



## Cast Iron motors

Frame sizes 80 to 355



Keeping Industry Turning

20113E issue 3

# Specification and Introduction



2

## Cast Iron Specification

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

Brook Crompton, the original innovator in electric motor development, is a leading provider of energy efficient electric motors. With over 110 years' technical & design expertise, UK-based Brook Crompton delivers consistently reliable electric motors to a global market.

Trusted to power limitless industrial activities across diverse market sectors, the robust design of Brook Crompton's electric motors drives fans, pumps, compressors, conveyors and more, every second, of every day, of every year.

Driven by technology and innovation, Brook Crompton has one of the widest available ranges of electric motors for operation in hazardous atmospheres and hostile environments.

Renowned for their adaptability, Brook Crompton's extensive motor stock can be modified to suit the needs of different market sectors, with technical support from the company's knowledgeable team readily available to ensure the correct selection of motors for any application. For bespoke situations and complete flexibility, Brook Crompton will design and manufacture to meet individual customer specifications.

Brook Crompton has a long-standing reputation for efficient customer service, supporting customers worldwide through its global network. Specialist Brook Crompton Motor Centres operate alongside approved product distributors throughout the UK, mainland Europe, Middle East, Canada, USA, and Asia Pacific.

Shaping the future of electric motors, Brook Crompton is focused on the development of new products that improve energy efficiency, offer lower cost of ownership throughout the motor lifetime and reduce environmental impact.

### Brook Crompton, the original innovator in electric motors.

### 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 Ex nA (Zone 2) & Ex tc (Zone 22) see catalogue 2204E for further details

# 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)

## 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 related products [ErP]
Reference numbers	2014/35/EU (previously 73/23/EEC, 93/68/EEC & 2006/95/EC)	2006/42/EC (previously 89/392/EEC, 93/44/EEC, 98/37/EC & 98/79/EC)	2014/30/EU (previously 89/336/EEC, 92/31/EEC, 93/68/EEC & 2004/108/EC)	2009/125/EC (previously 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	Declaration of incorporation	Statement <sup>[1]</sup>	Declaration of conformity
Safety instructions with every motor	Yes	Yes	Yes	-
Comment	Relevant electrical equipment operating between 50 to 1000 volts AC	Statement <sup>[2]</sup>	Component	Minimum efficiency levels for motor outputs 0.75 - 375kW 2-6 pole

<sup>[1]</sup> 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

<sup>[2]</sup> 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 II B 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 manufacturers 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 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<sup>-1</sup> (2 pole)

P <sub>N</sub> kW	n min <sup>-1</sup>	Type	I <sub>N</sub>			η 1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	Cos Φ 1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	M <sub>N</sub> Nm	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>K</sub> M <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub> Y	I <sub>A</sub> I <sub>N</sub> Y	M <sub>S</sub> M <sub>N</sub> Y	J kgm <sup>2</sup>	L <sub>PA</sub> dB[A]
			230 V A	400 V A	690 V A												
0.75	2880	WM2-DF80MM-2A IE2	2.85	1.65	-	{ 77.4 76.9 75.2 }	{ 0.84 0.78 0.66 }	2.5	3.0	7.1	2.7	2.4	-	-	-	0.0010	64
1.1	2880	WM2-DF80MM-2B IE2	4.10	2.35	-	{ 79.6 80.7 78.6 }	{ 0.84 0.77 0.65 }	3.6	2.8	6.7	2.7	2.4	-	-	-	0.0012	64
1.5	2850	WM2-DF90SMX-2 IE2	5.15	2.97	-	{ 81.3 82.3 82.6 }	{ 0.90 0.84 0.76 }	5.0	2.8	7.1	3.1	2.4	-	-	-	0.0014	64
2.2	2890	WM2-DF90LSX-2 IE2	8.0	4.6	-	{ 83.2 85.4 84.1 }	{ 0.82 0.72 0.58 }	7.3	2.5	7.3	3.0	2.5	-	-	-	0.0016	64
3.0	2890	WM2-DF100LMF-2E2	10.2	5.9	-	{ 84.6 82.7 75.2 }	{ 0.88 0.74 0.54 }	9.9	3.1	8.1	3.1	2.4	-	-	-	0.0050	60
4.0	2870	WM2-DF112MM-2 IE2	-	7.3	4.2	{ 85.8 89.2 87.4 }	{ 0.91 0.88 0.81 }	13.3	3.0	7.8	3.6	2.8	0.93	2.4	0.87	0.0055	60
5.5	2910	WM2-DF132SE-2 IE2	-	10.2	5.9	{ 87.0 88.8 87.9 }	{ 0.89 0.83 0.70 }	18.0	2.7	8.2	3.1	2.4	0.84	2.6	0.75	0.012	66
7.5	2900	WM2-DF132SM-2 IE2	-	13.5	7.8	{ 88.1 88.4 88.5 }	{ 0.91 0.88 0.82 }	24.7	2.5	8.2	3.0	2.3	0.78	2.6	0.72	0.015	66
11	2940	WM2-DF160MB-2 IE2	-	20.0	11.5	{ 89.4 89.7 88.5 }	{ 0.89 0.84 0.76 }	35.7	2.2	7.8	3.0	1.8	0.68	2.4	0.56	0.039	68
15	2940	WM2-DF160MJ-2 IE2	-	26.6	15.4	{ 90.3 89.8 88.8 }	{ 0.90 0.86 0.79 }	48.7	2.2	8.0	3.1	1.9	0.68	2.5	0.60	0.045	68
18.5	2935	WM2-DF160LR-2 IE2	-	32.5	18.8	{ 90.9 90.6 89.8 }	{ 0.90 0.86 0.80 }	60.2	2.4	8.7	3.2	1.9	0.75	2.7	0.60	0.056	68
22	2950	WM2-DF180ME-2 IE2	-	39.0	22.5	{ 91.3 91.5 90.4 }	{ 0.89 0.86 0.76 }	71.2	2.2	9.0	3.1	1.9	0.68	2.8	0.60	0.084	68
30	2945	WM2-DF200LGX-2 IE2	-	53	31	{ 92.0 90.0 88.4 }	{ 0.89 0.86 0.79 }	97.3	2.7	7.8	2.9	2.3	0.75	2.5	0.60	0.15	73
37	2945	WM2-DF200LNX-2 IE2	-	66	38	{ 92.5 93.1 92.6 }	{ 0.88 0.80 0.76 }	120	2.7	7.8	2.9	2.3	0.75	2.5	0.60	0.18	73
45	2955	WM2-DF225MN-2 IE2	-	78	45	{ 92.9 93.3 92.6 }	{ 0.90 0.89 0.84 }	145	2.3	7.8	2.8	1.9	0.65	2.5	0.50	0.47	75
55	2955	WM2-DF250SN-2 IE2	-	94	54	{ 93.2 94.6 93.7 }	{ 0.91 0.90 0.86 }	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

