

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14376665	
		Catalog # :	01518OT3E254JMV-S	
Frame	: 254/6JM	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: W-6	
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>2</sup>	: 201 lb	
Design	: B	Moment of inertia (J)	: 1.82 sq.ft.lb	
Output [HP]	15	15	15	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	37.2/18.6	43.8/21.9	40.0/21.2	
L. R. Amperes [A]	249/125	237/118	236/125	
LRC [A]	6.7x(Code H)	5.4x(Code F)	5.9x(Code G)	
No load current [A]	19.0/9.50	17.3/8.67	18.3/9.68	
Rated speed [RPM]	1775	1465	1470	
Slip [%]	1.39	2.33	2.00	
Rated torque [ft.lb]	44.4	53.8	53.6	
Locked rotor torque [%]	240	170	200	
Breakdown torque [%]	300	220	250	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	30s (cold) 17s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	64.0 dB(A)	62.0 dB(A)	62.0 dB(A)	
Efficiency (%)	25%	91.0	91.4	
	50%	91.7	90.8	
	75%	92.4	91.1	
	100%	93.0	90.2	
Power Factor	25%	0.36	0.40	
	50%	0.62	0.66	
	75%	0.73	0.78	
	100%	0.80	0.83	
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 542 lb	
Lubrication interval	: 20000 h 20000 h	Max. compression	: 743 lb	
Lubricant amount	: 13 g 8 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 41.1A SF 1.00 SFA 41.1A				
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	13/04/2022		1 / 16	

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



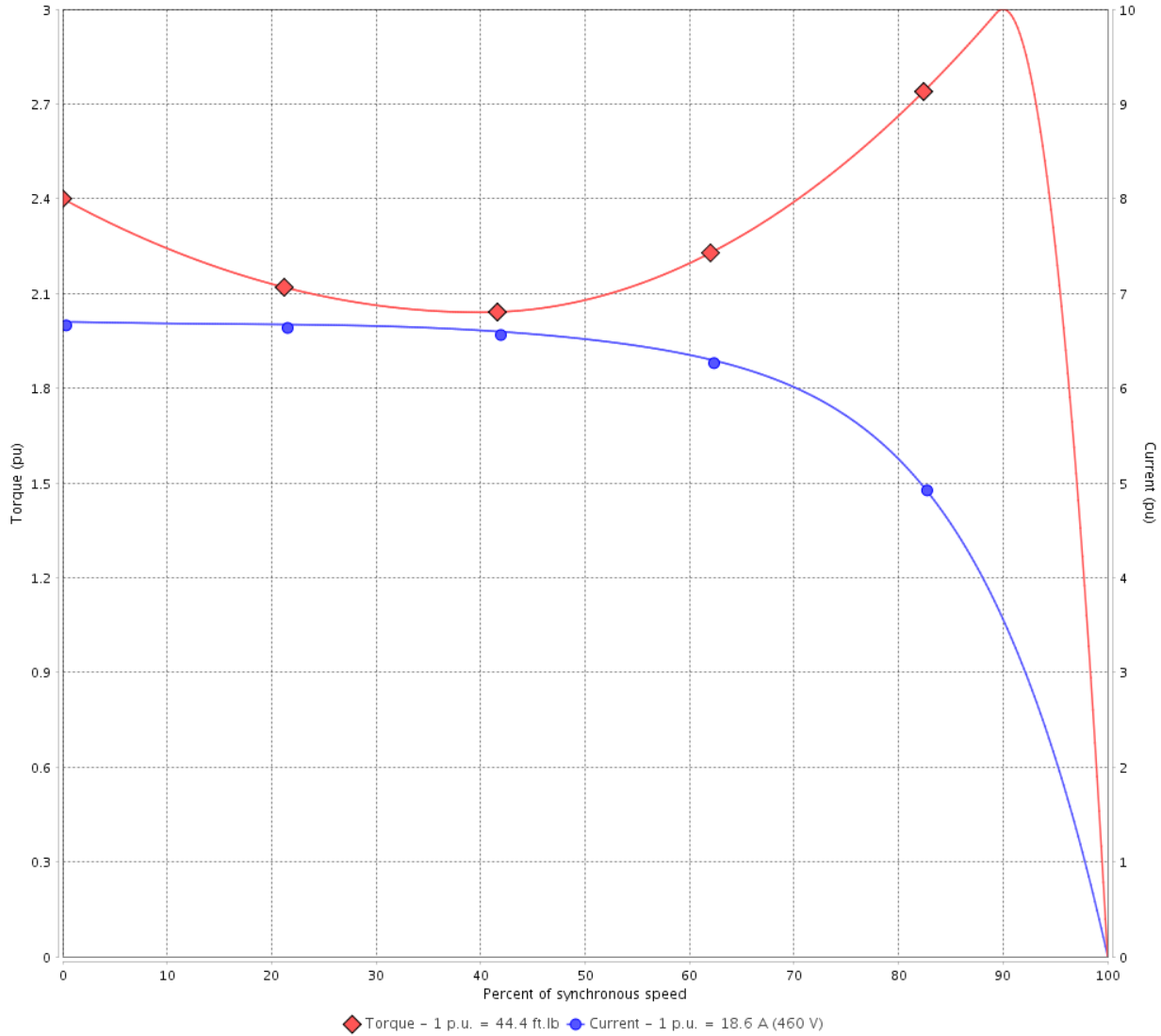
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14376665

Catalog # : 01518OT3E254JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 37.2/18.6 A  
LRC : 6.7  
Rated torque : 44.4 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 300 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 1.82 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Locked rotor time : 30s (cold) 17s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 16	Revision
Checked by				
Date	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE



