

Maximum Rating Tables

Size 832 • NH Series

Single Reduction
Worm Gear Reducers

Double Reduction
Worm - Worm Gear Reducers

Double Reduction
Helical - Worm Gear Reducers

WASHGUARD® Reducers
and GEAR+MOTOR™

Ratio Multipliers

Accessories and
Additional Capabilities

Style B

Style H



Size 832

| Ratio | Input RPM | Output RPM | Input HP | Output HP | Output Torque (lb in) | Left Hand Catalog No | Right Hand Catalog No | Double Extension Catalog No | Hollow Output Catalog No * |
|------------|-----------|------------|----------|-----------|-----------------------|----------------------|-----------------------|-----------------------------|----------------------------|
| 5 | 2500 | 500 | 10.56 | 10.03 | 1306 | NH8320097 | NH8320101 | NH8320105 | NH8320557.XX |
| | 1750 | 350 | 9.135 | 8.611 | 1602 | | | | |
| | 1170 | 234 | 7.694 | 7.172 | 1995 | | | | |
| | 100 | 20 | 1.289 | 1.097 | 3571 | | | | |
| 7.5 | 2500 | 333 | 9.053 | 8.527 | 1612 | NH8320098 | NH8320102 | NH8320106 | NH8320558.XX |
| | 1750 | 233 | 7.844 | 7.317 | 1976 | | | | |
| | 1170 | 156 | 6.642 | 6.114 | 2469 | | | | |
| | 100 | 13 | 1.136 | 0.949 | 4075 | | | | |
| 10 | 2500 | 250 | 8.232 | 7.701 | 1941 | NH8320001 | NH8320009 | NH8320017 | NH8320501.XX |
| | 1750 | 175 | 7.034 | 6.507 | 2343 | | | | |
| | 1170 | 117 | 5.974 | 5.446 | 2932 | | | | |
| | 100 | 10 | 0.857 | 0.704 | 4437 | | | | |
| 15 | 2500 | 166 | 6.161 | 5.603 | 2118 | NH8320002 | NH8320010 | NH8320018 | NH8320502.XX |
| | 1750 | 116 | 5.277 | 4.724 | 2551 | | | | |
| | 1170 | 78 | 4.531 | 3.971 | 3207 | | | | |
| | 100 | 6.7 | 0.682 | 0.518 | 4895 | | | | |
| 20 | 2500 | 125 | 4.836 | 4.306 | 2170 | NH8320003 | NH8320011 | NH8320019 | NH8320503.XX |
| | 1750 | 87 | 4.188 | 3.658 | 2633 | | | | |
| | 1170 | 58 | 3.547 | 3.020 | 3253 | | | | |
| | 100 | 5.0 | 0.528 | 0.381 | 4802 | | | | |
| 25 | 2500 | 100 | 3.977 | 3.468 | 2185 | NH8320004 | NH8320012 | NH8320020 | NH8320504.XX |
| | 1750 | 70 | 3.465 | 2.953 | 2658 | | | | |
| | 1170 | 46 | 2.914 | 2.413 | 3248 | | | | |
| | 100 | 4.0 | 0.434 | 0.298 | 4701 | | | | |
| 30 | 2500 | 83 | 3.452 | 2.903 | 2195 | NH8320005 | NH8320013 | NH8320021 | NH8320505.XX |
| | 1750 | 58 | 3.003 | 2.454 | 2651 | | | | |
| | 1170 | 39 | 2.604 | 2.052 | 3315 | | | | |
| | 100 | 3.3 | 0.425 | 0.265 | 5007 | | | | |
| 40 | 2500 | 62 | 2.669 | 2.157 | 2174 | NH8320006 | NH8320014 | NH8320022 | NH8320506.XX |
| | 1750 | 43 | 2.348 | 1.834 | 2641 | | | | |
| | 1170 | 29 | 2.019 | 1.509 | 3251 | | | | |
| | 100 | 2.5 | 0.330 | 0.189 | 4769 | | | | |
| 50 | 2500 | 50 | 2.152 | 1.674 | 2110 | NH8320007 | NH8320015 | NH8320023 | NH8320507.XX |
| | 1750 | 35 | 1.907 | 1.426 | 2568 | | | | |
| | 1170 | 23 | 1.634 | 1.163 | 3130 | | | | |
| | 100 | 2.0 | 0.270 | 0.143 | 4510 | | | | |
| 60 | 2500 | 41 | 1.764 | 1.323 | 2001 | NH8320008 | NH8320016 | NH8320024 | NH8320508.XX |
| | 1750 | 29 | 1.573 | 1.128 | 2437 | | | | |
| | 1170 | 19 | 1.346 | 0.913 | 2951 | | | | |
| | 100 | 1.7 | 0.225 | 0.111 | 4201 | | | | |
| 80 | 2500 | 31 | 1.122 | 0.796 | 1605 | NH8320099 | NH8320103 | NH8320107 | NH8320559.XX |
| | 1750 | 21 | 1.030 | 0.695 | 2000 | | | | |
| | 1170 | 14 | 0.869 | 0.551 | 2371 | | | | |
| | 100 | 1.3 | 0.143 | 0.064 | 3246 | | | | |
| 100 | 2500 | 25 | 0.754 | 0.503 | 1268 | NH8320100 | NH8320104 | NH8320108 | NH8320560.XX |
| | 1750 | 17 | 0.691 | 0.435 | 1567 | | | | |
| | 1170 | 11 | 0.584 | 0.343 | 1846 | | | | |
| | 100 | 1.0 | 0.097 | 0.040 | 2496 | | | | |