3000 min<sup>-1</sup> (2 pole)

P <sub>N</sub>	n	Type	I <sub>N</sub>		$\eta$		Cos $\theta$		M <sub>N</sub>	M <sub>A</sub>	I <sub>A</sub>	M <sub>K</sub>	M <sub>S</sub>	M <sub>A</sub>	I <sub>A</sub>	M <sub>S</sub>	J	L <sub>PA</sub>	
kW	min <sup>-1</sup>		400 V	690 V	1.0 P <sub>N</sub>	0.75 P <sub>N</sub>	1.0 P <sub>N</sub>	0.75 P <sub>N</sub>	Nm	M <sub>N</sub>	I <sub>A</sub>	M <sub>N</sub>	M <sub>S</sub>	M <sub>A</sub>	I <sub>A</sub>	M <sub>S</sub>	kgm <sup>2</sup>	dB[A]	
hp			A	A	0.5 P <sub>N</sub>	0.5 P <sub>N</sub>	0.5 P <sub>N</sub>	0.5 P <sub>N</sub>											
75	2960	WM2-DF250MN-2 IE2	128	74	{ 93.8 95.1 94.3 }	{ 0.90 0.91 0.90 }	{ 94.1 95.2 94.7 }	{ 0.91 0.89 0.83 }	242	2.2	7.8	3.0	2.0	0.65	2.5	0.50	0.7	77	
90	2960	WM2-DF280SN-2 IE2	152	88	{ 94.3 94.8 93.7 }	{ 0.91 0.90 0.85 }	{ 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	2980	WM2-DF280MN-2 IE2	185	107	{ 94.6 94.8 93.7 }	{ 0.90 0.90 0.85 }	{ 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	2975	WM2-DF315SN-2 IE2	224	130	{ 94.6 96.3 95.9 }	{ 0.90 0.91 0.88 }	{ 94.7 95.4 94.5 }	{ 0.91 0.88 0.83 }	423	2.2	7.8	2.9	1.8	0.65	2.5	0.45	1.7	78	
150	2980	WM2-DF315MN-2 IE2	251	146	{ 94.7 95.4 94.5 }	{ 0.91 0.88 0.83 }	{ 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	2980	WM2-DF315MP-2 IE2	268	155	{ 94.8 96.0 95.1 }	{ 0.91 0.88 0.83 }	{ 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	2975	WM2-DF315LN-2 IE2	306	177	{ 95.0 95.5 94.6 }	{ 0.92 0.90 0.86 }	{ 95.0 95.5 94.6 }	{ 0.92 0.90 0.86 }	593	2.0	7.8	2.8	1.7	0.60	2.5	0.45	2.8	80	
200	2980	WM2-DF315LP-2 IE2	330	191	{ 95.0 96.0 95.0 }	{ 0.92 0.91 0.87 }	{ 95.0 96.0 95.0 }	{ 0.92 0.91 0.87 }	641	2.1	7.9	2.5	1.6	0.65	2.5	0.42	2.8	80	
225	2985	WM2-DF355SG-2 IE2	384	223	{ 95.0 95.5 94.4 }	{ 0.89 0.86 0.81 }	{ 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	2980	WM2-DF355SJ-2 IE2	427	247	{ 95.0 95.6 94.6 }	{ 0.89 0.87 0.81 }	{ 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	2985	WM2-DF355SN-2 IE2	478	277	{ 95.0 95.8 94.8 }	{ 0.91 0.87 0.82 }	{ 95.0 95.8 94.8 }	{ 0.91 0.87 0.82 }	896	2.0	7.5	2.7	1.6	0.65	2.3	0.45	5.9	80	
315	2985	WM2-DF355MJ-2 IE2	532	308	{ 95.0 96.2 95.4 }	{ 0.90 0.93 0.84 }	{ 95.0 96.2 95.4 }	{ 0.90 0.93 0.84 }	1007	2.7	8.3	2.7	1.6	0.84	2.6	0.45	6.3	80	
355	2985	WM2-DF355MN-2 IE2	599	347	{ 95.0 96.0 95.5 }	{ 0.90 0.88 0.83 }	{ 95.0 96.0 95.5 }	{ 0.90 0.88 0.83 }	1136	2.8	8.4	2.7	1.6	0.88	2.6	0.45	7.0	80	
375	2980	WM2-DF355LN-2 IE2	663	367	{ 95.0 95.4 95.1 }	{ 0.90 0.90 0.86 }	{ 95.0 95.4 95.1 }	{ 0.90 0.90 0.86 }	1200	2.6	7.3	2.7	1.6	0.8	2.3	0.45	8.0	80	

