

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14893856

Frame : 143/5TD	Cooling method : IC411 - TEFC
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 : 24.4 kg
Protection degree : IP55	Moment of inertia (J) : 0.0049 kgm ²
Design : B	

Output [HP]	1	1	1	1
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	2.94/1.47	1.71	1.65	1.63
L. R. Amperes [A]	25.3/12.6	10.9	11.5	12.1
LRC [A]	8.6x(Code M)	6.4x(Code J)	7.0x(Code K)	7.4x(Code K)
No load current [A]	1.88/0.940	0.930	1.00	1.08
Rated speed [RPM]	1760	1450	1455	1455
Slip [%]	2.22	3.33	3.00	3.00
Rated torque [kgfm]	0.412	0.501	0.499	0.499
Locked rotor torque [%]	290	220	240	260
Breakdown torque [%]	350	250	290	310
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%			
	50%	80.0	80.0	80.0
	75%	84.0	82.5	82.5
	100%	85.5	82.5	84.0
Power Factor	25%			
	50%	0.55	0.62	0.58
	75%	0.68	0.74	0.71
	100%	0.75	0.81	0.78

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	15.9	15.9	15.9	15.9
	P2 (0,5;1,0)	12.8	12.8	12.8	12.8
	P3 (0,25;1,0)	12.5	12.5	12.5	12.5
	P4 (0,9;0,5)	10.1	10.1	10.1	10.1
	P5 (0,5;0,5)	7.0	7.0	7.0	7.0
	P6 (0,5;0,25)	5.8	5.8	5.8	5.8
	P7 (0,25;0,25)	4.3	4.3	4.3	4.3

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 ZZ	6204 ZZ	Max. traction : 32 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 56 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
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.

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	20/10/2024			

Page 1 / 6
Revision

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Customer : _____

Notes
USABLE @208V 3.07A SF 1.15 SFA 3.54A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 6		Revision
Checked by					
Date	20/10/2024				

LOAD PERFORMANCE CURVE

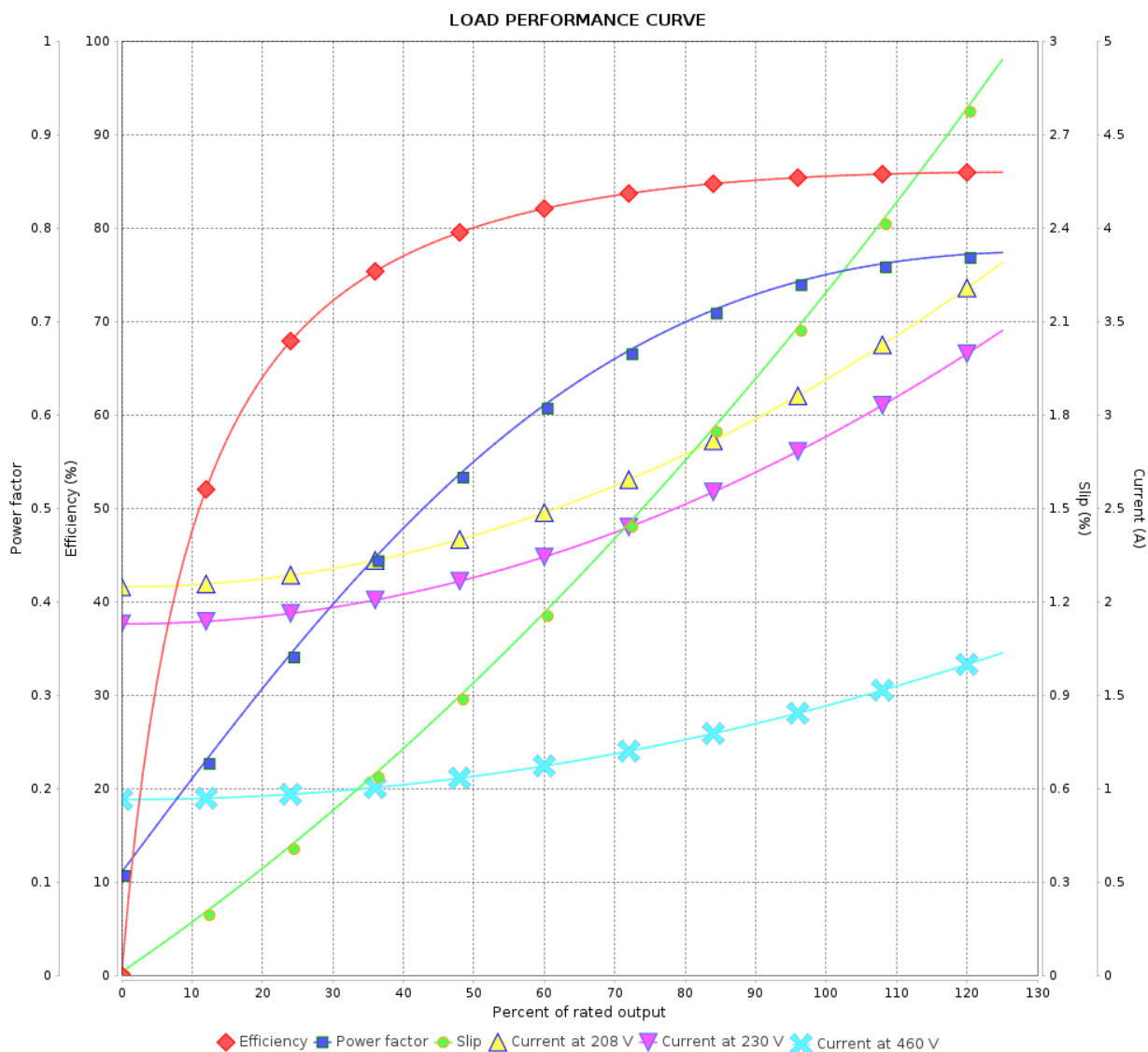
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14893856



