



VMC® 440

| ITEM | 442 | 444 | 446 | 448 | 4412XL | 4416XL |
|---------------------------|-----------|------------|-------------|------------|-------------|------------|
| Number of Cylinder | 2 | 4 | 6 | 8 | 12 | 16 |
| Maximum RPM | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 |
| Bore & Stroke-In (mm) | 114x89 | 114x89 | 114x89 | 114x89 | 114x89 | 114x89 |
| Displacement-M3hr | 78 | 155 | 232 | 309 | 464 | 619 |
| Suction Connection-In(mm) | 2 1/2(64) | 3(76) | 4(102) | 4(102) | 5(127) | 6(152) |
| Dis Connection-In(mm) | 2(51) | 2 1/2(64) | 3(76) | 3(76) | Two 3 (76) | Two 3(76) |
| Unit Weight less Motor | 1900(862) | 2700(1225) | 3100 (1406) | 3400(1542) | 5300 (2404) | 5800(2630) |

| | | | | | | |
|---|----------|----------|-----------|--------------|-----------|--------------|
| Oil charge - Gallon(Liter) | 5(19) | 7(27) | 7(27) | 7(27) | 14(53) | 14(53) |
| Standard step of unloading | 0 | 50 | 33/66 | 25/50 | 33/66 | 25/50 |
| Option 1 step of unloading % | 50 | 25/50/75 | ㄹÑ | 25/50/75 | ㄹÑ | 25/50/75 |
| Option 2 step of unloading | 100 | 50/100 | 33/66/100 | 25/50/75/100 | 33/66/100 | 25/50/75/100 |
| Maximun discharge temp C | 300(149) | 300(149) | 300(149) | 300(149) | 300(149) | 300(149) |
| Crankcase of Temp Range C | 43~54 | 43~54 | 43~54 | 43~54 | 43~54 | 43~54 |
| CAPACITY- R22-TON / BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 30C TE 4C | 39/28 | 77/53 | 115/79 | 154/102 | 231/152 | 307/199 |
| @TC 35C TE 4C | 36/31 | 72/60 | 108/88 | 144/115 | 216/169 | 288/223 |
| @TC 41C TE 4C | 35/34 | 67/66 | 101/97 | 133/126 | 200/186 | 267/245 |
| @TC 46C TE 4C | 31/37 | 62/72 | 93/106 | 124/137 | 185/202 | 247/267 |

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|--|-------|-------|--------|--------|---------|---------|
| CAPACITY- R22-TONf/ BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 23C TE -1C | 34/23 | 69/45 | 103/66 | 137/86 | 206/127 | 275/167 |

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|---------------------------|--------------|--------------|--------------|----------------|----------------|----------------|
| @TC 30C TE -1C | 32/28 | 63/53 | 94/78 | 125/101 | 186/149 | 250/197 |
| @TC 35C TE -1C | 29/30 | 59/58 | 88/86 | 117/111 | 175/164 | 233/217 |
| @TC 41C TE -1C | 27/33 | 55/63 | 81/93 | 108/121 | 162/177 | 216/235 |

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|---------------------------------------|--------------|--------------|--------------|---------------|----------------|----------------|
| CAPACITY- R22-TON/ BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 30C TE -7C | 28/24 | 56/45 | 84/66 | 112/87 | 168/128 | 224/168 |
| @TC 30C TE -7C | 25/26 | 51/50 | 76/74 | 101/97 | 152/143 | 202/188 |
| @TC 35C TE -7C | 24/29 | 47/55 | 70/81 | 94/105 | 140/155 | 187/204 |
| @TC 41C TE -7C | 22/31 | 44/59 | 65/86 | 87/113 | 130/166 | 172/219 |

| | | | | | | |
|---------------------------------------|--------------|--------------|---------------|---------------|----------------|----------------|
| CAPACITY- R22-TON/ BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 23C TE-12C | 22/23 | 44/44 | 67/65 | 89/85 | 133/125 | 178/165 |
| @TC 30C TE-12C | 20/25 | 40/48 | 60/71 | 80/92 | 120/136 | 161/180 |
| @TC 35C TE-12C | 19/27 | 37/51 | 56/76 | 74/99 | 111/145 | 148/192 |
| @TC 46C TE-12C | 16/37 | 34/71 | 50/104 | 67/139 | 100/209 | 134/279 |

