



**BROOK  
CROMPTON**

**BS British Standard 1 | General Purpose | High Efficiency | Aluminium  
4 pole 50Hz | 11(kW) | W-DA160MJ**

Performance Data	
Performance Data	Value
Output (kW)	11
Pole	4
Full load speed (RPM)	1470
Full Load Torque (Nm)	71.5
Full load current @ 380V (A)	21.9
Full load current @ 400V (A)	20.9
Full load current @ 415V (A)	20.9
Efficiency Full load (%)	91.5
Efficiency 3/4 load (%)	91.5
Efficiency 1/2 load (%)	90.5
Power Factor Full load	0.83
Power factor 3/4 load	0.79
Power Factor 1/2 load	0.67
Direct on line starting torque ratio	2.5
Direct on line starting current ratio	7.7
Direct on line Pull out torque ratio	2.9
Direct on line Pull up torque ratio	2
Star Delta starting torque ratio	0.65
Star Delta starting current ratio	2.3
Start Delta Pull up torque star	0.5
Rotor inertia (kgm <sup>2</sup> )	0.068
Mean sound pressure @ 1m on no load (dB(A))	63

Standard Features	
Feature	Standard Product
Frequency (Hz)	50Hz / 60Hz
Enclosure	IP55 protection
Cooling Method	IC411 TEFV (Totally Enclosed Fan Ventilated)
T-box position	Top
Lubrication	Regreasing facilities available on request
Balance	Grade N
Bearings	Ball/ball C3 clearance
Drain Holes	160 & 180 frame only
Temperature Rise	Class B (80°C)
Insulation Class	Class F (155°C)
Duty Cycle	S1 continuous rated
Earth Facility	Internal and external
Thermal Protection	Available on request

Shaft Loads	
Mounting	Shaft Load (Nm)
Horizontal shaft load towards motor	2123
Horizontal shaft load away motor	2618
Vertical shaft up, load towards motor	1895
Vertical shaft up, load away motor	2959
Vertical shaft down, load towards motor	2464
Vertical shaft down, load away motor	2390
Maximum radial load at end of shaft	3738
Bearing life (hours)	20000

Bearings and Oil Seals	
Feature	Standard Product
Drive end bearing	63092Z
Non-drive end bearing	63072Z
Drive end oil seal	45 x 60 x 8
Non drive end oil seal	35 x 47 x 7
Grease life (horizontal mounting)	30,000
Grease life (vertical mounting)	30,000

Variations to the standard specification can be supplied on request

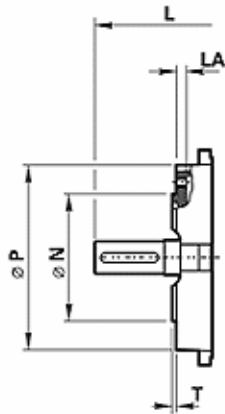
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E&OE

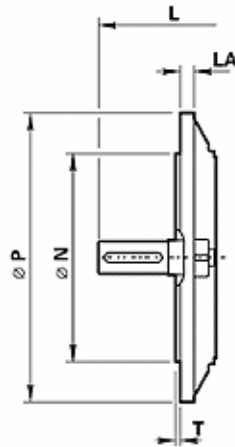
**BROOK-MTL**, 63 Allens Road, East Tamaki, Auckland 2161, New Zealand  
Tel +64 9 271 6063 - Fax +64 9 271 6020 www.brookmtl.co.nz - [info@brookmtl.co.nz](mailto:info@brookmtl.co.nz)

Associate company: [Rotating Machinery Supplies](http://rotatingmachinery@clear.net.nz), 6 Devon Road, Hamilton 3242 [rotatingmachinery@clear.net.nz](mailto:rotatingmachinery@clear.net.nz)  
[Soco Electric Motors](http://sales@soco.co.nz), 473 Tremain Ave, Palmerston North 4412 [sales@soco.co.nz](mailto:sales@soco.co.nz)

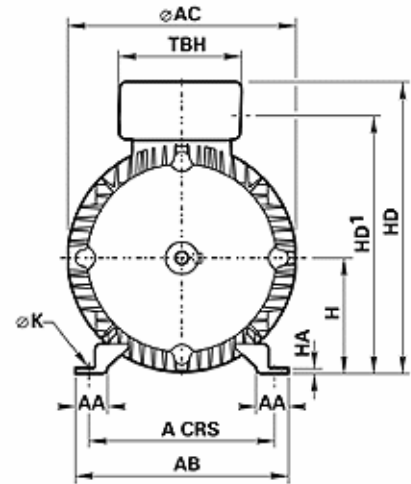
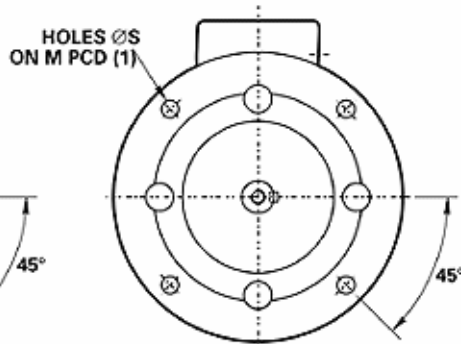
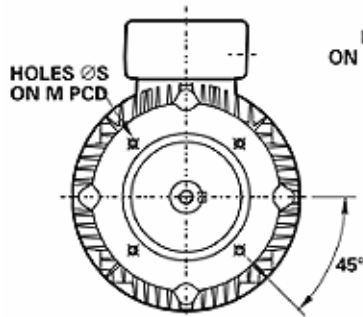
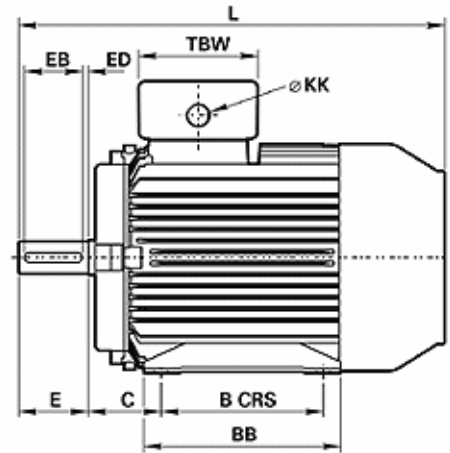
**Face mounted  
IM B14/IM 3601**



**Flange mounted  
IM B5/IM 3001**



**Foot mounted  
IM B3/IM 1001**



(1) 8 holes at 22.5° for flanges to suit 225 frames and above to European specification  
8 holes at 0° for flanges to suit 225 frames and above to British specification

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4 pole 50Hz | 11(kW) | W-DA160MJ**

