

| ID Code |       |
|---------|-------|
| ID Code | ID mm |
| 00      | 10    |
| 01      | 12    |
| 02      | 15    |
| 03      | 17    |
| 04      | 20    |
| /22     | 22    |
| 05      | 25    |
| /28     | 28    |
| 06      | 30    |
| /32     | 32    |
| 07      | 35    |
| .....   | ..... |

**6**

**3**

**08**

**2RS**

**V2**

**P5**

**Size designation:**

0: designate extra light series 60xx  
 2: designate light series 62xx  
 3: designate medium light series 63xx  
 4: designate heavy series 64xx  
 8: designate super light series 64xx  
 9: designate super light series 69xx

**V: Noise & vibration grade**

/V1: Adhere to vibration standard value of V1  
 /V2: Adhere to vibration standard value of V2  
 /V3: Adhere to vibration standard value of V3  
 EMQ: Standard electric motor quality  
 EMQ6: Standard EMQ quiet running  
 EMQ5: Special EMQ exceptionally quiet running

**Tolerance class:**

/P0: Equals tolerance class ABEC1  
 /P6: Equals tolerance class ABEC3  
 /P5: Equals tolerance class ABEC5  
 /P4: Equals tolerance class ABEC7

**Clearance:**

/C2: Less than nominal clearance  
 /C0: Nominal clearance, omitted in designation  
 /C3: Larger clearance, than C0  
 /C4: Larger clearance, than C3  
 /C5: Larger clearance, than C4

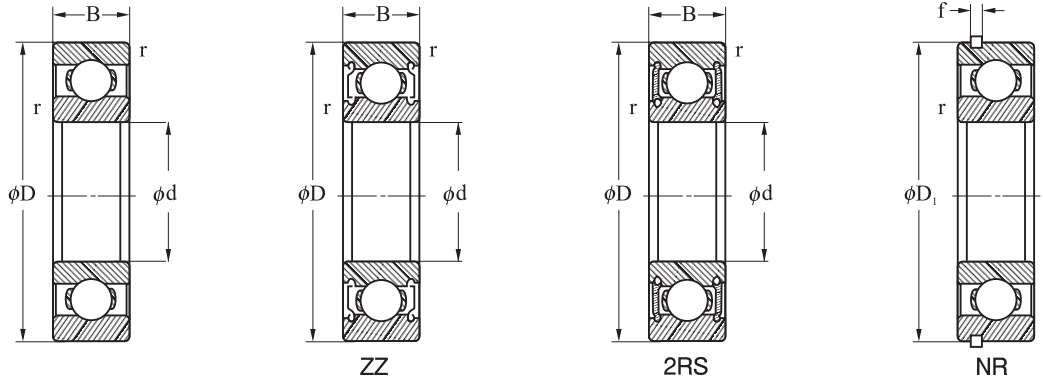
**Working temperature:**

/S0: Working temperature is up to 150 °C  
 /S1: Working temperature is up to 200 °C  
 /S2: Working temperature is up to 250 °C  
 /S3: Working temperature is up to 300 °C  
 /S4: Working temperature is up to 350 °C

**Designs, Types and Features**

- RS: One seal - contact type
- 2RS: Two seal - contact type
- RZ: One non - contact seals
- 2RZ: Two non - contact seals
- Z: One shield
- ZZ: Two shields
- N: Snap ring groove on the outer ring
- M: Solid brass retainer
- NR: W/snap ring on outer ring
- TN: Glass-fiber reinforced nylon cage