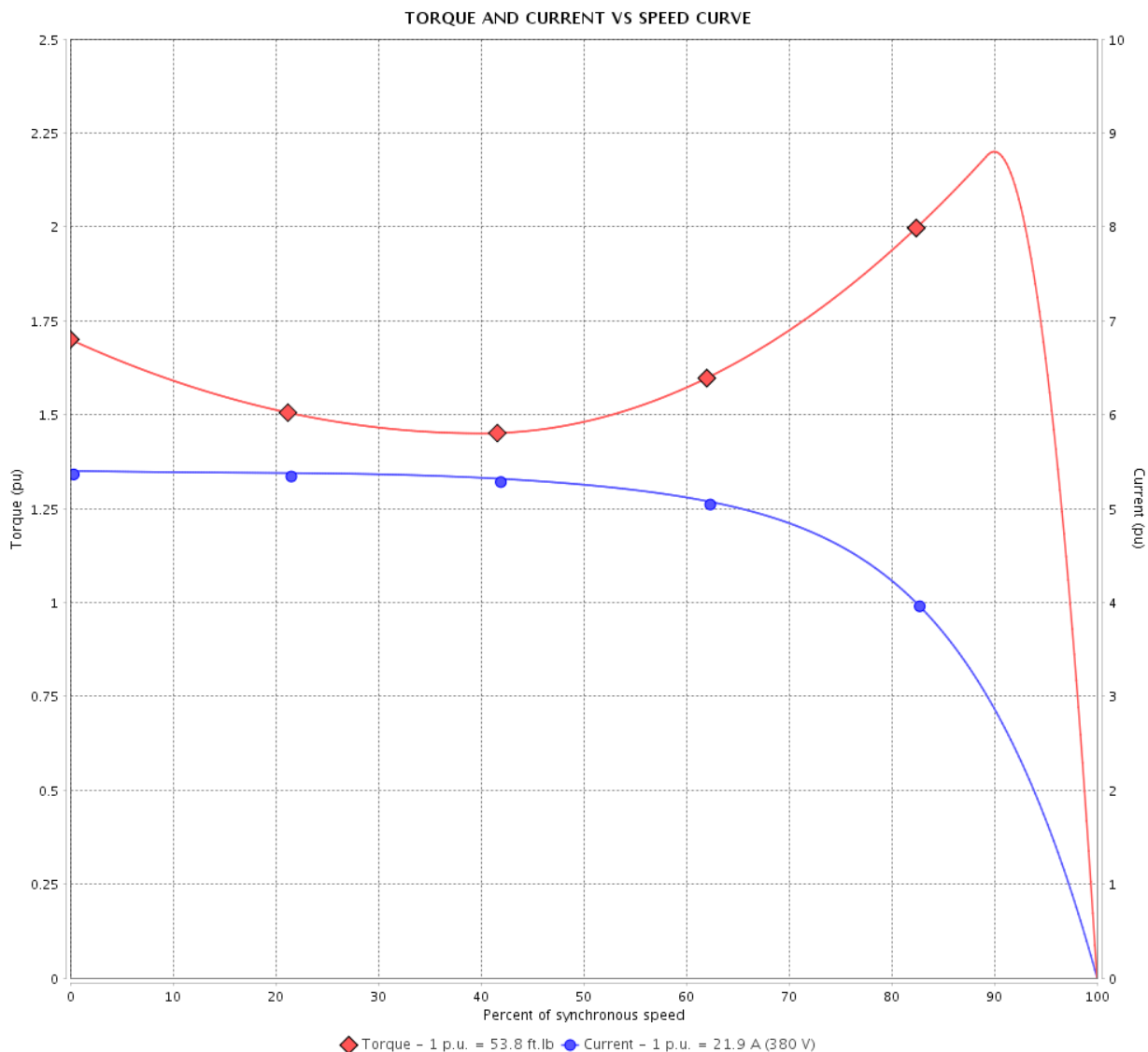
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14376665

Catalog # : 01518OT3E254JMV-S



Performance : 190/380 V 50 Hz 4P

Rated current : 43.8/21.9 A  
 LRC : 5.4  
 Rated torque : 53.8 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 220 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 1.82 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 16	Revision
Checked by				
Date	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



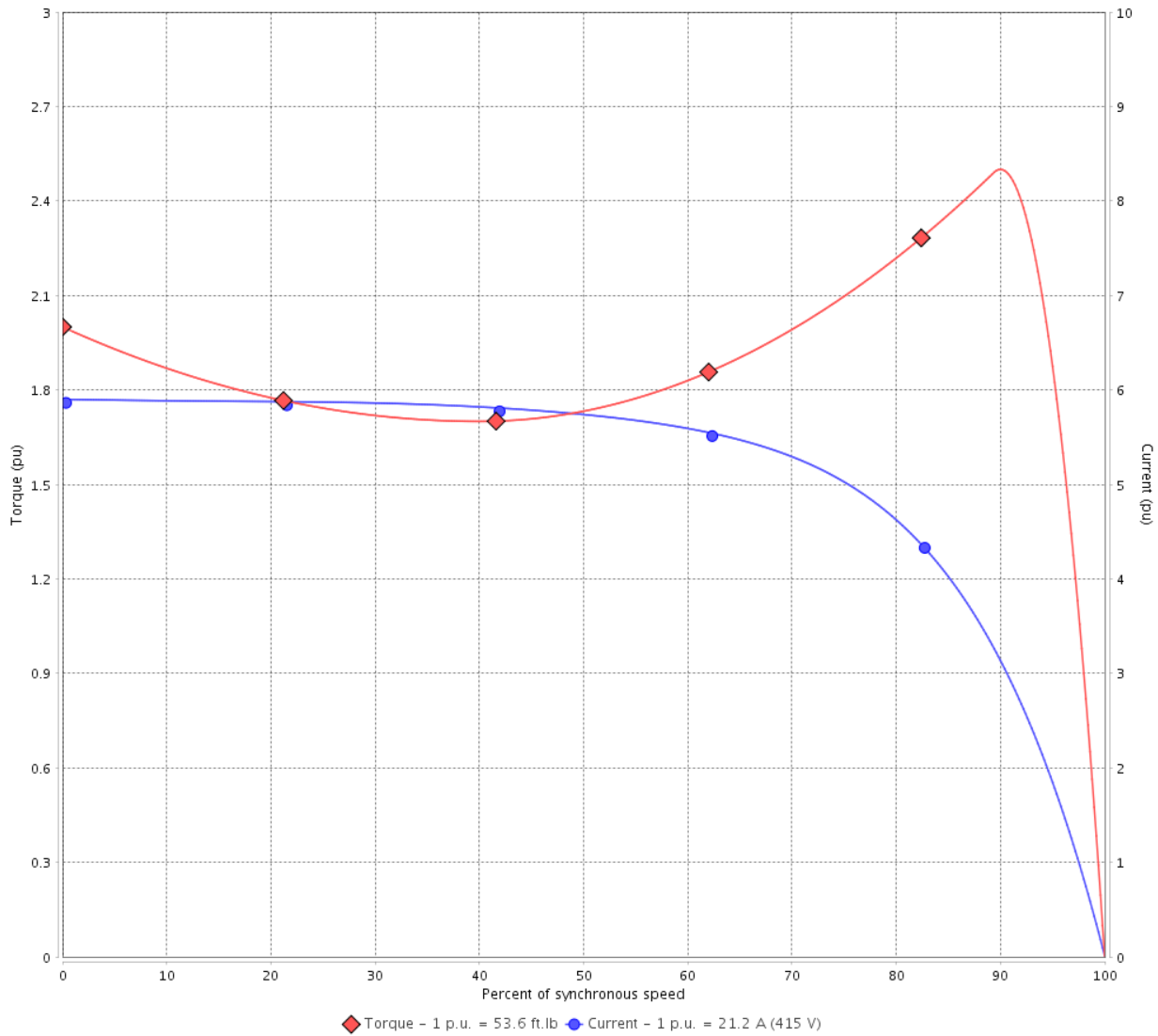
Customer :

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Product code : 14376665

Catalog # : 01518OT3E254JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 40.0/21.2 A	Moment of inertia (J)	: 1.82 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 16	Revision
Checked by				
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

