## 11.0 DATI TECNICI

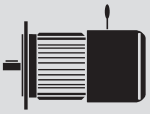
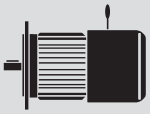
Le pagine seguenti riportano i dati tecnici dei motori trifase, monofase e autofrenanti a singola e doppia polarità.
La simbologia sottostante, richiamata sopra le tabelle, faciliterà la ricerca del tipo di motore desiderato.

## *11.0 TECHNICAL DATA*

*The following pages list the technical data of threephase, single phase and brake motors with single and double polarity. The symbols heading our tables will facilitate the search the required motor.*

## 11.0 TECHNISCHE DATEN

Auf den folgenden Seiten sind die technischen Daten zu den Drehstrom- und Einphasenmotoren sowie zu Bremsmotoren, in ein und doppelpoliger Version, aufgeführt.Die nachstehenden Kurzbezeichnungen, die in den Tabellen aufgeführt werden, erleichtern die Suche des gewünschten Motortyps.

| | | | |
|---|---|---|---|
| **TN** |  | **Motori trifase standard**<br>***Standard Threephase motors***<br>**Standard Drehstrommotoren** | **2,4,6,8**<br>poli<br>*pole*<br>polig |
| **TF**<br>**TFP**<br>**TFS** |  | **Motori trifase autofrenanti**<br>***Threephase brake motors***<br>**Drehstrom- Bremsmotoren** | |
| **DN** |  | **Motori trifase a doppia polarità**<br>***Threephase two speed motors***<br>**Polumschaltbare - Drehstrommotoren** | **2/4, 4/6, 4/8**<br>**2/6, 2/8, 6/8**<br>poli<br>*pole*<br>polig |
| **DF**<br>**DFP**<br>**DFS** |  | **Motori trifase autofrenanti a doppia polarità**<br>***Threephase two speed brake motors***<br>**Polumschaltbare- Bremsmotoren** | |
| **MN**<br>**XN** |  | **Motori monofase standard**<br>***Standard single phase motors***<br>**Standard Einphasenmotoren** | **2, 4, 6**<br>poli<br>*pole*<br>polig |
| **MF**<br>**XF** |  | **Motori monofase autofrenanti standard**<br>***Standard single phase brake motors***<br>**Standard Einphasenbremsmotoren** | |

### Simbologia

| Grandezza | Denominazione | Unità di mis. |
|---|---|---|
| $P_N$ | Potenza nominale | kW,HP |
| **n** | Velocità nominale | $min^{-1}$ |
| $\eta$ | Rendimento | % |
| **cos**$\varphi$ | Fattore di potenza | — |
| $I_{sp}$ | Corrente di spunto | A |
| $I_N$ | Corrente nominale | A |
| $M_{sp}$ | Coppia di spunto | Nm |
| $M_{MAX}$ | Coppia massima | Nm |
| $M_N$ | Coppia nominale | Nm |
| **C** | Capacità condens. | $\mu$F |
| **U** | Tensione | V |
| **J** | Momento d'inerzia | $Kgm^2$ |

( nel caso di motore autofrenante, al valore J riportato nelle tabelle, dovrà essere sommato quello del freno a c.c. o a c.a. riportato nella pagina relativa).

### *Symbols*

| *Size* | *Nomenclature* | *Unit of meas.* |
|---|---|---|
| $P_N$ | *Nominal power* | *kW,HP* |
| ***n*** | *Nominal speed* | $min^{-1}$ |
| $\eta$ | *Efficiency* | ***%*** |
| ***cos***$\varphi$ | *Power factor* | — |
| $I_{sp}$ | *Starting current* | *A* |
| $I_N$ | *Nominal current* | *A* |
| $M_{sp}$ | *Starting torque* | *Nm* |
| $M_{MAX}$ | *Max torque* | *Nm* |
| $M_N$ | *Nominal torque* | *Nm* |
| ***C*** | *Capacitor capacity* | $\mu$*F* |
| ***U*** | *Tension* | *V* |
| ***J*** | *Moment of inertia* | $Kgm^2$ |

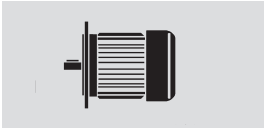
*(In case of brake motors add to J value reported in the tables, the d.c. or a.c. brake value reported in relevant page)*

### Kurzbezeichnungen

| Größe | Bezeichnung | Maßeinheit |
|---|---|---|
| $P_N$ | Nennleistung | kW,HP |
| **n** | Nenngeschwindigkeit | $min^{-1}$ |
| $\eta$ | Wirkungsgrad | % |
| **cos**$\varphi$ | Leistungsfaktor | — |
| $I_{sp}$ | Anlaufstrom | A |
| $I_N$ | Nennstrom | A |
| $M_{sp}$ | Anlaufmoment | Nm |
| $M_{MAX}$ | Maximalmoment | Nm |
| $M_N$ | Nennmoment | Nm |
| **C** | Kondensatorskapazität | $\mu$F |
| **U** | Spannung | V |
| **J** | Trägheitsmoment | $Kgm^2$ |

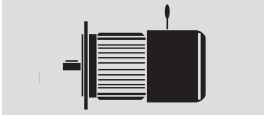
( beim Bremsmotor muß zum J-Wert der jeweilige Wert der Gs oder Ws-Bremse dazugezählt werden).