(1) European and BS frame reference

(2) European frame reference

(3) BS frame reference



# Performance data

1500 min<sup>-1</sup> (4 pole)

6

P <sub>N</sub> kW (hp)	n min <sup>-1</sup>	Type	I <sub>N</sub>			η 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	Cos θ 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	M <sub>N</sub> Nm	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>K</sub> M <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	J kgm <sup>2</sup>	L <sub>PA</sub> dB(A)	
			230 V A	400 V A	690V A													
0.55	1410	W-DA80ME-4	-	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	1440	W-DA80MS-4	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	1425	WM2-DF90LTX-4	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	1440	WM2-DF90LWX-4	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	1435	WM2-DF100LRF-4	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	1455	WM2-DF100LTF-4	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	1440	WM2-DF112MT-4	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	1460	WM2-DF132STX-4	IE2	-	11.1	6.4	{ 87.7 88.0 87.2 }	{ 0.82 0.74 0.63 }	36.0	3.3	8.7	3.9	2.3	-	-	-	0.03	59
7.5	1460	WM2-DF132MVX-4	IE2	-	14.7	8.5	{ 88.7 89.4 88.6 }	{ 0.83 0.76 0.67 }	49.1	3.2	7.6	3.4	2.5	-	-	-	0.033	59
11	1465	WM2-DF160MJ-4	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	1460	WM2-DF160LR-4	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	1470	WM2-DF180ME-4	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	1470	WM2-DF180LJ-4	IE2	-	41.0	23.7	{ 91.6 92.1 91.6 }	{ 0.86 0.83 0.71 }	143	2.5	7.5	2.9	2.0	0.78	2.3	0.60	0.19	62
30	1470	WM2-DF200LNX-4	IE2	-	55	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	1475	WM2-DF225SN-4	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	1480	WM2-DF225MN-4	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	1475	WM2-DF250SN-4	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

<sup>(1)</sup> European and BS frame reference

<sup>(2)</sup> European frame reference

<sup>(3)</sup> BS frame reference

# Performance data



1500 min<sup>-1</sup> (4 pole)

7

Rated power kW [hp]		n min <sup>-1</sup>		Type	$I_N$		$\eta$		$\cos \varnothing$		$M_N$	$M_A$ $M_N$	$I_A$ $I_N$	$M_K$ $M_N$	$M_S$ $M_N$	$M_A$ $M_N$ Y	$I_A$ $I_N$ Y	$M_S$ $M_N$ Y	J kgm <sup>2</sup>	L <sub>PA</sub> dB[A]
75	1480	WM2-DF250MN-4	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	1480	WM2-DF280SN-4	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	1485	WM2-DF280MN-4	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	1485	WM2-DF315SN-4	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	1490	WM2-DF315MN-4	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	1490	WM2-DF315MP-4	IE2	270	157	{ 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	1490	WM2-DF315LN-4	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	1490	WM2-DF315LN-4	IE2	337	195	{ 95.1 96.1 95.6 }	{ 0.90 0.89 0.84 }	1282	2.3	7.6	2.6	1.9	0.65	2.4	0.45	5.5	73			
225	1490	WM2-DF355SG-4	IE2	388	225	{ 95.1 96.1 95.4 }	{ 0.88 0.87 0.80 }	1442	2.0	6.6	2.3	1.7	0.62	2.2	0.5	8.2	76			
250	1485	WM2-DF355SJ-4	IE2	431	250	{ 95.1 96.0 95.9 }	{ 0.88 0.87 0.81 }	1608	2.0	5.7	2.5	1.7	0.62	1.8	0.5	9.5	76			
280	1490	WM2-DF355SN-4	IE2	483	280	{ 95.1 95.7 95.3 }	{ 0.88 0.84 0.77 }	1795	2.1	7.2	2.5	1.7	0.65	2.2	0.5	10.6	76			
315	1490	WM2-DF355MJ-4	IE2	543	315	{ 95.1 96.1 95.6 }	{ 0.88 0.88 0.85 }	2019	2.1	7.2	2.5	1.7	0.65	2.2	0.5	11.9	79			
355	1490	WM2-DF355MN-4	IE2	605	351	{ 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			