How To Build a Part Number For Size NH832

1. Select catalog number from the selection table
2. For hollow output, replace "XX" suffix with bore code (see next page for codes)

| NEMA C nput Flange ▲ | Style BM | | | Style HM | Style BMQ | | | Style HMQ | Ratio |
|-------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|--|-------|
| | Left Hand Catalog No | Right Hand Catalog No | Double Extension Catalog No | Hollow Output Catalog No * | Left Hand Catalog No | Right Hand Catalog No | Double Extension Catalog No | Hollow Output Catalog No * | |
| 182 4TC 213 5TC | NH8320205 NH8320217 | NH8320209 NH8320229 | NH8320213 NH8320241 | NH8320569.XX NH8320573.XX | NH8320277 NH8320289 | NH8320281 NH8320301 | NH8320285 NH8320313 | NH8320593.XX NH8320597.XX | 5 |
| 182 4TC 213 5TC | NH8320206 NH8320218 | NH8320210 NH8320230 | NH8320214 NH8320242 | NH8320570.XX NH8320574.XX | NH8320278 NH8320290 | NH8320282 NH8320302 | NH8320286 NH8320314 | NH8320594.XX NH8320598.XX | 7.5 |
| 143 5TC 182 4TC 213 5TC | NH8320049 NH8320073 NH8320219 | NH8320057 NH8320081 NH8320231 | NH8320065 NH8320089 NH8320243 | NH8320517.XX NH8320525.XX NH8320575.XX | NH8320145 NH8320169 NH8320291 | NH8320153 NH8320177 NH8320303 | NH8320161 NH8320185 NH8320315 | NH8320541.XX NH8320549.XX NH8320599.XX | 10 |
| 143 5TC 182 4TC | NH8320050 NH8320074 | NH8320058 NH8320082 | NH8320066 NH8320090 | NH8320518.XX NH8320526.XX | NH8320146 NH8320170 | NH8320154 NH8320178 | NH8320162 NH8320186 | NH8320542.XX NH8320550.XX | 15 |
| 143 5TC 182 4TC | NH8320051 NH8320075 | NH8320059 NH8320083 | NH8320067 NH8320091 | NH8320519.XX NH8320527.XX | NH8320147 NH8320171 | NH8320155 NH8320179 | NH8320163 NH8320187 | NH8320543.XX NH8320551.XX | 20 |
| 143 5TC 182 4TC | NH8320052 NH8320076 | NH8320060 NH8320084 | NH8320068 NH8320092 | NH8320520.XX NH8320528.XX | NH8320148 NH8320172 | NH8320156 NH8320180 | NH8320164 NH8320188 | NH8320544.XX NH8320552.XX | 25 |
| 143 5TC 182 4TC | NH8320053 NH8320077 | NH8320061 NH8320085 | NH8320069 NH8320093 | NH8320521.XX NH8320529.XX | NH8320149 NH8320173 | NH8320157 NH8320181 | NH8320165 NH8320189 | NH8320545.XX NH8320553.XX | 30 |
| 56C 143 5TC 182 4TC | NH8320030 NH8320054 NH8320078 | NH8320038 NH8320062 NH8320086 | NH8320046 NH8320070 NH8320094 | NH8320514.XX NH8320522.XX NH8320530.XX | NH8320126 NH8320150 NH8320174 | NH8320134 NH8320158 NH8320182 | NH8320142 NH8320166 NH8320190 | NH8320538.XX NH8320546.XX NH8320554.XX | 40 |
| 56C 143 5TC 182 4TC | NH8320031 NH8320055 NH8320079 | NH8320039 NH8320063 NH8320087 | NH8320047 NH8320071 NH8320095 | NH8320515.XX NH8320523.XX NH8320531.XX | NH8320127 NH8320151 NH8320175 | NH8320135 NH8320159 NH8320183 | NH8320143 NH8320167 NH8320191 | NH8320539.XX NH8320547.XX NH8320555.XX | 50 |
| 56C 143 5TC 182 4TC | NH8320032 NH8320056 NH8320080 | NH8320040 NH8320064 NH8320088 | NH8320048 NH8320072 NH8320096 | NH8320516.XX NH8320524.XX NH8320532.XX | NH8320128 NH8320152 NH8320176 | NH8320136 NH8320160 NH8320184 | NH8320144 NH8320168 NH8320192 | NH8320540.XX NH8320548.XX NH8320556.XX | 60 |
| 56C 143 5TC | NH8320111 NH8320195 | NH8320115 NH8320199 | NH8320119 NH8320203 | NH8320563.XX NH8320567.XX | NH8320255 NH8320267 | NH8320259 NH8320271 | NH8320263 NH8320275 | NH8320587.XX NH8320591.XX | 80 |
| 56C | NH8320112 | NH8320116 | NH8320120 | NH8320564.XX | NH8320256 | NH8320260 | NH8320264 | NH8320588.XX | 100 |