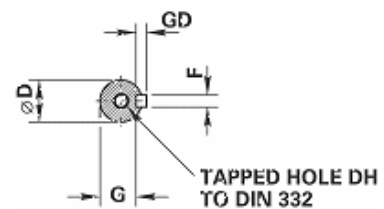
**B3 Foot Dimensions** A B C H K L AA AB BB HA AC HD HD1 TBW TBH KK  
254 210 108 160 15 605 49 304 304 5 314 400 356 140 140 1 x M32

**B5 flange dimensions** M N P S T LA  
300 250 350 18.5 5 13

**B14 face dimensions** M N P S T LA  
215 180 250 M12 4 13

**Shaft drive end dimensions** D E F G GD EB DH ED  
42 110 12 37 8 100 M16 x 36 5

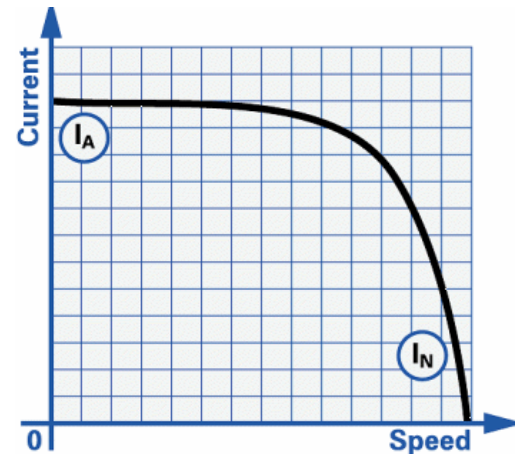
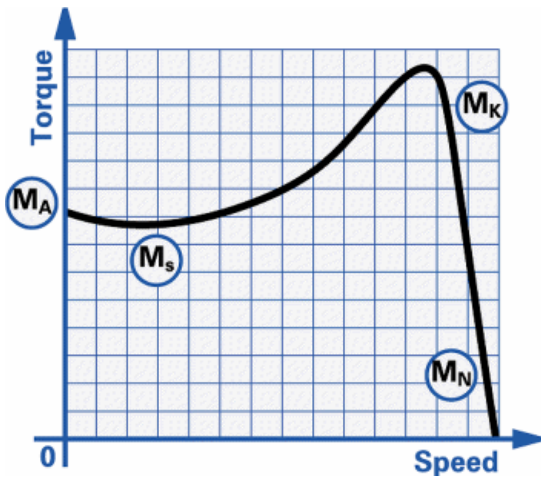
**SDE dimensions**