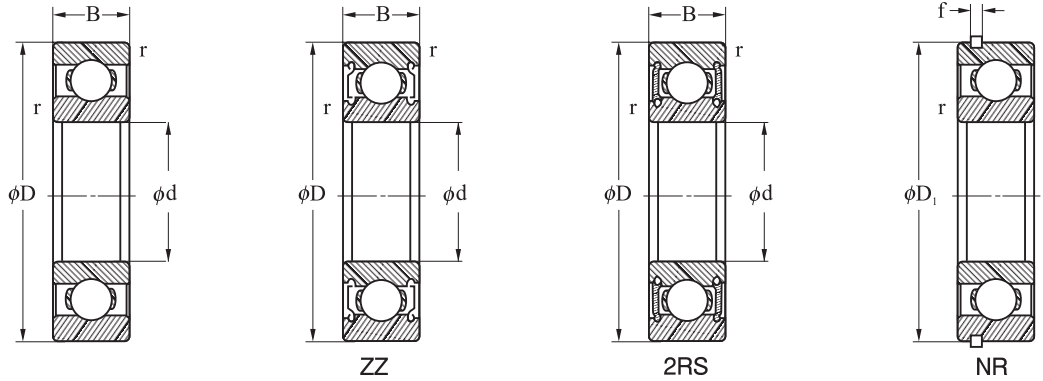
# DEEP GROOVE BALL BEARINGS



| Principal dimensions<br>mm (in) |              |              |                  | Weight<br>kg (lb) | Bearing Number |           |         |             | Basic Load Rating<br>kN (lbf) |              | Limiting Speed<br>(rpm) |       |
|---------------------------------|--------------|--------------|------------------|-------------------|----------------|-----------|---------|-------------|-------------------------------|--------------|-------------------------|-------|
| d                               | D            | B            | r <sub>min</sub> |                   | Open           | W/Shields | W/Seals | W/Snap Ring | Dynamic Cr                    | Static Cor   | Grease                  | Oil   |
| 10<br>0.3937                    | 19<br>0.7480 | 5<br>0.196   | 0.3<br>0.0118    | 0.005<br>0.011    | 6800           | ZZ        | 2RS     |             | 1.65<br>370                   | 0.89<br>200  | 30000                   | 36000 |
|                                 | 22<br>0.8661 | 6<br>0.236   | 0.3<br>0.0118    | 0.009<br>0.020    | 6900           | ZZ        | 2RS     |             | 2.43<br>550                   | 1.22<br>270  | 29000                   | 34000 |
|                                 | 26<br>1.0236 | 8<br>0.314   | 0.3<br>0.0118    | 0.018<br>0.040    | 6000           | ZZ        | 2RS     | NR          | 4.10<br>922                   | 1.88<br>420  | 28000                   | 32000 |
|                                 | 30<br>1.1811 | 9<br>0.354   | 0.6<br>0.0236    | 0.032<br>0.071    | 6200           | ZZ        | 2RS     | NR          | 4.59<br>1030                  | 2.39<br>540  | 24000                   | 29000 |
|                                 | 35<br>1.3779 | 11<br>0.433  | 0.6<br>0.0236    | 0.052<br>0.115    | 6300           | ZZ        | 2RS     | NR          | 7.38<br>1660                  | 3.36<br>760  | 22000                   | 26000 |
|                                 | 12<br>0.4724 | 21<br>0.8267 | 5<br>0.196       | 0.3<br>0.0118     | 0.006<br>0.013 | 6801      | ZZ      | 2RS         |                               | 1.73<br>390  | 1.00<br>230             | 28000 |
| 24<br>0.9448                    |              | 6<br>0.236   | 0.3<br>0.0118    | 0.010<br>0.022    | 6901           | ZZ        | 2RS     |             | 2.60<br>590                   | 1.40<br>320  | 26000                   | 30000 |
| 28<br>1.1023                    |              | 7<br>0.275   | 0.3<br>0.0118    | 0.019<br>0.042    | 16001          | ZZ        | 2RS     |             | 4.59<br>1030                  | 2.29<br>520  | 25000                   | 29000 |
| 28<br>1.1023                    |              | 8<br>0.314   | 0.3<br>0.0118    | 0.022<br>0.049    | 6001           | ZZ        | 2RS     | NR          | 4.59<br>1030                  | 2.29<br>520  | 25000                   | 29000 |
| 32<br>1.2598                    |              | 10<br>0.393  | 0.6<br>0.0236    | 0.037<br>0.082    | 6201           | ZZ        | 2RS     | NR          | 5.49<br>1240                  | 2.75<br>620  | 21000                   | 25000 |
| 37<br>1.4566                    |              | 12<br>0.472  | 1.0<br>0.0394    | 0.060<br>0.132    | 6301           | ZZ        | 2RS     | NR          | 8.73<br>1960                  | 4.03<br>910  | 19000                   | 23000 |
| 15<br>0.5905                    | 24<br>0.9448 | 5<br>0.196   | 0.3<br>0.0118    | 0.007<br>0.015    | 6802           | ZZ        | 2RS     |             | 1.87<br>420                   | 1.21<br>270  | 25000                   | 29000 |
|                                 | 28<br>1.1023 | 7<br>0.275   | 0.3<br>0.0118    | 0.015<br>0.033    | 6902           | ZZ        | 2RS     |             | 3.69<br>830                   | 1.98<br>450  | 23000                   | 27000 |
|                                 | 32<br>1.2598 | 8<br>0.314   | 0.3<br>0.0118    | 0.027<br>0.060    | 16002          | ZZ        | 2RS     |             | 5.04<br>1130                  | 2.73<br>610  | 21000                   | 25000 |
|                                 | 32<br>1.2598 | 9<br>0.354   | 0.3<br>0.0118    | 0.031<br>0.068    | 6002           | ZZ        | 2RS     | NR          | 5.04<br>1130                  | 2.73<br>610  | 21000                   | 25000 |
|                                 | 35<br>1.3779 | 11<br>0.433  | 0.6<br>0.0236    | 0.045<br>0.099    | 6202           | ZZ        | 2RS     | NR          | 6.98<br>1570                  | 3.60<br>810  | 18000                   | 22000 |
