

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 13659279

Frame	: 254TC	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	: 94.3 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.0338 kgm ²
Design	: B		

Output [HP]	20	20	20	20
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	48.6/24.3	30.3	29.4	28.7
L. R. Amperes [A]	282/141	127	135	144
LRC [A]	5.8x(Code G)	4.2x(Code D)	4.6x(Code E)	5.0x(Code F)
No load current [A]	16.4/8.20	8.63	10.4	12.1
Rated speed [RPM]	3525	2890	2905	2920
Slip [%]	2.08	3.67	3.17	2.67
Rated torque [kgfm]	4.12	5.02	5.00	4.97
Locked rotor torque [%]	160	130	140	160
Breakdown torque [%]	250	200	210	229
Service factor	1.15	1.00	1.15	1.15
Temperature rise	105 K	105 K	105 K	105 K
Locked rotor time	18s (cold) 10s (hot)	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level ²	66.0 dB(A)			
Efficiency (%)	25%			
	50%	89.5	86.5	87.5
	75%	90.2	87.5	87.5
	100%	90.2	86.5	87.5
Power Factor	25%			
	50%	0.74	0.77	0.66
	75%	0.83	0.85	0.78
	100%	0.86	0.87	0.83

	Drive end	Non drive end	Foundation loads	
Bearing type	: 6309 Z C3	6209 Z C3	Max. traction	: 132 kgf
Sealing	: Without	Without	Max. compression	: 227 kgf
	Bearing Seal	Bearing Seal		
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 13 g	9 g		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 53.7A SF 1.15 SFA 61.8A

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				
Date	13/11/2025			

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Revision

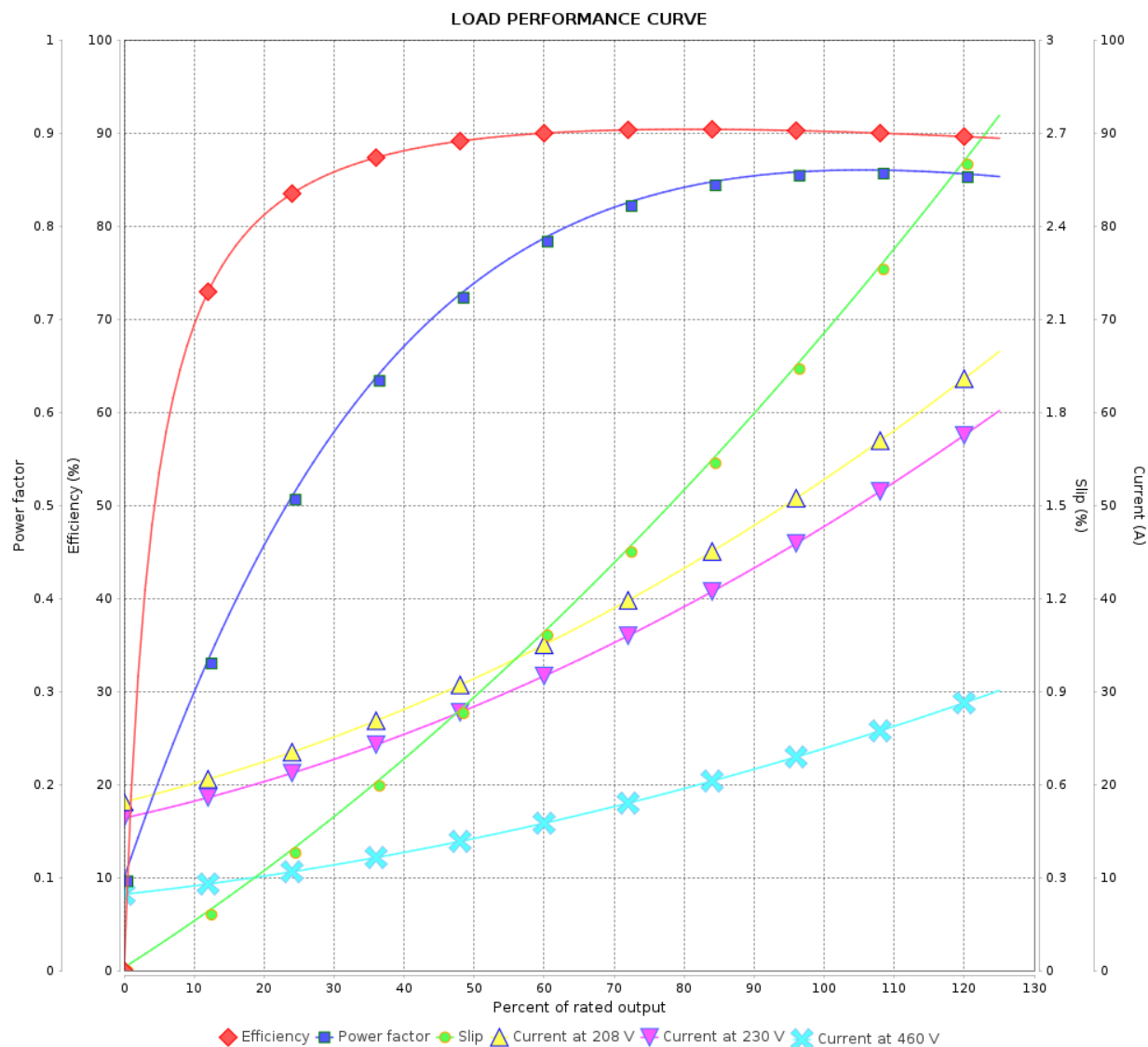
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 13659279



