

DPI®



Thrust Ball Bearings

Thrust Ball Bearings

Thrust ball bearings are divided into two types:

1. Single Direction Thrust Bearings

These can accommodate axial load in one direction.

2. Double Direction Thrust Bearings

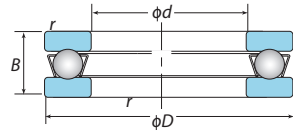
These can accommodate axial load in both directions.

Thrust bearings are not suitable for applications which require high speed or radial load.

The standard cages used are pressed steel cages or with copper alloy machined cage and in some cases also have molded cages.

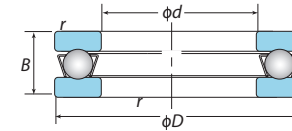
For details on boundary dimensions and specifications please refer to the tables overleaf.

Single Direction Thrust Ball Bearings



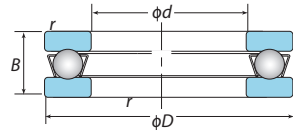
| BEARING NUMBER | GOCT | NOMINAL DIMENSIONS [mm] | | | | LOAD RATING(kN) | | LIMITING SPEED(RPM) | | WEIGHT KG |
|----------------|------|-------------------------|-----|----|-----|-----------------|--------|---------------------|--------|-----------|
| | | d | D | T | r | Dynamic | Static | Oil | Grease | |
| 51100 | 8100 | 10 | 24 | 9 | 0.3 | 10.00 | 14.00 | 6500 | 10000 | 0.020 |
| 51101 | 8101 | 12 | 26 | 9 | 0.3 | 10.30 | 15.40 | 6500 | 10000 | 0.022 |
| 51102 | 8102 | 15 | 28 | 9 | 0.3 | 10.50 | 16.80 | 6100 | 9400 | 0.024 |
| 51103 | 8103 | 17 | 30 | 9 | 0.3 | 10.80 | 18.20 | 6100 | 9400 | 0.028 |
| 51104 | 8104 | 20 | 35 | 10 | 0.3 | 14.20 | 24.70 | 5100 | 7900 | 0.040 |
| 51105 | 8105 | 25 | 42 | 11 | 0.6 | 19.50 | 37.20 | 4400 | 6800 | 0.059 |
| 51106 | 8106 | 30 | 47 | 11 | 0.6 | 20.40 | 42.20 | 4300 | 6600 | 0.068 |
| 51107 | 8107 | 35 | 52 | 12 | 0.6 | 20.40 | 44.70 | 3900 | 6000 | 0.090 |
| 51108 | 8108 | 40 | 60 | 13 | 0.6 | 26.90 | 62.80 | 3400 | 5000 | 0.120 |
| 51109 | 8109 | 45 | 65 | 14 | 0.6 | 27.80 | 69.10 | 3200 | 5000 | 0.150 |
| 51110 | 8110 | 50 | 70 | 14 | 0.6 | 28.80 | 75.4 | 3100 | 4800 | 0.160 |
| 51111 | 8111 | 55 | 78 | 16 | 0.6 | 34.80 | 93.10 | 2800 | 4300 | 0.240 |
| 51112 | 8112 | 60 | 85 | 17 | 1.0 | 41.40 | 113.00 | 2600 | 4000 | 0.290 |
| 51113 | 8113 | 65 | 90 | 18 | 1.0 | 41.70 | 117.00 | 2400 | 3700 | 0.340 |
| 51114 | 8114 | 70 | 95 | 18 | 1.0 | 43.00 | 125.00 | 2300 | 3600 | 0.360 |
| 51115 | 8115 | 75 | 100 | 19 | 1.0 | 43.20 | 127.00 | 2200 | 3400 | 0.420 |
| 51116 | 8116 | 80 | 105 | 19 | 1.0 | 44.60 | 141.00 | 2100 | 3300 | 0.430 |
| 51117 | 8117 | 85 | 110 | 19 | 1.0 | 45.90 | 150.00 | 2100 | 3200 | 0.460 |
| 51118 | 8118 | 90 | 120 | 22 | 1.0 | 59.70 | 190.00 | 1900 | 2900 | 0.680 |
| 51120 | 8120 | 100 | 135 | 25 | 1 | 85 | 268 | 1600 | 2500 | 0.990 |

