

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: ODP High Efficiency Three-Phase	Product code :	11996595	
Frame	: 256TC	Cooling method	: IC01 - ODP		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight ³	: 0.0 kg		
Protection degree	: IP23	Moment of inertia (J)	: 0.0778 kgm ²		
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 ²	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		
Sealing	: Without	Without	Max. traction	: 314 kgf	
	Bearing Seal	Bearing Seal	Max. compression	: 314 kgf	
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 13 g	9 g			
Lubricant type	: 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
Performed by					
Checked by				Page	Revision
Date	01/04/2025			1 / 5	

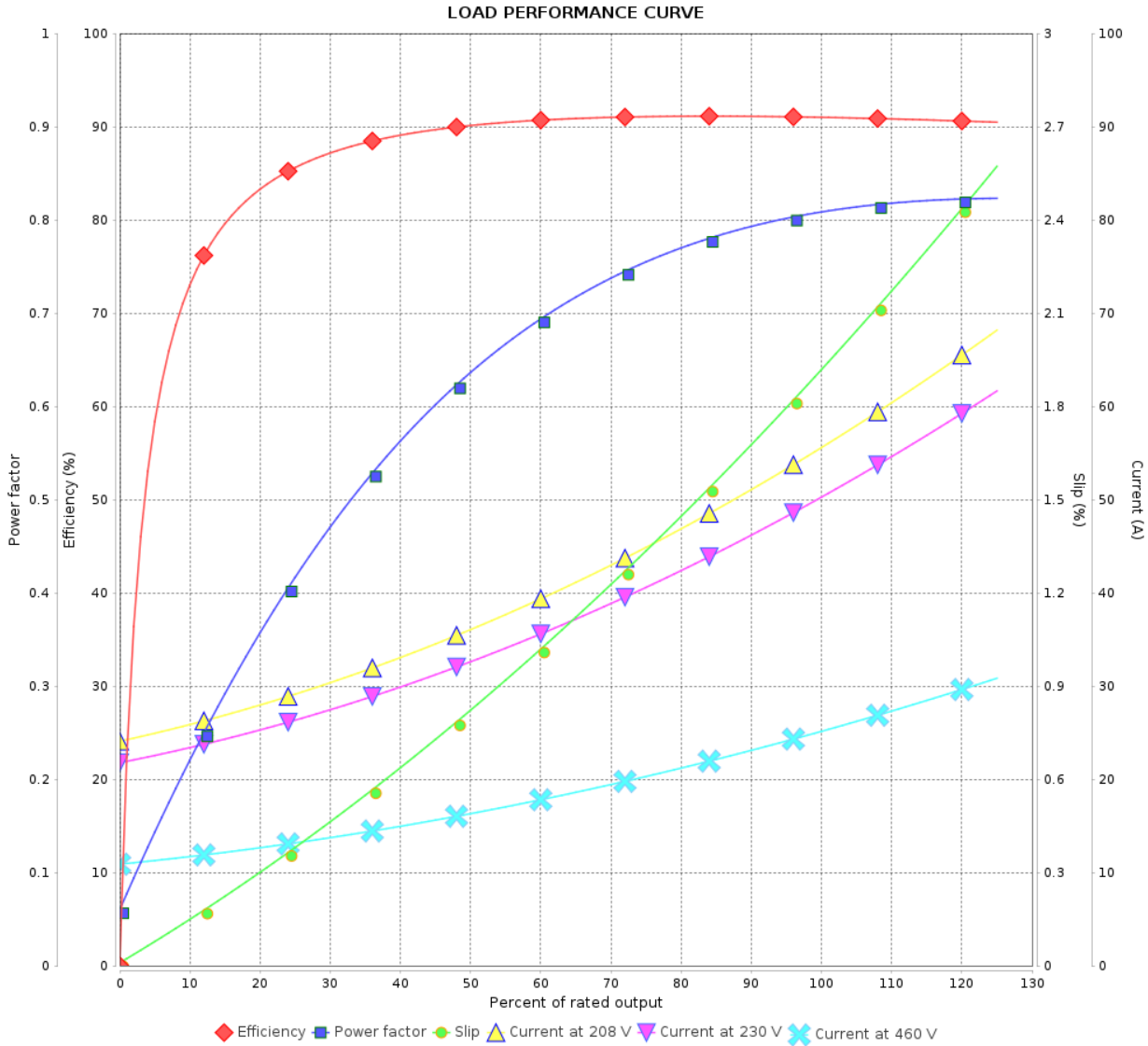
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



