<br>1.2598 | 9.00<br>.3543  | 3131                         | 4902               | 15       | 3.969<br>.1563 | 74,000**                 | 59,000                      | 26            | 79             | 158           |
| HYSV7002A-2VZ E TA                 | 15.00<br>.5906                 | 32.00<br>1.2598 | 9.00<br>.3543  | 2192                         | 4902               | 15       | 3.969<br>.1563 | 111,000**                | 74,000                      | 26            | 79             | 158           |
| SV7903A-2VZ C TA                   | 17.00<br>.6693                 | 30.00<br>1.1811 | 7.00<br>.2756  | 2402                         | 3554               | 16       | 3.175<br>.1250 | 88,000**                 | 70,000                      | 18            | 55             | 110           |
| HYSV7903A-2VZ C TA                 | 17.00<br>.6693                 | 30.00<br>1.1811 | 7.00<br>.2756  | 1682                         | 3554               | 16       | 3.175<br>.1250 | 132,000**                | 88,000                      | 18            | 55             | 110           |
| SV7903A-2VZ E TA                   | 17.00<br>.6693                 | 30.00<br>1.1811 | 7.00<br>.2756  | 2254                         | 3399               | 16       | 3.175<br>.1250 | 75,000**                 | 60,000                      | 18            | 55             | 110           |
| HYSV7903A-2VZ E TA                 | 17.00<br>.6693                 | 30.00<br>1.1811 | 7.00<br>.2756  | 1578                         | 3399               | 16       | 3.175<br>.1250 | 112,000**                | 75,000                      | 18            | 55             | 110           |
| SV7003-2VZ C TA                    | 17.00<br>.6693                 | 35.00<br>1.3780 | 10.00<br>.3937 | 4415                         | 6654               | 14       | 4.763<br>.1875 | 65,000**                 | 54,000                      | 34            | 102            | 205           |
| HYSV7003-2VZ C TA                  | 17.00<br>.6693                 | 35.00<br>1.3780 | 10.00<br>.3937 | 3091                         | 6654               | 14       | 4.763<br>.1875 | 96,000**                 | 69,000                      | 34            | 102            | 205           |
| SV7003-2VZ E TA                    | 17.00<br>.6693                 | 35.00<br>1.3780 | 10.00<br>.3937 | 4143                         | 6363               | 14       | 4.763<br>.1875 | 56,000**                 | 46,000                      | 34            | 102            | 205           |
| HYSV7003-2VZ E TA                  | 17.00<br>.6693                 | 35.00<br>1.3780 | 10.00<br>.3937 | 2900                         | 6363               | 14       | 4.763<br>.1875 | 82,000**                 | 59,000                      | 34            | 102            | 205           |
| SV7904A-2VZ C TA                   | 20.00<br>.7874                 | 37.00<br>1.4567 | 9.00<br>.3543  | 3868                         | 5394               | 16       | 3.969<br>.1563 | 70,000                   | 56,000                      | 27            | 81             | 162           |
| HYSV7904A-2VZ C TA                 | 20.00<br>.7874                 | 37.00<br>1.4567 | 9.00<br>.3543  | 2708                         | 5394               | 16       | 3.969<br>.1563 | 105,000                  | 70,000                      | 27            | 81             | 162           |
| SV7005A-2VZ C TA                   | 25.00<br>.9843                 | 47.00<br>1.8504 | 12.00<br>.4724 | 7909                         | 10661              | 17       | 5.556<br>.2187 | 56,000                   | 44,000                      | 53            | 160            | 320           |
| HYSV7005A-2VZ C TA                 | 25.00<br>.9843                 | 47.00<br>1.8504 | 12.00<br>.4724 | 5536                         | 10661              | 17       | 5.556<br>.2187 | 83,000                   | 56,000                      | 53            | 160            | 320           |

\* The indicated speed limits are guide values for spring-loaded single bearings with low load; depending on the respective application, higher or lower speed limits may apply in practice.

\*\* For use with oil lubrication, these bearings are also available without shields. Subject to change due to technical improvement.