**TN**



**Motori trifase standard**
***Standard Threephase motors***
**Standard Drehstrommotoren**

**TF**
**TFP**
**TFS**



**Motori trifase autofrenanti**
***Threephase brake motors***
**Drehstrom- Bremsmotoren**

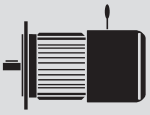
## 2 poli/*pole*/polig 3000 rpm — IE2

| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | η % | cosφ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(TN)** | Kg **(TF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **55 A** | 0.05 | 0.07 | 2700 | 52 | 0.71 | 0.30 | 2.8 | 0.20 | 2 | 2.2 | 0.00010 | 2.0 | 3.0 |
| **56 A** | 0.09 | 0.12 | 2700 | 52 | 0.76 | 0.45 | 3 | 0.32 | 2 | 2.2 | 0.00010 | 2.9 | 4.0 |
| **56 B** | 0.13 | 0.18 | 2700 | 52 | 0.76 | 0.55 | 3.2 | 0.46 | 2 | 2.3 | 0.00010 | 2.9 | 4.0 |
| **56 C** | 0.18 | 0.25 | 2700 | 53 | 0.82 | 0.60 | 2.9 | 0.63 | 2.5 | 2.5 | 0.00012 | 3 | 4.1 |
| **63 A** | 0.18 | 0.25 | 2720 | 53.2 | 0.69 | 0.58 | 2.5 | 0.60 | 2 | 2 | 0.00016 | 3.7 | 5.1 |
| **63 B** | 0.25 | 0.33 | 2700 | 58 | 0.75 | 0.73 | 3 | 0.88 | 2 | 2 | 0.00016 | 3.7 | 5.1 |
| **63 C** | 0.37 | 0.50 | 2770 | 68 | 0.78 | 1 | 3.5 | 1.27 | 2.1 | 2.2 | 0.00029 | 4.7 | 6.1 |
| **71 A** | 0.37 | 0.50 | 2800 | 68 | 0.73 | 1.09 | 3.5 | 1.26 | 2.5 | 2.7 | 0.00029 | 5.5 | 6.9 |
| **71 B** | 0.55 | 0.75 | 2800 | 73 | 0.74 | 1.4 | 4.5 | 1.8 | 2.3 | 2.6 | 0.00047 | 6.5 | 7.9 |
| **71 C** | 0.75 | 1 | 2820 | 73 | 0.74 | 2 | 4.5 | 2.5 | 2.3 | 2.6 | 0.00057 | 7.2 | 8.6 |
| **80 A** | 0.75 | 1 | 2830 | 77.4 | 0.83 | 1.8 | 5 | 2.5 | 2.3 | 2.6 | 0.00085 | 8.7 | 10.2 |
| **80 B** | 1.1 | 1.5 | 2830 | 79.6 | 0.84 | 2.5 | 5 | 2 | 2.3 | 2.6 | 0.00105 | 10.8 | 12.7 |
| **90 S** | 1.5 | 2 | 2820 | 82 | 0.86 | 3 | 5.8 | 5.1 | 2.6 | 2.7 | 0.00145 | 12.9 | 16.0 |
| **90 L** | 2.2 | 3 | 2840 | 83 | 0.86 | 4.7 | 5.5 | 7.4 | 2.9 | 3 | 0.00191 | 14.8 | 17.9 |
| **100 A** | 3 | 4 | 2890 | 84.6 | 0.85 | 6 | 5.8 | 10.2 | 2.4 | 3 | 0.00299 | 22 | 27.6 |
| **100 B** | 4 | 5.5 | 2880 | 85.8 | 0.85 | 8.1 | 6.2 | 13.2 | 2.5 | 3.2 | 0.00407 | 27 | 32.6 |
| **112 A** | 4 | 5.5 | 2900 | 86 | 0.88 | 8 | 6.6 | 13.1 | 2.1 | 2.6 | 0.00520 | 29 | 38.7 |
| **112 B** | 5.5 | 7.5 | 2900 | 87 | 0.86 | 12.3 | 6.6 | 18 | 2 | 2.8 | 0.00700 | 32 | 41.7 |
| **132 SA** | 5.5 | 7.5 | 2910 | 87 | 0.83 | 11.6 | 6.5 | 18 | 3.3 | 3.1 | 0.01080 | 44 | 61 |
| **132 SB** | 7.5 | 10 | 2910 | 88 | 0.84 | 15 | 7 | 24.6 | 3.5 | 3.3 | 0.01300 | 50 | 67 |
| **132 MC** | 9.2 | 12.5 | 2910 | 88 | 0.87 | 18.5 | 7.1 | 30.2 | 3.6 | 3.8 | 0.01639 | 59 | 75 |
| **132 MD** | 11 | 15 | 2910 | 89.4 | 0.87 | 21.5 | 7.6 | 36 | 3.4 | 3.8 | 0.01873 | 65 | 82 |
| **160 MA** | 11 | 15 | 2920 | 89.4 | 0.82 | 22 | 6.2 | 36 | 2.1 | 2.8 | 0.02810 | 75 | 127 |
| **160 MB** | 15 | 20 | 2925 | 90.3 | 0.83 | 28 | 6.5 | 49 | 2.4 | 3 | 0.03830 | 86 | 138 |
| **160 L** | 18.5 | 25 | 2940 | 90.9 | 0.80 | 34 | 7.2 | 60 | 2.6 | 3 | 0.04600 | 97 | 149 |
| **180 M** | 22 | 30 | 2930 | 91.3 | 0.84 | 41 | 7.1 | 72 | 2.5 | 2.9 | 0.07400 | 120 | 189 |
| **200 LA** | 30 | 40 | 2950 | 92 | 0.87 | 54 | 6.8 | 97 | 2.4 | 3 | 0.09740 | 147 | 219 |
| **200 LB** | 37 | 50 | 2950 | 92.6 | 0.88 | 65 | 7.2 | 120 | 2.5 | 3 | 0.12000 | 177 | — |
| **225 M** | 45 | 60 | 2860 | 92.9 | 0.88 | 80 | 6.7 | 145 | 2.4 | 3 | 0.23000 | 210 | — |
| **250 M** | 55 | 75 | 2956 | 93 | 0.87 | 99 | 6.7 | 178 | 2.4 | 3 | 0.25000 | 225 | — |
| **280 S** | 75 | 100 | 2960 | 93.8 | 0.87 | 133 | 6.8 | 242 | 2.3 | 2.7 | 0.35000 | 335 | — |
| **315 S** | 90 | 125 | 2960 | 94.2 | 0.88 | 157 | 7.2 | 290 | 2.3 | 2.6 | 0.42000 | 378 | — |
| **315 S2** | 110 | 150 | 2970 | 94.2 | 0.86 | 196 | 6.2 | 353 | 2 | 2.1 | 0.95000 | 713 | — |
| **315 MA** | 132 | 175 | 2970 | 94.5 | 0.86 | 235 | 6 | 424 | 2 | 2.1 | 0.95000 | 713 | — |
| **315 MC** | 160 | 220 | 2975 | 94.9 | 0.87 | 280 | 6 | 513 | 2.1 | 2.1 | 1.12000 | 780 | — |
| **315 MD** | 200 | 270 | 2980 | 95.4 | 0.89 | 340 | 6.5 | 640 | 2.2 | 2.2 | 1.30000 | 840 | — |
| **355 LA** | 250 | 340 | 2980 | 96 | 0.90 | 410 | 7 | 800 | 2.3 | 2.3 | 3.70000 | 1620 | — |
| **355 LB** | 315 | 430 | 2980 | 96.2 | 0.90 | 526 | 7.1 | 1008 | 2.2 | 2.2 | 4.50000 | 1810 | — |
| **355 LC** | 355 | 485 | 2980 | 96.4 | 0.90 | 591 | 7.2 | 1136 | 2.1 | 2.2 | 5.20000 | 2030 | — |
| **355 LD** | 400 | 544 | 2980 | 96.5 | 0.90 | 666 | 7.2 | 1281 | 2.1 | 2.1 | 5.90000 | 2180 | |
| **355 LE** | 450 | 612 | 2980 | 96.5 | 0.90 | 749 | 7.2 | 1441 | 2.2 | 2.2 | 6.50000 | 2310 | — |