(1) European and BS frame reference

(2) European frame reference

(3) BS frame reference



# Performance data

1000 min<sup>-1</sup> (6 pole)

P <sub>N</sub> kW lhp	n min <sup>-1</sup>	Type	I <sub>N</sub>			η 1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	Cos Φ 1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	M <sub>N</sub> Nm	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>K</sub> M <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub> Y	I <sub>A</sub> I <sub>N</sub> Y	M <sub>S</sub> M <sub>N</sub> Y	J kgm <sup>2</sup>	L <sub>PA</sub> dB[A]
			230 V A	400 V A	690 V A												
0.37	920	W-DA80MG-6	-	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	920	W-DA80MM-6	-	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	935	WM2-DF90STX-6 IE2	-	2.2	-	{ 75.9 73.8 70.1 }	{ 0.65 0.54 0.44 }	7.7	3.2	4.8	3.3	2.5	-	-	-	0.0039	65
1.1	925	WM2-DF90LWX-6 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	930	WM2-DF100LRF-6 IE2	7.3	4.2	-	{ 79.8 76.8 74.6 }	{ 0.65 0.58 0.51 }	15.4	2.0	4.2	2.8	1.9	-	-	-	0.011	58
2.2	950	WM2-DF112MT-6 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	965	WM2-DF132SL-6 IE2	12.7	7.3	-	{ 83.3 84.8 83.2 }	{ 0.71 0.67 0.54 }	29.7	2.3	6.1	2.3	1.6	-	-	-	0.027	58
4.0	960	WM2-DF132MM-6 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	950	WM2-DF132MR-6 IE2	-	12.6	7.4	{ 86.0 85.2 83.5 }	{ 0.73 0.68 0.55 }	55.3	2.0	5.2	2.0	1.6	-	-	-	0.032	58
7.5	975	WM2-DF160MM-6 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	980	WM2-DF160LV-6 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	980	WM2-DF180LM-6 IE2	-	30.9	17.9	{ 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	980	WM2-DF200LGX-6 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	980	WM2-DF200LNX-6 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	985	WM2-DF225MN-6 IE2	-	58.3	33.8	{ 91.7 92.8 92.0 }	{ 0.81 0.73 0.63 }	291	2.7	6.0	2.1	1.8	0.80	2.0	0.45	1.23	63
37	985	WM2-DF250SN-6 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	985	WM2-DF250MN-6 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

<sup>[1]</sup> European and BS frame reference

<sup>[2]</sup> European frame reference

<sup>[3]</sup> BS frame reference

# Performance data



**9**

1000 min<sup>-1</sup> (6 pole)

P <sub>N</sub> kW  hp)	n min <sup>-1</sup>	Type	I <sub>N</sub> 400 V A	1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	Cos θ 1.0 P <sub>N</sub> 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>K</sub> M <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub> Y	I <sub>A</sub> I <sub>N</sub> Y	M <sub>S</sub> M <sub>N</sub> Y	J kgm <sup>2</sup>	L <sub>PA</sub> dB[A]
55	985	WM2-DF280SN-6 IE2	104 60	{ 93.1 94.1 93.8 }	{ 0.82 0.80 0.74 }	533	2.5	6.1	2.0	1.9	0.75	1.85	0.40	2.9	65
75	990	N/A	IE2												

# Performance data

16

750 min<sup>-1</sup> (8 pole)

10

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		Star delta starting torque ratio <sup>(1)</sup>		Star delta starting current ratio <sup>(2)</sup>		Star delta pull up torque		Rotor inertia Wk <sup>2</sup>		Mean sound pressure level @ 1m on no load	
P <sub>N</sub> kW [hp]	n min <sup>-1</sup>	Type				I <sub>N</sub> 380 V A	I <sub>N</sub> 400 V A	I <sub>N</sub> 415 V A	η 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	η 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	Cos θ 0.75 P <sub>N</sub> 0.5 P <sub>N</sub>	M <sub>N</sub> Nm	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>K</sub> M <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	M <sub>A</sub> M <sub>N</sub>	I <sub>A</sub> I <sub>N</sub>	M <sub>S</sub> M <sub>N</sub>	J kgm <sup>2</sup>	LPA dB(A)								
			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	695	<b>W-DA80MM-8</b>	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	700	<b>N/A</b>	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	680	<b>N/A</b>	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	690	<b>WM2-DF112MM-8</b>	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	690	<b>WM2-DF112MS-8</b>	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	705	<b>WM2-DF132SR-8</b>	5.6	5.3	5.3	{ 71.9 66.6 60.4 0.57 0.44 0.34 }			20.3	1.8	3.7	2.3	1.6	-	-	-	-	0.016	57										
2.2	720	<b>WM2-DF132MR-8</b>	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	720	<b>WM2-DF160ME-8A</b>	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	725	<b>WM2-DF160ME-8B</b>	10.4	9.9	9.9	{ 86.0 86.0 84.0 0.68 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	725	<b>WM2-DF160MM-8</b>	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	725	<b>WM2-DF180MF-8</b>	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	730	<b>WM2-DF180MM-8</b>	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	730	<b>N/A</b>																											

