

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12941830		
		Catalog # :	01012ET3E256JM-W22		
Frame	: 254/6JM	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 ²	: 305 lb		
Protection degree	: IP55	Moment of inertia (J)	: 4.43 sq.ft.lb		
Design	: B				
Output [HP]	10	10	10	10	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	26.6/13.3	15.4	14.8	14.4	
L. R. Amperes [A]	173/86.5	78.5	84.4	87.8	
LRC [A]	6.5x(Code H)	5.1x(Code F)	5.7x(Code G)	6.1x(Code H)	
No load current [A]	12.0/6.00	6.40	6.80	7.20	
Rated speed [RPM]	1175	965	970	975	
Slip [%]	2.08	3.50	3.00	2.50	
Rated torque [ft.lb]	44.7	54.4	54.1	53.9	
Locked rotor torque [%]	229	170	200	220	
Breakdown torque [%]	280	220	240	260	
Service factor	1.25	1.00	1.15	1.15	
Temperature rise	80 K	105 K	105 K	80 K	
Locked rotor time	46s (cold) 26s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	
Noise level ²	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)	
Efficiency (%)	25%				
	50%	90.2	90.2	90.2	89.5
	75%	91.0	89.5	90.2	90.2
	100%	91.0	89.1	89.5	89.5
Power Factor	25%				
	50%	0.63	0.66	0.63	0.60
	75%	0.74	0.79	0.77	0.75
	100%	0.78	0.83	0.82	0.81
Bearing type	: Drive end : 6309 C3 Non drive end : 6209 C3	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction	: 519 lb		
Lubrication interval	: 20000 h 20000 h	Max. compression	: 824 lb		
Lubricant amount	: 13 g 9 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 28.5A SF 1.15 SFA 32.8A					
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	12/04/2022		1 / 21		

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



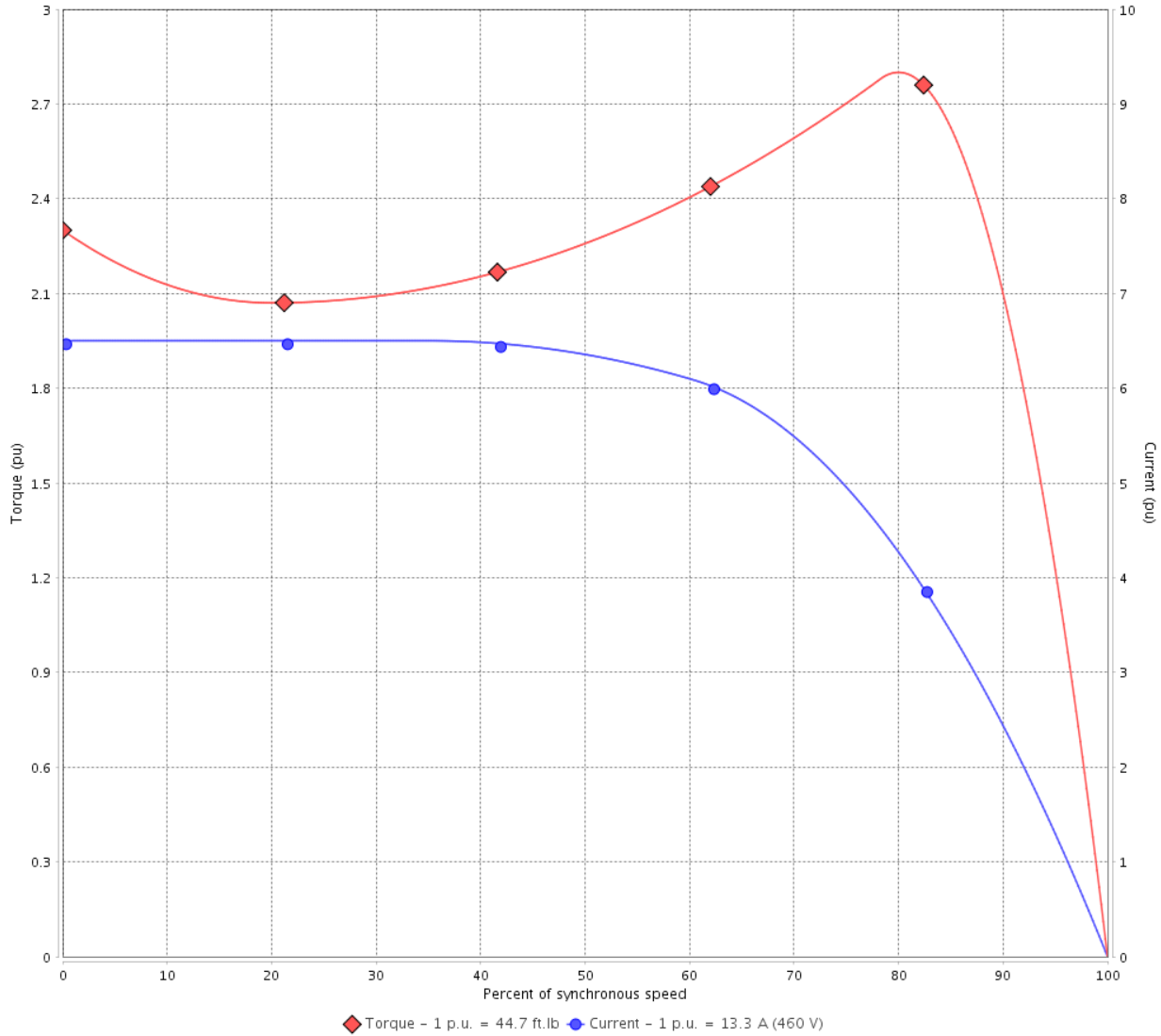
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12941830

Catalog # : 01012ET3E256JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 26.6/13.3 A	Moment of inertia (J)	: 4.43 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 44.7 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 46s (cold) 26s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



