

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 10372266

Frame	: 256T	Cooling method	: IC01 - ODP
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(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>	: 109 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.0778 kgm <sup>2</sup>
Design	: B		

Output [HP]	20	20	20	20
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	51.0/25.5	31.0	31.7	30.6
L. R. Amperes [A]	286/143	115	130	138
LRC [A]	5.6x(Code G)	3.7x(Code C)	4.1x(Code E)	4.5x(Code E)
No load current [A]	21.8/10.9	11.1	12.4	13.7
Rated speed [RPM]	1765	1440	1450	1455
Slip [%]	1.94	4.00	3.33	3.00
Rated torque [kgfm]	8.22	10.1	10.0	9.98
Locked rotor torque [%]	229	160	180	200
Breakdown torque [%]	250	160	180	200
Service factor	1.15	1.00	1.00	1.00
Temperature rise	105 K	105 K	105 K	105 K
Locked rotor time	21s (cold) 12s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)
Noise level <sup>2</sup>	60.0 dB(A)			
Efficiency (%)	25%			
	50%	90.2	87.5	87.5
	75%	91.0	88.5	88.5
	100%	91.0	87.5	88.5
Power Factor	25%			
	50%	0.64	0.72	0.62
	75%	0.75	0.81	0.74
	100%	0.81	0.84	0.78

Bearing type	: Drive end	6309 Z C3	Non drive end	6209 Z C3	Foundation loads	Max. traction : 259 kgf	Max. compression : 368 kgf
	: Sealing	Without	Without				
Lubrication interval	: Bearing Seal	20000 h	Bearing Seal	20000 h			
Lubricant amount	: Lubricant type	13 g	9 g				
		Mobil Polyrex EM					

Notes  
USABLE @208V 56.4A SF 1.15 SFA 64.9A

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.

Rev.	Changes Summary	Performed	Checked	Date
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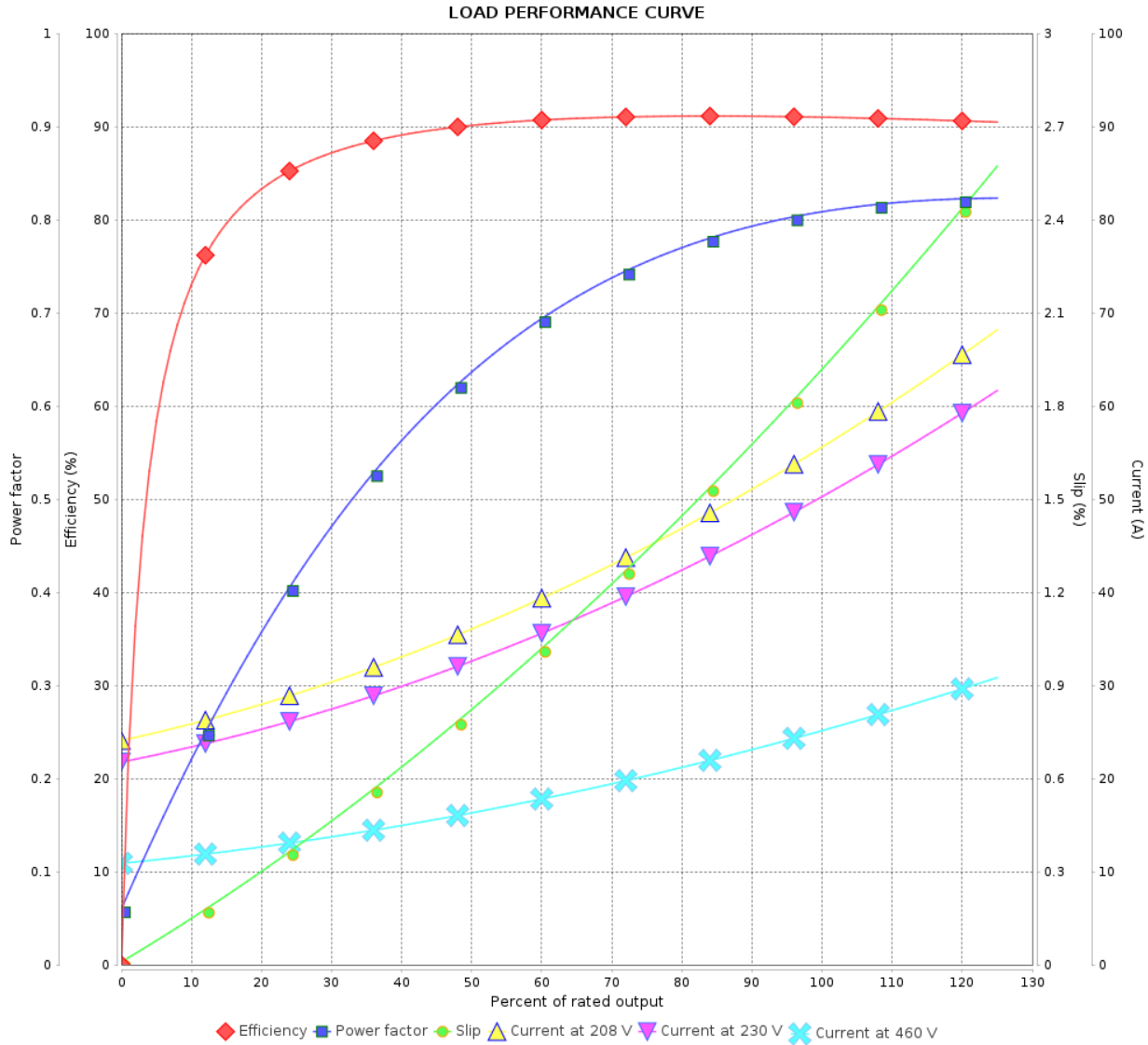
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 10372266