**TN**

**Motori trifase standard**
***Standard Threephase motors***
**Standard Drehstrommotoren**

**TF**
**TFP**
**TFS**

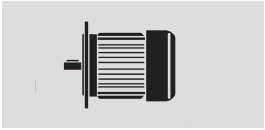


**Motori trifase autofrenanti**
***Threephase brake motors***
**Drehstrom- Bremsmotoren**

## 4 poli/*pole*/polig 1500 rpm — IE2

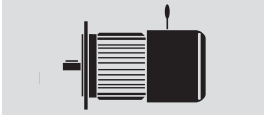
| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | η % | cosφ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(TN)** | Kg **(TF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **55 A** | 0.05 | 0.07 | 1300 | 35 | 0.68 | 0.35 | 1.8 | 0.4 | 1.7 | 1.3 | 0.00010 | 2.0 | — |
| **56 B** | 0.09 | 0.12 | 1340 | 56 | 0.65 | 0.43 | 2.5 | 0.6 | 2.6 | 2.6 | 0.00018 | 2.9 | 4.0 |
| **63 A** | 0.13 | 0.18 | 1360 | 60 | 0.68 | 0.60 | 2.4 | 0.91 | 2 | 2.2 | 0.00025 | 3.7 | 5.1 |
| **63 B** | 0.18 | 0.25 | 1360 | 62 | 0.69 | 0.70 | 2.5 | 1.3 | 2.2 | 2.3 | 0.00029 | 4.5 | 5.9 |
| **71 A** | 0.25 | 0.33 | 1400 | 70 | 0.70 | 0.85 | 3 | 1.7 | 2.3 | 2.3 | 0.00074 | 5.4 | 6.8 |
| **71 B** | 0.37 | 0.50 | 1400 | 70 | 0.71 | 1.13 | 3.7 | 2.5 | 2.8 | 2.8 | 0.00096 | 6.4 | 7.8 |
| **71 C** | 0.55 | 0.75 | 1400 | 73 | 0.75 | 1.45 | 3.9 | 3.75 | 2.5 | 2.5 | 0.00117 | 7 | 8.4 |
| **80 A** | 0.55 | 0.75 | 1400 | 75 | 0.78 | 1.6 | 4 | 3.8 | 2.4 | 2.5 | 0.00191 | 8.5 | 10.4 |
| **80 B** | 0.75 | 1 | 1400 | 79.6 | 0.78 | 2.1 | 4 | 5 | 2.4 | 2.5 | 0.00254 | 10.5 | 12.4 |
| **80C** | 0.95 | 1.3 | 1420 | 78 | 0.75 | 2.5 | 4 | 6.5 | 2.3 | 2.6 | 0.00285 | 11.5 | 13.4 |
| **90 S** | 1.1 | 1.5 | 1380 | 82 | 0.84 | 2.62 | 4.3 | 7.6 | 2.2 | 2.2 | 0.00242 | 12.5 | 15.6 |
| **90 L** | 1.5 | 2 | 1410 | 82.8 | 0.84 | 3.66 | 4.7 | 10.1 | 2.7 | 2.9 | 0.00321 | 14 | 17.1 |
| **90 LB** | 1.8 | 2.5 | 1400 | 82 | 0.84 | 4.4 | 4.7 | 12.2 | 2.7 | 2.9 | 0.00400 | 16 | 19.1 |
| **100 A** | 2.2 | 3 | 1440 | 84 | 0.84 | 5 | 4.8 | 14.5 | 2.2 | 2.5 | 0.00520 | 20 | 25.6 |
| **100 B** | 3 | 4 | 1450 | 85 | 0.84 | 6.7 | 5 | 19.7 | 2.3 | 2.6 | 0.00668 | 24 | 29.6 |
| **100 C** | 4 | 5.5 | 1410 | 86 | 0.82 | 8 | 4.7 | 27 | 2.4 | 2.7 | 0.00706 | 26 | 31.6 |
| **112 A** | 4 | 5.5 | 1420 | 86.6 | 0.88 | 7.8 | 5 | 26.9 | 2.2 | 2.3 | 0.01052 | 29 | 38.7 |
| **112 B** | 5.5 | 7.5 | 1420 | 87 | 0.90 | 13 | 6 | 37 | 1.9 | 2 | 0.01320 | 32 | 41.7 |
| **132 SA** | 5.5 | 7.5 | 1440 | 87.7 | 0.81 | 13 | 6.2 | 36.5 | 2.1 | 2.5 | 0.02068 | 43 | 60 |
| **132 MB** | 7.5 | 10 | 1440 | 88.7 | 0.81 | 17.5 | 6.3 | 49.7 | 2.5 | 2.7 | 0.02688 | 54 | 71 |
| **132 MC** | 9.2 | 12.5 | 1450 | 88 | 0.83 | 18.5 | 7 | 60.6 | 2.4 | 2.6 | 0.03059 | 58 | 75 |
| **132 MD** | 11 | 15 | 1450 | 89 | 0.83 | 22 | 8 | 72.4 | 2.3 | 2.4 | 0.03632 | 69 | 81 |
| **160 M** | 11 | 15 | 1450 | 89 | 0.86 | 22 | 6 | 72.4 | 2.2 | 2.4 | 0.06800 | 75 | 127 |
| **160 L** | 15 | 20 | 1450 | 90.6 | 0.86 | 30 | 6 | 99 | 2.4 | 2.4 | 0.09200 | 93 | 145 |
| **180 M** | 18.5 | 25 | 1470 | 91 | 0.82 | 39 | 6 | 120 | 2.7 | 2.8 | 0.12200 | 120 | 162 |
| **180 L** | 22 | 30 | 1470 | 92 | 0.82 | 44 | 6 | 143 | 2.7 | 2.7 | 0.14100 | 136 | 178 |
| **200 L** | 30 | 40 | 1470 | 92 | 0.83 | 59 | 6 | 195 | 2.7 | 2.8 | 0.19900 | 177 | 219 |
| **225 S** | 37 | 50 | 1470 | 93.1 | 0.85 | 68 | 6.5 | 240 | 2.3 | 2.8 | 0.32000 | 207 | — |
| **225 M** | 45 | 60 | 1475 | 93.7 | 0.87 | 80 | 6.5 | 291 | 2.4 | 2.8 | 0.41000 | 230 | — |
| **250 M** | 55 | 75 | 1475 | 93.9 | 0.88 | 87 | 6.4 | 356 | 2.3 | 2.6 | 0.52000 | 264 | — |
| **280 S** | 75 | 100 | 1480 | 93.9 | 0.86 | 135 | 6.7 | 483 | 2.7 | 2.3 | 0.89000 | 362 | — |
| **280 M** | 90 | 125 | 1480 | 94.6 | 0.88 | 157 | 7.1 | 580 | 2.6 | 2.4 | 1.06000 | 427 | — |
| **315 S** | 110 | 150 | 1480 | 94.3 | 0.87 | 193 | 7.1 | 709 | 2.6 | 2.4 | 1.15000 | 455 | — |
| **315 MA** | 132 | 180 | 1485 | 94.5 | 0.84 | 239 | 6.2 | 848 | 2.5 | 2.5 | 2.10000 | 739 | — |
| **315 LA** | 160 | 220 | 1485 | 94.7 | 0.85 | 286 | 6.3 | 1028 | 2.5 | 2.5 | 2.50000 | 812 | — |
| **315 LC** | 200 | 270 | 1485 | 95 | 0.86 | 353 | 6.5 | 1285 | 2 | 2.6 | 3.10000 | 918 | — |
| **355 MB** | 250 | 340 | 1490 | 95 | 0.86 | 440 | 6.2 | 1601 | 2 | 2.4 | 6.10000 | 1690 | — |
| **355 LB** | 315 | 430 | 1490 | 95.1 | 0.86 | 554 | 6.2 | 2017 | 1.9 | 2.4 | 7.40000 | 1880 | — |
| **355 LC** | 355 | 485 | 1490 | 95.2 | 0.86 | 324 | 6.2 | 2273 | 1.9 | 2.3 | 9.40000 | 2100 | — |

