

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W22 Tru-Metric IE3 Three-Phase	Product code :	12645345	
Frame	: 160M	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B3L(E)		
Duty cycle	: S1	Rotation <sup>1</sup>	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>3</sup>	: 139 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.1004 kgm <sup>2</sup>		
Design	: N				
Output [HP]	15	15	15		
Poles	4	4	4		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	21.5	20.7	36.4/18.2		
L. R. Amperes [A]	161	176	309/155		
LRC [A]	7.5	8.5	8.5		
No load current [A]	9.00	10.2	18.2/9.08		
Rated speed [RPM]	1470	1476	1780		
Slip [%]	2.00	1.60	1.11		
Rated torque [kgfm]	7.41	7.38	6.12		
Locked rotor torque [%]	220	270	300		
Breakdown torque [%]	250	310	330		
Service factor	1.00	1.00	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	25s (cold) 14s (hot)	19s (cold) 11s (hot)	28s (cold) 16s (hot)		
Noise level <sup>2</sup>	61.0 dB(A)	61.0 dB(A)	64.0 dB(A)		
Efficiency (%)	25%				
	50%	91.0	90.4	89.5	
	75%	91.4	91.4	91.7	
	100%	91.4	91.4	92.4	
Power Factor	25%				
	50%	0.69	0.62	0.63	
	75%	0.79	0.74	0.75	
	100%	0.85	0.81	0.82	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	9.0	9.0	7.9	
	P2 (0,5;1,0)	7.3	7.3	6.4	
	P3 (0,25;1,0)	6.9	6.9	6.0	
	P4 (0,9;0,5)	5.2	5.2	4.6	
	P5 (0,5;0,5)	3.5	3.5	3.1	
	P6 (0,5;0,25)	2.6	2.6	2.3	
	P7 (0,25;0,25)	1.9	1.9	1.6	
Bearing type	: Drive end 6309 C3	Non drive end 6209 C3	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 248 kgf	
Lubrication interval	: 20000 h	20000 h	Max. compression	: 387 kgf	
Lubricant amount	: 13 g	9 g			
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. (4) At 100% of full load.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Notes

