

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	13482985	
Catalog # :	02036OT3E254JMV-S	
Frame	: 254/6JM	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: W-6	
Rotation ¹	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight ²	: 176 lb	
Moment of inertia (J)	: 0.7848 sq.ft.lb	
Output [HP]	20	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	47.6/23.8	
L. R. Amperes [A]	286/143	
LRC [A]	6.0x(Code G)	
No load current [A]	17.0/8.50	
Rated speed [RPM]	3525	
Slip [%]	2.08	
Rated torque [ft.lb]	29.8	
Locked rotor torque [%]	180	
Breakdown torque [%]	240	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	23s (cold) 13s (hot)	
Noise level ²	70.0 dB(A)	
Efficiency (%)	25%	90.0
	50%	90.2
	75%	91.0
	100%	91.0
Power Factor	25%	0.49
	50%	0.76
	75%	0.83
	100%	0.87
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	
Sealing	: Without Without	
	: Bearing Seal Bearing Seal	
Lubrication interval	: 15797 h 20000 h	
Lubricant amount	: 13 g 8 g	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 276 lb	
	Max. compression : 452 lb	
Notes USABLE @208V 52.6A SF 1.00 SFA 52.6A		
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.		
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14/04/2022		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



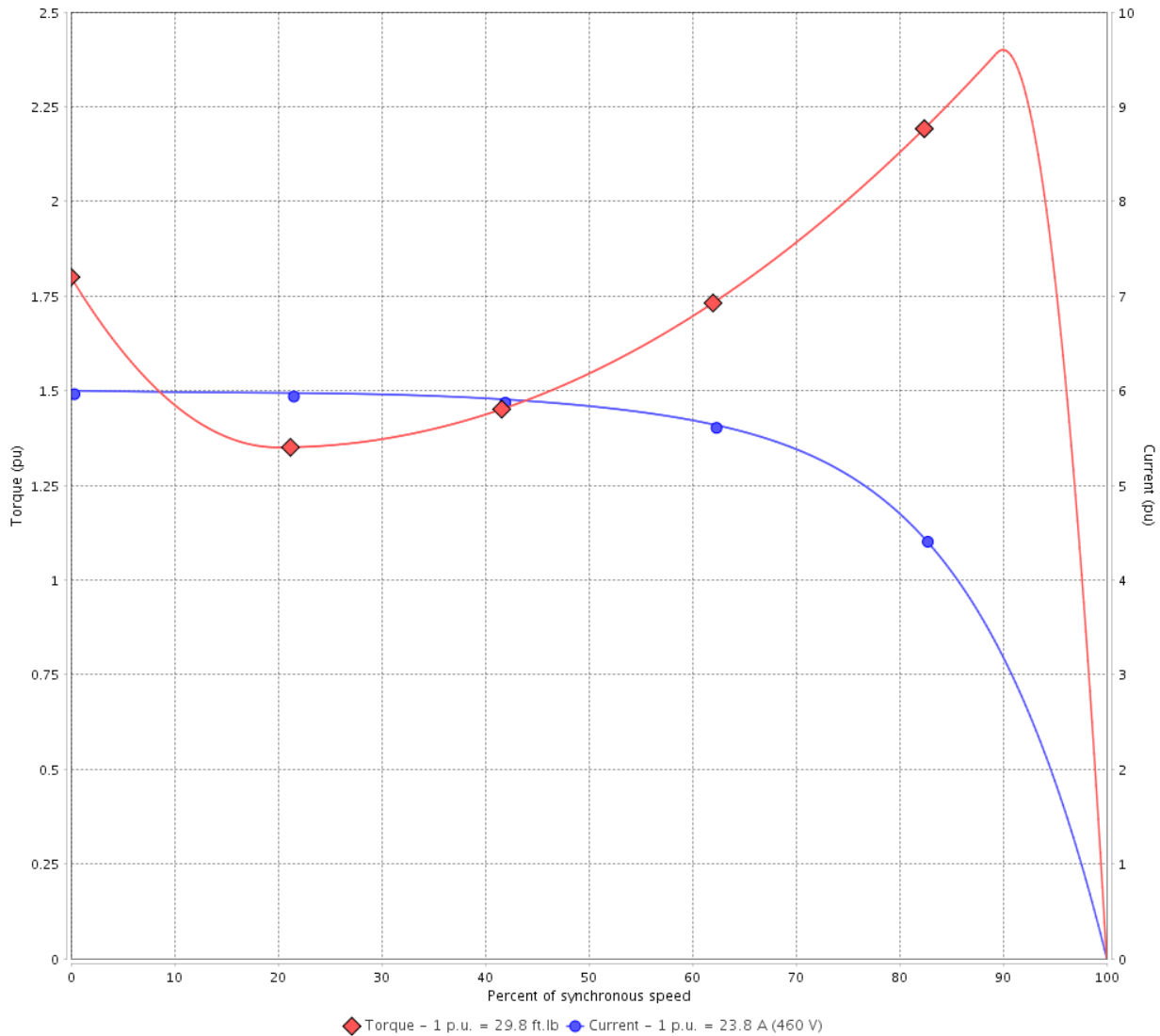
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482985

Catalog # : 02036OT3E254JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 47.6/23.8 A
 LRC : 6.0
 Rated torque : 29.8 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 240 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.7848 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