Performance : 230/460 V 60 Hz 4P

Rated current : 51.0/25.5 A  
 LRC : 5.6  
 Rated torque : 8.22 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 250 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date				

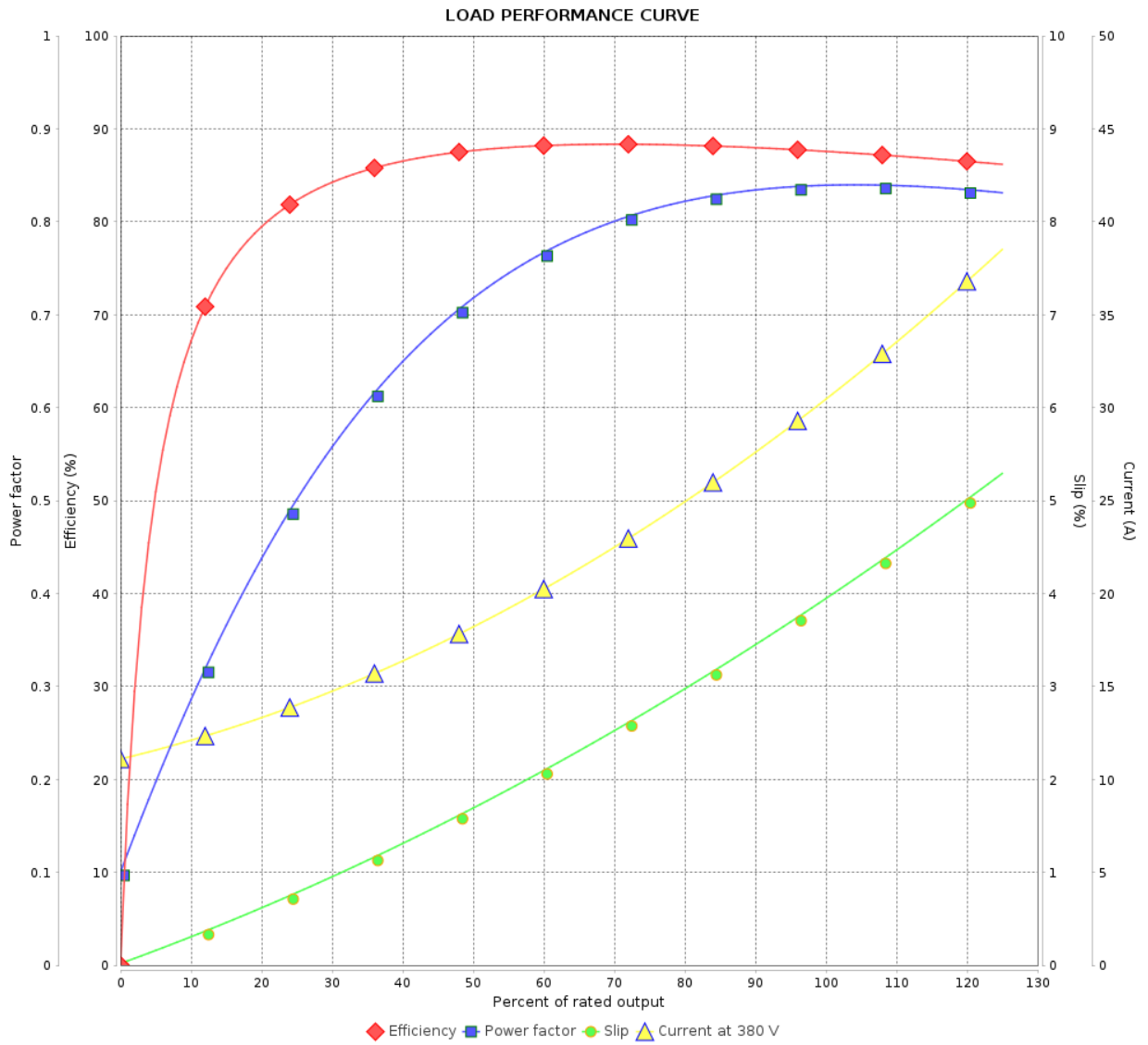
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP High Efficiency Three-Phase      Product code : 10372266