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|---------------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|
| CAPACITY- R22-TON/ BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 30C TE-24C | 12/21 | 24/41 | 36/60 | 48/79 | 72/116 | 96/153 |

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|--|--------------|--------------|--------------|---------------|---------------|---------------|
| @TC 35C TE-24C | 11/22 | 22/42 | 33/62 | 44/81 | 65/119 | 87/157 |
| @TC 41C TE-24C | 12/29 | 24/56 | 36/83 | 48/111 | 72/166 | 96/222 |
| @TC 46C TE-24C | 11/30 | 22/58 | 32/85 | 43/113 | 65/170 | 86/227 |
| CAPACITY- R22-TON / BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 30C TE-30C | 9/19 | 18/36 | 27/54 | 36/70 | 54/103 | 72/136 |
| @TC 35C TE-30C | 8/19 | 16/37 | 24/55 | 32/71 | 49/105 | 64/139 |
| @TC 41C TE-30C | 8/25 | 17/48 | 25/71 | 34/95 | 50/143 | 67/191 |
| @TC 46C TE-30C | 7/25 | 15/49 | 22/72 | 29/96 | 44/144 | 59/193 |

| | | | | | | |
|--|-------------|--------------|--------------|--------------|--------------|---------------|
| CAPACITY- R22-TONf/ BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 16C TE-35C | 9/16 | 17/30 | 26/45 | 35/58 | 52/86 | 69/113 |
| @TC 23C TE-35C | 8/16 | 15/31 | 23/45 | 30/59 | 45/87 | 60/115 |
| @TC 30C TE-35C | 6/16 | 13/32 | 19/47 | 25/61 | 38/89 | 50/118 |
| @TC 35C TE-35C | 6/17 | 11/32 | 17/47 | 22/62 | 33/91 | 44/120 |

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|--|-------------|--------------|--------------|--------------|--------------|--------------|
| CAPACITY- R22-TON / BHP | 442 | 444 | 446 | 448 | 4412 | 4416 |
| @TC 16C TE-40C | 6/13 | 13/24 | 19/36 | 26/47 | 38/69 | 51/91 |
| @TC 23C TE-40C | 5/14 | 10/27 | 16/39 | 21/51 | 32/75 | 42/99 |