**TN**



**Motori trifase standard**
***Standard Threephase motors***
**Standard Drehstrommotoren**

**TF**
**TFP**
**TFS**



**Motori trifase autofrenanti**
***Threephase brake motors***
**Drehstrom- Bremsmotoren**

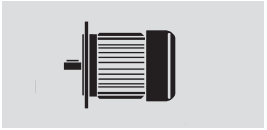
## 6 poli /*pole*/polig 1000 rpm — IE2

| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | η % | cosφ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(TN)** | Kg **(TF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **56 A** | 0.06 | 0.08 | 840 | 48 | 0.59 | 0.4 | 2 | 0.68 | 1.8 | 2 | 0.00018 | 3 | 4.1 |
| **63 A** | 0.09 | 0.12 | 870 | 54 | 0.60 | 0.5 | 2 | 1 | 1.8 | 2 | 0.00034 | 4 | 5 |
| **63 B** | 0.12 | 0.16 | 890 | 56 | 0.60 | 0.65 | 2 | 1.34 | 1.8 | 2 | 0.00060 | 4.6 | 6.0 |
| **71 A** | 0.18 | 0.25 | 880 | 56 | 0.62 | 0.8 | 2.5 | 1.95 | 1.8 | 2 | 0.00074 | 5.5 | 6.9 |
| **71 B** | 0.25 | 0.33 | 900 | 60 | 0.65 | 1.2 | 2.9 | 2.65 | 1.9 | 2.2 | 0.00096 | 6.5 | 7.9 |
| **80 A** | 0.37 | 0.50 | 920 | 65 | 0.66 | 1.5 | 3.2 | 3.8 | 1.9 | 2.2 | 0.00191 | 8.5 | 10.4 |
| **80 B** | 0.55 | 0.75 | 920 | 69 | 0.70 | 1.7 | 3.5 | 5.7 | 2 | 2.3 | 0.00264 | 10.5 | 12.4 |
| **90 S** | 0.75 | 1 | 920 | 76 | 0.73 | 2.4 | 3.5 | 7.79 | 1.8 | 2 | 0.00242 | 12.5 | 15.6 |
| **90 L** | 1.1 | 1.5 | 920 | 78 | 0.71 | 3.4 | 3.5 | 11.4 | 1.8 | 2 | 0.00398 | 14 | 17.1 |
| **100 A** | 1.5 | 2 | 940 | 79.8 | 0.75 | 4 | 4 | 15.2 | 1.8 | 2 | 0.00519 | 24 | 29.8 |
| **112 A** | 2.2 | 3 | 950 | 81 | 0.75 | 5.4 | 6 | 22 | 2.3 | 2.2 | 0.00720 | 34 | 43.7 |
| **132 SA** | 3 | 4 | 950 | 83.3 | 0.76 | 7.1 | 5.4 | 30 | 2.1 | 2.1 | 0.01940 | 44 | 61 |
| **132 MB** | 4 | 5.5 | 950 | 84.6 | 0.78 | 9.1 | 5.3 | 40 | 2.4 | 2.4 | 0.02688 | 55 | 72 |
| **132 MC** | 5.5 | 7.5 | 965 | 86 | 0.82 | 13.3 | 5.3 | 55 | 2.6 | 2.6 | 0.03430 | 60 | 127 |
| **160 M** | 7.5 | 10 | 920 | 87.2 | 0.82 | 15.5 | 5 | 74 | 2 | 2.3 | 0.08300 | 75 | 152 |
| **160 L** | 11 | 15 | 970 | 88.7 | 0.82 | 22 | 5.5 | 108 | 2.3 | 2.5 | 0.12500 | 100 | 189 |
| **180 L** | 15 | 20 | 970 | 89.7 | 0.82 | 30 | 5.2 | 148 | 2.3 | 2.2 | 0.20000 | 147 | 219 |
| **200 LA** | 18.5 | 25 | 970 | 90.4 | 0.84 | 36 | 5.2 | 182 | 2.1 | 2.3 | 0.25000 | 177 | — |
| **200 LB** | 22 | 30 | 975 | 90.9 | 0.86 | 41 | 5.6 | 216 | 2.4 | 2.4 | 0.20000 | 190 | — |
| **225 M** | 30 | 40 | 975 | 91.5 | 0.81 | 58 | 6.3 | 294 | 2.4 | 2.4 | 0.47000 | 216 | — |
| **250 M** | 37 | 50 | 980 | 92 | 0.82 | 72 | 6.5 | 362 | 2.6 | 2.6 | 0.57000 | 258 | — |
| **280 S** | 45 | 60 | 980 | 92.2 | 0.84 | 84 | 6 | 438 | 2.4 | 2.3 | 0.85000 | 314 | — |
| **280 M** | 55 | 75 | 980 | 93 | 0.84 | 102 | 6 | 535 | 2.5 | 2.6 | 1.07000 | 353 | — |
| **315 S** | 75 | 100 | 985 | 93.2 | 0.85 | 137 | 6 | 730 | 2.3 | 2.3 | 1.45000 | 426 | — |
| **315 MA** | 90 | 125 | 985 | 94 | 0.85 | 163 | 6 | 872 | 2.5 | 2.5 | 2.60000 | 707 | — |
| **315 MB** | 110 | 150 | 985 | 94 | 0.85 | 199 | 6 | 1065 | 2.4 | 2.4 | 3.00000 | 758 | — |
| **315 MC** | 132 | 180 | 985 | 94.6 | 0.85 | 238 | 6.3 | 1278 | 2.5 | 2.5 | 3.60000 | 848 | — |
| **315 MD** | 160 | 220 | 985 | 94.8 | 0.86 | 284 | 6.3 | 1550 | 2.5 | 2.5 | 4.40000 | 953 | — |