<sup>(1)</sup> European and BS frame reference

<sup>(2)</sup> European frame reference

<sup>(3)</sup> BS frame reference

Below data for reference only ,newest dimensions and specifications please inquiry MTL  
 Dimensions - specifications

11

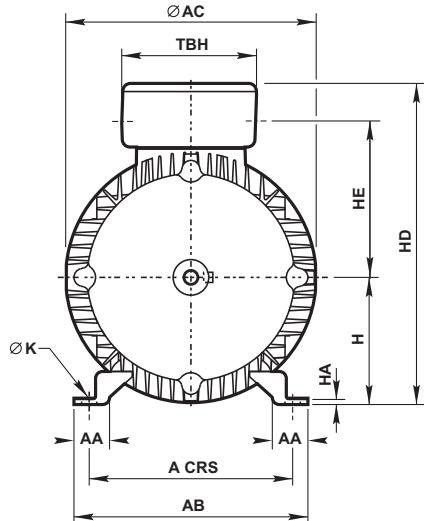
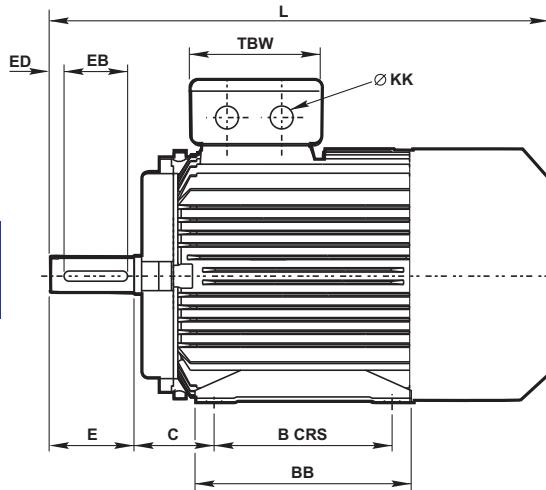
18

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

IM B3

IM 1001

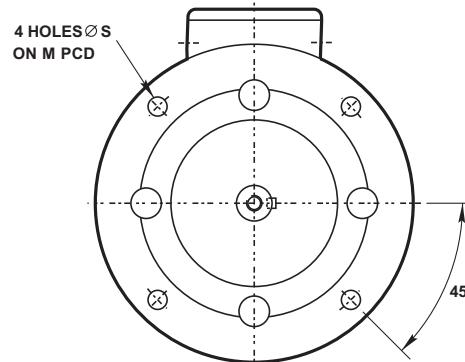
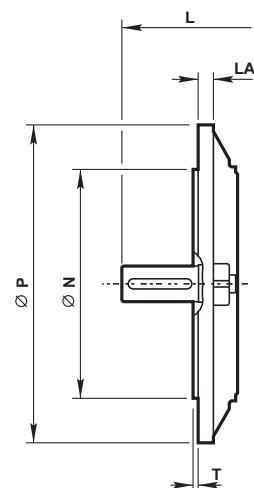
Mounting options



IM B5/IM B35

IM 3001/IM 2001

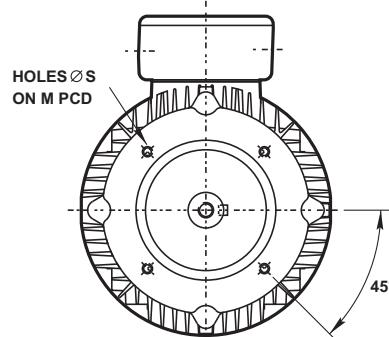
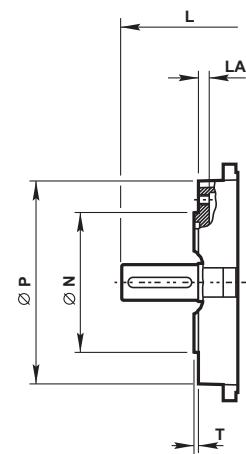
Mounting options



IM B14/IM B34

IM 3601/IM 2101

Mounting options



Below data for reference only ,newest dimensions and specifications please inquiry MTL