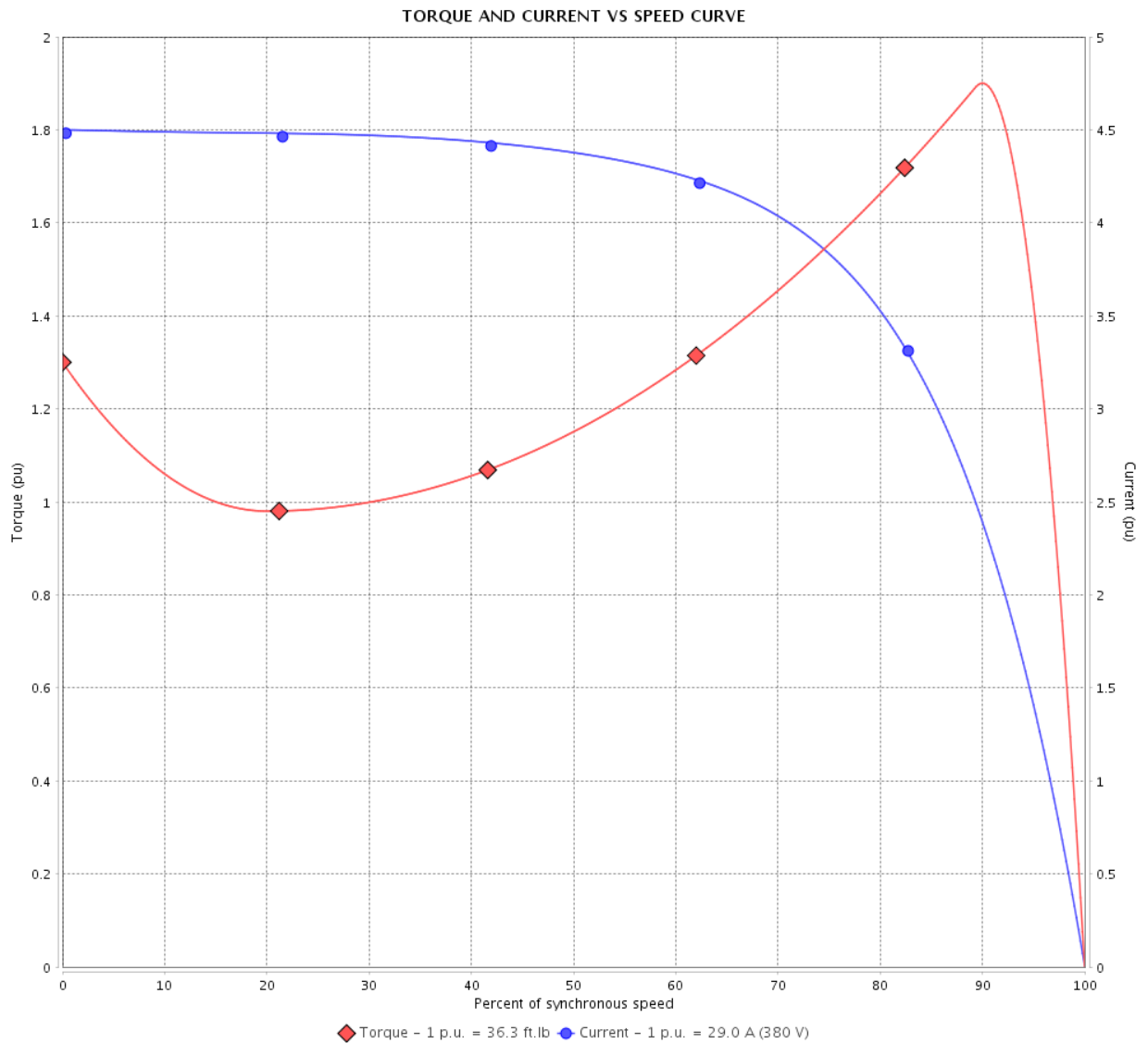
Three Phase Induction Motor - Squirrel Cage

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Product code : 13482985

Catalog # : 02036OT3E254JMV-S



Performance : 190/380 V 50 Hz 2P

Rated current : 58.0/29.0 A
 LRC : 4.5
 Rated torque : 36.3 ft.lb
 Locked rotor torque : 130 %
 Breakdown torque : 190 %
 Rated speed : 2895 rpm

Moment of inertia (J) : 0.7848 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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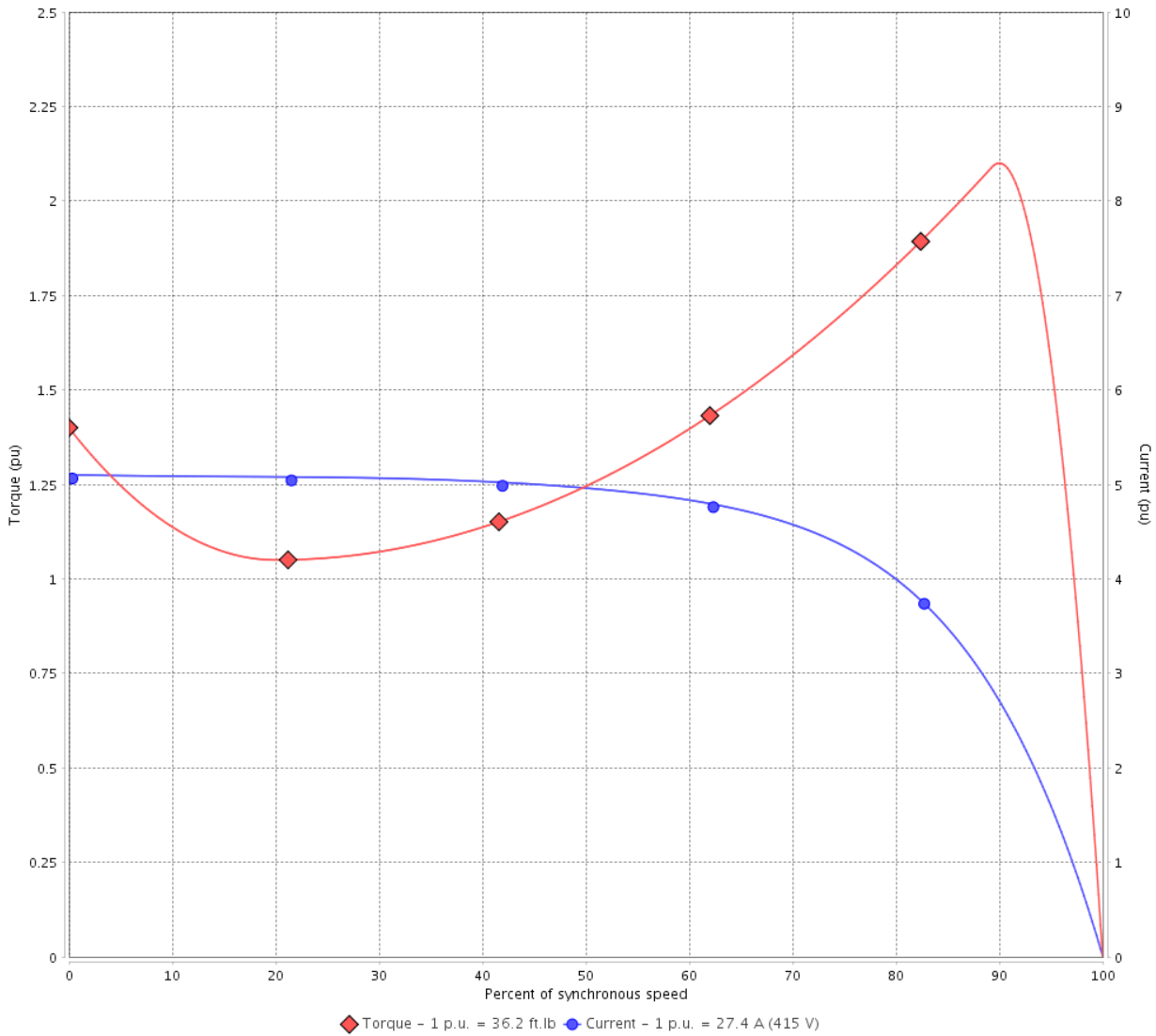
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Efficiency Three-Phase

