

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12599644

Frame : 143/5TC	Cooling method : IC411 - TEFC
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> : 25.0 kg
Protection degree : IP55	Moment of inertia (J) : 0.0060 kgm <sup>2</sup>
Design : B	

Output [HP]	1.5	1.5	1.5	1.5
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	2.02	2.42	2.33	2.30
L. R. Amperes [A]	17.0	15.5	16.3	17.0
LRC [A]	8.4x(Code L)	6.4x(Code J)	7.0x(Code K)	7.4x(Code K)
No load current [A]	1.10	1.10	1.20	1.30
Rated speed [RPM]	1755	1440	1445	1450
Slip [%]	2.50	4.00	3.67	3.33
Rated torque [kgfm]	0.620	0.756	0.751	0.751
Locked rotor torque [%]	290	220	250	280
Breakdown torque [%]	350	250	290	320
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%			
	50%	82.5	82.5	81.0
	75%	85.5	84.0	84.0
	100%	86.5	84.1	84.1
Power Factor	25%			
	50%	0.60	0.67	0.60
	75%	0.70	0.76	0.70
	100%	0.79	0.82	0.79

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

Losses (%)	P1 (0,9;1,0)	14.6	14.6	14.6	14.6
	P2 (0,5;1,0)	12.1	12.1	12.1	12.1
	P3 (0,25;1,0)	12.2	12.2	12.2	12.2
	P4 (0,9;0,5)	8.2	8.2	8.2	8.2
	P5 (0,5;0,5)	5.7	5.7	5.7	5.7
	P6 (0,5;0,25)	4.3	4.3	4.3	4.3
	P7 (0,25;0,25)	3.2	3.2	3.2	3.2

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 C3	6204 C3	Max. traction : 56 kgf
Sealing :	Taconite	Taconite	Max. compression : 81 kgf
	Labyrinth	Labyrinth	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	4 g	4 g	
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).

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	22/10/2024			

Page 1 / 6  
Revision

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## Three Phase Induction Motor - Squirrel Cage



Customer :

Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	22/10/2024				
			2 / 6		

# LOAD PERFORMANCE CURVE

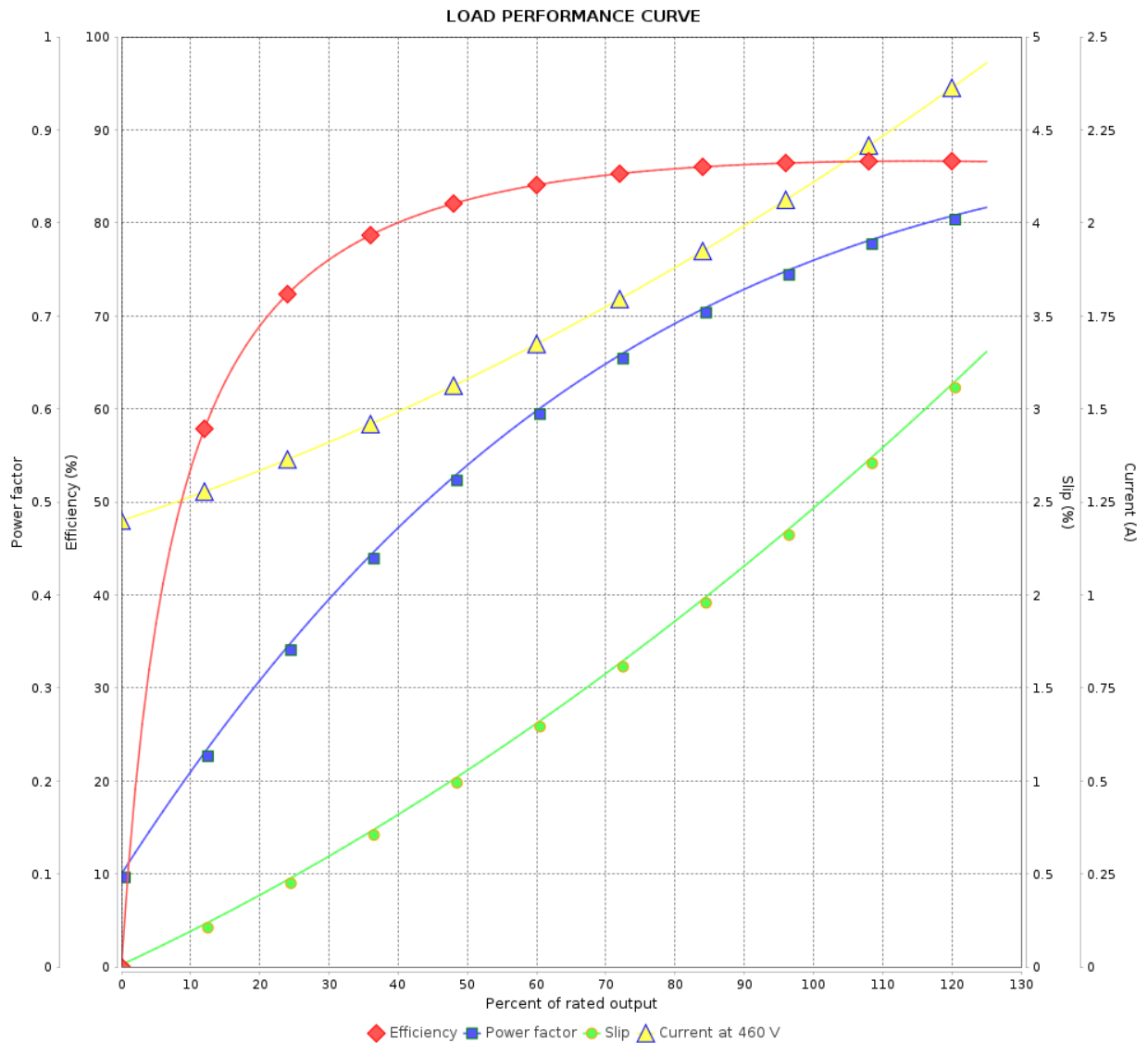
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium  
Efficiency Three-Phase

