

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : Grupa MGE
Customer reference : Grupa MGE

Product line : WEG GENERAL PURPOSE IE3 Three-Phase Product code : 16170075

Frame : 160M	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : B3T
Duty cycle : S1	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000	Approx. weight ³ : 125 kg
Protection degree : IP55	Moment of inertia (J) : 0.0779 kgm ²
Design : N	

Output [kW]	11	11
Poles	4	4
Frequency [Hz]	50	60
Rated voltage [V]	400/690	460
Rated current [A]	21.2/12.3	18.4
L. R. Amperes [A]	146/84.8	151
LRC [A]	6.9	8.2
No load current [A]	10.5/6.09	9.90
Rated speed [RPM]	1475	1780
Slip [%]	1.67	1.11
Rated torque [Nm]	71.3	59.0
Locked rotor torque [%]	250	340
Breakdown torque [%]	340	400
Service factor	1.00	1.00
Temperature rise	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	30s (cold) 17s (hot)
Noise level ²	59.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%	
	50%	90.4
	75%	91.3
	100%	91.4
Power Factor	25%	
	50%	0.64
	75%	0.76
	100%	0.82

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	9.2	8.0
	P2 (0,5;1,0)	8.2	7.2
	P3 (0,25;1,0)	7.9	6.9
	P4 (0,9;0,5)	4.4	3.9
	P5 (0,5;0,5)	3.3	2.9
	P6 (0,5;0,25)	2.2	1.9
	P7 (0,25;0,25)	1.7	1.4

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6209 ZZ C3	6209 ZZ C3	Max. traction
Sealing :	V'Ring	V'Ring	Max. compression
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	20/09/2024			

Page 1 / 5
Revision

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Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	20/09/2024				

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ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				3 / 5	
Date	20/09/2024				

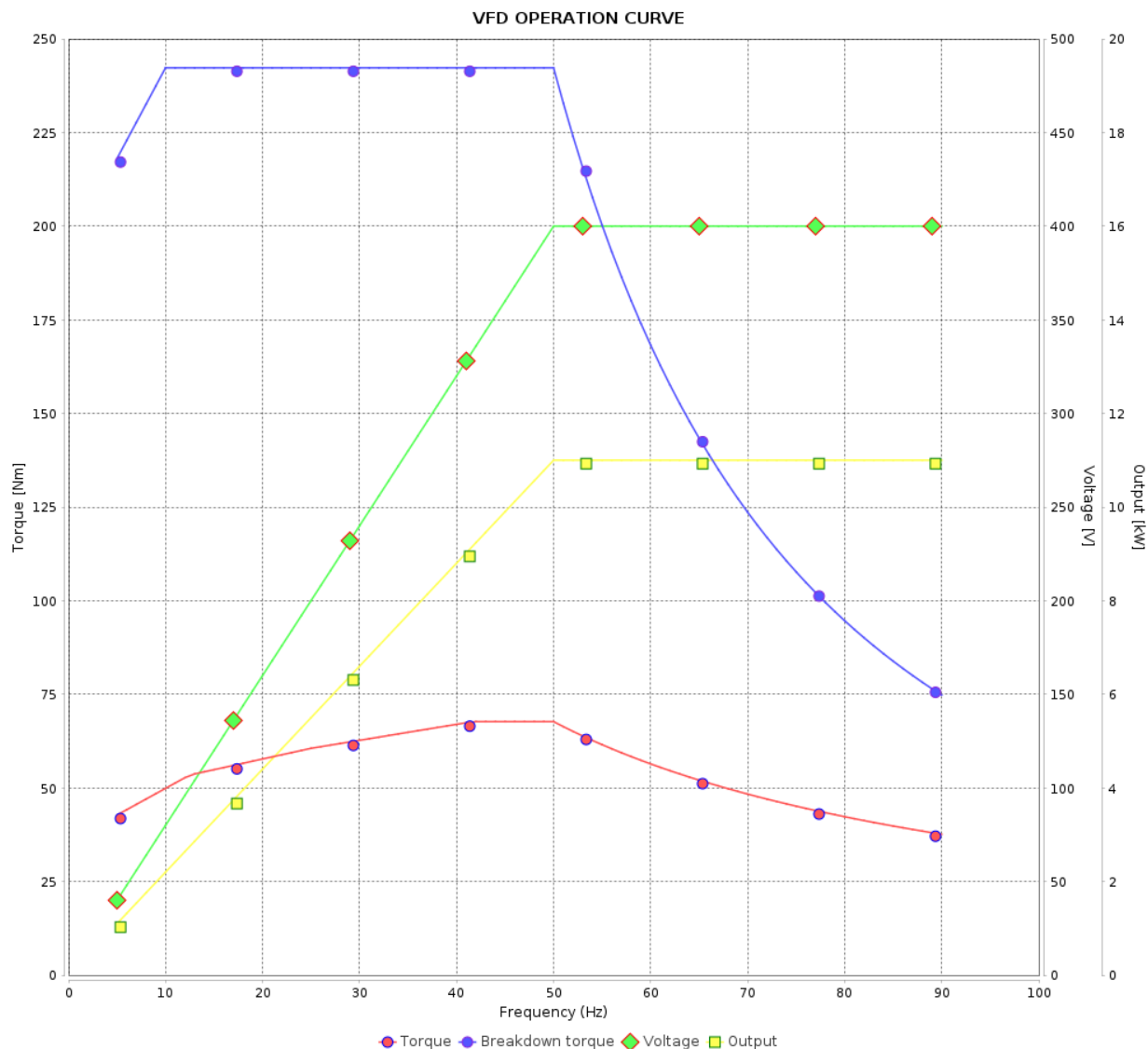
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : Grupa MGE
Customer reference : Grupa MGE