Product code : 13482985

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 51.7/27.4 A	Moment of inertia (J)	: 0.7848 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 36.2 ft.lb	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 2905 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

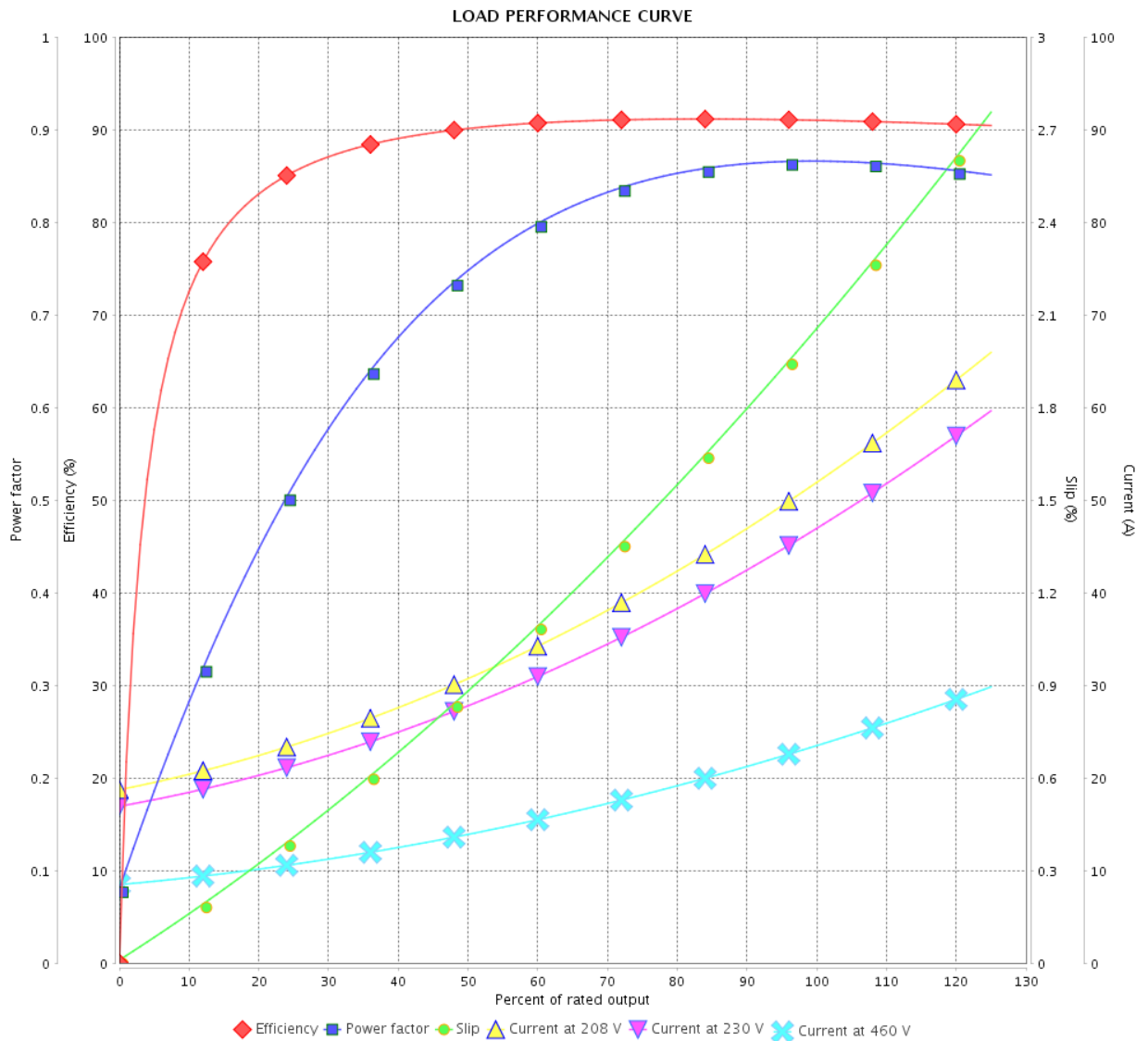


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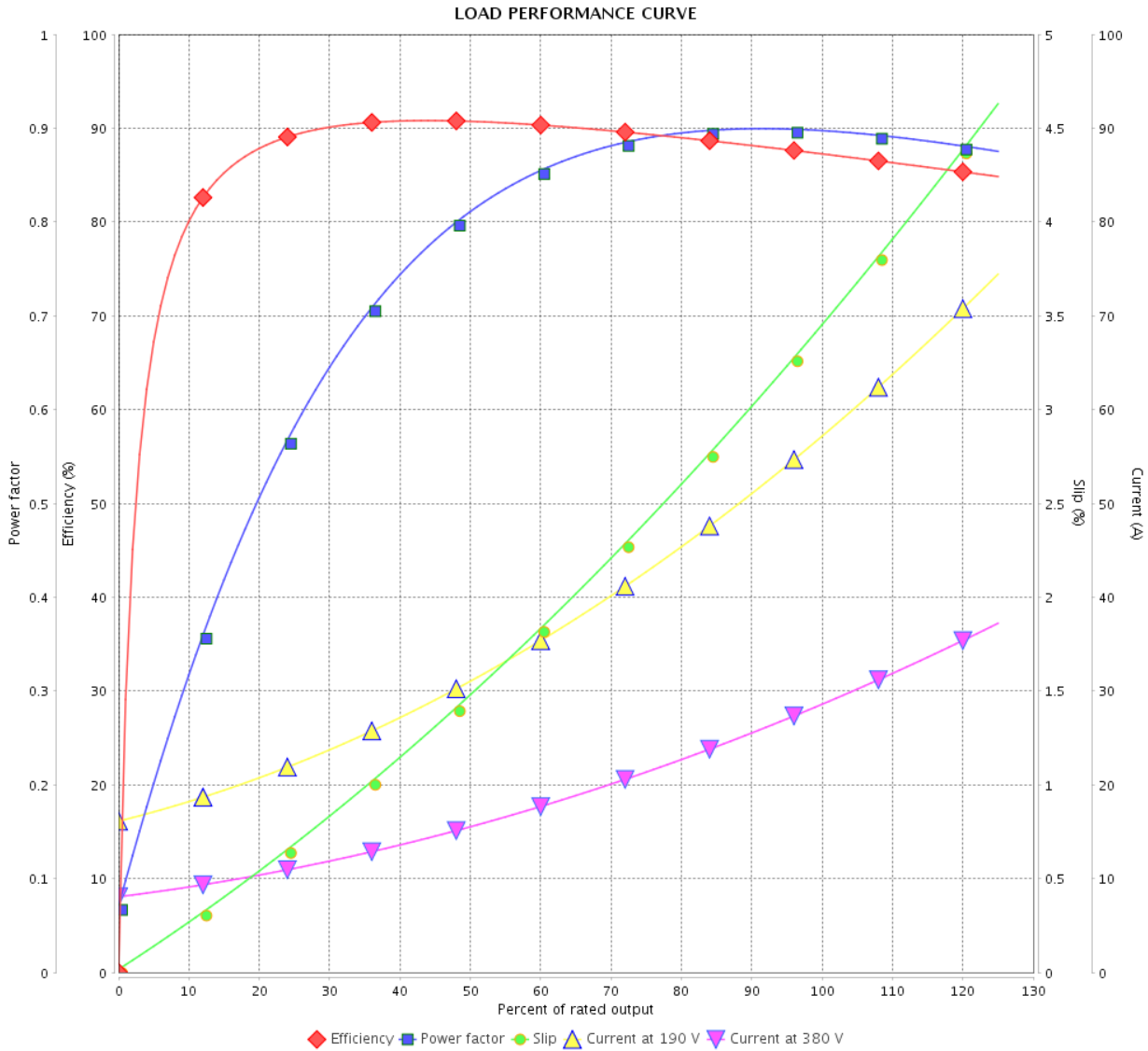


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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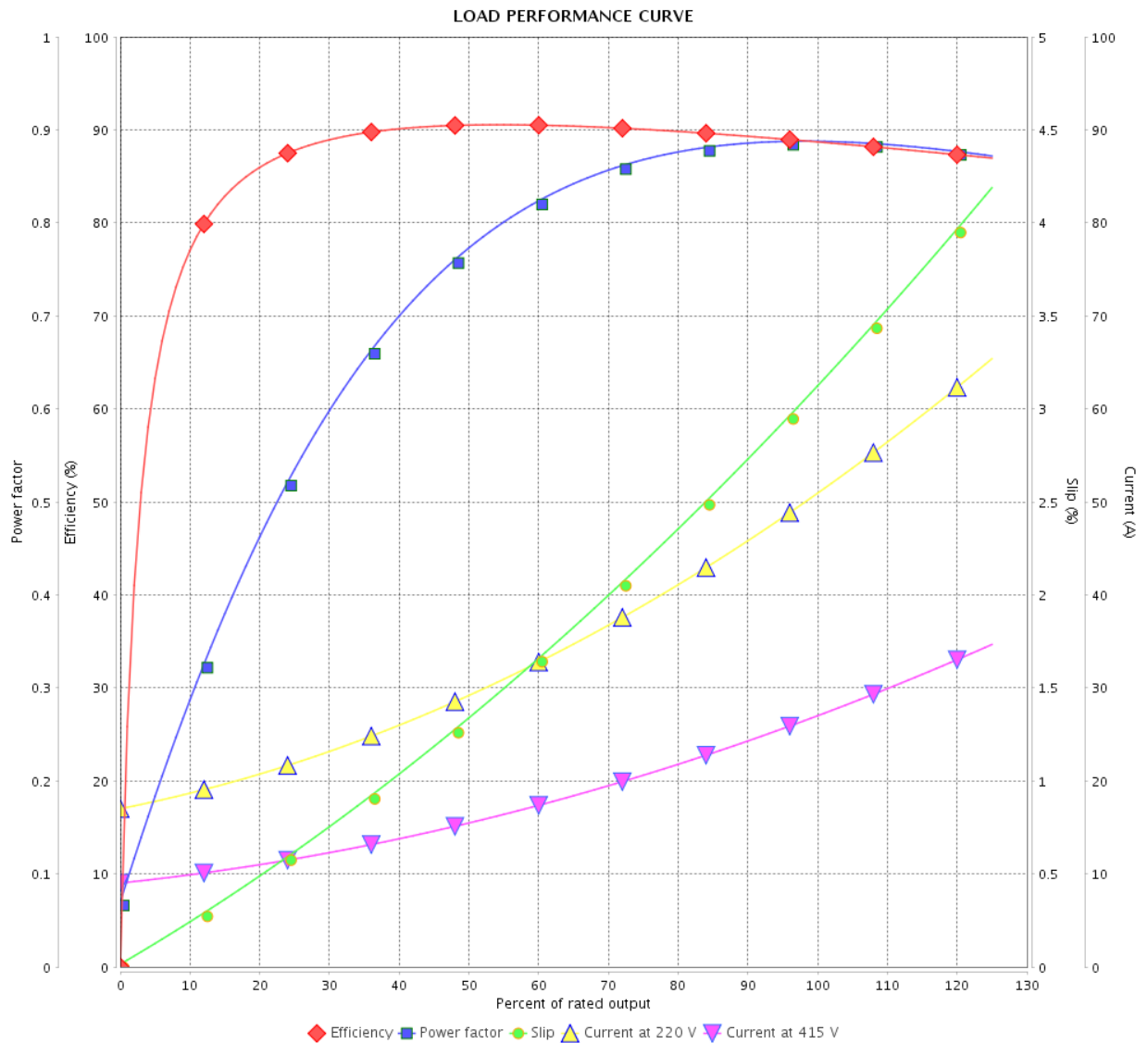