|                                 | 42<br>1.6535 | 13<br>0.511  | 1.0<br>0.0394    | 0.083<br>0.183    | 6302           | ZZ        | 2RS     | NR          | 10.26<br>2310                 | 5.23<br>1180 | 16000                   | 20000 |
| 17<br>0.6692                    | 26<br>1.0236 | 5<br>0.196   | 0.3<br>0.0118    | 0.007<br>0.015    | 6803           | ZZ        | 2RS     |             | 2.53<br>570                   | 1.65<br>370  | 23000                   | 27000 |
|                                 | 30<br>1.1811 | 7<br>0.275   | 0.3<br>0.0118    | 0.017<br>0.037    | 6903           | ZZ        | 2RS     |             | 4.46<br>1000                  | 2.48<br>560  | 21000                   | 25000 |
|                                 | 35<br>1.3779 | 8<br>0.314   | 0.3<br>0.0118    | 0.033<br>0.073    | 1603           | ZZ        | 2RS     |             | 6.12<br>1380                  | 3.22<br>720  | 19000                   | 23000 |
|                                 | 35<br>1.3779 | 10<br>0.393  | 0.3<br>0.0118    | 0.041<br>0.090    | 6003           | ZZ        | 2RS     | NR          | 6.12<br>1380                  | 3.22<br>720  | 19000                   | 23000 |
|                                 | 40<br>1.5748 | 12<br>0.472  | 0.6<br>0.0236    | 0.067<br>0.148    | 6203           | ZZ        | 2RS     | NR          | 8.64<br>1940                  | 4.60<br>1040 | 17000                   | 20000 |
|                                 | 47<br>1.8503 | 14<br>0.551  | 1.0<br>0.0394    | 0.113<br>0.249    | 6303           | ZZ        | 2RS     | NR          | 12.15<br>2730                 | 6.29<br>1420 | 15000                   | 18000 |
| 20<br>0.7874                    | 32<br>1.2598 | 7<br>0.275   | 0.3<br>0.0118    | 0.017<br>0.037    | 6804           | ZZ        | 2RS     |             | 3.60<br>810                   | 2.37<br>530  | 20000                   | 24000 |
|                                 | 37<br>1.4566 | 9<br>0.354   | 0.3<br>0.0118    | 0.037<br>0.082    | 6904           | ZZ        | 2RS     |             | 5.76<br>1300                  | 3.55<br>800  | 18000                   | 22000 |
|                                 | 42<br>1.6535 | 8<br>0.314   | 0.3<br>0.0118    | 0.048<br>0.106    | 16004          | ZZ        | 2RS     |             | 7.11<br>1600                  | 4.32<br>970  | 17000                   | 20000 |
|                                 | 42<br>1.6535 | 12<br>0.472  | 0.6<br>0.0236    | 0.068<br>0.150    | 6004           | ZZ        | 2RS     | NR          | 8.46<br>1900                  | 4.85<br>1090 | 17000                   | 20000 |
|                                 | 47<br>1.8503 | 14<br>0.551  | 1.0<br>0.0394    | 0.107<br>0.236    | 6204           | ZZ        | 2RS     | NR          | 11.52<br>2590                 | 6.65<br>1500 | 15000                   | 17000 |
|                                 | 52<br>2.0472 | 15<br>0.590  | 1.1<br>0.0433    | 0.145<br>0.320    | 6304           | ZZ        | 2RS     | NR          | 14.31<br>3220                 | 7.58<br>1710 | 13000                   | 16000 |
| 22<br>0.8661                    | 44<br>1.7322 | 12<br>0.472  | 0.6<br>0.0236    | 0.074<br>0.163    | 60/22          | ZZ        | 2RS     |             | 8.46<br>1900                  | 4.85<br>1090 | 16000                   | 19000 |
|                                 | 50<br>1.9685 | 14<br>0.551  | 1.0<br>0.0394    | 0.119<br>0.262    | 62/22          | ZZ        | 2RS     |             | 11.61<br>2610                 | 5.84<br>1310 | 13000                   | 16000 |
|                                 | 56<br>2.2047 | 16<br>0.629  | 1.1<br>0.0433    | 0.179<br>0.395    | 63/22          | ZZ        | 2RS     |             | 16.56<br>3730                 | 8.88<br>2000 | 12000                   | 14000 |
| 25<br>0.9842                    | 37<br>1.4566 | 7<br>0.275   | 0.3<br>0.0118    | 0.021<br>0.046    | 6805           | ZZ        | 2RS     |             | 3.87<br>870                   | 2.83<br>640  | 17000                   | 20000 |
|                                 | 42<br>1.6535 | 9<br>0.354   | 0.3<br>0.0118    | 0.042<br>0.093    | 6905           | ZZ        | 2RS     |             | 6.35<br>1430                  | 4.37<br>980  | 15000                   | 18000 |
|                                 | 47<br>1.8503 | 8<br>0.314   | 0.3<br>0.0118    | 0.059<br>0.130    | 16005          | ZZ        | 2RS     |             | 7.52<br>1690                  | 4.90<br>1100 | 14000                   | 17000 |
|                                 | 47<br>1.8503 | 12<br>0.472  | 0.6<br>0.0236    | 0.079<br>0.174    | 6005           | ZZ        | 2RS     | NR          | 9.09<br>2050                  | 5.62<br>1260 | 14000                   | 17000 |