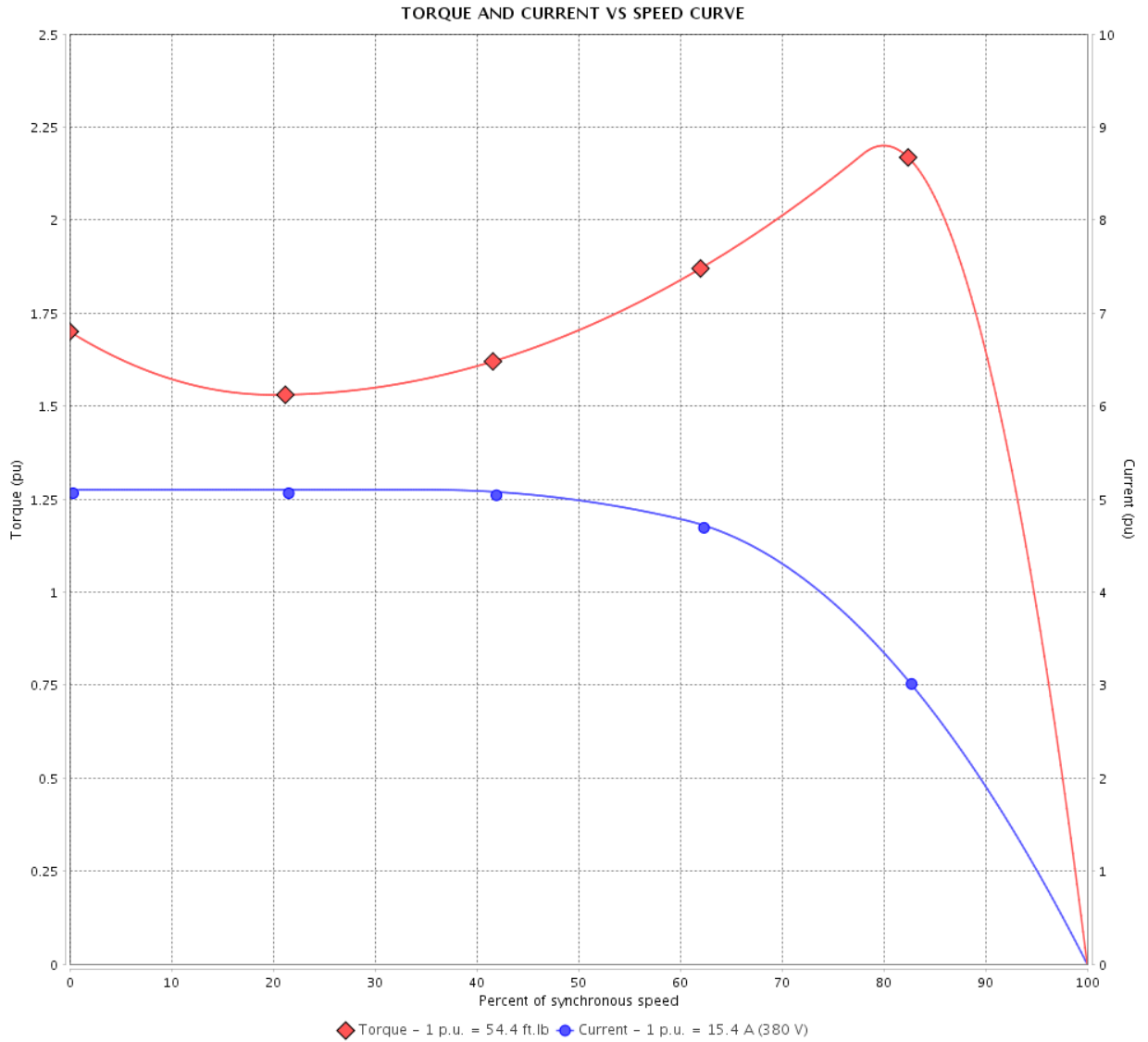
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12941830

Catalog # : 01012ET3E256JM-W22



Performance : 380 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.43 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 54.4 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 965 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



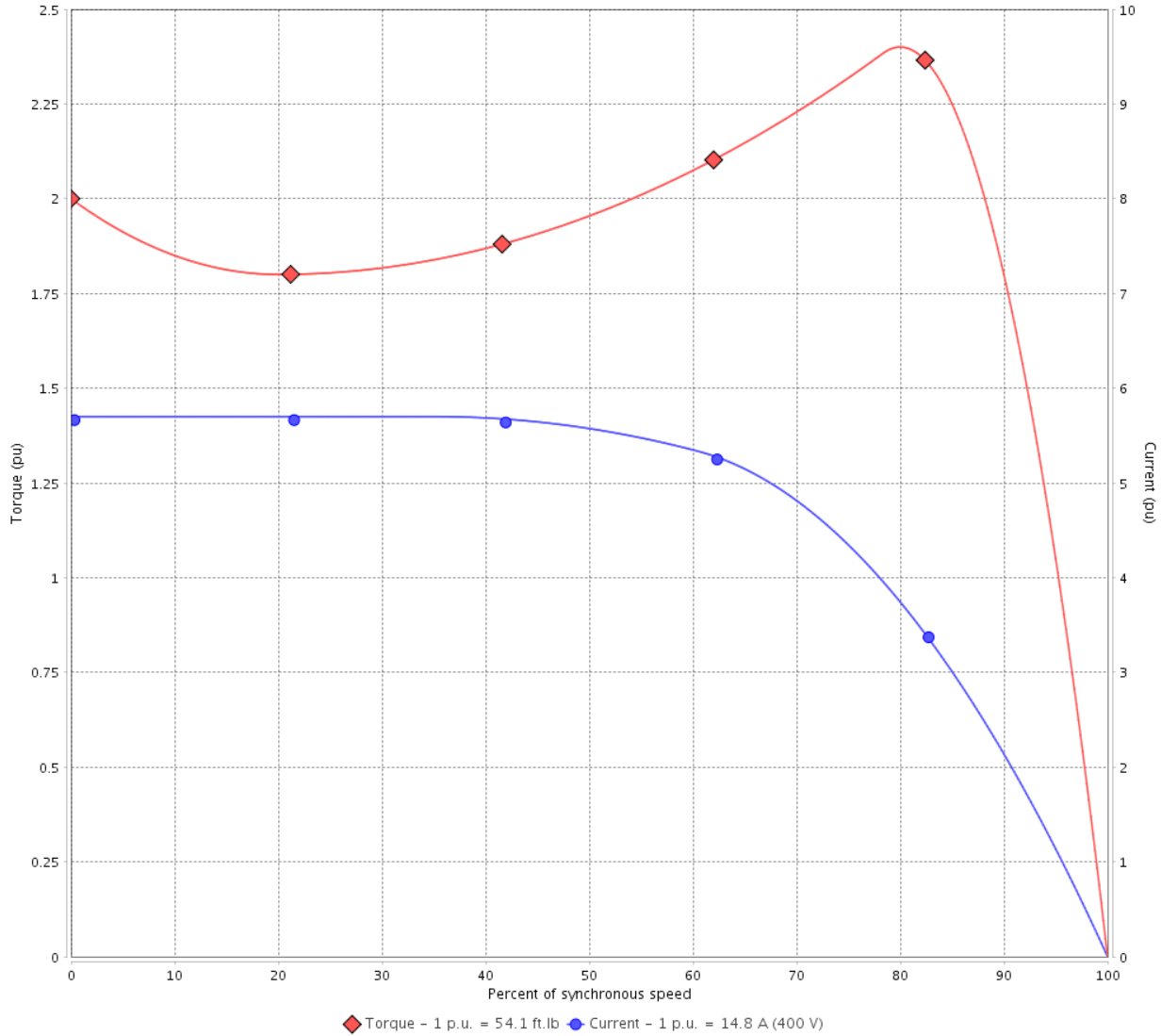
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12941830