Performance : 380 V 50 Hz 4P

Rated current : 31.0 A  
 LRC : 3.7  
 Rated torque : 10.1 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 160 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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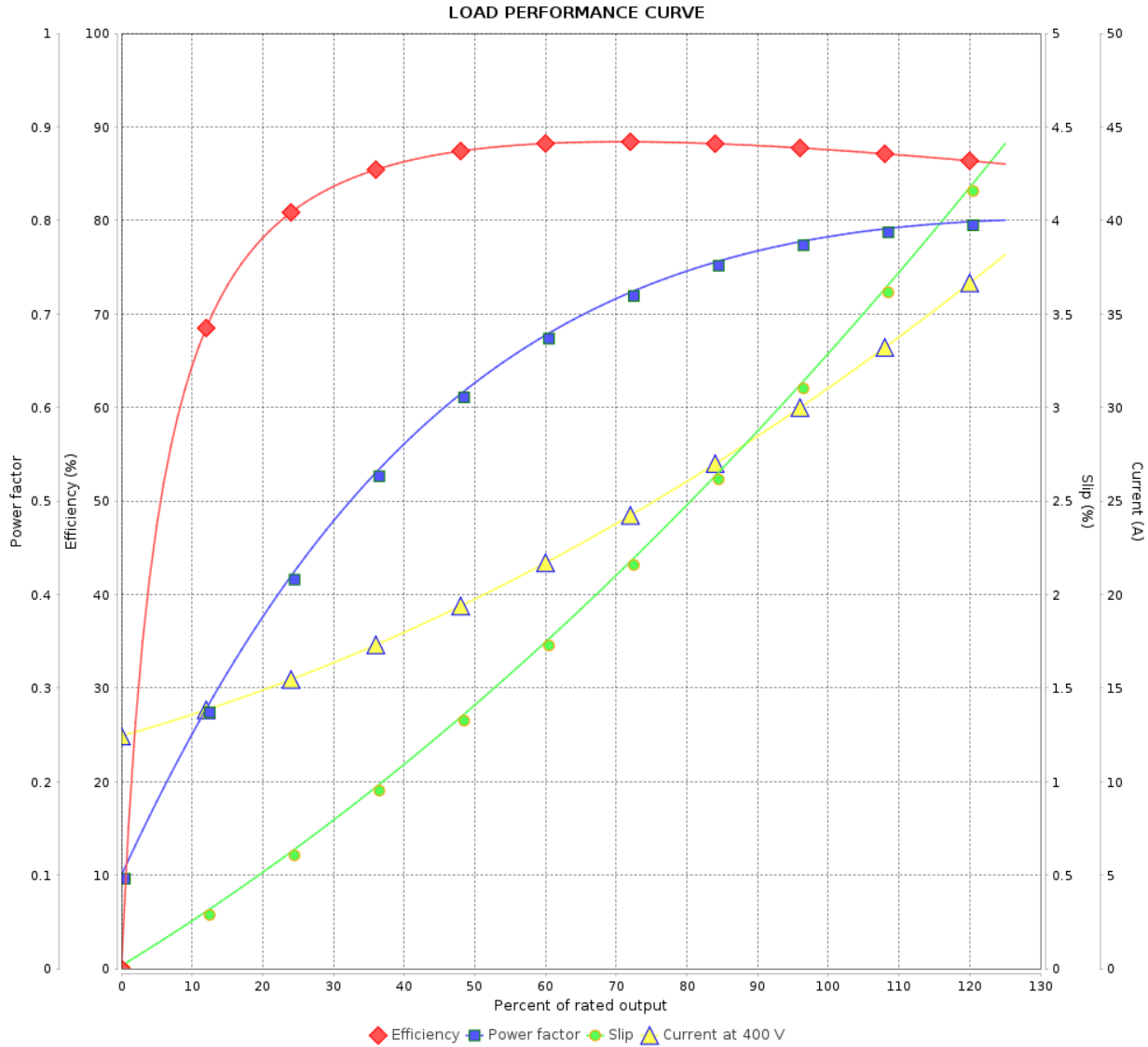
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 10372266



Performance : 400 V 50 Hz 4P

Rated current : 31.7 A  
 LRC : 4.1  
 Rated torque : 10.0 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 180 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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Date	19/10/2024			