Single Direction Thrust Ball Bearings



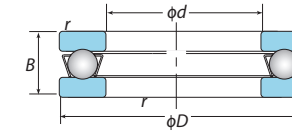
| BEARING NUMBER | GOCT | NOMINAL DIMENSIONS [mm] | | | | LOAD RATING(kN) | | LIMITING SPEED(RPM) | | WEIGHT KG |
|----------------|------|-------------------------|-----|----|-----|-----------------|--------|---------------------|--------|-----------|
| | | d | D | T | r | Dynamic | Static | Oil | Grease | |
| 51200 | 8200 | 10 | 26 | 11 | 0.6 | 12.70 | 17.10 | 5700 | 8800 | 0.030 |
| 51201 | 8201 | 12 | 28 | 11 | 0.6 | 13.20 | 19.00 | 5400 | 8300 | 0.034 |
| 51202 | 8202 | 15 | 32 | 12 | 0.6 | 16.60 | 24.80 | 4900 | 7500 | 0.046 |
| 51203 | 8203 | 17 | 35 | 12 | 0.6 | 17.20 | 27.30 | 4900 | 7500 | 0.053 |
| 51204 | 8204 | 20 | 40 | 14 | 0.6 | 22.30 | 37.70 | 3900 | 6000 | 0.082 |
| 51205 | 8205 | 25 | 47 | 15 | 0.6 | 27.80 | 50.40 | 3600 | 5500 | 0.120 |
| 51206 | 8206 | 30 | 52 | 16 | 0.6 | 29.30 | 58.20 | 3400 | 5200 | 0.150 |
| 51207 | 8207 | 35 | 62 | 18 | 1.0 | 39.20 | 78.20 | 2900 | 4500 | 0.220 |
| 51208 | 8208 | 40 | 68 | 19 | 1.0 | 46.90 | 98.30 | 2700 | 4200 | 0.270 |
| 51209 | 8209 | 45 | 73 | 20 | 1.0 | 47.70 | 105.00 | 2600 | 4000 | 0.320 |
| 51210 | 8210 | 50 | 78 | 22 | 1.0 | 48.50 | 111.00 | 2300 | 3600 | 0.390 |
| 51211 | 8211 | 55 | 90 | 25 | 1.0 | 69.40 | 159.00 | 2100 | 3200 | 0.610 |
| 51212 | 8212 | 60 | 95 | 26 | 1.0 | 73.60 | 179.00 | 1900 | 3000 | 0.690 |
| 51213 | 8213 | 65 | 100 | 27 | 1.0 | 74.80 | 189.00 | 1900 | 2900 | 0.770 |
| 51214 | 8214 | 70 | 105 | 27 | 1.0 | 73.60 | 189.00 | 1800 | 2800 | 0.810 |
| 51215 | 8215 | 75 | 110 | 27 | 1.0 | 77.40 | 209.00 | 1800 | 2700 | 0.860 |
| 51216 | 8216 | 80 | 115 | 28 | 1.0 | 78.50 | 218.00 | 1700 | 2600 | 0.950 |
| 51217 | 8217 | 85 | 125 | 31 | 1.0 | 92.30 | 251.00 | 1500 | 2300 | 1.290 |
| 51218 | 8218 | 90 | 135 | 35 | 1.1 | 117.00 | 326.00 | 1400 | 2100 | 1.770 |
| 51220 | 8220 | 100 | 150 | 38 | 1.1 | 147 | 410 | 1200 | 1900 | 2.360 |