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 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		2 / 5		
Date		01/04/2025		

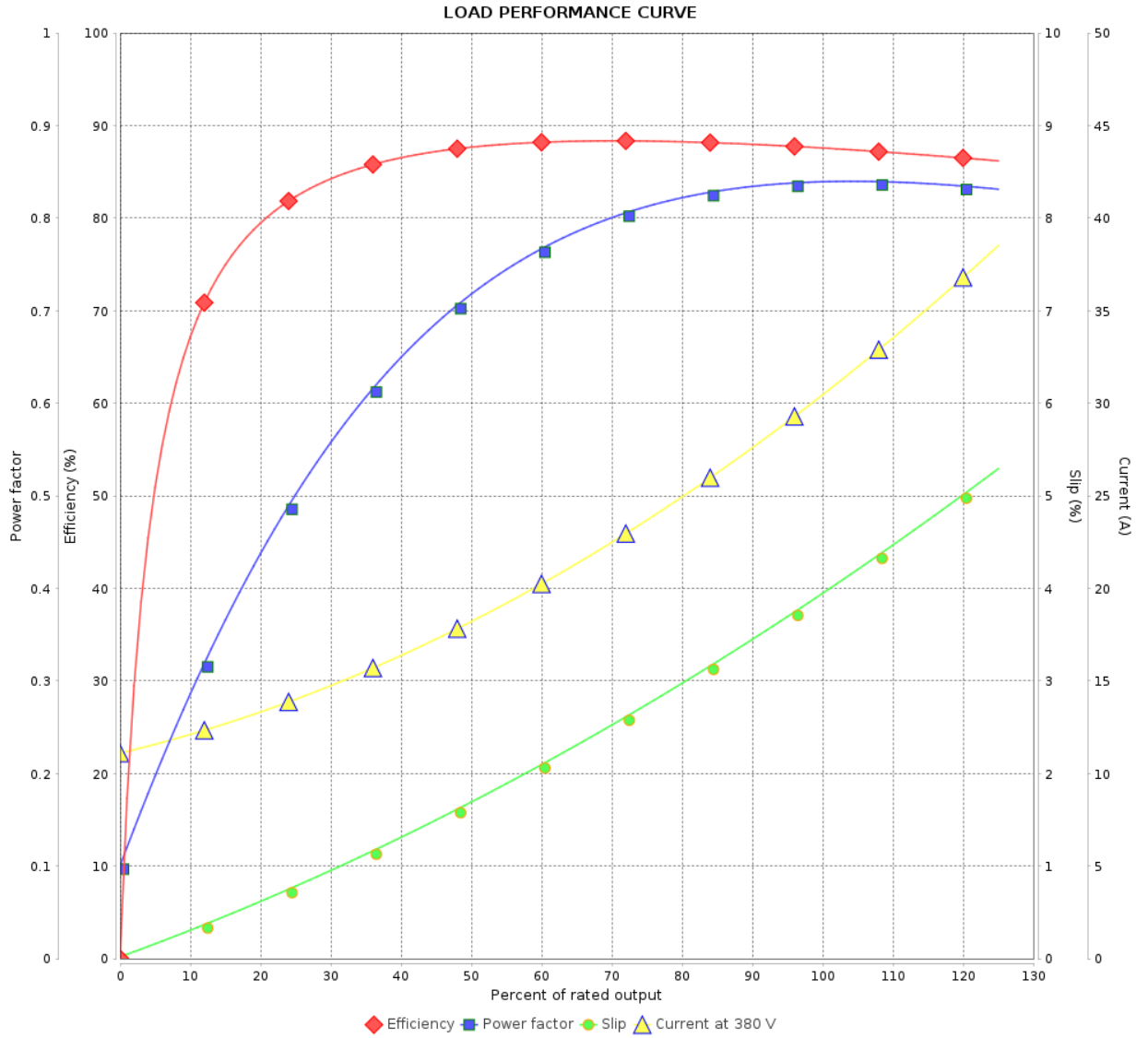
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 380 V 50 Hz 4P