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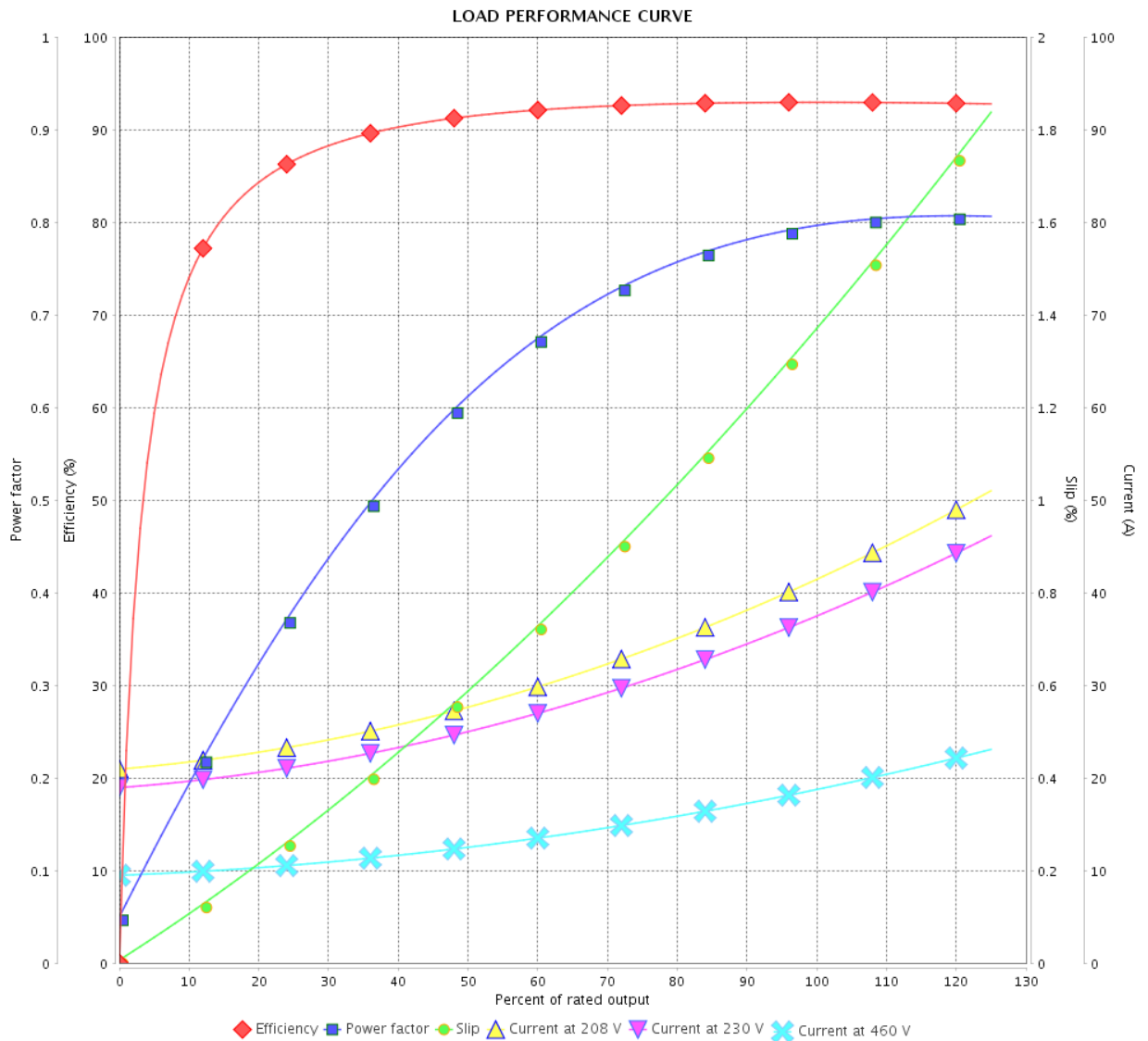


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Performance : 230/460 V 60 Hz 4P

Rated current : 37.2/18.6 A  
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 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
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 Duty cycle : Cont.(S1)  
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			5 / 16	
Date	13/04/2022			

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Three Phase Induction Motor - Squirrel Cage