Product code : 12599644



Performance : 460 V 60 Hz 4P

Rated current : 2.02 A  
LRC : 8.4  
Rated torque : 0.620 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 350 %  
Rated speed : 1755 rpm

Moment of inertia (J) : 0.0060 kgm<sup>2</sup>  
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	22/10/2024			

# LOAD PERFORMANCE CURVE

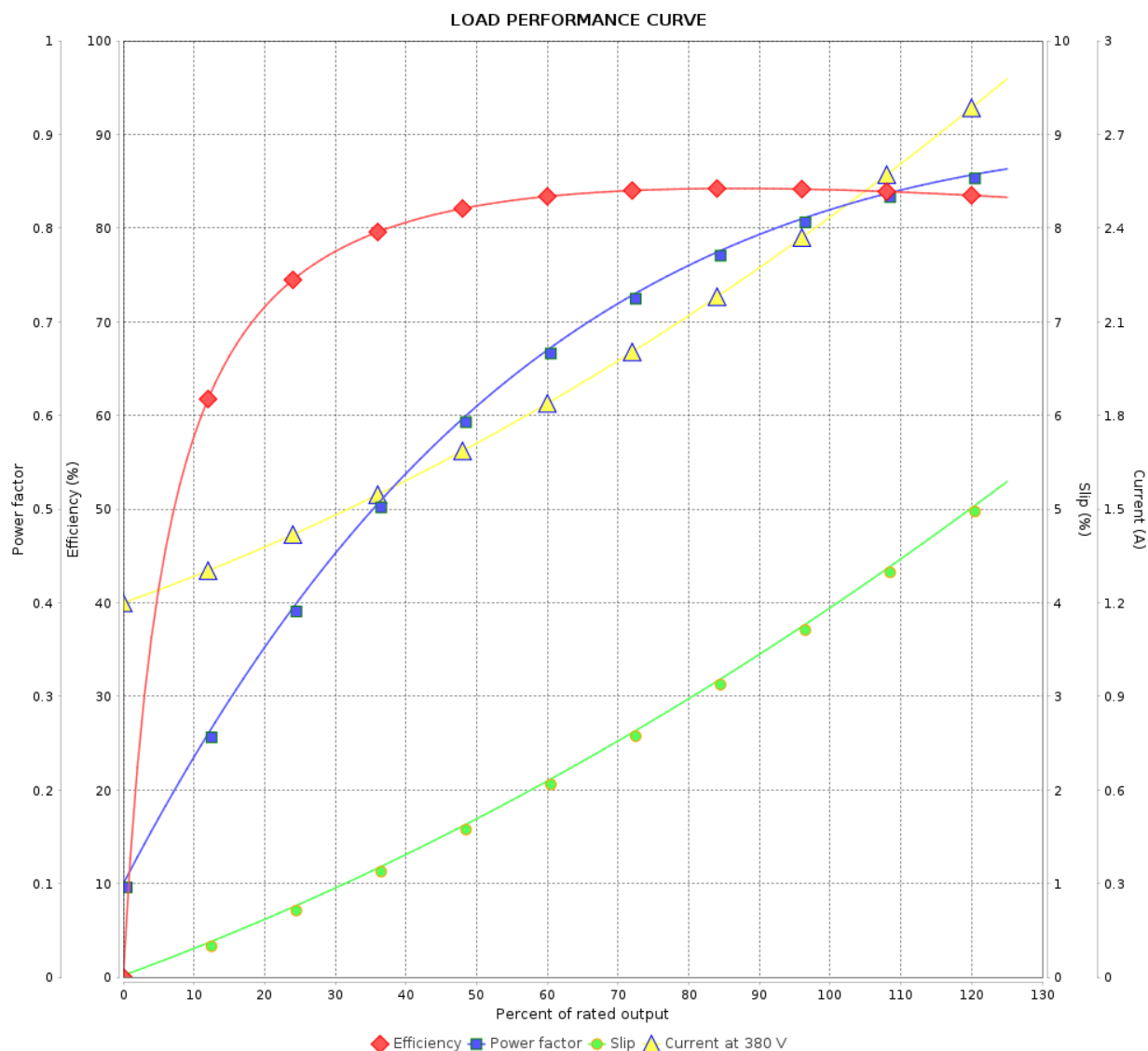
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium  
Efficiency Three-Phase