## Dimensions- specifications

12

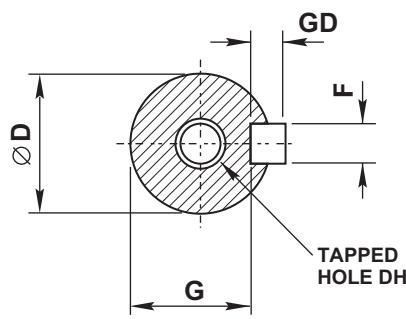
Foot, flange and face mounting - frame sizes 80 to 180

General Type	A	B	C	H	K	L	2 pole		4 pole		6 pole		8 pole		Terminal box					
							L	AA	AB	AC	BB	HA	HD	HE	TBW	TBH	KK			
WM2-DF80M***	125	100	50	80	10	278	278	278	278	35	157	158	127	10	159*	118*	120	120	1 X 20	
WM2-DF90S***	140	100	56	90	10	-	-	-	322	38	175	175	155	12	179*	123*	120	120	1 X 20	
WM2-DF90L***	140	125	56	90	10	364	364	364	322	38	175	174	195	12	254	123	120	120	1 X 20	
WM2-DF100LR***	160	140	63	100	12	368	368	-	368	34	195	197	206	14	274	133	120	120	2 X 20	
WM2-DF100LM***	160	140	63	100	12	-	409	409	-	34	195	214	206	14	283	142	120	120	2 X 20	
WM2-DF112M***	190	140	70	112	12	382	382	382	382	40	230	220	182	16	305	145	135	135	2 X 25	
WM2-DF132S***	216	140	89	132	12	485	485	485	447	47	255	256	220	16	348	168	135	135	2 X 25	
WM2-DF132M***	216	178	89	132	12	485	485	485	447	47	255	256	220	16	348	168	135	135	2 X 25	
WM2-DF160M***	254	210	108	160	15	604	604	604	604	55	300	315	300	22	428	208	174	174	2 X 32	
WM2-DF160L***	254	254	108	160	15	604	604	604	604	55	300	315	300	22	428	208	174	174	2 X 32	
WM2-DF180M***	279	241	121	180	15	663	663	663	663	64	344	355	326	22	469	230	174	174	2 X 32	
WM2-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	M	N	P	S	T	LA
WM2-DF80M***	165	130	200	12	3.5	12	100	80	120	M6	3	9						
WM2-DF90s/L***	165	130	200	12	3.5	12	115	95	140	M8	3	9						
WM2-DF100L***	215	180	250	15	4	12	130	110	160	M8	3.5	12.5						
WM2-DF112M***	215	180	250	15	4	12	130	110	164	M8	3.5	13						
WM2-DF132S***	265	230	300	15	4	12	165	130	200	M10	3.5	14						
WM2-DF132M***	265	230	300	15	4	12	165	130	200	M10	3.5	14						
WM2-DF160M***	300	250	350	19	5	13	215	180	250	M12	4	13						
WM2-DF160L***	300	250	350	19	5	13	215	180	250	M12	4	13						
WM2-DF180M***	300	250	350	19	5	15	-	-	-	-	-	-						
WM2-DF180L***	300	250	350	19	5	15	-	-	-	-	-	-						

Shaft Type	IM B5 mounting								IM B14 mounting																
	D	E	F	G	GD	EB	ED	DH	M	N	P	S	T	LA	M	N	P	S	T	LA	M	N	P	S	T
WM2-DF80M***	19	40	6	15.5	6	32	4	M6 x 16																	
WM2-DF90s/L***	24	50	8	20	7	40	5	M8 x 19																	
WM2-DF100L***	28	60	8	24	7	50	5	M10 x 22																	
WM2-DF112M***	28	60	8	24	7	50	5	M10 x 22																	
WM2-DF132S***	38	80	10	33	8	70	5	M12 x 28																	
WM2-DF132M***	38	80	10	33	8	70	5	M12 x 28																	
WM2-DF160M***	42	110	12	37	8	100	5	M16 x 36																	
WM2-DF160L***	42	110	12	37	8	100	5	M16 x 36																	
WM2-DF180M***	48	110	14	42.5	9	100	5	M16 x 36																	
WM2-DF180L***	48	110	14	42.5	9	100	5	M16 x 36																	



Below data for reference only ,newest dimensions and specifications please inquiry MTL

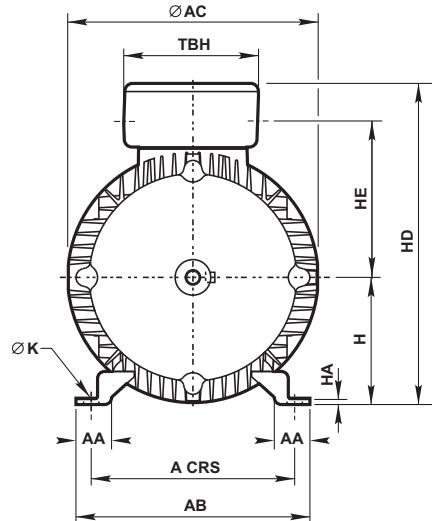
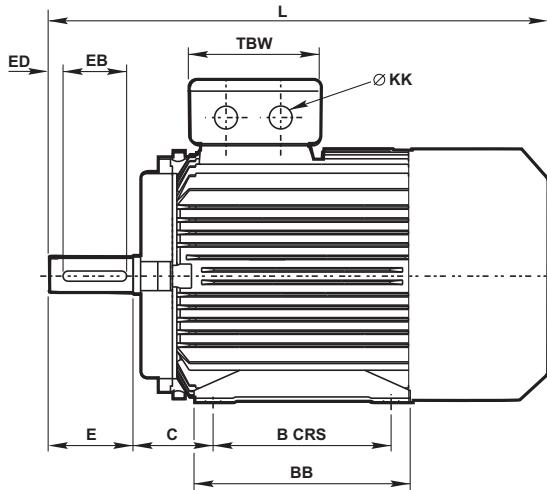
## Dimensions - specification

