

W cast iron motors

Frame sizes 80 to 355



Specification and Introduction



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Cast Iron Specification

| Specification | | |
|-----------------------------|---|--|
| | Standard product | Option |
| Frame sizes | 80 - 355 | |
| Enclosure | IP55 | IP56, IP65, IP66 |
| Mounting option | Foot (B3), Flange (B5), Face (B14) or Pad (B30) | Foot & Flange (B35), Foot & Face (B34) |
| Terminal box position | Top, (80 frame right hand side) | Right hand side, left hand side |
| Voltage | 3 kW and below: 230 / 400 | - |
| | 4 kW and above: 400 / 690 | - |
| Frequency | 50 Hz | 60 Hz |
| Cooling | IC411 | IC410, IC416 & IC418 |
| Bearing location | Drive end | Non drive end |
| Lubrication | 80 - 180 double-shielded bearings | Regreasing facility |
| | 200 - 355 regreasing facility | - |
| Insulation | class F | class H |
| Temperature rise | class B | class F |
| Paint colour | water blue (RAL 5021) | on request |
| Fan cover | Steel | Plastic (80 - 180) |
| Thermal protection | 200 - 355 (by thermistors) | 80 - 180 |
| Anti condensation heaters | - | 80 - 355 |
| Drain holes | 160 - 355 | 80 - 132 |
| Inverter Duty (with derate) | Variable Torque: 10:1 | - |
| | Constant Torque: 2:1 | Alternative speed range |
| Ambient temperature | -20°C to + 40°C | -50°C to +100°C |
| AC & DC brake option | - | 80 - 355 |

The above specification and options give a brief summary of features available for the W cast iron range. For a full listing of optional features, please contact Brook Crompton sales.

Brook Crompton

Brook Crompton is a leading supplier of electric motors for the global industrial market, with motor solutions which benefit a wide range of customers.

Our products are used in almost every industrial activity including water treatment, building services, chemical/petrochemicals, general processing and manufacturing where they drive fans, pumps, compressors and conveyors, amongst other things.

Brook Crompton incorporates many well known names including Brook Motors, Crompton Parkinson, Electrodrives, Newman, Bull Electric and Hawker Siddeley Electric Motors.

We have extensive stocks of motors, backed-up by a network of distributors, ensuring excellent local support wherever needed.

Quality assurance

Stringent quality procedures are observed from first design to finished product in accordance with the ISO9001 quality systems.

All of our factories have been assessed to meet these requirements, a further assurance that only the highest standards of quality are accepted.

W cast iron range

The Brook Crompton W motor range covers products with outputs from as little as 0.18kW to 400kW in frame sizes 80 to 355L. They are suitable for use within a diverse range of applications from food and drink to china clay production. From roller table drives to refrigeration. Many applications often have adverse operating conditions including repeated starting and occasional overloading; the 'W' range is well suited to these situations. A virtual 'go anywhere' motor, this cast iron range has a full 3-year guarantee.

Benefits include:

- high efficiency for low running costs
- high reliability for long life
- low noise levels
- cool running for long insulation life
- Eurovoltage: 400V ±10%
- high torque with smooth acceleration and low current
- ease of maintenance
- IP55 protection
- 4-position cable entry
- multi-mount for adaptability
- also available for Zone 2, Zone 21 & 21 see catalogue 2204E for further details

Efficiency

Brook Crompton are an approved manufacturer of ac electric motors within the UK Governments Enhanced Capital Allowance scheme. A wide range of single speed motors are included on the technology list.

Please check the ECA scheme website: www.eca.gov.uk at time of purchase for current listing.

Standards and environment

Standards

| Standards | | | |
|---|---------------|------------------------------------|------------|
| Motors of cast iron construction can be manufactured to the international standards listed below: | | | |
| Range | International | UK | Europe |
| Standard | IEC | BS, EN & IEC | EN & IEC |
| Outputs | IEC 60034-1 | BS EN 50347:2001 | EN 50347 |
| Performance | IEC 60034-1 | BS EN 50347:2001 BS EN 60034-30 | EN 60034-1 |
| Dimensions | IEC 60072-1 | BS EN 50347 BS 4999 part 141 | EN 50347 |
| Mounting | IEC 60034-7 | BS EN 60034-7 | EN 60034-7 |
| Degrees of protection | IEC 60034-5 | BS EN 60034-5 | EN 60034-5 |

Motors complying with IEC 60034-1 also comply with many of the national standards of other European countries, eg CEI 203 (Italy), NBN7 (Belgium), NEN 3173 (Netherlands), SEN 2601 01 (Sweden)

Environment Enclosure

All motors have degrees of IP protection as defined in IEC EN 60034-5. The normal arrangement is IP55. See Specification (page 2) for alternatives.

Motor cooling

Motors are cooled in accordance with IEC 60034-6. The normal arrangement is IC411 (Totally Enclosed Fan Ventilated) via a fan mounted at the non-drive end. See Specification (page 2) for alternatives.

European directives

The following European directives apply:

Directives

| Compliance with European directives applying to AC induction motors | | | | |
|---|---|---|---|---|
| Directives | Low voltage (LV) | Machinery (MD) | Electromagnetic compatibility (EMC) | Energy using products (EuP) |
| Reference numbers | 73/23/EEC 93/68/EEC 2006/95/EC | 89/392/EEC 93/44/EEC 98/37/EC 98/79/EC 2006/42/EC | 89/336/EEC 92/31/EEC 93/68/EEC 2004/108/EC | 92/42/EEC 96/57/EC 2000/55/EC 2005/32/EC |
| Motor CE marked | Yes | No | No | Yes |
| Standards | EN 60034 | Not applicable | EN 60034-1 | EN 60034-30 |
| Documentation for customers' technical file | Declaration of conformity | Certificate of incorporation | Statement ⁽¹⁾ | Declaration of conformity |
| Safety instructions with every motor | Yes | Yes | Yes | - |
| Comment | Relevant electrical equipment operating between 50 to 1000 volts AC | Statement ⁽²⁾ | Component | Minimum efficiency levels for motor outputs 0.75 - 375kW 2-6 pole |

⁽¹⁾ Motors operating from a correctly applied, sinusoidal (AC) supply meet the requirements of the EMC directive and are within the limits specified in standard EN 60034-1

⁽²⁾ When installed in accordance with our customer safety and installation and maintenance instructions, they can be put into service only when the machinery into which they are being incorporated, has been declared to be in conformity with the machinery directive in accordance with Article 4(2) and Annex IIB of that Directive (98/37/EEC)

Minimum Energy Performance Standard

The new standard

The EU MEPS scheme sets new **mandatory** minimum efficiency levels for most single speed 3ph induction motors up to 375kW rated up to 1000V, unlike the narrow definition of the CEMEP voluntary scheme which only covered a small number of standard motors.

The Voluntary Agreement, since 1998, of CEMEP for motor manufactures has expired (classes EFF3 /EFF2/EFF1).

The new standard for motors is now **mandatory** regulation in Europe.

The scope of EU MEPS covers 2, 4 & 6 pole single speed 3ph induction motors from 0.75 to 375kW, rated up to 1000V based on continuous duty operation.

Aiming to reduce energy consumption throughout Europe and the rest of the world, it comes into effect in 3 stages. The effect of this is to maximise potential savings in electric motor driven systems. Base of the regulation is a new international IEC 60034-30 standard. It defines the following efficiency classes :

- IE1** - Standard Efficiency (comparable to EFF2)
- IE2** - High Efficiency (comparable to EFF1 and USA EPACT 60 Hz)
- IE3** - Premium Efficiency (comparable to USA "NEMA Premium" 60 Hz)

New Efficiency levels in Europe (Time Line)

Mandatory from:

Since 16 June 2011:

Minimum efficiency requirement at IE2 for all motors covered 0.75 - 375kW

From 1 January 2015:

Minimum efficiency requirement at IE3 level for 7.5 - 375kW motors or IE2 level for motors equipped with an appropriate variable speed drive.

From 1 January 2017:

Minimum efficiency requirement at IE3 level for 0.75 - 375kW motors or IE2 level for motors equipped with an appropriate variable speed drive.

Performance data



4 3000 min⁻¹ (2 pole)

| Rated power P_N kW (hp) | Full load speed in revolutions per minute n min ⁻¹ | Frame reference and size Type | IE3 | Full load current at rated voltage I_N | | | Efficiency η | | Power factor $\cos \phi$ | Full load torque M_N Nm | Direct on line starting torque ratio $\frac{M_A}{M_N}$ | Direct on line starting current ratio $\frac{I_A}{I_N}$ | Direct on line pull out torque ratio $\frac{M_K}{M_N}$ | Direct on line pull up torque ratio $\frac{M_S}{M_N}$ | Star delta starting torque ratio ⁽¹⁾ $\frac{M_A}{M_N}$ Y | Star delta starting current ratio ⁽¹⁾ $\frac{I_A}{I_N}$ Y | Star delta starting current ratio pull up torque $\frac{M_S}{M_N}$ Y | Rotor inertia Wkg J kgm ² | Mean sound pressure level @ 1m on no load L_{PA} dB(A) |
|------------------------------------|--|--|-----|--|------------|------------|--------------------------------------|--------------------------------------|-----------------------------|---------------------------------|--|---|--|---|--|---|--|--|---|
| | | | | 230 V A | 400 V A | 690 V A | 1.0 P_N 0.75 P_N 0.5 P_N | 1.0 P_N 0.75 P_N 0.5 P_N | | | | | | | | | | | |
| 0.75 (1.0) | 2890 | WP-DF80MM ⁽¹⁾ | IE3 | 2.7 | 1.55 | - | 80.7 81.0 77.0 | 0.86 0.80 0.68 | 2.5 | 3.3 | 7.7 | 3.1 | 2.5 | - | - | - | 0.0013 | 64 | |
| 1.1 (1.5) | 2885 | WP-DF80MS ⁽¹⁾ | IE3 | 3.95 | 2.30 | - | 83.5 84.8 83.5 | 0.84 0.78 0.66 | 3.6 | 3.5 | 7.7 | 3.1 | 2.8 | - | - | - | 0.0012 | 64 | |
| 1.5 (2.0) | 2880 | WP-DF90LMX ⁽¹⁾ | IE3 | 5.25 | 3.00 | - | 84.2 84.5 82.0 | 0.86 0.81 0.70 | 5.0 | 3.4 | 8.2 | 3.6 | 2.8 | - | - | - | 0.0014 | 64 | |
| 2.2 (3.0) | 2895 | WP-DF90LSX ⁽¹⁾ | IE3 | 7.9 | 4.6 | - | 85.9 85.9 84.2 | 0.81 0.73 0.59 | 7.3 | 3.8 | 8.5 | 4.1 | 3.6 | - | - | - | 0.0016 | 64 | |
| 3.0 (4.0) | 2880 | WP-DF100LMF ⁽¹⁾ | IE3 | 9.7 | 5.6 | - | 87.1 88.7 88.7 | 0.93 0.90 0.84 | 10 | 3.0 | 8.2 | 3.3 | 2.8 | - | - | - | 0.0058 | 60 | |
| 4.0 (5.5) | 2895 | WP-DF112MR ⁽¹⁾ | IE3 | - | 7.3 | 4.2 | 88.5 89.2 88.5 | 0.90 0.85 0.74 | 13.2 | 3.9 | 10 | 4.8 | 3.8 | 1.2 | 3.1 | 1.2 | 0.0064 | 60 | |
| 5.5 (7.5) | 2930 | WP-DF132SGX ⁽¹⁾ | IE3 | - | 10.6 | 6.1 | 90.5 90.5 88.8 | 0.83 0.76 0.63 | 17.9 | 3.9 | 10 | 4.8 | 3.6 | 1.2 | 3.1 | 1.1 | 0.015 | 66 | |
| 7.5 (10) | 2930 | WP-DF132SMX ⁽¹⁾ | IE3 | - | 13.7 | 7.9 | 91.0 91.2 90.3 | 0.87 0.81 0.70 | 24.5 | 3.6 | 9.6 | 4.3 | 3.3 | 1.1 | 3.0 | 1.0 | 0.018 | 66 | |
| 11 (15) | 2945 | WP-DF160MJ ⁽¹⁾ | IE3 | - | 19.6 | 11.3 | 92.2 92.5 91.5 | 0.88 0.85 0.77 | 35.7 | 3.6 | 7.6 | 3.6 | 1.8 | 1.1 | 2.4 | 0.6 | 0.045 | 68 | |
| 15 (20) | 2940 | WP-DF160MR ⁽¹⁾ | IE3 | - | 26.0 | 15.0 | 93.0 93.3 93.1 | 0.90 0.87 0.79 | 48.7 | 2.2 | 8.6 | 3.7 | 1.9 | 0.7 | 2.7 | 0.6 | 0.056 | 68 | |
| 18.5 (25) | 2955 | WP-DF160LT ⁽¹⁾ | IE3 | - | 32.5 | 18.8 | 93.3 93.4 92.5 | 0.88 0.84 0.75 | 59.8 | 2.7 | 9.0 | 4.0 | 2.2 | 0.84 | 2.8 | 0.7 | 0.063 | 68 | |
| 22 (30) | 2950 | WP-DF180MF ⁽¹⁾ | IE3 | - | 38.1 | 22.1 | 93.6 93.6 93.1 | 0.89 0.85 0.77 | 71.3 | 2.4 | 9.5 | 4.0 | 2.1 | 0.75 | 3.0 | 0.66 | 0.089 | 68 | |
| 30 (40) | 2950 | WU-DF200LNX ⁽²⁾ WP-DF200LNX ⁽³⁾ | IE3 | - | 53.0 | 30.5 | 93.3 93.3 93.0 | 0.88 0.85 0.78 | 97.2 | 2.8 | 9.0 | 3.0 | 2.4 | 0.88 | 2.8 | 0.75 | 0.15 | 73 | |
| 37 (50) | 2945 | WU-DF200LNX ⁽²⁾ WP-DF200LNX ⁽³⁾ | IE3 | - | 65.0 | 37.5 | 93.7 93.7 93.3 | 0.88 0.85 0.78 | 120 | 2.7 | 7.8 | 2.9 | 2.3 | 0.75 | 2.5 | 0.60 | 0.18 | 73 | |
| 45 (60) | 2960 | WU-DF225MP ⁽²⁾ WP-DF225MP ⁽³⁾ | IE3 | - | 77.0 | 44.5 | 94.3 94.3 93.3 | 0.90 0.88 0.83 | 145 | 2.3 | 7.8 | 2.8 | 1.9 | 0.65 | 2.5 | 0.50 | 0.38 | 75 | |
| 55 (75) | 2955 | WP-UDF250MNE ⁽²⁾ WP-DF250SN ⁽³⁾ | IE3 | - | 92 | 53 | 94.6 94.6 94.5 | 0.92 0.91 0.86 | 178 | 2.2 | 7.8 | 2.8 | 1.9 | 0.7 | 2.5 | 0.50 | 0.56 | 75 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



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3000 min⁻¹ (2 pole)