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

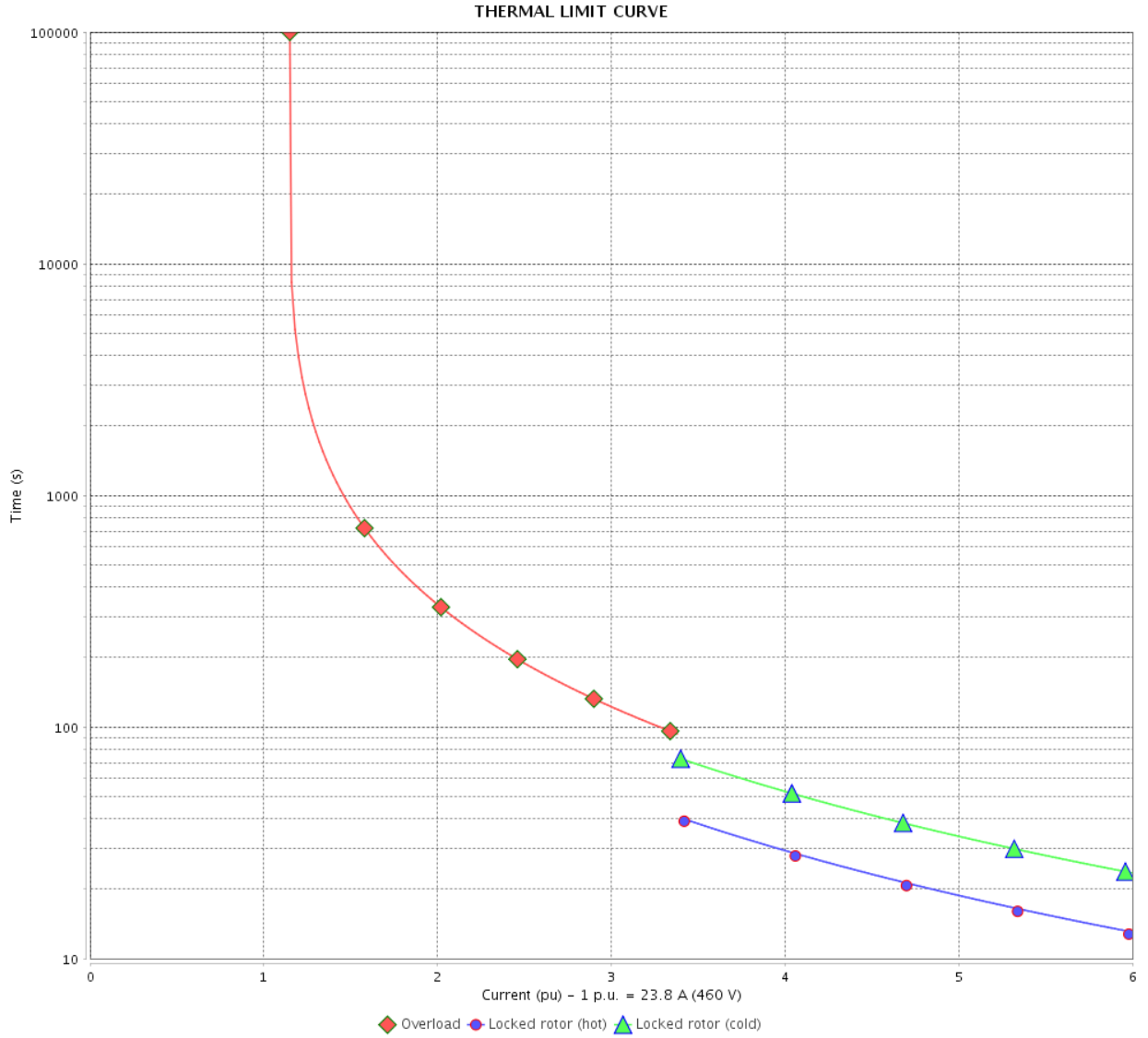
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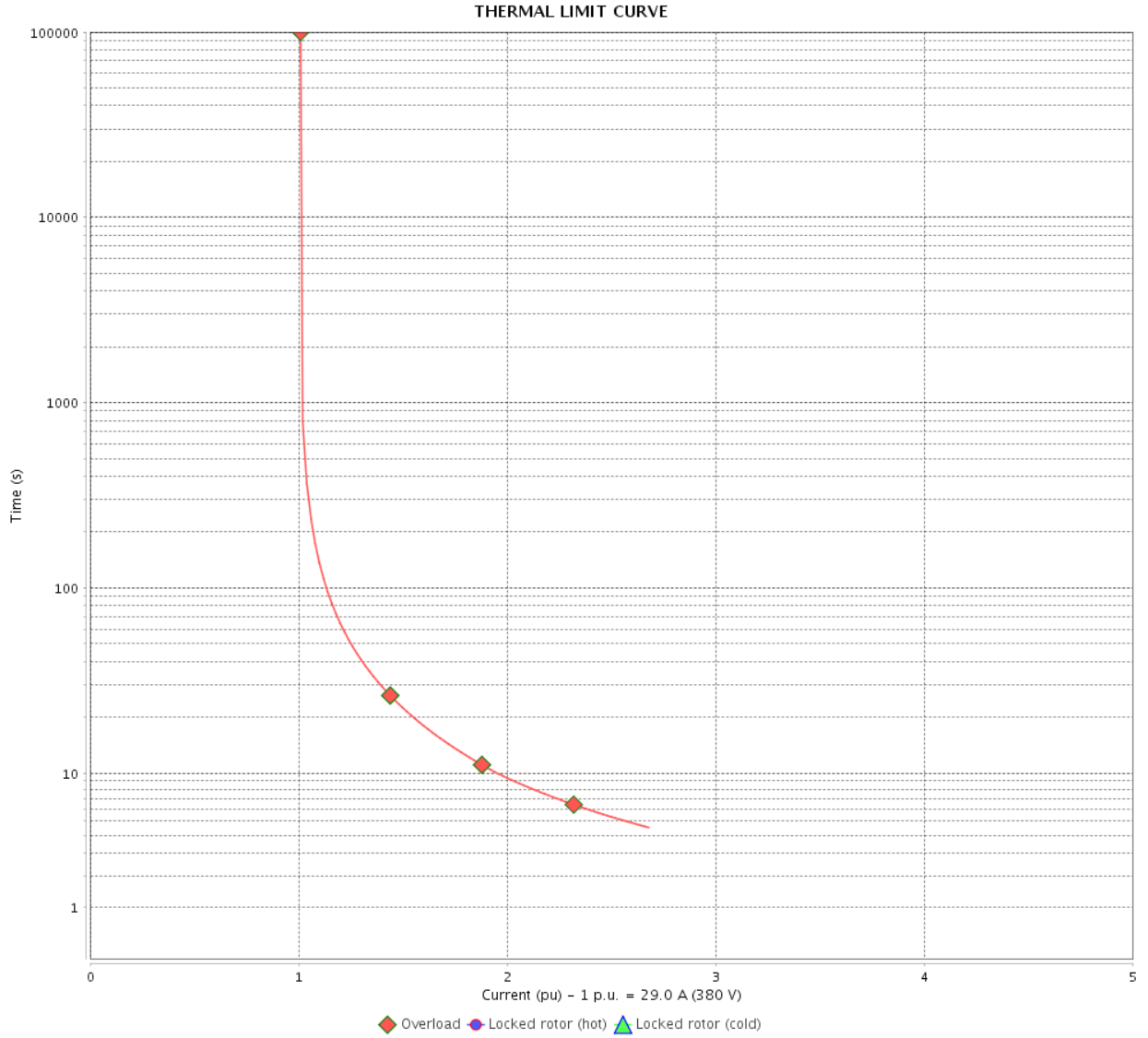
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Heating constant