Single Direction Thrust Ball Bearings



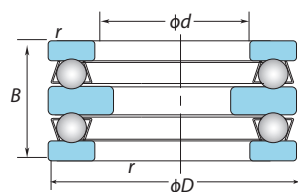
| BEARING NUMBER | FOCT | NOMINAL DIMENSIONS [mm] | | | | LOAD RATING(kN) | | LIMITING SPEED(RPM) | | WEIGHT KG |
|----------------|------|-------------------------|-----|----|-----|-----------------|--------|---------------------|--------|-----------|
| | | d | D | T | B | Dynamic | Static | Oil | Grease | |
| | | | | | | C | Co | Lube | Lube | |
| 51305 | 8305 | 25 | 52 | 18 | 1 | 35.7 | 61.4 | 3100 | 4800 | 0.18 |
| 51306 | 8306 | 30 | 60 | 21 | 1 | 42.8 | 78.7 | 2700 | 4200 | 0.27 |
| 51307 | 8307 | 35 | 68 | 24 | 1 | 55.5 | 105 | 2400 | 3700 | 0.39 |
| 51308 | 8308 | 40 | 78 | 26 | 1 | 69.3 | 135 | 2100 | 3300 | 0.55 |
| 51309 | 8309 | 45 | 85 | 28 | 1 | 80 | 163 | 1900 | 3000 | 0.69 |
| 51310 | 8310 | 50 | 95 | 31 | 1.1 | 91.6 | 186 | 1800 | 2700 | 1 |
| 51311 | 8311 | 55 | 105 | 35 | 1.1 | 119 | 246 | 1600 | 2400 | 1.34 |
| 51312 | 8312 | 60 | 110 | 35 | 1.1 | 124 | 267 | 1500 | 2300 | 1.43 |
| 51313 | 8313 | 65 | 115 | 36 | 1.1 | 128 | 287 | 1400 | 2200 | 1.57 |
| 51314 | 8314 | 70 | 125 | 40 | 1.1 | 148 | 339 | 1300 | 2000 | 2.06 |
| 51315 | 8315 | 75 | 135 | 44 | 1.5 | 171 | 396 | 1200 | 1900 | 2.68 |
| 51316 | 8316 | 80 | 140 | 44 | 1.5 | 176 | 424 | 1200 | 1800 | 2.82 |
| 51317 | 8317 | 85 | 150 | 49 | 1.5 | 206 | 489 | 1100 | 1700 | 3.66 |
| 51318 | 8318 | 90 | 155 | 50 | 1.5 | 213 | 524 | 1000 | 1600 | 3.88 |
| 51320 | 8320 | 100 | 170 | 55 | 1.5 | 236 | 596 | 940 | 1450 | 5.11 |

THRUST BALL BEARING SINGLE DIRECTION SERIES 514



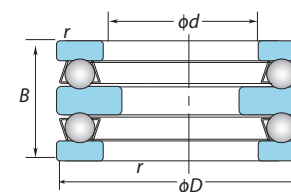
| BEARING NUMBER | FOCT | DIMENSIONS IN MM | | | LOAD RATINGS DYNAMIC & STATIC | | LIMITING SPEEDRPM | WEIGHT |
|----------------|------|------------------|-----|----|-------------------------------|--------|-------------------|--------|
| | | d | D | B | C | Co | Grease Lube | Kg |
| 51405 | 8405 | 25 | 60 | 24 | 40000 | 67000 | 3000 | 0.34 |
| 51406 | 8406 | 30 | 70 | 28 | 54000 | 93000 | 2500 | 0.53 |
| 51407 | 8407 | 35 | 80 | 32 | 65000 | 117000 | 2200 | 0.79 |
| 51408 | 8408 | 40 | 90 | 36 | 84000 | 153000 | 2000 | 1.15 |
| 51409 | 8409 | 45 | 100 | 39 | 97000 | 180000 | 1800 | 1.45 |
| 51410 | 8410 | 50 | 110 | 43 | 119000 | 230000 | 1700 | 2.00 |
| 51411 | 8411 | 55 | 120 | 48 | 130000 | 270000 | 1500 | 2.65 |
| 51412 | 8412 | 60 | 130 | 51 | 149000 | 300000 | 1350 | 3.30 |
| 51413 | 8413 | 65 | 140 | 56 | 162000 | 335000 | 1250 | 4.20 |
| 51414 | 8414 | 70 | 150 | 60 | 175000 | 375000 | 1200 | 5.10 |
| 51415 | 8415 | 75 | 160 | 65 | 188000 | 420000 | 1100 | 6.35 |
| 51416 | 8416 | 80 | 170 | 68 | 200000 | 465000 | 1000 | 8.00 |
| 51417 | 8417 | 85 | 180 | 72 | 214000 | 510000 | 1000 | 9.45 |
| 51418 | 8418 | 90 | 190 | 77 | 230000 | 560000 | 900 | 11.00 |
| 51420 | 8420 | 100 | 210 | 85 | 278000 | 720000 | 800 | 14.70 |