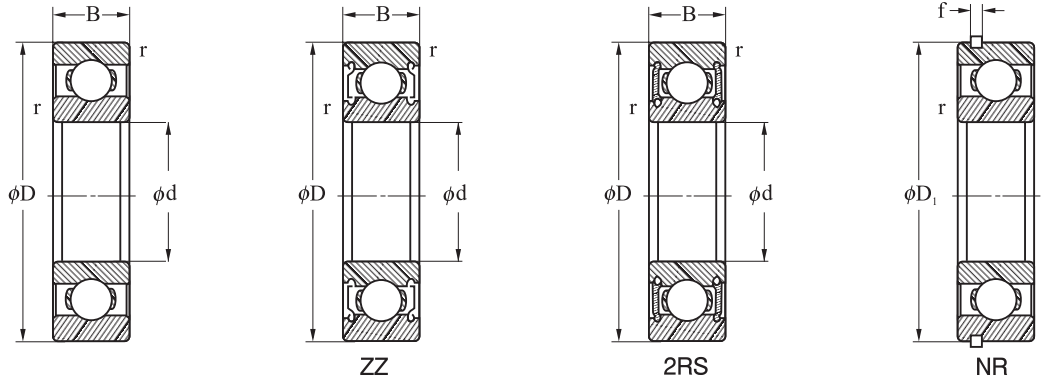


# DEEP GROOVE BALL BEARINGS



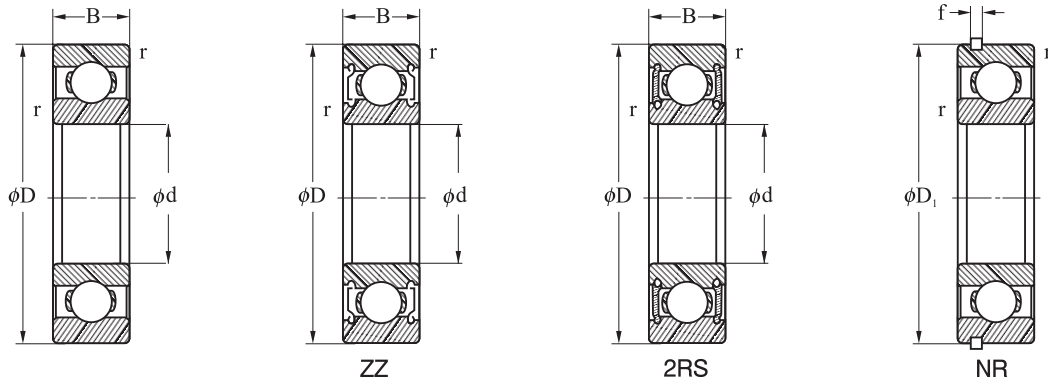
| Principal dimensions<br>mm (in) |               |              |                  | Weight<br>kg (lb) | Bearing Number |           |         |             | Basic Load Rating<br>kN (lbf) |               | Limiting Speed<br>(rpm) |       |  |
|---------------------------------|---------------|--------------|------------------|-------------------|----------------|-----------|---------|-------------|-------------------------------|---------------|-------------------------|-------|--|
| d                               | D             | B            | r <sub>min</sub> |                   | Open           | W/Shields | W/Seals | W/Snap Ring | Dynamic Cr                    | Static Cor    | Grease                  | Oil   |  |
| 25<br>0.9842                    | 52<br>2.0472  | 15<br>0.5905 | 1.0<br>0.039     | 0.129<br>0.284    | 6205           | ZZ        | 2RS     | NR          | 12.60<br>2840                 | 7.54<br>1700  | 12000                   | 14000 |  |
|                                 | 62<br>2.4409  | 17<br>0.6692 | 1.1<br>0.043     | 0.235<br>0.518    | 6305           | ZZ        | 2RS     | NR          | 19.08<br>4290                 | 10.46<br>2350 | 11000                   | 13000 |  |
|                                 | 68<br>2.6771  | 18<br>0.7086 | 1.1<br>0.043     | 0.287<br>0.633    |                |           |         |             |                               |               |                         |       |  |
| 28<br>1.1023                    | 52<br>2.0472  | 12<br>0.4724 | 0.6<br>0.023     | 0.096<br>0.212    | 60/28          | ZZ        | 2RS     | NR          | 11.25<br>2530                 | 7.10<br>1600  | 13000                   | 15000 |  |
|                                 | 58<br>2.2834  | 16<br>0.6299 | 1.0<br>0.039     | 0.175<br>0.386    | 62/28          | ZZ        | 2RS     | NR          | 16.11<br>3620                 | 9.36<br>2110  | 11000                   | 13000 |  |
|                                 | 68<br>2.6771  | 18<br>0.7086 | 1.1<br>0.043     | 0.287<br>0.633    | 63/28          | ZZ        | 2RS     | NR          | 24.03<br>5410                 | 13.44<br>3020 | 10000                   | 12000 |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 30<br>1.1811                    | 42<br>1.6535  | 7<br>0.2755  | 0.3<br>0.011     | 0.024<br>0.053    | 6806           | ZZ        | 2RS     |             | 4.23<br>950                   | 3.50<br>790   | 14000                   | 17000 |  |
|                                 | 47<br>1.8503  | 9<br>0.3543  | 0.3<br>0.011     | 0.052<br>0.115    | 6906           | ZZ        | 2RS     |             | 6.53<br>1470                  | 4.80<br>1080  | 13000                   | 16000 |  |
|                                 | 55<br>2.1653  | 9<br>0.3543  | 0.3<br>0.011     | 0.087<br>0.192    | 16006          | ZZ        | 2RS     |             | 10.08<br>2270                 | 7.06<br>1590  | 12000                   | 14000 |  |
|                                 | 55<br>2.1653  | 13<br>0.5118 | 1.0<br>0.039     | 0.116<br>0.256    | 6006           | ZZ        | 2RS     | NR          | 11.88<br>2670                 | 7.97<br>1790  | 12000                   | 14000 |  |
|                                 | 62<br>2.4409  | 16<br>0.6299 | 1.0<br>0.039     | 0.199<br>0.439    | 6206           | ZZ        | 2RS     | NR          | 17.55<br>3950                 | 10.85<br>2440 | 10000                   | 12000 |  |
|                                 | 72<br>2.8346  | 19<br>0.7480 | 1.1<br>0.043     | 0.345<br>0.766    | 6306           | ZZ        | 2RS     | NR          | 24.03<br>5410                 | 14.40<br>3240 | 9500                    | 11000 |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 32<br>1.2598                    | 58<br>2.2834  | 13<br>0.5118 | 1.0<br>0.039     | 0.122<br>0.269    | 60/32          | ZZ        | 2RS     |             | 13.59<br>3060                 | 8.78<br>1780  | 11000                   | 14000 |  |
|                                 | 65<br>2.5590  | 17<br>0.6692 | 1.0<br>0.039     | 0.225<br>0.496    | 62/32          | ZZ        | 2RS     |             | 18.63<br>4190                 | 11.14<br>2510 | 10000                   | 11000 |  |
|                                 | 75<br>2.9527  | 20<br>0.7874 | 1.1<br>0.043     | 0.389<br>0.858    | 63/32          | ZZ        | 2RS     | NR          | 26.82<br>6030                 | 16.22<br>3650 | 9000                    | 10000 |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 35<br>1.3779                    | 47<br>1.8503  | 7<br>0.2755  | 0.3<br>0.011     | 0.027<br>0.060    | 6807           | ZZ        | 2RS     |             | 4.41<br>990                   | 3.89<br>880   | 12000                   | 15000 |  |
|                                 | 55<br>2.1653  | 10<br>0.3937 | 0.6<br>0.023     | 0.075<br>0.165    | 6907           | ZZ        | 2RS     |             | 10.08<br>2270                 | 7.15<br>1610  | 11000                   | 14000 |  |