Performance : 230/460 V 60 Hz 2P

Rated current : 48.6/24.3 A
LRC : 5.8
Rated torque : 4.12 kgfm
Locked rotor torque : 160 %
Breakdown torque : 250 %
Rated speed : 3525 rpm

Moment of inertia (J) : 0.0338 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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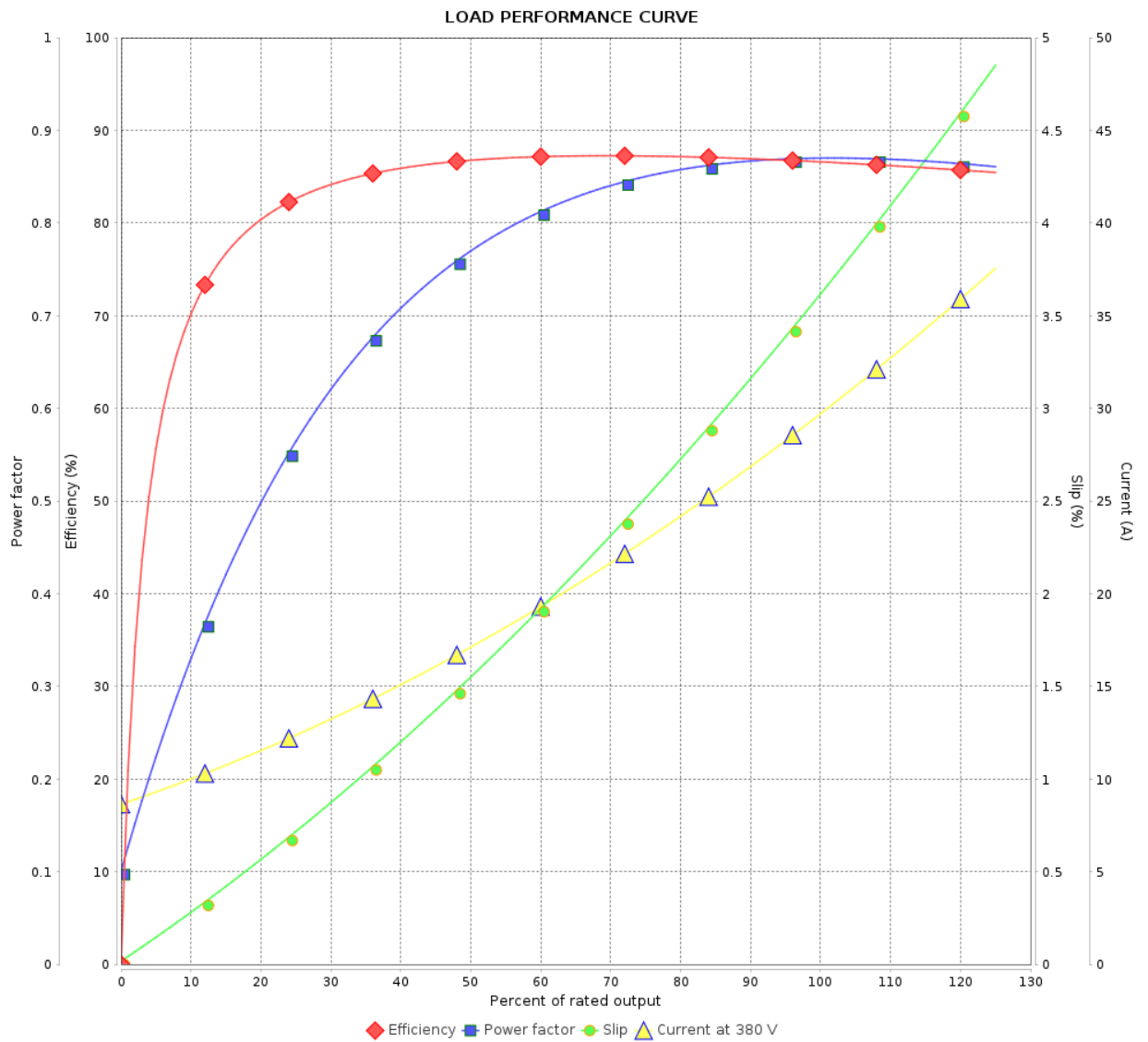
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 13659279