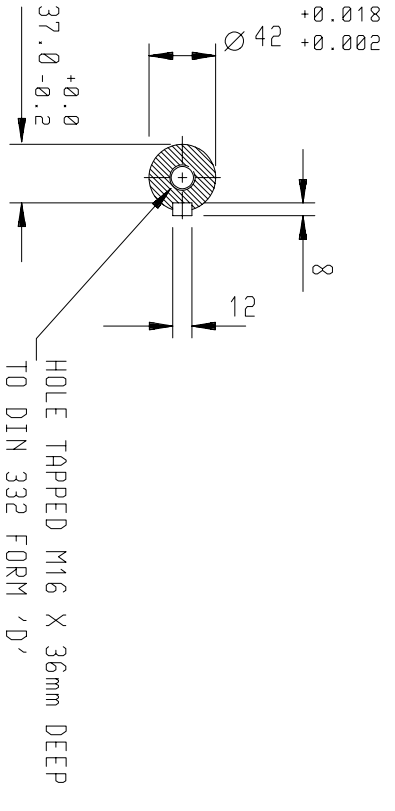
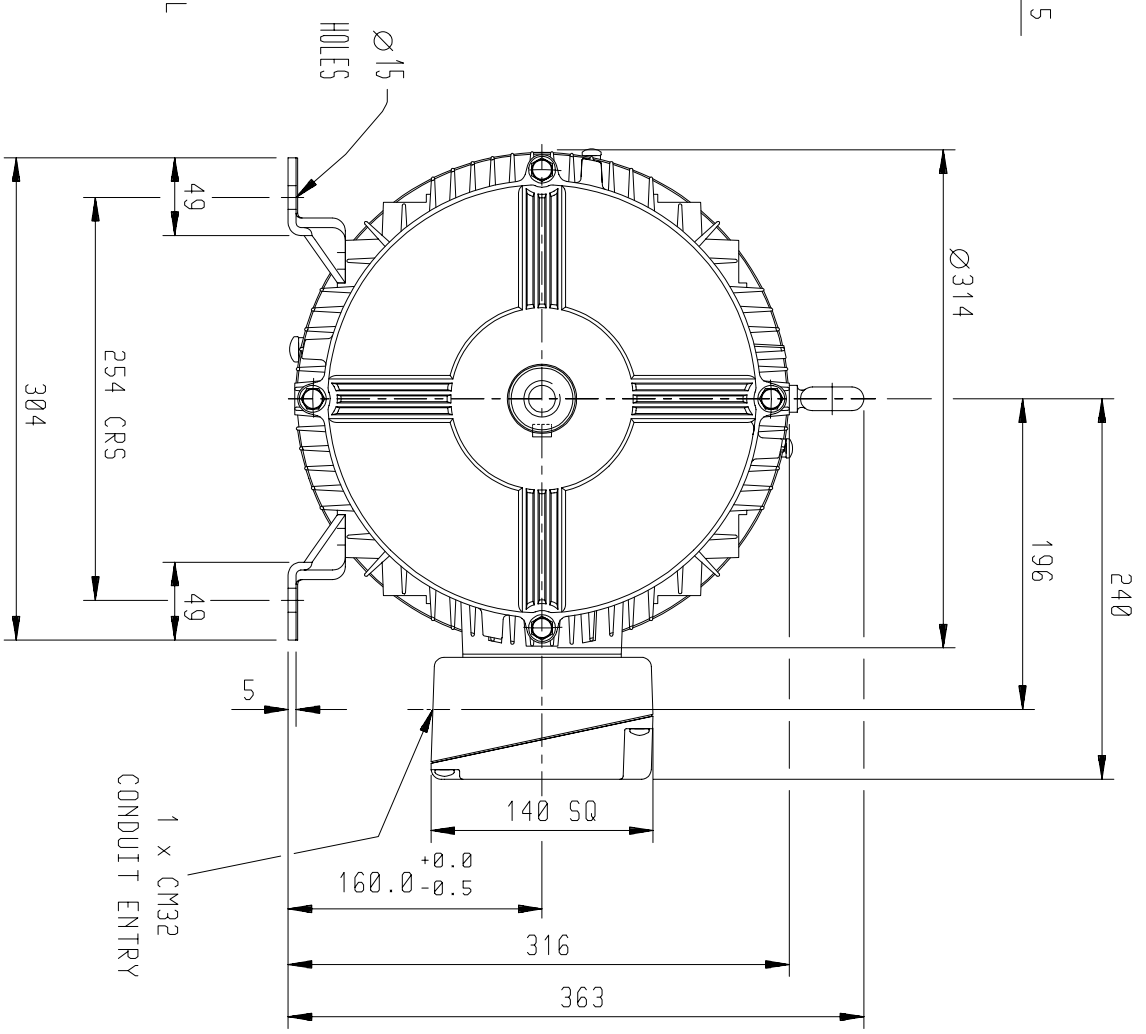
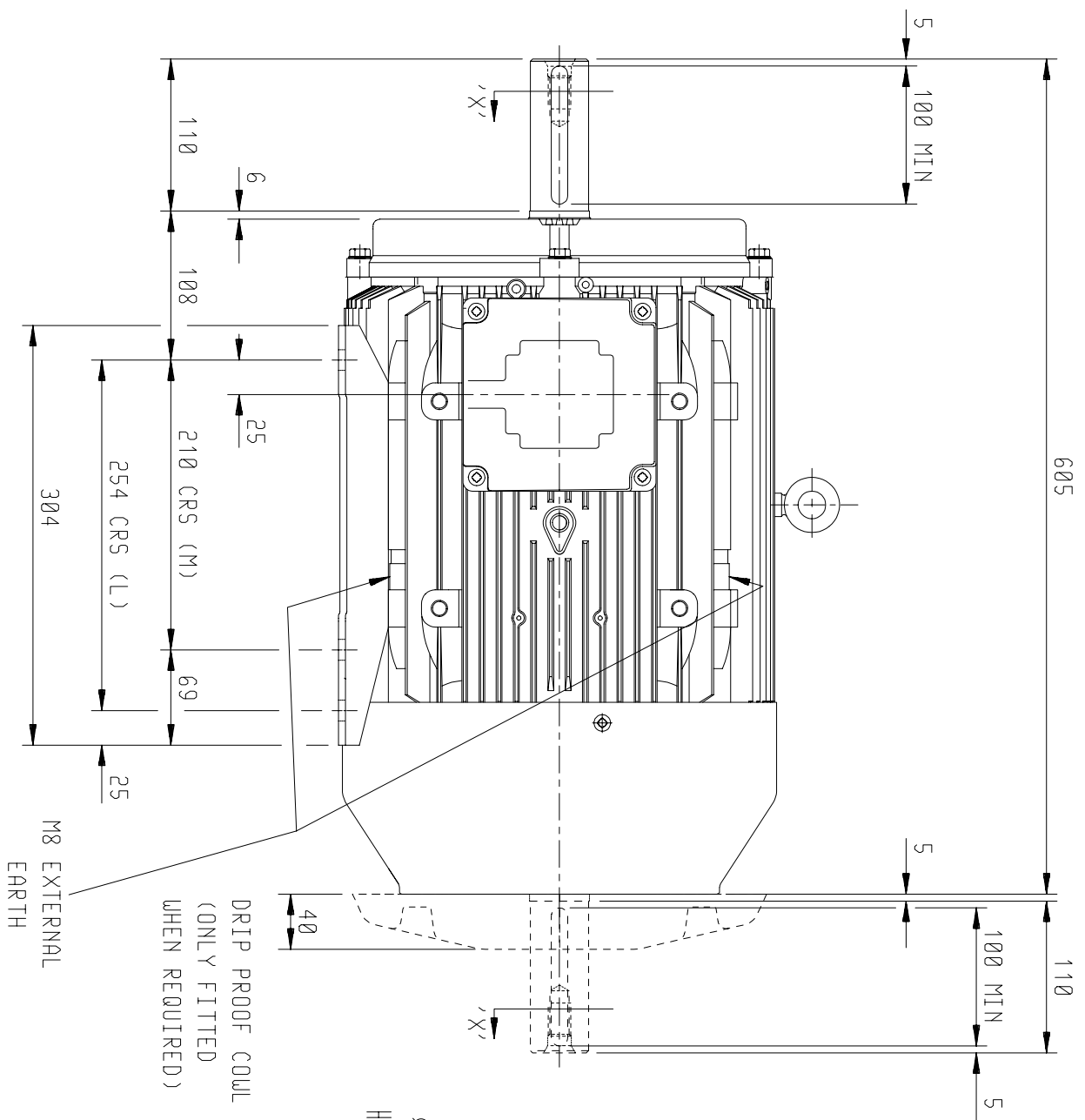
# BROOK CROMPTON

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4 pole 50Hz | 11(kW) | W-DA160MJ

## DOL Performance Curves



Typical DOL speed / torque curve		Typical DOL speed / current curve	
<b>GRAPH LEGEND</b>		<b>GRAPH LEGEND</b>	
$M_A$ --Starting/Locked Rotor Torque (Nm)	179	$I_A$ --Starting Current (Amps)	161
$M_S$ --Pull up/Run up Torque (Nm)	143	$I_N$ --Full Load Current (Amps)	20.90
$M_K$ --Pull out/Breakdown Torque (Nm)	207		
$M_N$ --Full Load Torque (Nm)	71.50		



SECTION ON 'X'

HOLE TAPPED M16 X 36mm DEEP TO DIN 332 FORM 'D'

DRAIN HOLES:- WHEN TERMINAL BOX IS MOVED FROM STANDARD POSITION THEY WILL NEED TO BE PLUGGED AND RE-LOCATED ELSEWHERE - IF REQUIRED  
 TERMINAL BOX POSITION : - CAN BE ARRANGED AT EITHER 9, 12 OR 3 O'CLOCK BY MOVING FEET.  
 STANDARD TERMINAL BOX POSITION IS 3 O'CLOCK AS SHOWN.  
 CONDUIT ENTRIES:- TERMINAL BOX CAN BE ROTATED AT 90° INTERVALS (CONDUIT ENTRY POSITION SHOWN FOR ILLUSTRATION ONLY).

