

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 13485038

Frame	: 447/9TSD	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	: 939 kg
Protection degree	: IP23	Moment of inertia (J)	: 1.65 kgm ²
Design	: B		

Output [HP]	400	400	400	400
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	443	536	512	499
L. R. Amperes [A]	2658	2841	3021	3194
LRC [A]	6.0x(Code F)	5.3x(Code E)	5.9x(Code F)	6.4x(Code G)
No load current [A]	100	95.0	108	118
Rated speed [RPM]	3565	2955	2960	2965
Slip [%]	0.97	1.50	1.33	1.17
Rated torque [kgfm]	81.4	98.2	98.1	97.9
Locked rotor torque [%]	150	120	130	140
Breakdown torque [%]	229	190	200	220
Service factor	1.15	1.15	1.15	1.15
Temperature rise	80 K	105 K	105 K	80 K
Locked rotor time	25s (cold) 14s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	85.0 dB(A)			
Efficiency (%)	25%			
	50%	95.0	95.0	95.0
	75%	95.4	95.0	95.0
	100%	95.4	94.5	95.0
Power Factor	25%			
	50%	0.83	0.85	0.83
	75%	0.88	0.89	0.88
	100%	0.89	0.90	0.89

Bearing type	: Drive end	: Non drive end	Foundation loads
	: 6314 C3	: 6314 C3	
Sealing	: Without	: Without	Max. compression : 2354 kgf
	: Bearing Seal	: Bearing Seal	
Lubrication interval	: 14418 h	: 14418 h	
Lubricant amount	: 27 g	: 27 g	
Lubricant type	: Mobil Polyrex EM		

Notes

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	19/10/2024		1 / 6	

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Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	19/10/2024		2 / 6	

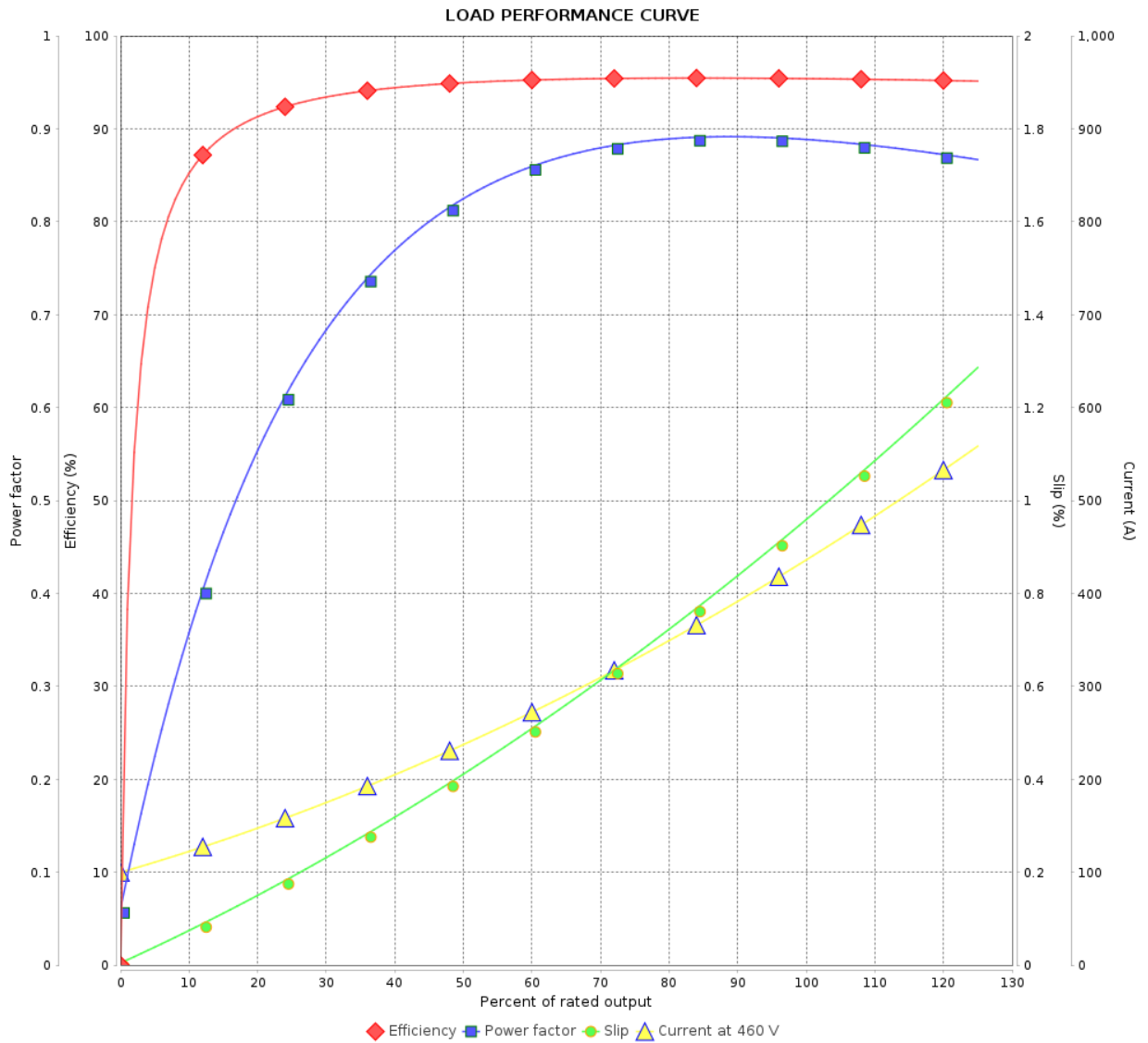
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 13485038



