

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	20
Poles	2	2	2	2	2
Frequency [Hz]	60	50	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	86.5	87.5
	75%	90.2	87.5	87.5	87.5
	100%	90.2	86.5	86.5	87.5
Power Factor	25%				
	50%	0.74	0.77	0.71	0.66
	75%	0.83	0.85	0.81	0.78
	100%	0.86	0.87	0.85	0.83
Bearing type		Drive end	Non drive end	Foundation loads	
Sealing		: 6309 Z C3	6209 Z C3	Max. traction	: 132 kgf
Lubrication interval		: Without	Without	Max. compression	: 227 kgf
Lubricant amount		Bearing Seal	Bearing Seal		
Lubricant type		20000 h	20000 h		
		13 g	9 g		
		Mobil Polyrex EM			

Notes

Notes
USABIE @208V 53 7A SF 1 15 SFA 61 8A

This revision replaces and cancel the previous one, which must be eliminated.

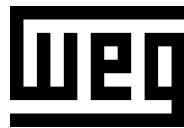
- must be eliminated.
 - (1) Looking the motor from the shaft end.
 - (2) Measured at 1m and with tolerance of +3dB(A).
 - (3) Approximate weight subject to changes after manufacturing process.
 - (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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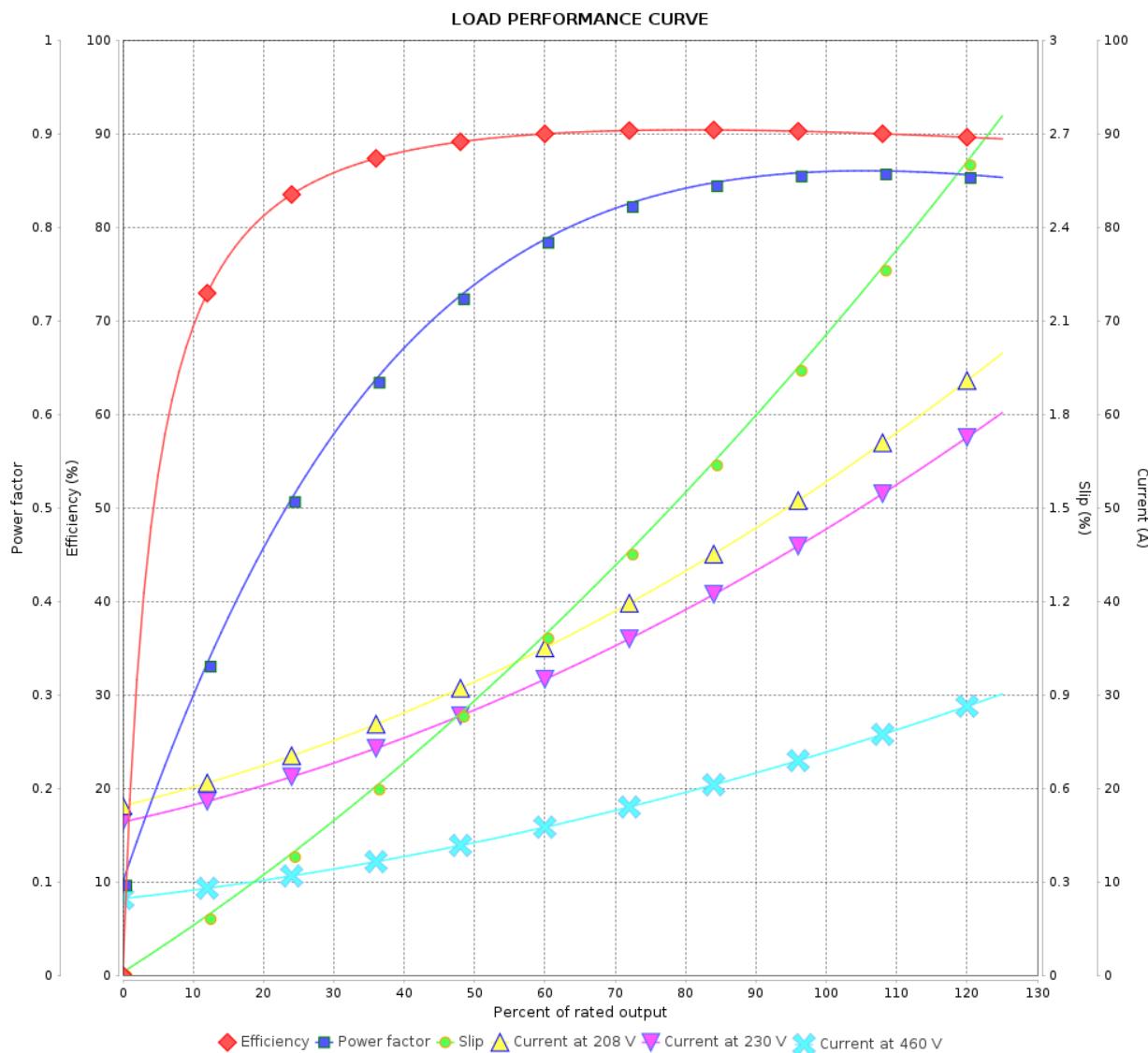
Customer :