Rated current	: 31.0 A	Moment of inertia (J)	: 0.0778 kgm ²
LRC	: 3.7	Duty cycle	: Cont.(S1)
Rated torque	: 10.1 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 160 %	Temperature rise	: 105 K
Rated speed	: 1440 rpm	Design	: B

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

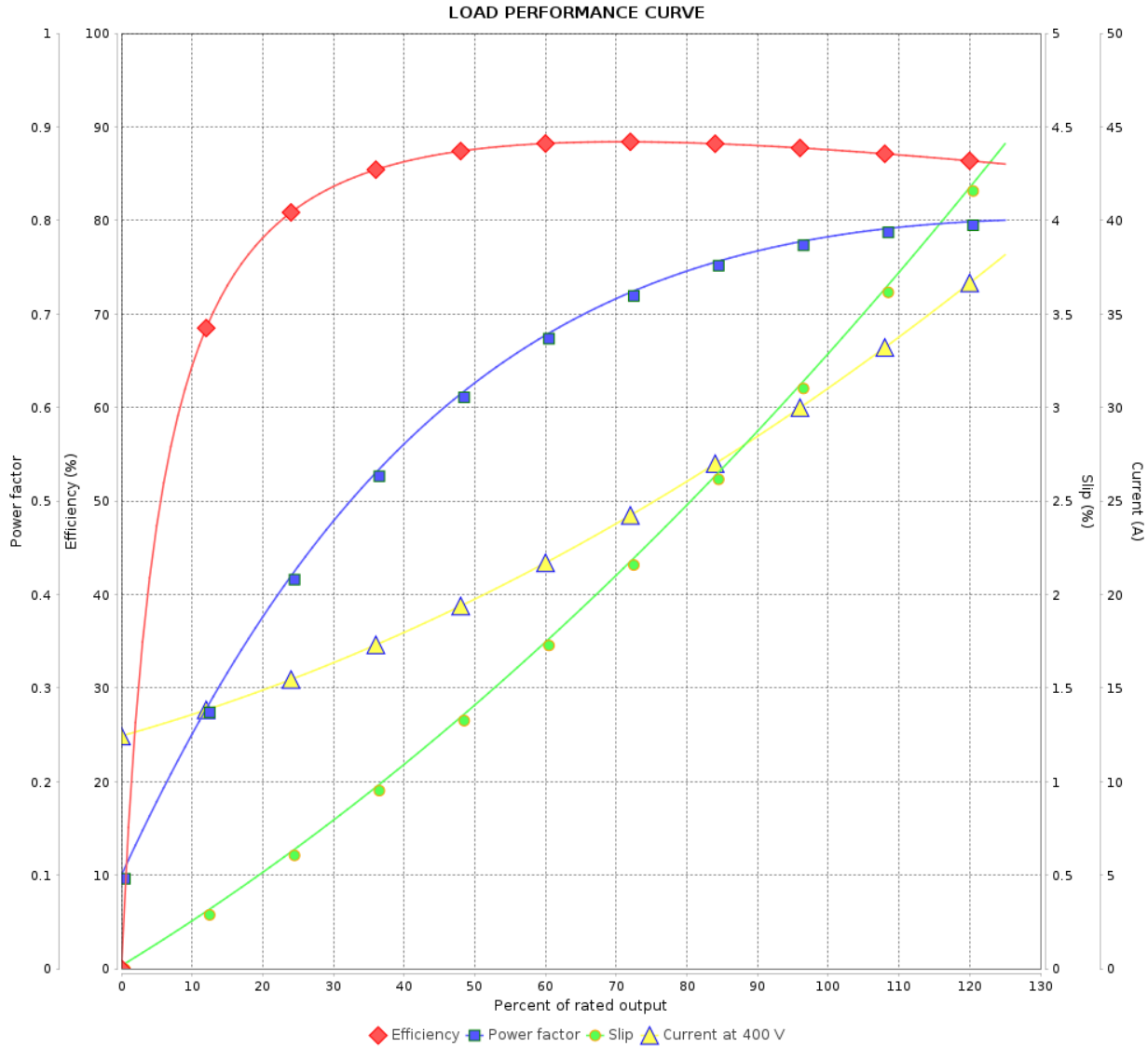
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



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 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 5	Revision
Checked by				
Date	01/04/2025			