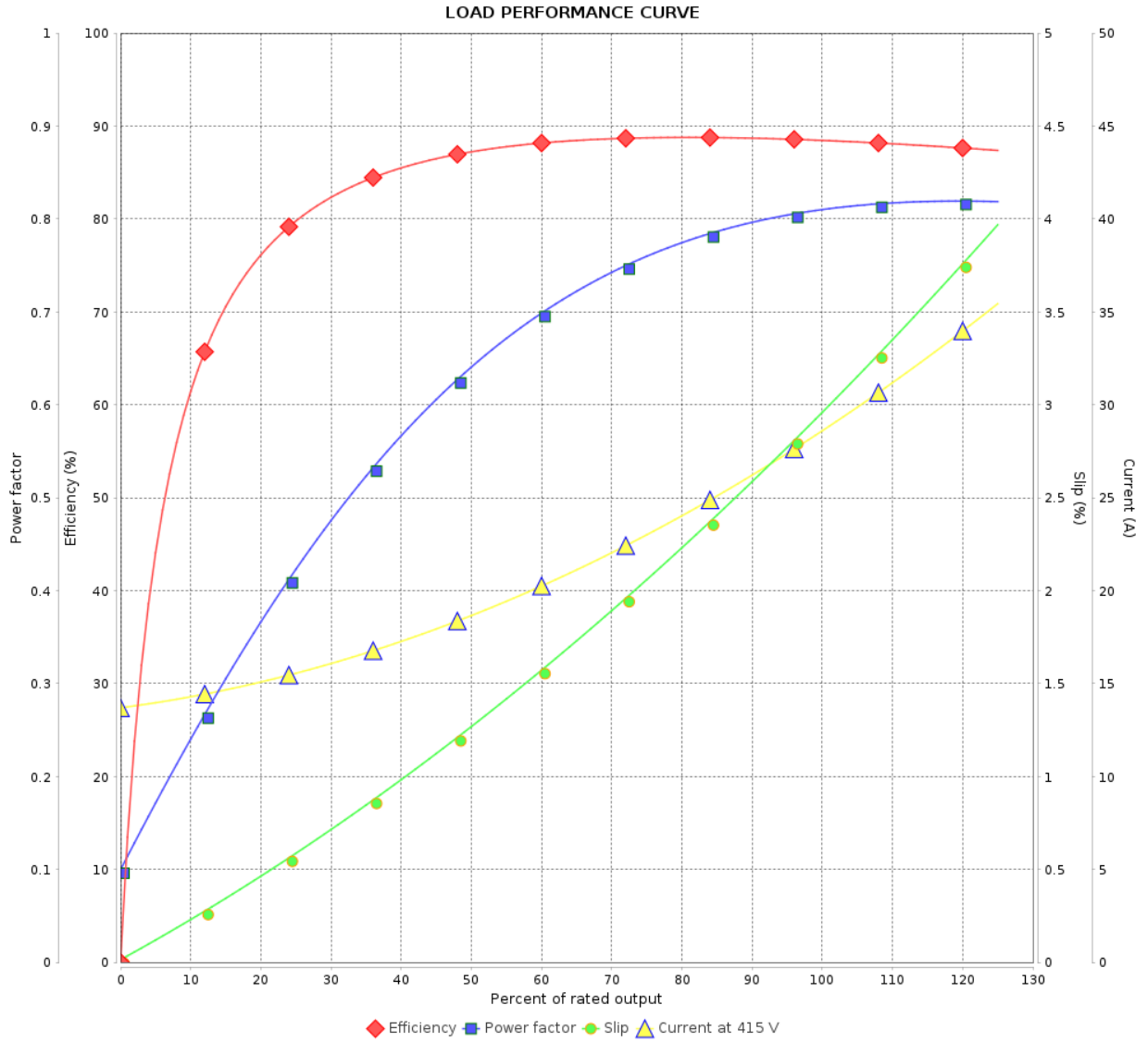
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