Double Direction Thrust Ball Bearing



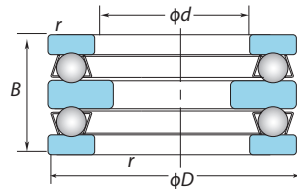
| BEARING NUMBER | GOCT | DIMENSIONS IN MM | | | BASIC LOAD RATINGS DYNAMIC & STATIC | | LIMITING SPEED RPM | WEIGHT |
|----------------|-------|------------------|-----|----|-------------------------------------|--------|--------------------|--------|
| | | d | D | B | C | Co | Grease Lube | Kg |
| 52202 | 38202 | 10 | 32 | 22 | 1200 | 18500 | 5000 | 0.09 |
| 52204 | 38204 | 15 | 40 | 26 | 1600 | 28000 | 4500 | 0.15 |
| 52205 | 38205 | 20 | 47 | 28 | 20000 | 37000 | 4000 | 0.23 |
| 52206 | 38206 | 25 | 52 | 29 | 19000 | 35000 | 3600 | 0.28 |
| 52207 | 38207 | 30 | 62 | 34 | 26000 | 50000 | 3200 | 0.42 |
| 52208 | 38208 | 30 | 68 | 36 | 35000 | 73000 | 2800 | 0.54 |
| 52209 | 38209 | 35 | 73 | 37 | 27000 | 60000 | 2700 | 0.62 |
| 52210 | 38210 | 40 | 78 | 39 | 38000 | 80000 | 2500 | 0.71 |
| 52211 | 38211 | 45 | 90 | 45 | 46000 | 100000 | 2100 | 1.10 |
| 52212 | 38212 | 50 | 95 | 46 | 47000 | 105000 | 2100 | 1.25 |
| 52213 | 38213 | 55 | 100 | 47 | 48000 | 112000 | 1900 | 1.35 |
| 52215 | 38215 | 60 | 110 | 47 | 50000 | 120000 | 1800 | 1.65 |
| 52216 | 38216 | 65 | 115 | 48 | 57000 | 140000 | 1800 | 1.7 |
| 52217 | 38217 | 70 | 125 | 55 | 73000 | 185000 | 1600 | 2.35 |
| 52218 | 38218 | 75 | 135 | 62 | 89000 | 225000 | 1500 | 3.2 |
| 52220 | 38220 | 85 | 150 | 67 | 93000 | 240000 | 1300 | 4.3 |
| 52222 | 38222 | 95 | 160 | 67 | 97000 | 270000 | 1300 | 4.7 |
| 52224 | 38224 | 100 | 170 | 68 | 105000 | 300000 | 1200 | 5.25 |

Double Direction Thrust Ball Bearing



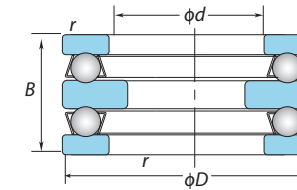
| BEARING NUMBER | DIMENSION IN MM | | | | BASIC LOAD RATINGS | | RPM | Wt. Kgs |
|----------------|-----------------|-----|-----|-----|--------------------|--------|------|---------|
| | GOCT | d | D | B | Dynamic | Static | | |
| 52305 | 38305 | 20 | 52 | 34 | 25000 | 41000 | 3800 | 0.33 |
| 52306 | 38306 | 25 | 60 | 38 | 28000 | 49000 | 3200 | 0.49 |
| 52307 | 38307 | 30 | 68 | 44 | 37000 | 66000 | 2900 | 0.71 |
| 52308 | 38308 | 30 | 78 | 49 | 46000 | 84000 | 2500 | 1.05 |
| 52309 | 38309 | 35 | 85 | 52 | 57000 | 105000 | 2400 | 1.30 |
| 52310 | 38310 | 40 | 95 | 58 | 66000 | 130000 | 2200 | 1.85 |
| 52311 | 38311 | 45 | 105 | 64 | 78000 | 155000 | 1800 | 2.50 |
| 52312 | 38312 | 50 | 110 | 64 | 75000 | 155000 | 1800 | 2.70 |
| 52313 | 38313 | 55 | 115 | 65 | 80000 | 165000 | 1700 | 2.90 |
| 52314 | 38314 | 55 | 125 | 72 | 100000 | 225000 | 1600 | 3.90 |
| 52315 | 38315 | 60 | 135 | 79 | 120000 | 270000 | 1400 | 4.85 |
| 52316 | 38316 | 65 | 140 | 79 | 119000 | 270000 | 1400 | 5.05 |
| 52317 | 38317 | 70 | 150 | 87 | 130000 | 310000 | 1300 | 6.45 |
| 52318 | 38318 | 75 | 155 | 88 | 150000 | 350000 | 1250 | 6.60 |
| 52320 | 38320 | 85 | 170 | 97 | 170000 | 420000 | 1200 | 8.90 |
| 52322 | 38322 | 95 | 190 | 110 | 200000 | 550000 | 1000 | 13.10 |
| 52324 | 38324 | 100 | 210 | 123 | 240000 | 680000 | 950 | 18.40 |