Performance : 460 V 60 Hz 2P

Rated current : 443 A
 LRC : 6.0
 Rated torque : 81.4 kgfm
 Locked rotor torque : 150 %
 Breakdown torque : 229 %
 Rated speed : 3565 rpm

Moment of inertia (J) : 1.65 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

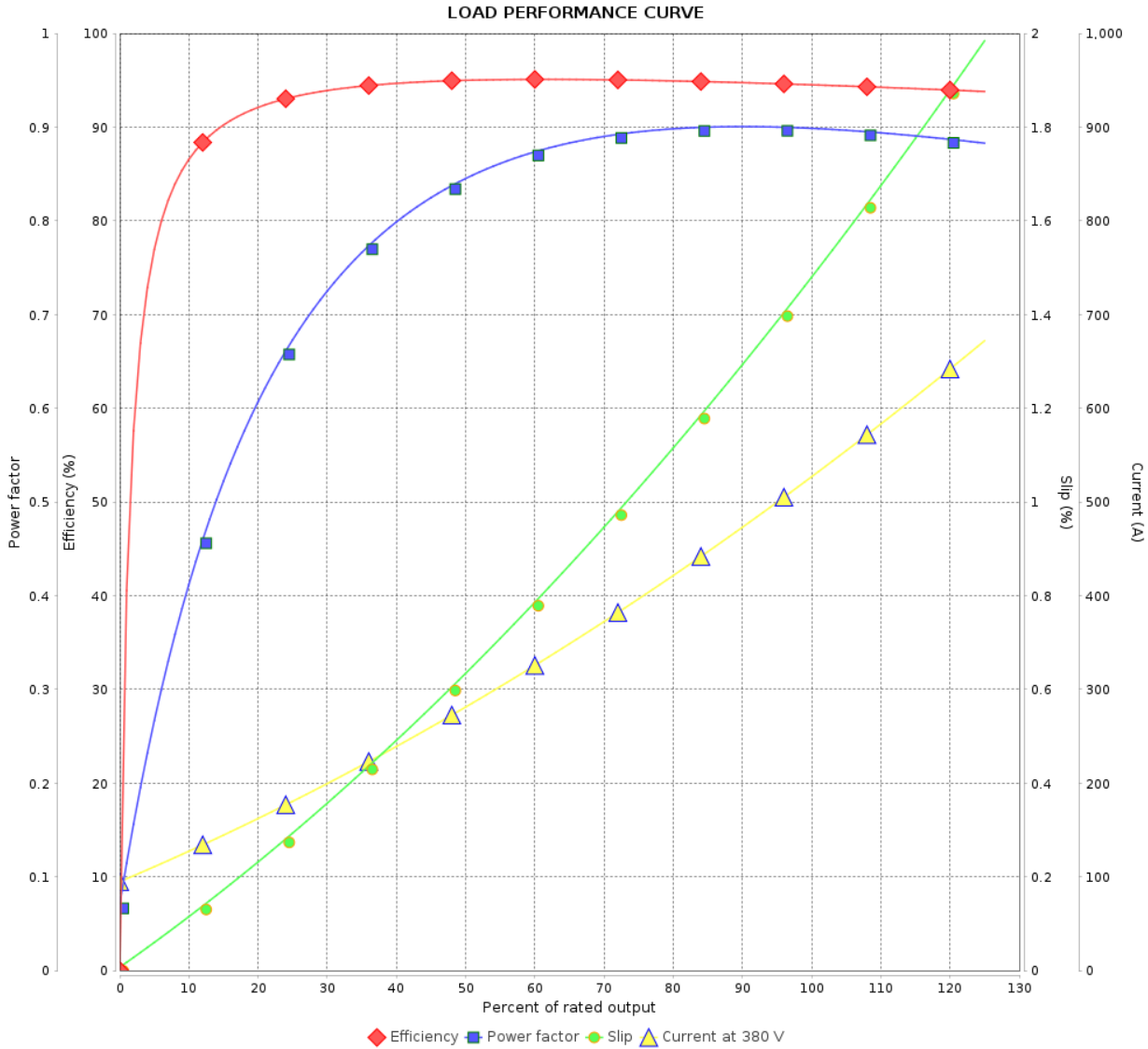
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Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W40 High Efficiency Three-Phase Product code : 13485038