Product line

: ODP High Efficiency Three-Phase

Product code :

13659279



Performance : 230/460 V 60 Hz 2P

Rated current LRC	: 48.6/24.3 A	Moment of inertia (J)	: 0.0338 kgm ²
Rated torque	: 4.12 kgfm	Duty cycle	: Cont.(S1)
Locked rotor torque	: 160 %	Insulation class	: F
Breakdown torque	: 250 %	Service factor	: 1.15
Rated speed	: 3525 rpm	Temperature rise	: 105 K
		Design	: B

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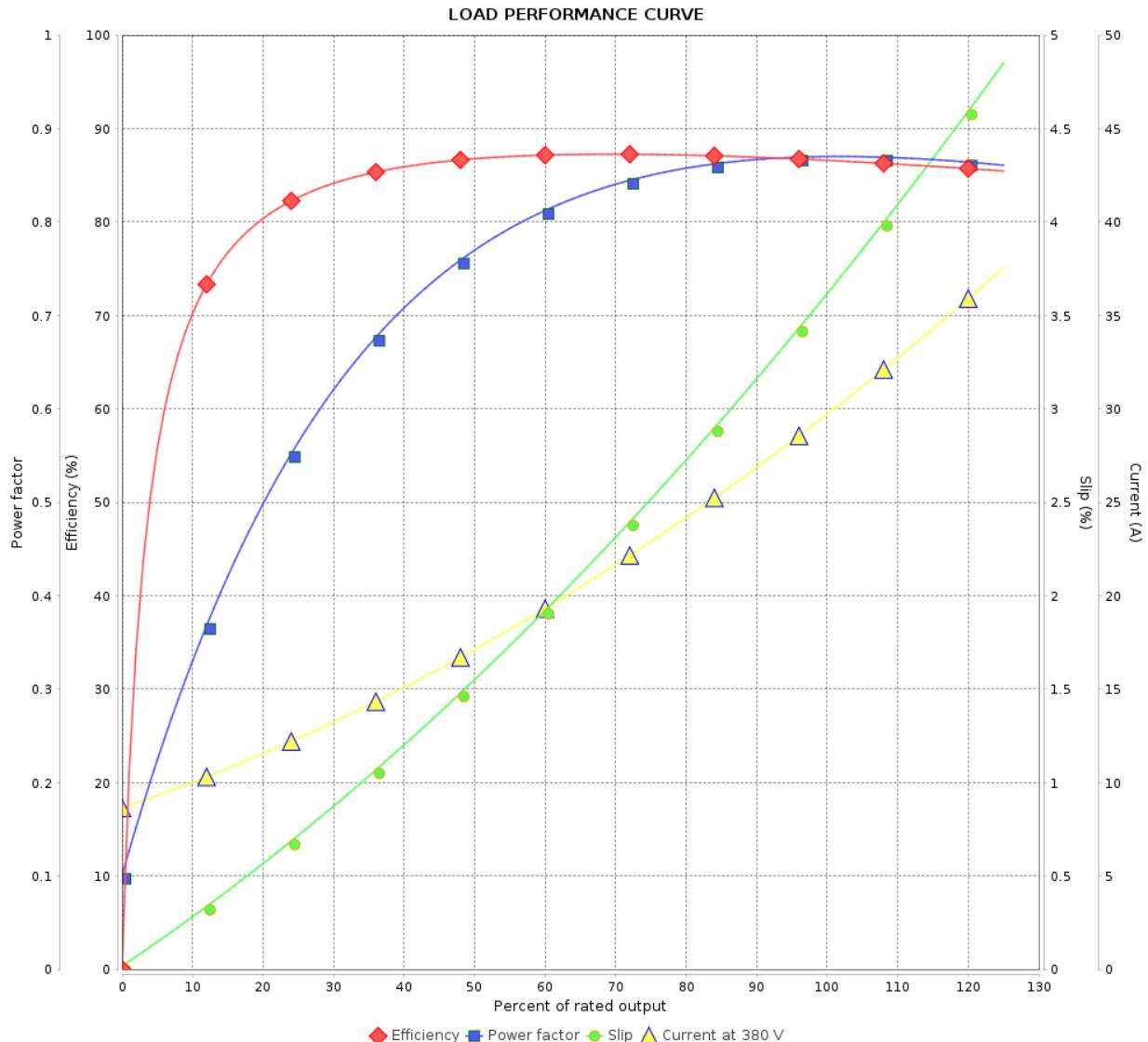
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Three Phase Induction Motor - Squirrel Cage