Performance : 380 V 50 Hz 2P

Rated current	: 30.3 A	Moment of inertia (J)	: 0.0338 kgm ²
LRC	: 4.2	Duty cycle	: Cont.(S1)
Rated torque	: 5.02 kgfm	Insulation class	: F
Locked rotor torque	: 130 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2890 rpm	Design	: B

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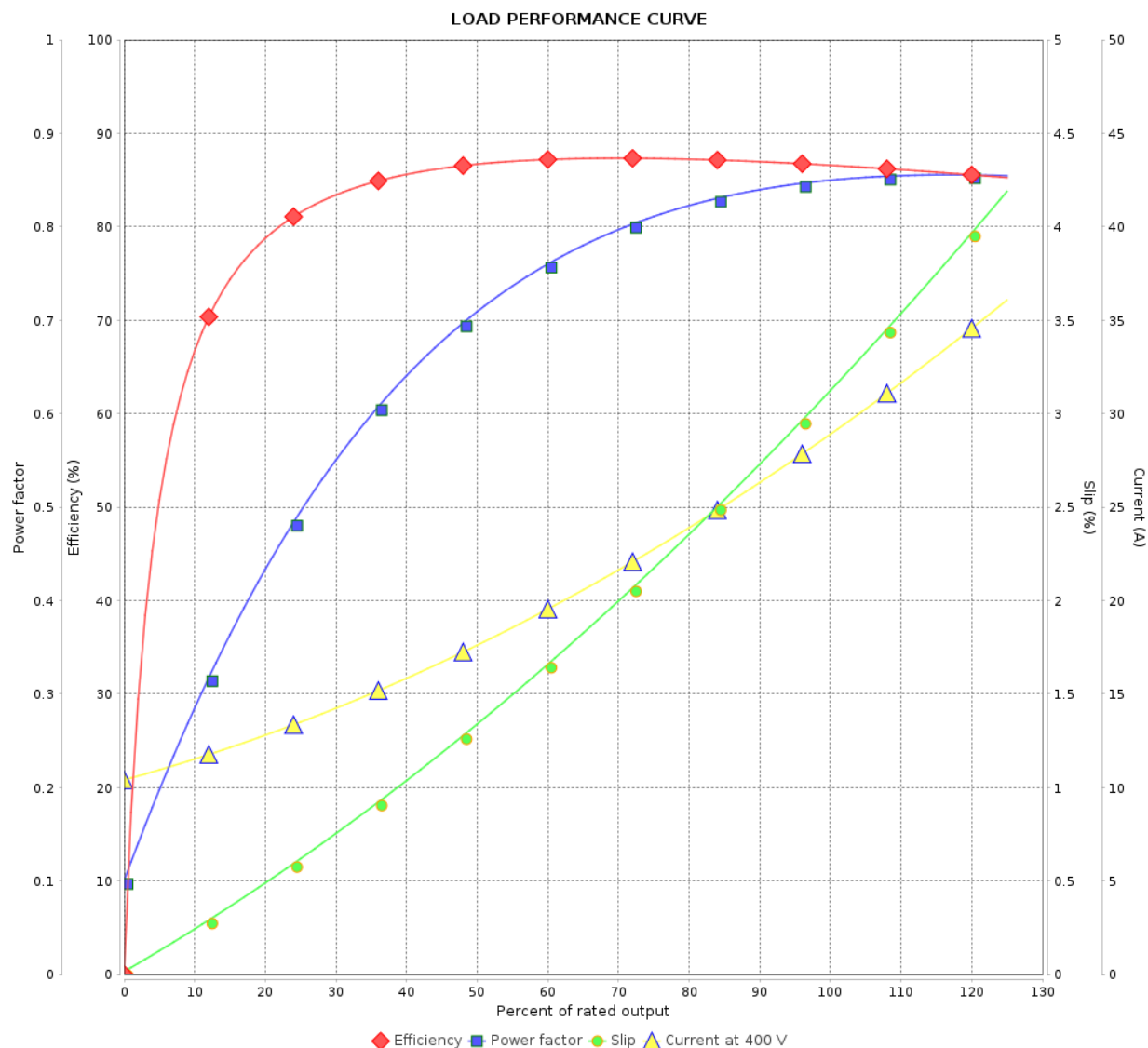
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 13659279