**@TC 27C
TE-40C**

5/15

9/29

14/42

18/55

27/80

36/108

| CONDENSING Pressure psig and Corresponding Temperature °F ↓ | | REFRIGERANT 717 (AMMONIA) <i>Filter.</i> | | | | | | | | | | BASED ON 1200 RPM | | | |
|---|----------------|--|------|------|------|------|-------|------|-------|------|-------|-------------------|-------|-------|--|
| | | COMPRESSOR MODEL | | | | | | | | | | | | | |
| | | SUCTION | | 442 | | 444 | | 446 | | 448 | | 4412 | | 4416 | |
| Temp. °F | Press. psig | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | | |
| 95# 61.1° | -25 | 1.3 | 6.4 | 13.6 | 12.9 | 25.8 | 19.3 | 37.8 | 25.8 | 49.1 | 38.7 | 72.3 | 51.6 | 95.5 | |
| | -20 | 3.6 | 8.0 | 14.5 | 16.0 | 27.4 | 24.0 | 40.2 | 32.1 | 52.3 | 48.1 | 76.9 | 64.2 | 101.5 | |
| | -15 | 6.2 | 9.8 | 15.4 | 19.7 | 29.4 | 29.5 | 42.9 | 39.5 | 55.9 | 59.2 | 82.3 | 79.0 | 108.5 | |
| | -10 | 9.0 | 11.9 | 16.5 | 23.8 | 31.4 | 35.7 | 45.9 | 47.6 | 59.6 | 71.4 | 87.7 | 95.2 | 114.0 | |
| | -5 | 12.2 | 14.1 | 17.8 | 28.2 | 33.7 | 42.3 | 49.3 | 56.5 | 64.2 | 84.7 | 94.5 | 113.0 | 124.5 | |
| | 0 | 15.7 | 16.5 | 19.1 | 33.1 | 36.2 | 49.6 | 53.0 | 66.2 | 68.9 | 99.3 | 101.2 | 133.2 | 134.0 | |
| | 5 | 19.6 | 19.3 | 20.2 | 38.7 | 38.2 | 58.0 | 56.0 | 77.5 | 72.9 | 116.2 | 107.0 | 155.0 | 141.7 | |
| | 10 | 23.8 | 22.4 | 20.8 | 44.8 | 39.6 | 67.2 | 57.9 | 89.6 | 75.3 | 134.4 | 110.7 | 179.2 | 146.1 | |
| | 15 | 28.4 | 25.6 | 20.9 | 51.3 | 39.6 | 76.9 | 58.0 | 102.6 | 75.4 | 153.9 | 110.8 | 205.2 | 146.3 | |
| | 20 | 32.5 | 28.4 | 20.4 | 56.8 | 38.8 | 85.2 | 57.0 | 113.7 | 74.0 | 170.5 | 108.9 | 227.4 | 144.0 | |
| | 25 | 39.0 | 32.7 | 19.1 | 65.5 | 36.3 | 98.2 | 53.2 | 131.0 | 69.2 | 196.5 | 101.8 | 262.4 | 134.3 | |
| | 30 | 45.0 | 36.9 | 17.2 | 73.8 | 32.6 | 110.7 | 47.9 | 147.6 | 62.4 | 221.4 | 91.8 | 295.2 | 121.1 | |
| 115# 70.4° | -25 | 1.3 | 5.9 | 14.3 | 11.9 | 27.2 | 17.8 | 39.7 | 23.9 | 51.7 | 35.8 | 76.1 | 47.8 | 100.2 | |