Catalog # : 01012ET3E256JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 14.8 A	Moment of inertia (J)	: 4.43 sq.ft.lb
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 54.1 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



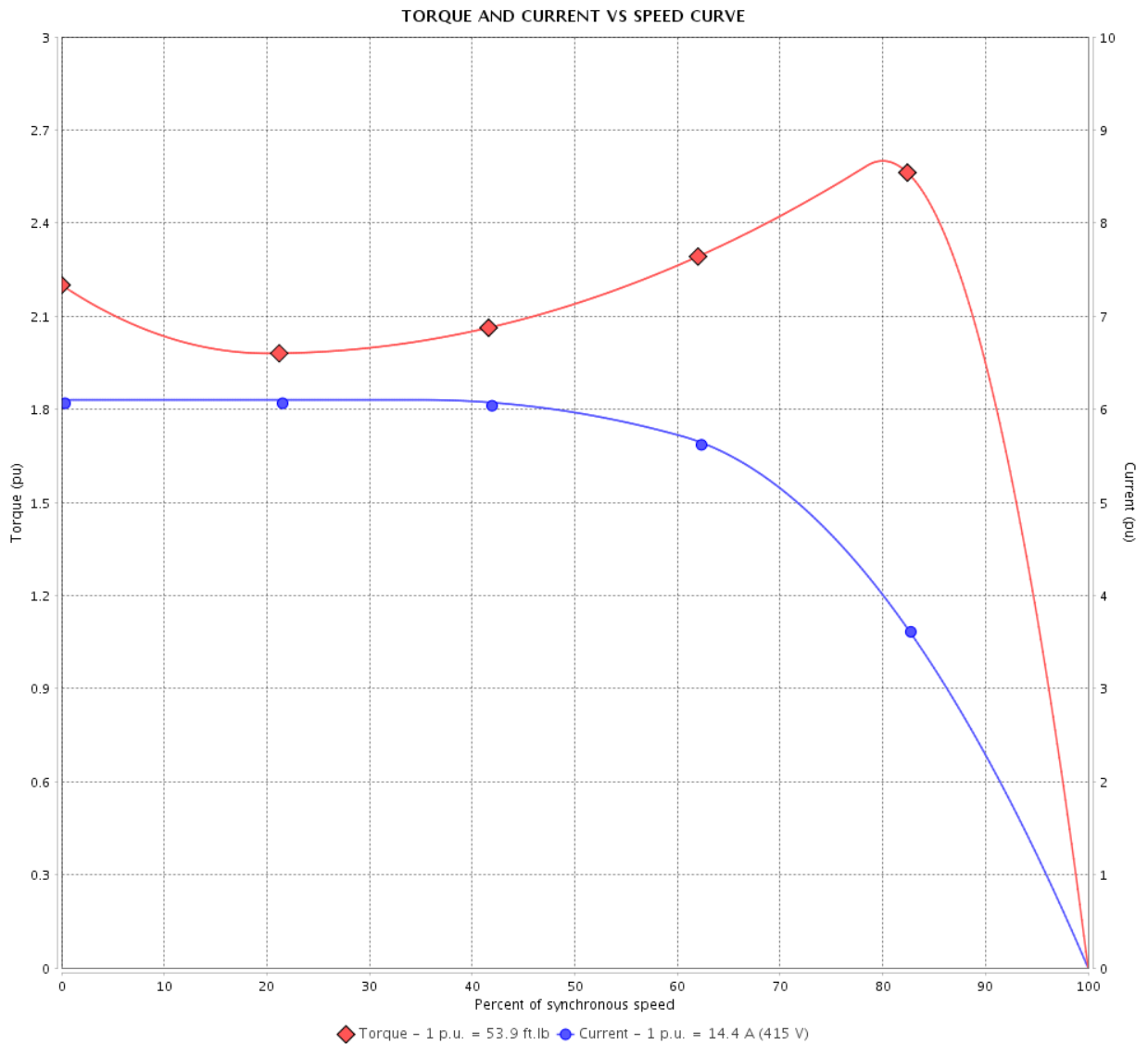
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Catalog # : 01012ET3E256JM-W22



Performance : 415 V 50 Hz 6P IE3

Rated current	: 14.4 A	Moment of inertia (J)	: 4.43 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 53.9 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage