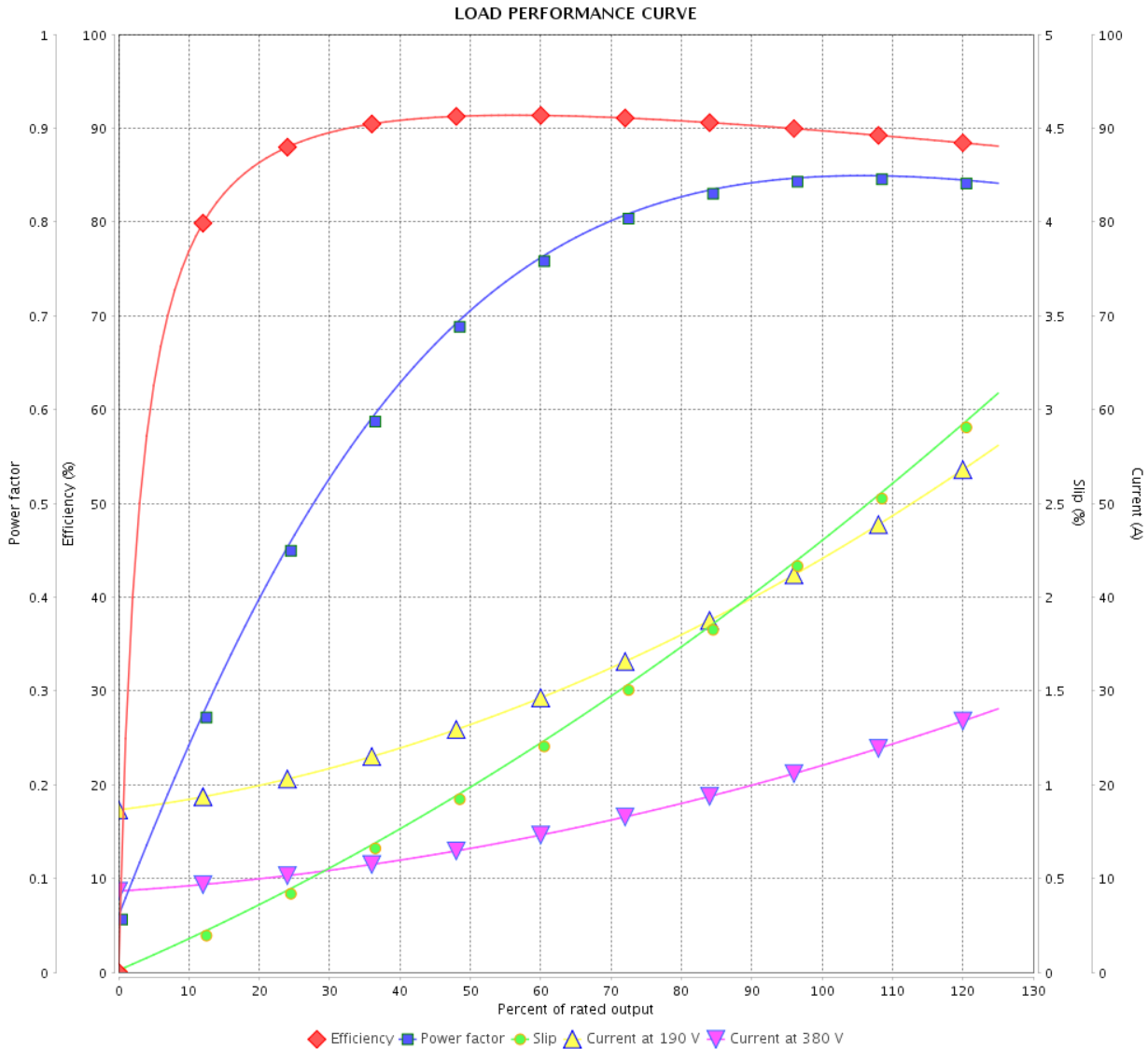


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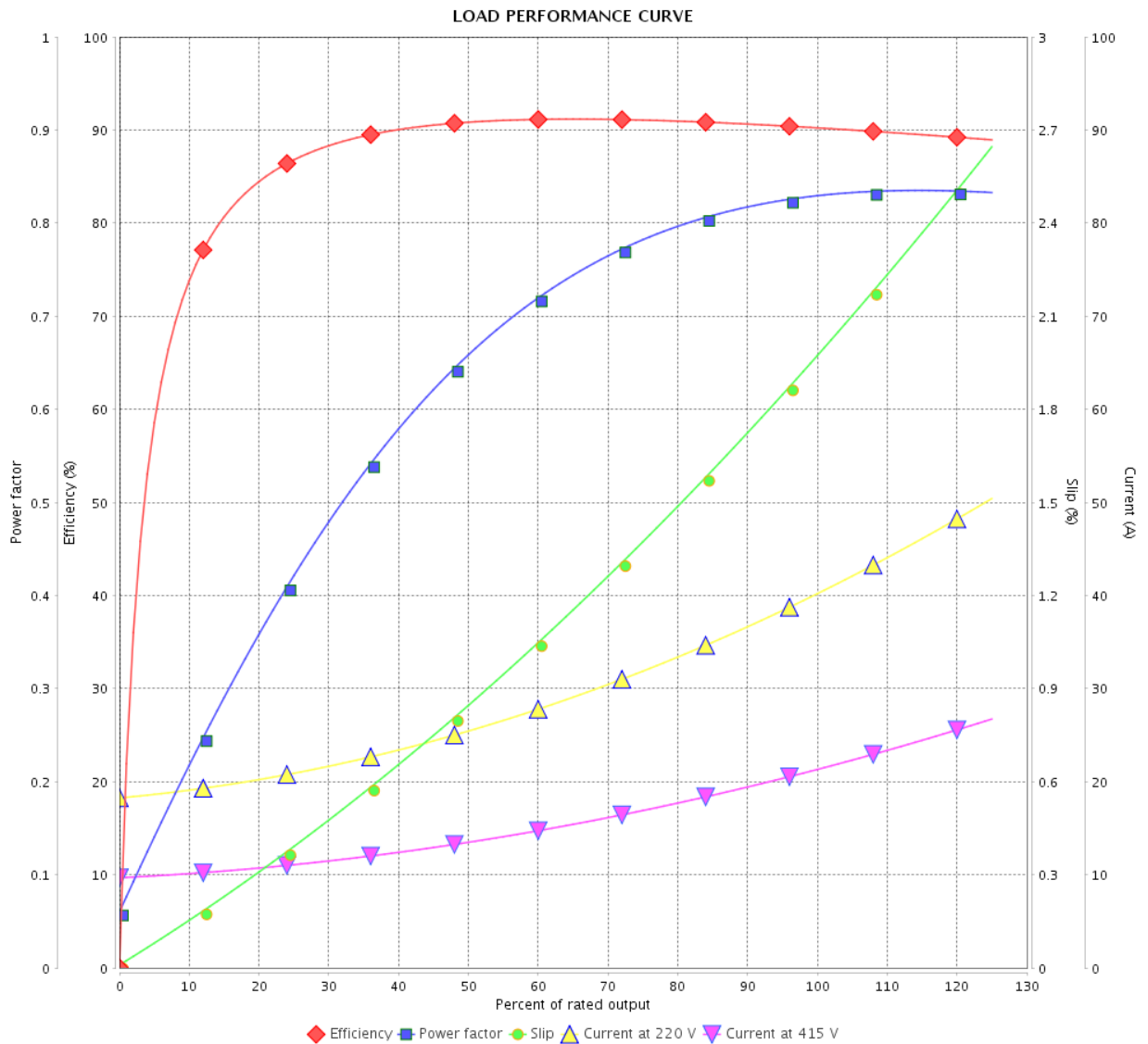


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Performance : 220/415 V 50 Hz 4P

Rated current : 40.0/21.2 A  
 LRC : 5.9  
 Rated torque : 53.6 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		7 / 16		
Date		13/04/2022		

# THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)  
Insulation class : F  
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Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		8 / 16	