|                                 | 62<br>2.4409  | 9<br>0.3543  | 0.3<br>0.011     | 0.107<br>0.236    | 16007          | ZZ        | 2RS     |             | 10.53<br>2370                 | 7.87<br>1770  | 11000                   | 13000 |  |
|                                 | 62<br>2.4409  | 14<br>0.5511 | 1.0<br>0.039     | 0.151<br>0.333    | 6007           | ZZ        | 2RS     | NR          | 14.40<br>3240                 | 9.89<br>2230  | 11000                   | 13000 |  |
|                                 | 72<br>2.8346  | 17<br>0.6692 | 1.1<br>0.043     | 0.284<br>0.626    | 6207           | ZZ        | 2RS     | NR          | 23.13<br>5200                 | 14.69<br>3310 | 9300                    | 10000 |  |
|                                 | 80<br>3.1496  | 41<br>1.6141 | 1.5<br>0.059     | 0.464<br>1.023    | 6307           | ZZ        | 2RS     | NR          | 30.15<br>6780                 | 18.34<br>4130 | 8400                    | 9500  |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 40<br>1.5748                    | 52<br>2.0472  | 7<br>0.2755  | 0.3<br>0.011     | 0.031<br>0.068    | 6808           | ZZ        | 2RS     |             | 4.59<br>1030                  | 4.22<br>950   | 11000                   | 13000 |  |
|                                 | 62<br>2.4409  | 12<br>0.4724 | 0.6<br>0.023     | 0.112<br>0.247    | 6908           | ZZ        | 2RS     |             | 13.14<br>2960                 | 9.79<br>2200  | 10000                   | 12000 |  |
|                                 | 68<br>2.6771  | 9<br>0.3543  | 0.3<br>0.011     | 0.130<br>0.287    | 16008          | ZZ        | 2RS     |             | 11.34<br>2550                 | 9.26<br>2080  | 9500                    | 11000 |  |
|                                 | 68<br>2.6771  | 15<br>0.5905 | 1.0<br>0.039     | 0.190<br>0.419    | 6008           | ZZ        | 2RS     | NR          | 15.12<br>3400                 | 11.04<br>2480 | 9500                    | 11000 |  |
|                                 | 80<br>3.1496  | 18<br>0.7086 | 1.1<br>0.043     | 0.366<br>0.807    | 6208           | ZZ        | 2RS     | NR          | 26.19<br>5890                 | 17.09<br>3850 | 8300                    | 9500  |  |
|                                 | 90<br>3.5433  | 23<br>0.9055 | 1.5<br>0.059     | 0.636<br>1.402    | 6308           | ZZ        | 2RS     | NR          | 36.45<br>8200                 | 23.04<br>5180 | 7400                    | 8700  |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 45<br>1.7716                    | 58<br>2.2834  | 7<br>0.2755  | 0.3<br>0.011     | 0.038<br>0.084    | 6809           | ZZ        | 2RS     |             | 5.76<br>1300                  | 5.42<br>1220  | 10000                   | 11000 |  |
|                                 | 68<br>2.6771  | 12<br>0.4724 | 0.6<br>0.023     | 0.126<br>0.278    | 6909           | ZZ        | 2RS     |             | 13.59<br>3060                 | 10.75<br>2420 | 9300                    | 11000 |  |
|                                 | 75<br>2.9527  | 10<br>0.3937 | 0.6<br>0.023     | 0.167<br>0.368    | 16009          | ZZ        | 2RS     |             | 11.61<br>2610                 | 10.08<br>2270 | 8700                    | 10000 |  |
|                                 | 75<br>2.9527  | 16<br>0.6299 | 1.0<br>0.039     | 0.241<br>0.531    | 6009           | ZZ        | 2RS     | NR          | 18.90<br>4250                 | 14.50<br>3260 | 8700                    | 10000 |  |
|                                 | 85<br>3.3464  | 19<br>0.7480 | 1.1<br>0.043     | 0.420<br>0.926    | 6209           | ZZ        | 2RS     | NR          | 29.25<br>6580                 | 19.58<br>4410 | 7400                    | 8700  |  |
|                                 | 100<br>3.9370 | 25<br>0.9842 | 1.5<br>0.059     | 0.829<br>1.828    | 6309           | ZZ        | 2RS     | NR          | 47.70<br>10730                | 30.72<br>6910 | 6700                    | 7800  |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |
| 50<br>1.9685                    | 65<br>2.5590  | 7<br>0.2755  | 0.3<br>0.011     | 0.050<br>0.110    | 6810           | ZZ        | 2RS     |             | 5.94<br>1340                  | 5.86<br>1320  | 9100                    | 10000 |  |
|                                 | 72<br>2.8346  | 12<br>0.4724 | 0.6<br>0.023     | 0.135<br>0.298    | 6910           | ZZ        | 2RS     |             | 14.04<br>3160                 | 11.71<br>2630 | 8500                    | 10000 |  |
|                                 | 80<br>3.1496  | 10<br>0.3937 | 0.6<br>0.023     | 0.175<br>0.386    | 16010          | ZZ        | 2RS     |             | 11.88<br>2670                 | 10.85<br>2440 | 8000                    | 9300  |  |
|                                 | 80<br>3.1496  | 16<br>0.6299 | 1.0<br>0.039     | 0.261<br>0.576    | 6010           | ZZ        | 2RS     | NR          | 19.62<br>4410                 | 15.94<br>3590 | 8000                    | 9300  |  |
|                                 |               |              |                  |                   |                |           |         |             |                               |               |                         |       |  |