For input/ output shaft overhung load and thrust load ratings, refer to pages 419-422.

▲ Consult Factory for other motor flanges available.

* Catalog numbers are for hollow output shaft reducers.

When ordering, substitute the XX suffix with the required output bore code.

Available bore codes

| | | | | | | | | | | | |
|-------------------------|---------|--------|---------|--------|--------|----------|--------|--------|----------|-------|---------|
| Fraction Size | 1-3/16" | 1-1/4" | 1-7/16" | 1-1/2" | 1-5/8" | 1-11/16" | 1-3/4" | 1-7/8" | 1-15/16" | 2" | 2-3/16" |
| Decimal Size | 1.188 | 1.250 | 1.438 | 1.500 | 1.625 | 1.688 | 1.750 | 1.875 | 1.938 | 2.000 | 2.188 |
| Output Bore Code | 19 | 20 | 23 | 24 | 26 | 27 | 28 | 30 | 31 | 32 | 35 |



NH Series Dimensions

Styles: BMQ, BM, B

CAST IRON
NH SERIES

Single Reduction
Worm Gear Reducers

Double Reduction
Worm - Worm Gear Reducers

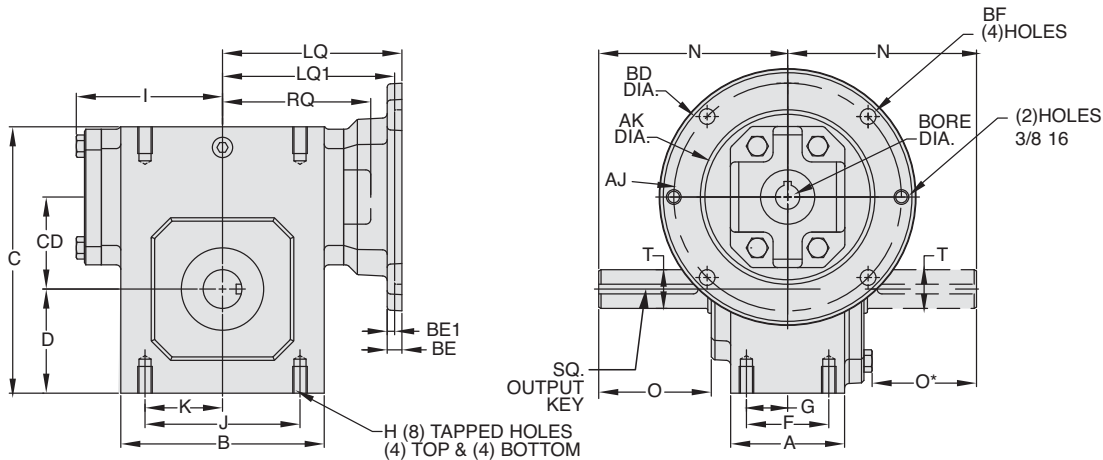
Double Reduction
Helical - Worm Gear Reducers