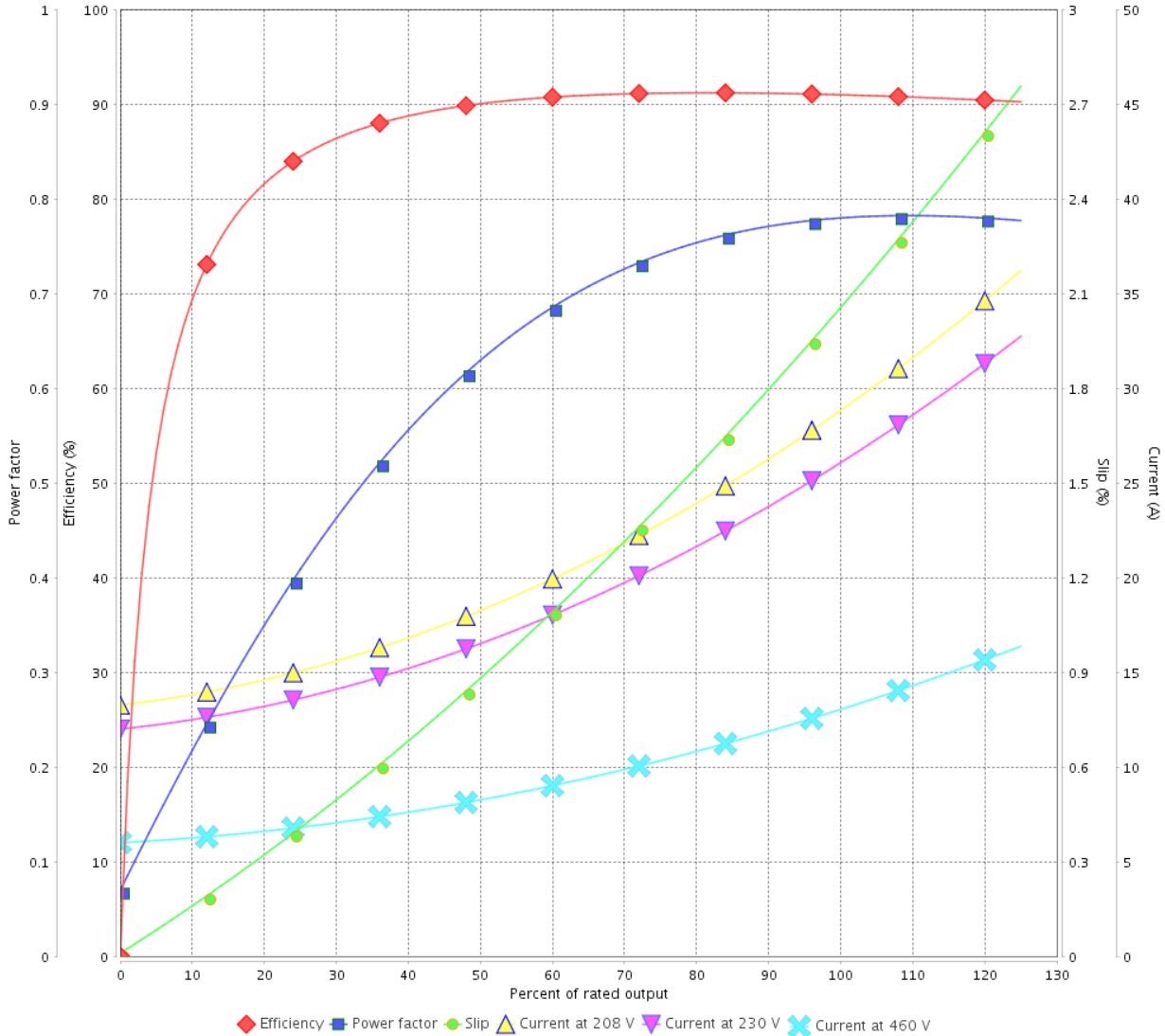
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LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 26.6/13.3 A
 LRC : 6.5
 Rated torque : 44.7 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1175 rpm

Moment of inertia (J) : 4.43 sq.ft.lb
 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		6 / 21		
Date		12/04/2022		

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Three Phase Induction Motor - Squirrel Cage