Customer :

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



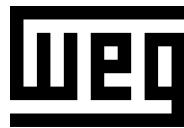
Performance : 380 V 50 Hz 2P

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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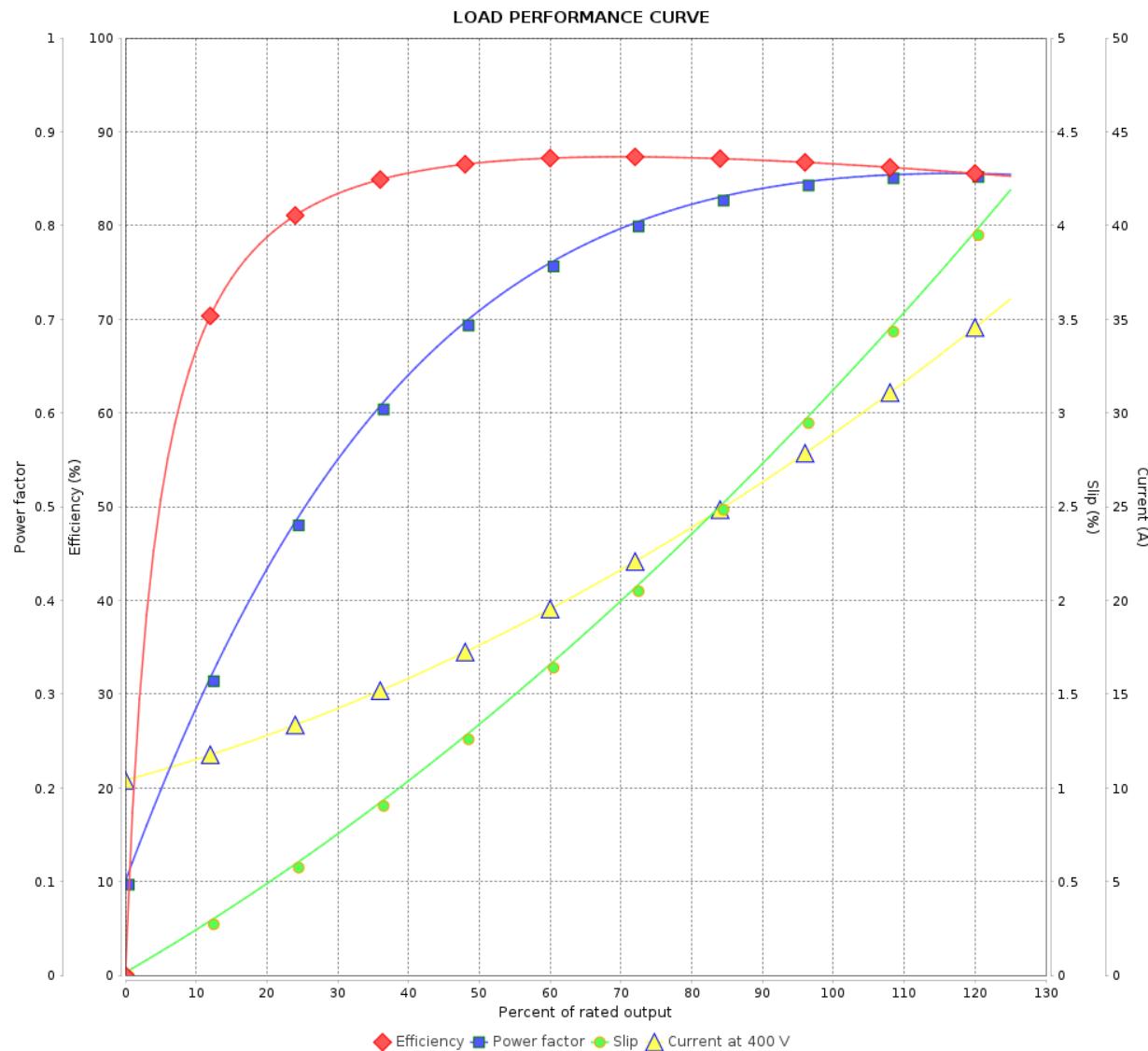
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Three Phase Induction Motor - Squirrel Cage



Customer :

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



Performance : 400 V 50 Hz 2P

Rated current	: 29.4 A	Moment of inertia (J)	: 0.0338 kgm ²
LRC	: 4.6	Duty cycle	: Cont.(S1)
Rated torque	: 5.00 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 2905 rpm	Design	: B