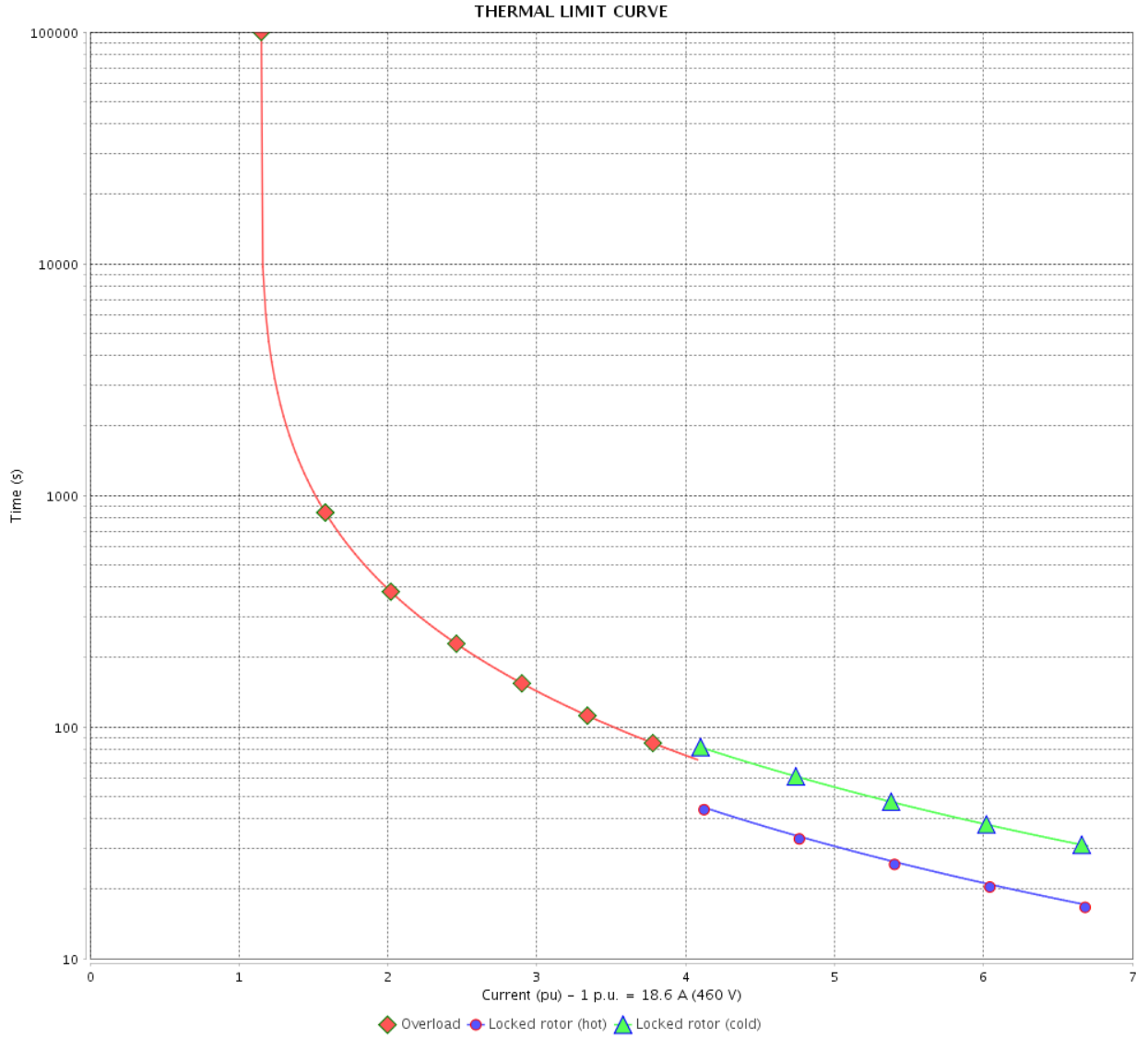


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Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 16      Revision		
Checked by				
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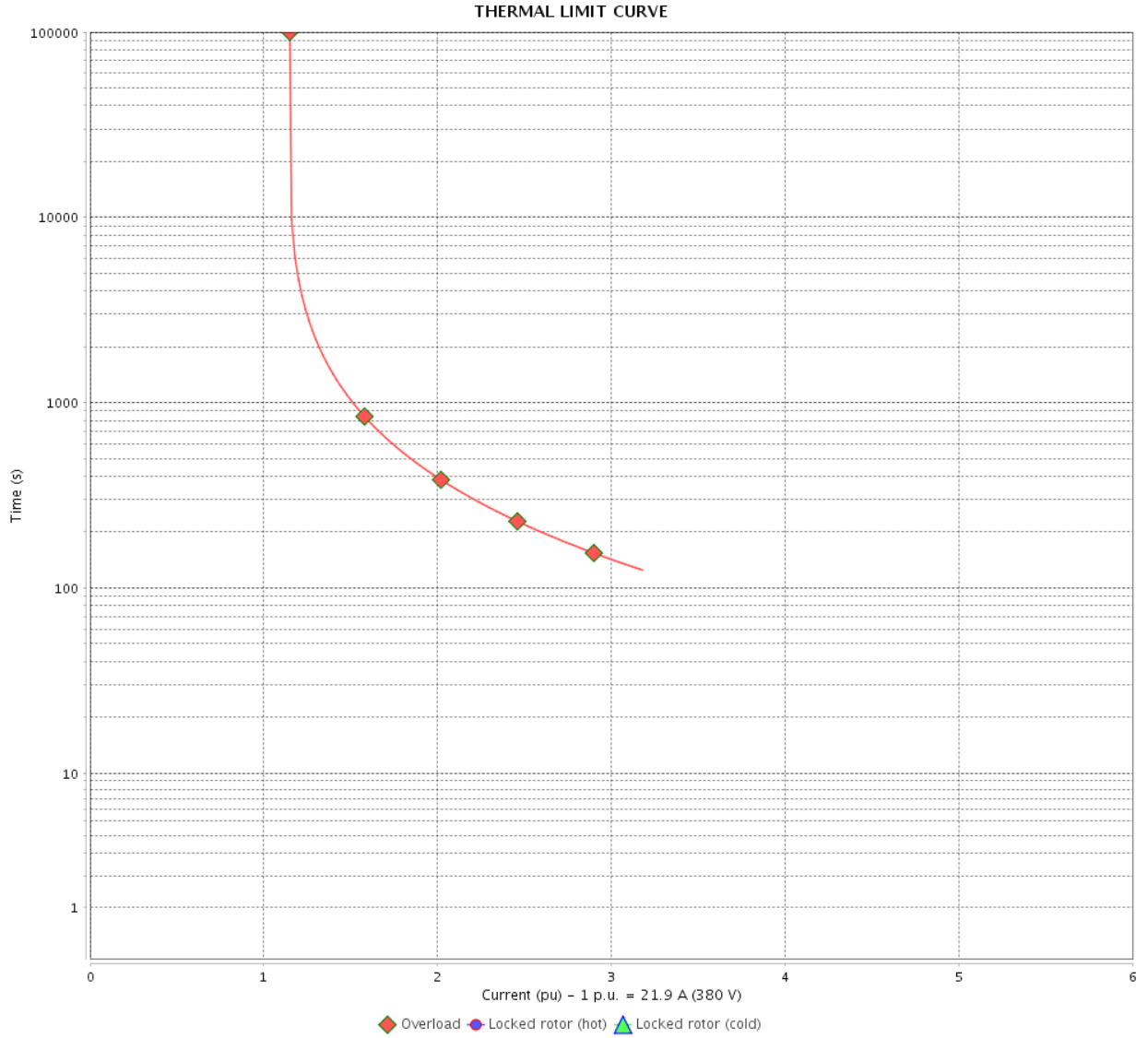
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 16	

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 16		
Date		13/04/2022		

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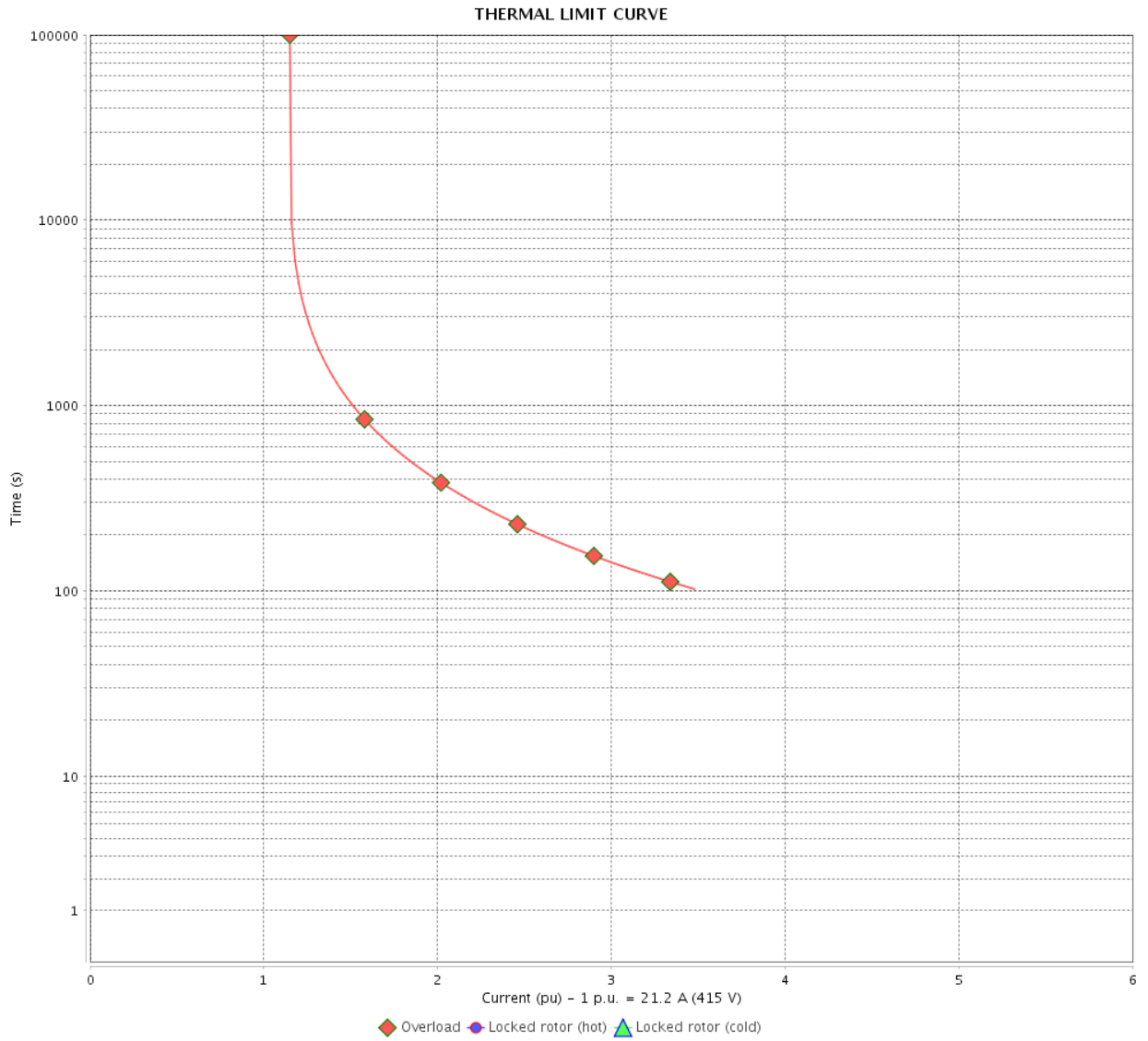
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Date	13/04/2022		12 / 16	