| | -20 | 3.6 | 7.5 | 15.4 | 15.0 | 29.3 | 22.5 | 42.9 | 30.1 | 55.8 | 45.1 | 82.2 | 60.2 | 108.2 | |
| | -15 | 6.2 | 9.3 | 16.7 | 18.6 | 32.6 | 27.9 | 46.2 | 37.2 | 60.2 | 55.8 | 88.5 | 74.4 | 117.0 | |
| | -10 | 9.0 | 11.2 | 18.0 | 22.5 | 34.1 | 33.7 | 49.9 | 45.0 | 64.9 | 67.5 | 99.3 | 90.0 | 126.0 | |
| | -5 | 12.2 | 13.4 | 19.3 | 26.8 | 36.7 | 40.2 | 53.7 | 53.6 | 69.9 | 80.4 | 102.8 | 107.2 | 135.8 | |
| | 0 | 15.7 | 15.7 | 20.6 | 31.4 | 39.2 | 47.1 | 59.3 | 62.8 | 74.6 | 93.8 | 109.7 | 124.8 | 145.0 | |
| | 5 | 19.6 | 18.4 | 21.8 | 36.8 | 41.4 | 54.3 | 60.5 | 73.6 | 78.8 | 110.4 | 116.0 | 147.2 | 153.0 | |
| | 10 | 23.8 | 21.3 | 22.7 | 42.6 | 43.2 | 63.9 | 63.0 | 85.2 | 82.2 | 127.8 | 120.9 | 170.4 | 159.5 | |
| | 15 | 28.4 | 24.4 | 23.1 | 48.8 | 43.9 | 73.2 | 64.3 | 97.6 | 83.6 | 146.4 | 122.8 | 195.2 | 162.2 | |
| | 20 | 32.5 | 27.1 | 23.1 | 54.2 | 43.9 | 81.3 | 64.4 | 108.5 | 83.7 | 162.7 | 123.0 | 217.0 | 162.4 | |
| | 25 | 39.0 | 31.3 | 22.6 | 62.7 | 42.9 | 94.0 | 62.8 | 125.4 | 81.8 | 188.1 | 120.2 | 250.8 | 158.8 | |
| | 30 | 45.0 | 35.3 | 21.7 | 70.6 | 41.2 | 105.9 | 60.3 | 141.3 | 78.5 | 211.9 | 115.3 | 282.6 | 152.2 | |
| 135# 78.7° | -25 | 1.3 | 5.5 | 15.2 | 11.1 | 27.8 | 16.6 | 42.2 | 22.3 | 54.8 | 33.4 | 80.7 | 44.6 | 106.7 | |
| | -20 | 3.6 | 7.0 | 16.4 | 14.1 | 31.1 | 21.1 | 45.6 | 28.3 | 59.3 | 42.4 | 87.3 | 56.6 | 115.0 | |
| | -15 | 6.2 | 8.9 | 17.8 | 17.9 | 33.8 | 26.8 | 49.6 | 35.8 | 64.4 | 53.7 | 94.5 | 71.6 | 125.0 | |
| | -10 | 9.0 | 10.6 | 19.2 | 21.2 | 36.6 | 31.8 | 53.6 | 42.5 | 69.6 | 63.7 | 102.3 | 85.0 | 135.2 | |
| | -5 | 12.2 | 12.7 | 20.7 | 25.4 | 39.4 | 38.1 | 57.7 | 50.8 | 75.0 | 76.2 | 110.2 | 101.6 | 145.9 | |
| | 0 | 15.7 | 14.9 | 22.1 | 29.9 | 42.0 | 44.8 | 61.6 | 59.8 | 80.0 | 89.7 | 117.6 | 119.6 | 155.2 | |