Cooling constant

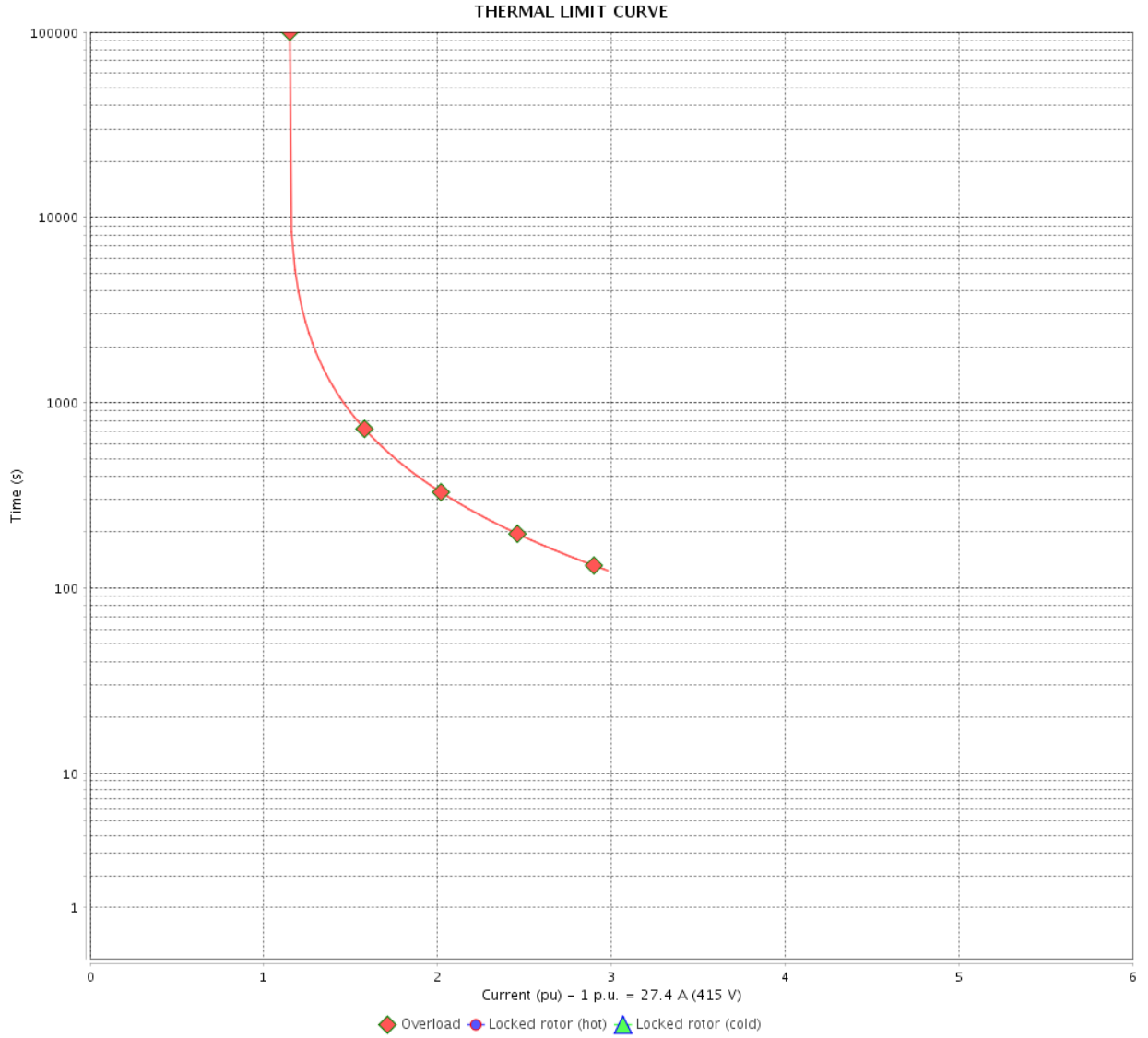
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