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page      Revision 13 / 16		
Checked by				
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# VFD OPERATION CURVE

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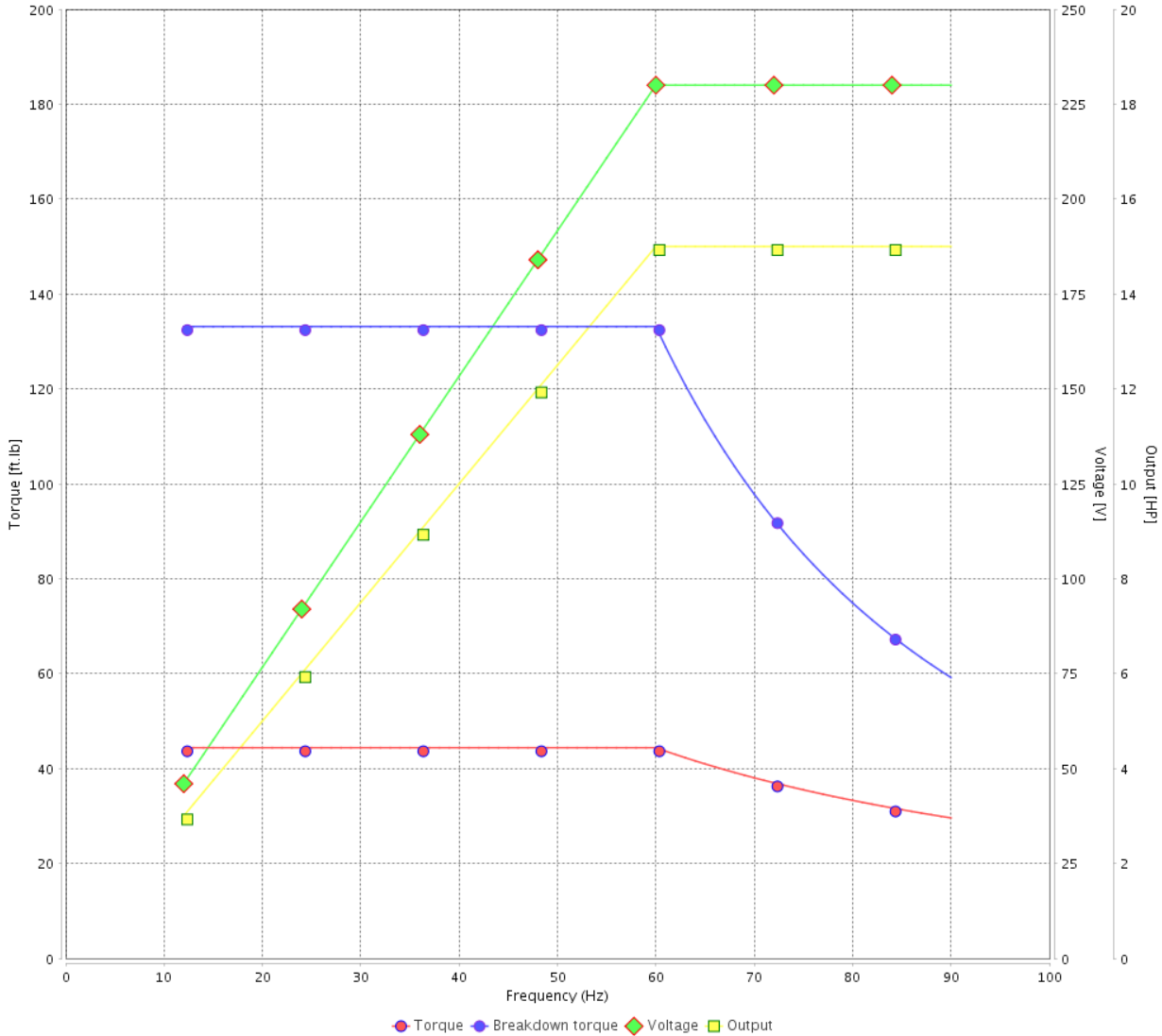
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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 14 / 16	Revision
Checked by				
Date	13/04/2022			