WASHGUARD® Reducers
and GEAR+MOTOR™

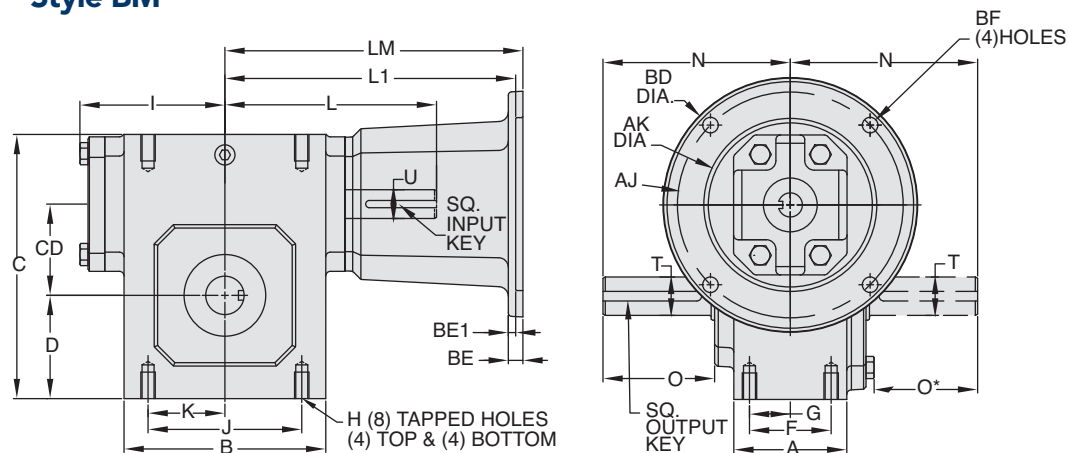
Ratio Multipliers

Accessories and
Additional Capabilities

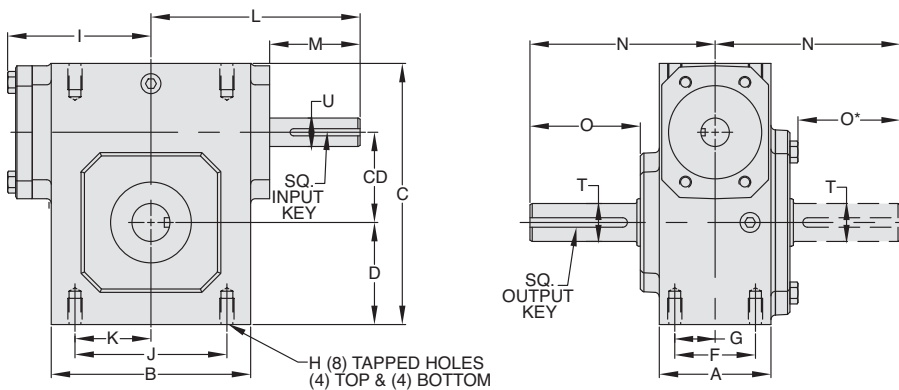
Style BMQ



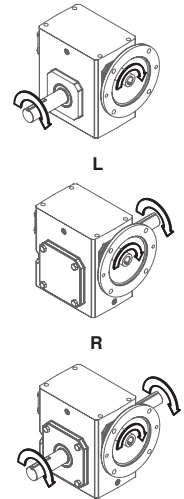
Style BM



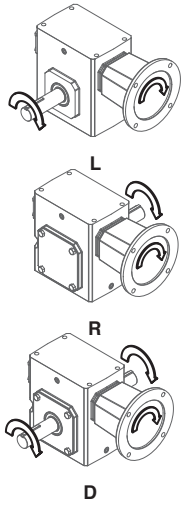
Style B



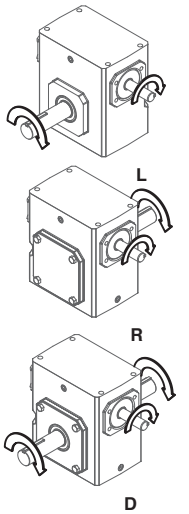
ASSEMBLIES



ASSEMBLIES



ASSEMBLIES



REVERSE ALL ARROWS FOR OPPOSITE INPUT SHAFT ROTATION. CONTACT FACTORY FOR OTHER MOUNTINGS OR ASSEMBLY POSITIONS.

REVERSE ALL ARROWS FOR OPPOSITE INPUT SHAFT ROTATION. CONTACT FACTORY FOR OTHER MOUNTINGS OR ASSEMBLY POSITIONS.



NH Series Dimensions

Styles: BMQ, BM, B



Single Reduction
Worm Gear Reducers

Double Reduction
Worm - Worm Gear Reducers

Double Reduction
Helical - Worm Gear Reducers

WASHQUARD® Reducers
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Ratio Multipliers

Accessories and
Additional Capabilities

STYLE BMQ, BM, B DIMENSIONS (Inches)

| Size | A | B | C | CD | D | F | G | H | | I | J | K | L | M | N | O | O* | T +0.000 -0.0015 | U +0.000 -0.0015 | Input Key** | Output Key |
|-------|------|-------|-------|------|------|------|------|-------------|-------|------|------|------|-------|------|------|------|------|------------------------|------------------------|----------------|---------------|
| | | | | | | | | Tap Size | Depth | | | | | | | | | | | | |
| NH813 | 2.82 | 3.80 | 4.66 | 1.33 | 1.72 | 2.00 | 1.00 | 5/16-18 UNC | .50 | 2.61 | 3.25 | 1.63 | 3.82 | 1.76 | 4.00 | 2.16 | 1.94 | 0.750 | 0.500 | 1/8 X 1.00 | 3/16 X 1.50 |