Performance : 380 V 50 Hz 2P IE1

Rated current	: 536 A	Moment of inertia (J)	: 1.65 kgm ²
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 98.2 kgfm	Insulation class	: F
Locked rotor torque	: 120 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 105 K
Rated speed	: 2955 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 6	Revision
Checked by				
Date	19/10/2024			

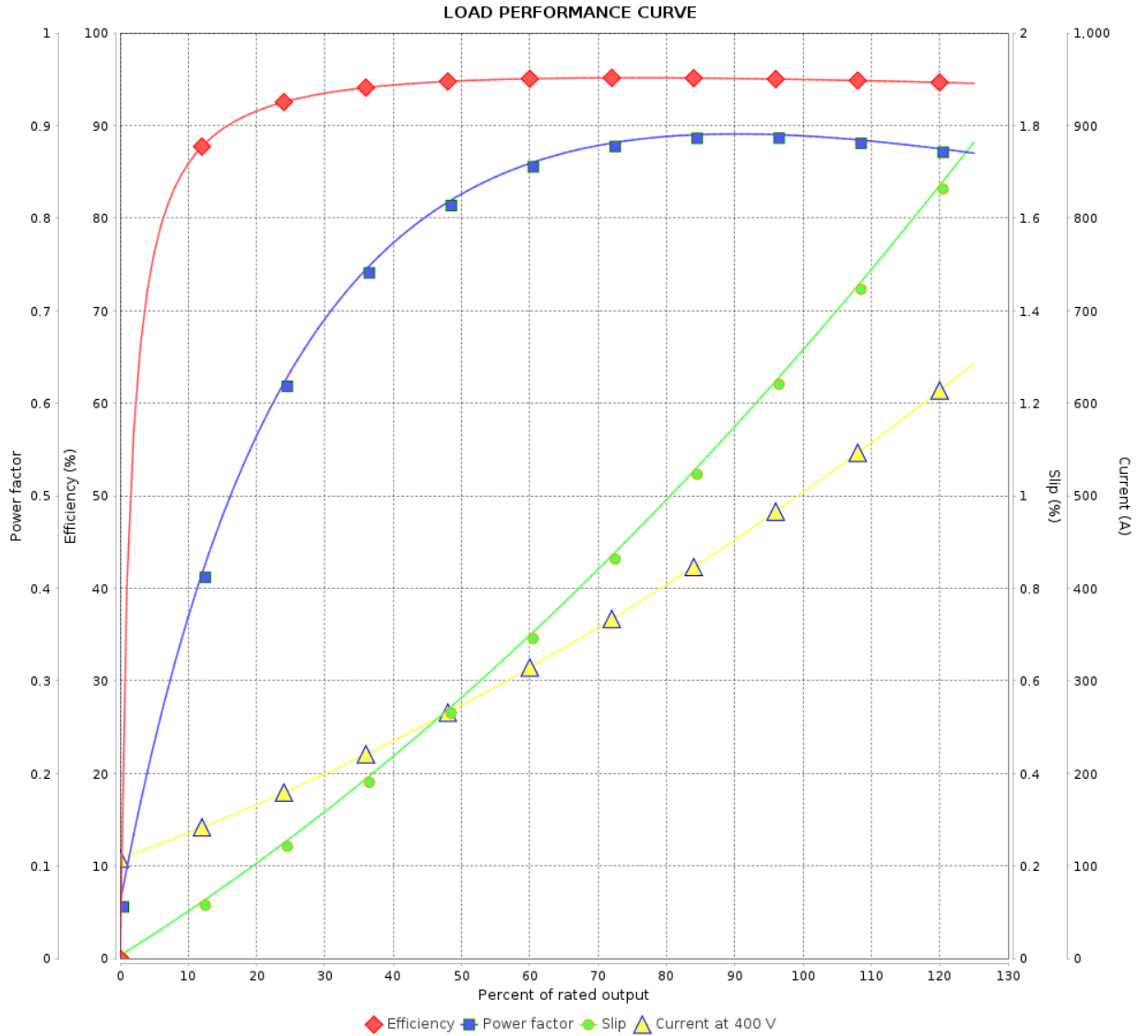
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 13485038



Performance : 400 V 50 Hz 2P IE2

Rated current : 512 A
 LRC : 5.9
 Rated torque : 98.1 kgfm
 Locked rotor torque : 130 %
 Breakdown torque : 200 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 1.65 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				
Date				