## 8 poli /*pole*/polig 750 rpm

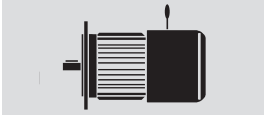
| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | η % | cosφ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(TN)** | Kg **(TF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **63 A** | 0.07 | 0.10 | 660 | 42 | 0.56 | 0.6 | 1.3 | 1 | 1.8 | 2 | 0.00029 | 4.5 | 5.9 |
| **71 A** | 0.12 | 0.16 | 670 | 46 | 0.60 | 0.8 | 2 | 1.72 | 1.8 | 2 | 0.00096 | 6.5 | 7.9 |
| **80 A** | 0.18 | 0.25 | 690 | 50 | 0.60 | 0.9 | 2.5 | 2.5 | 1.8 | 2 | 0.00191 | 8.4 | 10.3 |
| **80 B** | 0.25 | 0.33 | 700 | 50 | 0.60 | 1 | 2.5 | 3.4 | 1.8 | 2 | 0.00254 | 10.4 | 12.3 |
| **90 S** | 0.37 | 0.50 | 700 | 58 | 0.60 | 1.6 | 3 | 5 | 2 | 2.2 | 0.00242 | 12.3 | 15.4 |
| **90 L** | 0.55 | 0.75 | 700 | 62 | 0.62 | 2.2 | 3.2 | 7.5 | 2 | 2.2 | 0.00320 | 13.8 | 16.9 |
| **100 A** | 0.75 | 1 | 700 | 70 | 0.64 | 2.6 | 3.5 | 10.4 | 2 | 2.4 | 0.00519 | 23 | 28.6 |
| **100 B** | 1.1 | 1.5 | 700 | 72 | 0.64 | 3.6 | 3.5 | 15.2 | 2 | 2.4 | 0.00668 | 30 | 35.6 |
| **112 A** | 1.5 | 2 | 700 | 74 | 0.66 | 4.7 | 4 | 20.7 | 2.1 | 2.4 | 0.01220 | 33 | 42.7 |
| **132 SA** | 2.2 | 3 | 700 | 75 | 0.65 | 7 | 4.1 | 30 | 2.2 | 2.4 | 0.01940 | 44 | 61 |
| **132 MB** | 3 | 4 | 700 | 77 | 0.65 | 9 | 4.3 | 41 | 2.2 | 2.4 | 0.03430 | 55 | 72 |
| **160 MA** | 4 | 5.5 | 710 | 80 | 0.70 | 10.8 | 4.5 | 54 | 1.8 | 2 | 0.06250 | 60 | 112 |
| **160 MB** | 5.5 | 7.5 | 720 | 84 | 0.74 | 12.6 | 5 | 73 | 1.8 | 2 | 0.08500 | 75 | 127 |
| **160 L** | 7.5 | 10 | 720 | 85 | 0.75 | 16.8 | 5 | 100 | 1.8 | 2 | 0.12590 | 100 | 152 |
| **180 LB** | 11 | 15 | 725 | 86.7 | 0.75 | 25 | 4.5 | 145 | 2 | 2.2 | 0.20200 | 147 | 219 |
| **200 LB** | 15 | 20 | 725 | 87.1 | 0.75 | 34 | 5 | 197 | 2.1 | 2.3 | 0.25000 | 177 | 219 |

**DN**



**Motori trifase a doppia polarità**
***Threephase two speed motors***
**Polumschaltbare - Drehstrommotoren**

**DF**
**DFP**
**DFS**



**Motori trifase autofrenanti a doppia polarità**
***Threephase two speed brake motors***
**Polumschaltbare - Bremsmotoren**

