

# SINGLE REDUCTION REDUCERS HORSEPOWER AND TORQUE RATINGS

The horsepower/torque rating values shown apply to all Single reduction series regardless of model. The values are all published at AGMA service factor 1.0, but may be modified from time to time by the use of a different service factor. Listed here are the maximum torque in inch-pounds and output horsepower values for all standard ratios at specified input speeds.

The effective service factor of any unit selected is the product of the rated gearbox input horsepower divided by the horsepower rating of the motor used.

The efficiency of the unit, is the output horsepower

divided by the input horsepower. Other manufacturers do not derate this much, if at all, so use caution in comparisons.

The horsepower value of the electric motor used should never exceed the published input horsepower in the following tables unless a service factor less than 1.0 is appropriate (very light duty applications).

When table output torque ratings are the same for different input RPM's, the output shaft torque limitations have been reached. To stay within design limitations, torque becomes a constant and input horsepower must be reduced as RPM is lowered.

**Size 40 U Single Reduction Models, 1 9/16 inch center distance. Torque in Inch-Pounds**

| RATIO | 1800 RPM INPUT SPEED |        |               | 1200 RPM INPUT SPEED |        |               | 900 RPM INPUT SPEED |        |               | 600 RPM INPUT SPEED |        |               | 300 RPM INPUT SPEED |        |               | 100 RPM INPUT SPEED |        |               |
|-------|----------------------|--------|---------------|----------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|
|       | In. HP               | Out HP | OUTPUT TORQUE | In. HP               | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE |
| 5     | 1.24                 | 1.17   | 204           | 1.00                 | .915   | 240           | .836                | .755   | 264           | .649                | .572   | 300           | .341                | .286   | 300           | .121                | .095   | 299           |
| 10    | .91                  | .82    | 285           | .74                  | .640   | 336           | .616                | .527   | 369           | .473                | .401   | 422           | .253                | .201   | 422           | .088                | .070   | 443           |
| 15    | .77                  | .68    | 356           | .39                  | .339   | 267           | .308                | .276   | 290           | .264                | .238   | 375           | .143                | .125   | 395           | .066                | .044   | 415           |
| 20    | .42                  | .34    | 237           | .33                  | .263   | 277           | .286                | .213   | 299           | .220                | .163   | 342           | .143                | .100   | 422           | .055                | .035   | 443           |
| 25    | .47                  | .38    | 329           | .30                  | .226   | 296           | .242                | .176   | 307           | .176                | .125   | 329           | .099                | .063   | 329           | .033                | .023   | 356           |
| 30    | .47                  | .35    | 369           | .37                  | .263   | 415           | .297                | .201   | 422           | .220                | .138   | 435           | .110                | .063   | 395           | .033                | .020   | 379           |
| 40    | .29                  | .19    | 263           | .23                  | .150   | 316           | .198                | .125   | 351           | .154                | .088   | 369           | .099                | .050   | 422           | .033                | .018   | 443           |
| 50    | .28                  | .18    | 307           | .22                  | .138   | 362           | .187                | .113   | 395           | .143                | .075   | 395           | .077                | .038   | 395           | .033                | .015   | 474           |
| 60    | .22                  | .13    | 263           | .18                  | .100   | 316           | .154                | .075   | 316           | .121                | .063   | 395           | .077                | .038   | 474           | .033                | .014   | 522           |