SHEET TITLE  
 SIZE OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED FAN COOLED  
 A3 160M/L FRAME FOOT MOUNTED MOTOR

DRAWN	NAME	DATE
CHECKED	MI	13-03-96
SCALE	1 : 5	

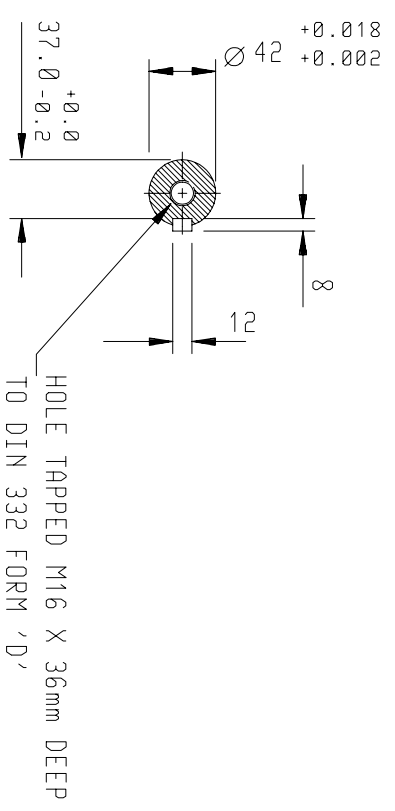
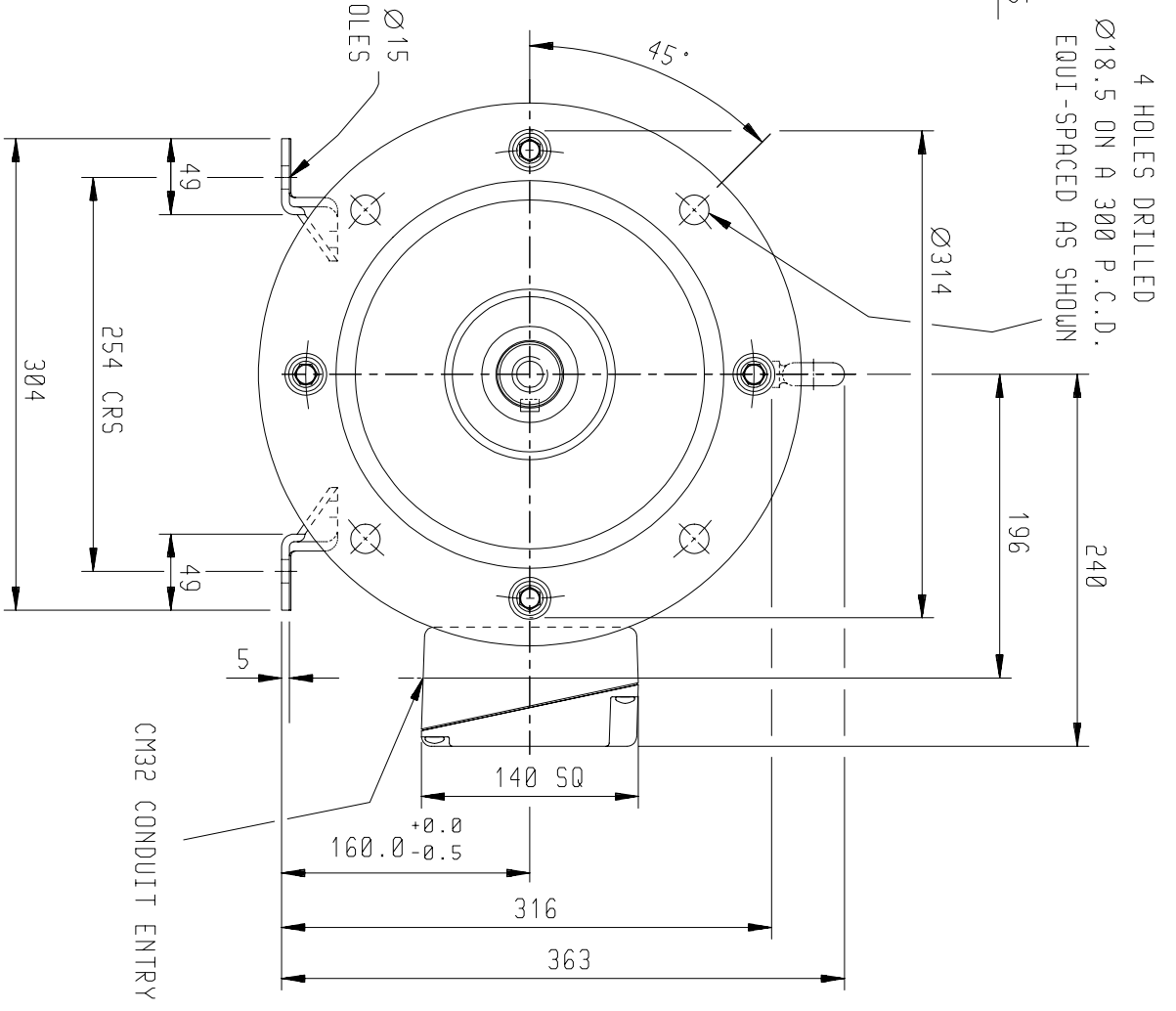
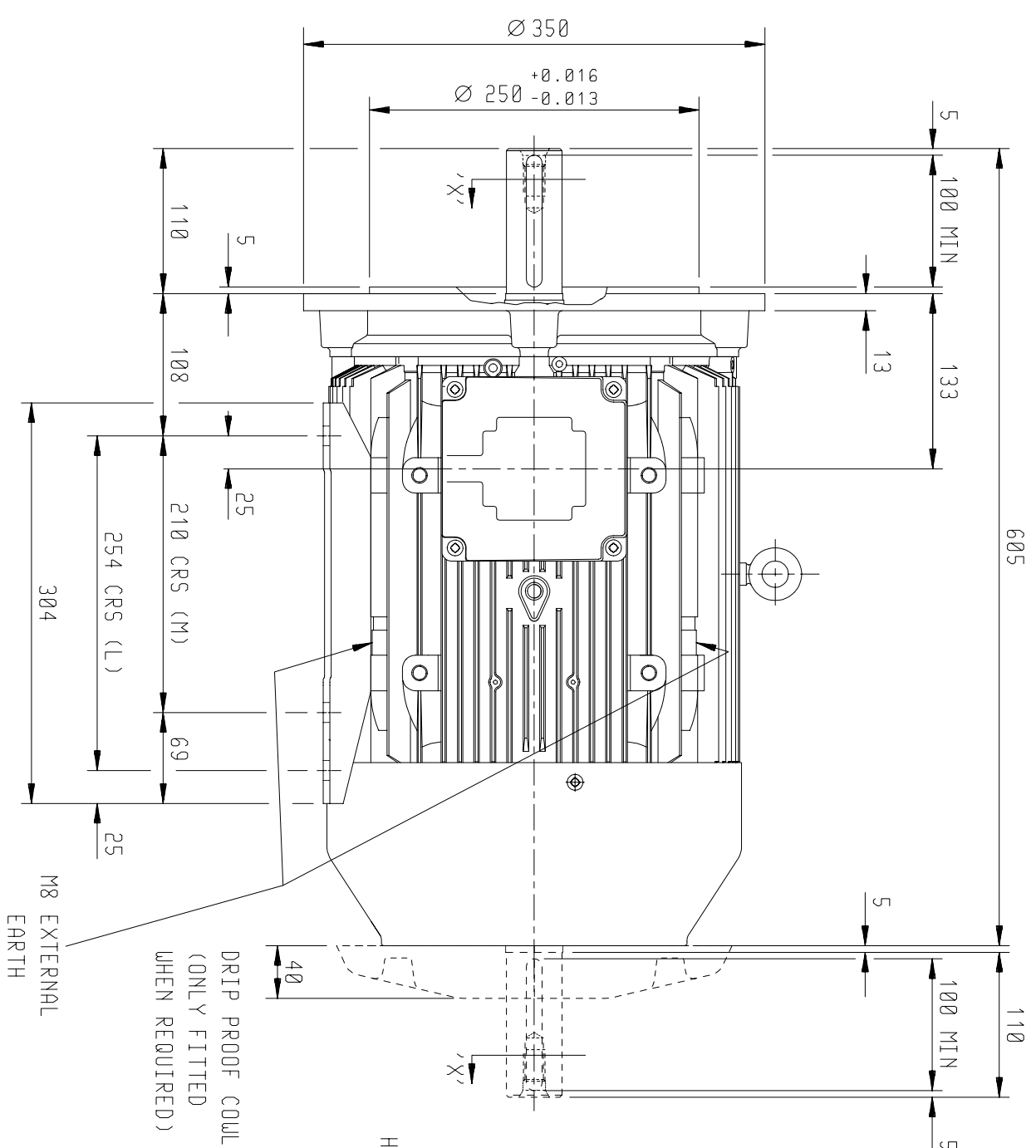
CUSTOMER	ORDER No.	PART No.	OUR ORDER No.	FRAME SIZE	KW.	RPM.	HZ	PHASE	VOLTS	POLES	BRGS.	DE.	NDE.	MOTOR NETT WT.	Kg.	SPECIAL REMARKS