Performance : 230/460 V 60 Hz 4P

Rated current : 2.94/1.47 A
LRC : 8.6
Rated torque : 0.412 kgfm
Locked rotor torque : 290 %
Breakdown torque : 350 %
Rated speed : 1760 rpm

Moment of inertia (J) : 0.0049 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 3 / 6Revision			
Checked by					
Date	20/10/2024				

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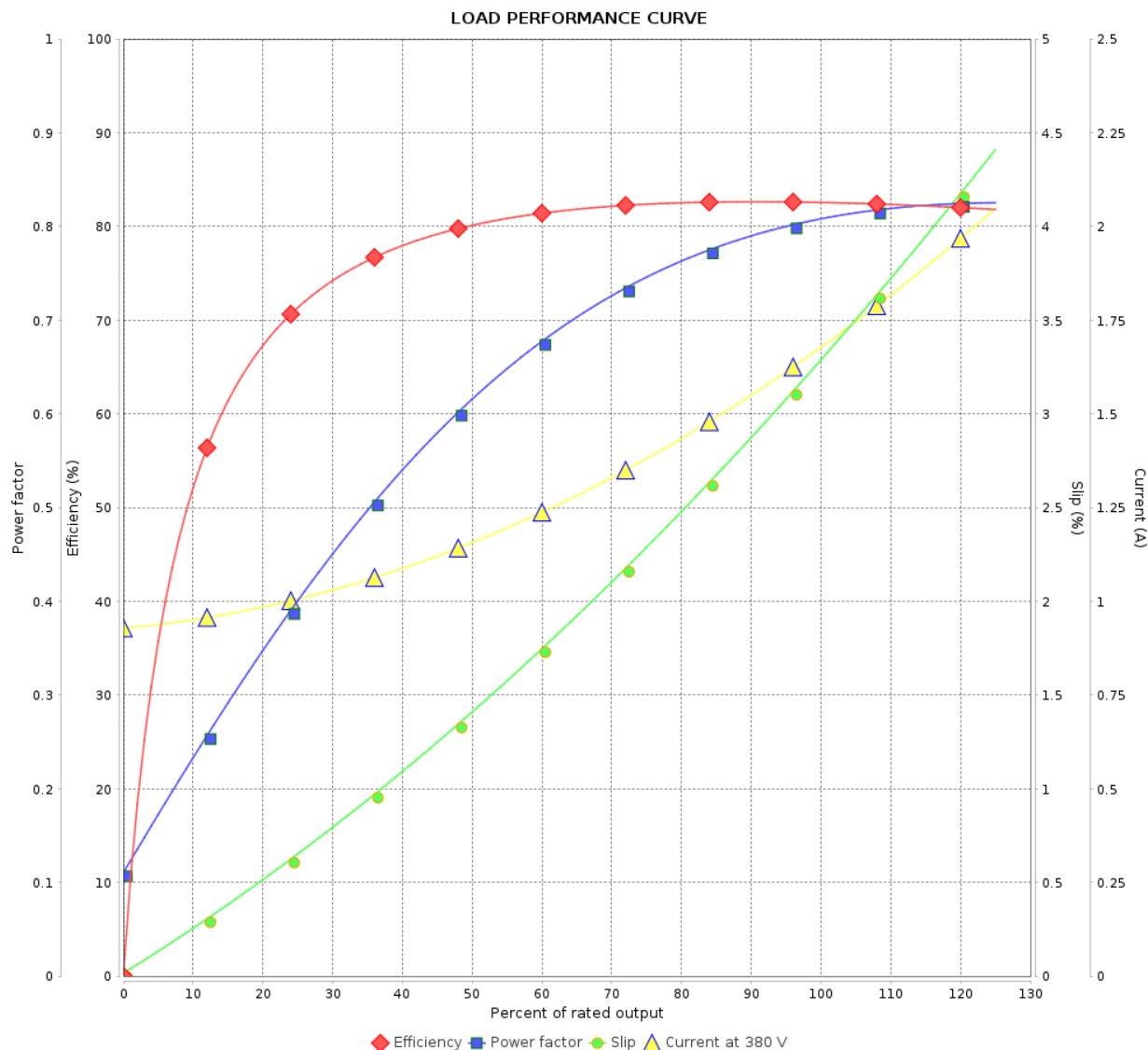
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 14893856