Double Direction Thrust Ball Bearing



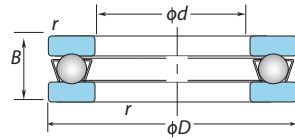
| BEARING NUMBER | ГОТ | DIMENSION IN MM | | | BASIC LOAD RATINGS | | RPM | Wt. Kgs |
|----------------|-------|-----------------|-----|-----|--------------------|---------|------|---------|
| | | d | D | H | Dynamic | Static | | |
| 52405 | 38405 | 15 | 60 | 45 | 40000 | 70000 | 2600 | 0.630 |
| 52406 | 38406 | 20 | 70 | 52 | 54000 | 93000 | 2500 | 1.000 |
| 52407 | 38407 | 25 | 80 | 59 | 65000 | 115000 | 2200 | 1.440 |
| 52408 | 38408 | 30 | 90 | 65 | 84000 | 153000 | 2000 | 2.030 |
| 52409 | 38409 | 35 | 100 | 72 | 97000 | 180000 | 1800 | 2.710 |
| 52410 | 38410 | 40 | 110 | 78 | 110000 | 210000 | 1700 | 3.566 |
| 52411 | 38411 | 45 | 120 | 87 | 130000 | 270000 | 1500 | 4.700 |
| 52412 | 38412 | 50 | 30 | 93 | 149000 | 300000 | 1300 | 6.330 |
| 52413 | 38413 | 50 | 140 | 101 | 173000 | 370000 | 1200 | 8.030 |
| 52414 | 38414 | 55 | 150 | 107 | 185000 | 410000 | 1100 | 9.710 |
| 52415 | 38415 | 60 | 160 | 115 | 190000 | 420000 | 1050 | 11.800 |
| 52416 | 38416 | 65 | 170 | 120 | 200000 | 465000 | 950 | 14.800 |
| 52417 | 38417 | 65 | 180 | 128 | 215000 | 513000 | 900 | 18.600 |
| 52418 | 38418 | 70 | 190 | 135 | 230000 | 560000 | 800 | 20.800 |
| 52420 | 38420 | 80 | 210 | 150 | 258000 | 670000 | 750 | 28.200 |
| 52422 | 38422 | 90 | 230 | 166 | 325000 | 930000 | 720 | 37.800 |
| 52424 | 38424 | 95 | 250 | 177 | 340000 | 1000000 | 650 | 48.400 |
| 52426 | 38426 | 100 | 270 | 192 | 410000 | 1300000 | 600 | 60.100 |

Double Direction Thrust Ball Bearing



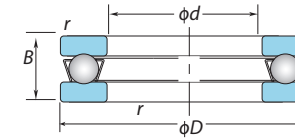
| BEARING NUMBER | ГОТ | NOMINAL DIMENSION (mm) | | | BASIC LOAD RATINGS | | RPM | Wt. Kgs |
|----------------|-------|------------------------|-----|------|--------------------|--------|------|---------|
| | | d | D | B | Dynamic | Static | | |
| 53202 | 18202 | 15 | 32 | 13.3 | 12000 | 18000 | 6000 | 0.046 |
| 53203 | 18203 | 17 | 35 | 13.2 | 13000 | 20000 | 5700 | 0.054 |
| 53204 | 18204 | 20 | 40 | 14.7 | 16000 | 27000 | 5100 | 0.081 |
| 53205 | 18205 | 25 | 47 | 16.7 | 20000 | 37000 | 4500 | 0.111 |
| 53206 | 18206 | 30 | 52 | 17.8 | 19000 | 35000 | 4100 | 0.139 |
| 53207 | 18207 | 35 | 62 | 19.9 | 26000 | 50000 | 3400 | 0.215 |
| 53208 | 18208 | 40 | 68 | 20.3 | 35000 | 73000 | 3200 | 0.276 |
| 53209 | 18209 | 45 | 73 | 21.3 | 29000 | 60000 | 3000 | 0.317 |
| 53210 | 18210 | 50 | 78 | 23.5 | 37000 | 80000 | 2900 | 0.378 |
| 53211 | 18211 | 55 | 90 | 27.3 | 46000 | 10000 | 2400 | 0.608 |
| 53212 | 18212 | 60 | 95 | 28.0 | 47000 | 105000 | 2400 | 0.678 |
| 53213 | 18213 | 65 | 100 | 28.7 | 48000 | 110000 | 2200 | 0.767 |
| 53214 | 18214 | 70 | 105 | 28.8 | 49000 | 120000 | 2200 | 0.793 |
| 53215 | 18215 | 75 | 110 | 28.3 | 50000 | 127000 | 2000 | 0.874 |
| 53216 | 18216 | 80 | 115 | 29.5 | 57000 | 140000 | 2000 | 0.916 |
| 53217 | 18217 | 85 | 125 | 33.1 | 73000 | 185000 | 1800 | 1.250 |
| 53218 | 18218 | 90 | 135 | 38.5 | 89000 | 225000 | 1700 | 1.700 |
| 53220 | 18220 | 100 | 150 | 40.9 | 93000 | 240000 | 1500 | 2.290 |