Product code : 12599644



Performance : 380 V 50 Hz 4P IE3

Rated current : 2.42 A  
LRC : 6.4  
Rated torque : 0.756 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 250 %  
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0060 kgm<sup>2</sup>  
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 4 / 6Revision	
Checked by					
Date	22/10/2024				

# LOAD PERFORMANCE CURVE

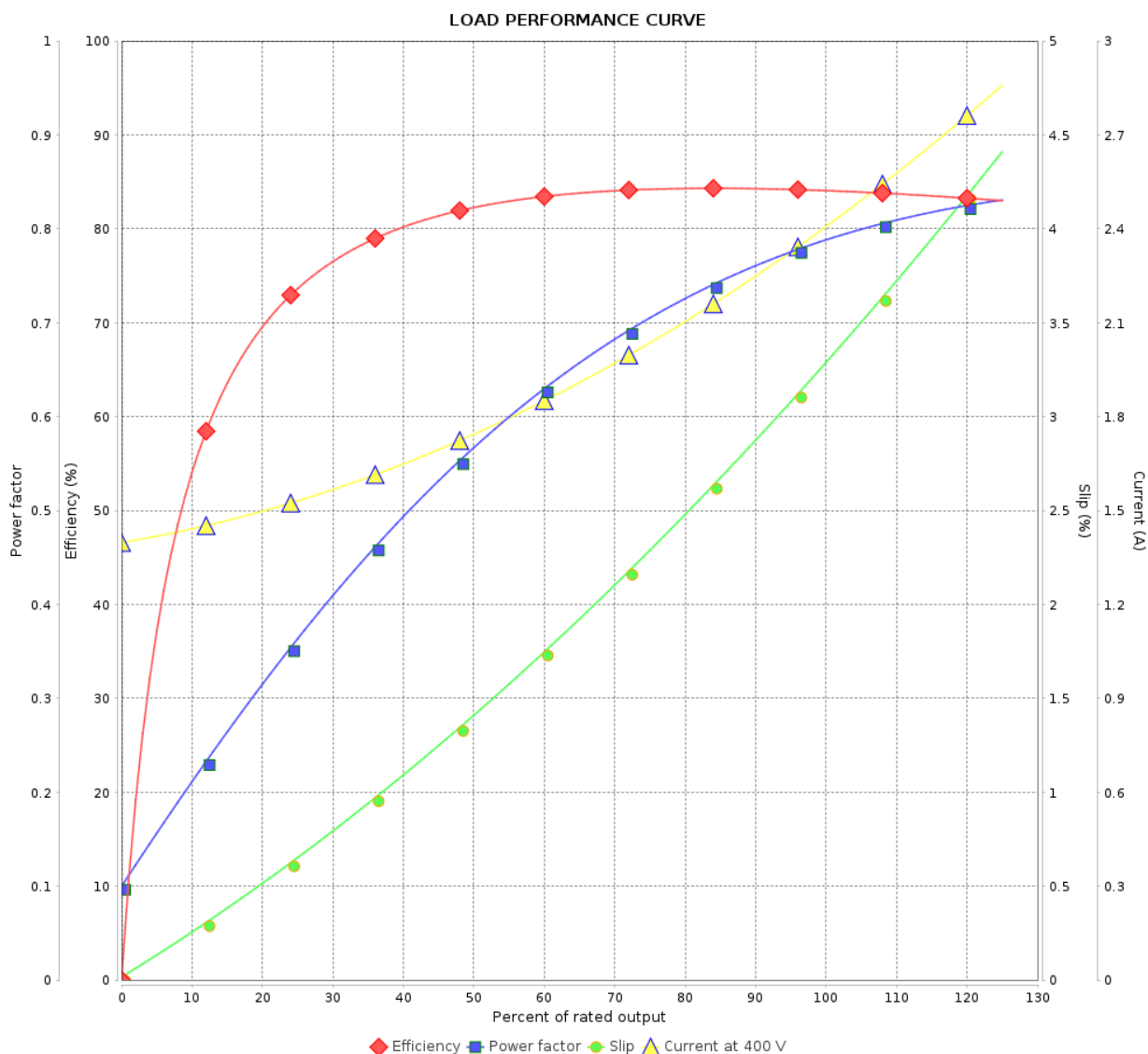
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium  
Efficiency Three-Phase