| NH815 | 2.57 | 4.06 | 5.00 | 1.54 | 1.88 | 1.88 | 0.94 | 5/16-18 UNC | .63 | 3.14 | 3.25 | 1.63 | 4.35 | 1.76 | 4.25 | 2.56 | 2.35 | 0.750 | 0.625 | 3/16 X 1.38 | 3/16 X 1.50 |
| NH818 | 2.56 | 4.50 | 5.44 | 1.75 | 2.06 | 1.88 | 0.94 | 5/16-18 UNC | .63 | 3.24 | 3.75 | 1.88 | 4.45 | 1.76 | 4.75 | 2.94 | 2.73 | 1.000 | 0.625 | 3/16 X 1.38 | 1/4 X 1.75 |
| NH821 | 2.50 | 4.50 | 6.00 | 2.06 | 2.31 | 1.88 | 0.94 | 5/16-18 UNC | .63 | 3.61 | 3.25 | 1.63 | 4.82 | 1.76 | 4.34 | 2.66 | 2.45 | 0.875 | 0.625 | 3/16 X 1.38 | 3/16 X 1.50 |
| NH824 | 2.94 | 5.25 | 6.88 | 2.38 | 2.69 | 2.13 | 1.06 | 3/8-16 UNC | .69 | 3.77 | 4.00 | 2.00 | 5.51 | 2.38 | 4.88 | 2.91 | 2.69 | 1.000 | 0.750 | 3/16 X 1.63 | 1/4 X 1.75 |
| NH826 | 2.88 | 5.75 | 7.38 | 2.63 | 2.94 | 2.13 | 1.06 | 3/8-16 UNC | .69 | 4.34 | 4.00 | 2.00 | 6.07 | 2.38 | 5.25 | 3.28 | 3.07 | 1.125 | 0.750 | 3/16 X 1.63 | 1/4 X 1.75 |
| NH830 | 3.12 | 6.62 | 8.25 | 3.00 | 3.38 | 2.38 | 1.19 | 3/8-16 UNC | .75 | 4.84 | 4.63 | 2.31 | 6.57 | 2.38 | 5.77 | 3.56 | 3.31 | 1.250 | 0.875 | 3/16 X 1.63 | 1/4 X 1.75 |
| NH832 | 4.44 | 8.00 | 10.06 | 3.25 | 4.19 | 3.50 | 1.75 | 1/2-13 UNC | 1.00 | 5.02 | 7.00 | 3.50 | 6.76 | 2.38 | 7.03 | 4.24 | 3.99 | 1.500 | 0.875 | 3/16 X 1.63 | 3/8 X 2.25 |
| NH842 | 4.75 | 9.75 | 11.50 | 4.25 | 4.50 | 3.75 | 1.88 | 1/2-13 UNC | 1.00 | 6.10 | 7.50 | 3.75 | 9.57 | 3.47 | 7.50 | 3.88 | 3.59 | 1.750 | 1.250 | 1/4 X 2.50 | 3/8 X 2.25 |
| NH852 | 6.19 | 11.00 | 12.69 | 5.25 | 4.88 | 4.50 | 2.25 | 5/8-11 UNC | 1.25 | 7.50 | 9.00 | 4.50 | 10.88 | 3.38 | 9.00 | 4.72 | 4.47 | 2.000 | 1.250 | 1/4 X 3.00 | 1/2 X 2.50 |