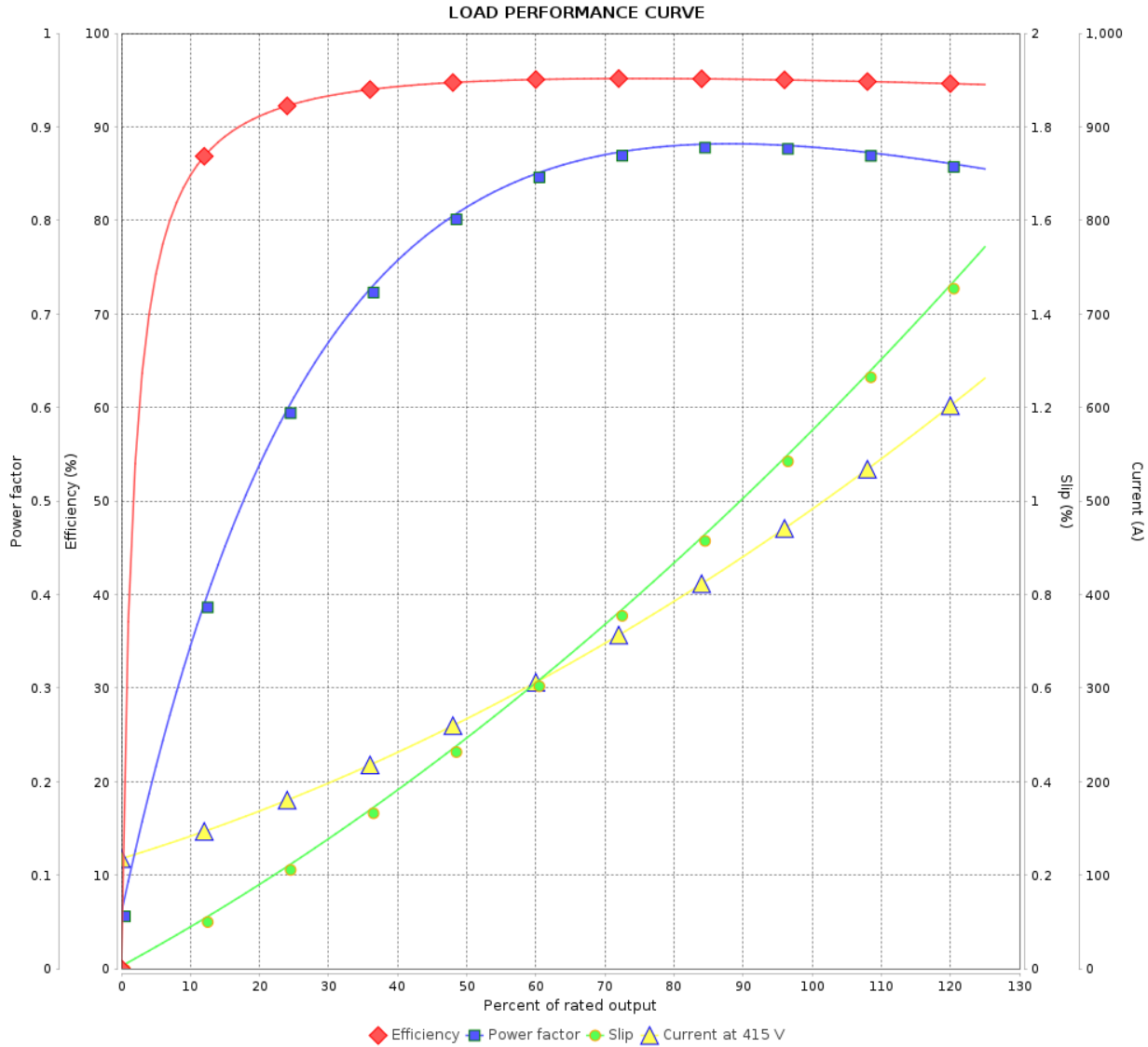
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Three Phase Induction Motor - Squirrel Cage



Customer :