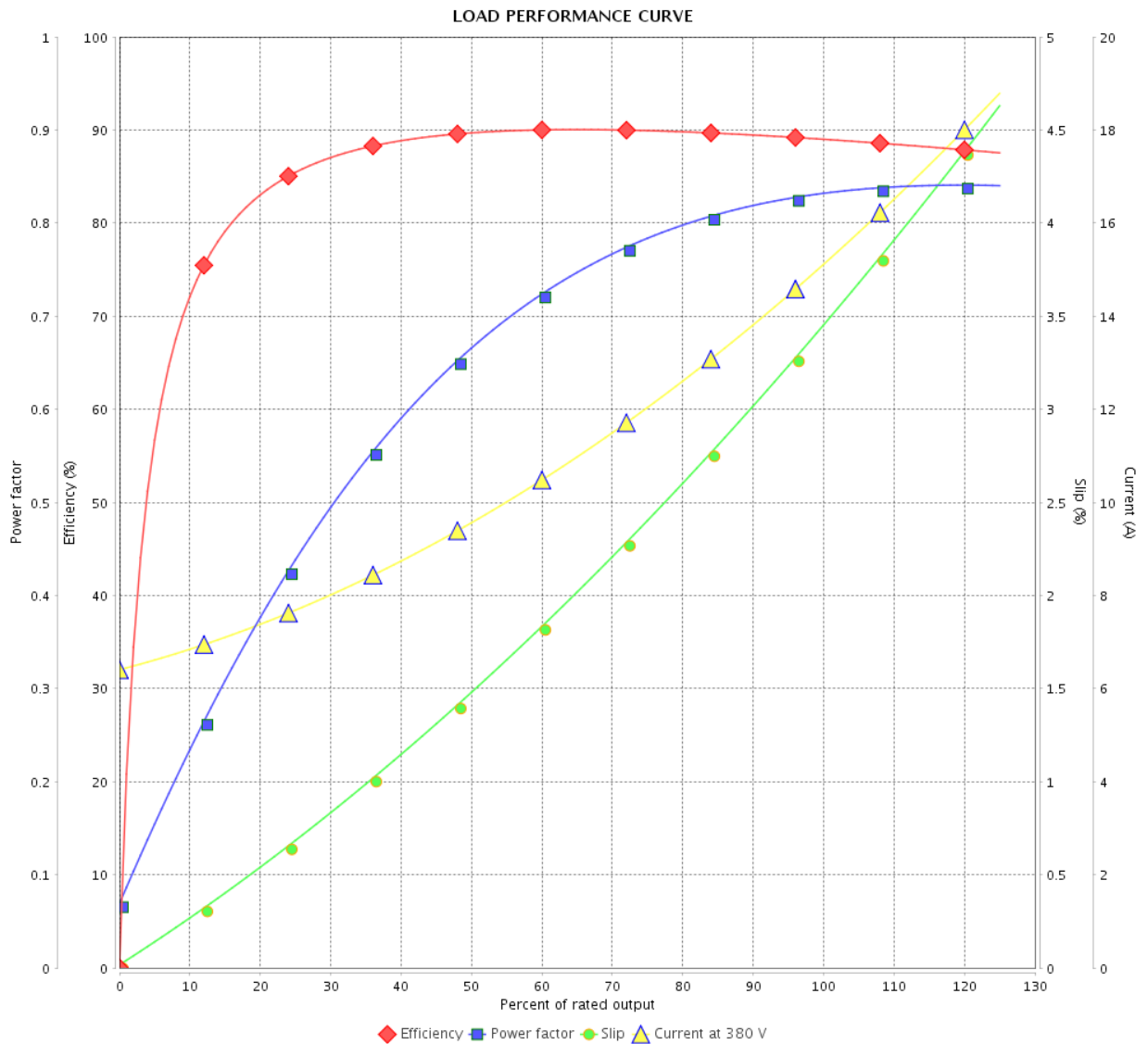


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Product code : 12941830

Catalog # : 01012ET3E256JM-W22



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.4 A
 LRC : 5.1
 Rated torque : 54.4 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 220 %
 Rated speed : 965 rpm

Moment of inertia (J) : 4.43 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			7 / 21	
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage

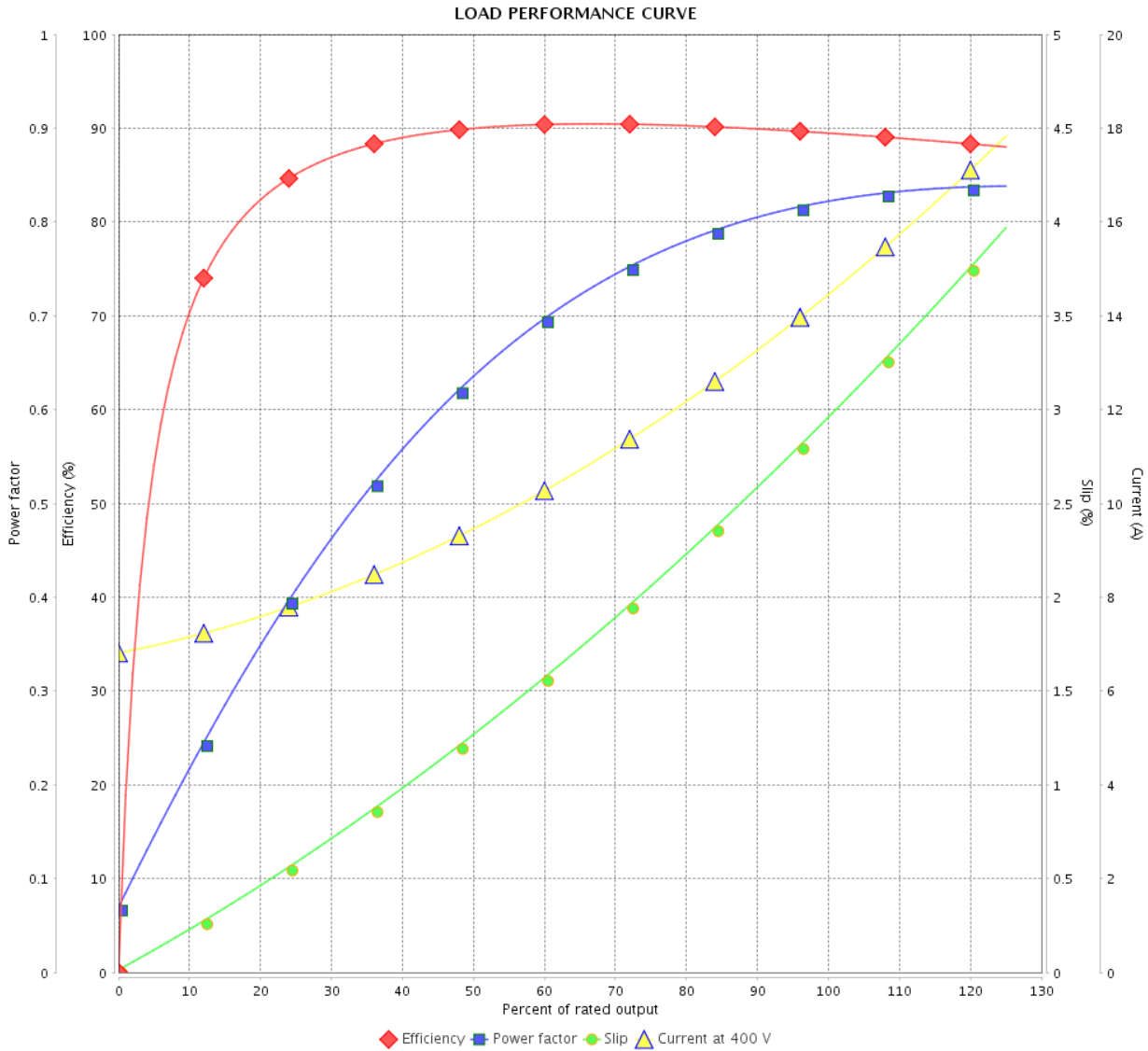


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Performance : 400 V 50 Hz 6P IE3

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 Locked rotor torque : 200 %
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 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		8 / 21		
Date		12/04/2022		