ALL DIMENSIONS IN MILLIMETRES.  
 FIRST ANGLE PROJECTION



Small Industrial Motors  
 Huddersfield, W. Yorkshire, HD1 3LJ

DRG. No.	W29GF000/2
DRG. REF.	
REVISION:	RR DATE 09/05/03



SECTION ON 'X'

DRAIN HOLES:- WHEN TERMINAL BOX IS MOVED FROM STANDARD POSITION THEY WILL NEED TO BE PLUGGED AND RE-LOCATED ELSEWHERE - IF REQUIRED  
 TERMINAL BOX POSITION : - CAN BE ARRANGED AT EITHER 9, 12 OR 3 O'CLOCK BY MOVING FEET.  
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 (CONDUIT ENTRY POSITION SHOWN FOR ILLUSTRATION ONLY).

OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED FAN COOLED  
 160M/L FRAME FOOT AND 'D' FLANGE MOUNTED MOTOR

A3

SHEET SIZE	TITLE
A3	OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED FAN COOLED 160M/L FRAME FOOT AND 'D' FLANGE MOUNTED MOTOR

DRAWN	NAME	DATE
MI	MI	22-11-95
CHECKED	NAME	DATE
JWD	JWD	22-11-95
SCALE	SCALE	1 : 5

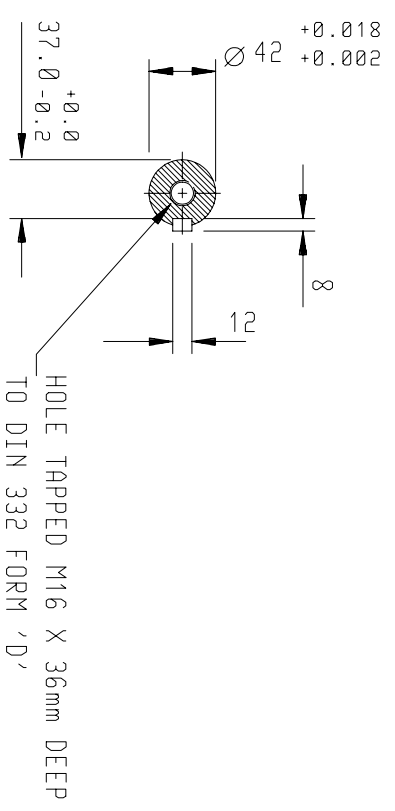
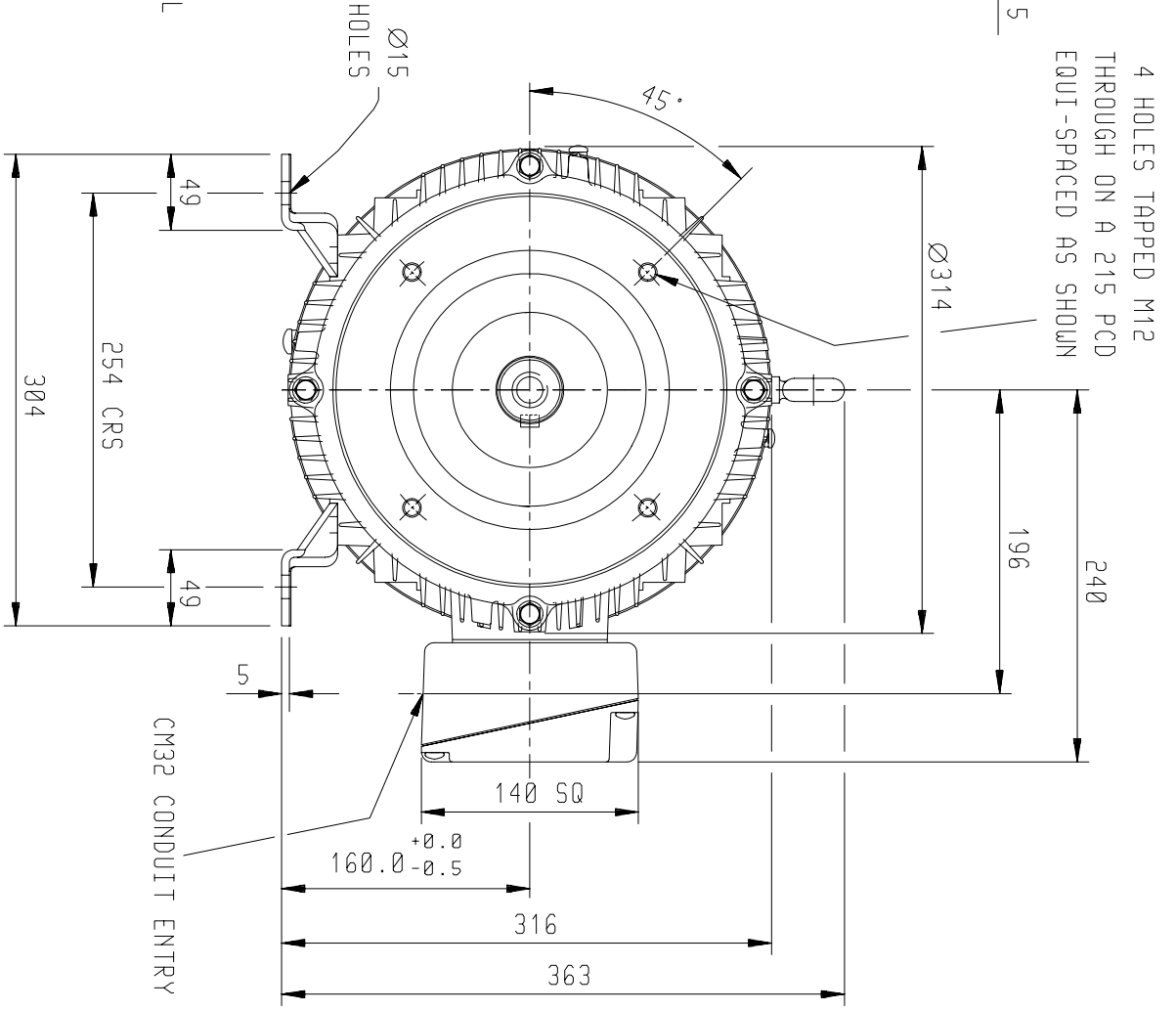