Performance : 400 V 50 Hz 2P

Rated current : 29.4 A
LRC : 4.6
Rated torque : 5.00 kgfm
Locked rotor torque : 140 %
Breakdown torque : 210 %
Rated speed : 2905 rpm

Moment of inertia (J) : 0.0338 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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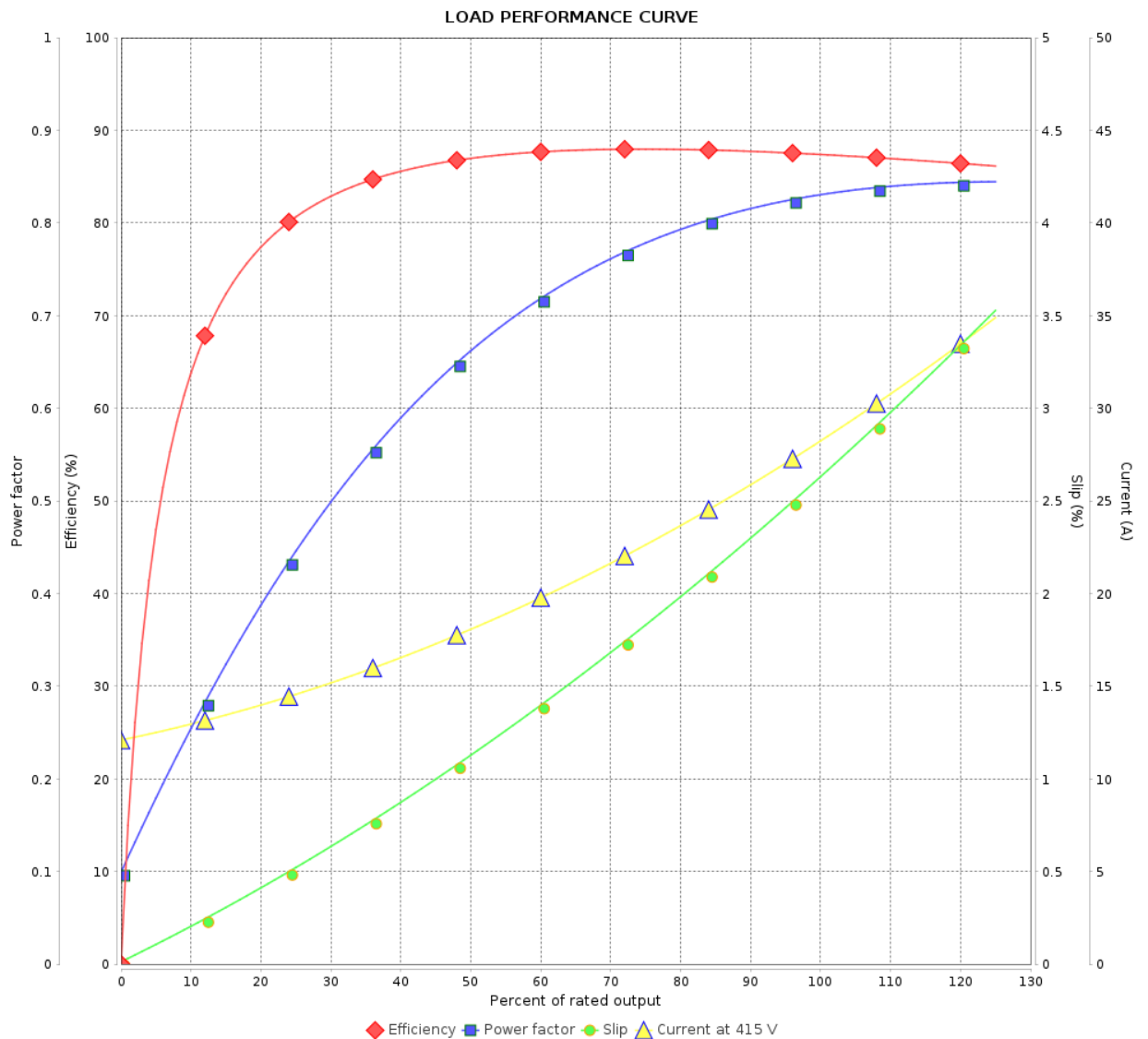
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Three Phase Induction Motor - Squirrel Cage



Customer :