## 2/4 poli/*pole*/polig 3000/1500 rpm Avvolgimento unico / *Single winding* / Einfachwicklung

| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(DN)** | Kg **(DF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **63 A** | 0.18/0.12 | 0.25/0.16 | 2750/1350 | 0.75/0.5 | 3/2.5 | 0.65/0.85 | 1.3/1.3 | 1.4/1.5 | 0.00025 | 3.7 | 5.1 |
| **63 B** | 0.22/0.15 | 0.30/0.20 | 2760/1360 | 0.83/0.6 | 3/2.5 | 0.76/1 | 1.3/1.3 | 1.4/1.5 | 0.00029 | 4.5 | 5.9 |
| **71 A** | 0.30/0.20 | 0.40/0.28 | 2780/1400 | 1.2/1 | 3/3 | 1/1.4 | 1.5/1.3 | 1.6/1.8 | 0.00074 | 5.4 | 6.8 |
| **71 B** | 0.44/0.30 | 0.60/0.40 | 2780/1400 | 1.6/1.3 | 3/3 | 1.5/2 | 1.5/1.4 | 1.6/1.8 | 0.00096 | 6.4 | 7.8 |
| **80 A** | 0.60/0.45 | 0.8/0.6 | 2780/1400 | 2/1.6 | 3.5/3.5 | 2/3 | 1.5/1.3 | 1.8/1.8 | 0.00191 | 8.4 | 10.3 |
| **80 B** | 0.80/0.60 | 1.1/0.8 | 2800/1400 | 2.5/1.9 | 3.5/3.5 | 2.7/4 | 1.6/1.3 | 1.8/1.8 | 0.00254 | 10.5 | 12.4 |
| **90 L** | 1.8/1.2 | 2.5/1.7 | 2830/1420 | 4.5/3.1 | 5/4.5 | 6/8 | 2.1/2 | 2.2/2 | 0.00321 | 14 | 17.1 |
| **90 LL** | 2.2/1.5 | 3/2 | 2830/1420 | 5.5/3.7 | 5/4.5 | 7.5/10 | 2.1/2 | 2.4/2.2 | 0.00398 | 16 | 19.1 |
| **100 A** | 2.5/1.8 | 3.4/2.5 | 2830/1420 | 6.2/4.5 | 5/4.5 | 8.3/12 | 2.3/1.9 | 2.6/2 | 0.00519 | 20 | 25.6 |
| **100 B** | 3.3/2.5 | 4.4/3.4 | 2850/1430 | 8.1/5.9 | 6/5 | 11/16.7 | 2.4/2.2 | 2.8/2.4 | 0.00668 | 24 | 29.6 |
| **112 A** | 4.5/3.3 | 6/4.5 | 2850/1430 | 9.8/7 | 6/5 | 15/22 | 2.4/2.3 | 3/2.4 | 0.01223 | 34 | 43.7 |
| **132 S** | 5.5/4 | 7.5/5.5 | 2910/1450 | 13/9.5 | 6.5/5.5 | 18.5/26.5 | 2.4/2.3 | 3/2.5 | 0.01080 | 44 | 60 |
| **132 M** | 7.5/6.2 | 10/8.5 | 2910/1450 | 16.5/13.5 | 7/6 | 25/42 | 2.5/2.8 | 3/2.5 | 0.01639 | 59 | 75 |
| **160 M** | 11/9 | 15/12.2 | 2940/1460 | 23/19.5 | 7/6 | 35.7/52.9 | 2.5/2.6 | 3/2.5 | 0.06200 | 122 | 149 |
| **160 L** | 17/13 | 23/17.5 | 2930/1460 | 33/26 | 7.5/6.3 | 55.4/85 | 2.4/2.5 | 3/2.5 | 0.09200 | 142 | 169 |

## 4/6 poli/*pole*/polig 1500/1000 rpm Doppio avvolgimento / *Double bobinage* / Doppelwicklung

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **71 B** | 0.30/0.22 | 0.40/0.30 | 1380/890 | 1/0.9 | 3.5/2 | 2/2.3 | 1.3/1.3 | 2/1.8 | 0.00057 | 6.5 | 7.9 |
| **80 A** | 0.37/0.26 | 0.50/0.35 | 1410/900 | 1.4/1.2 | 3.5/2.5 | 2.5/2.7 | 1.3/1.4 | 1.9/2.1 | 0.00191 | 8.5 | 10.4 |
| **80 B** | 0.55/0.45 | 0.75/0.60 | 1420/920 | 2/1.8 | 3.5/2.5 | 3.7/4.6 | 1.5/1.8 | 2.1/2.3 | 0.00254 | 10.5 | 12.4 |
| **90 S** | 0.75/0.5 | 1/0.7 | 1420/920 | 2.4/2.1 | 4/2.5 | 5/5.2 | 1.4/1.3 | 2.1/2 | 0.00242 | 12.5 | 15.6 |
| **90 L** | 1.1/0.75 | 1.5/1 | 1470/900 | 3.9/3.7 | 4.2/2.5 | 7.3/7.9 | 1.4/1.4 | 2.1/2.1 | 0.00321 | 14 | 17.1 |
| **100 A** | 1.3/0.9 | 1.8/1.2 | 1430/920 | 4/3.8 | 4.5/3 | 8.6/9.3 | 1.4/1.4 | 2.1/2.2 | 0.00519 | 21 | 26.6 |
| **100 B** | 1.5/1.1 | 2/1.5 | 1430/930 | 5.4/4.8 | 4.5/3 | 10/11.2 | 1.4/1.5 | 2.2/2.3 | 0.00668 | 24 | 29.6 |
| **112 A** | 2.2/1.5 | 3/2 | 1430/930 | 6/5.8 | 4.5/3.5 | 14.7/15.4 | 1.4/1.3 | 1.7/1.6 | 0.01052 | 34 | 43.7 |
| **132 S** | 2.5/1.8 | 3.5/2.5 | 1420/930 | 6.5/6 | 5.5/4.8 | 17/18.8 | 1.6/1.5 | 1.8/1.6 | 0.01080 | 44 | 60 |
| **132 M** | 4/3 | 5.5/4 | 1440/930 | 8.5/6.9 | 6.5/5.5 | 27/31.4 | 1.8/1.7 | 2/1.9 | 0.01639 | 59 | 75 |
| **160 M** | 6.5/4.5 | 8.8/6 | 1450/940 | 15/11.6 | 5/4.6 | 43/45 | 1.8/1.7 | 2/1.9 | 0.06200 | 122 | 149 |
| **160 L** | 9.5/6.5 | 13/8.8 | 1450/940 | 21/17 | 5.4/4.4 | 62/66 | 2/1.8 | 2/1.9 | 0.09200 | 152 | 179 |