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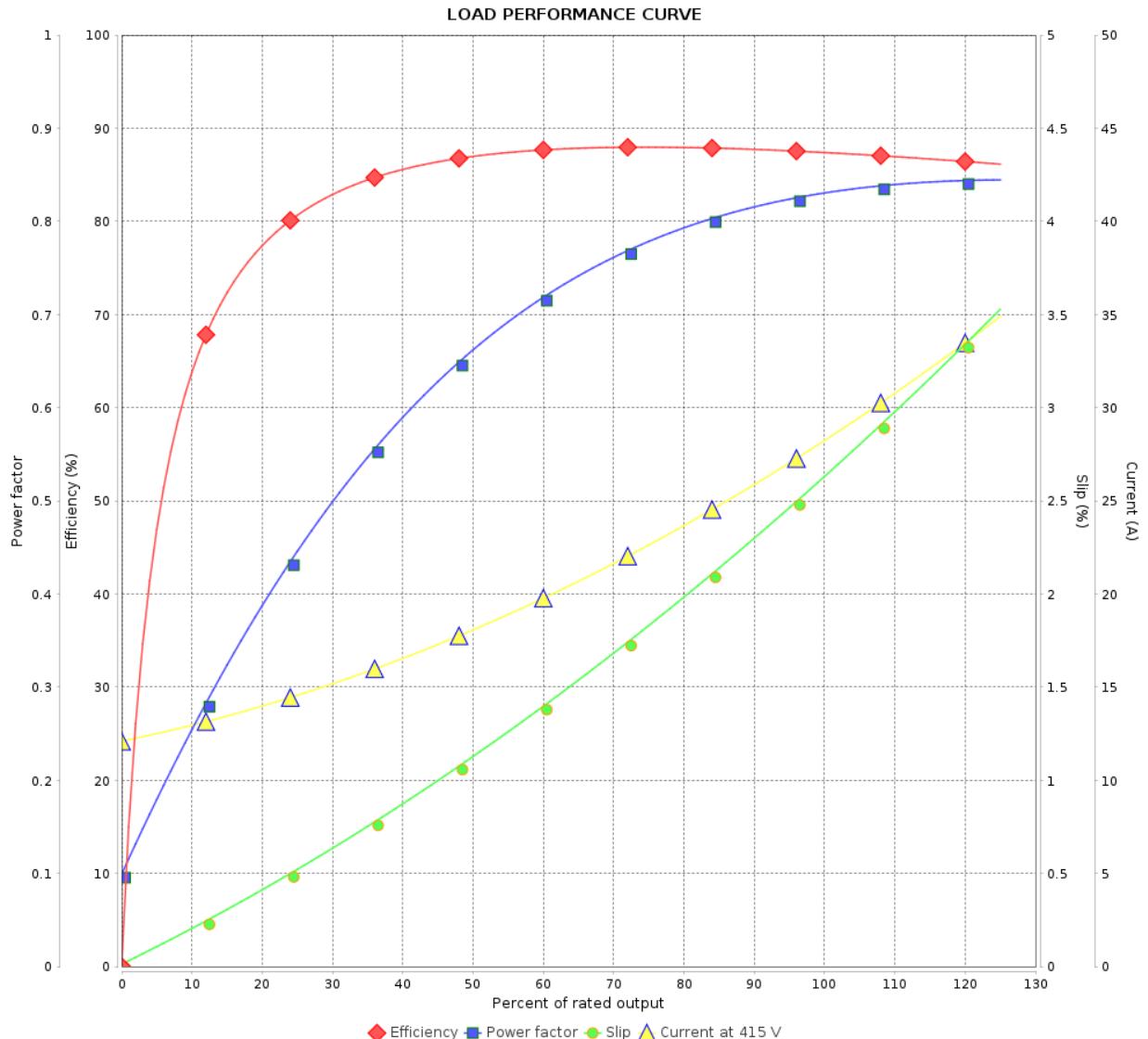
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Three Phase