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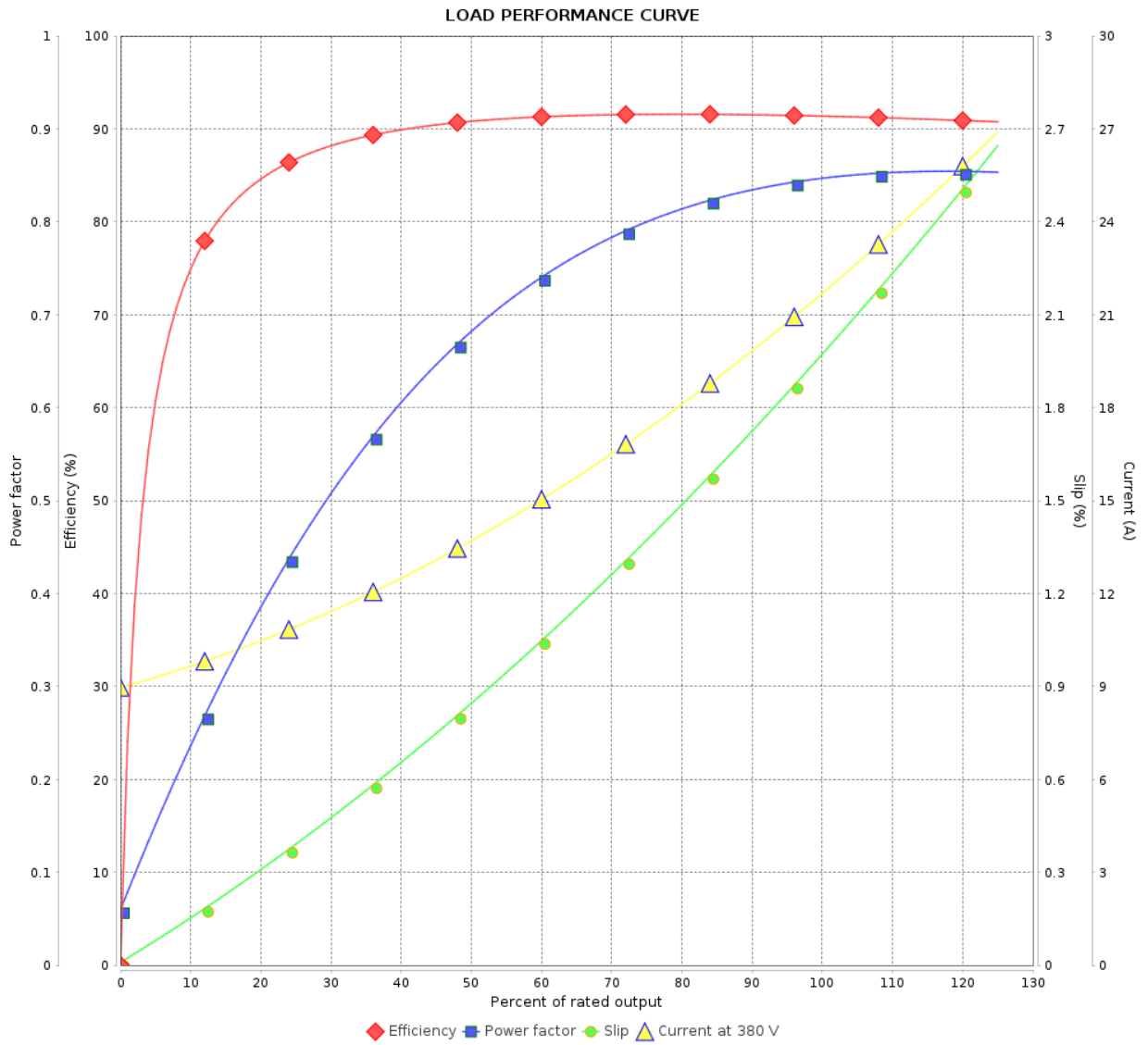
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345



