

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 IE1 Three-Phase					
Frame : 180M Output : 18.5 kW Poles : 4 Frequency : 50 Hz Rated voltage : 380/660 V Rated current : 37.2/21.4 A L. R. Amperes : 260/150 A LRC : 7.0 No load current : 14.7/8.46 A Rated speed : 1465 rpm Slip : 2.33 % Rated torque : 12.3 kgfm Locked rotor torque : 240 % Breakdown torque : 280 % Insulation class : F Service factor : 1.00 Moment of inertia (J) : 0.1398 kgm <sup>2</sup> Design : N		Locked rotor time : 21s (cold) 12s (hot) Temperature rise : 80 K Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : B3T Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 61.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 161 kg			
Output	50%	75%	100%	Foundation loads Max. traction : 430 kgf Max. compression : 591 kgf	
Efficiency (%)	88.0	89.5	90.0		
Power Factor	0.70	0.80	0.84		
		<u>Drive end</u> Bearing type : 6311 C3 Sealing : V'Ring Lubrication interval : 20000 h Lubricant amount : 18 g Lubricant type : Mobil Polyrex EM	<u>Non drive end</u> 6211 Z C3 V'Ring 20000 h 11 g		
Notes					
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. (4) At 100% of full load.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.		
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Performed by					
Checked by					
Date	21/11/2018			Page 1 / 4	Revision

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### Thermal protection

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

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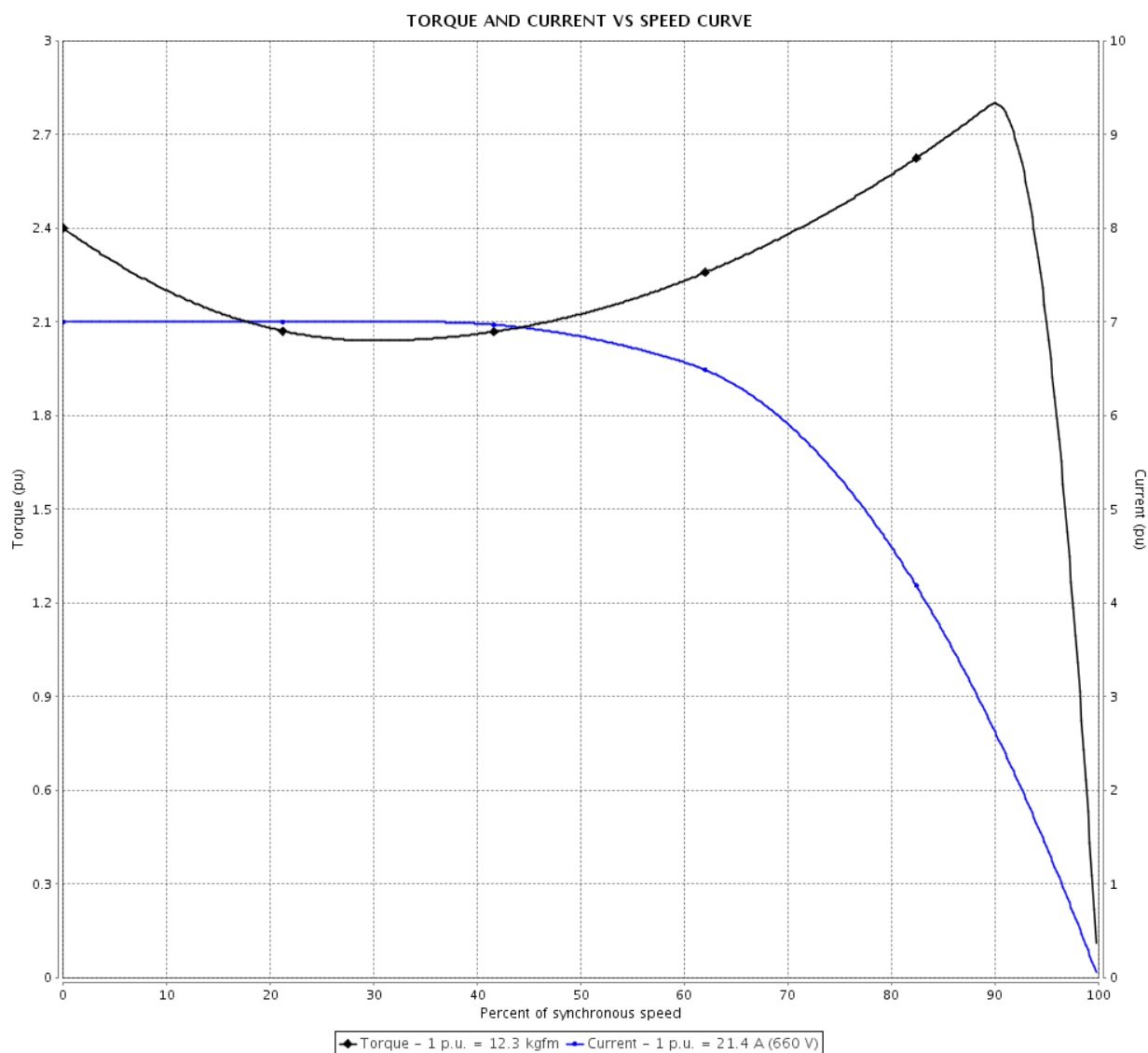
# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE1 Three-Phase