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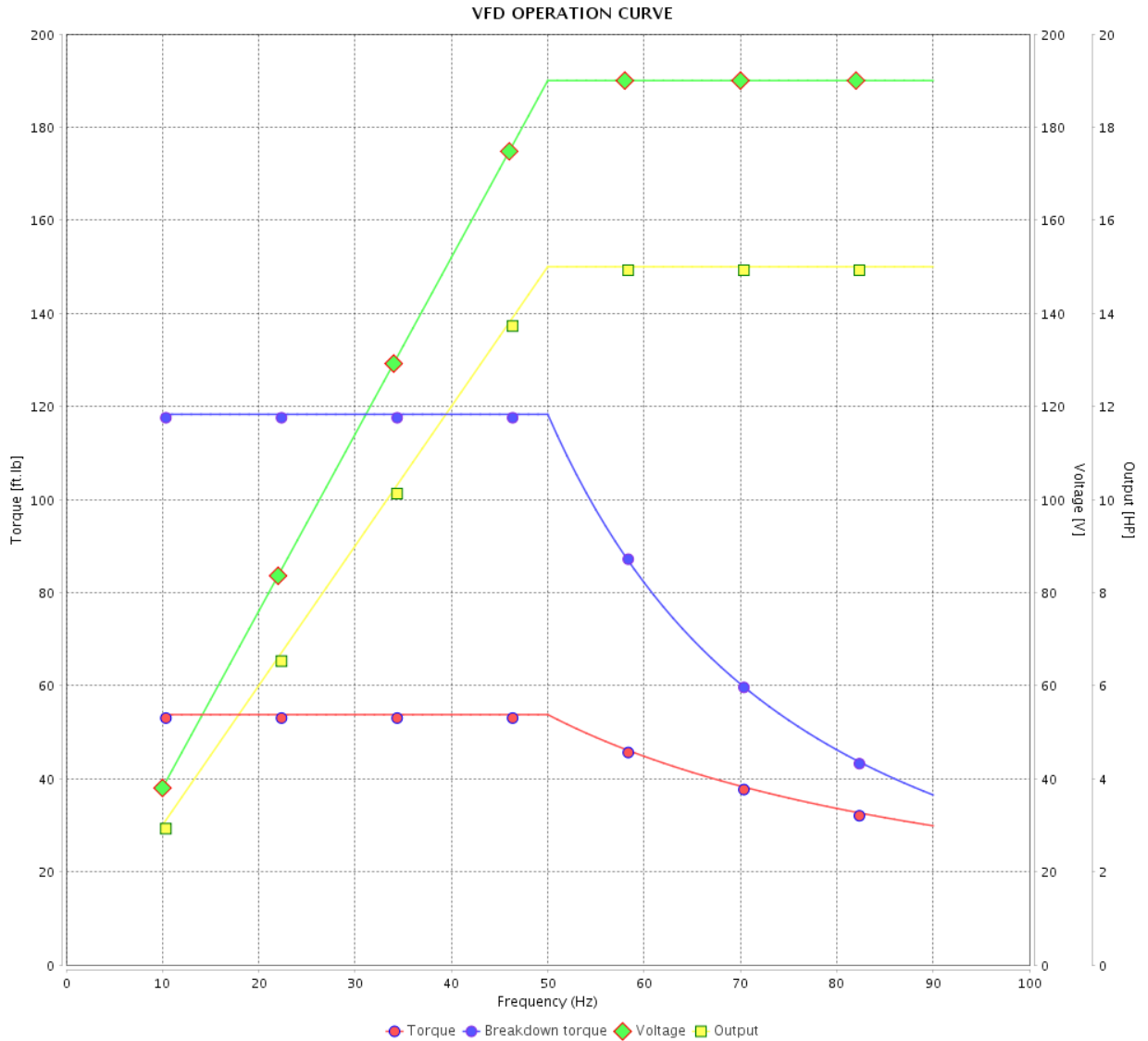


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Performed by			Page	Revision
Checked by			15 / 16	
Date	13/04/2022			

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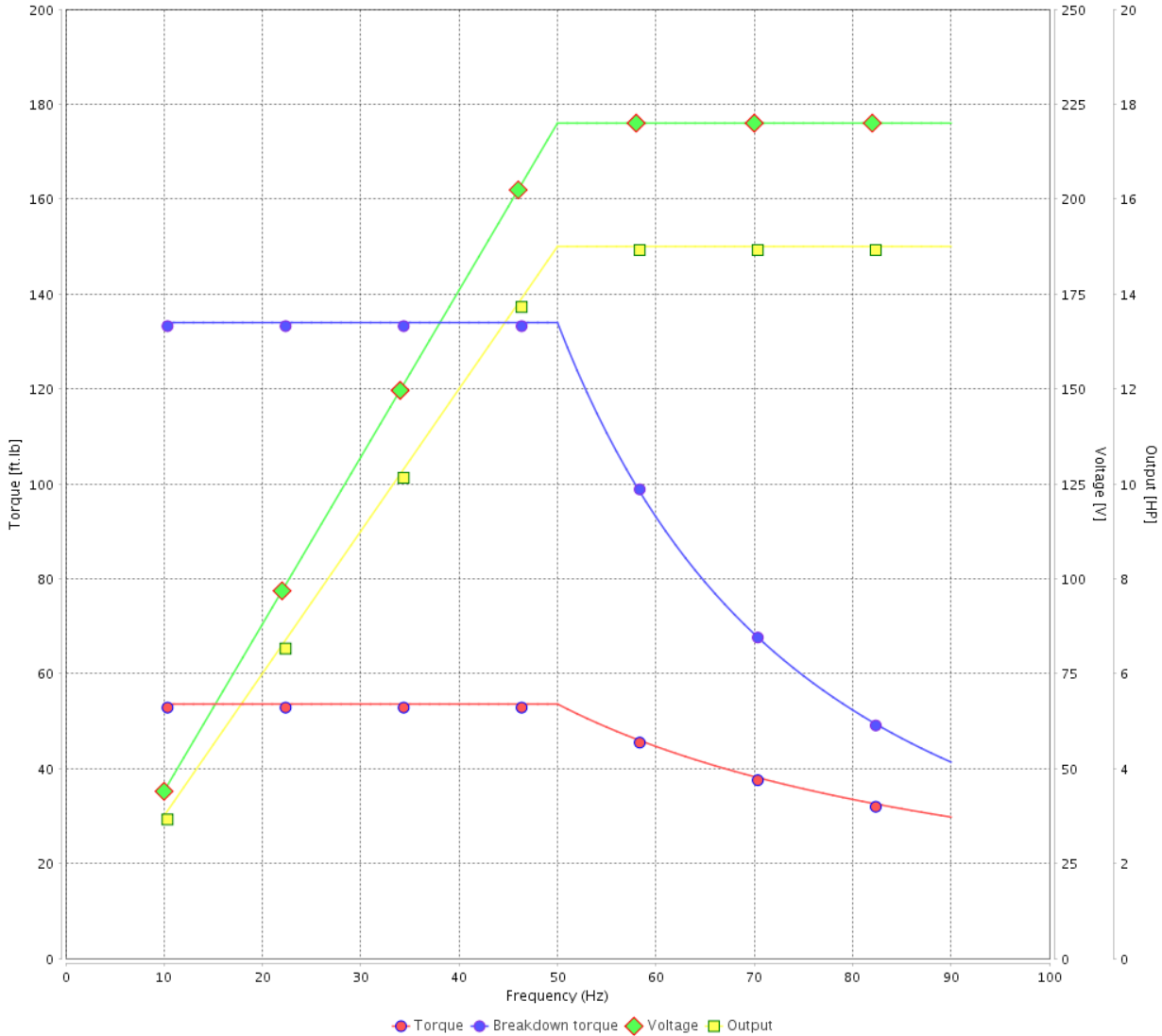
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	13/04/2022			