# DEEP GROOVE BALL BEARINGS



| Principal dimensions<br>mm (in) |               |               |                  | Weight<br>kg (lb)  | Bearing Number   |   |         |             | Basic Load Rating<br>kN (lbf)  |   | Limiting Speed<br>(rpm)  |   |      |      |   |  |      |      |
|---------------------------------|---------------|---------------|------------------|--|--|---|---------|-------------|--|---|--|---|------|------|---|--|------|------|
| d                               | D             | B             | r <sub>min</sub> |  | Open   | W/Shields   | W/Seals | W/Snap Ring | Dynamic Cr   | Static Cor  | Grease   | Oil   |      |      |   |  |      |      |
| 50<br>1.9685                    | 90<br>3.5433  | 20<br>0.7874  | 1.1<br>0.043     | 0.459<br>1.012<br>1.060  | 6210   | ZZ  | 2RS     | NR          | 31.50<br>790<br>55.80<br>12560   | 22.37<br>5030<br>36.96<br>8320  | 6700   | 7900  |      |      |   |  |      |      |
|                                 | 110<br>4.3307 | 27<br>1.0629  | 2.0<br>0.079     |  | 6310   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 125<br>4.9212 | 33<br>1.2992  | 2.1<br>0.083     |  | 6410   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 55<br>2.1653                    | 72<br>2.8346  | 9<br>0.3543   | 0.3<br>0.012     | 0.081<br>0.179<br>0.189<br>0.417<br>0.257<br>0.557<br>0.381<br>0.840<br>0.619<br>1.365<br>1.370<br>3.021 | 6811   | ZZ  | 2RS     |             | 7.92<br>1780<br>14.40<br>3240<br>16.74<br>3770<br>25.47<br>5730<br>39.15<br>8810<br>64.35<br>14480   | 7.78<br>1750<br>12.77<br>2870<br>14.69<br>3310<br>20.35<br>4580<br>28.03<br>3610<br>43.20<br>9720   | 8300   | 9500  |      |      |   |  |      |      |
|                                 | 80<br>3.1496  | 13<br>0.5118  | 1.0<br>0.039     |  | 6911   | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 90<br>3.5433  | 11<br>0.4330  | 0.6<br>0.024     |  | 16011  | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 90<br>3.5433  | 18<br>0.7086  | 1.1<br>0.043     |  | 6011   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 100<br>3.9370 | 21<br>0.8267  | 1.5<br>0.059     |  | 6211   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 120<br>4.7244 | 29<br>1.1417  | 2.0<br>0.079     |  | 6311   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 60<br>2.3622                    | 78<br>3.0708  | 10<br>0.3937  | 0.3<br>0.012     | 0.103<br>0.227<br>0.192<br>0.423<br>0.281<br>0.620<br>0.412<br>0.908<br>0.783<br>1.727<br>1.720<br>3.793 | 6812   | ZZ  | 2RS     |             | 10.35<br>2330<br>14.76<br>3320<br>18.00<br>4050<br>26.55<br>5970<br>47.25<br>10630<br>73.80<br>16610 | 10.18<br>2290<br>13.73<br>3090<br>16.80<br>3780<br>22.27<br>5010<br>34.56<br>7780<br>49.92<br>11230 | 7600   | 8900  |      |      |   |  |      |      |
|                                 | 85<br>3.3464  | 13<br>0.5118  | 1.0<br>0.039     |  | 6912   | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 95<br>3.7401  | 11<br>0.4330  | 0.6<br>0.024     |  | 16012  | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 95<br>3.7401  | 18<br>0.7086  | 1.1<br>0.043     |  | 6012   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 110<br>4.3307 | 22<br>0.8661  | 1.5<br>0.059     |  | 6212   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 130<br>5.1181 | 31<br>1.2204  | 2.1<br>0.083     |  | 6312   | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 65<br>2.5590  | 85<br>3.3464  | 10<br>0.3937     |  | 0.6<br>0.024   | 0.128<br>0.282<br>0.218<br>0.481<br>0.300<br>0.662<br>0.439<br>0.968<br>1.000<br>2.205<br>2.110<br>4.653  | 6813    | ZZ          |  |   |  |   | 2RS  |      | 10.44<br>2350<br>15.66<br>3520<br>18.45<br>4150<br>27.45<br>6180<br>51.75<br>11640<br>83.25<br>18730  | 10.56<br>2370<br>15.46<br>3480<br>17.95<br>4040<br>24.19<br>5470<br>38.40<br>8640<br>57.60<br>12960  | 7000 | 8300 |
|                                 |               | 90<br>3.5433  | 13<br>0.5118     |  | 1.0<br>0.039   |   | 6913    | ZZ          |  |   |  |   | 2RS  |      |   |  |      |      |
| 100<br>3.9370                   |               | 11<br>0.4330  | 0.6<br>0.024     | 16013  | ZZ   |   | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
| 100<br>3.9370                   |               | 18<br>0.7086  | 1.1<br>0.043     | 6013   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 120<br>4.7244                   |               | 23<br>0.9055  | 1.5<br>0.059     | 6213   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 140<br>5.5118                   |               | 33<br>1.2992  | 2.1<br>0.083     | 6313   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 70<br>2.7559                    |               | 90<br>3.5433  | 10<br>0.3937     | 0.6<br>0.024   | 0.134<br>0.295<br>0.349<br>0.770<br>0.441<br>0.972<br>0.608<br>1.341<br>1.090<br>2.403<br>2.570<br>5.667 |   | 6814    | ZZ          | 2RS  |   | 10.89<br>2450<br>21.33<br>4800<br>21.96<br>4940<br>34.20<br>7700<br>55.80<br>12560<br>93.60<br>21060 | 11.42<br>2570<br>20.35<br>4580<br>21.70<br>4880<br>29.76<br>6700<br>42.24<br>9500<br>65.28<br>14690 | 6600 | 7700 |   |  |      |      |
|                                 |               | 100<br>3.9370 | 16<br>0.6299     | 1.0<br>0.039   |  |   | 6914    | ZZ          | 2RS  |   |  |   |      |      |   |  |      |      |
|                                 | 110<br>4.3307 | 13<br>0.5118  | 0.6<br>0.024     | 16014  |  | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 110<br>4.3307 | 20<br>0.7874  | 1.1<br>0.043     | 6014   |  | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 125<br>4.9212 | 24<br>0.9448  | 1.5<br>0.059     | 6214   |  | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 150<br>5.9055 | 35<br>1.3779  | 2.1<br>0.083     | 6314   |  | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
|                                 | 75<br>2.9527  | 95<br>3.7401  | 10<br>0.3937     | 0.6<br>0.024   |  | 0.149<br>0.0329<br>0.364<br>0.803<br>0.463<br>1.021<br>0.649<br>1.431<br>1.190<br>2.624<br>3.080<br>6.791 | 6815    | ZZ          | 2RS  |   |  |   |      |      | 11.25<br>2530<br>21.96<br>4940<br>22.50<br>5060<br>35.55<br>8000<br>59.40<br>13370<br>101.70<br>22880 | 12.38<br>2790<br>21.70<br>4880<br>23.04<br>5180<br>32.16<br>7240<br>47.52<br>10690<br>73.92<br>16630 | 6100 | 7200 |
|                                 |               | 105<br>4.1338 | 16<br>0.6299     | 1.0<br>0.039   |  |   | 6915    | ZZ          | 2RS  |   |  |   |      |      |   |  |      |      |
| 115<br>4.5275                   |               | 13<br>0.5118  | 0.6<br>0.024     | 16015  | ZZ   |   | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
| 115<br>4.5275                   |               | 20<br>0.7874  | 1.1<br>0.043     | 6015   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 130<br>5.1181                   |               | 25<br>0.9842  | 1.5<br>0.059     | 6215   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 160<br>6.2992                   |               | 37<br>1.4566  | 2.1<br>0.083     | 6315   | ZZ   |   | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |
| 80<br>3.1496                    |               | 100<br>3.9370 | 10<br>0.3937     | 0.6<br>0.024   | 0.051<br>0.333<br>0.391<br>0.862<br>0.621<br>1.369<br>0.872<br>1.923                                     |   | 6816    | ZZ          | 2RS  |   | 11.43<br>2570<br>22.41<br>5040<br>22.86<br>5140<br>42.75<br>9620                                     | 12.77<br>2870<br>23.04<br>5180<br>24.10<br>5420<br>38.40<br>8640                                    | 5700 | 6700 |   |  |      |      |
|                                 |               | 110<br>4.3307 | 16<br>0.6299     | 1.0<br>0.039   |  |   | 6916    | ZZ          | 2RS  |   |  |   |      |      |   |  |      |      |
|                                 | 125<br>4.9212 | 14<br>0.5511  | 0.6<br>0.024     | 16016  |  | ZZ  | 2RS     |             |  |   |  |   |      |      |   |  |      |      |
|                                 | 125<br>4.9212 | 22<br>0.8661  | 1.1<br>0.043     | 6016   |  | ZZ  | 2RS     | NR          |  |   |  |   |      |      |   |  |      |      |