Performance : 380/660 V 50 Hz 4P

Rated current : 37.2/21.4 A  
 LRC : 7.0  
 Rated torque : 12.3 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1398 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Locked rotor time : 21s (cold) 12s (hot)

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Checked by				
Date	21/11/2018			

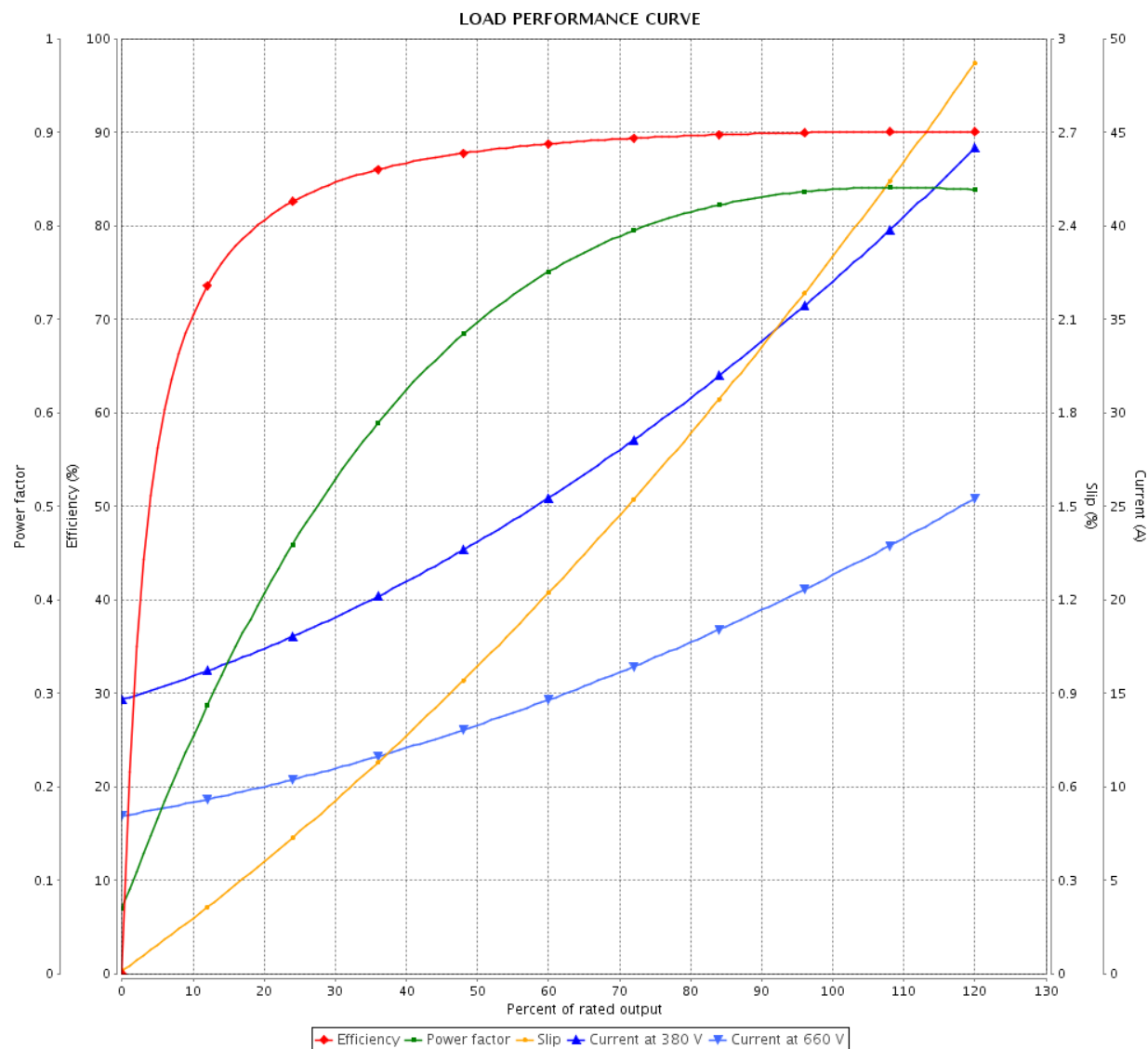
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE1 Three-Phase