Performance : 380 V 50 Hz 4P IE3

Rated current : 1.71 A
LRC : 6.4
Rated torque : 0.501 kgfm
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0049 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 6	
Date					

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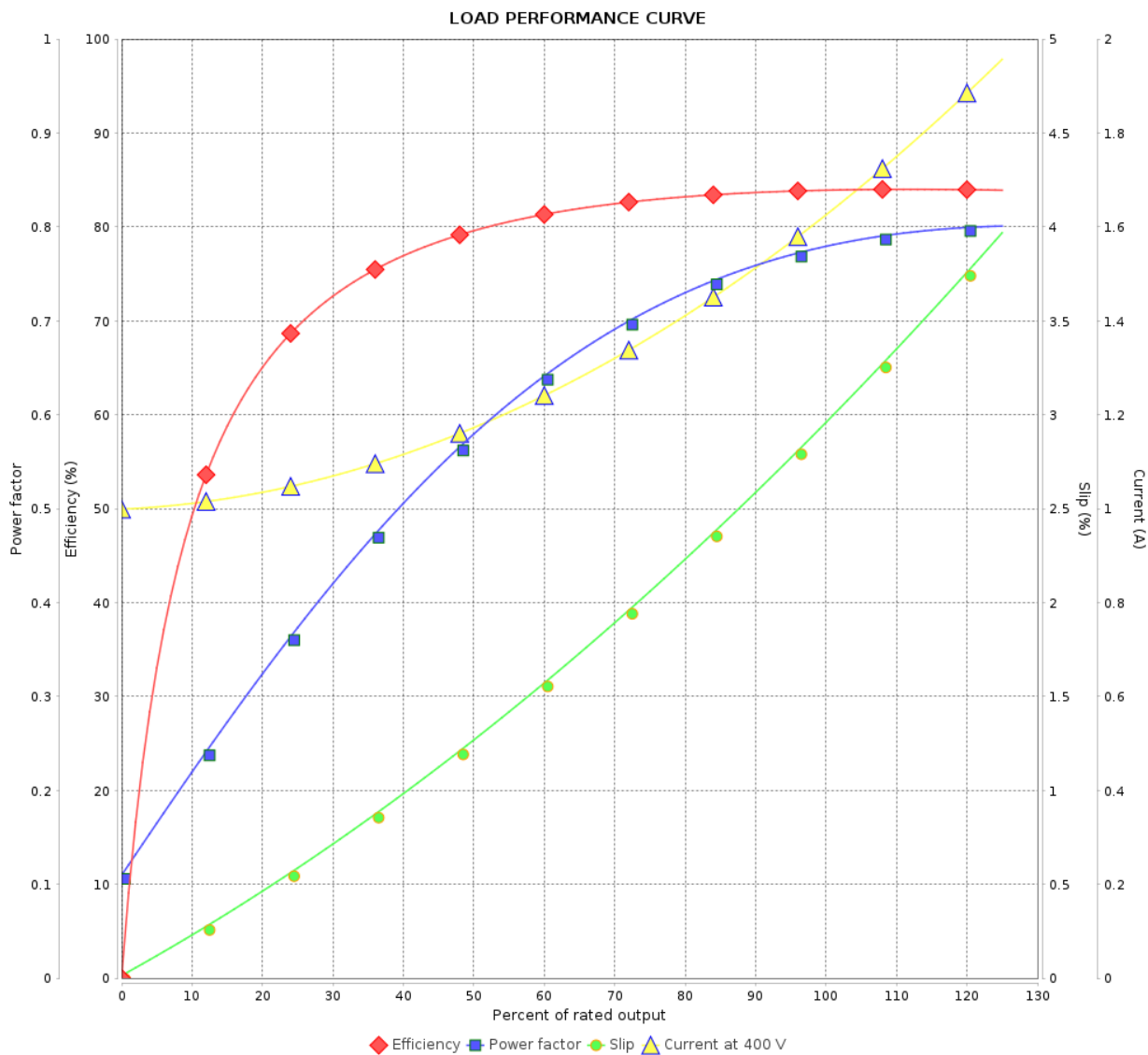
Three Phase Induction Motor - Squirrel Cage