Motor Mounting Dimensions

NEMA DIMENSIONS (Inches)

| Size | LM | | L1 | | LQ 48CZ/ 56C/140TC | 180TC | LQ1 | | RQ | | | |
|-------|------|---------------|-----------------|-------|--------------------------|-------|-------|-------|-------|--------------------|-------|-------|
| | 48CZ | 56C/ 140TC | 180TC/ 210TC | 250TC | | | 180TC | 210TC | 250TC | 48CZ/ 56C/140TC | 180TC | 210TC |
| NH813 | 5.63 | 6.07 | N/A | N/A | 3.46 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NH815 | 6.16 | 6.60 | N/A | N/A | 3.99 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NH818 | 6.26 | 6.70 | N/A | N/A | 4.09 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NH821 | 6.63 | 7.07 | N/A | N/A | 4.46 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NH824 | N/A | 7.76 | 8.76 | N/A | 4.63 | 5.06 | N/A | N/A | 4.09 | 4.56 | N/A | N/A |
| NH826 | N/A | 8.32 | 9.32 | N/A | 5.19 | 5.62 | N/A | N/A | 4.82 | 5.13 | N/A | N/A |
| NH830 | N/A | 8.82 | 9.82 | N/A | 5.69 | 6.12 | 6.56 | N/A | 5.32 | 5.63 | 6.06 | N/A |
| NH832 | N/A | 9.01 | 10.01 | N/A | 5.88 | 6.31 | 6.75 | N/A | 5.51 | 5.81 | 6.25 | N/A |
| NH842 | N/A | 11.81 | 12.90 | 13.46 | 6.77 | 7.21 | 7.21 | 7.77 | 6.04 | 6.68 | 6.68 | 7.24 |
| NH852 | N/A | 13.21 | 14.30 | 14.86 | 7.85 | 8.61 | 8.61 | 9.17 | 7.35 | 7.98 | 7.98 | 8.54 |

NEMA DIMENSIONS (Inches)

| Frame | AJ | AK | BD | BE | BE1 | Bore Dia. | Keyway♦ | BF |
|-------|------|------|------|------|------|--------------|-------------|------|
| 48CZ | 3.75 | 3.00 | 4.36 | 0.38 | N/A | 0.500 | 1/8 X 1/16 | 0.28 |
| 56C | 5.88 | 4.50 | 6.50 | 0.38 | N/A | 0.625 | 3/16 X 3/32 | 0.41 |
| 140TC | 5.88 | 4.50 | 6.50 | 0.38 | N/A | 0.875 | 3/16 X 3/32 | 0.41 |
| 180TC | 7.25 | 8.50 | 9.00 | N/A | 0.50 | 1.125 | 1/4 X 1/8 | 0.53 |
| 210TC | 7.25 | 8.50 | 9.00 | N/A | 0.50 | 1.375 | 5/16 X 5/32 | 0.53 |
| 250TC | 7.25 | 8.50 | 9.00 | N/A | 0.50 | 1.625 | 3/8 X 3/16 | 0.53 |