Induction Motor - Squirrel Cage



Customer :

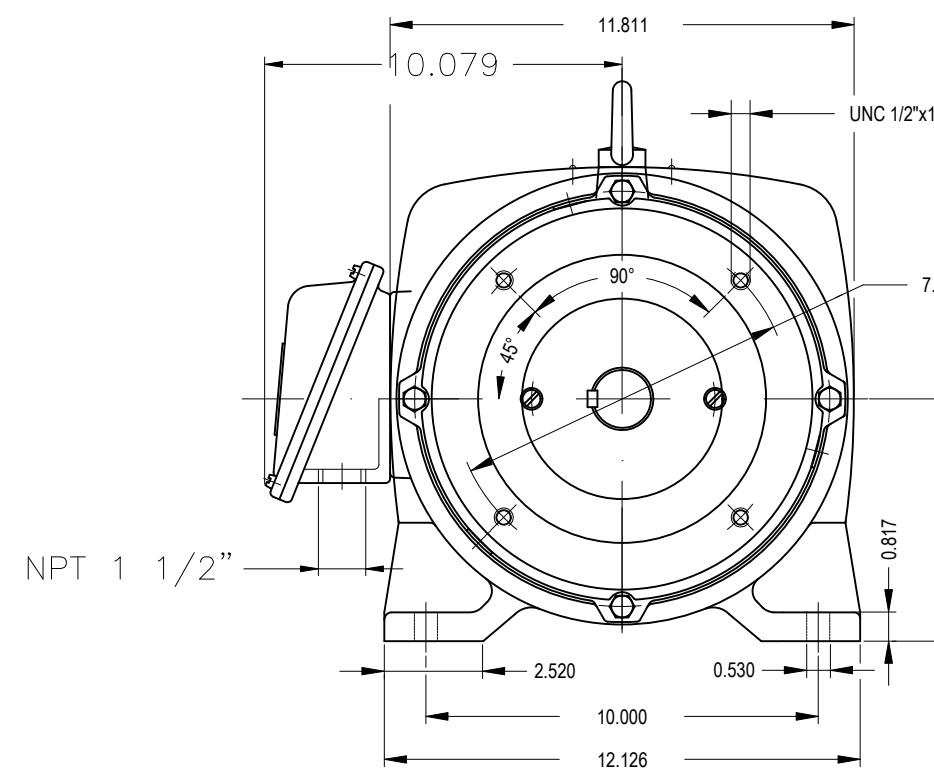
Product line : ODP High Efficiency Three-Phase Product code : 13659279