| Rated power P_N kW (hp) | Full load speed in revolutions per minute n min ⁻¹ | Frame reference and size Type | Full load current at rated voltage I_N | | | Efficiency η | | Power factor $\cos \phi$ | Full load torque M_N Nm | Direct on line starting torque ratio $\frac{M_A}{M_N}$ | Direct on line starting current ratio $\frac{I_A}{I_N}$ | Direct on line pull out torque ratio $\frac{M_K}{M_N}$ | Direct on line pull up torque ratio $\frac{M_S}{M_N}$ | Star delta starting torque ratio ⁽¹⁾ $\frac{M_A}{M_N}$ Y | Star delta starting current ratio ⁽¹⁾ $\frac{I_A}{I_N}$ Y | Star delta pull up torque ratio $\frac{M_S}{M_N}$ Y | Rotor inertia I_{Wk} J kgm ² | Mean sound pressure level @ 1m on no load L_{PA} dB(A) |
|------------------------------------|--|---|--|------------|------------|--------------------------------------|--|--|---------------------------------|--|---|--|---|--|---|--|---|---|
| | | | 230 V A | 400 V A | 690 V A | 1.0 P_N 0.75 P_N 0.5 P_N | 1.0 P_N 0.75 P_N 0.5 P_N | | | | | | | | | | | |
| 0.75 (1.0) | 2880 | WU-DF80MJ ⁽¹⁾ | IE2 | 2.85 | 1.65 | - | $\left\{ \begin{array}{l} 77.4 \\ 76.9 \\ 75.2 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.84 \\ 0.78 \\ 0.66 \end{array} \right\}$ | 2.5 | 3.0 | 7.1 | 2.7 | 2.4 | - | - | - | 0.0010 | 64 |
| 1.1 (1.5) | 2880 | WU-DF80MM ⁽¹⁾ | IE2 | 4.20 | 2.35 | - | $\left\{ \begin{array}{l} 79.6 \\ 80.7 \\ 78.6 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.84 \\ 0.77 \\ 0.65 \end{array} \right\}$ | 3.6 | 2.8 | 6.7 | 2.7 | 2.4 | - | - | - | 0.0012 | 64 |
| 1.5 (2.0) | 2850 | WU-DF90LMX ⁽¹⁾ | IE2 | 5.15 | 2.97 | - | $\left\{ \begin{array}{l} 81.3 \\ 82.3 \\ 82.6 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.90 \\ 0.84 \\ 0.76 \end{array} \right\}$ | 5.0 | 2.8 | 7.1 | 3.1 | 2.4 | - | - | - | 0.0014 | 64 |
| 2.2 (3.0) | 2890 | WU-DF90LSX ⁽¹⁾ | IE2 | 8.0 | 4.6 | - | $\left\{ \begin{array}{l} 83.2 \\ 85.4 \\ 84.1 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.82 \\ 0.72 \\ 0.58 \end{array} \right\}$ | 7.3 | 2.5 | 7.3 | 3.0 | 2.5 | - | - | - | 0.0016 | 64 |
| 3.0 (4.0) | 2890 | WU-DF100LR ⁽¹⁾ | IE2 | 10.2 | 5.9 | - | $\left\{ \begin{array}{l} 84.6 \\ 82.7 \\ 75.2 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.88 \\ 0.74 \\ 0.54 \end{array} \right\}$ | 9.9 | 3.1 | 8.1 | 3.1 | 2.4 | - | - | - | 0.0050 | 60 |
| 4.0 (5.5) | 2870 | WU-DF112MM ⁽¹⁾ | IE2 | - | 7.3 | 4.2 | $\left\{ \begin{array}{l} 85.8 \\ 89.2 \\ 87.4 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.91 \\ 0.88 \\ 0.81 \end{array} \right\}$ | 13.3 | 3.0 | 7.8 | 3.1 | 2.8 | 0.93 | 2.4 | 0.87 | 0.0055 | 60 |
| 5.5 (7.5) | 2910 | WU-DF132SE ⁽¹⁾ | IE2 | - | 10.2 | 5.9 | $\left\{ \begin{array}{l} 87.0 \\ 88.8 \\ 87.9 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.89 \\ 0.83 \\ 0.70 \end{array} \right\}$ | 18.0 | 2.7 | 8.2 | 3.1 | 2.4 | 0.84 | 2.6 | 0.75 | 0.012 | 66 |
| 7.5 (10) | 2900 | WU-DF132SJ ⁽¹⁾ | IE2 | - | 13.5 | 7.8 | $\left\{ \begin{array}{l} 88.1 \\ 88.4 \\ 88.5 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.91 \\ 0.88 \\ 0.82 \end{array} \right\}$ | 24.7 | 2.5 | 8.2 | 3.0 | 2.3 | 0.78 | 2.6 | 0.72 | 0.015 | 66 |
| 11 (15) | 2940 | WU-DF160MB ⁽¹⁾ | IE2 | - | 20.0 | 11.5 | $\left\{ \begin{array}{l} 89.4 \\ 89.7 \\ 88.5 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.89 \\ 0.84 \\ 0.76 \end{array} \right\}$ | 35.7 | 2.2 | 7.8 | 3.0 | 1.8 | 0.68 | 2.4 | 0.56 | 0.039 | 68 |
| 15 (20) | 2940 | WU-DF160MJ ⁽¹⁾ | IE2 | - | 26.6 | 15.4 | $\left\{ \begin{array}{l} 90.3 \\ 89.8 \\ 88.8 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.80 \\ 0.86 \\ 0.79 \end{array} \right\}$ | 48.7 | 2.2 | 8.0 | 3.1 | 1.9 | 0.68 | 2.5 | 0.60 | 0.045 | 68 |
| 18.5 (25) | 2930 | WU-DF160LR ⁽¹⁾ | IE2 | - | 32.5 | 18.8 | $\left\{ \begin{array}{l} 90.9 \\ 90.6 \\ 89.8 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.90 \\ 0.86 \\ 0.80 \end{array} \right\}$ | 60.3 | 2.4 | 8.7 | 3.2 | 1.9 | 0.75 | 2.7 | 0.60 | 0.056 | 68 |
| 22 (30) | 2950 | WU-DF180ME ⁽¹⁾ | IE2 | - | 39.0 | 22.5 | $\left\{ \begin{array}{l} 91.3 \\ 91.5 \\ 90.4 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.89 \\ 0.86 \\ 0.76 \end{array} \right\}$ | 71.2 | 2.2 | 9.0 | 3.1 | 1.9 | 0.68 | 2.8 | 0.60 | 0.084 | 68 |
| 30 (40) | 2945 | WU-DF200LGX ⁽²⁾ W-DF200LGX ⁽³⁾ | IE2 | - | 53 | 31 | $\left\{ \begin{array}{l} 92.0 \\ 90.0 \\ 88.4 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.89 \\ 0.86 \\ 0.79 \end{array} \right\}$ | 97.3 | 2.7 | 7.8 | 2.9 | 2.3 | 0.75 | 2.5 | 0.60 | 0.15 | 73 |
| 37 (50) | 2945 | WU-DF200LNX ⁽²⁾ W-DF200LNX ⁽³⁾ | IE2 | - | 66 | 38 | $\left\{ \begin{array}{l} 92.5 \\ 93.1 \\ 92.6 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.88 \\ 0.80 \\ 0.76 \end{array} \right\}$ | 120 | 2.7 | 7.8 | 2.9 | 2.3 | 0.75 | 2.5 | 0.60 | 0.18 | 73 |
| 45 (60) | 2955 | WU-DF225MN ⁽²⁾ W-DF225MN ⁽³⁾ | IE2 | - | 78 | 45 | $\left\{ \begin{array}{l} 92.9 \\ 93.3 \\ 92.6 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.90 \\ 0.89 \\ 0.84 \end{array} \right\}$ | 145 | 2.3 | 7.8 | 2.8 | 1.9 | 0.65 | 2.5 | 0.50 | 0.47 | 75 |
| 55 (75) | 2955 | WU-DF250MNE ⁽²⁾ W-DF250SN ⁽³⁾ | IE2 | - | 94 | 54 | $\left\{ \begin{array}{l} 93.2 \\ 94.6 \\ 93.7 \end{array} \right\}$ | $\left\{ \begin{array}{l} 0.91 \\ 0.90 \\ 0.86 \end{array} \right\}$ | 178 | 2.3 | 7.8 | 2.8 | 1.9 | 0.65 | 2.5 | 0.50 | 0.56 | 75 |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



6 3000 min⁻¹ (2 pole)

Rated power Full load speed in revolutions per minute Frame reference and size Full load current at rated voltage Efficiency Power factor Full load torque Direct on line starting torque ratio Direct on line starting current ratio Direct on line pull up torque ratio Direct on line pull up torque Star delta starting torque ratio (I) Star delta starting current ratio Rotor inertia Wkg Mean sound pressure level @ 1m on no load

| P _N kW (hp) | n min ⁻¹ | Type | IE3 | I _N | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 400 V A | 690 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 75 (100) | 2960 | WP-UDF280SNE ⁽²⁾ WP-DF250MN ⁽³⁾ | IE3 | 127 | 73 | 95.0 95.1 95.0 | 0.87 0.90 0.83 | 242 | 2.2 | 7.8 | 3.0 | 2.0 | 0.65 | 2.5 | 0.50 | 0.7 | 77 | | |
| 90 (125) | 2960 | WP-UDF280MNE ⁽²⁾ WP-DF280SN ⁽³⁾ | IE3 | 150 | 87 | 95.3 95.5 95.3 | 0.82 0.91 0.88 | 291 | 2.2 | 7.8 | 3.0 | 2.0 | 0.65 | 2.5 | 0.50 | 0.8 | 77 | | |
| 110 (150) | 2980 | WP-UDF315SNE ⁽²⁾ WP-DF280MN ⁽³⁾ | IE3 | 183 | 106 | 95.2 95.2 95.2 | 0.89 0.91 0.84 | 353 | 2.2 | 7.8 | 2.9 | 1.8 | 0.65 | 2.5 | 0.45 | 1.4 | 78 | | |
| 132 (175) | 2975 | WP-UDF315MNE ⁽²⁾ WP-DF315SN ⁽³⁾ | IE3 | 222 | 129 | 94.8 95.4 95.5 | 0.85 0.90 0.89 | 424 | 2.2 | 7.8 | 2.9 | 1.8 | 0.65 | 2.5 | 0.45 | 1.7 | 78 | | |
| 150 (200) | 2980 | WP-UDF315MN ⁽²⁾ WP-DF315MN ⁽³⁾ | IE3 | 249 | 144 | 94.1 95.3 95.5 | 0.84 0.89 0.91 | 481 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.4 | 80 | | |
| 160 (215) | 2980 | WP-UDF315MP ⁽²⁾ WP-DF315MP ⁽³⁾ | IE3 | 265 | 154 | 94.5 95.5 95.6 | 0.83 0.89 0.91 | 513 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.6 | 80 | | |
| 185 (250) | 2975 | WP-UDF315LN ⁽²⁾ WP-DF315LN ⁽³⁾ | IE3 | 304 | 176 | 95.0 95.7 95.0 | 0.85 0.89 0.92 | 594 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.8 | 80 | | |
| 200 (270) | 2980 | WP-UDF315LP ⁽²⁾ WP-DF315LP ⁽³⁾ | IE3 | 328 | 190 | 95.3 95.8 95.8 | 0.86 0.90 0.86 | 641 | 2.1 | 7.9 | 2.9 | 1.6 | 0.66 | 2.5 | 0.9 | 2.23 | 80 | | |
| 225 (300) | 2985 | WP-UDF355SG ⁽²⁾ WP-DF355SG ⁽³⁾ | IE3 | 381 | 221 | 95.4 95.8 95.4 | 0.86 0.89 0.82 | 720 | 2.0 | 7.5 | 2.7 | 1.6 | 0.63 | 2.4 | 0.9 | 5.0 | 80 | | |
| 250 (335) | 2980 | WP-UDF355SJ ⁽²⁾ WP-DF355SJ ⁽³⁾ | IE3 | 419 | 243 | 93.8 95.2 95.8 | 0.81 0.86 0.89 | 802 | 2.0 | 7.5 | 2.7 | 1.6 | 0.63 | 2.4 | 0.9 | 5.3 | 80 | | |
| 280 (375) | 2980 | WP-UDF355SN ⁽¹⁾ WP-DF355SN ⁽³⁾ | IE3 | 474 | 275 | 94.2 95.3 95.8 | 0.84 0.88 0.89 | 898 | 2.0 | 7.5 | 2.7 | 1.6 | 0.63 | 2.4 | 0.9 | 5.9 | 80 | | |
| 315 (420) | 2985 | WP-UDF355MJ ⁽²⁾ WP-DF355MJ ⁽³⁾ | IE3 | 533 | 309 | 95.0 95.8 95.8 | 0.85 0.88 0.89 | 1008 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 6.3 | 80 | | |
| 355 (475) | 2985 | WP-UDF355MN ⁽²⁾ WP-DF355MN ⁽³⁾ | IE3 | 600 | 348 | 95.0 95.8 95.8 | 0.85 0.88 0.89 | 1136 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 7.0 | 80 | | |
| 375 (535) | 2985 | WP-UDF355LN ⁽²⁾ WP-DF355LN ⁽³⁾ | IE3 | 621 | 360 | 95.3 95.8 95.8 | 0.85 0.90 0.91 | 1120 | 2.6 | 7.3 | 3.2 | 2.0 | 0.8 | 2.28 | 0.63 | 8.0 | 80 | | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



3000 min⁻¹ (2 pole)

| P _N kW (hp) | n min ⁻¹ | Type | IE2 | I _N | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 400 V A | 690 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 75 (100) | 2960 | WU-DF280SNE ⁽²⁾ W-DF250MN ⁽³⁾ | IE2 | 128 | 74 | 93.8 95.1 94.3 | 0.90 0.91 0.90 | | | 242 | 2.2 | 7.8 | 3.0 | 2.0 | 0.65 | 2.5 | 0.50 | 0.7 | 77 |
| 90 (125) | 2960 | WU-DF280MNE ⁽²⁾ W-DF280SN ⁽³⁾ | IE2 | 152 | 88 | 94.1 95.2 94.7 | 0.91 0.89 0.83 | | | 290 | 2.2 | 7.8 | 3.0 | 2.0 | 0.65 | 2.5 | 0.50 | 0.8 | 77 |
| 110 (150) | 2980 | WU-DF315SNE ⁽²⁾ W-DF280MN ⁽³⁾ | IE2 | 185 | 107 | 94.3 94.8 93.7 | 0.91 0.90 0.85 | | | 353 | 2.2 | 7.8 | 2.9 | 1.8 | 0.65 | 2.5 | 0.45 | 1.4 | 78 |
| 132 (175) | 2975 | WU-DF315MNE ⁽²⁾ W-DF315SN ⁽³⁾ | IE2 | 224 | 130 | 94.6 96.3 95.9 | 0.90 0.91 0.88 | | | 423 | 2.2 | 7.8 | 2.9 | 1.8 | 0.65 | 2.5 | 0.45 | 1.7 | 78 |
| 150 (200) | 2980 | WU-DF315MN ⁽²⁾ W-DF315MN ⁽³⁾ | IE2 | 251 | 146 | 94.7 95.4 94.5 | 0.91 0.88 0.83 | | | 481 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.4 | 80 |
| 160 (215) | 2980 | WU-DF315MP ⁽²⁾ W-DF315MP ⁽³⁾ | IE2 | 268 | 155 | 94.8 96.0 95.1 | 0.91 0.88 0.83 | | | 513 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.6 | 80 |
| 185 (250) | 2980 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | IE2 | 309 | 179 | 95.0 95.5 94.6 | 0.91 0.90 0.86 | | | 593 | 2.0 | 7.8 | 2.8 | 1.7 | 0.60 | 2.5 | 0.45 | 2.8 | 80 |
| 200 (270) | 2980 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | IE2 | 334 | 191 | 95.0 96.0 95.0 | 0.91 0.91 0.87 | | | 641 | 1.9 | 7.1 | 2.5 | 1.6 | 0.55 | 2.3 | 0.42 | 2.8 | 80 |
| 225 (300) | 2985 | WU-DF355SG ⁽²⁾ W-DF355SG ⁽³⁾ | IE2 | 384 | 227 | 95.0 95.5 94.4 | 0.89 0.86 0.81 | | | 720 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 5.0 | 80 |
| 250 (335) | 2980 | WU-DF355SJ ⁽²⁾ W-DF355SJ ⁽³⁾ | IE2 | 427 | 247 | 95.0 95.6 94.6 | 0.89 0.87 0.81 | | | 801 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 5.3 | 80 |
| 280 (375) | 2980 | WU-DF355SN ⁽¹⁾ W-DF355SN ⁽³⁾ | IE2 | 478 | 276 | 95.0 95.8 94.8 | 0.89 0.87 0.82 | | | 897 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 5.9 | 80 |
| 315 (420) | 2980 | WU-DF355MJ ⁽²⁾ W-DF355MJ ⁽³⁾ | IE2 | 532 | 307 | 95.0 96.2 95.4 | 0.90 0.93 0.84 | | | 1009 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 6.3 | 80 |
| 355 (475) | 2980 | WU-DF355MN ⁽²⁾ W-DF355MN ⁽³⁾ | IE2 | 599 | 346 | 95.0 96.0 95.5 | 0.90 0.88 0.83 | | | 1137 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 7.0 | 80 |
| 400 (535) | 2980 | WU-DF355LN ⁽²⁾ W-DF355LN ⁽³⁾ | IE2 | 660 | 381 | 95.7 95.4 95.1 | 0.91 0.90 0.86 | | | 1282 | 2.0 | 7.5 | 2.7 | 1.6 | 0.65 | 2.3 | 0.45 | 8.0 | 80 |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