Performance : 380 V 50 Hz 4P

Rated current : 21.5 A  
 LRC : 7.5  
 Rated torque : 7.41 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1004 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
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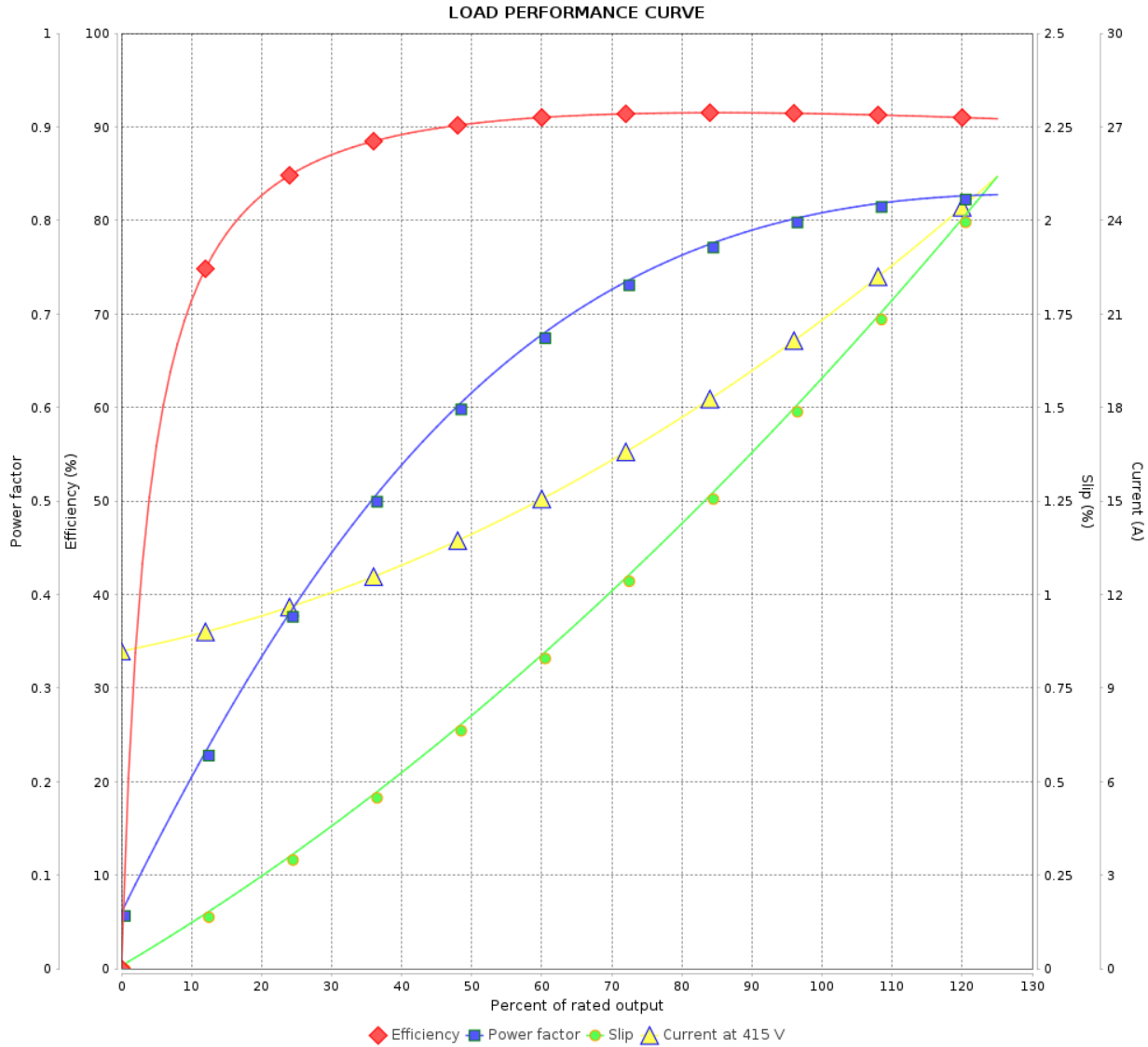
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345



Performance : 415 V 50 Hz 4P

Rated current	: 20.7 A	Moment of inertia (J)	: 0.1004 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 7.38 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1476 rpm	Design	: N