Product line : WEG GENERAL PURPOSE IE3 Three-Phase
Product code : 16170075



Performance : 400/690 V 50 Hz 4P

Rated current : 21.2/12.3 A
LRC : 6.9
Rated torque : 71.3 Nm
Locked rotor torque : 250 %
Breakdown torque : 340 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.0779 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 5	
Date					

VFD OPERATION CURVE

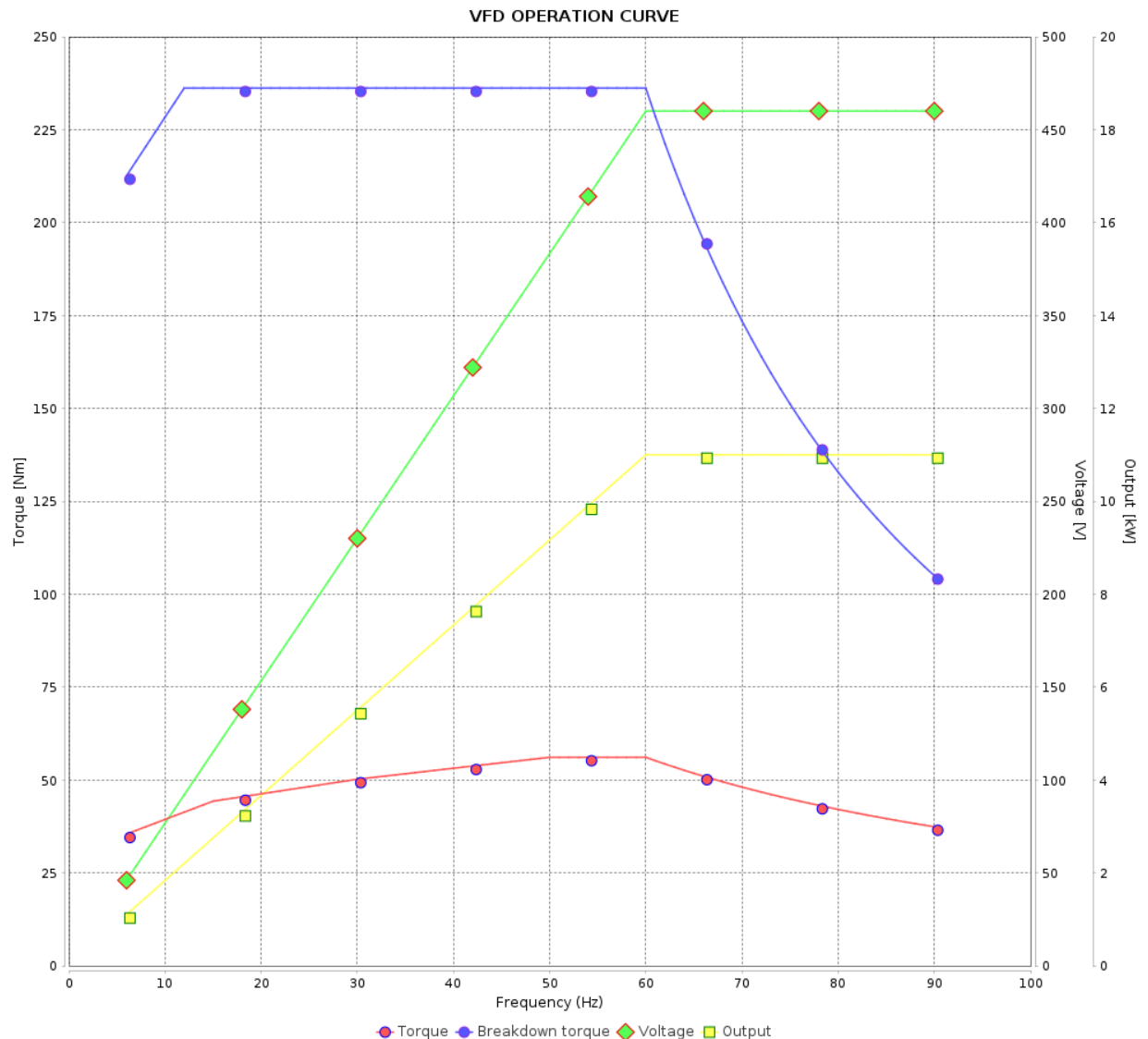
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Product line : WEG GENERAL PURPOSE IE3
Three-Phase