8

1500 min⁻¹ (4 pole)

| P _N kW (hp) | n min ⁻¹ | Type | IE3 | I _N | | | η | | Cos φ | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|-----------|---|---|-------|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 230 V A | 400 V A | 690V A | 1.0 P _N 0.75 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | | |
| 0.75 (1.0) | - | tbc | IE3 | - | - | - | { - - - } | { - - - } | - | - | - | - | - | - | - | - | - | - | - |
| 1.1 (1.5) | 1430 | WP-DF90LTX ⁽¹⁾ | IE3 | 4.2 | 2.5 | - | { 84.1 84.4 84.0 } | { 0.77 0.70 0.57 } | 7.3 | 3.0 | 7.0 | 3.5 | 2.7 | - | - | - | 0.0037 | 48 | |
| 1.5 (2.0) | 1440 | WP-DF90LWX ⁽¹⁾ | IE3 | 6.3 | 3.6 | - | { 85.3 85.3 83.2 } | { 0.70 0.58 0.46 } | 10.0 | 4.2 | 7.4 | 4.7 | 4.1 | - | - | - | 0.0042 | 48 | |
| 2.2 (3.0) | 1450 | WP-DF100LRF ⁽¹⁾ | IE3 | 8.1 | 4.6 | - | { 86.7 87.0 86.0 } | { 0.79 0.70 0.57 } | 14.5 | 3.3 | 7.3 | 3.3 | 3.0 | - | - | - | 0.0107 | 54 | |
| 3.0 (4.0) | 1460 | WP-DF100LTF ⁽¹⁾ | IE3 | 11.6 | 6.7 | - | { 87.7 87.7 85.8 } | { 0.74 0.63 0.50 } | 19.6 | 3.7 | 8.1 | 4.0 | 3.2 | - | - | - | 0.0118 | 54 | |
| 4.0 (5.5) | 1450 | WP-DF112MWX ⁽¹⁾ | IE3 | - | 8.4 | 4.8 | { 88.6 88.6 88.0 } | { 0.78 0.70 0.56 } | 26.4 | 3.5 | 8.0 | 3.5 | 2.9 | 1.1 | 2.5 | 0.9 | 0.0151 | 54 | |
| 5.5 (7.5) | 1460 | WP-DF132STX ⁽¹⁾ | IE3 | - | 10.9 | 6.3 | { 89.6 90.0 88.7 } | { 0.81 0.73 0.60 } | 36.0 | 3.3 | 8.7 | 3.9 | 2.7 | 1.0 | 2.7 | 0.84 | 0.03 | 59 | |
| 7.5 (10) | 1450 | WP-DF132MVX ⁽¹⁾ | IE3 | - | 14.6 | 8.5 | { 90.4 91.3 90.4 } | { 0.82 0.73 0.60 } | 49.4 | 3.2 | 7.6 | 3.4 | 2.6 | 1.0 | 2.4 | 0.8 | 0.033 | 59 | |
| 11 (15) | 1475 | WP-DF160MR ⁽¹⁾ | IE3 | - | 20.9 | 12.1 | { 92.5 92.8 92.0 } | { 0.82 0.75 0.62 } | 71.3 | 3.0 | 9.0 | 3.7 | 2.4 | 0.94 | 2.8 | 0.75 | 0.084 | 63 | |
| 15 (20) | 1475 | WP-DF160LU ⁽¹⁾ | IE3 | - | 28.1 | 16.3 | { 92.8 93.0 92.3 } | { 0.83 0.76 0.62 } | 97.2 | 3.2 | 9.1 | 3.5 | 2.4 | 1.0 | 2.84 | 0.75 | 0.098 | 63 | |
| 18.5 (25) | 1475 | WP-DF180ME ⁽¹⁾ | IE3 | - | 34.7 | 20.1 | { 92.6 92.8 92.0 } | { 0.83 0.74 0.60 } | 120 | 2.8 | 8.4 | 3.0 | 2.0 | 0.88 | 2.6 | 0.63 | 0.16 | 62 | |
| 22 (30) | 1470 | WP-DF180LM ⁽¹⁾ | IE3 | - | 41.1 | 23.8 | { 93.0 93.0 93.0 } | { 0.83 0.75 0.62 } | 143 | 3.1 | 8.8 | 3.0 | 2.0 | 0.95 | 2.75 | 0.63 | 0.17 | 62 | |
| 30 (40) | 1470 | WP-UDF200LN ⁽²⁾ WP-DF200LN ⁽³⁾ | IE3 | - | 54.0 | 31.0 | { 93.6 93.6 93.0 } | { 0.86 0.83 0.75 } | 195 | 2.3 | 7.5 | 3.2 | 1.9 | 0.7 | 2.4 | 0.55 | 0.31 | 65 | |
| 37 (50) | 1475 | WP-UDF225SR ⁽²⁾ WP-DF225SR ⁽³⁾ | IE3 | - | 64.5 | 37.5 | { 93.9 93.9 93.0 } | { 0.88 0.82 0.74 } | 240 | 2.7 | 8.4 | 2.9 | 2.1 | 0.84 | 2.6 | 0.66 | 0.42 | 66 | |
| 45 (60) | 1480 | WP-UDF225MN ⁽²⁾ WP-DF225MN ⁽³⁾ | IE3 | - | 80.0 | 46 | { 94.2 94.3 93.5 } | { 0.86 0.84 0.75 } | 291 | 2.7 | 7.7 | 3.2 | 1.9 | 0.75 | 2.5 | 0.55 | 0.50 | 67 | |
| 55 (75) | 1480 | WP-UDF250MPE ⁽²⁾ WP-DF250SP ⁽³⁾ | IE3 | - | 95.5 | 56 | { 94.6 94.8 94.2 } | { 0.88 0.84 0.76 } | 355 | 2.7 | 8.3 | 2.9 | 2.2 | 0.84 | 2.6 | 0.7 | 0.66 | 67 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



9

1500 min⁻¹ (4 pole)

| P _N kW (hp) | n min ⁻¹ | Type | I _N | | | η | | Cos φ | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|----------------|------------|-----------|---|---|---------------------------|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | 230 V A | 400 V A | 690V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | | |
| 0.55 (0.75) | 1410 | WU-DF80ME ⁽¹⁾ | - | 1.69 | - | { 77.0 77.0 73.0 | { 0.84 0.77 0.65 | 2.5 | 2.2 | 5.5 | 2.5 | 2.0 | - | - | - | 0.0014 | 47 | |
| 0.75 (1.0) | 1440 | WU-DF80MS ⁽¹⁾ | IE2 | 3.3 | 1.9 | - | { 79.6 78.8 77.4 | { 0.72 0.62 0.49 | 5.0 | 3.8 | 6.8 | 3.8 | 1.8 | - | - | - | 0.0019 | 47 |
| 1.1 (1.5) | 1425 | WU-DF90LRX ⁽¹⁾ | IE2 | 4.4 | 2.5 | - | { 81.4 81.5 82.0 | { 0.77 0.78 0.58 | 7.4 | 2.3 | 5.2 | 2.9 | 2.3 | - | - | - | 0.0034 | 48 |
| 1.5 (2.0) | 1440 | WU-DF90LWX ⁽¹⁾ | IE2 | 6.5 | 3.7 | - | { 82.8 83.0 81.0 | { 0.70 0.58 0.46 | 9.9 | 4.2 | 7.4 | 4.7 | 3.6 | - | - | - | 0.0042 | 48 |
| 2.2 (3.0) | 1435 | WU-DF100LS ⁽¹⁾ | IE2 | 8.9 | 5.1 | - | { 84.3 83.6 81.4 | { 0.74 0.66 0.53 | 14.6 | 3.1 | 6.6 | 3.1 | 2.6 | - | - | - | 0.0103 | 54 |
| 3.0 (4.0) | 1455 | WU-DF100LTF ⁽¹⁾ | IE2 | 11.9 | 6.8 | - | { 85.5 83.5 82.6 | { 0.74 0.63 0.50 | 19.7 | 3.9 | 8.5 | 4.0 | 2.8 | - | - | - | 0.0118 | 54 |
| 4.0 (5.5) | 1440 | WU-DF112MT ⁽¹⁾ | IE2 | - | 8.7 | 5.0 | { 86.6 86.6 85.9 | { 0.77 0.69 0.55 | 26.5 | 3.0 | 7.4 | 3.1 | 2.6 | - | - | - | 0.012 | 56 |
| 5.5 (7.5) | 1455 | WU-DF132STX ⁽¹⁾ | IE2 | - | 11.1 | 6.4 | { 87.7 88.0 87.2 | { 0.82 0.74 0.63 | 36.1 | 2.4 | 7.1 | 3.0 | 2.3 | - | - | - | 0.03 | 59 |
| 7.5 (10) | 1460 | WU-DF132MVX ⁽¹⁾ | IE2 | - | 14.7 | 8.5 | { 88.7 89.4 88.6 | { 0.83 0.76 0.67 | 49.1 | 2.9 | 8.1 | 3.2 | 2.5 | - | - | - | 0.033 | 59 |
| 11 (15) | 1465 | WU-DF160MJ ⁽¹⁾ | IE2 | - | 21.0 | 12.1 | { 89.8 91.0 90.4 | { 0.83 0.78 0.67 | 71.7 | 2.5 | 7.7 | 2.9 | 2.0 | 0.65 | 2.3 | 0.50 | 0.068 | 63 |
| 15 (20) | 1460 | WU-DF160LR ⁽¹⁾ | IE2 | - | 28.0 | 16.2 | { 90.6 91.8 91.6 | { 0.85 0.81 0.71 | 98.1 | 2.5 | 7.7 | 2.9 | 2.0 | 0.65 | 2.3 | 0.50 | 0.084 | 63 |
| 18.5 (25) | 1470 | WU-DF180ME ⁽¹⁾ | IE2 | - | 35.0 | 20.2 | { 91.2 91.8 90.7 | { 0.84 0.77 0.66 | 120 | 2.8 | 8.4 | 3.2 | 2.2 | 0.80 | 2.6 | 0.65 | 0.16 | 62 |
| 22 (30) | 1470 | WU-DF180LJ ⁽¹⁾ | IE2 | - | 41.0 | 23.7 | { 91.6 92.1 91.6 | { 0.86 0.83 0.71 | 143 | 2.6 | 7.6 | 2.9 | 2.0 | 0.75 | 2.2 | 0.60 | 0.19 | 62 |
| 30 (40) | 1470 | WU-DF200LN ⁽²⁾ W-DF200LN ⁽³⁾ | IE2 | - | 66 | 32 | { 92.3 93.1 92.6 | { 0.86 0.83 0.74 | 195 | 2.3 | 7.5 | 3.2 | 1.9 | 0.7 | 2.4 | 0.55 | 0.31 | 65 |
| 37 (50) | 1475 | WU-DF225SN ⁽²⁾ W-DF225SN ⁽³⁾ | IE2 | - | 66 | 38 | { 92.7 93.2 92.5 | { 0.87 0.83 0.74 | 240 | 2.3 | 7.3 | 3.2 | 1.9 | 0.7 | 2.3 | 0.55 | 0.45 | 66 |
| 45 (60) | 1480 | WU-DF225MN ⁽²⁾ W-DF225MN ⁽³⁾ | IE2 | - | 81 | 47 | { 93.1 93.1 93.1 | { 0.86 0.86 0.79 | 291 | 2.7 | 7.7 | 3.2 | 1.9 | 0.75 | 2.5 | 0.55 | 0.65 | 67 |
| 55 (75) | 1475 | WU-DF250MNE ⁽²⁾ W-DF250SN ⁽³⁾ | IE2 | - | 98 | 57 | { 93.5 92.8 92.2 | { 0.87 0.81 0.76 | 356 | 2.7 | 7.7 | 3.2 | 1.9 | 0.75 | 2.5 | 0.55 | 0.75 | 67 |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



1500 min⁻¹ (4 pole)

| P _N kW (hp) | n min ⁻¹ | Type | Frame reference and size | Full load current at rated voltage | | Efficiency | | Power factor | Full load torque | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull up torque ratio | Direct on line pull up torque ratio | Star delta starting torque ratio ⁽¹⁾ | Star delta starting current ratio | Star delta pull up torque ratio | Rotor inertia Wk ² | Mean sound pressure level @ 1m on no load L _{PA} dB(A) |
|------------------------------|------------------------|--|-----------------------------|---------------------------------------|------------|---|---|--------------|------------------|---|--|--|--|--|--------------------------------------|------------------------------------|-------------------------------|--|
| | | | | 400 V A | 690 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | | |
| 75 (100) | 1480 | WU-DF280SNE ⁽²⁾ W-DF250MN ⁽³⁾ | IE2 | 135 | 79 | 94.0 95.2 94.4 | 0.85 0.82 0.74 | | 484 | 2.4 | 7.4 | 2.7 | 1.9 | 0.72 | 2.3 | 0.54 | 1.4 | 69 |
| 90 (125) | 1480 | WU-DF280MNE ⁽²⁾ W-DF280SN ⁽³⁾ | IE2 | 162 | 94 | 94.2 95.2 94.6 | 0.85 0.82 0.73 | | 581 | 2.5 | 7.4 | 2.8 | 2.0 | 0.75 | 2.4 | 0.55 | 1.6 | 69 |
| 110 (150) | 1485 | WU-DF315SNE ⁽²⁾ W-DF280MN ⁽³⁾ | IE2 | 193 | 112 | 94.5 95.3 94.6 | 0.87 0.84 0.77 | | 710 | 2.4 | 7.7 | 2.6 | 2.0 | 0.70 | 2.5 | 0.5 | 3.2 | 71 |
| 132 (175) | 1485 | WU-DF315MNE ⁽²⁾ W-DF315SN ⁽³⁾ | IE2 | 231 | 134 | 94.7 95.6 94.9 | 0.87 0.84 0.77 | | 849 | 2.4 | 7.7 | 2.6 | 2.0 | 0.70 | 2.5 | 0.5 | 3.7 | 71 |
| 150 (200) | 1490 | WU-DF315MN ⁽²⁾ W-DF315MN ⁽³⁾ | IE2 | 256 | 149 | 94.9 95.7 94.8 | 0.89 0.87 0.81 | | 961 | 2.4 | 7.8 | 2.7 | 2.0 | 0.70 | 2.5 | 0.5 | 4.4 | 73 |
| 160 (215) | 1490 | WU-DF315MP ⁽²⁾ W-DF315MP ⁽³⁾ | IE2 | 270 | 156 | 94.9 96.0 95.2 | 0.90 0.88 0.83 | | 1026 | 2.4 | 7.8 | 2.7 | 2.0 | 0.70 | 2.5 | 0.5 | 4.7 | 73 |
| 185 (250) | 1490 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | IE2 | 312 | 181 | 95.1 96.0 95.5 | 0.90 0.87 0.80 | | 1186 | 2.4 | 7.8 | 2.7 | 2.2 | 0.70 | 2.5 | 0.5 | 5.5 | 73 |
| 200 (270) | 1485 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | IE2 | 341 | 198 | 95.1 96.1 95.6 | 0.90 0.89 0.84 | | 1284 | 2.3 | 7.6 | 2.6 | 1.9 | 0.65 | 2.4 | 0.45 | 5.5 | 73 |
| 225 (300) | 1490 | WU-DF355SG ⁽²⁾ W-DF355SG ⁽³⁾ | IE2 | 384 | 222 | 95.1 96.1 95.4 | 0.89 0.87 0.80 | | 1442 | 2.0 | 6.6 | 2.3 | 1.7 | 0.62 | 2.2 | 0.5 | 8.2 | 76 |
| 250 (335) | 1485 | WU-DF355SJ ⁽²⁾ W-DF355SJ ⁽³⁾ | IE2 | 426 | 247 | 95.1 96.0 95.9 | 0.89 0.87 0.81 | | 1608 | 2.0 | 5.7 | 2.5 | 1.7 | 0.62 | 1.8 | 0.5 | 9.5 | 76 |
| 280 (375) | 1490 | WU-DF355SN ⁽²⁾ W-DF355SN ⁽³⁾ | IE2 | 483 | 279 | 95.1 95.7 95.3 | 0.89 0.84 0.77 | | 1795 | 2.1 | 7.2 | 2.5 | 1.7 | 0.65 | 2.2 | 0.5 | 10.6 | 76 |
| 315 (420) | 1487 | WU-DF355MJ ⁽²⁾ W-DF355MJ ⁽³⁾ | IE2 | 537 | 310 | 95.1 96.1 95.6 | 0.89 0.88 0.85 | | 2023 | 2.1 | 7.2 | 2.5 | 1.7 | 0.65 | 2.2 | 0.5 | 11.9 | 79 |
| 355 (475) | 1490 | WU-DF355MN ⁽²⁾ W-DF355MN ⁽³⁾ | IE2 | 605 | 349 | 95.1 96.0 95.1 | 0.89 0.89 0.84 | | 2275 | 2.1 | 7.2 | 2.5 | 1.7 | 0.65 | 2.2 | 0.5 | 13.2 | 79 |
| 400 (535) | 1485 | WU-DF355LN ⁽²⁾ W-DF355LN ⁽³⁾ | IE2 | 680 | 393 | 95.6 96.3 96.1 | 0.89 0.88 0.83 | | 2572 | 2.0 | 6.0 | 2.5 | 1.7 | 0.62 | 1.87 | 0.5 | 14.6 | 79 |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



12

1000 min⁻¹ (6 pole)

| P _N kW (hp) | n min ⁻¹ | Type | IE3 | I _N | | | η | | Cos φ | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|------------|---|---|-------|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 230 V A | 400 V A | 690 V A | 1.0 P _N 0.75 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | | |
| 0.75 (1.0) | - | tbc | IE3 | - | - | - | { - - } | | - | - | - | - | - | - | - | - | - | - | - |
| 1.1 (1.5) | - | tbc | IE3 | - | - | - | { - - } | | - | - | - | - | - | - | - | - | - | - | - |
| 1.5 (2.0) | 960 | WP-DF100LTF ⁽¹⁾ | IE3 | 8.1 | 4.7 | - | { 82.5 0.60 82.1 0.48 78.9 0.37 } | | 14.9 | 3.5 | 6.2 | 4.6 | 3.6 | - | - | - | 0.012 | 58 | |
| 2.2 (3) | 960 | WP-DF112MWX ⁽¹⁾ | IE3 | 10.1 | 5.8 | - | { 84.3 0.65 84.4 0.58 81.8 0.43 } | | 21.9 | 2.8 | 5.6 | 3.0 | 2.4 | - | - | - | 0.015 | 54 | |
| 3.0 (4.0) | 970 | WP-DF132SMX ⁽¹⁾ | IE3 | 12.5 | 7.2 | - | { 87.0 0.69 86.7 0.62 83.0 0.43 } | | 29.5 | 2.3 | 6.1 | 2.5 | 2.2 | - | - | - | 0.032 | 58 | |
| 4.0 (5.5) | 960 | WP-DF132MTX ⁽¹⁾ | IE3 | - | 9.8 | 5.8 | { 86.8 0.68 86.5 0.59 83.3 0.49 } | | 39.8 | 2.3 | 5.5 | 2.5 | 2.1 | 0.7 | 1.7 | 0.66 | 0.038 | 58 | |
| 5.5 (7.5) | 965 | WP-DF132MVX ⁽¹⁾ | IE3 | - | 13.3 | 7.7 | { 88.0 0.68 87.0 0.53 84.0 0.42 } | | 54.5 | 2.6 | 6.5 | 3.0 | 1.9 | 0.8 | 2.0 | 0.6 | 0.041 | 58 | |
| 7.5 (10) | 975 | WP-DF160MM ⁽¹⁾ | IE3 | - | 16.6 | 9.6 | { 90.0 0.73 89.1 0.65 89.3 0.56 } | | 73.5 | 1.7 | 5.1 | 1.6 | 1.3 | 0.53 | 1.6 | 0.4 | 0.10 | 59 | |
| 11 (15) | 980 | WP-DF160LV ⁽¹⁾ | IE3 | - | 23.4 | 13.6 | { 90.3 0.75 90.3 0.69 90.0 0.53 } | | 107 | 2.0 | 5.7 | 2.8 | 1.9 | 0.63 | 2.3 | 0.6 | 0.12 | 59 | |
| 15 (20) | 980 | WP-DF180LM ⁽¹⁾ | IE3 | - | 30.4 | 17.6 | { 91.2 0.78 91.5 0.72 90.5 0.61 } | | 146 | 2.0 | 6.0 | 2.4 | 1.5 | 0.63 | 1.9 | 0.5 | 0.24 | 59 | |
| 18.5 (25) | 980 | WP-UDF200LN ⁽²⁾ WP-DF200LN ⁽³⁾ | IE3 | - | 36.4 | 21.0 | { 91.7 0.80 91.7 0.73 90.8 0.62 } | | 180 | 2.7 | 7.9 | 2.8 | 2.8 | 0.84 | 2.5 | 0.88 | 0.37 | 62 | |
| 22 (30) | 980 | WP-UDF200LN ⁽²⁾ WP-DF200LN ⁽³⁾ | IE3 | - | 43.6 | 25.3 | { 92.2 0.79 92.2 0.73 91.7 0.63 } | | 215 | 2.0 | 6.8 | 2.3 | 2.2 | 0.63 | 2.2 | 0.7 | 0.9 | 62 | |
| 30 (40) | 985 | WP-UDF225MN ⁽²⁾ WP-DF225MN ⁽³⁾ | IE3 | - | 57.5 | 33.4 | { 92.9 0.81 92.9 0.77 92.3 0.68 } | | 291 | 2.7 | 6.0 | 2.1 | 1.8 | 0.80 | 2.0 | 0.45 | 1.23 | 63 | |
| 37 (50) | 985 | WP-UDF250MNE ⁽²⁾ WP-DF250SN ⁽³⁾ | IE3 | - | 71 | 41 | { 93.5 0.81 93.6 0.77 93.1 0.68 } | | 359 | 2.7 | 6.0 | 2.0 | 1.8 | 0.84 | 1.9 | 0.40 | 1.47 | 63 | |
| 45 (60) | 990 | WP-UDF280SNE ⁽²⁾ WP-DF250MN ⁽³⁾ | IE3 | - | 85 | 50 | { 94.0 0.81 94.1 0.77 93.4 0.69 } | | 434 | 2.5 | 6.0 | 2.0 | 1.8 | 0.75 | 1.9 | 0.40 | 2.55 | 65 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