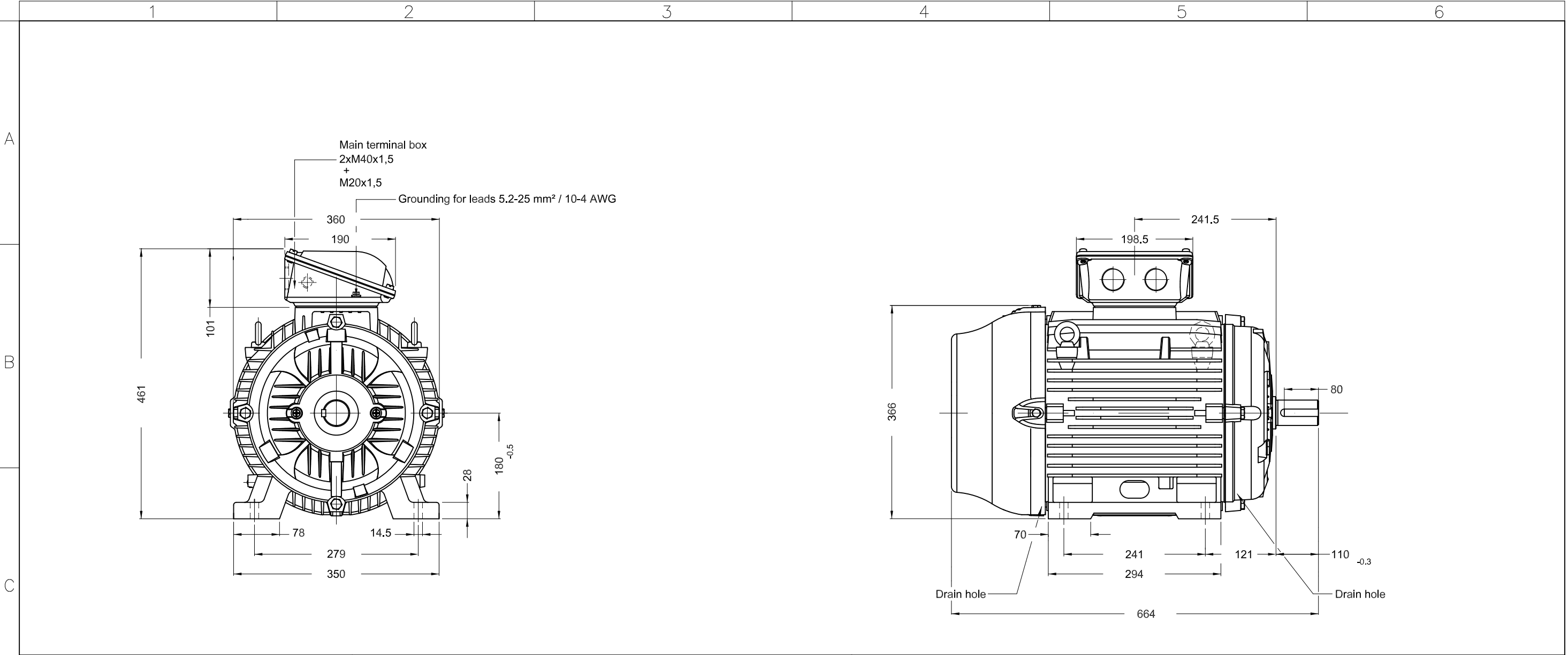


Performance : 380/660 V 50 Hz 4P

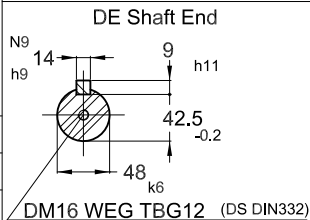
Rated current : 37.2/21.4 A  
 LRC : 7.0  
 Rated torque : 12.3 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1398 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

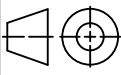

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Color RAL 5009  
Painting plan 203A  
Mounting B3T



18.5 kW 04 Poles 50 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	USERADMIN	 THREE PHASE W22 MOTOR FRAME 180M IP55 TEFC				PREVIEW WDD				
CHECKED										
RELEASED										
REL DT		WMO	Jaragua do Sul	Product Engineering	SHEET	1	/	1		