Product code : 16170075

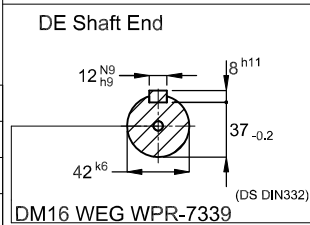
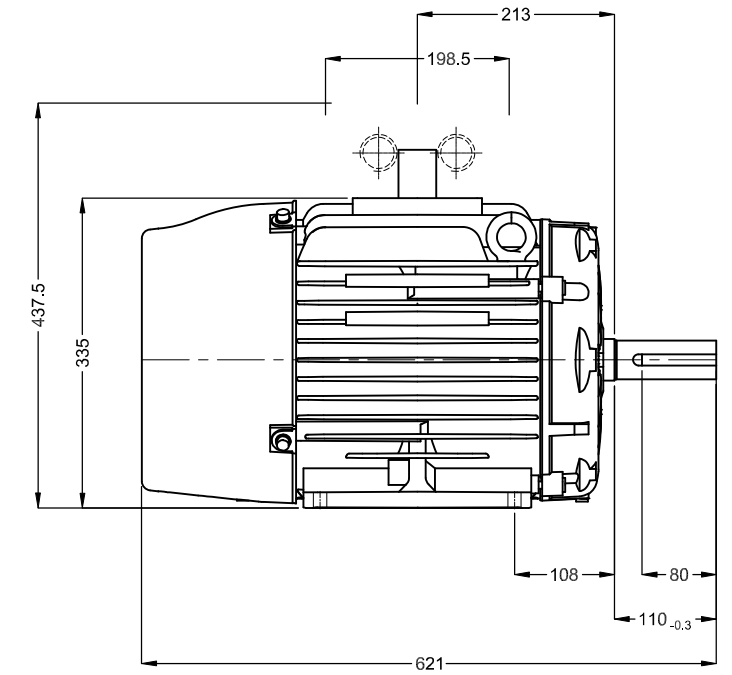
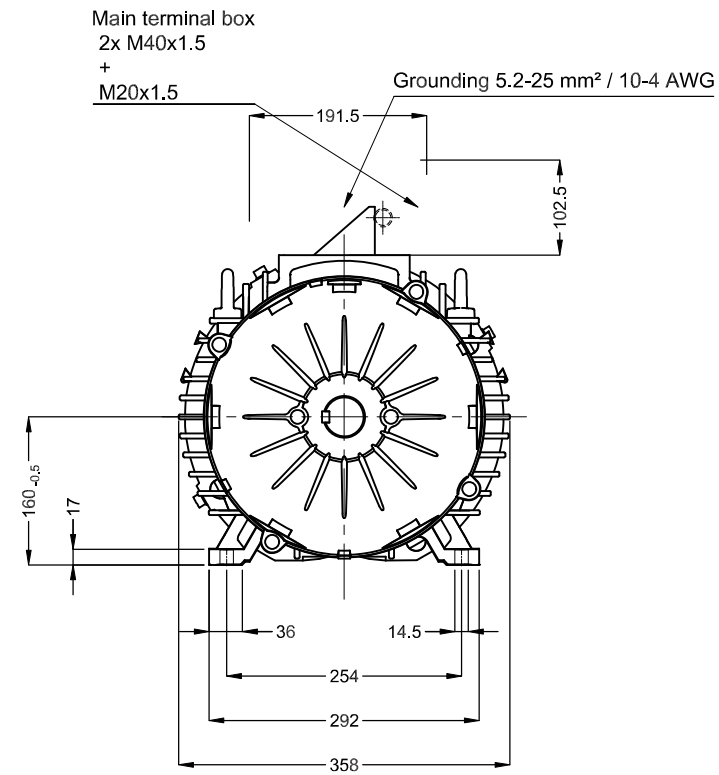
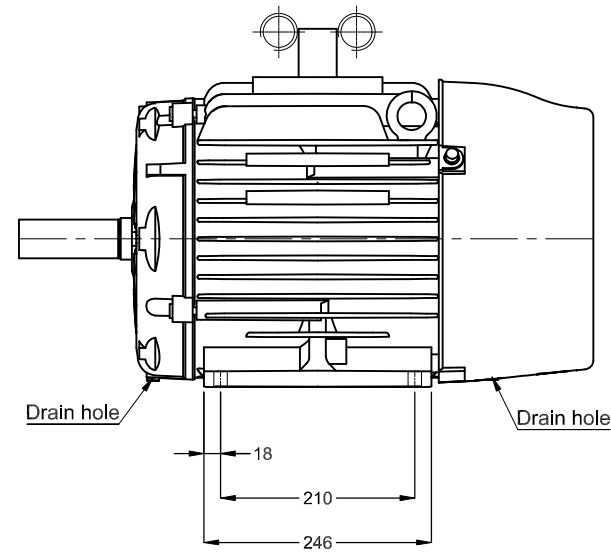


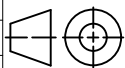

Performance : 460 V 60 Hz 4P

Rated current : 18.4 A
LRC : 8.2
Rated torque : 59.0 Nm
Locked rotor torque : 340 %
Breakdown torque : 400 %
Rated speed : 1780 rpm

Moment of inertia (J) : 0.0779 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 5 / 5	Revision
Checked by					
Date	20/09/2024				



11 kW 04 Poles 50 Hz										A
						Scale		1 : 8		
						HYBRISUSER			00	
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER			THREE PH. MOTOR W20 GENERAL PURPOSE IE3 FRAME 160M IP55 TEFC			PREVIEW WDD 00			
CHECKED										
RELEASED										
REL. DATE										
						SHEET		1 / 1		