13

1000 min⁻¹ (6 pole)

| P _N kW (hp) | n min ⁻¹ | Type | I _N | | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|---|----------------|------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | 230 V A | 400 V A | 690 V A | 1.0 P _N 0.75 P _N | 1.0 P _N 0.75 P _N | 0.75 P _N 0.5 P _N | 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 0.37 (0.5) | 920 | A-DF80MG ⁽¹⁾ | - | 1.27 | - | 69.0 68.0 64.0 | 0.61 0.51 0.40 | | 3.8 | 2.0 | 3.7 | 2.2 | 1.8 | - | - | - | 0.0015 | 49 | |
| 0.55 (0.75) | 920 | A-DF80MM ⁽¹⁾ | - | 1.77 | - | 71.0 71.0 68.0 | 0.63 0.54 0.41 | | 5.7 | 2.0 | 3.7 | 2.3 | 1.8 | - | - | - | 0.0021 | 49 | |
| 0.75 (1.0) | 935 | WU-DF90LTX ⁽¹⁾ | IE2 | - | 2.2 | - | 75.9 73.8 70.1 | 0.65 0.54 0.44 | 7.7 | 2.9 | 4.8 | 3.0 | 2.5 | - | - | - | 0.0039 | 65 | |
| 1.1 (1.5) | 925 | WU-DF90LWX ⁽¹⁾ | IE2 | 5.3 | 3.0 | - | 78.1 75.6 73.1 | 0.67 0.57 0.42 | 11.4 | 3.0 | 4.8 | 3.0 | 2.6 | - | - | - | 0.0043 | 65 | |
| 1.5 (2.0) | 930 | WU-DF100LSF ⁽¹⁾ | IE2 | 6.6 | 3.8 | - | 79.8 76.8 74.6 | 0.71 0.68 0.51 | 15.4 | 2.2 | 5.8 | 2.4 | 1.9 | - | - | - | 0.011 | 58 | |
| 2.2 (3) | 950 | WU-DF112MT ⁽¹⁾ | IE2 | 9.6 | 5.5 | - | 81.8 77.6 73.9 | 0.70 0.56 0.45 | 22.1 | 2.5 | 6.5 | 2.9 | 2.0 | - | - | - | 0.012 | 54 | |
| 3.0 (4.0) | 965 | WU-DF132SL ⁽¹⁾ | IE2 | 12.0 | 6.9 | - | 83.3 84.8 83.2 | 0.75 0.67 0.54 | 29.7 | 2.1 | 6.7 | 2.6 | 1.6 | - | - | - | 0.027 | 58 | |
| 4.0 (5.5) | 960 | WU-DF132MM ⁽¹⁾ | IE2 | - | 9.3 | 5.4 | 84.6 84.8 82.5 | 0.74 0.66 0.54 | 39.8 | 2.2 | 5.9 | 2.5 | 1.6 | - | - | - | 0.029 | 58 | |
| 5.5 (7.5) | 950 | WU-DF132MR ⁽¹⁾ | IE2 | - | 12.3 | 7.1 | 86.0 85.2 83.5 | 0.75 0.68 0.55 | 55.3 | 2.1 | 5.6 | 2.4 | 1.6 | - | - | - | 0.032 | 58 | |
| 7.5 (10) | 975 | WU-DF160MM ⁽¹⁾ | IE2 | - | 16.6 | 9.6 | 87.2 88.1 86.2 | 0.75 0.67 0.56 | 73.5 | 1.8 | 6.5 | 2.8 | 1.7 | 0.55 | 2.1 | 0.5 | 0.10 | 59 | |
| 11 (15) | 980 | WU-DF160LV ⁽¹⁾ | IE2 | - | 24.0 | 13.8 | 88.7 90.0 88.5 | 0.75 0.67 0.57 | 107 | 2.0 | 7.5 | 2.8 | 1.9 | 0.60 | 2.5 | 0.5 | 0.12 | 59 | |
| 15 (20) | 980 | WU-DF180LM ⁽¹⁾ | IE2 | - | 30.5 | 17.6 | 89.7 90.8 89.6 | 0.78 0.74 0.63 | 146 | 2.4 | 6.5 | 2.8 | 2.2 | 0.65 | 2.2 | 0.6 | 0.23 | 59 | |
| 18.5 (25) | 980 | WU-DF200LGX ⁽²⁾ W-DF200LGX ⁽³⁾ | IE2 | - | 36.5 | 21.0 | 90.4 90.8 90.0 | 0.81 0.76 0.65 | 180 | 2.3 | 7.0 | 2.0 | 2.8 | 0.65 | 2.3 | 0.5 | 0.42 | 62 | |
| 22 (30) | 980 | WU-DF200LN ⁽²⁾ W-DF200LN ⁽³⁾ | IE2 | - | 42 | 24.5 | 90.9 91.1 90.5 | 0.83 0.78 0.68 | 214 | 2.3 | 7.0 | 2.1 | 2.8 | 0.65 | 2.3 | 0.5 | 0.48 | 62 | |
| 30 (40) | 980 | WU-DF225MN ⁽²⁾ W-DF225MN ⁽³⁾ | IE2 | - | 59 | 34.2 | 91.7 92.8 92.0 | 0.80 0.73 0.63 | 292 | 2.7 | 6.0 | 2.1 | 1.8 | 0.80 | 2.0 | 0.45 | 1.23 | 63 | |
| 37 (50) | 985 | WU-DF250MNE ⁽²⁾ W-DF250SN ⁽³⁾ | IE2 | - | 71 | 41 | 92.2 93.3 92.6 | 0.81 0.86 0.66 | 359 | 2.7 | 6.0 | 2.1 | 1.8 | 0.80 | 2.0 | 0.45 | 1.47 | 63 | |
| 45 (60) | 985 | WU-DF280SNE ⁽²⁾ W-DF250MN ⁽³⁾ | IE2 | - | 86 | 50 | 92.7 93.4 92.8 | 0.81 0.82 0.80 | 436 | 2.5 | 6.0 | 2.0 | 1.8 | 0.75 | 1.9 | 0.40 | 2.55 | 65 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



14 1000 min⁻¹ (6 pole)

Rated power Full load speed in revolutions per minute Frame reference and size Full load current at rated voltage Efficiency Power factor Full load torque Direct on line starting torque ratio Direct on line starting current ratio Direct on line pull out torque ratio Direct on line pull up torque Star delta starting torque ratio⁽¹⁾ Star delta starting current ratio Rotor inertia Wkg Mean sound pressure level @ 1m on no load

| P _N kW (hp) | n min ⁻¹ | Type | IE3 | I _N | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 400 V A | 690 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 55 (75) | 990 | WP-UDF280MNE ⁽²⁾ WP-DF280SN ⁽³⁾ | IE3 | 104 | 60 | 94.1 94.1 93.2 | 0.81 0.78 0.71 | 531 | 2.5 | 6.1 | 2.0 | 1.9 | 0.75 | 1.85 | 0.40 | 2.9 | 65 | | |
| 75 (100) | 990 | WP-UDF315SNE ⁽²⁾ WP-DF280MN ⁽³⁾ | IE3 | 138 | 80 | 94.6 94.6 93.5 | 0.83 0.80 0.70 | 724 | 3.0 | 7.0 | 2.6 | 2.1 | 0.90 | 2.1 | 0.60 | 5.0 | 68 | | |
| 90 (125) | 990 | WP-UDF315MNE ⁽²⁾ WP-DF315SN ⁽³⁾ | IE3 | 165 | 95 | 94.9 94.9 93.0 | 0.83 0.77 0.67 | 869 | 3.0 | 7.0 | 2.6 | 2.1 | 0.90 | 2.1 | 0.60 | 6.0 | 68 | | |
| 110 (150) | 988 | WP-UDF315MN ⁽²⁾ WP-DF315MN ⁽³⁾ | IE3 | 196 | 114 | 95.4 95.5 95.0 | 0.85 0.83 0.77 | 1064 | 2.8 | 6.7 | 2.0 | 1.9 | 0.80 | 2.1 | 0.55 | 6.1 | 78 | | |
| 132 (175) | 985 | WP-UDF315LN ⁽²⁾ WP-DF315LN ⁽³⁾ | IE3 | 235 | 136 | 95.4 95.4 94.5 | 0.85 0.82 0.75 | 1280 | 2.8 | 6.7 | 2.5 | 2.4 | 0.80 | 2.1 | 0.75 | 7.3 | 70 | | |
| 150 (200) | 987 | WP-UDF355SG ⁽²⁾ WP-DF355SG ⁽³⁾ | IE3 | 270 | 156 | 95.5 95.5 94.7 | 0.84 0.82 0.74 | 1452 | 1.7 | 7.0 | 2.1 | 1.4 | 0.50 | 2.2 | 0.35 | 10 | 74 | | |
| 160 (215) | 990 | WP-UDF355SG ⁽²⁾ WP-DF355SG ⁽³⁾ | IE3 | 295 | 171 | 95.8 95.9 94.9 | 0.82 0.77 0.69 | 1544 | 1.7 | 6.7 | 2.1 | 1.4 | 0.50 | 2.0 | 0.35 | 10 | 74 | | |
| 185 (250) | 990 | WP-UDF355SJ ⁽²⁾ WP-DF355SJ ⁽³⁾ | IE3 | 328 | 190 | 95.7 95.8 95.0 | 0.85 0.84 0.77 | 1785 | 1.7 | 6.7 | 2.1 | 1.4 | 0.45 | 2.1 | 0.35 | 11.1 | 74 | | |
| 200 (270) | - | tbc tbc | IE3 | - | - | - - - | - - - | - | - | - | - | - | - | - | - | - | - | | |
| 225 (300) | 990 | WP-UDF355MJ ⁽²⁾ WP-DF355MJ ⁽³⁾ | IE3 | 394 | 229 | 95.8 93.7 93.5 | 0.86 0.82 0.74 | 2170 | 1.7 | 6.7 | 2.1 | 1.4 | 0.45 | 2.1 | 0.35 | 10.3 | 77 | | |
| 250 (335) | 990 | WP-UDF355MN ⁽²⁾ WP-DF355MN ⁽³⁾ | IE3 | 446 | 258 | 96.2 96.3 95.9 | 0.84 0.81 0.74 | 2413 | 1.8 | 7.0 | 2.2 | 1.5 | 0.48 | 2.2 | 0.40 | 15.2 | 77 | | |
| 280 (375) | 990 | WP-UDF355LJ ⁽²⁾ WP-DF355LJ ⁽³⁾ | IE3 | 491 | 284 | 95.8 95.9 95.4 | 0.86 0.79 0.69 | 2702 | 1.8 | 7.0 | 2.2 | 1.5 | 0.48 | 2.2 | 0.40 | 16.9 | 77 | | |
| 315 (420) | 990 | WP-UDF355LN ⁽²⁾ WP-DF355LN ⁽³⁾ | IE3 | 552 | 320 | 95.8 95.9 95.5 | 0.86 0.84 0.77 | 3040 | 1.8 | 7.0 | 2.1 | 1.5 | 0.48 | 2.1 | 0.40 | 18.6 | 77 | | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data



15

1000 min⁻¹ (6 pole)

Rated power Full load speed in revolutions per minute Frame reference and size Full load current at rated voltage Efficiency Power factor Full load torque Direct on line starting torque ratio Direct on line starting current ratio Direct on line pull up torque ratio Direct on line pull up torque Star delta starting torque ratio (I) Star delta starting current ratio Rotor inertia Wkg Mean sound pressure level @ 1m on no load

| P _N kW (hp) | n min ⁻¹ | Type | IE2 | I _N | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|-----|----------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | | 400 V A | 690 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 55 (75) | 985 | WU-DF280MNE ⁽²⁾ W-DF280SN ⁽³⁾ | IE2 | 103 | 60 | 93.1 94.1 93.8 | 0.83 0.80 0.74 | | | 533 | 2.5 | 6.1 | 2.0 | 1.9 | 0.75 | 1.85 | 0.40 | 2.9 | 65 |
| 75 (100) | 990 | WU-DF315SNE ⁽²⁾ W-DF280MN ⁽³⁾ | IE2 | 139 | 81 | 93.7 94.4 93.3 | 0.83 0.79 0.70 | | | 724 | 3.0 | 7.0 | 2.6 | 2.1 | 0.90 | 2.1 | 0.60 | 5.0 | 68 |
| 90 (125) | 990 | WU-DF315MNE ⁽²⁾ W-DF315SN ⁽³⁾ | IE2 | 165 | 95 | 94.0 94.3 93.4 | 0.84 0.80 0.72 | | | 873 | 3.0 | 7.0 | 2.6 | 2.1 | 0.90 | 2.1 | 0.60 | 6.0 | 68 |
| 110 (150) | 985 | WU-DF315MN ⁽²⁾ W-DF315MN ⁽³⁾ | IE2 | 198 | 114 | 94.3 94.7 93.8 | 0.85 0.81 0.73 | | | 1066 | 2.8 | 6.7 | 2.0 | 1.9 | 0.80 | 2.1 | 0.55 | 6.1 | 70 |
| 132 (175) | 985 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | IE2 | 237 | 137 | 94.6 94.9 94.1 | 0.85 0.81 0.73 | | | 1280 | 2.8 | 6.7 | 2.0 | 1.9 | 0.80 | 2.1 | 0.55 | 7.3 | 70 |
| 150 (200) | 987 | WU-DF355SG ⁽²⁾ W-DF355SG ⁽³⁾ | IE2 | 272 | 157 | 94.7 95.4 94.5 | 0.84 0.83 0.76 | | | 1451 | 1.7 | 7.0 | 2.1 | 1.4 | 0.50 | 2.2 | 0.35 | 10 | 74 |
| 160 (215) | 990 | WU-DF355SG ⁽²⁾ W-DF355SG ⁽³⁾ | IE2 | 287 | 166 | 94.8 95.4 94.5 | 0.85 0.83 0.76 | | | 1551 | 1.7 | 6.7 | 2.1 | 1.4 | 0.50 | 2.0 | 0.35 | 10 | 74 |
| 185 (250) | 990 | WU-DF355SJ ⁽²⁾ W-DF355SJ ⁽³⁾ | IE2 | 331 | 191 | 94.9 95.8 95.1 | 0.85 0.83 0.76 | | | 1785 | 1.7 | 6.7 | 2.1 | 1.4 | 0.45 | 2.1 | 0.35 | 11.1 | 74 |
| 200 (270) | 990 | WU-DF355SN ⁽²⁾ W-DF355SN ⁽³⁾ | IE2 | 358 | 207 | 95.0 95.9 95.2 | 0.85 0.83 0.76 | | | 1939 | 1.7 | 6.7 | 2.1 | 1.4 | 0.45 | 2.1 | 0.35 | 12.2 | 74 |
| 225 (300) | 990 | WU-DF355MJ ⁽²⁾ W-DF355MJ ⁽³⁾ | IE2 | 398 | 230 | 95.0 96.0 95.4 | 0.86 0.83 0.76 | | | 2170 | 1.7 | 6.7 | 2.1 | 1.4 | 0.45 | 2.1 | 0.35 | 13.6 | 77 |
| 250 (335) | 990 | WU-DF355MN ⁽²⁾ W-DF355MN ⁽³⁾ | IE2 | 442 | 255 | 95.0 95.0 94.3 | 0.86 0.84 0.77 | | | 2412 | 1.8 | 7.0 | 2.2 | 1.5 | 0.48 | 2.2 | 0.40 | 15.2 | 77 |
| 280 (375) | 990 | WU-DF355LJ ⁽²⁾ W-DF355LJ ⁽³⁾ | IE2 | 495 | 286 | 95.0 95.2 94.9 | 0.86 0.84 0.77 | | | 2701 | 1.8 | 7.0 | 2.2 | 1.5 | 0.48 | 2.2 | 0.40 | 16.9 | 77 |
| 315 (420) | 990 | WU-DF355LN ⁽²⁾ W-DF355LN ⁽³⁾ | IE2 | 557 | 322 | 95.0 95.3 94.7 | 0.86 0.84 0.77 | | | 3039 | 1.8 | 7.0 | 2.1 | 1.5 | 0.48 | 2.1 | 0.40 | 18.6 | 77 |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data