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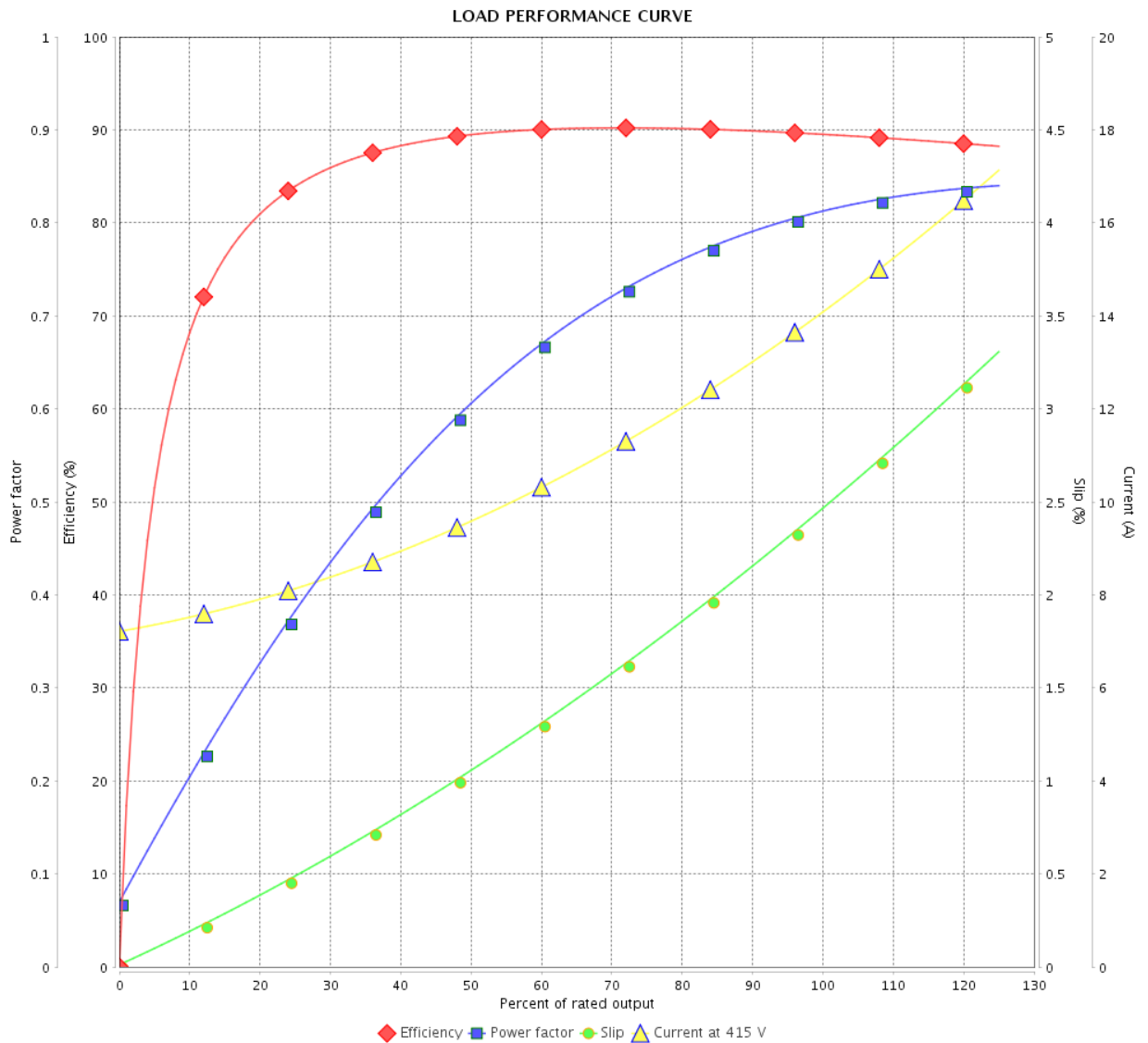


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 21		
Date		12/04/2022		

THERMAL LIMIT CURVE



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Rated speed	: 1175 rpm	Design	: B