13

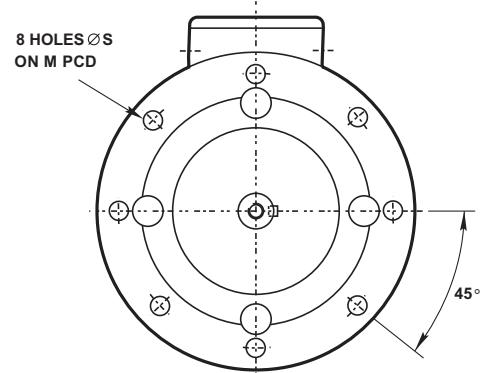
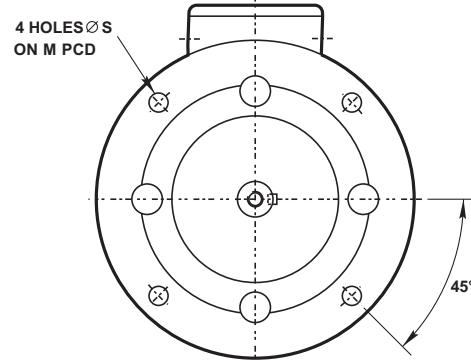
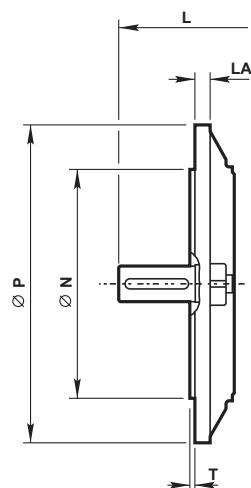
22

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

Below data for reference only ,newest dimensions and specifications please inquiry MTL

## Dimensions - specification

14

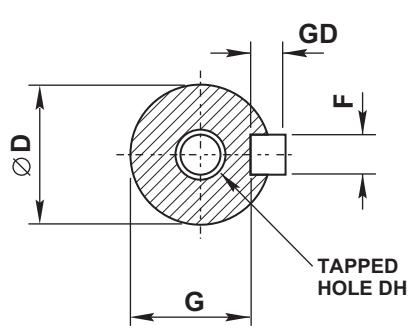
Foot and flange mounting - frame sizes 200 to 355L

Type	A	B	C	H	K	L	4 pole x		2 pole		AA	AB	AC	BB	HA	HD	Terminal box	
							L	L	AA	AB	AC	BB	HA	HD	TBW	TBH		
WM2-DF200L**	318	305	133	200	M16	787	787		74	382	381	359	30	501	176	220		
WM2-DF225S**	356	286	149	225	M16	875	845		70	426	410	349	25	550 <sup>[1]</sup>	220	288		
WM2-DF225M**	356	311	149	225	M16	915	885		70	426	448	374	25	570	220	288		
WM2-DF250S**	406	311	168	250	M20	985	985		79	482	448	381	28	595 <sup>[2]</sup>	220	288		
WM2-DF250M**	406	349	168	250	M20	1030	1030		79	482	508	419	28	625 <sup>[1]</sup>	220	288		
WM2-DF280S**	457	368	190	280	M20	1100	1070		83	540	508	438	35	655 <sup>[1]</sup>	220	288		
WM2-DF280M**	457	419	190	280	M20	1145	1115		83	540	563	487	35	810	330	526		
WM2-DF315S**	508	406	216	315	M24	1215	1185		89	597	563	483	38	845	330	526		
WM2-DF315M**	508	457	216	315	M24	1245	1215		89	597	640	533	38	875	330	526		
WM2-DF315L**	508	508	216	315	M24	1315	1285		89	597	640	583	38	875	330	526		
WM2-DF355S**	610	500	254	355	M24	1485	1415		100	710	732	626	27	970	330	526		
WM2-DF355M**	610	560	254	355	M24	1605	1535		100	710	732	686	27	970	330	526		
WM2-DF355L**	610	630	254	355	M24	1655	1585		100	710	732	756	27	970	330	526		