16

750 min⁻¹ (8 pole)

| P _N kW (hp) | n min ⁻¹ | Type | I _N | | | η | | Cos φ | | M _N Nm | M _A M _N | I _A I _N | M _K M _N | M _S M _N | M _A M _N Y | I _A I _N Y | M _S M _N Y | J kgm ² | L _{PA} dB(A) |
|------------------------------|------------------------|--|----------------|------------|------------|---|---|---|---|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------|--------------------------|
| | | | 380 V A | 400 V A | 415 V A | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | 1.0 P _N 0.75 P _N 0.5 P _N | | | | | | | | | | |
| 0.18 (0.25) | 695 | W-DF80MG ⁽¹⁾ | 1.01 | 0.96 | 0.96 | { 55.0 52.0 44.0 } | { 0.49 0.42 0.34 } | | 2.5 | 2.2 | 2.7 | 2.5 | 2.0 | - | - | - | 0.0017 | 46 | |
| 0.25 (0.33) | 695 | W-DF80MM ⁽¹⁾ | 1.26 | 1.2 | 1.2 | { 59.0 56.5 49.0 } | { 0.51 0.43 0.34 } | | 3.5 | 2.2 | 2.9 | 2.5 | 2.0 | - | - | - | 0.0021 | 46 | |
| 0.37 (0.5) | 700 | W-DF90SG ⁽¹⁾ | 1.71 | 1.63 | 1.63 | { 62.0 59.0 51.0 } | { 0.53 0.44 0.34 } | | 5.1 | 2.3 | 3.0 | 2.5 | 2.1 | - | - | - | 0.0028 | 50 | |
| 0.55 (0.75) | 680 | W-DF90LM ⁽¹⁾ | 2.4 | 2.3 | 2.3 | { 64.0 62.0 55.0 } | { 0.54 0.44 0.33 } | | 7.6 | 2.3 | 3.3 | 2.7 | 2.1 | - | - | - | 0.0035 | 50 | |
| 0.75 (1) | 690 | W-DF100LR ⁽¹⁾ | 2.77 | 2.64 | 2.64 | { 69.5 68.0 61.0 } | { 0.59 0.49 0.40 } | | 10.4 | 1.8 | 3.2 | 2.1 | 1.7 | - | - | - | 0.009 | 53 | |
| 1.1 (1.5) | 690 | W-DF100LS ⁽¹⁾ | 3.9 | 3.7 | 3.7 | { 71.5 70.5 68.0 } | { 0.60 0.51 0.39 } | | 15.2 | 1.8 | 3.2 | 2.1 | 1.7 | - | - | - | 0.0095 | 53 | |
| 1.5 (2) | 690 | W-DF112MS ⁽¹⁾ | 4.6 | 4.4 | 4.4 | { 74.5 74.0 71.0 } | { 0.66 0.56 0.44 } | | 20.7 | 1.9 | 4.0 | 2.0 | 1.7 | - | - | - | 0.015 | 57 | |
| 2.2 (3) | 720 | W-DF132SM ⁽¹⁾ | 6.2 | 5.9 | 5.9 | { 82.5 83.0 80.0 } | { 0.65 0.57 0.45 } | | 29.2 | 1.6 | 5.0 | 2.4 | 1.5 | - | - | - | 0.029 | 57 | |
| 3 (4) | 720 | W-DF132MR ⁽¹⁾ | 8.2 | 7.8 | 7.8 | { 84.0 84.0 82.0 } | { 0.66 0.58 0.45 } | | 39.8 | 1.6 | 5.0 | 2.4 | 1.4 | - | - | - | 0.031 | 57 | |
| 4 (5.5) | 725 | W-DF160ME ⁽¹⁾ | 10.4 | 9.9 | 9.9 | { 86.0 86.0 84.0 } | { 0.64 0.64 0.51 } | | 52.7 | 1.6 | 5.5 | 2.5 | 1.4 | 0.5 | 1.7 | 0.45 | 0.09 | 53 | |
| 5.5 (7.5) | 725 | W-DF160MM ⁽¹⁾ | 13.9 | 13.2 | 13.2 | { 87.0 87.0 85.5 } | { 0.69 0.65 0.52 } | | 72.4 | 1.6 | 5.7 | 2.5 | 1.4 | 0.5 | 1.7 | 0.45 | 0.11 | 53 | |
| 7.5 (10) | 725 | W-DF160LV ⁽¹⁾ | 18.2 | 17.3 | 17.3 | { 88.0 88.0 86.0 } | { 0.71 0.65 0.52 } | | 98.8 | 1.6 | 6.0 | 2.5 | 1.4 | 0.5 | 1.8 | 0.45 | 0.14 | 53 | |
| 11 (15) | 730 | W-DF180LM ⁽¹⁾ | 27.6 | 26.3 | 26.3 | { 90.0 90.0 88.0 } | { 0.67 0.59 0.48 } | | 143.9 | 2.0 | 4.5 | 2.5 | 1.7 | 0.63 | 1.4 | 0.55 | 0.24 | 58 | |
| 15 (20) | 730 | WU-DF200LN ⁽²⁾ W-DF200LN ⁽³⁾ | 35 | 33 | 32 | { 90.0 90.0 88.5 } | { 0.73 0.66 0.54 } | | 196 | 1.8 | 5.8 | 2.6 | 1.6 | 0.45 | 1.7 | 0.35 | 0.48 | 60 | |
| 18.5 (25) | 730 | WU-DF225SN ⁽²⁾ W-DF225SN ⁽³⁾ | 43 | 40 | 39 | { 90.5 90.5 89.5 } | { 0.73 0.66 0.54 } | | 242 | 2.0 | 5.5 | 2.25 | 1.6 | 0.5 | 1.6 | 0.35 | 0.75 | 60 | |
| 22 (30) | 730 | WU-DF225MN ⁽²⁾ W-DF225MN ⁽³⁾ | 50 | 47 | 45 | { 91.5 91.5 89.0 } | { 0.74 0.66 0.54 } | | 288 | 2.0 | 6.0 | 2.4 | 1.6 | 0.45 | 1.7 | 0.35 | 1.23 | 62 | |
| 30 (40) | 735 | WU-DF250MNE ⁽²⁾ W-DF250SN ⁽³⁾ | 67 | 64 | 61 | { 92.0 92.0 90.0 } | { 0.74 0.67 0.55 } | | 390 | 1.7 | 6.0 | 2.4 | 1.6 | 0.4 | 1.7 | 0.35 | 1.47 | 62 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

⁽³⁾ BS frame reference

Performance data

750 min⁻¹ (8 pole)

17

| Rated power P_N kW (hp) | Full load speed in revolutions per minute n min ⁻¹ | Frame reference and size Type | Full load current at rated voltage I_N | | | Efficiency η | | Power factor $\cos \phi$ | Full load torque M_N Nm | Direct on line starting torque ratio $\frac{M_A}{M_N}$ | Direct on line starting current ratio $\frac{I_A}{I_N}$ | Direct on line pull up torque ratio $\frac{M_K}{M_N}$ | Direct on line pull up torque ratio $\frac{M_S}{M_N}$ | Star delta starting torque ratio ⁽¹⁾ $\frac{M_A}{M_N}$ Y | Star delta starting torque ratio ⁽¹⁾ $\frac{I_A}{I_N}$ Y | Star delta starting current ratio pull up torque $\frac{M_S}{M_N}$ Y | Rotor inertia I_{Wk} J kgm ² | Mean sound pressure level @ 1m on no load L_{PA} dB(A) |
|------------------------------------|--|--|--|------------|------------|--------------------------------------|--------------------------------------|-----------------------------|---------------------------------|--|---|---|---|--|--|--|---|---|
| | | | 380 V A | 400 V A | 415 V A | $1.0 P_N$ $0.75 P_N$ $0.5 P_N$ | $1.0 P_N$ $0.75 P_N$ $0.5 P_N$ | | | | | | | | | | | |
| 37 (50) | 735 | WU-DF280SNE ⁽²⁾ W-DF250MN ⁽³⁾ | 81 | 77 | 74 | 92.5 92.5 91.5 | 0.75 0.68 0.56 | 481 | 1.7 | 6.0 | 2.4 | 1.6 | 0.40 | 1.7 | 0.35 | 2.55 | 63 | |
| 45 (60) | 735 | WU-DF280MNE ⁽²⁾ W-DF280SN ⁽³⁾ | 98 | 93 | 90 | 93.0 92.8 91.6 | 0.75 0.69 0.57 | 585 | 1.7 | 6.0 | 2.4 | 1.4 | 0.40 | 1.7 | 0.3 | 2.9 | 63 | |
| 55 (75) | 740 | WU-DF315SNE ⁽²⁾ W-DF280MN ⁽³⁾ | 119 | 113 | 109 | 93.5 93.3 92.0 | 0.75 0.70 0.58 | 710 | 2.5 | 6.0 | 2.0 | 1.5 | 0.60 | 1.7 | 0.35 | 5.0 | 64 | |
| 75 (100) | 740 | WU-DF315MNE ⁽²⁾ W-DF315SN ⁽³⁾ | 159 | 151 | 146 | 94.1 93.9 92.2 | 0.76 0.72 0.60 | 968 | 2.5 | 6.0 | 2.0 | 1.5 | 0.60 | 1.7 | 0.35 | 6.0 | 64 | |
| 90 (125) | 740 | WU-DF315MN ⁽²⁾ W-DF315MN ⁽³⁾ | 188 | 179 | 172 | 94.4 94.2 93.4 | 0.77 0.73 0.64 | 1161 | 2.4 | 6.0 | 2.0 | 1.8 | 0.65 | 1.7 | 0.45 | 6.1 | 65 | |
| 110 (150) | 740 | WU-DF315LN ⁽²⁾ W-DF315LN ⁽³⁾ | 227 | 218 | 210 | 94.6 94.4 93.6 | 0.77 0.73 0.64 | 1419 | 2.4 | 6.0 | 2.0 | 1.8 | 0.65 | 1.7 | 0.45 | 7.3 | 65 | |
| 132 (175) | 740 | WU-DF355SJ ⁽²⁾ W-DF355SJ ⁽³⁾ | 274 | 260 | 251 | 95.1 94.8 93.6 | 0.77 0.73 0.64 | 1703 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 12.2 | 72 | |
| 150 (200) | 740 | WU-DF355SN ⁽²⁾ W-DF355SN ⁽³⁾ | 310 | 295 | 284 | 95.5 95.3 94.0 | 0.77 0.73 0.64 | 1936 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 13.6 | 72 | |
| 160 (215) | 740 | WU-DF355SN ⁽²⁾ W-DF355SN ⁽³⁾ | 331 | 315 | 303 | 95.5 95.3 94.0 | 0.77 0.73 0.64 | 2065 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 13.6 | 72 | |
| 185 (250) | 740 | WU-DF355MJ ⁽²⁾ W-DF355MJ ⁽³⁾ | 383 | 364 | 350 | 95.6 95.4 94.1 | 0.77 0.73 0.64 | 2387 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 15.2 | 74 | |
| 200 (270) | 740 | WU-DF355MN ⁽²⁾ W-DF355MN ⁽³⁾ | 413 | 393 | 378 | 95.6 95.4 94.3 | 0.77 0.73 0.64 | 2581 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 16.9 | 74 | |
| 225 (300) | 740 | WU-DF355LN ⁽²⁾ W-DF355LN ⁽³⁾ | 464 | 441 | 425 | 95.6 95.4 94.7 | 0.77 0.73 0.64 | 2903 | 1.6 | 6.1 | 2.0 | 1.3 | 0.40 | 1.8 | 0.3 | 18.6 | 74 | |

⁽¹⁾ European and BS frame reference

⁽²⁾ European frame reference

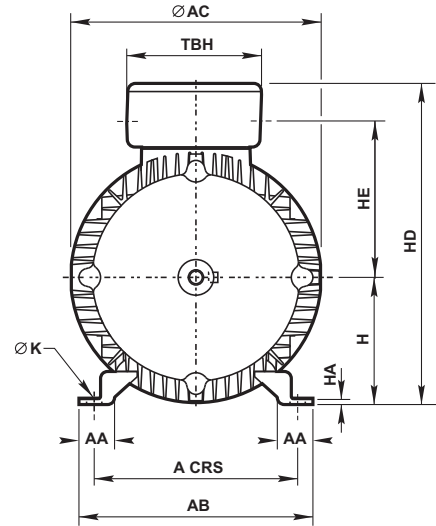
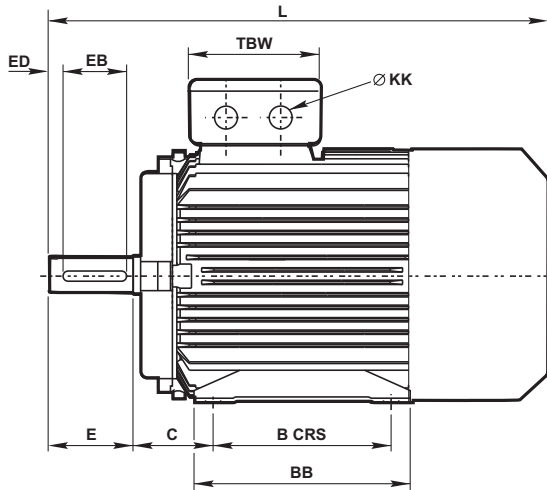
⁽³⁾ BS frame reference

Dimensions - European & BS specifications

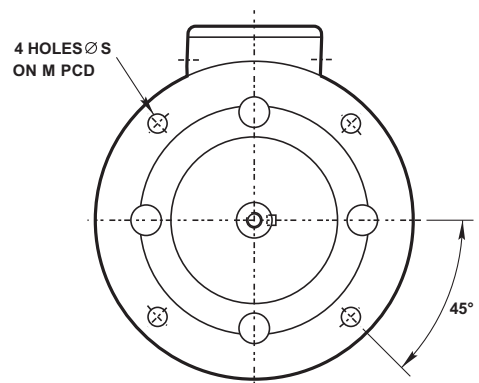
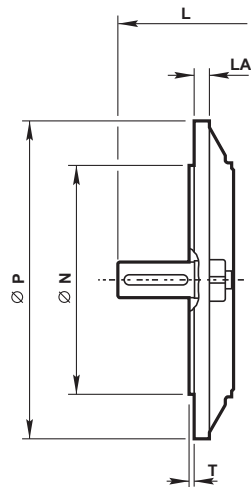
18

Foot, flange and face mounting - frame sizes 80 to 180

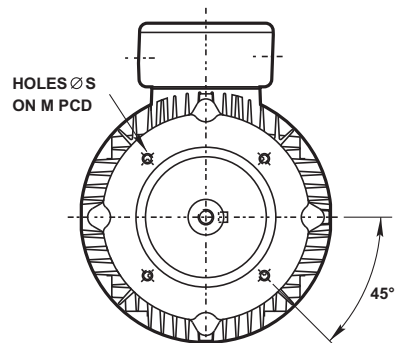
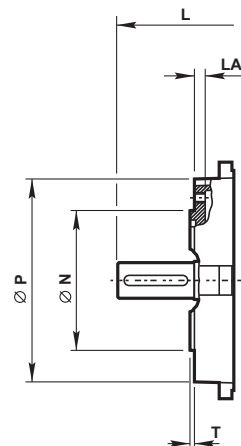
IM B3
IM 1001
Mounting options