| | 5 | 19.6 | 17.5 | 23.2 | 35.0 | 44.2 | 52.5 | 64.9 | 70.0 | 84.3 | 105.0 | 123.8 | 140.0 | 163.8 | |
| | 10 | 23.8 | 20.2 | 24.3 | 40.4 | 46.3 | 60.6 | 67.9 | 80.9 | 88.2 | 121.3 | 129.8 | 161.8 | 171.2 | |
| | 15 | 28.4 | 23.2 | 25.2 | 46.4 | 47.8 | 69.6 | 70.2 | 92.8 | 91.1 | 139.2 | 134.0 | 185.6 | 177.0 | |
| | 20 | 32.5 | 25.8 | 25.5 | 51.6 | 48.5 | 77.4 | 71.3 | 103.2 | 92.5 | 154.8 | 136.0 | 206.4 | 180.0 | |
| | 25 | 39.0 | 30.0 | 25.6 | 60.0 | 49.0 | 90.0 | 72.0 | 120.0 | 93.4 | 180.0 | 137.2 | 240.0 | 181.3 | |
| | 30 | 45.0 | 33.7 | 25.8 | 67.5 | 49.2 | 101.2 | 72.2 | 135.0 | 93.7 | 202.5 | 137.8 | 270.0 | 182.0 | |
| 155# 86.1° | -25 | 1.3 | 5.1 | 15.6 | 10.2 | 29.6 | 15.3 | 43.5 | 20.4 | 56.4 | 30.6 | 82.9 | 40.8 | 109.7 | |
| | -20 | 3.6 | 6.5 | 16.9 | 13.1 | 32.1 | 19.6 | 47.1 | 26.2 | 61.1 | 39.3 | 89.8 | 52.4 | 118.8 | |
| | -15 | 6.2 | 8.1 | 18.3 | 16.3 | 34.8 | 24.4 | 51.0 | 32.6 | 66.3 | 48.9 | 97.5 | 65.2 | 128.8 | |
| | -10 | 9.0 | 9.9 | 19.8 | 19.9 | 37.7 | 29.8 | 55.3 | 39.9 | 71.8 | 59.8 | 105.6 | 79.8 | 139.4 | |
| | -5 | 12.2 | 12.0 | 21.4 | 24.0 | 40.6 | 36.0 | 58.6 | 48.0 | 77.4 | 72.0 | 113.8 | 96.0 | 150.2 | |
| | 0 | 15.7 | 14.2 | 22.8 | 28.4 | 43.4 | 42.6 | 63.7 | 56.8 | 82.6 | 85.2 | 121.5 | 113.6 | 160.3 | |
| | 5 | 19.6 | 16.6 | 24.2 | 33.3 | 46.1 | 49.9 | 67.5 | 66.7 | 87.7 | 100.0 | 129.0 | 133.4 | 170.2 | |
| | 10 | 23.8 | 19.2 | 25.4 | 38.5 | 48.3 | 57.7 | 70.8 | 77.1 | 91.9 | 115.6 | 135.0 | 154.2 | 178.3 | |
| | 15 | 28.4 | 22.1 | 26.3 | 44.3 | 50.0 | 66.4 | 73.3 | 88.6 | 95.2 | 132.9 | 140.0 | 177.2 | 185.0 | |
| | 20 | 32.5 | 24.7 | 26.8 | 49.4 | 51.0 | 74.1 | 75.0 | 98.8 | 97.2 | 148.2 | 143.0 | 197.6 | 188.8 | |
| | 25 | 39.0 | 28.7 | 27.2 | 57.5 | 51.8 | 86.2 | 76.0 | 115.0 | 98.6 | 172.5 | 145.0 | 230.0 | 191.3 | |
| | 30 | 45.0 | 32.3 | 27.3 | 64.7 | 51.9 | 97.0 | 76.1 | 129.4 | 98.8 | 194.1 | 145.2 | 258.8 | 192.0 | |