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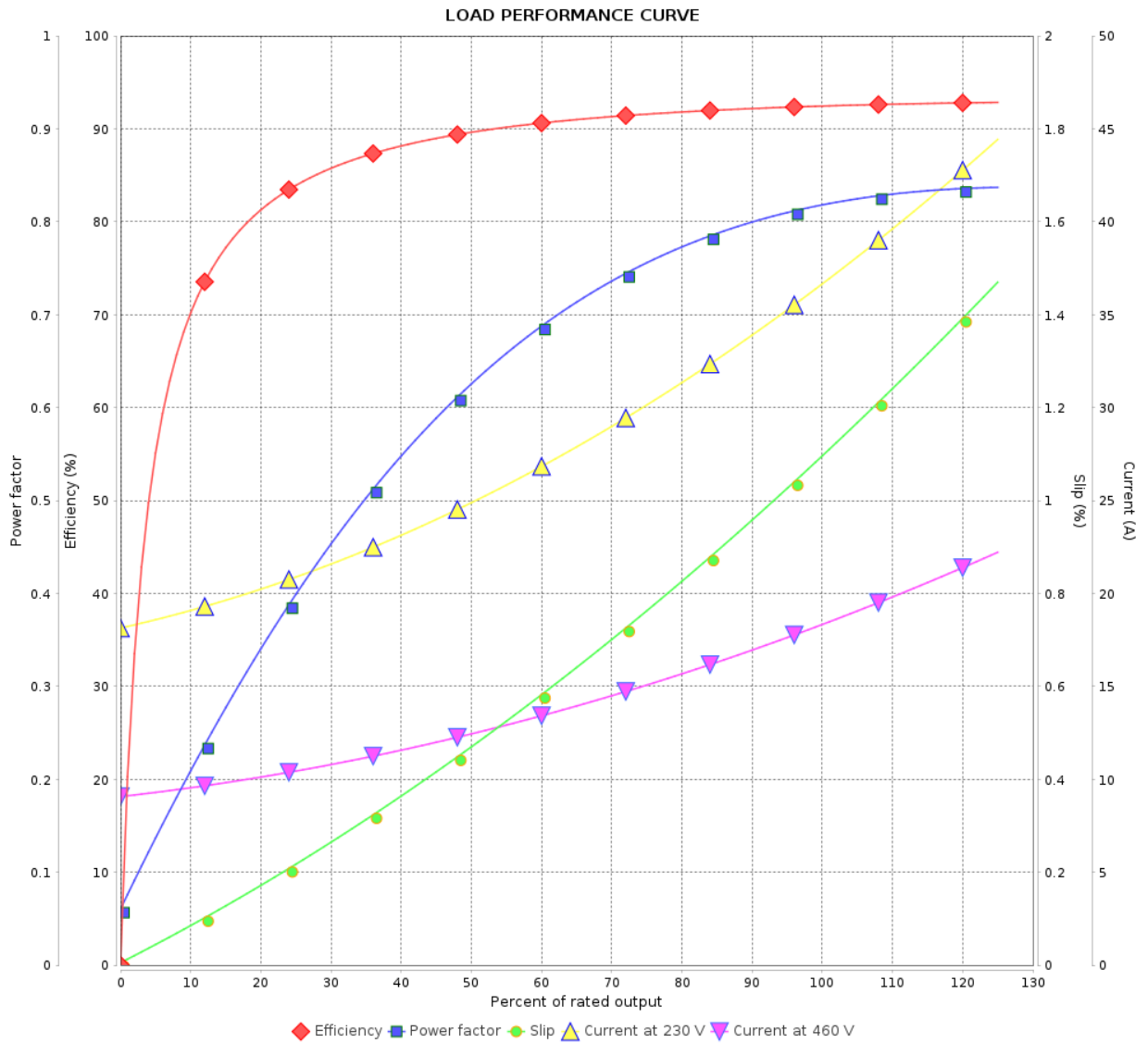
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345