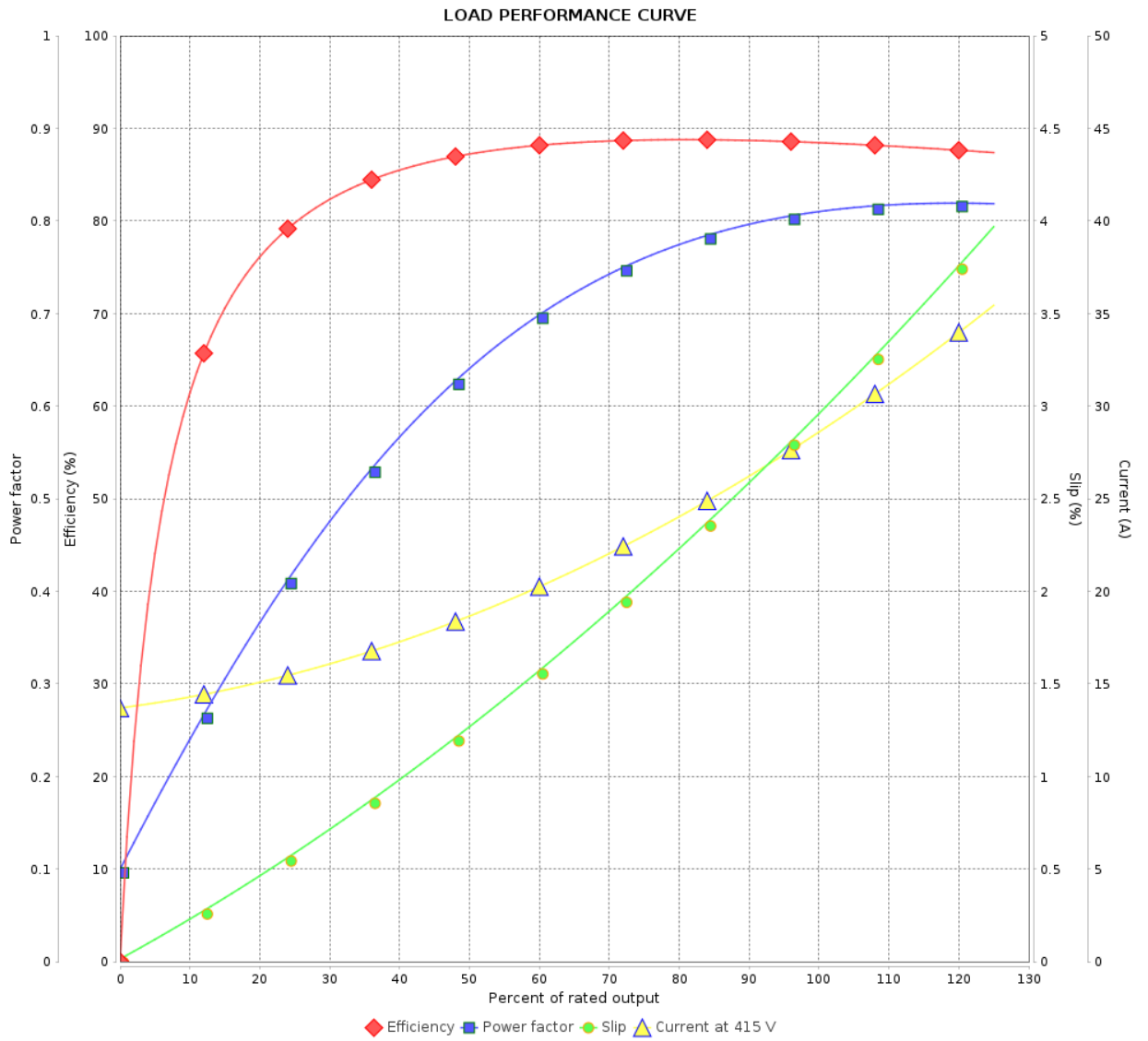
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Three Phase Induction Motor - Squirrel Cage



Customer :