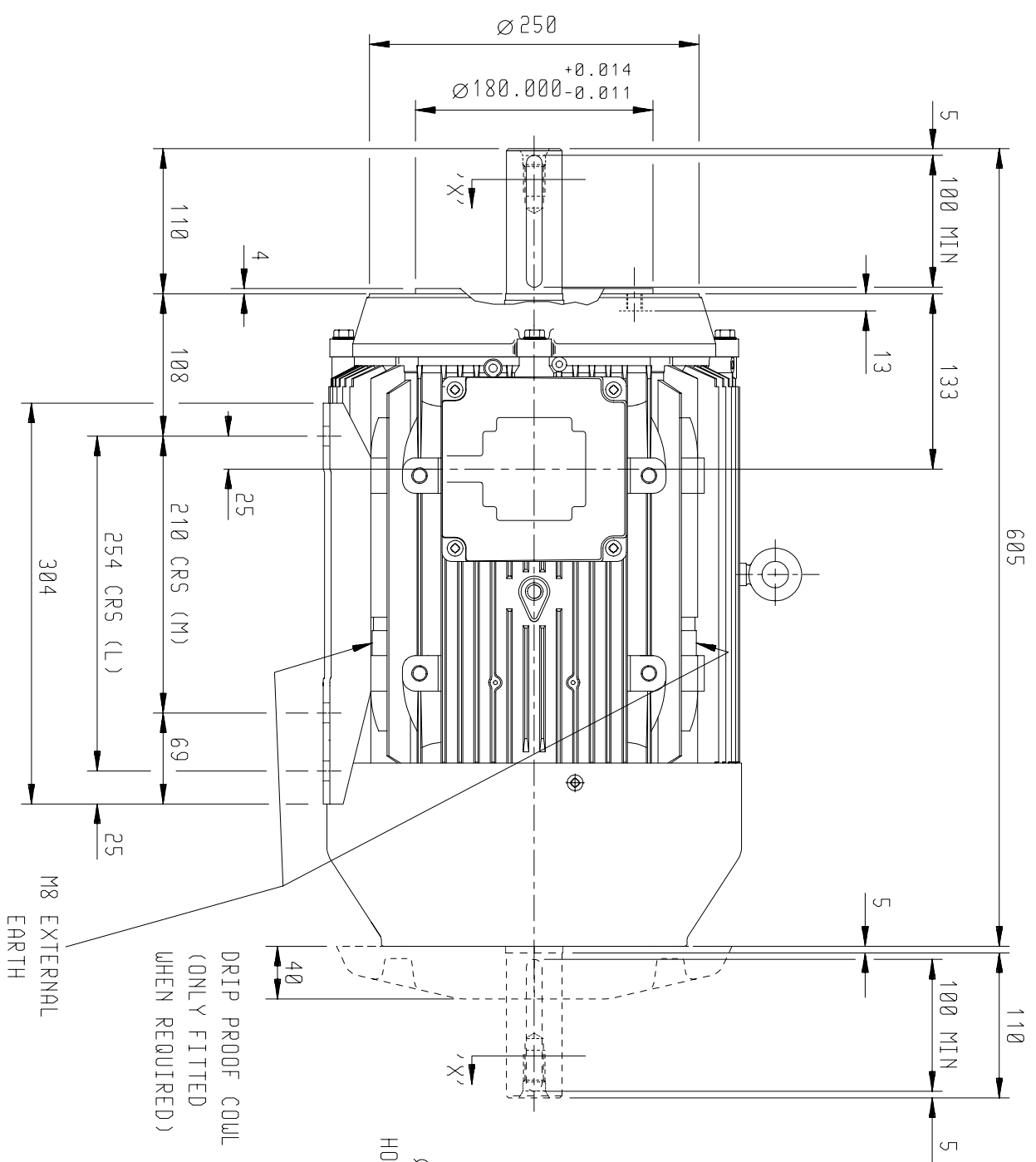
CUSTOMER	ORDER No.	PART No.	OUR ORDER No.	FRAME SIZE	KW.	HZ	VOLTS	BRGS.	MOTOR NETT WT.	SPECIAL REMARKS
					RPM.	PHASE	POLES	DE.	Kg.	

ALL DIMENSIONS IN MILLIMETRES.  
 FIRST ANGLE PROJECTION

**BROOK PROMPTON**

Small Industrial Motors  
 Huddersfield, W. Yorkshire, HD1 3LJ

DRG. No.	W29GDD000/3
DRG. REF.	
REVISION:	RR
DATE	13/05/03



VIEW ON 'X'

4 HOLES TAPPED M12 THROUGH ON A 215 PCD EQUI-SPACED AS SHOWN

DRIP PROOF COIL (ONLY FITTED WHEN REQUIRED)

M8 EXTERNAL EARTH

CM32 CONDUIT ENTRY

DRAIN HOLES:- WHEN TERMINAL BOX IS MOVED FROM STANDARD POSITION THEY WILL NEED TO BE PLUGGED AND RE-LOCATED ELSEWHERE - IF REQUIRED CARE SHOULD BE TAKEN TO ENSURE THAT THE SCREWS OR STUDS DO NOT EXTEND INSIDE THE MOTOR BEYOND THE DEPTH OF THE TAPPED FIXING HOLE.

TERMINAL BOX POSITION:- CAN BE ARRANGED AT EITHER 9,12 OR 3 O'CLOCK BY MOVING FEET. STANDARD TERMINAL BOX POSITION IS 3 O'CLOCK AS SHOWN.