# DEEP GROOVE BALL BEARINGS



| Principal dimensions<br>mm (in) |                |              |                  | Weight<br>kg (lb) | Bearing Number |           |         |             | Basic Load Rating<br>kN (lbf) |                 | Limiting Speed<br>(rpm) |      |
|---------------------------------|----------------|--------------|------------------|-------------------|----------------|-----------|---------|-------------|-------------------------------|-----------------|-------------------------|------|
| d                               | D              | B            | r <sub>min</sub> |                   | Open           | W/Shields | W/Seals | W/Snap Ring | Dynamic Cr                    | Static Cor      | Grease                  | Oil  |
| 80<br>3.1496                    | 140<br>5.5118  | 26<br>1.0236 | 2.0<br>0.079     | 1.420<br>3.131    | 6216           | ZZ        | 2RS     | NR          | 65.25<br>14680                | 60.48<br>13610  | 4300                    | 5000 |
|                                 | 170<br>6.6929  | 39<br>1.5354 | 2.1<br>0.083     | 3.670<br>8.092    | 6316           | ZZ        | 2RS     | NR          | 110.70<br>24910               | 83.04<br>18680  | 3800                    | 4500 |
|                                 | 110<br>4.3307  | 13<br>0.5118 | 1.0<br>0.039     | 0.263<br>0.580    | 6817           | ZZ        | 2RS     |             | 16.83<br>3790                 | 18.24<br>4100   | 5400                    | 6400 |
| 85<br>3.3464                    | 120<br>4.7244  | 18<br>0.7086 | 1.1<br>0.043     | 0.550<br>1.213    | 6917           | ZZ        | 2RS     |             | 28.80<br>6480                 | 28.42<br>6390   | 5100                    | 6000 |
|                                 | 130<br>5.1181  | 14<br>0.5511 | 0.6<br>0.024     | 0.652<br>1.438    | 16017          | ZZ        | 2RS     |             | 23.31<br>5240                 | 25.15<br>5660   | 4800                    | 5600 |
|                                 | 130<br>5.1181  | 22<br>0.8661 | 1.1<br>0.043     | 0.918<br>2.024    | 6017           | ZZ        | 2RS     | NR          | 44.55<br>10020                | 41.28<br>9290   | 4800                    | 5600 |
|                                 | 150<br>5.9055  | 28<br>1.1023 | 2.0<br>0.079     | 1.760<br>3.881    | 6217           | ZZ        | 2RS     | NR          | 75.15<br>16910                | 61.44<br>13820  | 4000                    | 4800 |
|                                 | 180<br>7.0866  | 41<br>1.6141 | 3.0<br>0.118     | 4.280<br>9.437    | 6317           | ZZ        | 2RS     | NR          | 119.70<br>26930               | 93.12<br>20950  | 3600                    | 4300 |
|                                 | 115<br>4.5275  | 13<br>0.5118 | 1.0<br>0.039     | 0.276<br>0.609    | 6818           | ZZ        | 2RS     |             | 17.10<br>3850                 | 18.91<br>4250   | 5100                    | 6000 |
|                                 | 125<br>4.9212  | 18<br>0.7086 | 1.1<br>0.043     | 0.585<br>1.290    | 6918           | ZZ        | 2RS     |             | 29.70<br>6680                 | 30.24<br>6800   | 4800                    | 5700 |
| 90<br>3.5433                    | 140<br>5.5118  | 16<br>0.6299 | 1.0<br>0.039     | 0.873<br>1.925    | 16018          | ZZ        | 2RS     |             | 30.15<br>6780                 | 32.16<br>7240   | 4500                    | 5300 |
|                                 | 140<br>5.5118  | 24<br>0.9448 | 1.5<br>0.059     | 1.190<br>2.624    | 6018           | ZZ        | 2RS     | NR          | 52.20<br>11750                | 47.52<br>10690  | 4500                    | 5300 |
|                                 | 160<br>6.2992  | 30<br>1.1811 | 2.0<br>0.079     | 2.180<br>4.807    | 6218           | ZZ        | 2RS     | NR          | 86.40<br>19440                | 68.64<br>15440  | 3800                    | 4500 |
|                                 | 190<br>7.4803  | 43<br>1.6929 | 3.0<br>0.118     | 4.980<br>10.981   | 6318           | ZZ        | 2RS     | NR          | 128.70<br>28960               | 102.72<br>23110 | 3400                    | 4000 |
|                                 | 120<br>4.7244  | 13<br>0.5118 | 1.0<br>0.039     | 0.297<br>0.655    | 6819           | ZZ        | 2RS     |             | 17.37<br>3910                 | 19.68<br>4430   | 4800                    | 5600 |
|                                 | 130<br>5.1181  | 18<br>0.7086 | 1.1<br>0.043     | 0.601<br>1.325    | 6919           | ZZ        | 2RS     |             | 30.15<br>6780                 | 32.16<br>7240   | 4600                    | 5400 |
|                                 | 145<br>5.7086  | 16<br>0.6299 | 1.0<br>0.039     | 0.904<br>1.993    | 16019          | ZZ        | 2RS     |             | 31.05<br>6990                 | 33.60<br>7560   | 4300                    | 5000 |