Ratings above line for extrapolation only.

| CONDENSING Pressure psig and Corresponding Temperature °F | | | REFRIGERANT 717 (AMMONIA) | | <i>Filter.</i> | | BASED ON 1200 RPM | | | | | | | |
|--|----------------|------|---------------------------|------|----------------|------|-------------------|------|-------|-------|-------|-------|-------|-------|
| | | | COMPRESSOR MODEL | | | | | | | | | | | |
| SUCTION | | 442 | | 444 | | 446 | | 448 | | 4412 | | 4416 | | |
| Temp. °F | Press. psig | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | TONS | BHP | |
| 165# 89.6° | -15 | 6.2 | 7.8 | 18.8 | 15.7 | 35.8 | 23.5 | 52.5 | 31.4 | 68.2 | 47.1 | 100.2 | 62.8 | 132.3 |
| | -10 | 9.0 | 9.6 | 20.3 | 19.2 | 38.6 | 28.8 | 56.7 | 38.4 | 73.6 | 57.6 | 108.3 | 76.8 | 143.0 |
| | -5 | 12.2 | 11.6 | 21.7 | 23.2 | 41.4 | 34.8 | 60.6 | 46.4 | 78.7 | 69.8 | 115.8 | 92.8 | 153.0 |
| | 0 | 15.7 | 13.7 | 23.1 | 27.5 | 44.0 | 41.2 | 64.5 | 55.0 | 83.7 | 82.5 | 123.1 | 110.0 | 162.3 |
| | 5 | 19.6 | 16.1 | 24.6 | 32.3 | 46.7 | 48.4 | 68.5 | 64.7 | 89.0 | 97.0 | 131.0 | 129.4 | 172.8 |
| | 10 | 23.8 | 18.8 | 25.9 | 37.6 | 49.3 | 56.4 | 72.3 | 75.2 | 93.8 | 112.8 | 138.0 | 150.4 | 182.0 |
| | 15 | 28.4 | 21.6 | 26.9 | 43.3 | 51.1 | 64.9 | 75.0 | 86.6 | 97.4 | 129.9 | 143.3 | 173.2 | 189.0 |
| | 20 | 33.5 | 24.1 | 27.4 | 48.3 | 52.2 | 72.4 | 76.6 | 96.6 | 99.4 | 144.9 | 146.0 | 193.2 | 193.8 |
| | 25 | 39.0 | 28.2 | 27.9 | 56.4 | 53.1 | 84.6 | 77.7 | 112.8 | 101.0 | 169.2 | 148.6 | 225.6 | 196.0 |
| | 30 | 45.0 | 31.6 | 28.0 | 63.3 | 53.2 | 94.9 | 77.9 | 126.6 | 101.2 | 189.9 | 148.9 | 253.2 | 196.4 |
| 175# 93.0° | -15 | 6.2 | 7.6 | 19.3 | 15.2 | 36.8 | 22.8 | 53.9 | 30.4 | 69.9 | 45.6 | 102.8 | 60.8 | 135.8 |
| | -10 | 9.0 | 9.3 | 20.8 | 18.6 | 39.6 | 27.9 | 58.0 | 37.2 | 75.4 | 55.8 | 110.9 | 74.4 | 146.2 |
| | -5 | 12.2 | 11.2 | 22.3 | 22.5 | 42.4 | 33.7 | 62.0 | 45.0 | 80.6 | 67.5 | 118.3 | 90.0 | 156.2 |
| | 0 | 15.7 | 13.4 | 23.7 | 26.8 | 45.0 | 40.2 | 66.0 | 53.7 | 85.7 | 80.5 | 126.0 | 107.4 | 166.3 |
| | 5 | 19.6 | 15.8 | 25.2 | 31.6 | 47.7 | 47.4 | 70.0 | 63.3 | 91.0 | 94.9 | 134.0 | 126.6 | 176.7 |
| | 10 | 23.8 | 18.4 | 26.4 | 36.8 | 50.2 | 55.2 | 73.5 | 73.7 | 95.5 | 110.5 | 140.4 | 147.4 | 185.2 |
| | 15 | 28.4 | 21.2 | 27.4 | 42.4 | 52.2 | 63.6 | 76.6 | 84.9 | 99.4 | 127.3 | 146.0 | 169.8 | 193.6 |
| | 20 | 33.5 | 23.7 | 28.1 | 47.4 | 53.4 | 71.1 | 78.3 | 94.8 | 101.7 | 142.2 | 149.6 | 189.6 | 197.3 |