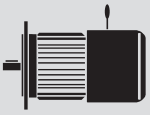
## 4/8 poli/*pole*/polig 1500/750 rpm Avvolgimento unico / *Single winding* / Einfachwicklung

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **63 B** | 0.09/0.04 | 0.12/0.06 | 1360/660 | 0.6/0.55 | 3.5/2 | 0.6/0.57 | 1.3/1.3 | 1.9/1.8 | 0.00029 | 4.6 | 6.0 |
| **71 B** | 0.15/0.09 | 0.20/0.12 | 1390/690 | 0.7/0.65 | 3.5/2 | 1/1.2 | 1.3/1.3 | 1.9/1.8 | 0.00096 | 6.5 | 7.9 |
| **80 A** | 0.29/0.18 | 0.40/0.25 | 1410/700 | 1.3/1.1 | 3.5/2.5 | 1.9/2.4 | 1.5/1.8 | 2/1.8 | 0.00191 | 8.5 | 10.4 |
| **80 B** | 0.37/0.22 | 0.5/0.30 | 1420/700 | 1.8/1.7 | 3.5/2.5 | 2.4/3 | 1.5/1.8 | 2/1.8 | 0.00254 | 10.5 | 12.4 |
| **90 S** | 0.6/0.26 | 0.8/0.35 | 1430/700 | 1.9/1.8 | 4/2.5 | 4/3.5 | 1.4/1.3 | 2/1.8 | 0.00242 | 12.5 | 15.6 |
| **90 L** | 1/0.5 | 1.3/0.7 | 1430/700 | 2.6/2.5 | 4.5/2.5 | 6.8/6.8 | 1.4/1.4 | 2/1.8 | 0.00321 | 14 | 17.1 |
| **100 B** | 1.5/0.75 | 2/1 | 1430/700 | 3.8/3.6 | 4.5/3 | 10/10 | 1.4/1.5 | 2/1.8 | 0.00668 | 24 | 29.6 |
| **112 A** | 2.2/1.3 | 3/1.8 | 1410/700 | 4.7/4.3 | 4.5/3.4 | 15.2/17.7 | 1.6/1.5 | 1.9/1.9 | 0.01223 | 34 | 44 |
| **132 S** | 3.1/1.7 | 4.2/2.3 | 1420/710 | 7/5.9 | 4.7/3.8 | 21.2/23.3 | 1.8/1.8 | 2/2.1 | 0.01080 | 44 | 60 |
| **132 M** | 5/2.8 | 6.8/3.8 | 1440/720 | 13/8.2 | 5.2/4.3 | 33.7/3.7 | 1.8/1.8 | 2.2/2.3 | 0.01639 | 59 | 75 |
| **160 M** | 6/4 | 8/5.5 | 1440/720 | 13/9.2 | 5/4.6 | 39.8/53 | 1.6/1.5 | 2/2 | 0.06200 | 122 | 149 |
| **160 L** | 11/7.5 | 15/10 | 1440/720 | 22/17.5 | 5.2/4.7 | 43/100 | 1.7/1.5 | 2/2 | 0.09200 | 142 | 169 |

**DN**

**Motori trifase a doppia polarità**
***Threephase two speed motors***
**Polumschaltbare - Drehstrommotoren**

**DF**
**DFP**
**DFS**



**Motori trifase autofrenanti a doppia polarità**
***Threephase two speed brake motors***
**Polumschaltbare - Bremsmotoren**

## 2/6 poli/*pole*/polig 3000/1000 rpm Doppio avvolgimento / *Double bobinage* / Doppelwicklung

| Tipo *Type* Typ | $P_N$ kW | $P_N$ HP | $n_n$ $min^{-1}$ | $I_N$ (400V) A | $\frac{I_{sp}}{I_N}$ | $M_N$ Nm | $\frac{M_{sp}}{M_N}$ | $\frac{M_{MAX}}{M_N}$ | J $Kgm^2$ | Kg **(DN)** | Kg **(DF)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **71 C** | 0.25/0.15 | 0.33/0.20 | 2780/850 | 1.15/0.9 | 4/2 | 0.85/1.7 | 1.6/1.3 | 2/1.8 | 0.00117 | 7 | 8.4 |
| **80 C** | 0.75/0.37 | 1/0.50 | 2800/880 | 2.7/1.8 | 4.2/2.5 | 2.5/4 | 1.8/1.8 | 2.4/2.3 | 0.00285 | 11.5 | 13.4 |
| **90 S** | 1.1/0.55 | 1.5/0.75 | 2800/900 | 3.3/1.6 | 4.5/2.5 | 3.75/5.8 | 1.6/1.5 | 2.4/2.4 | 0.00242 | 12.5 | 15.6 |
| **90 LB** | 1.5/0.75 | 2/1 | 2800/910 | 4.3/3.7 | 4.8/2.8 | 5.2/7.9 | 1.6/1.5 | 2.3/2.4 | 0.00321 | 14 | 17.1 |
| **100 B** | 2.2/1.1 | 3/1.5 | 2820/910 | 5.5/4.8 | 5/3 | 7.5/11.5 | 1.8/1.5 | 2.4/2.3 | 0.00668 | 24 | 29.6 |
| **112 B** | 3/1.5 | 4/2 | 2820/920 | 6.9/5.8 | 5.5/3.5 | 10.2/15.6 | 1.9/1.3 | 2.5/1.8 | 0.01052 | 29 | 38.7 |
| **132 S** | 4/1.7 | 5.5/2.3 | 2840/930 | 9/4.3 | 5/4 | 13.3/13 | 2/1.8 | 2.3/1.8 | 0.01940 | 44 | 60 |
| **132 M** | 5.5/2 | 7.5/2.7 | 2850/930 | 12/6 | 5.5/4.6 | 18.2/20 | 2.2/1.8 | 2.3/1.8 | 0.03430 | 60 | 77 |
| **160 M** | 7.5/2.5 | 10.2/3.4 | 2880/950 | 16/7 | 6/4.7 | 25/25 | 2/2 | 1.8/1.8 | 0.06200 | 122 | 149 |
| **160 L** | 11/3.7 | 15/5 | 2900/960 | 25/11 | 6.2/4.8 | 36/36.8 | 2/2 | 1.8/1.8 | 0.09200 | 142 | 169 |