Customer :

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Three-Phase

Product code : 14893856



Performance : 400 V 50 Hz 4P IE3

Rated current : 1.65 A
LRC : 7.0
Rated torque : 0.499 kgfm
Locked rotor torque : 240 %
Breakdown torque : 290 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0049 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 5 / 6	Revision
Checked by					
Date	20/10/2024				

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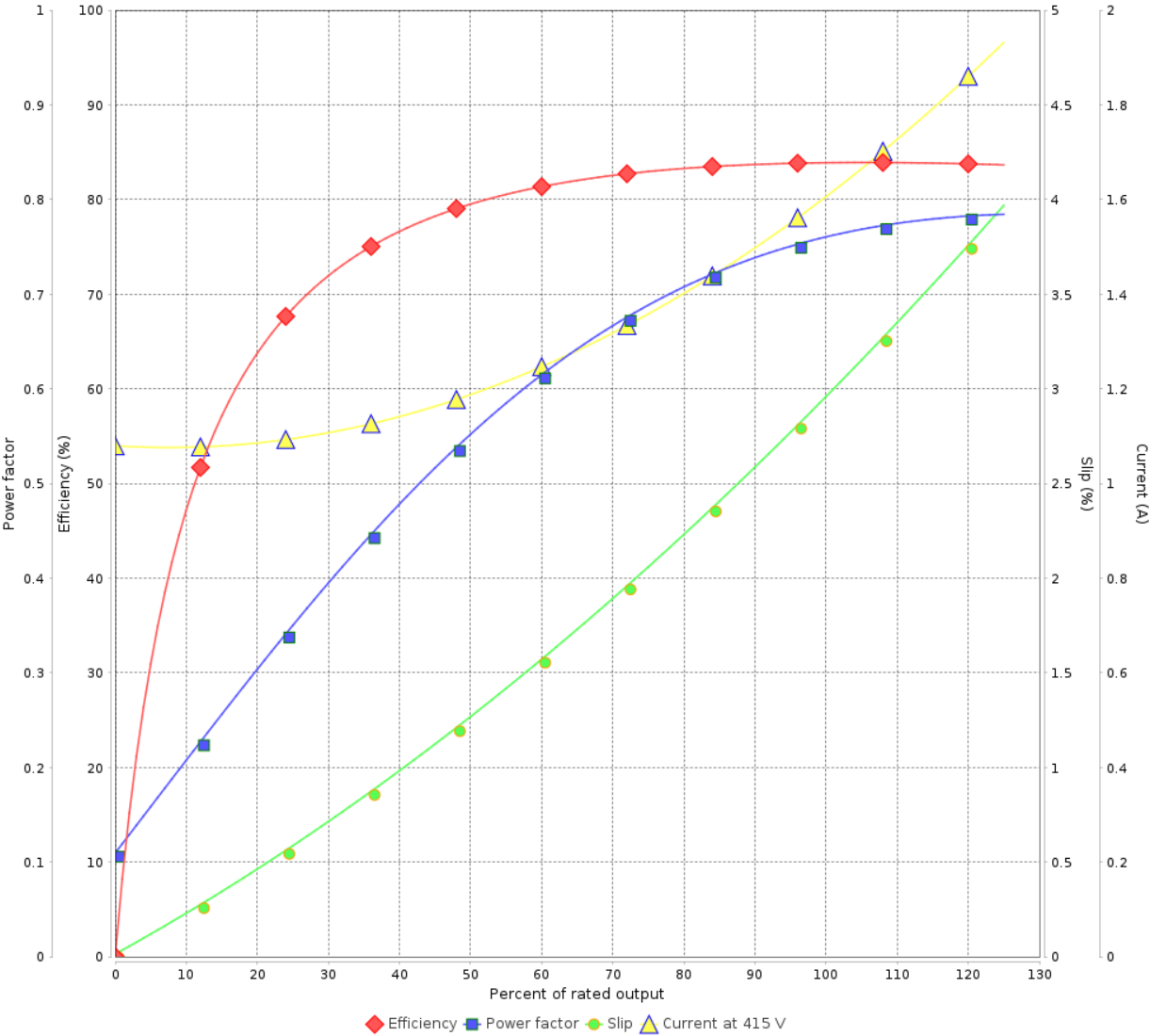
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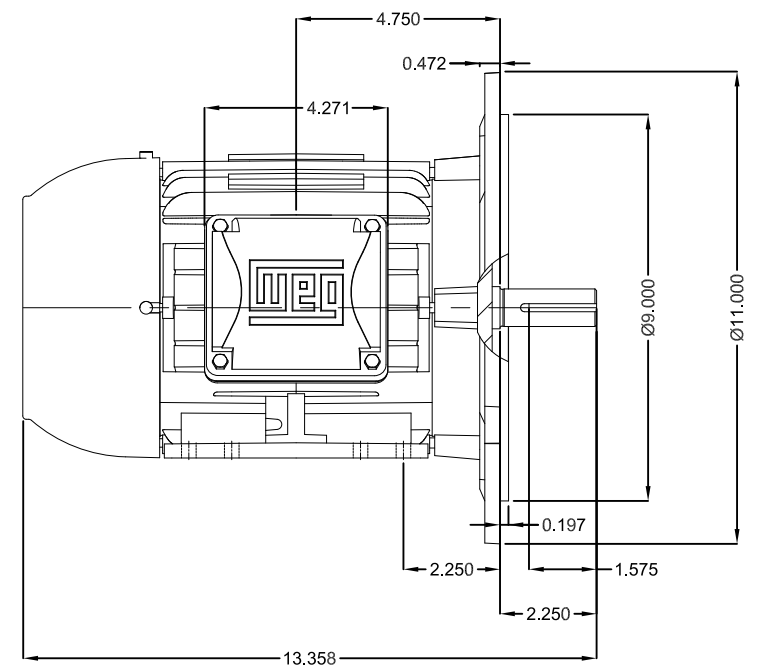
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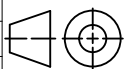
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Performance : 415 V 50 Hz 4P IE3			
Rated current	: 1.63 A	Moment of inertia (J)	: 0.0049 kgm ²
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.499 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 6 Revision		
Checked by				
Date	20/10/2024			



1 HP 04 Poles 60 Hz								A
				HYBRISUSER			00	
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER	 THREE PH. MOTOR W22 NEMA PREM. EFF. FRAME 143/5TD IP55 TEFC	PREVIEW					
CHECKED			WDD 00					
RELEASED								
REL. DATE			SHEET /					