IEC B5 & B3/B5 METRIC DIMENSIONS (Inches)♦

| Size | LQ1 | | | | | RQ | | | | | | |
|-------|------|------|------|------|-------------------|-------|------|------|------|------|-------------------|-------|
| | D63D | D71D | D80D | D90D | D100LD/ D112MD | D132D | D63D | D71D | D80D | D90D | D100LD/ D112MD | D132D |
| NH813 | 2.62 | 2.65 | 2.89 | N/A | N/A | N/A | 2.45 | 2.47 | 2.71 | N/A | N/A | N/A |
| NH815 | 3.15 | 3.18 | 3.42 | N/A | N/A | N/A | 2.98 | 3.00 | 3.24 | N/A | N/A | N/A |
| NH818 | 3.25 | 3.28 | 3.52 | N/A | N/A | N/A | 2.95 | 2.97 | 3.21 | N/A | N/A | N/A |
| NH821 | 3.62 | 3.65 | 3.89 | N/A | N/A | N/A | 3.43 | 3.44 | 3.68 | N/A | N/A | N/A |
| NH824 | N/A | 3.72 | 4.34 | N/A | N/A | N/A | N/A | 3.46 | 3.71 | N/A | N/A | N/A |
| NH826 | N/A | 4.28 | 4.90 | 4.90 | 5.30 | N/A | N/A | 4.09 | 4.72 | 4.72 | 5.07 | N/A |
| NH830 | N/A | 4.78 | 5.41 | 5.41 | 5.80 | N/A | N/A | 4.59 | 5.22 | 5.22 | 5.57 | N/A |
| NH832 | N/A | 4.97 | 5.59 | 5.59 | 5.99 | N/A | N/A | 4.78 | 5.41 | 5.41 | 5.76 | N/A |
| NH842 | N/A | N/A | N/A | 6.38 | 6.39 | 7.17 | N/A | N/A | N/A | 6.16 | 6.14 | 6.93 |
| NH852 | N/A | N/A | N/A | 7.78 | 7.78 | 8.57 | N/A | N/A | N/A | 7.46 | 7.45 | 8.24 |

IEC B5 & B3/B5 METRIC DIMENSIONS (MM)

| Frame | AJ | AK | BD | BE | Bore Dia. | Keyway♦ | BF TAP | OD |
|-------------------|-----|-----|-----|----|--------------|---------|------------|-----|
| D63D | 115 | 95 | 117 | 10 | 11 | 4 X 2 | M8 X 1.25 | 131 |
| D71D | 130 | 110 | 132 | 11 | 14 | 5 X 2.5 | M8 X 1.25 | 146 |
| D80D | 165 | 130 | 165 | 15 | 19 | 6 X 3 | M10 X 1.50 | 184 |
| D90D | 165 | 130 | 165 | 15 | 24 | 8 X 3.5 | M10 X 1.50 | 184 |
| D100LD/ D112MD | 215 | 180 | 216 | 18 | 28 | 8 X 3.5 | M12 X 1.75 | 237 |
| D132D | 265 | 230 | 267 | 18 | 38 | 10 X 4 | M12 X 1.75 | 290 |

- * Applies to double output shaft
- ♦ Keyway width by depth
- 48CZ not available
- ♦ Metric IEC B5 input flange options are available only on quill input styles.
- * Style B and BM only.



For safety, purchaser or user should provide protective guards over shaft extensions and any couplings, sheaves and belts, sprockets and chains, etc., mounted thereon.

GROVE GEAR OE SERIES INTERCHANGE GUIDE

| Grove Gear OE Series | Grove Gear IRONMAN NH Series |
|----------------------|------------------------------|
| UF | BMQ |
| UFC | BM |
| U | B |

Refer to page 8 for complete interchange guide for original Grove Gear OE Series products.