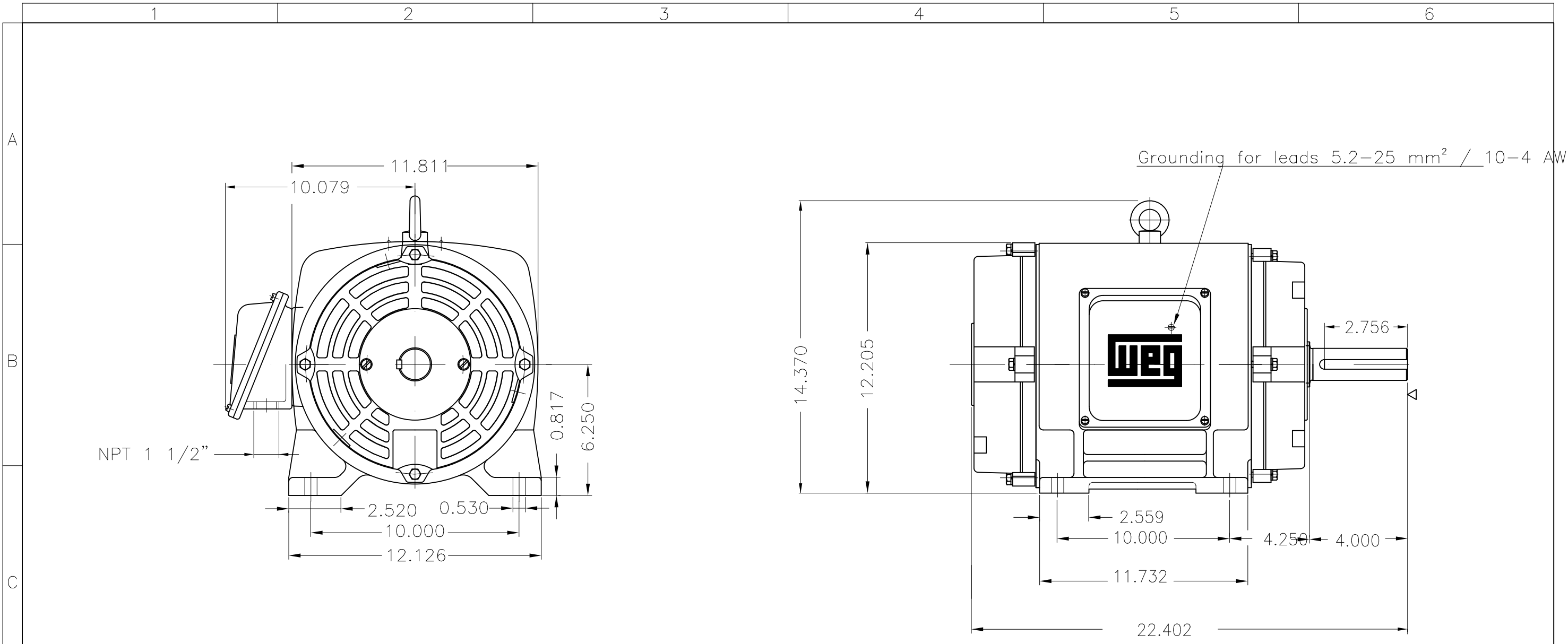
Product line : ODP High Efficiency Three-Phase Product code : 10372266