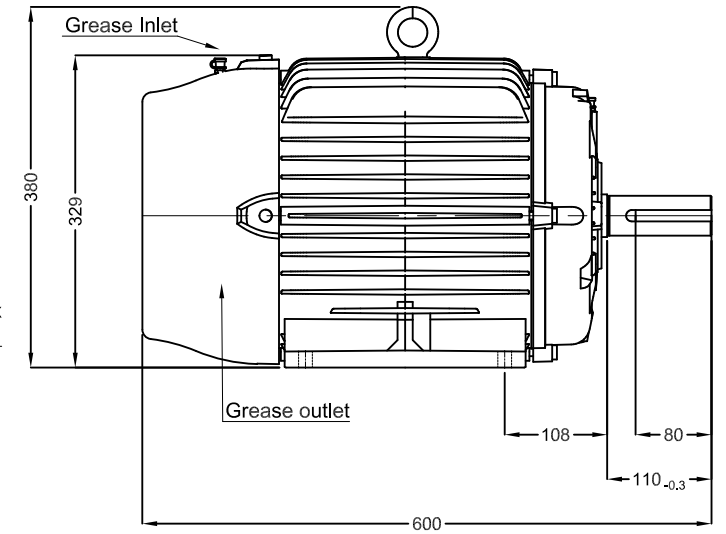
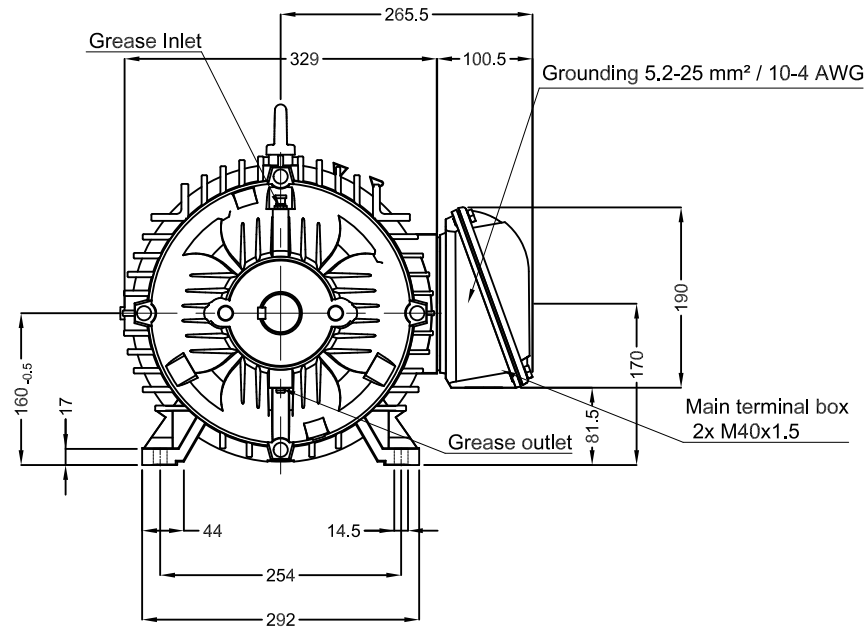
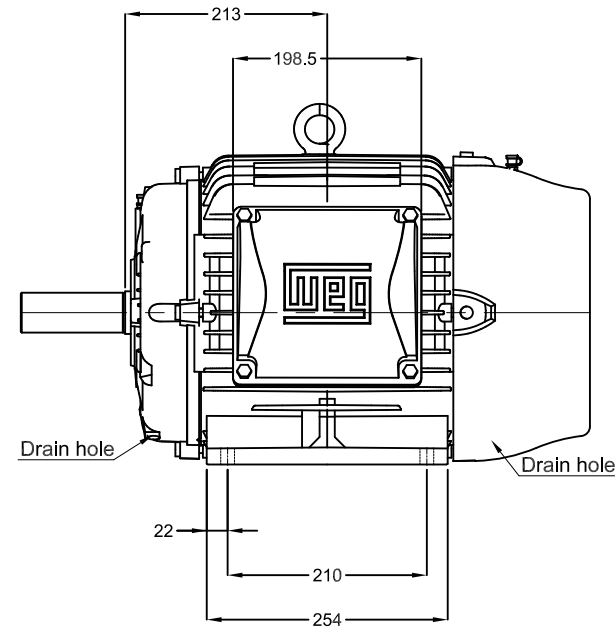


Performance : 230/460 V 60 Hz 4P

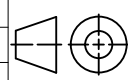
Rated current : 36.4/18.2 A  
 LRC : 8.5  
 Rated torque : 6.12 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 1780 rpm

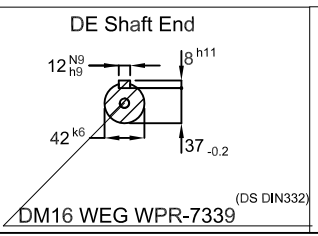
Moment of inertia (J) : 0.1004 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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15 HP 04 Poles 60 Hz A

ECM		LOC	SUMMARY OF MODIFICATIONS		HYBRISUSER					00
EXECUTED	HYBRISUSER		THREE PH. MOTOR W22 IE3 FRAME 160M IP55 TEFC		EXECUTED	CHECKED	RELEASED	DATE	VER	
CHECKED										
RELEASED										
REL. DATE										



Without vertical jackscrews  
 Color RAL 5009  
 Painting plan 203A  
 Mounting B3L(E)

**PREVIEW**  
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