Product code : 12599644



Performance : 400 V 50 Hz 4P IE3

Rated current : 2.33 A  
LRC : 7.0  
Rated torque : 0.751 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 290 %  
Rated speed : 1445 rpm

Moment of inertia (J) : 0.0060 kgm<sup>2</sup>  
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	22/10/2024				

# LOAD PERFORMANCE CURVE

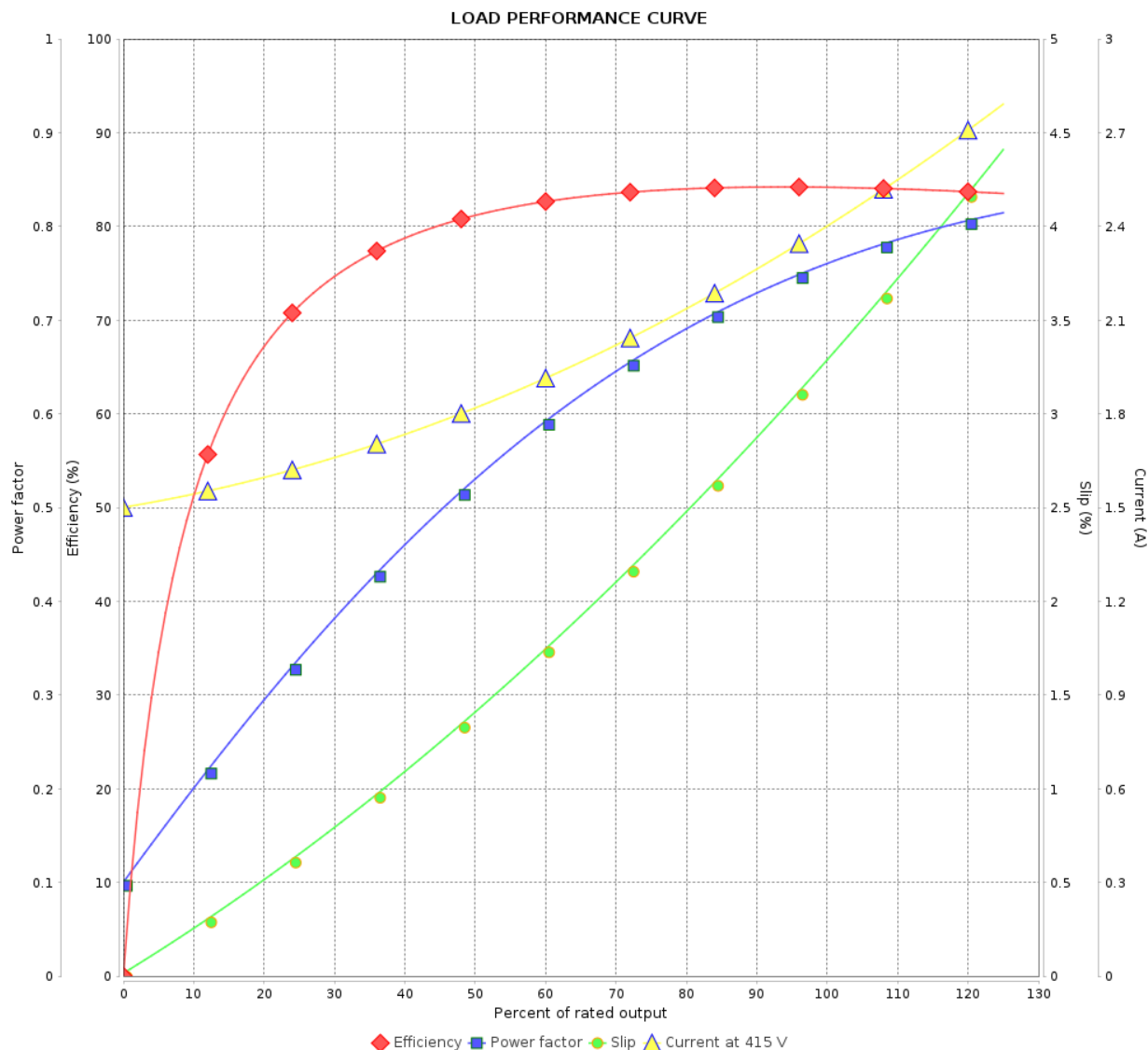
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Product code : 12599644