Heating constant

Cooling constant

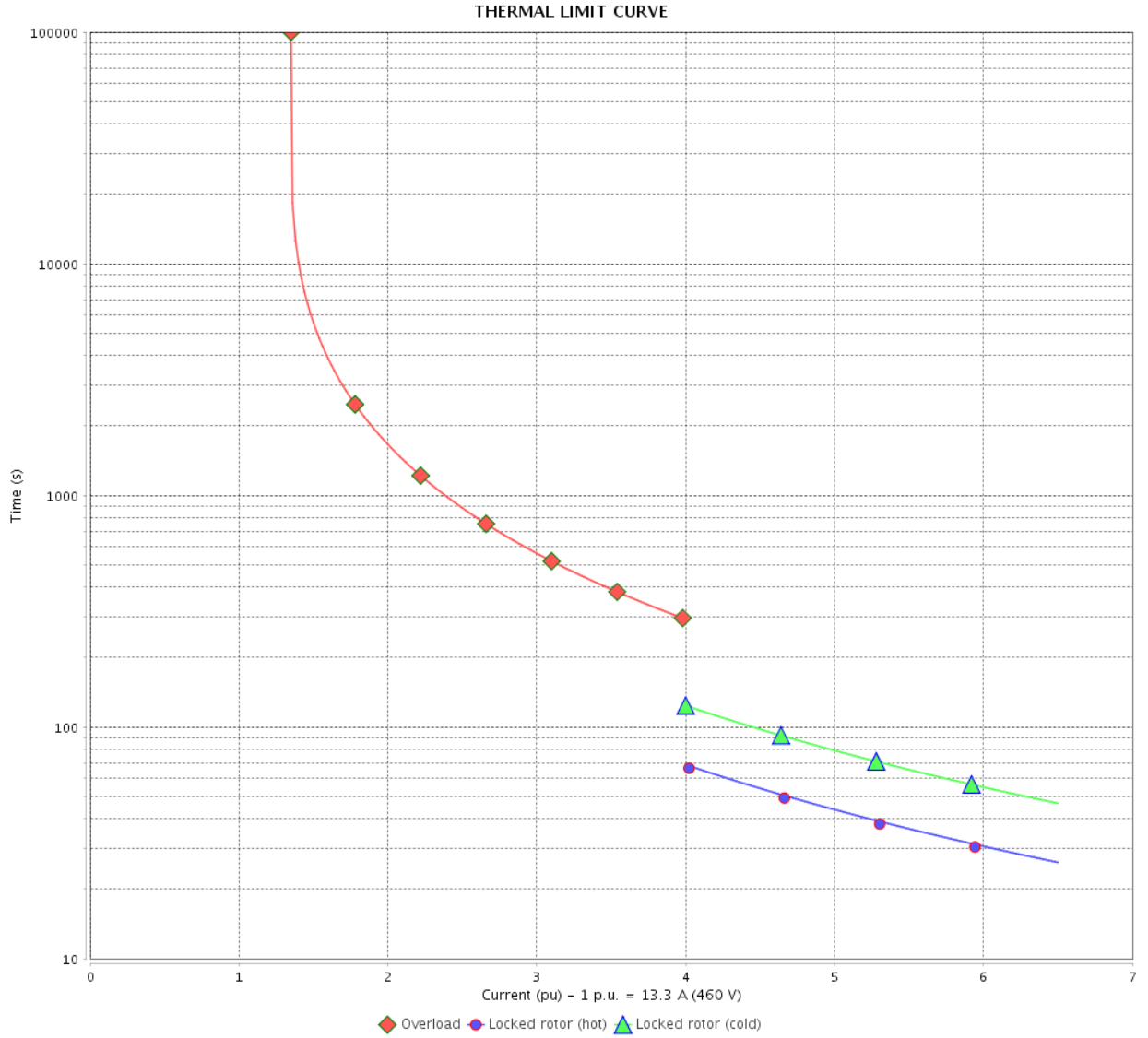
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		10 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 11 / 21		Revision
Checked by				
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Locked rotor torque : 170 %	Service factor : 1.00
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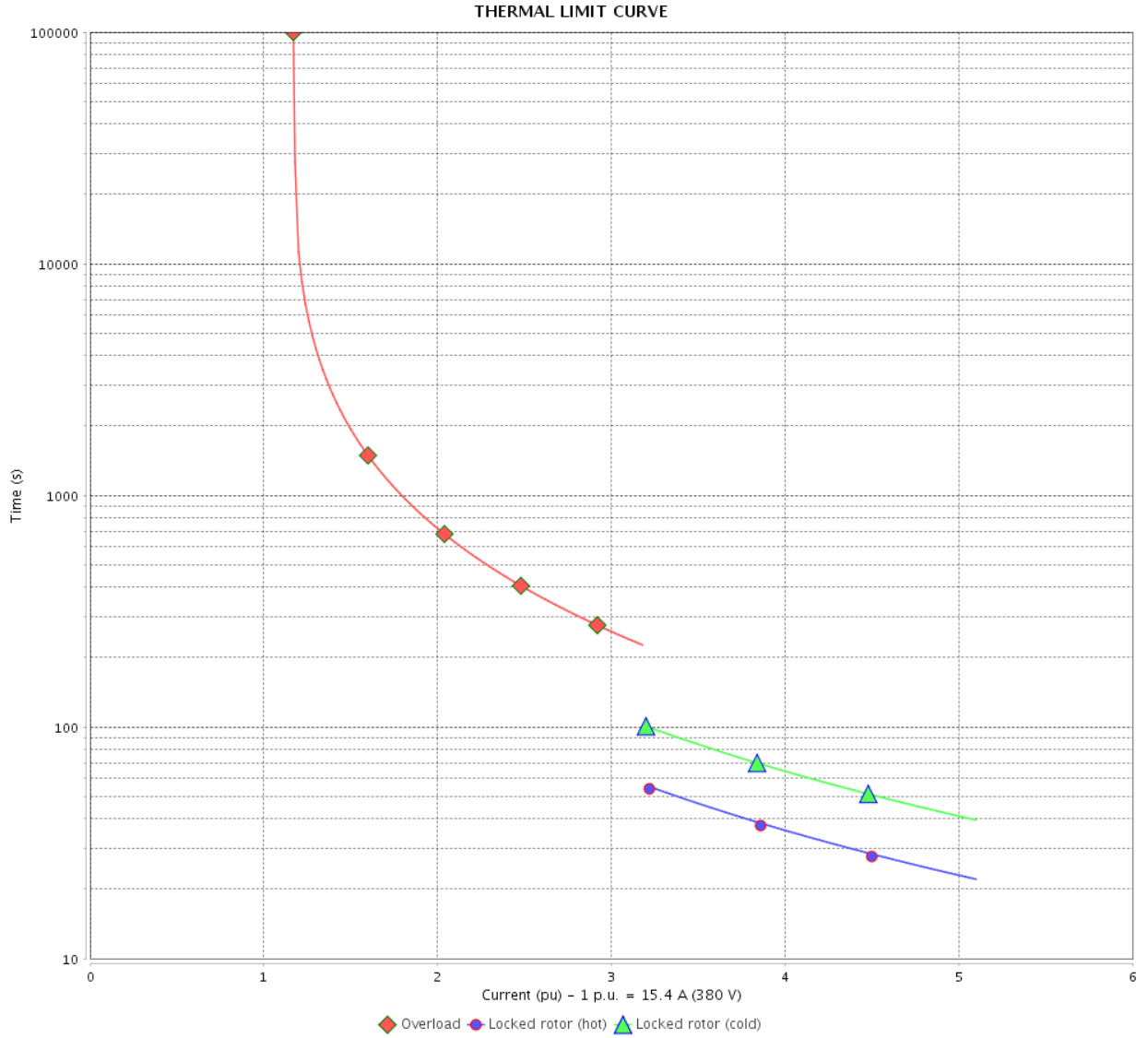
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Performed by			Page 12 / 21	Revision
Checked by				
Date	12/04/2022			

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 21		
Date		12/04/2022		

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Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