| | 25 | 39.0 | 27.6 | 28.9 | 55.3 | 55.0 | 82.9 | 80.5 | 110.6 | 104.6 | 165.9 | 154.0 | 221.2 | 203.0 |
| | 30 | 45.0 | 31.1 | 29.3 | 62.2 | 55.9 | 93.3 | 81.8 | 124.5 | 106.2 | 186.7 | 156.2 | 249.0 | 206.0 |
| 185# 96.2° | -15 | 6.2 | 7.3 | 19.6 | 14.7 | 37.2 | 22.0 | 54.6 | 29.4 | 71.0 | 44.1 | 104.2 | 58.8 | 138.0 |
| | -10 | 9.0 | 9.0 | 21.1 | 18.0 | 40.2 | 27.0 | 58.7 | 36.0 | 76.4 | 54.0 | 112.0 | 72.0 | 148.0 |
| | -5 | 12.2 | 10.9 | 22.6 | 21.8 | 42.9 | 32.7 | 62.8 | 43.7 | 81.7 | 65.5 | 120.0 | 87.4 | 158.5 |
| | 0 | 15.7 | 13.1 | 24.1 | 26.2 | 45.8 | 39.3 | 67.1 | 52.4 | 87.2 | 78.6 | 128.0 | 104.8 | 169.0 |
| | 5 | 19.6 | 15.5 | 25.6 | 31.1 | 48.7 | 46.6 | 71.4 | 62.2 | 92.8 | 93.3 | 136.2 | 124.4 | 180.0 |
| | 10 | 23.8 | 18.0 | 26.9 | 36.1 | 51.4 | 54.1 | 75.2 | 72.2 | 97.7 | 108.3 | 143.6 | 144.4 | 189.5 |
| | 15 | 28.4 | 20.8 | 28.0 | 41.6 | 53.4 | 62.4 | 78.3 | 83.3 | 101.6 | 124.9 | 149.3 | 166.6 | 198.0 |
| | 20 | 33.5 | 23.2 | 28.9 | 46.5 | 54.9 | 69.7 | 80.4 | 93.0 | 104.4 | 139.5 | 154.8 | 186.0 | 203.5 |
| | 25 | 39.0 | 27.0 | 29.8 | 54.1 | 56.7 | 81.1 | 83.4 | 108.3 | 108.0 | 162.4 | 159.0 | 216.6 | 210.0 |
| | 30 | 45.0 | 30.6 | 30.7 | 61.2 | 58.4 | 91.8 | 85.7 | 122.5 | 111.1 | 183.7 | 163.5 | 245.0 | 216.5 |
| 205# 102.3° | -5 | 12.2 | 10.3 | 23.6 | 20.7 | 44.8 | 31.0 | 65.7 | 41.5 | 85.4 | 62.2 | 125.5 | 83.0 | 165.5 |
| | 0 | 15.7 | 12.4 | 25.2 | 25.0 | 47.9 | 37.5 | 70.2 | 50.0 | 91.2 | 75.0 | 134.0 | 100.0 | 177.0 |
| | 5 | 19.6 | 14.8 | 26.6 | 29.6 | 50.6 | 44.4 | 74.2 | 59.2 | 96.4 | 88.8 | 141.7 | 118.4 | 186.7 |
| | 10 | 23.8 | 17.3 | 27.9 | 34.7 | 53.3 | 52.0 | 78.0 | 69.5 | 101.2 | 104.2 | 149.0 | 139.0 | 197.5 |
| | 15 | 28.4 | 20.0 | 29.1 | 40.1 | 55.5 | 60.1 | 81.2 | 80.3 | 105.6 | 120.4 | 155.0 | 160.6 | 206.0 |
| | 20 | 33.5 | 22.5 | 30.1 | 45.0 | 57.3 | 67.5 | 84.0 | 90.0 | 109.0 | 135.0 | 160.0 | 180.0 | 212.3 |
| | 25 | 39.0 | 26.3 | 31.4 | 52.6 | 59.8 | 78.9 | 87.7 | 105.2 | 113.8 | 157.8 | 167.3 | 210.4 | 222.0 |
| 225# 108.0° | 20 | 33.5 | 21.7 | 31.5 | 43.4 | 60.0 | 65.1 | 88.0 | 86.9 | 114.2 | 130.3 | 168.1 | 173.8 | 223.0 |
| | 25 | 39.0 | 25.4 | 33.0 | 50.9 | 62.7 | 76.3 | 92.0 | 101.9 | 119.4 | 152.8 | 175.5 | 203.8 | 233.0 |
| | 30 | 45.0 | 28.9 | 34.1 | 57.9 | 65.0 | 86.8 | 95.2 | 115.8 | 123.8 | 173.7 | 182.0 | 231.6 | 241.5 |
| | 35 | 51.6 | 32.7 | 35.6 | 65.4 | 67.7 | 98.1 | 99.2 | 130.8 | 128.8 | 196.2 | 189.7 | 261.6 | 251.0 |

Ratings above line for extrapolation only.