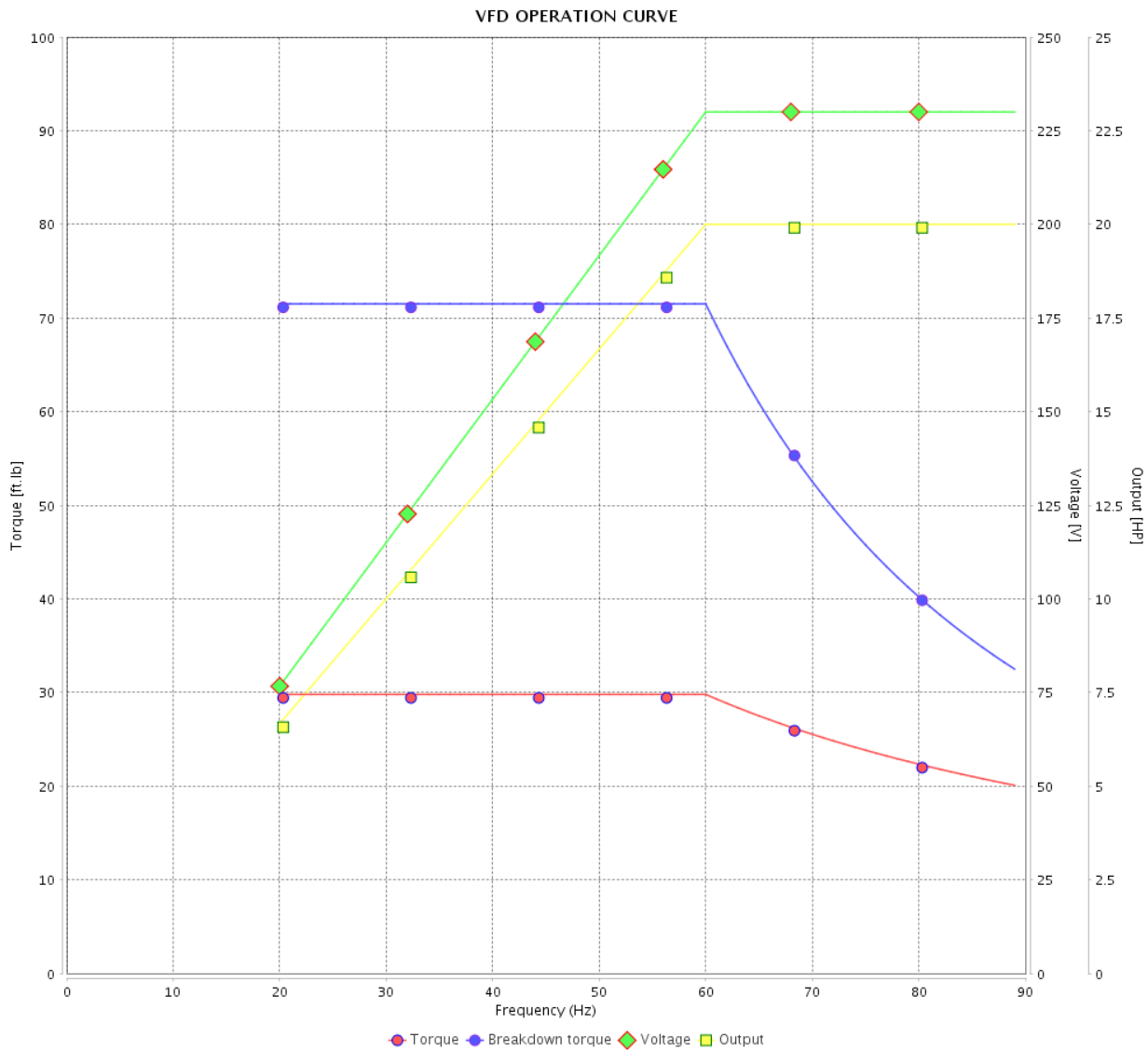


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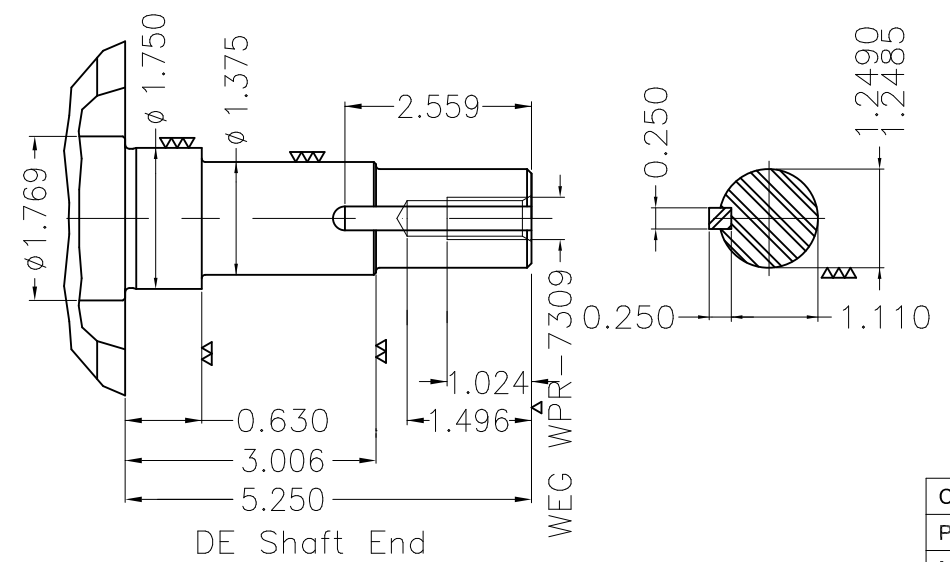
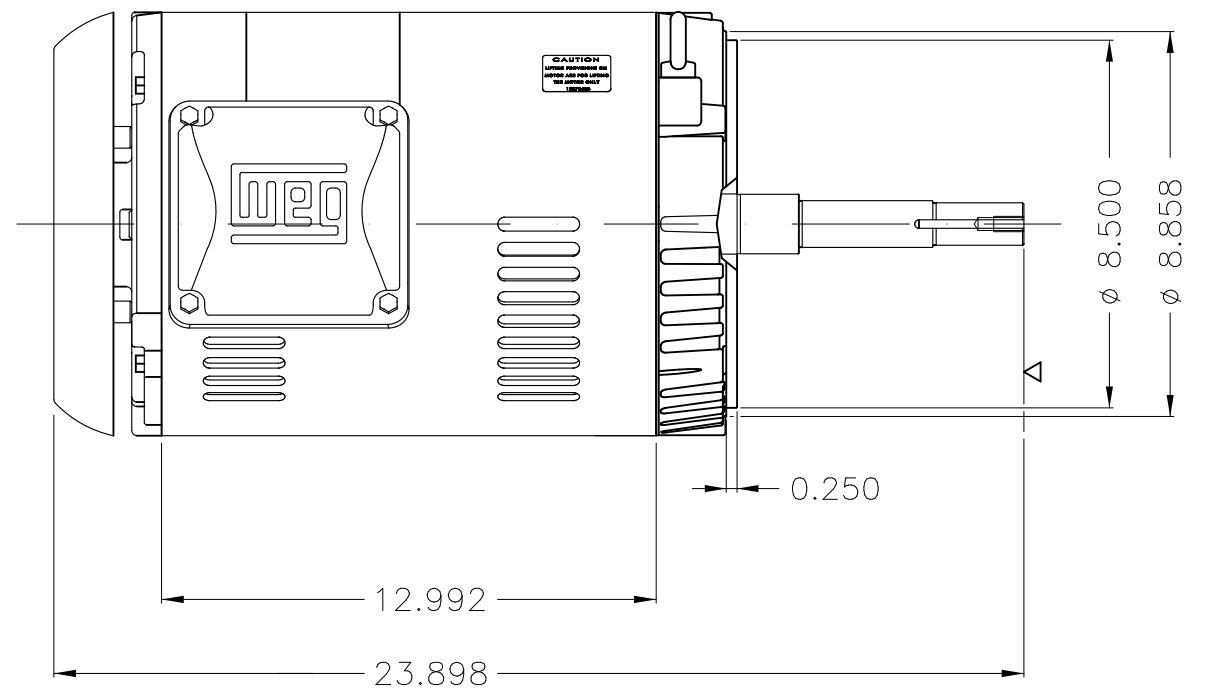
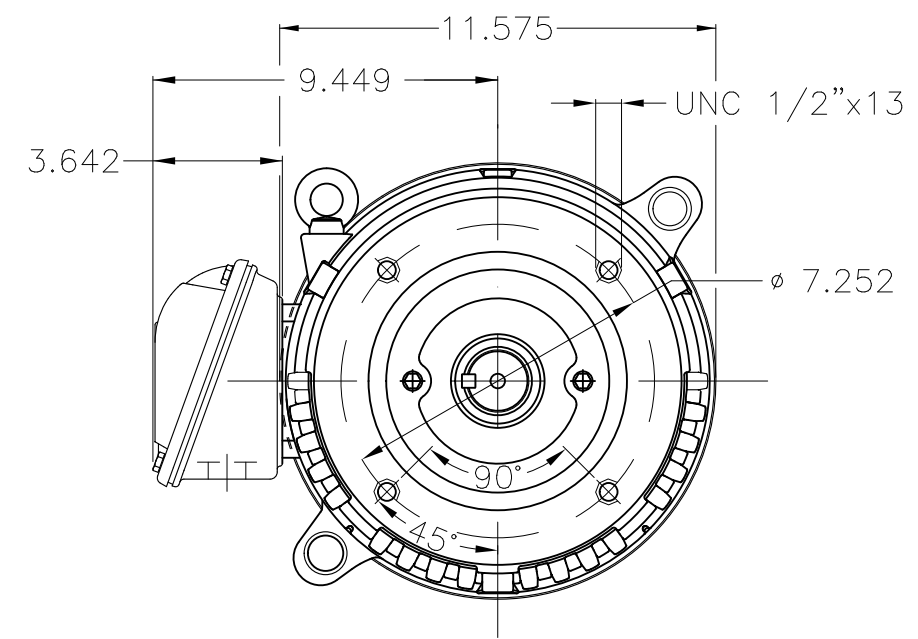
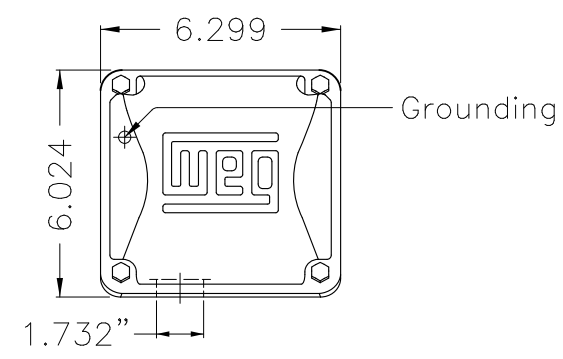
A

B

C

D

E



Dimensions in inches

Color Munsell N 1 matte black									
Painting plan 207N									
Mounting W-6/V18R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JM TYPE PSE 187							
CHECKED		FRAME 254/6JM IP21 ODP							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

20 HP 02 Poles 60 Hz

PREVIEW
WDD
SHEET 1 / 1



XME A3

**NEMA
Premium**

MADE IN MEXICO

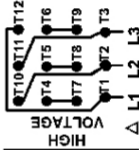
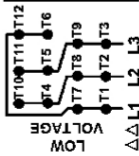
MAT: 13482985 CC029A**W01.T00IC0X0N****MODEL 020360T3E254JMV-S****13DEC2021 S/N:**

PH 3	Hz 60	HP 20
FR 254/6JM		KW 15
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 47.6/23.8
INS CL F AT 80K		SFA 54.7/27.4
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE G	PF 0.87
USABLE @ 208V 52.8A		RPM 3525
SF1.00		NEMA NOM. EFF 91.0%

ALTERNATE RATING: 20HP 50Hz 190-220/380-415V SF1.00
58.0-50.4/29.0-26.7A 2895RPM EFF 87.2% IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT

DE 6309-Z-C3 ODE 6208-Z-C3 MOBIL POLYREX EM 15797h



T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED
T10-CURRY
T11-GRN T12-VLT

△△ L1 L2 L3

△ L1 L2 L3

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION



WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.

AVERTISSEMENT: Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