Single Direction Thrust Ball Bearings With Sphered Hosuing Washer



| BEARING NUMBER | ГОТ | NOMINAL DIMENSION (mm) | | | BASIC LOAD RATINGS | | RPM | WEIGHT Kgs |
|----------------|-------|------------------------|-----|------|--------------------|--------|------|------------|
| | | d | D | B | Dynamic | Static | | |
| 53305 | 18305 | 25 | 52 | 19.8 | 17000 | 30000 | 3400 | 0.176 |
| 53306 | 18306 | 30 | 60 | 22.6 | 27500 | 48700 | 3200 | 0.269 |
| 53307 | 18307 | 35 | 68 | 25.6 | 37000 | 66000 | 2900 | 0.383 |
| 53308 | 18308 | 40 | 78 | 28.5 | 46000 | 84000 | 2500 | 0.548 |
| 53309 | 18309 | 45 | 85 | 30.1 | 57000 | 105000 | 2400 | 0.684 |
| 53310 | 18310 | 50 | 95 | 34.4 | 66000 | 125000 | 2200 | 0.951 |
| 53311 | 18311 | 55 | 105 | 39.3 | 78000 | 156000 | 1800 | 1.290 |
| 53312 | 18312 | 60 | 110 | 38.3 | 75000 | 156000 | 1800 | 1.370 |
| 53313 | 18313 | 65 | 115 | 39.4 | 79000 | 165000 | 1700 | 1.510 |
| 53314 | 18314 | 70 | 125 | 44.2 | 100000 | 225000 | 1600 | 2.010 |
| 53315 | 18315 | 75 | 135 | 48.1 | 120000 | 270000 | 1400 | 2.610 |
| 53316 | 18316 | 80 | 140 | 47.6 | 119000 | 270000 | 1400 | 2.720 |
| 53317 | 18317 | 85 | 150 | 53.1 | 140000 | 318000 | 1300 | 3.520 |
| 53318 | 18318 | 90 | 155 | 54.6 | 146000 | 348000 | 1200 | 3.740 |
| 53320 | 18320 | 100 | 170 | 69.2 | 170000 | 420000 | 1200 | 4.880 |

Single Direction Thrust Ball Bearings With Sphered Hosuing Washer



| BEARING NUMBER | ГОТ | NOMINAL DIMENSION(mm) | | | BASIC LOAD RATINGS | | RPM | WEIGHT Kgs |
|----------------|-------|-----------------------|-----|------|--------------------|--------|------|------------|
| | | d | D | B | Dynamic | Static | | |
| 53408 | 18408 | 40 | 90 | 38.2 | 84000 | 153000 | 1800 | 1.08 |
| 53409 | 18409 | 45 | 100 | 42.4 | 97000 | 180000 | 1700 | 1.43 |
| 53410 | 18410 | 50 | 110 | 45.6 | 119000 | 232000 | 1700 | 1.90 |
| 53411 | 18411 | 55 | 120 | 50.5 | 130000 | 250000 | 1500 | 2.52 |
| 53412 | 18412 | 60 | 130 | 54.0 | 150000 | 300000 | 1300 | 3.12 |
| 53413 | 18413 | 65 | 14 | 60.2 | 160000 | 330000 | 1200 | 3.96 |
| 53414 | 18414 | 70 | 150 | 63.6 | 175000 | 375000 | 1200 | 5.50 |
| 53415 | 18415 | 75 | 160 | 69.0 | 188000 | 420000 | 1100 | 6.85 |
| 53416 | 18416 | 80 | 170 | 72.2 | 200000 | 465000 | 1000 | 8.00 |
| 53417 | 18417 | 85 | 180 | 77.0 | 215000 | 510000 | 950 | 9.03 |
| 53418 | 18418 | 90 | 190 | 81.2 | 230000 | 560000 | 900 | 11.00 |
| 53420 | 18420 | 100 | 210 | 90.0 | 278000 | 720000 | 800 | 15.00 |