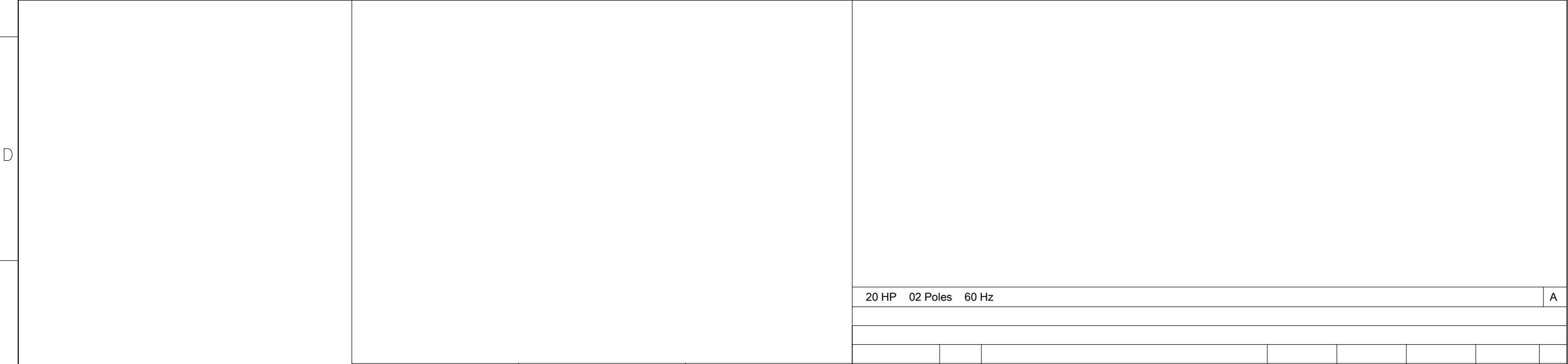
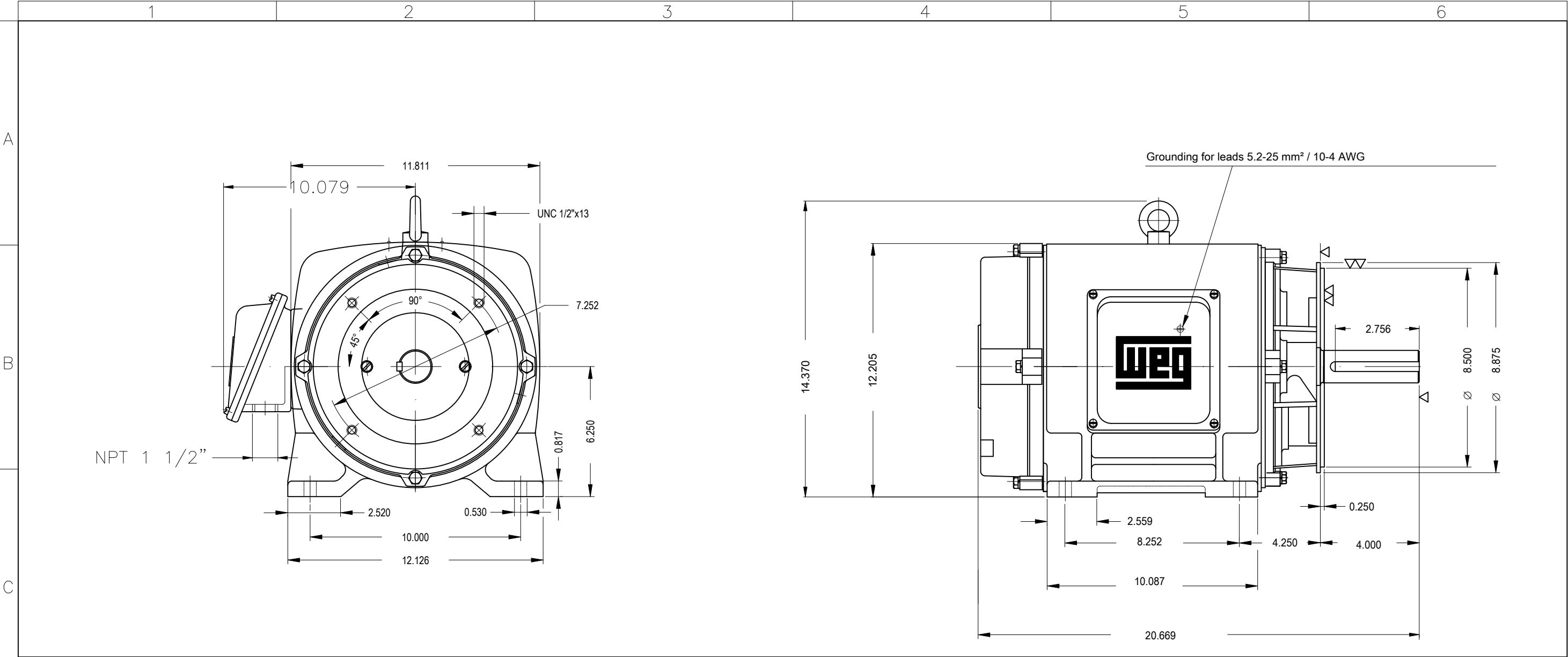
Product line : ODP High Efficiency Three-Phase Product code : 13659279



Performance : 415 V 50 Hz 2P

Rated current	: 28.7 A	Moment of inertia (J)	: 0.0338 kgm ²
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 4.97 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 2920 rpm	Design	: B

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Certification UL/FIRE PUMP		Color RAL 5009		Painting plan 203A		Mounting NEMA F-1		Mounting B34D	
20 HP		02 Poles		60 Hz		HYBRISUSER		00	
ECM		LOC		SUMMARY OF MODIFICATIONS		EXECUTED		CHECKED	
EXECUTED		HYBRISUSER		THREE PH. MOTOR GENERAL HIGH EFF.		WDD		00	
CHECKED				FRAME 254TC IP23 ODP		REL. DATE		WMO Jaragua do Sul	
RELEASED				Product Engineering		SHEET		1 / 1	
PREVIEW		WDD		00		XME		A3	