IM B5/IM B35
IM 3001/IM 2001
Mounting options



IM B14/IM B34
IM 3601/IM 2101
Mounting options



Dimensions- European & BS specifications

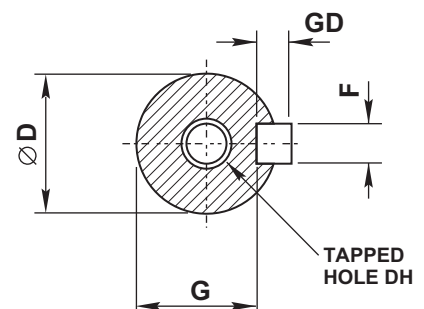
Foot, flange and face mounting - frame sizes 80 to 180

| General Type | A | B | C | H | K | Pole | | | | Terminal box | | | HA | HD | HE | TBW | TBH | KK | |
|-----------------|-----|-----|-----|-----|----|--------|--------|--------|--------|--------------|-----|-----|-----|----|------|------|-----|-----|--------|
| | | | | | | 2 pole | 4 pole | 6 pole | 8 pole | AA | AB | AC | | | | | | | BB |
| WU-DF80M | 125 | 100 | 50 | 80 | 10 | 278 | 278 | 278 | 278 | 35 | 157 | 158 | 127 | 10 | 159* | 118* | 120 | 120 | 1 X 20 |
| WU-DF90S | 140 | 100 | 56 | 90 | 10 | - | - | - | 322 | 38 | 175 | 175 | 155 | 12 | 179* | 123* | 120 | 120 | 1 X 20 |
| WU-DF90L | 140 | 125 | 56 | 90 | 10 | 364 | 364 | 364 | 322 | 38 | 175 | 174 | 195 | 12 | 254 | 123 | 120 | 120 | 1 X 20 |
| WU-DF100L | 160 | 140 | 63 | 100 | 12 | 368 | 368 | - | 368 | 34 | 195 | 197 | 206 | 14 | 274 | 133 | 120 | 120 | 2 X 20 |
| WU-DF100LF | 160 | 140 | 63 | 100 | 12 | - | 409 | 409 | - | 34 | 195 | 214 | 206 | 14 | 283 | 142 | 120 | 120 | 2 X 20 |
| WU-DF112M | 190 | 140 | 70 | 112 | 12 | 382 | 382 | 382 | 382 | 40 | 230 | 220 | 182 | 16 | 305 | 145 | 135 | 135 | 2 X 25 |
| WU-DF132S | 216 | 140 | 89 | 132 | 12 | 447 | 485 | 447 | 447 | 47 | 255 | 256 | 220 | 16 | 348 | 168 | 135 | 135 | 2 X 25 |
| WU-DF132M | 216 | 178 | 89 | 132 | 12 | 447 | 485 | 447 | 447 | 47 | 255 | 256 | 220 | 16 | 348 | 168 | 135 | 135 | 2 X 25 |
| WU-DF160M | 254 | 210 | 108 | 160 | 15 | 604 | 604 | 604 | 604 | 55 | 300 | 315 | 300 | 22 | 428 | 208 | 174 | 174 | 2 X 32 |
| WU-DF160L | 254 | 254 | 108 | 160 | 15 | 604 | 604 | 604 | 604 | 55 | 300 | 315 | 300 | 22 | 428 | 208 | 174 | 174 | 2 X 32 |
| WU-DF180M | 279 | 241 | 121 | 180 | 15 | 663 | 663 | 663 | 663 | 64 | 344 | 355 | 326 | 22 | 469 | 230 | 174 | 174 | 2 X 32 |
| WU-DF180L | 279 | 279 | 121 | 180 | 15 | 663 | 663 | 663 | 663 | 64 | 344 | 355 | 326 | 22 | 469 | 230 | 174 | 174 | 2 X 32 |

* All 80 frame motors and the 90 frame 8 pole motor have the terminal box mounted on the right hand side when viewed on DE. Dimension 'HD' is the top of the motor when terminal box R.H.S and dimension 'HE' is the centre line of the motor to the centre line of the cable entry position.

| Flange & Face Type | IM B5 mounting | | | | | | IM B14 mounting | | | | | |
|-----------------------|----------------|-----|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|------|
| | M | N | P | S | T | LA | M | N | P | S | T | LA |
| | WU-DF80M | 165 | 130 | 200 | 12 | 3.5 | 12 | 100 | 80 | 120 | M6 | 3 |
| WU-DF90S/L | 165 | 130 | 200 | 12 | 3.5 | 12 | 115 | 95 | 140 | M8 | 3 | 9 |
| WU-DF100L | 215 | 180 | 250 | 15 | 4 | 12 | 130 | 110 | 160 | M8 | 3.5 | 12.5 |
| WU-DF112M | 215 | 180 | 250 | 15 | 4 | 12 | 130 | 110 | 164 | M8 | 3.5 | 13 |
| WU-DF132S | 265 | 230 | 300 | 15 | 4 | 12 | 165 | 130 | 200 | M10 | 3.5 | 14 |
| WU-DF132M | 265 | 230 | 300 | 15 | 4 | 12 | 165 | 130 | 200 | M10 | 3.5 | 14 |
| WU-DF160M | 300 | 250 | 350 | 19 | 5 | 13 | 215 | 180 | 250 | M12 | 4 | 13 |
| WU-DF160L | 300 | 250 | 350 | 19 | 5 | 13 | 215 | 180 | 250 | M12 | 4 | 13 |
| WU-DF180M | 300 | 250 | 350 | 19 | 5 | 15 | - | - | - | - | - | - |
| WU-DF180L | 300 | 250 | 350 | 19 | 5 | 15 | - | - | - | - | - | - |

| Shaft Type | D | E | F | G | GD | EB | ED | DH |
|---------------|----------|-----|----|------|------|-----|----|----------|
| | WU-DF80M | 19 | 40 | 6 | 15.5 | 6 | 32 | 4 |
| WU-DF90S/L | 24 | 50 | 8 | 20 | 7 | 40 | 5 | M8 x 19 |
| WU-DF100L | 28 | 60 | 8 | 24 | 7 | 50 | 5 | M10 x 22 |
| WU-DF112M | 28 | 60 | 8 | 24 | 7 | 50 | 5 | M10 x 22 |
| WU-DF132S | 38 | 80 | 10 | 33 | 8 | 70 | 5 | M12 x 28 |
| WU-DF132M | 38 | 80 | 10 | 33 | 8 | 70 | 5 | M12 x 28 |
| WU-DF160M | 42 | 110 | 12 | 37 | 8 | 100 | 5 | M16 x 36 |
| WU-DF160L | 42 | 110 | 12 | 37 | 8 | 100 | 5 | M16 x 36 |
| WU-DF180M | 48 | 110 | 14 | 42.5 | 9 | 100 | 5 | M16 x 36 |
| WU-DF180L | 48 | 110 | 14 | 42.5 | 9 | 100 | 5 | M16 x 36 |

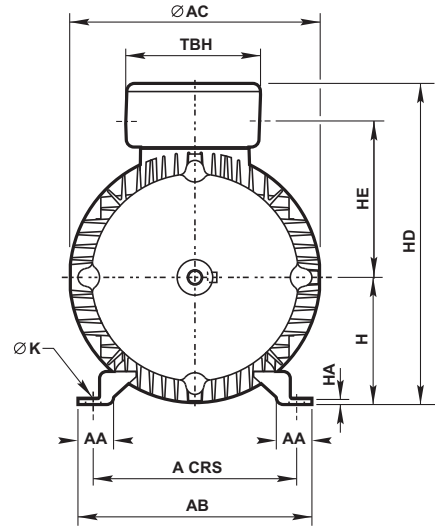
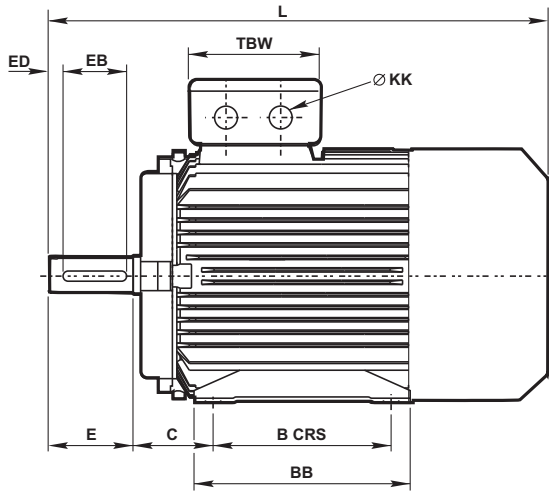


Dimensions - European specification

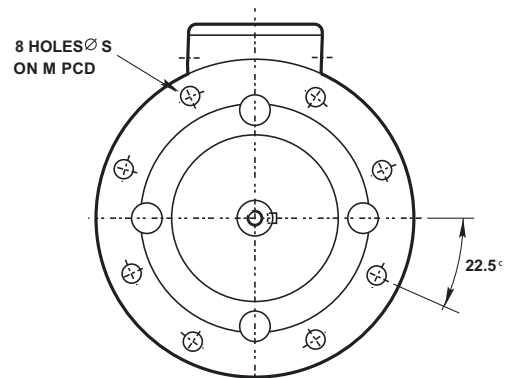
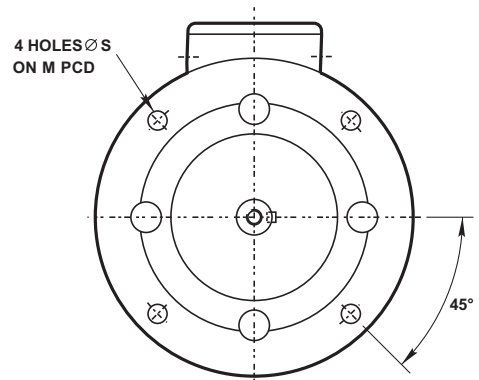
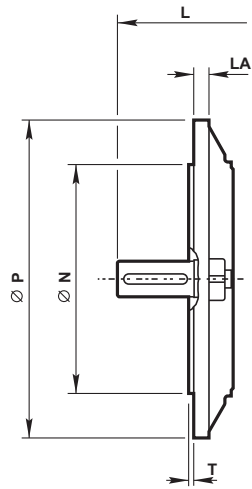
20

Foot and flange mounting - frame sizes 200 to 355L

IM B3
IM 1001
Mounting options



IM B5/IM B35
IM 3001/IM 2001
Mounting options



8 holes at 22.5° for flanges to suit 225 frames and above to European specification

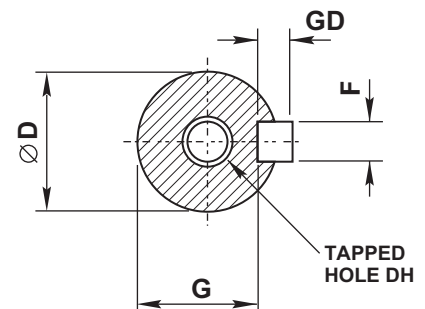
Dimensions - European specification

Foot and flange mounting - frame sizes 200 to 355L

| General | | | | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|----------|------|--------|-----|-----|-----|----|--------------------|-----|-----|-----|-------------------|--|----|
| Type | A | B | C | H | K | 4 pole + | | 2 pole | | AA | AB | AC | BB | HA | HD | HD' | Terminal box | | KK |
| | | | | | | L | L | TBW | TBH | | | | | | | | | | |
| WU-DF200LX | 318 | 305 | 133 | 200 | M16 | 787 | 787 | 74 | 382 | 381 | 359 | 30 | 501 | 444 | 176 | 220 | 2 x M32 + 1 x M20 | | |
| WU-DF225S | 356 | 286 | 149 | 225 | M16 | 875 | 845 | 70 | 426 | 410 | 349 | 25 | 550 ⁽¹⁾ | 488 | 220 | 288 | 2 x M40 + 1 x M20 | | |
| WU-DF225M | 356 | 311 | 149 | 225 | M16 | 915 | 885 | 70 | 426 | 448 | 374 | 25 | 570 | 510 | 220 | 288 | 2 x M40 + 1 x M20 | | |
| WU-DF250ME | 406 | 349 | 168 | 250 | M20 | 985 | 985 | 79 | 482 | 448 | 419 | 28 | 595 ⁽²⁾ | 535 | 220 | 288 | 2 x M50 + 1 x M20 | | |
| WU-DF280SE | 457 | 368 | 190 | 280 | M20 | 1065 | 1065 | 83 | 540 | 508 | 438 | 35 | 655 ⁽¹⁾ | 595 | 220 | 288 | 2 x M50 + 1 x M20 | | |
| WU-DF280ME | 457 | 419 | 190 | 280 | M20 | 1070 | 1070 | 83 | 540 | 508 | 489 | 35 | 655 ⁽¹⁾ | 595 | 220 | 288 | 2 x M50 + 1 x M20 | | |
| WU-DF315SE | 508 | 406 | 216 | 315 | M24 | 1145 | 1115 | 89 | 597 | 563 | 482 | 38 | 845 | 744 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF315ME | 508 | 457 | 216 | 315 | M24 | 1215 | 1185 | 89 | 597 | 563 | 533 | 38 | 845 | 744 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF315M | 508 | 457 | 216 | 315 | M24 | 1245 | 1215 | 89 | 597 | 640 | 533 | 38 | 875 | 776 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF315L | 508 | 508 | 216 | 315 | M24 | 1315 | 1285 | 89 | 597 | 640 | 583 | 38 | 875 | 776 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF355S | 610 | 500 | 254 | 355 | M24 | 1485 | 1415 | 100 | 710 | 732 | 626 | 27 | 975 | 874 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF355M | 610 | 560 | 254 | 355 | M24 | 1605 | 1535 | 100 | 710 | 732 | 686 | 27 | 975 | 874 | 330 | 526 | 2 x M63 + 1 x M20 | | |
| WU-DF355L | 610 | 630 | 254 | 355 | M24 | 1655 | 1585 | 100 | 710 | 732 | 756 | 27 | 975 | 874 | 330 | 526 | 2 x M63 + 1 x M20 | | |

| Shaft | | | | | | | | | | | | | | | | | |
|------------|----------|-----|----|------|----|-----|----|----------|--------|-----|----|------|----|-----|----|----------|--|
| Type | 4 pole + | | | | | | | | 2 pole | | | | | | | | |
| | D | E | F | G | GD | EB | ED | DH | D | E | F | G | GD | EB | ED | DH | |
| WU-DF200LX | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| WU-DF225S | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| WU-DF225M | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| WU-DF250ME | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF280SE | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M20 x 42 | 65 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF280ME | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF315SE | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF315ME | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF315M | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF315L | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| WU-DF355S | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |
| WU-DF355M | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |
| WU-DF355L | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |

| Flange | | | | | | |
|------------------------|-----|-----|-----|----|---|----|
| IM B5, IM B35 mounting | | | | | | |
| Type | M | N | P | S | T | LA |
| WU-DF200LX | 350 | 300 | 400 | 19 | 5 | 19 |
| WU-DF225S | 400 | 350 | 450 | 19 | 5 | 19 |
| WU-DF225M | 400 | 350 | 450 | 19 | 5 | 19 |
| WU-DF250ME | 500 | 450 | 550 | 19 | 5 | 25 |
| WU-DF280SE | 500 | 450 | 550 | 19 | 5 | 25 |
| WU-DF280ME | 500 | 450 | 550 | 19 | 5 | 25 |
| WU-DF315SE | 600 | 550 | 660 | 24 | 6 | 29 |
| WU-DF315ME | 600 | 550 | 660 | 24 | 6 | 29 |
| WU-DF315M | 600 | 550 | 660 | 24 | 6 | 29 |
| WU-DF315L | 600 | 550 | 660 | 24 | 6 | 29 |
| WU-DF355S | 740 | 680 | 800 | 24 | 6 | 28 |
| WU-DF355M | 740 | 680 | 800 | 24 | 6 | 28 |
| WU-DF355L | 740 | 680 | 800 | 24 | 6 | 28 |



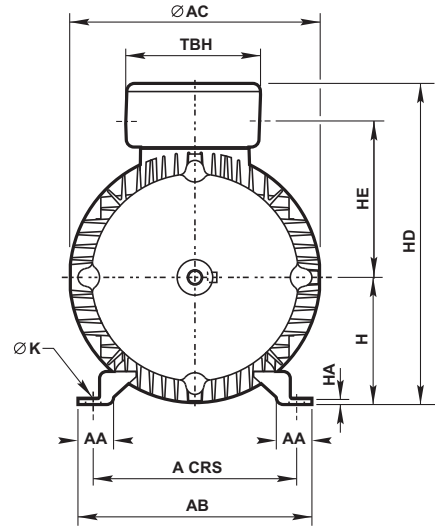
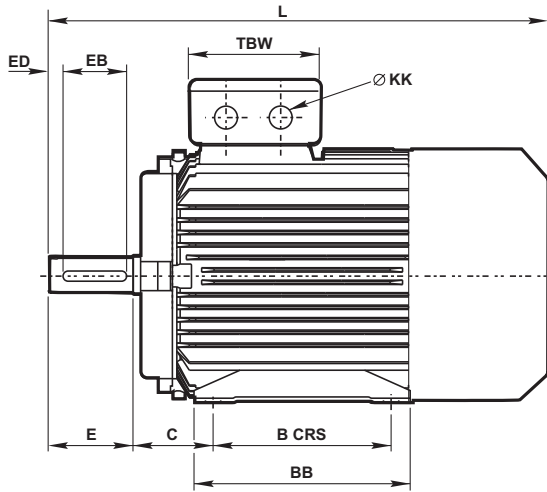
⁽¹⁾ add 25mm when cable entry is facing drive end
⁽²⁾ add 50mm when cable entry is facing drive end

Dimensions - BS specification

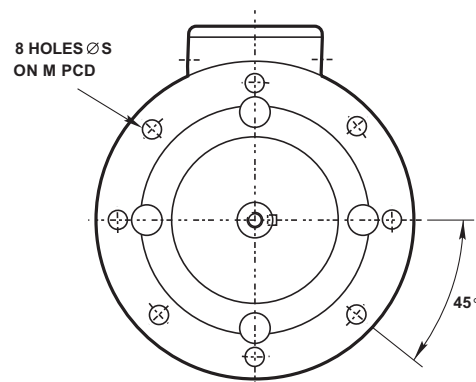
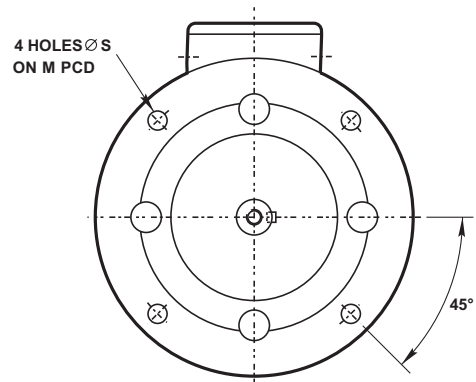
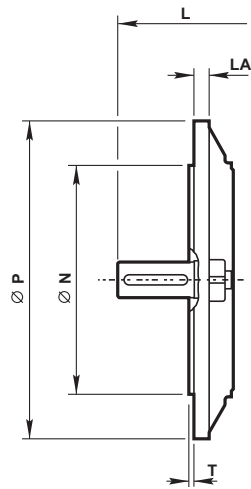
22