**Size 45 U Single Reduction Models, 1 3/4 inch center distance. Torque in Inch-Pounds**

| RATIO | 1800 RPM INPUT SPEED |        |               | 1200 RPM INPUT SPEED |        |               | 900 RPM INPUT SPEED |        |               | 600 RPM INPUT SPEED |        |               | 300 RPM INPUT SPEED |        |               | 100 RPM INPUT SPEED |        |               |
|-------|----------------------|--------|---------------|----------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|
|       | In. HP               | Out HP | OUTPUT TORQUE | In. HP               | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE |
| 5     | 1.77                 | 1.54   | 269           | 1.49                 | 1.27   | 334           | 1.17                | .979   | 343           | .77                 | .641   | 337           | .44                 | .350   | 367           | .17                 | .128   | 404           |
| 10    | 1.19                 | 1.03   | 359           | .96                  | .83    | 435           | .74                 | .630   | 441           | .48                 | .408   | 429           | .25                 | .209   | 439           | .12                 | .079   | 500           |
| 15    | .89                  | .72    | 380           | .68                  | .56    | 441           | .54                 | .431   | 453           | .35                 | .280   | 441           | .19                 | .143   | 451           | .09                 | .054   | 507           |
| 20    | .66                  | .49    | 343           | .52                  | .37    | 392           | .44                 | .315   | 441           | .33                 | .245   | 514           | .17                 | .121   | 508           | .10                 | .051   | 647           |
| 30    | .56                  | .42    | 441           | .43                  | .32    | 496           | .31                 | .220   | 462           | .23                 | .163   | 514           | .13                 | .099   | 624           | .08                 | .034   | 639           |
| 40    | .36                  | .26    | 359           | .30                  | .20    | 416           | .23                 | .154   | 431           | .15                 | .099   | 416           | .10                 | .066   | 555           | .07                 | .024   | 617           |
| 50    | .33                  | .21    | 367           | .26                  | .16    | 429           | .21                 | .121   | 424           | .14                 | .077   | 404           | .08                 | .055   | 578           | .06                 | .020   | 625           |
| 60    | .25                  | .15    | 324           | .20                  | .11    | 347           | .18                 | .099   | 416           | .12                 | .068   | 428           | .07                 | .044   | 555           | .04                 | .014   | 529           |

**Size 50 All Single Reduction Models, 1 31/32 inch center distance. Torque in Inch-Pounds**

| RATIO | 1800 RPM INPUT SPEED |        |               | 1200 RPM INPUT SPEED |        |               | 900 RPM INPUT SPEED |        |               | 600 RPM INPUT SPEED |        |               | 300 RPM INPUT SPEED |        |               | 100 RPM INPUT SPEED |        |               |
|-------|----------------------|--------|---------------|----------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|---------------------|--------|---------------|
|       | In. HP               | Out HP | OUTPUT TORQUE | In. HP               | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE | In. HP              | Out HP | OUTPUT TORQUE |
| 5     | 2.20                 | 2.10   | 367           | 1.77                 | 1.64   | 432           | 1.36                | 1.24   | 433           | .913                | .816   | 429           | .473                | .420   | 441           | .165                | .121   | 382           |
| 10    | 1.63                 | 1.49   | 522           | 1.33                 | 1.18   | 621           | 1.03                | .79    | 631           | .702                | .601   | 631           | .365                | .300   | 631           | .129                | .100   | 631           |
| 15    | 1.22                 | 1.07   | 560           | .96                  | .80    | 631           | .73                 | .60    | 631           | .502                | .400   | 631           | .264                | .200   | 631           | .095                | .067   | 631           |
| 20    | .73                  | .63    | 439           | .58                  | .48    | 503           | .48                 | .39    | 541           | .343                | .275   | 577           | .195                | .145   | 631           | .072                | .050   | 631           |
| 25    | .84                  | .61    | 538           | .69                  | .48    | 631           | .54                 | .36    | 631           | .378                | .240   | 631           | .208                | .120   | 631           | .079                | .040   | 631           |
| 30    | .77                  | .59    | 619           | .56                  | .40    | 630           | .43                 | .30    | 631           | .304                | .200   | 631           | .165                | .100   | 631           | .062                | .033   | 631           |
| 40    | .50                  | .36    | 509           | .41                  | .29    | 598           | .33                 | .23    | 631           | .233                | .150   | 631           | .127                | .075   | 631           | .047                | .025   | 631           |
| 50    | .44                  | .29    | 505           | .37                  | .22    | 586           | .34                 | .18    | 631           | .224                | .120   | 631           | .124                | .060   | 631           | .048                | .020   | 631           |
| 60    | .36                  | .24    | 501           | .30                  | .18    | 577           | .25                 | .15    | 616           | .177                | .100   | 631           | .097                | .050   | 631           | .036                | .017   | 631           |
| 70    | .25                  | .14    | 338           | .22                  | .11    | 387           | .20                 | .09    | 430           | .163                | .066   | 489           | .102                | .036   | 535           | .044                | .013   | 553           |