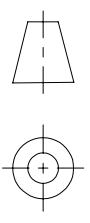
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SHEET TITLE  
 SIZE OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED FAN COOLED  
 A3 160M/L FRAME FOOT AND 'C' FACE MOUNTED MOTOR

DRAWN	NAME	DATE
CHECKED	MI	22-10-95
SCALE	JWD	22-10-95
	1 : 5	

CUSTOMER	
ORDER No.	
PART No.	
OUR ORDER No.	
FRAME SIZE	
KW.	RPM.
HZ	PHASE
VOLTS	POLES
BRGS.	DE.
MOTOR NETT WT.	Kg.
SPECIAL REMARKS	

ALL DIMENSIONS IN MILLIMETRES.

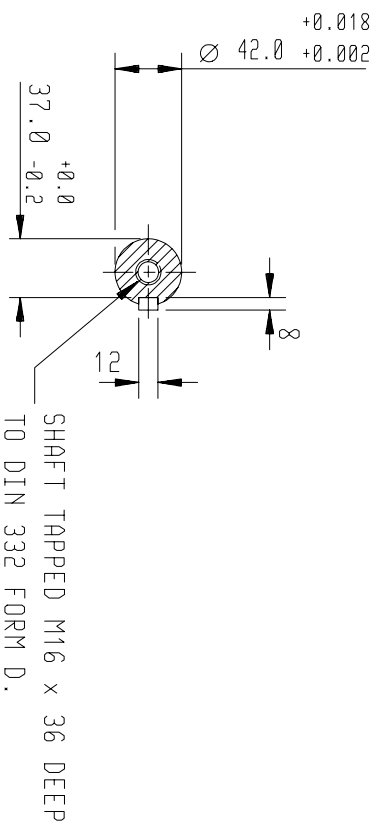
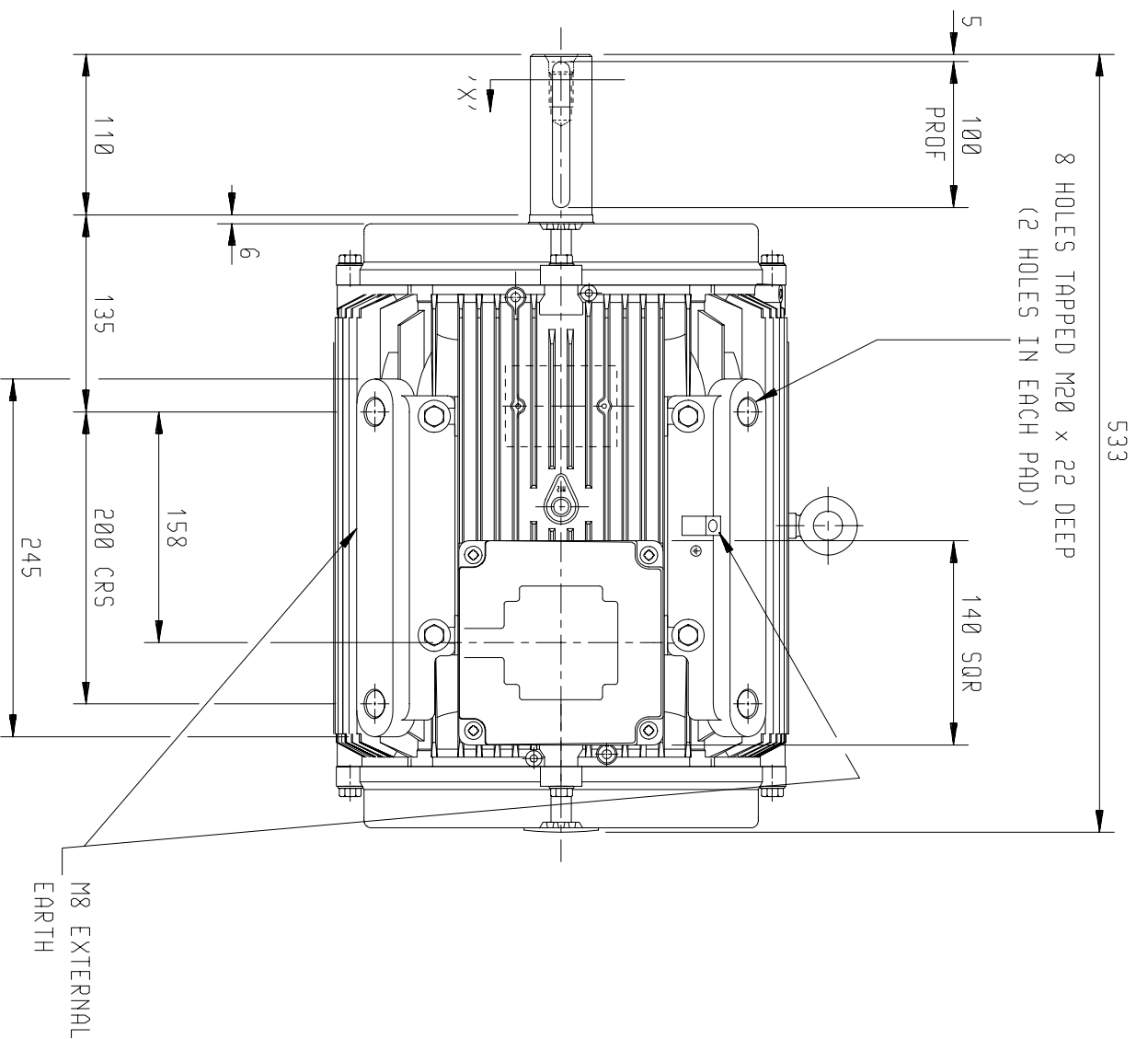