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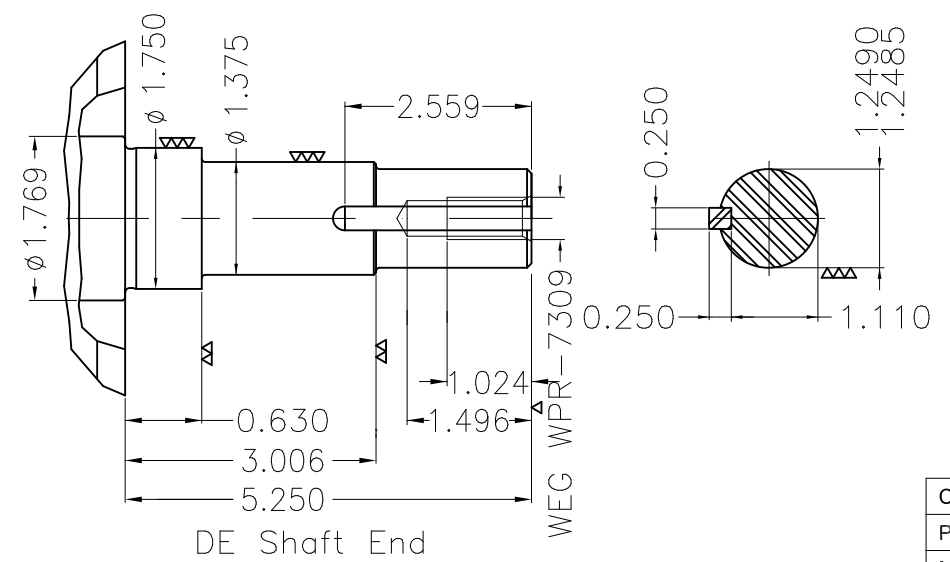
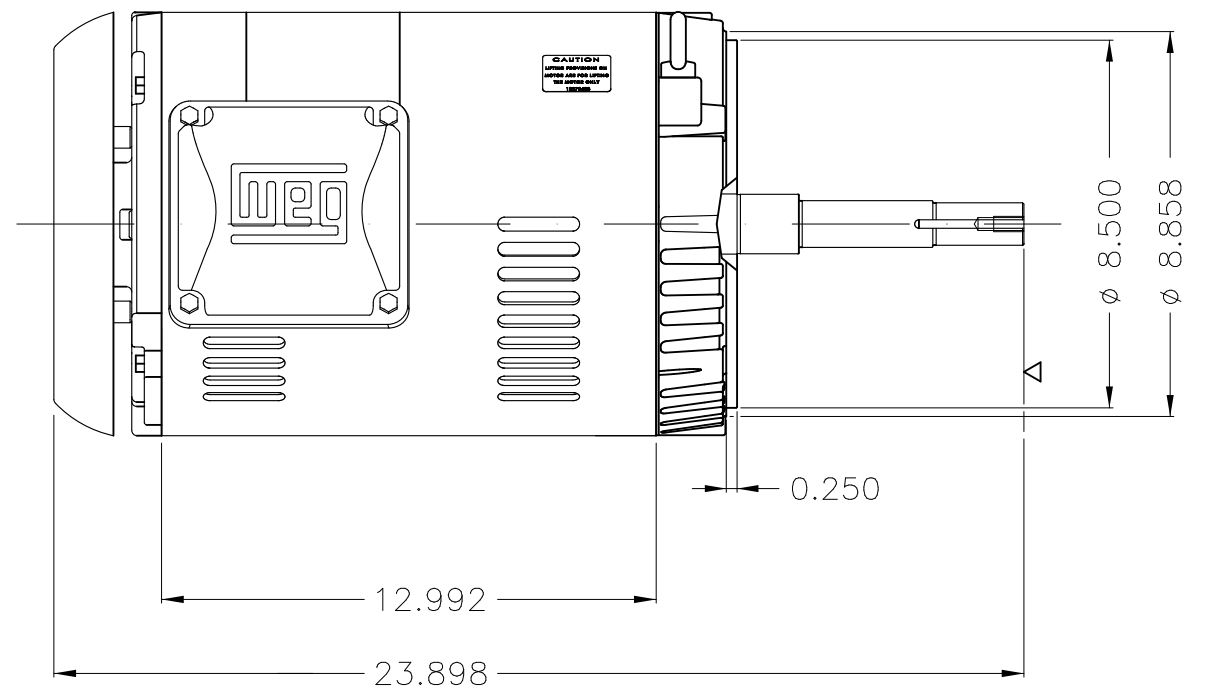
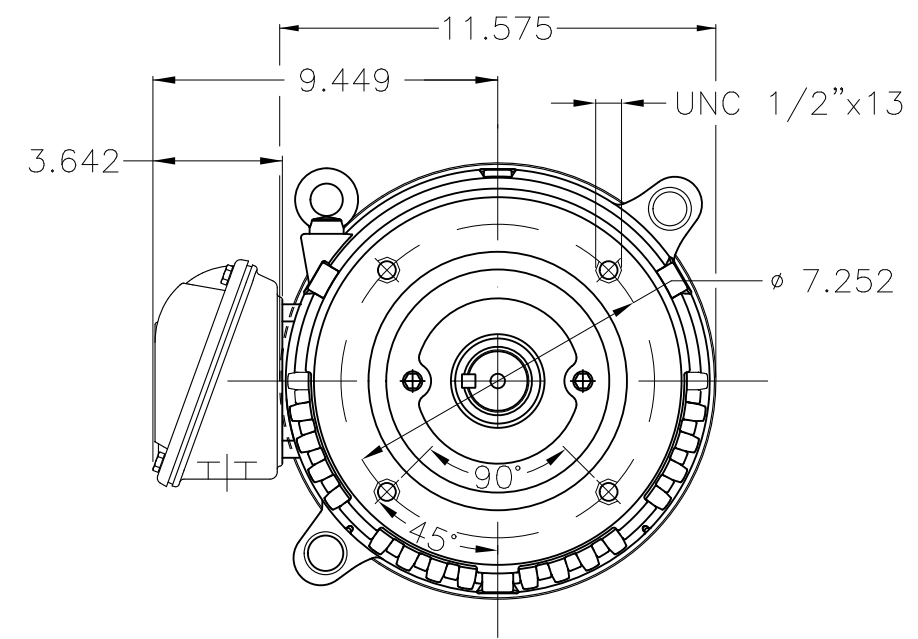
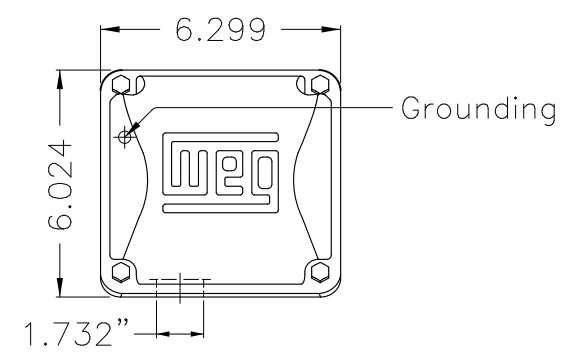
A

B

C

D

E



EUNC 1/2"-13 WEG WPR-7309

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	PIRBUSER	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					

**PREVIEW**  
WDD



15 HP 04 Poles 60 Hz

**WEG**  
**NEMA**  
**Premium**3PT9  
US LISTED

Energy Verified

MADE IN MEXICO

MAT: 14376665 CC029A

W01.T00IC0X0N

MODEL 015180T3E254JMV-S

13FEV2019 S/N:

PH 3 FR 254/6JM HP(KW) 15(11) Hz 60

V 230/460

RPM 1775

A 37.2/18.6 DUTY CONT.

SFA 42.8/21.4 CODE H DES B

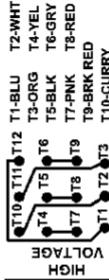
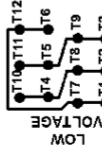
SF 1.15 INS CL F AT 80K AMB 40°C ENCL ODP

PF 0.80 NEMA NOM.EFF. 93.0%

ALT 1000 m.a.s.l. USABLE @ 208V 41.1A SF1.00

ALTERNATE RATING: 15HP 50Hz 190-220/380-415V SF1.15

43.8-39.4/21.9-20.9A 1465RPM EFF 89.7% (IE1) IEC 60034-1

 $\Delta$   $\Delta$  L1 L2 L3  
INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

Inverter duty For 60Hz use on VPWM 1000:1 VT, 5:1 CT

DE: 6309-Z-C3 ODE: 6208-Z-C3 MOBIL POLYREX EM 20000h

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.