| 95<br>3.7401                    | 145<br>5.7086  | 24<br>0.9448 | 1.5<br>0.059     | 1.230<br>2.712    | 6019           | ZZ        | 2RS     | NR          | 54.45<br>12250                | 51.84<br>11670  | 4300                    | 5000 |
|                                 | 170<br>6.6929  | 32<br>1.2598 | 2.1<br>0.083     | 2.640<br>5.821    | 6219           | ZZ        | 2RS     | NR          | 98.10<br>22070                | 78.72<br>17710  | 3500                    | 4200 |
|                                 | 200<br>7.8740  | 45<br>1.7716 | 3.0<br>0.118     | 5.760<br>12.701   | 6319           | ZZ        | 2RS     | NR          | 137.70<br>30980               | 114.24<br>25700 | 3100                    | 3700 |
|                                 | 125<br>4.9212  | 13<br>0.5118 | 1.0<br>0.039     | 0.310<br>0.684    | 6820           | ZZ        | 2RS     | NR          | 17.64<br>3970                 | 20.35<br>4580   | 4600                    | 5300 |
|                                 | 140<br>5.5118  | 20<br>0.7874 | 1.1<br>0.043     | 0.828<br>1.826    | 6920           | ZZ        | 2RS     | NR          | 36.90<br>8300                 | 37.92<br>8530   | 4300                    | 5000 |
|                                 | 150<br>5.9055  | 24<br>0.9448 | 1.5<br>0.059     | 1.290<br>2.844    | 6020           | ZZ        | 2RS     | NR          | 54.00<br>12150                | 51.84<br>11660  | 4000                    | 4800 |
|                                 | 180<br>7.0866  | 34<br>1.3385 | 2.1<br>0.083     | 3.170<br>6.990    | 6220           | ZZ        | 2RS     | NR          | 109.80<br>24710               | 89.28<br>20090  | 3300                    | 4000 |
| 100<br>3.9370                   | 215<br>8.4645  | 47<br>1.8503 | 3.0<br>0.118     | 7.040<br>15.523   | 6320           | ZZ        | 2RS     | NR          | 155.70<br>35030               | 135.36<br>30460 | 3000                    | 3500 |
|                                 | 160<br>6.2992  | 26<br>1.0236 | 2.0<br>0.079     | 1.590<br>3.506    | 6021           | ZZ        | 2RS     | NR          | 72.50<br>16310                | 65.50<br>14730  | 4000                    | 4700 |
|                                 | 190<br>7.4803  | 36<br>1.4173 | 2.1<br>0.083     | 3.700<br>8.159    | 6221           | ZZ        | 2RS     | NR          | 133.00<br>29930               | 105.00<br>23630 | 3400                    | 4000 |
|                                 | 225<br>8.8582  | 49<br>1.9291 | 3.0<br>0.118     | 8.050<br>17.750   | 6321           | ZZ        | 2RS     |             | 184.00<br>41400               | 153.00<br>34430 | 3000                    | 3600 |
|                                 | 170<br>6.6929  | 28<br>1.1023 | 2.0<br>0.079     | 1.960<br>4.322    | 6022           | ZZ        | 2RS     | NR          | 82.00<br>18450                | 73.00<br>16430  | 3800                    | 4500 |
|                                 | 200<br>7.8740  | 38<br>1.4960 | 2.1<br>0.083     | 4.360<br>9.614    | 6222           | ZZ        | 2RS     | NR          | 144.00<br>32400               | 117.00<br>26330 | 3200                    | 3800 |
|                                 | 240<br>9.4488  | 50<br>1.9685 | 3.0<br>0.118     | 9.540<br>21.036   | 6322           | ZZ        | 2RS     |             | 205.00<br>46130               | 179.00<br>40280 | 2900                    | 3400 |
| 120<br>4.7244                   | 180<br>7.0866  | 28<br>1.1023 | 2.0<br>0.079     | 2.070<br>4.564    | 6024           | ZZ        | 2RS     | NR          | 85.00<br>19130                | 79.50<br>17890  | 4500                    | 4100 |
|                                 | 215<br>8.4645  | 40<br>1.5748 | 2.1<br>0.083     | 5.150<br>11.356   | 6224           | ZZ        | 2RS     |             | 155.00<br>34880               | 131.00<br>29480 | 2900                    | 3400 |
|                                 | 260<br>10.2362 | 55<br>2.1653 | 3.0<br>0.118     | 12.40<br>27.342   | 6324           |           |         |             | 207.00<br>46580               | 185.00<br>41630 | 2600                    | 3100 |
|                                 | 200<br>7.8740  | 33<br>1.2992 | 2.0<br>0.079     | 3.160<br>6.968    | 6026           | ZZ        | 2RS     | NR          | 106.00<br>23850               | 101.00<br>22730 | 3200                    | 3800 |
| 130<br>5.1181                   | 230<br>9.0551  | 40<br>1.5748 | 3.0<br>0.118     | 5.820<br>12.833   | 6226           |           |         |             | 167.00<br>37580               | 146.00<br>32850 | 2700                    | 3100 |
|                                 | 280<br>11.0236 | 58<br>2.2834 | 4.0<br>0.157     | 15.30<br>33.737   | 6326           |           |         |             | 229.00<br>51530               | 214.00<br>48150 | 2400                    | 2800 |