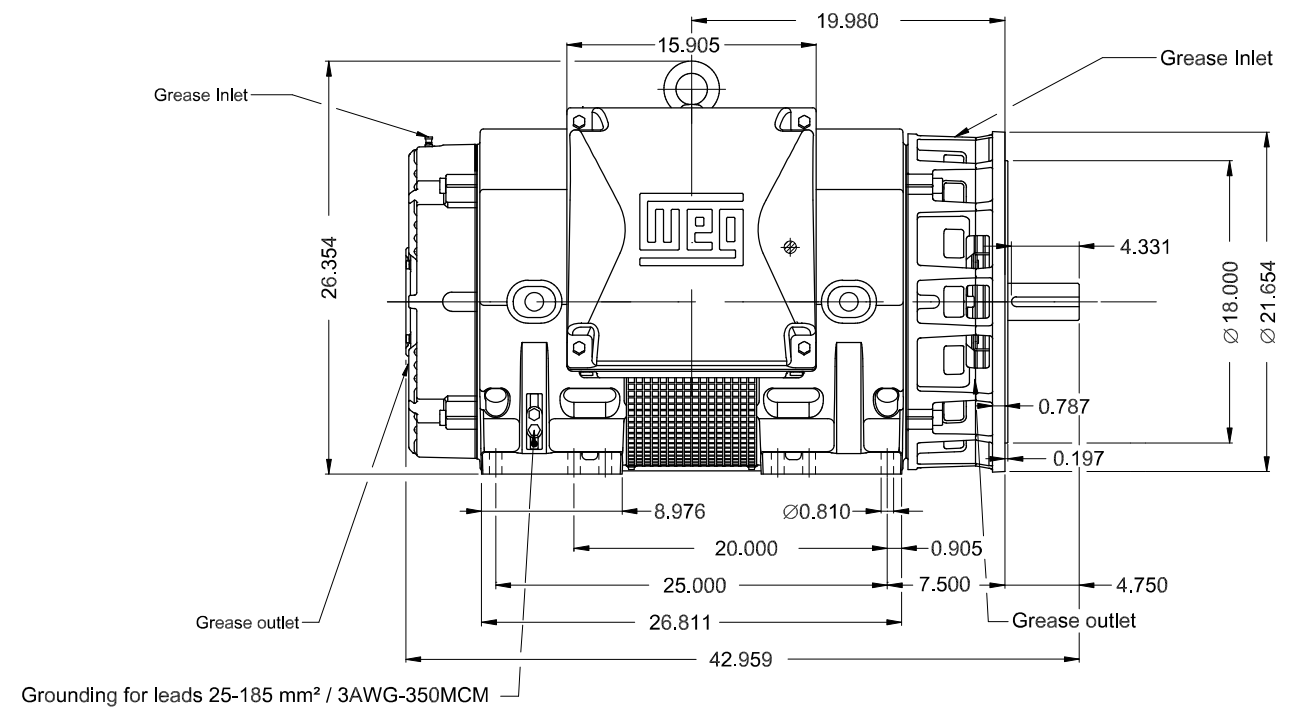
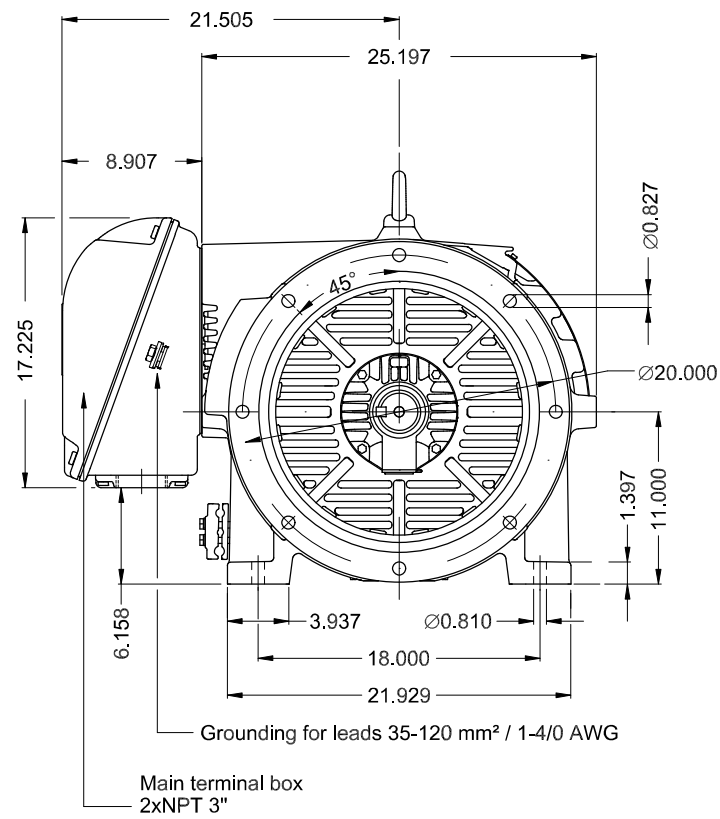
Product line : W40 High Efficiency Three-Phase Product code : 13485038



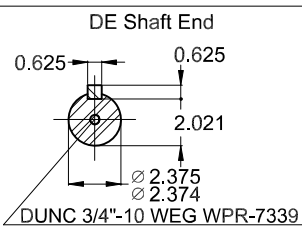
Performance : 415 V 50 Hz 2P IE2

Rated current	: 499 A	Moment of inertia (J)	: 1.65 kgm ²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 97.9 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	19/10/2024			



Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B35R(D)



400 HP 02 Poles 60 Hz

Dimensions in inches

XME A3

						HYBRISUSER				00	
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER	THREE PH. MOTOR W40 HIGH EFF. FRAME 447/9TSD IP23 ODP				PREVIEW				WDD 00	
CHECKED						WDD		00		SHEET 1 / 1	
RELEASED						WMO		Jaragua do Sul		Product Engineering	
REL. DATE											