FIRST ANGLE PROJECTION

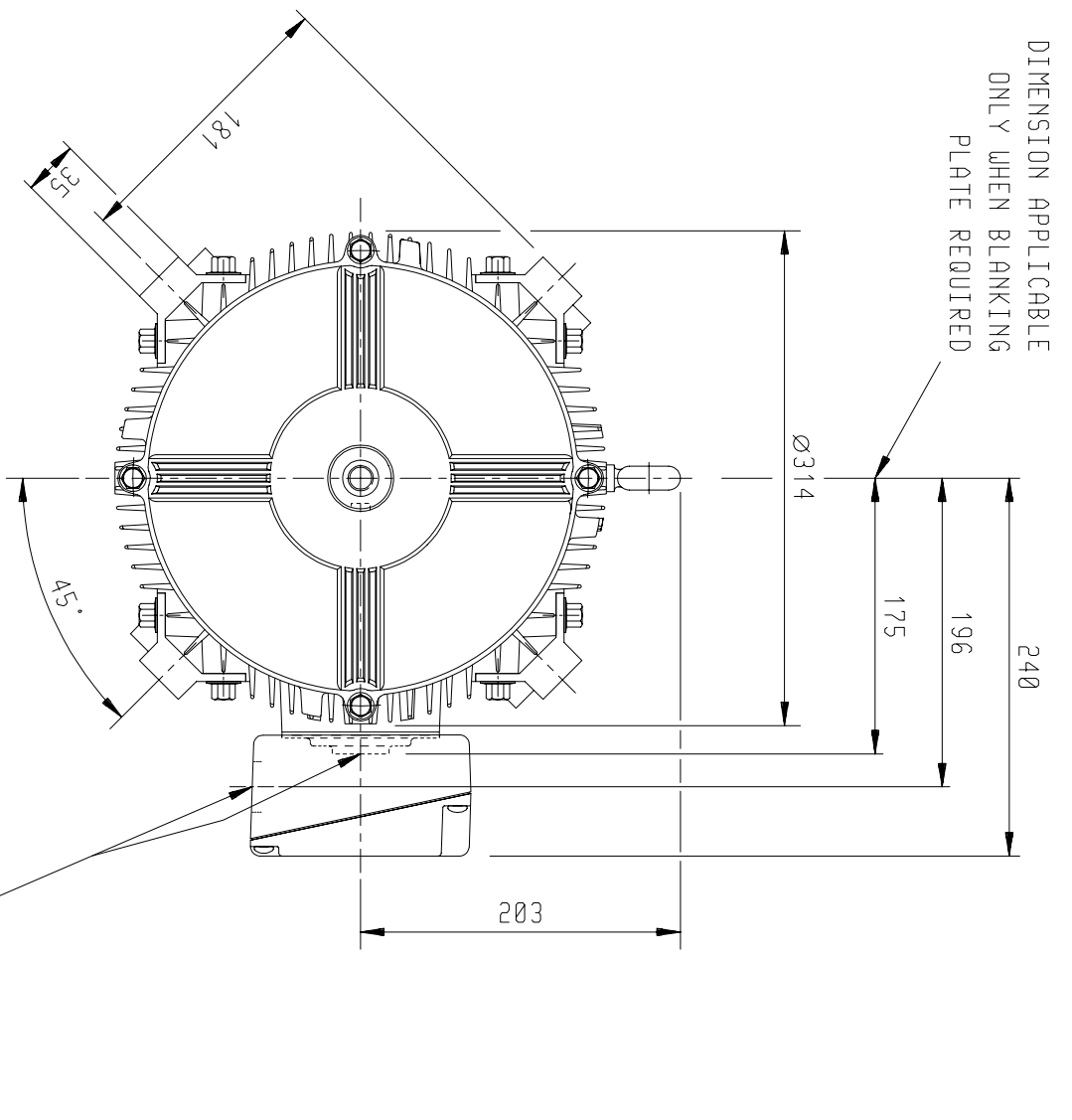
**BROOK PROMPTON**

Small Industrial Motors  
 Huddersfield, W. Yorkshire, HD1 3LJ

DRG. No.	W29G000/3
DRG. REF.	
REVISION:	VLS
DATE	16/05/03



VIEW ON 'X'



DIMENSION APPLICABLE ONLY WHEN BLANKING PLATE REQUIRED

TERMINAL BOX POSITION:- CAN BE ARRANGED AT EITHER 9,12 OR 3 O'CLOCK.  
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 CONDUIT ENTRIES:- TERMINAL BOX CAN BE ROTATED AT 90° INTERVALS  
 (CONDUIT ENTRY POSITION SHOWN FOR ILLUSTRATION ONLY).

OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED NO FAN

160M/L FRAME PAD MOUNTED MOTOR

A3

SHEET SIZE	TITLE
A3	OUTLINE DIMENSION DRAWING W ALUMINIUM TOTALLY ENCLOSED NO FAN

DRAWN	NAME	DATE
CHECKED		
SCALE		

DRG. No.	W29GPP000/2
DRG. REF.	
REVISION:	RR DATE 16/05/03

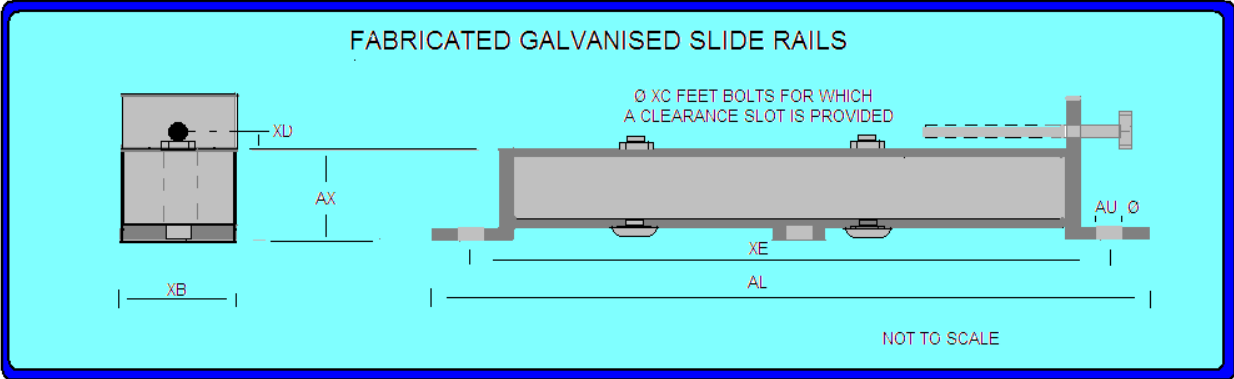
CUSTOMER	
ORDER No.	
PART No.	
OUR ORDER No.	
FRAME SIZE	
KW.	RPM.
HZ	PHASE
VOLTS	POLES
BRGS.	DE.
MOTOR NETT WT.	Kg.
SPECIAL REMARKS	

ALL DIMENSIONS IN MILLIMETRES.  
 FIRST ANGLE PROJECTION

**BROOK PROMPTON**

Small Industrial Motors  
 Huddersfield, W. Yorkshire, HD1 3LJ

# Slide Rails



Code	AL	AU	AX	XB	XD	XE	Bolt Size	Frame Size	BT	XC Motor Foot Bolts
<b>M1618</b>	615	15	64	57	10	565	M12 X 220	160 180	160 125	M12 X 80

All data is subject to confirmation by BROOK-MTL

E&OE

BROOK MTL, 63 Allens Road, East Tamaki, Auckland, New Zealand

Associate companies: [Rotating Machinery Supplies](mailto:rotatingmachinery@clear.net.nz), 6 Devon Road, Hamilton. [rotatingmachinery@clear.net.nz](mailto:rotatingmachinery@clear.net.nz)  
[Soco Electric Motors](mailto:sales@soco.co.nz), 473 Tremaine Ave, Palmerston North. [sales@soco.co.nz](mailto:sales@soco.co.nz)