## 2/8 poli/*pole*/polig 3000/750 rpm Doppio avvolgimento / *Double bobinage* / Doppelwicklung

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **63 C** | 0.18/0.06 | 0.25/0.08 | 2750/640 | 0.90/0.50 | 3.4/2.3 | 0.62/0.88 | 1.6/1.9 | 1.8/1.6 | 0.00034 | 4.8 | 6.2 |
| **71 C** | 0.30/0.09 | 0.40/0.12 | 2770/660 | 1.15/0.65 | 4/2.3 | 1/1.35 | 1.6/2 | 2/1.6 | 0.00117 | 7 | 0.4 |
| **80 B** | 0.55/0.11 | 0.75/0.15 | 2800/680 | 2/0.9 | 4/2.4 | 1.9/1.65 | 1.8/2 | 2.2/1.8 | 0.00254 | 10.5 | 12.4 |
| **80 C** | 0.6/0.13 | 0.85/0.18 | 2800/680 | 2.6/1.2 | 4.2/2.4 | 2.1/1.85 | 1.8/2 | 2.4/2.1 | 0.00225 | 11.5 | 13.4 |
| **90 S** | 1.1/0.3 | 1.5/0.4 | 2830/700 | 3.3/1.5 | 4.5/2.5 | 3.7/4.1 | 1.6/1.8 | 2.4/2 | 0.00242 | 12.5 | 15.6 |
| **90 L** | 1.5/0.4 | 2/0.55 | 2850/700 | 4/1.6 | 4.5/2.5 | 5.1/5.5 | 1.6/1.8 | 2.4/2.1 | 0.00321 | 14 | 17.1 |
| **90 LB** | 1.8/0.5 | 2.5/0.65 | 2870/700 | 4.3/2 | 4.8/2.7 | 6/6.9 | 1.6./1.8 | 2/1.6 | 0.00400 | 16 | 19.1 |
| **100 B** | 2.2/0.6 | 3/0.8 | 2900/710 | 5.5/3 | 5/2.9 | 7.3/8.1 | 1.8/1.9 | 2/1.8 | 0.00668 | 24 | 29.6 |
| **112 A** | 3/0.75 | 4/1 | 2920/710 | 6.9/3.4 | 5.5/2.9 | 9.8/10.1 | 1.9/2 | 2.2/2 | 0.01052 | 29 | 38.7 |
| **132 S** | 4/1 | 5.5/1.3 | 2880/710 | 8.6/4.5 | 5/3.8 | 13/3/13.5 | 1.9/1.8 | 2.2/2 | 0.02688 | 44 | 60 |
| **132 M** | 5.5/1.4 | 7.5/1.9 | 2890/700 | 11.8/6 | 5.5/3/8 | 18.2/19.1 | 1.9/1.8 | 2.2/2 | 0.03430 | 60 | 77 |
| **160 M** | 7.5/1.8 | 10/2.5 | 2900/730 | 16.5/7 | 6/3.4 | 24.7/23.5 | 2/1.7 | 2/2 | 0.06200 | 122 | 149 |
| **160 L** | 11/2.5 | 15/3.4 | 2900/730 | 22/9 | 6.2/4 | 36.2/32.7 | 1.9/1.6 | 2.1/2 | 0.09200 | 142 | 169 |

## 6/8 poli/*pole*/polig 1000/750 rpm Doppio avvolgimento / *Double bobinage* / Doppelwicklung

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **71 C** | 0.15/0.09 | 0.20/0.12 | 850/660 | 0.9/0.65 | 2/1.8 | 1.7/1.35 | 1.3/2 | 1.8/1.6 | 0.00117 | 7 | 8.4 |
| **80 C** | 0.30/0.13 | 0.40/0.18 | 880/680 | 1.8/1.2 | 2.5/2.2 | 4/1.85 | 1.8/2 | 2.3/2.1 | 0.00285 | 11.5 | 13.4 |
| **90 S** | 0.37/0.25 | 0.5/0.33 | 900/700 | 1.7/1.4 | 2.5/2.5 | 5.8/4.1 | 1.5/2 | 2.4/2.1 | 0.00242 | 12.5 | 15.6 |
| **90 LB** | 0.60/0.37 | 0.8/0.5 | 910/870 | 2.7/1.8 | 2.8/2.7 | 7.9/6.9 | 1.3/1.8 | 2.4/1.6 | 0.00400 | 14.5 | 17.6 |
| **100 B** | 1/0.50 | 1.30/0.70 | 910/710 | 4/2.5 | 3/2.9 | 11.5/8.1 | 1.5/1.8 | 2.3/1.8 | 0.00668 | 24 | 29.6 |
| **112 B** | 1.5/0.75 | 2/1 | 920/710 | 5/3.3 | 3.5/2.9 | 15.6/10.1 | 1.8/2 | 2.2/1.8 | 0.01052 | 29 | 38.6 |
| **132 S** | 1.8/1 | 2.5/1.3 | 940/720 | 6.6/5.1 | 4.5/4 | 18.3/13.3 | 1.8/1.7 | 2.2/1.8 | 0.02688 | 44 | 60 |
| **132 M** | 3/2.2 | 4/3 | 940/720 | 9.3/7.4 | 4.5/4 | 30.5/21.2 | 1.7/1.6 | 2.3/1.8 | 0.03430 | 60 | 77 |
| **160 M** | 5.5/4 | 7.5/5.5 | 970/720 | 12.5/9.5 | 5.2/4.3 | 54/53 | 1.6/1.6 | 2.2/1.8 | 0.06200 | 122 | 149 |
| **160 L** | 7.5/5.5 | 10/7.5 | 970/720 | 15.5/14.5 | 5.4/4.4 | 74/73 | 1.7/1.6 | 2.2/1.8 | 0.09200 | 142 | 169 |