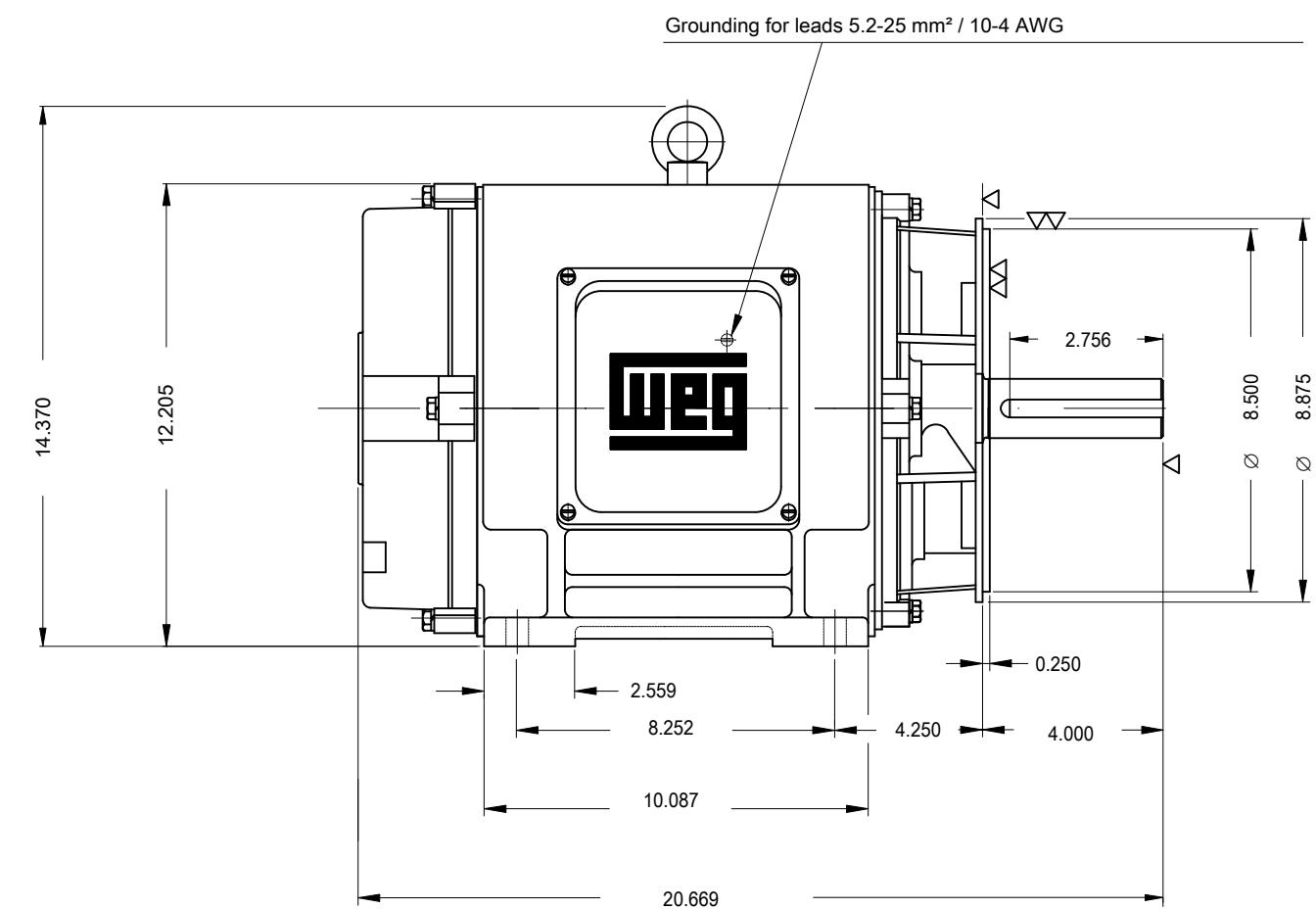
Performance		: 415 V 50 Hz 2P		
Rated current	: 28.7 A	Moment of inertia (J)	: 0.0338 kgm ²	
LRC	: 5.0	Duty cycle	: Cont.(S1)	
Rated torque	: 4.97 kgfm	Insulation class	: F	
Locked rotor torque	: 160 %	Service factor	: 1.15	
Breakdown torque	: 229 %	Temperature rise	: 105 K	
Rated speed	: 2920 rpm	Design	: B	
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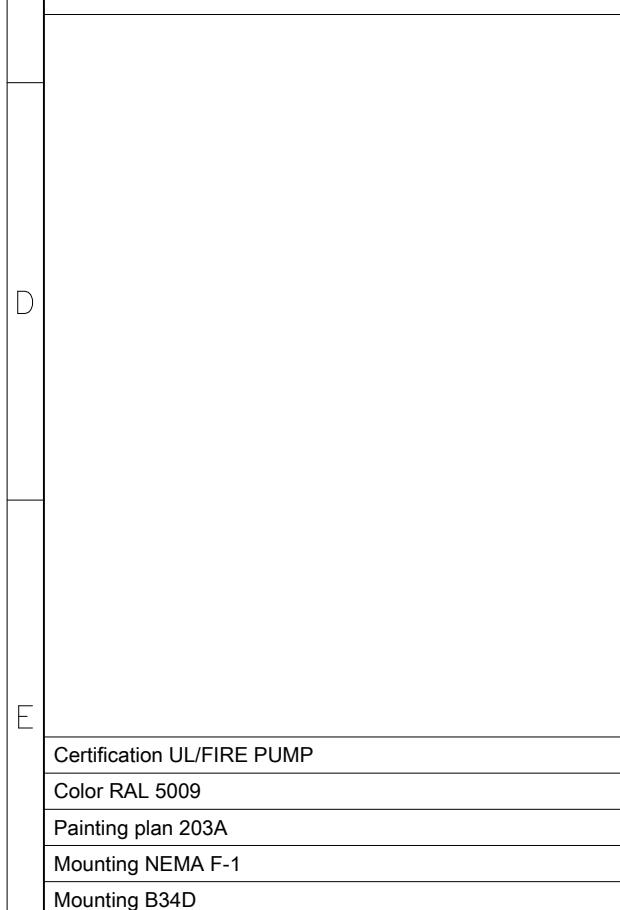
A



B



C



D

E

Certification UL/FIRE PUMP
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34D

20 HP 02 Poles 60 Hz

Dimensions in inches

HYBRISUSER		00							
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER	THREE PH. MOTOR GENERAL HIGH EFF.							
CHECKED		FRAME 254TC IP23 ODP							
RELEASED									
REL. DATE		WMO Jaragua do Sul		Product Engineering		SHEET 1 / 1			
WDD 00		PREVIEW							