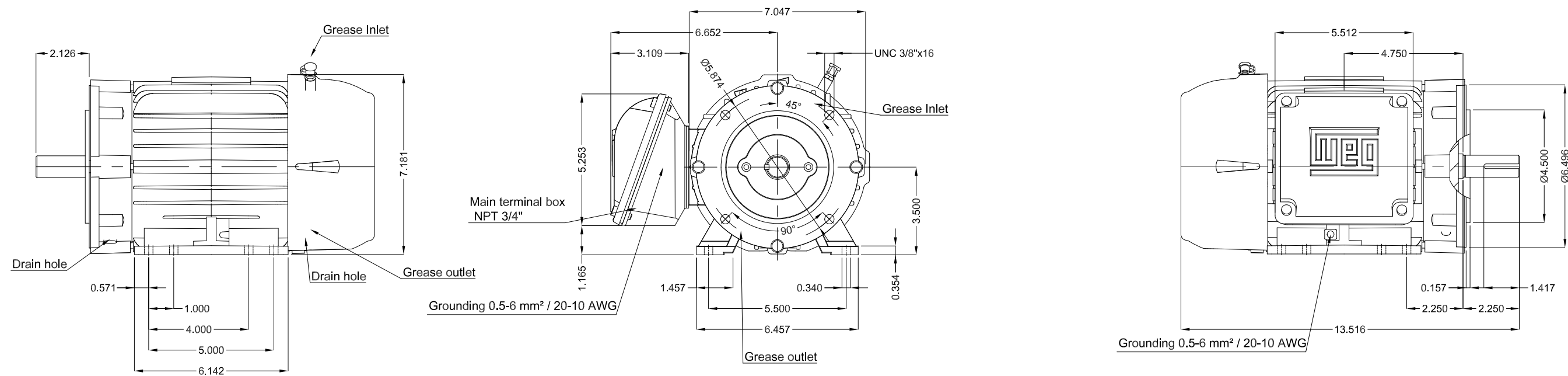


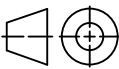

Performance : 415 V 50 Hz 4P IE3

Rated current : 2.30 A  
LRC : 7.4  
Rated torque : 0.751 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 320 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0060 kgm<sup>2</sup>  
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 6 / 6Revision		
Checked by				
Date	22/10/2024			



1.5 HP 04 Poles 60 Hz										A
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ECM		LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 143/5TC IP55 TEFC			<div>PREVIEW</div> <div>WDD   00</div>				
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REL. DATE										
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