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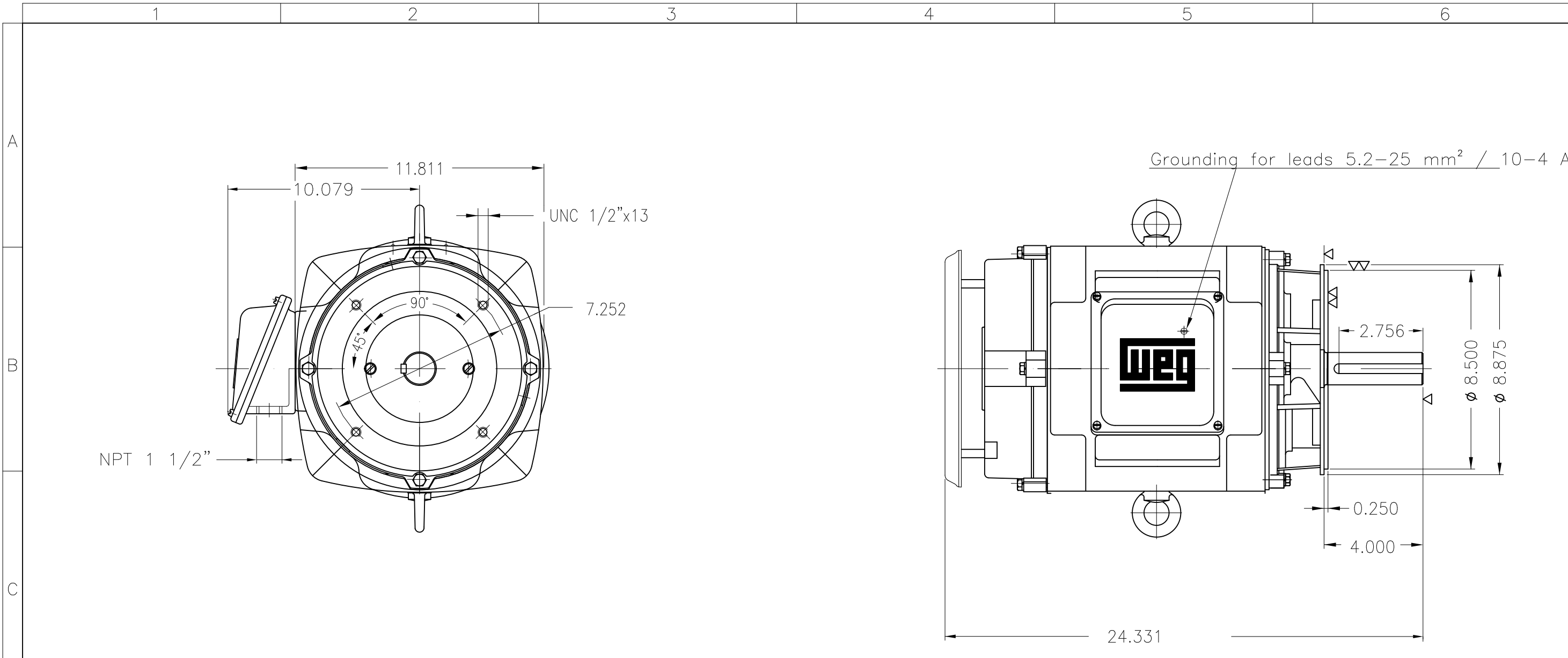


Performance : 415 V 50 Hz 4P

Rated current : 30.6 A
 LRC : 4.5
 Rated torque : 9.98 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 200 %
 Rated speed : 1455 rpm

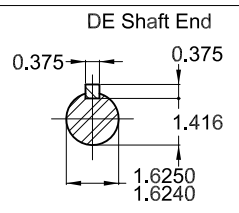
Moment of inertia (J) : 0.0778 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 5	Revision
Checked by				
Date	01/04/2025			



Grounding for leads 5.2-25 mm² / 10-4 AWG

Color RAL 5009
 Painting plan 203A
 Mounting B14R(D)



20 HP 04 Poles 60 Hz										A	
										00	
ECM	LOC	SUMMARY OF MODIFICATIONS				HYBRISUSER					00
EXECUTED	HYBRISUSER	THREE PH. MOTOR GENERAL HIGH EFF.				EXECUTED	CHECKED	RELEASED	DATE	VER	
CHECKED		FRAME 256TC IP23 ODP									
RELEASED											
REL. DATE		WMO	Jaragua do Sul	Product Engineering							
					PREVIEW						
					WDD 00						
					SHEET		1 / 1				

Dimensions in inches XME A3