Type	4 pole +								2 pole							
	D	E	F	G	GD	EB	ED	DH	D	E	F	G	GD	EB	ED	DH
WM2-DF200L**	55	110	16	49	10	100	5	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WM2-DF225S**	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WM2-DF225M**	60	140	18	53	11	125	10	M20 x 42	55	110	16	49	10	100	5	M20 x 42
WM2-DF250S**	70	140	20	62.5	12	125	10	M20 x 42	60	140	18	53	11	125	10	M20 x 42
WM2-DF250M**	70	140	20	62.5	12	125	10	M20 x 42	60	140	18	53	11	125	10	M20 x 42
WM2-DF280S**	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WM2-DF280M**	80	170	22	71	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WM2-DF315S**	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WM2-DF315M**	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WM2-DF315L**	85	170	22	76	14	160	5	M20 x 42	65	140	18	58	11	125	10	M20 x 42
WM2-DF355S**	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WM2-DF355M**	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50
WM2-DF355L**	100	210	28	90	16	200	5	M24 x 50	75	140	20	67.5	12	125	10	M24 x 50

Type	IM B5, IM B35 mounting						
	M	N	P	S	T	LA	
WM2-DF200L**	350	300	400	19	5	19	
WM2-DF225S**	400	350	450	19	5	19	
WM2-DF225M**	400	350	450	19	5	19	
WM2-DF250S**	500	450	550	19	5	25	
WM2-DF250M**	500	450	550	19	5	25	
WM2-DF280S**	500	450	550	19	5	25	
WM2-DF280M**	500	450	550	19	5	25	
WM2-DF315S**	600	550	660	24	6	29	
WM2-DF315M**	600	550	660	24	6	29	
WM2-DF315L**	600	550	660	24	6	29	
WM2-DF355S**	740	680	800	24	6	28	
WM2-DF355M**	740	680	800	24	6	28	
WM2-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

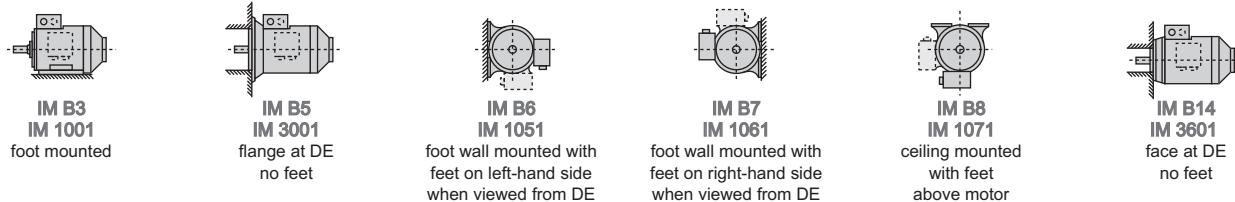


# Mounting options

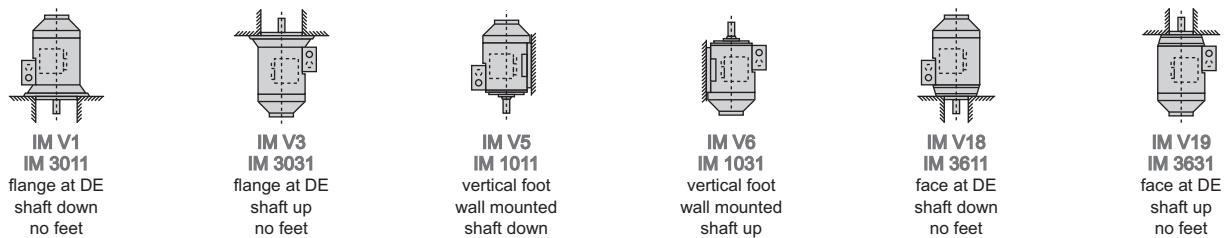
15

24

## Horizontal shaft:



## Vertical shaft:



## Approximate shipping specifications

Type	Net weight (kg)	Gross weight (kg)	Cubage (m³)
WM2-DF80M***	15	16.5	0.02
WM2-DF90S**	19	20.5	0.03
WM2-DF90L***	30.5	31.5	0.03
WM2-DF100L***	35.5	38.0	0.04
WM2-DF100LF***	41.8	44.3	0.04
WM2-DF112M***	45.0	48.0	0.05
WM2-DF132S***	68.0	71.0	0.08
WM2-DF132S***	78.1	81.1	0.08
WM2-DF132M***	72.5	78.5	0.08
	82.6	88.6	0.08
WM2-DF160M***	121	133	0.15
WM2-DF160L***	133	145	0.15
WM2-DF180M***	162	178	0.21
WM2-DF180L***	177.5	193.5	0.21
WM2-DF200L***	255	270	0.30
WM2-DF225S***	320	335	0.37
WM2-DF225M***	375	390	0.37
WM2-DF250S***	420	460	0.63
WM2-DF250M***	570	610	0.70
WM2-DF280S***	660	721	1.2
WM2-DF280M***	800	871	1.2
WM2-DF315S***	1000	1095	1.8
WM2-DF315M***	1100	1195	1.8
WM2-DF315L***	1300	1395	1.8
WM2-DF355S***	2000	2120	2.3
WM2-DF355M***	2300	2420	2.3
WM2-DF355L***	2500	2620	2.3

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