Foot and flange mounting - frame sizes 200 to 355L

IM B3
IM 1001
Mounting options



IM B5/IM B35
IM 3001/IM 2001
Mounting options



8 holes at 0° for flanges to suit 225 frames and above to British specification

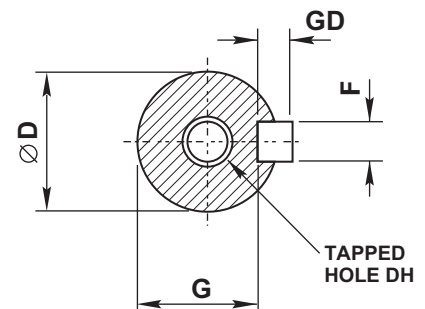
Dimensions - BS specification

Foot and flange mounting - frame sizes 200 to 355L

| General | | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|-----|-----|----------|------|-----|-----|-----|-----|----|--------------------|--------------|-----|
| Type | A | B | C | H | K | 4 pole + | | AA | AB | AC | BB | HA | HD | Terminal box | |
| | | | | | | L | L | | | | | | | TBW | TBH |
| W-DF200LX | 318 | 305 | 133 | 200 | M16 | 787 | 787 | 74 | 382 | 381 | 359 | 30 | 501 | 176 | 220 |
| W-DF225S | 356 | 286 | 149 | 225 | M16 | 875 | 845 | 70 | 426 | 410 | 349 | 25 | 550 ⁽¹⁾ | 220 | 288 |
| W-DF225M | 356 | 311 | 149 | 225 | M16 | 915 | 885 | 70 | 426 | 448 | 374 | 25 | 570 | 220 | 288 |
| W-DF250S | 406 | 311 | 168 | 250 | M20 | 985 | 985 | 79 | 482 | 448 | 381 | 28 | 595 ⁽²⁾ | 220 | 288 |
| W-DF250M | 406 | 349 | 168 | 250 | M20 | 1030 | 1030 | 79 | 482 | 508 | 419 | 28 | 625 ⁽¹⁾ | 220 | 288 |
| W-DF280S | 457 | 368 | 190 | 280 | M20 | 1100 | 1070 | 83 | 540 | 508 | 438 | 35 | 655 ⁽¹⁾ | 220 | 288 |
| W-DF280M | 457 | 419 | 190 | 280 | M20 | 1145 | 1115 | 83 | 540 | 563 | 487 | 35 | 810 | 330 | 526 |
| W-DF315S | 508 | 406 | 216 | 315 | M24 | 1215 | 1185 | 89 | 597 | 563 | 483 | 38 | 845 | 330 | 526 |
| W-DF315M | 508 | 457 | 216 | 315 | M24 | 1245 | 1215 | 89 | 597 | 640 | 533 | 38 | 875 | 330 | 526 |
| W-DF315L | 508 | 508 | 216 | 315 | M24 | 1315 | 1285 | 89 | 597 | 640 | 583 | 38 | 875 | 330 | 526 |
| W-DF355S | 610 | 500 | 254 | 355 | M24 | 1485 | 1415 | 100 | 710 | 732 | 626 | 27 | 970 | 330 | 526 |
| W-DF355M | 610 | 560 | 254 | 355 | M24 | 1605 | 1535 | 100 | 710 | 732 | 686 | 27 | 970 | 330 | 526 |
| W-DF355L | 610 | 630 | 254 | 355 | M24 | 1655 | 1585 | 100 | 710 | 732 | 756 | 27 | 970 | 330 | 526 |

| Shaft | | | | | | | | | | | | | | | | | |
|-----------|----------|-----|----|------|----|-----|----|----------|--------|-----|----|------|----|-----|----|----------|--|
| Type | 4 pole + | | | | | | | | 2 pole | | | | | | | | |
| | D | E | F | G | GD | EB | ED | DH | D | E | F | G | GD | EB | ED | DH | |
| W-DF200LX | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| W-DF225S | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| W-DF225M | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | 55 | 110 | 16 | 49 | 10 | 100 | 5 | M20 x 42 | |
| W-DF250S | 70 | 140 | 20 | 62.5 | 12 | 125 | 10 | M20 x 42 | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | |
| W-DF250M | 70 | 140 | 20 | 62.5 | 12 | 125 | 10 | M20 x 42 | 60 | 140 | 18 | 53 | 11 | 125 | 10 | M20 x 42 | |
| W-DF280S | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| W-DF280M | 80 | 170 | 22 | 71 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| W-DF315S | 85 | 170 | 22 | 76 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| W-DF315M | 85 | 170 | 22 | 76 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| W-DF315L | 85 | 170 | 22 | 76 | 14 | 160 | 5 | M20 x 42 | 65 | 140 | 18 | 58 | 11 | 125 | 10 | M20 x 42 | |
| W-DF355S | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |
| W-DF355M | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |
| W-DF355L | 100 | 210 | 28 | 90 | 16 | 200 | 5 | M24 x 50 | 75 | 140 | 20 | 67.5 | 12 | 125 | 10 | M24 x 50 | |

| Flange | | | | | | | |
|------------------------|-----|-----|-----|----|---|----|--|
| IM B5, IM B35 mounting | | | | | | | |
| Type | M | N | P | S | T | LA | |
| W-DF200LX | 350 | 300 | 400 | 19 | 5 | 19 | |
| W-DF225S | 400 | 350 | 450 | 19 | 5 | 19 | |
| W-DF225M | 400 | 350 | 450 | 19 | 5 | 19 | |
| W-DF250S | 500 | 450 | 550 | 19 | 5 | 25 | |
| W-DF250M | 500 | 450 | 550 | 19 | 5 | 25 | |
| W-DF280S | 500 | 450 | 550 | 19 | 5 | 25 | |
| W-DF280M | 500 | 450 | 550 | 19 | 5 | 25 | |
| W-DF315S | 600 | 550 | 660 | 24 | 6 | 29 | |
| W-DF315M | 600 | 550 | 660 | 24 | 6 | 29 | |
| W-DF315L | 600 | 550 | 660 | 24 | 6 | 29 | |
| W-DF355S | 740 | 680 | 800 | 24 | 6 | 28 | |
| W-DF355M | 740 | 680 | 800 | 24 | 6 | 28 | |
| W-DF355L | 740 | 680 | 800 | 24 | 6 | 28 | |

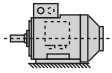


⁽¹⁾ add 25mm when cable entry is facing drive end
⁽²⁾ add 50mm when cable entry is facing drive end

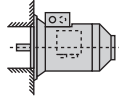
Mounting options

24

Horizontal shaft:



**IM B3
IM 1001**
foot mounted



**IM B5
IM 3001**
flange at DE
no feet



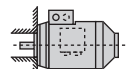
**IM B6
IM 1051**
foot wall mounted with
feet on left-hand side
when viewed from DE



**IM B7
IM 1061**
foot wall mounted with
feet on right-hand side
when viewed from DE

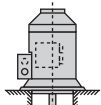


**IM B8
IM 1071**
ceiling mounted
with feet
above motor

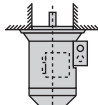


**IM B14
IM 3601**
face at DE
no feet

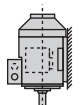
Vertical shaft:



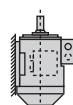
**IM V1
IM 3011**
flange at DE
shaft down
no feet



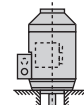
**IM V3
IM 3031**
flange at DE
shaft up
no feet



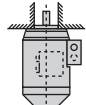
**IM V5
IM 1011**
vertical foot
wall mounted
shaft down



**IM V6
IM 1031**
vertical foot
wall mounted
shaft up



**IM V18
IM 3611**
face at DE
shaft down
no feet



**IM V19
IM 3631**
face at DE
shaft up
no feet

Approximate shipping specifications

| Type | | Net weight (kg) | Gross weight (kg) | Cubage (m ³) |
|------------|------------|-----------------|-------------------|--------------------------|
| European | BS | | | |
| WU-DF80M | WU-DF80M | 15 | 16.5 | 0.02 |
| WU-DF90S | WU-DF90S | 19 | 20.5 | 0.03 |
| WU-DF90L | WU-DF90L | 30.5 | 31.5 | 0.03 |
| WU-DF100L | WU-DF100L | 35.5 | 38.0 | 0.04 |
| WU-DF100LF | WU-DF100LF | 41.8 | 44.3 | 0.04 |
| WU-DF112M | WU-DF112M | 45.0 | 48.0 | 0.05 |
| WU-DF132S | WU-DF132S | 68.0 | 71.0 | 0.08 |
| WU-DF132SX | WU-DF132SX | 78.1 | 81.1 | 0.08 |
| WU-DF132M | WU-DF132M | 72.5 | 78.5 | 0.08 |
| WU-DF132MX | WU-DF132MX | 82.6 | 88.6 | 0.08 |
| WU-DF160M | WU-DF160M | 121 | 133 | 0.15 |
| WU-DF160L | WU-DF160L | 133 | 145 | 0.15 |
| WU-DF180M | WU-DF180M | 162 | 178 | 0.21 |
| WU-DF180L | WU-DF180L | 177.5 | 193.5 | 0.21 |
| WU-DF200LX | W-DF200LX | 255 | 270 | 0.30 |
| WU-DF225S | W-DF225S | 320 | 335 | 0.37 |
| WU-DF225M | W-DF225M | 375 | 390 | 0.37 |
| WU-DF250ME | W-DF250S | 420 | 460 | 0.63 |
| WU-DF280SE | W-DF250M | 570 | 610 | 0.70 |
| WU-DF280ME | W-DF280S | 660 | 721 | 1.2 |
| WU-DF315SE | W-DF280M | 800 | 871 | 1.2 |
| WU-DF315ME | W-DF315S | 1000 | 1095 | 1.8 |
| WU-DF315M | W-DF315M | 1100 | 1195 | 1.8 |
| WU-DF315L | W-DF315L | 1300 | 1395 | 1.8 |
| WU-DF355S | W-DF355S | 2000 | 2120 | 2.3 |
| WU-DF355M | W-DF355M | 2300 | 2420 | 2.3 |
| WU-DF355L | W-DF355L | 2500 | 2620 | 2.3 |

Weights listed above are approximate and based on foot mounted (B3) standard design.

Technical information

Mechanical: grease, bearings & oilseals

Bearings and greasing arrangements

Bearings are pre-packed with a grease type dependant on frame size and re-greasing facility as detailed in table opposite:

| Standard and re-greasing facilities | | |
|-------------------------------------|-----------------|----------------------|
| Type | Standard grease | Re-greasing facility |
| 80 - 180 | EA6 Polyurea | Available |
| 200 - 355 | Esso Unirex N3 | Standard |

| Bearing references and oil seals for horizontally-mounted motors only | | | | | | |
|---|--------------|-------------------------|-----------|---------------|-------------------------------|-------------------------------|
| Type | | Bearings ⁽¹⁾ | | | Oil seals ⁽²⁾ | |
| European | BS | Polarity | Drive end | Non-drive end | Drive end | Non-drive end |
| WU-DF80M | WU-DF80M | All | 62042Z | 60032Z | 20 x 30 x 7 ⁽³⁾ | 15 x 24 x 5 ⁽³⁾ |
| WU-DF90S/L | WU-DF90S/L | All | 62052Z | 62032Z | 25 x 35 x 7 ⁽³⁾ | 17 x 28 x 6 ⁽³⁾ |
| WU-DF100L | WU-DF100L | All | 62062Z | 62052Z | 30 x 42 x 7 ⁽³⁾ | 25 x 37 x 7 ⁽³⁾ |
| WU-DF112M | WU-DF112M | All | 62062Z | 62052Z | 30 x 42 x 7 ⁽³⁾ | 25 x 37 x 7 ⁽³⁾ |
| WU-DF132S/M | WU-DF132S/M | All | 62082Z | 63052Z | 40 x 52 x 7 ⁽³⁾ | 25 x 37 x 7 ⁽³⁾ |
| WU-DF160M/L | WU-DF160M/L | All | 63092Z | 63072Z | 45 x 60 x 8 ⁽³⁾ | 35 x 47 x 7 ⁽³⁾ |
| WU-DF180M/L | WU-DF180M/L | All | 63102Z | 63082Z | 50 x 65 x 8 ⁽³⁾ | 40 x 52 x 7 ⁽³⁾ |
| WU-DF200LX | WU-DF200LX | All | 6312 | 6312 | 60 x 80 x 8 ⁽³⁾ | 60 x 80 x 8 ⁽³⁾ |
| WU-DF225S | WU-DF225S | All | 6313 | 6313 | 65 x 90 x 10 ⁽⁴⁾ | 65 x 90 x 10 ⁽⁴⁾ |
| WU-DF225M | WU-DF225M | All | 6314 | 6314 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| WU-DF250ME | W-DF250S | 2 | 6314 | 6314 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6316 | 6316 | 80 x 110 x 10 ⁽³⁾ | 80 x 110 x 10 ⁽³⁾ |
| WU-DF280SE | W-DF250M | 2 | 6314 | 6314 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6318 | 6318 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF280ME | W-DF280S | 2 | 6314 | 6314 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6318 | 6318 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF315SE | W-DF280M | 2 | 6316 | 6316 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6319 | 6319 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF315ME | W-DF315S | 2 | 6316 | 6316 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6319 | 6319 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF315M | W-DF315M | 2 | 6316 | 6316 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6319 | 6319 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF315L | W-DF315L | 2 | 6316 | 6316 | 70 x 90 x 10 ⁽⁴⁾ | 70 x 90 x 10 ⁽⁴⁾ |
| | | 4 up | 6319 | 6319 | 90 x 120 x 12 ⁽³⁾ | 90 x 120 x 12 ⁽³⁾ |
| WU-DF355S/M/L | W-DF355S/M/L | 2 | N316 | 6316 | 75 x 100 x 10 ⁽⁴⁾ | 75 x 100 x 10 ⁽⁴⁾ |
| | | 4 up | N324 | 6324 | 115 x 145 x 14 ⁽³⁾ | 115 x 145 x 14 ⁽³⁾ |

⁽¹⁾ Frame sizes 80 and 90 have bearings with CN clearances, frame sizes 100 to 355 have bearings with C3 clearance 'medium' series

⁽²⁾ Sizes given are in mm, and represent bore x outside diameter x width
Material: ⁽³⁾ Nitrile rubber ⁽⁴⁾ Silicon rubber

| Grease life expected at 80°C bearing temperature x 10 ³ hours | | | | | | | | | |
|--|-----------------------------|------------------------|----------|------------------------|----------|------------------------|----------|-----------------------|----------|
| Type | | 3000 min ⁻¹ | | 1500 min ⁻¹ | | 1000 min ⁻¹ | | 750 min ⁻¹ | |
| European | BS | Horizontal | Vertical | Horizontal | Vertical | Horizontal | Vertical | Horizontal | Vertical |
| WU-DF80-112 | WU-DF80-112 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| WU-DF132 | WU-DF132 | 30.0 | 25.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| WU-DF160 | WU-DF160 | 29.0 | 19.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| WU-DF180 | WU-DF180 | 24.0 | 16.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| WU-DF200LX | W-DF200LX | 12.6 | 8.2 | 30.0 | 20.3 | 30.0 | 27.8 | 30.0 | 30.0 |
| WU-DF225S | W-DF225S | 12.6 | 8.2 | 30.0 | 20.3 | 30.0 | 27.8 | 30.0 | 30.0 |
| WU-DF225M | W-DF225M | 11.3 | 7.4 | 29.5 | 19.2 | 30.0 | 26.0 | 30.0 | 30.0 |
| WU-DF250ME | W-DF250S | 11.3 | 7.4 | 26.3 | 17.1 | 30.0 | 23.6 | 30.0 | 29.3 |
| WU-DF280SE | W-DF250M | 11.3 | 7.4 | 23.4 | 15.2 | 30.0 | 21.3 | 30.0 | 27.8 |
| WU-DF280ME | W-DF280S | 11.3 | 7.4 | 23.4 | 15.2 | 30.0 | 21.3 | 30.0 | 27.8 |
| WU-DF315SE | W-DF280M | 9.4 | 6.1 | 21.3 | 13.8 | 30.0 | 20.3 | 30.0 | 26.0 |
| WU-DF315ME | W-DF315S | 9.4 | 6.1 | 21.3 | 13.8 | 30.0 | 20.3 | 30.0 | 26.0 |
| WU-DF315M | W-DF315M | 9.4 | 6.1 | 21.3 | 13.8 | 30.0 | 20.3 | 30.0 | 26.0 |
| WU-DF315L | W-DF315L | 9.4 | 6.1 | 21.3 | 13.8 | 30.0 | 20.3 | 30.0 | 26.0 |
| WU-DF355S/M/L ⁽¹⁾ | W-DF355S/M/L ⁽¹⁾ | 5.0 | 3.3 | 8.2 | 5.3 | 16.2 | 10.5 | 24.5 | 15.9 |
| WU-DF355S/M/L ⁽²⁾ | W-DF355S/M/L ⁽²⁾ | 9.4 | 6.1 | 13.5 | 8.8 | 22.5 | 14.6 | 30.0 | 19.5 |