Performance : 415 V 50 Hz 4P

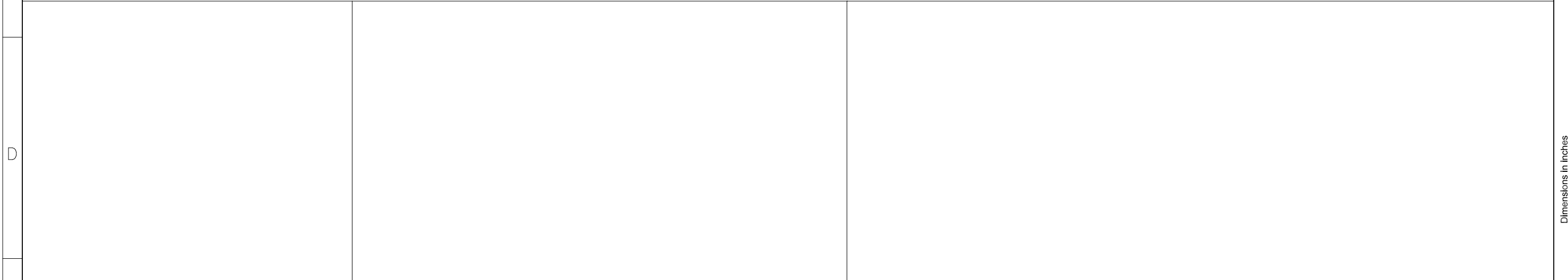
Rated current	: 30.6 A	Moment of inertia (J)	: 0.0778 kgm <sup>2</sup>
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 9.98 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
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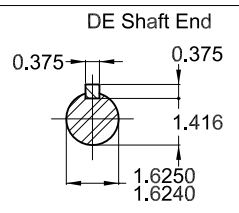


NPT 1 1/2"

Grounding for leads 5.2-25 mm<sup>2</sup> / 10-4 AWG



20 HP 04 Poles 60 Hz										A



Color RAL 5009  
 Painting plan 203A  
 Mounting B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS				HYBRISUSER					00
EXECUTED	HYBRISUSER	THREE PH. MOTOR GENERAL HIGH EFF.				EXECUTED	CHECKED	RELEASED	DATE	VER	
CHECKED		FRAME 256T IP23 ODP									
RELEASED											
REL. DATE		WMO	Jaragua do Sul	Product Engineering							

**PREVIEW**  
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