⁽¹⁾ DE = Drive End

⁽²⁾ NDE = Non-Drive End

Technical information

26

Mechanical: Axial and radial loads

| Maximum permissible external axial thrust and radial loads in Newtons (N) | | | | | | | | |
|---|-------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|---|
| Type | Poles | Horizontal shaft | | Vertical shaft | | | | Maximum permissible radial load at end of shaft (standard mounting) |
| | | Load towards motor | Load away from motor | Shaft up | | Shaft down | | |
| | | | | Load towards motor | Load away from motor | Load towards motor | Load away from motor | |
| WU-DF80M | 2 | 912 | 712 | 746 | 897 | 946 | 697 | 775 |
| | 4 | 868 | 668 | 701 | 852 | 901 | 652 | 742 |
| | 6 | 754 | 554 | 594 | 734 | 794 | 534 | 648 |
| | 8 | 773 | 573 | 613 | 753 | 813 | 553 | 664 |
| WU-DF90S | 6 | 854 | 614 | 660 | 828 | 900 | 588 | 741 |
| | 8 | 874 | 634 | 680 | 848 | 920 | 608 | 757 |
| WU-DF90L | 2 | 1070 | 830 | 870 | 1041 | 1110 | 801 | 957 |
| | 4 | 1005 | 765 | 832 | 957 | 1072 | 717 | 893 |
| | 6 | 843 | 603 | 667 | 807 | 907 | 567 | 722 |
| | 8 | 870 | 630 | 686 | 839 | 926 | 599 | 749 |
| WU-DF100L | 2 | 1563 | 1243 | 1311 | 1522 | 1631 | 1202 | 1290 |
| | 4 | 1466 | 1146 | 1273 | 1387 | 1593 | 1067 | 1248 |
| | 6 | 1412 | 1092 | 1176 | 1359 | 1496 | 1039 | 1171 |
| | 8 | 1225 | 905 | 994 | 1167 | 1314 | 847 | 1022 |
| WU-DF112M | 2 | 1551 | 1231 | 1320 | 1497 | 1640 | 1177 | 1370 |
| | 4 | 1452 | 1132 | 1286 | 1356 | 1606 | 1036 | 1259 |
| | 6 | 1403 | 1083 | 1203 | 1327 | 1523 | 1007 | 1236 |
| | 8 | 1210 | 890 | 1009 | 1133 | 1329 | 813 | 1072 |
| WU-DF132S | 2 | 2481 | 2129 | 2283 | 2386 | 2635 | 2034 | 2184 |
| | 4 | 2459 | 2107 | 2330 | 2321 | 2682 | 1969 | 2133 |
| | 6 | 2393 | 2041 | 2217 | 2284 | 2569 | 1932 | 2032 |
| | 8 | 1878 | 1526 | 1728 | 1745 | 2080 | 1393 | 1614 |
| WU-DF132M | 4 | 2449 | 2097 | 2339 | 2301 | 2691 | 1949 | 2117 |
| | 6 | 2372 | 2020 | 2227 | 2244 | 2579 | 1892 | 2002 |
| | 8 | 1874 | 1522 | 1733 | 1734 | 2085 | 1382 | 1605 |
| | 2 | 2168 | 2663 | 2932 | 2002 | 2437 | 2202 | 3650 |
| WU-DF160M | 4 | 2153 | 2648 | 2959 | 1960 | 2464 | 2160 | 3785 |
| | 6 | 2022 | 2517 | 2905 | 1777 | 2410 | 1977 | 3626 |
| | 8 | 1509 | 2004 | 2389 | 1250 | 1894 | 1450 | 3316 |
| | 2 | 2144 | 2639 | 2950 | 1951 | 2455 | 2151 | 3613 |
| WU-DF160L | 4 | 2123 | 2618 | 2982 | 1895 | 2487 | 2095 | 3738 |
| | 6 | 1973 | 2468 | 2946 | 1669 | 2451 | 1869 | 3544 |
| | 8 | 1464 | 1959 | 2435 | 1144 | 1940 | 1344 | 3233 |
| | 2 | 2711 | 3274 | 3667 | 2465 | 3104 | 2665 | 4374 |
| WU-DF180M | 4 | 2749 | 3312 | 3830 | 2426 | 3267 | 2626 | 4556 |
| | 6 | 2575 | 3138 | 3785 | 2166 | 3222 | 2366 | 4334 |
| WU-DF180L | 8 | 2266 | 2829 | 3469 | 1850 | 2906 | 2050 | 3979 |

All figures are based on L10aah life of 20,000 hours

Technical information

Mechanical: Axial and radial loads

27

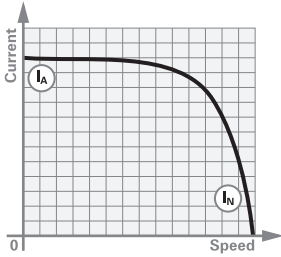
| Maximum permissible external axial thrust and radial loads in Newtons (N) | | | | | | | | | | | | |
|---|-----------|-------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|---|----------|----------------|----------|
| Type | | Poles | Horizontal shaft | | Vertical shaft | | | | Maximum permissible radial load at end of shaft | | | |
| European frame | BS frame | | Load towards motor | Load away from motor | Shaft up | | Shaft down | | Standard ball bearing | | Roller bearing | |
| | | | | | Load towards motor | Load away from motor | Load towards motor | Load away from motor | European frame | BS frame | European frame | BS frame |
| WU-DF200LX | W-DF200LX | 2 | 5435 | 4775 | 5005 | 5361 | 6021 | 4345 | 5125 | 5125 | 7541 | 7541 |
| | | 4 | 6058 | 5398 | 5531 | 6121 | 6781 | 4871 | 5588 | 5588 | 7541 | 7541 |
| | | 6 | 6055 | 5395 | 5457 | 6215 | 6875 | 4797 | 5536 | 5536 | 7541 | 7541 |
| | | 8 | 5781 | 5121 | 5183 | 5941 | 6601 | 4523 | 5252 | 5252 | 7541 | 7541 |
| WU-DF225S | W-DF225S | 4 | 6692 | 6122 | 5941 | 7177 | 7747 | 5371 | 5963 | 5963 | 8202 | 8202 |
| | | 6 | 6770 | 6200 | 5935 | 7371 | 7941 | 5365 | 5982 | 5982 | 8202 | 8202 |
| WU-DF225M | W-DF225M | 8 | 6441 | 5871 | 5606 | 7042 | 7612 | 5036 | 5648 | 5648 | 8202 | 8202 |
| | | 2 | 6729 | 6197 | 6084 | 7082 | 7614 | 6213 | 6602 | 6602 | 8745 | 8745 |
| WU-DF225M | W-DF225M | 4 | 7530 | 6998 | 6745 | 8099 | 8631 | 6213 | 6868 | 6876 | 8921 | 8921 |
| | | 6 | 7640 | 7108 | 6673 | 8463 | 8995 | 6141 | 6856 | 6856 | 8921 | 8921 |
| | | 8 | 7293 | 6761 | 6326 | 8116 | 8648 | 5794 | 6501 | 6501 | 8921 | 8921 |
| | | 2 | 6640 | 6108 | 5837 | 7209 | 7741 | 5305 | 6262 | 6262 | 8921 | 8921 |
| WU-DF250ME | W-DF250S | 4 | 9012 | 8418 | 8030 | 9794 | 10388 | 7436 | 8163 | 8163 | 11342 | 14166 |
| | | 6 | 9391 | 8797 | 8311 | 10311 | 10905 | 7717 | 8477 | 8477 | 11342 | 14166 |
| | | 8 | 9007 | 8413 | 7927 | 9927 | 10521 | 7333 | 8087 | 8087 | 11342 | 14166 |
| WU-DF280SE | W-DF250M | 2 | 6505 | 5911 | 5472 | 7352 | 7946 | 4878 | 5692 | 5897 | 8242 | 8921 |
| | | 4 | 10241 | 9579 | 8943 | 11377 | 12039 | 8281 | 9260 | 9627 | 17105 | 14166 |
| | | 6 | 10846 | 10184 | 9423 | 12157 | 12819 | 8761 | 9336 | 10182 | 17105 | 14166 |
| WU-DF280ME | W-DF280S | 8 | 10400 | 9738 | 8977 | 11711 | 12373 | 8315 | 9336 | 9706 | 17105 | 14166 |
| | | 2 | 6268 | 5736 | 5101 | 7355 | 7887 | 4569 | 5824 | 5795 | 9825 | 9503 |
| | | 4 | 9774 | 9112 | 8014 | 11534 | 12196 | 7352 | 9136 | 8842 | 17423 | 17348 |
| | | 6 | 10582 | 9920 | 8704 | 12524 | 13186 | 8042 | 9698 | 9386 | 17423 | 17348 |
| WU-DF315SE | W-DF280M | 8 | 10136 | 9474 | 8257 | 12077 | 12739 | 7595 | 9216 | 8919 | 17423 | 17348 |
| | | 2 | 7443 | 6849 | 5921 | 8957 | 9551 | 5327 | 6804 | 6804 | 11342 | 11342 |
| | | 4 | 10305 | 9965 | 8299 | 12719 | 13059 | 7959 | 9443 | 9443 | 17414 | 17414 |
| WU-DF315ME | W-DF315S | 6 | 11190 | 10850 | 9050 | 13810 | 14150 | 8710 | 10042 | 10042 | 17414 | 17414 |
| | | 8 | 10797 | 10457 | 8657 | 13417 | 13757 | 8317 | 9630 | 9630 | 17414 | 17414 |
| | | 2 | 7337 | 6743 | 5654 | 9082 | 9676 | 5060 | 6680 | 6680 | 11342 | 11342 |
| WU-DF315ME | W-DF315S | 4 | 10077 | 9737 | 7672 | 13044 | 13384 | 7332 | 9121 | 9121 | 17414 | 20887 |
| | | 6 | 10958 | 10618 | 8419 | 14131 | 14471 | 8079 | 9734 | 9734 | 17414 | 20887 |
| | | 8 | 10347 | 10007 | 7798 | 13510 | 13850 | 7458 | 9312 | 9312 | 17414 | 20887 |
| WU-DF315M | W-DF315M | 2 | 7398 | 6804 | 5664 | 9154 | 9748 | 5070 | 6885 | 6885 | 11342 | 11342 |
| | | 4 | 10192 | 9852 | 8006 | 12862 | 13202 | 7666 | 9482 | 9482 | 17414 | 20748 |
| | | 6 | 11060 | 10720 | 8715 | 13971 | 14311 | 8375 | 10066 | 10066 | 17414 | 20748 |
| | | 8 | 10667 | 10327 | 8322 | 13578 | 13918 | 7982 | 9640 | 9640 | 17414 | 20748 |
| WU-DF315L | W-DF315L | 2 | 7055 | 6461 | 5050 | 9164 | 9758 | 4456 | 6603 | 6606 | 11342 | 11342 |
| | | 4 | 10008 | 9668 | 7501 | 13123 | 13463 | 7161 | 9207 | 9207 | 17414 | 20748 |
| | | 6 | 10872 | 10532 | 8207 | 14229 | 14569 | 7867 | 9801 | 9801 | 17414 | 20748 |
| | | 8 | 10263 | 9923 | 7587 | 13609 | 13949 | 7247 | 9367 | 9367 | 17414 | 20748 |
| WU-DF355S | W-DF355S | 2 | 6118 | 5524 | 3136 | 9692 | 10286 | 2542 | - | - | 12627 | 12627 |
| | | 4 | 12994 | 11454 | 8799 | 17389 | 18929 | 7259 | - | - | 27533 | 27533 |
| | | 6 | 14038 | 12498 | 9387 | 19143 | 20683 | 7847 | - | - | 27533 | 27533 |
| WU-DF355M | W-DF355M | 8 | 14106 | 12566 | 9455 | 19211 | 20751 | 7915 | - | - | 27533 | 27533 |
| | | 2 | 5779 | 5185 | 2326 | 10050 | 10644 | 1732 | - | - | 12627 | 12627 |
| | | 4 | 12528 | 10988 | 7511 | 18055 | 19595 | 5971 | - | - | 27533 | 27533 |
| | | 6 | 13148 | 11608 | 7523 | 19533 | 21073 | 5983 | - | - | 27533 | 27533 |
| WU-DF355L | W-DF355L | 8 | 13214 | 11674 | 7589 | 19599 | 21139 | 6049 | - | - | 27533 | 27533 |
| | | 2 | 5595 | 5001 | 1734 | 10396 | 10990 | 1140 | - | - | 12627 | 12627 |
| | | 4 | 12343 | 10803 | 7038 | 18282 | 19822 | 5498 | - | - | 27533 | 27533 |
| | | 6 | 12936 | 11396 | 6980 | 19794 | 21334 | 5440 | - | - | 27533 | 27533 |
| | | 8 | 13002 | 11462 | 7046 | 19860 | 21400 | 5506 | - | - | 27533 | 27533 |

All figures are based on L10aah life of 20,000 hours

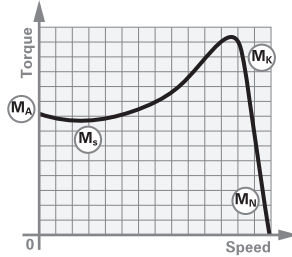
Performance data notes

DOL starting

Typical speed/current curve



Typical speed/torque curve

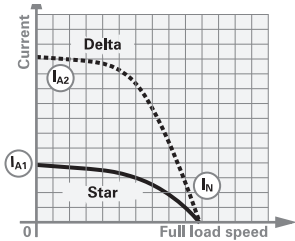


- (I_A) Starting current
- (I_N) Full load current
- (M_A) Starting torque or locked rotor torque
- (M_S) Pull up torque or run up torque
- (M_K) Pull out torque or breakdown torque
- (M_N) Full load torque

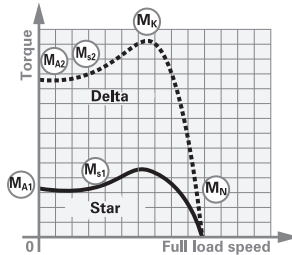
Torque/speed curves for specific motors can be supplied on request.

Star delta starting

Typical speed/current curve



Typical speed/torque curve



Notes

During the run up period in Star, there must be an adequate excess of motor torque over the load torque. The change to Delta must not occur until the motor is near the operating speed.

Refer to Brook Crompton for running up against a load in excess of 70% full load during Star Delta starting.

Motors are wound for either 230/400 volts or 400 / 690 volts

Performance figures are subject to IEC tolerances. Performance figures are based on a 400 volt winding.

$$J \text{ (WK}^2 \text{ or WR}^2) = \frac{GD^2}{4}$$

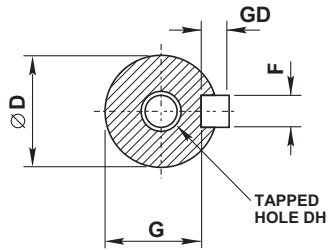
$$J \text{ in lb ft}^2 = \frac{\text{kgm}^2}{0.042}$$

Where performance data indicates **IE2 or IE3** 0.75kW to 375kW 2,4 & 6 pole within this catalogue, motor testing is in accordance with IEC 60034-2-1: 2007.

Dimensions notes

Page notes

| Shaft | | |
|-----------|-----|------------------|
| Dim D | Tol | Limits |
| 11 to 14 | j6 | +0.008 -0.003 |
| 19 to 28 | j6 | +0.009 -0.004 |
| 38 to 48 | k6 | +0.018 +0.002 |
| 55 to 80 | m6 | +0.030 +0.011 |
| 85 to 110 | m6 | +0.035 +0.013 |



All dimensions in millimetres

Cable entry can be arranged in any one of four positions at 90° intervals

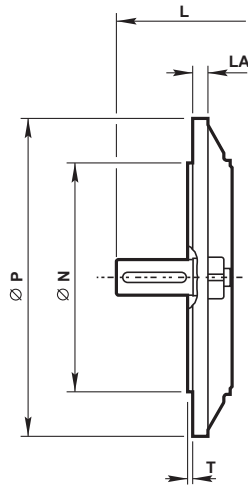
Dimensions should not be used for installation purposes unless specially endorsed

B5 mounted motors have suffix '-D' in the frame reference, eg WU-DF112MM-D and B3/B5 mounted motors have suffix '-H' in the frame reference, eg WU-DF112MM-H

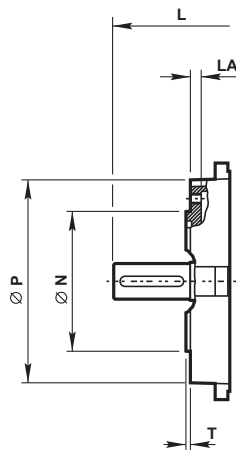
B14 mounted motors have suffix 'C' in the frame reference, eg WU-DF112MM-C and B3/B14 mounted motors have suffix '-H' in the frame reference, eg WU-DF112MM-H

Dimensions should not be used for installation purposes, unless specially endorsed.

| Flange | | |
|------------|-----------|------------------|
| Dim N | IEC 60072 | |
| | Tol | Limits |
| 110 | j6 | +0.013 -0.009 |
| 130 | j6 | +0.014 -0.011 |
| 230 to 250 | j6 | +0.016 -0.013 |
| 300 | j6 | +0.016 -0.016 |
| 350 | j6 | +0.018 -0.018 |
| 450 | j6 | +0.020 -0.020 |
| 550 | j6 | +0.022 -0.022 |
| 680 | js6 | +0.025 -0.025 |



| Face | | |
|------------|-----------|------------------|
| Dim N | IEC 60072 | |
| | Tol | Limits |
| 70 and 80 | j6 | +0.012 -0.007 |
| 95 and 110 | j6 | +0.013 -0.009 |
| 130 | j6 | +0.014 -0.011 |
| 230 | j6 | +0.016 -0.013 |



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