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Cooling constant

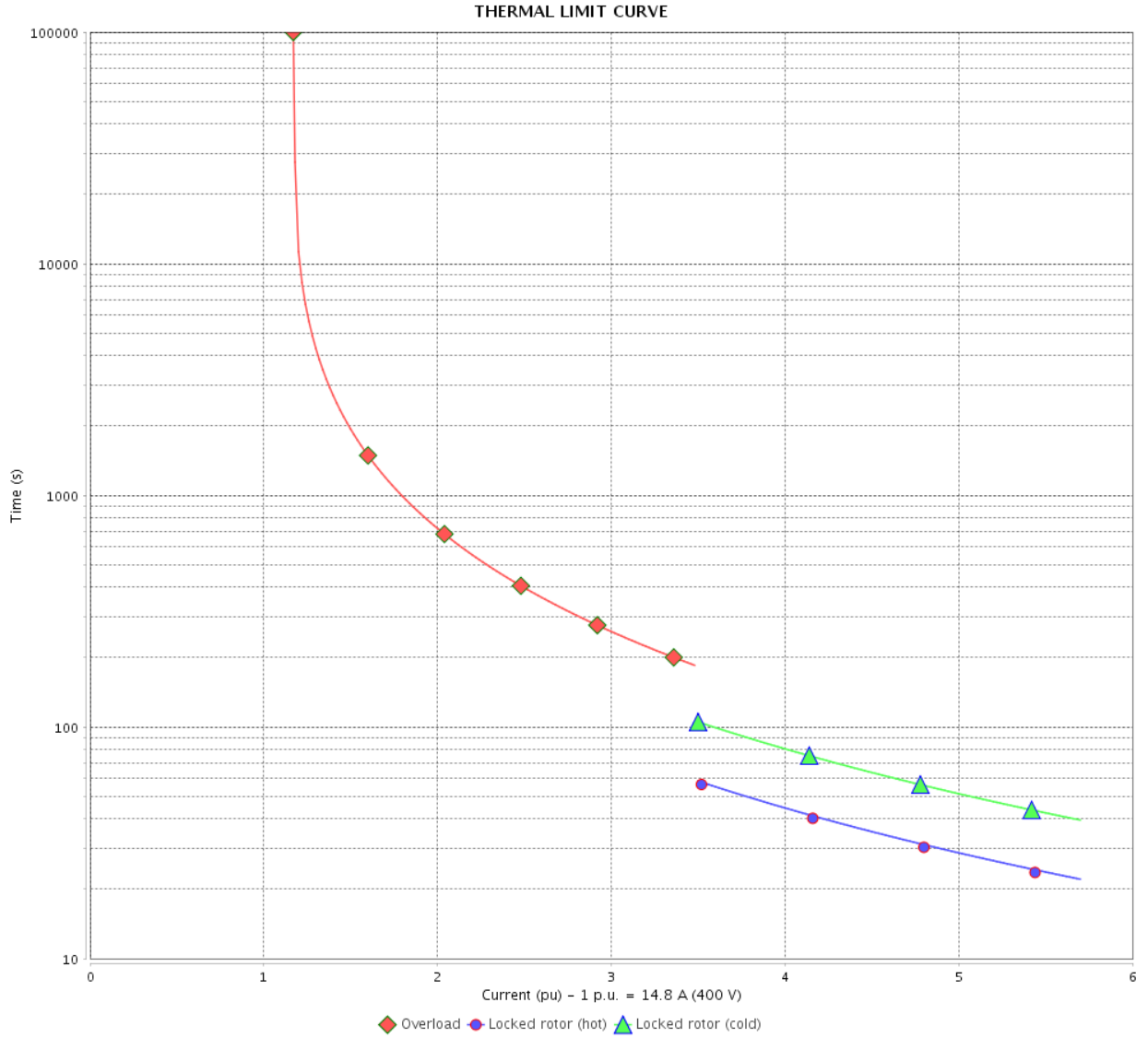
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		14 / 21	

THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 21		
Date		12/04/2022		

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Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

Heating constant

Cooling constant

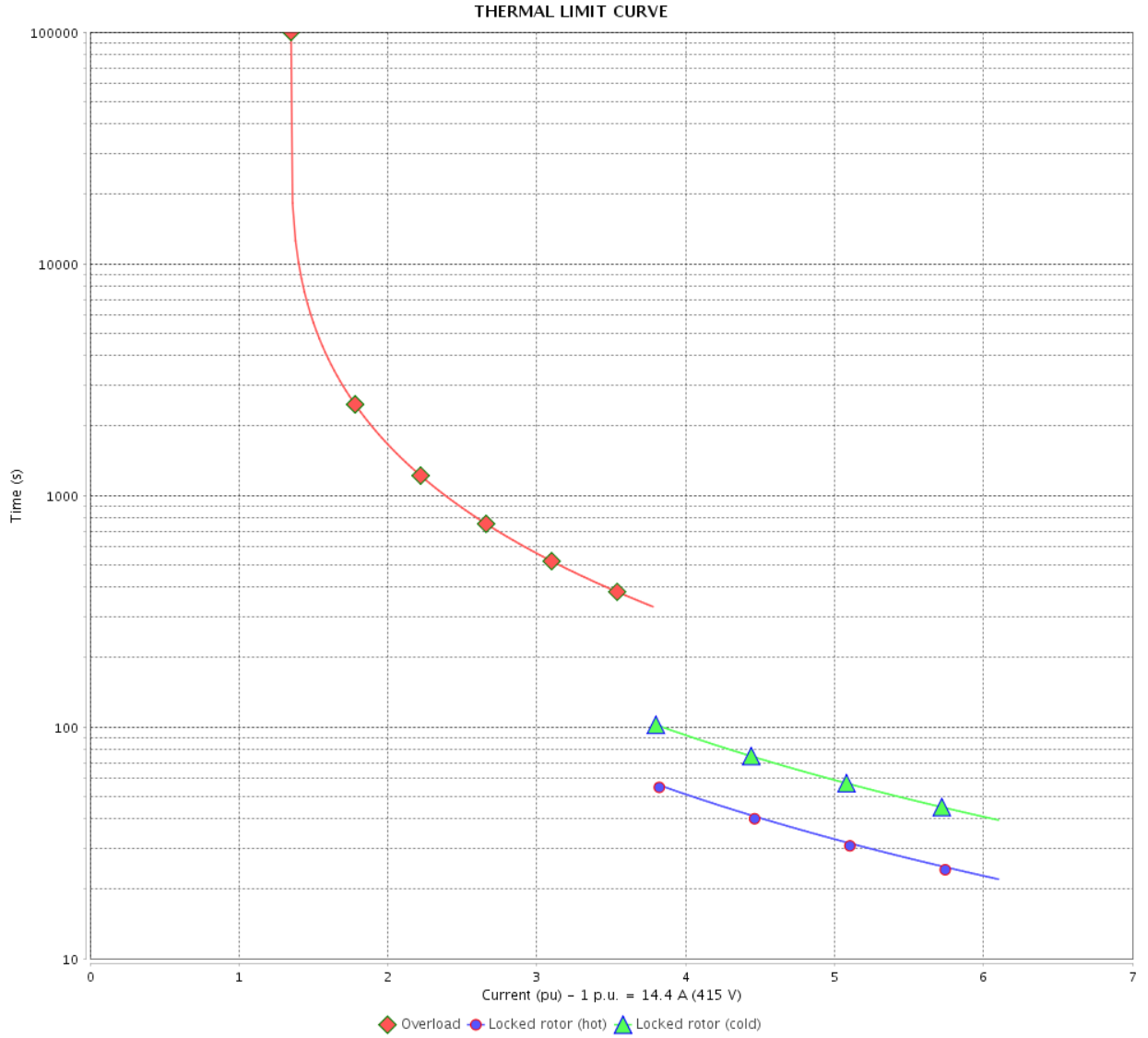
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		16 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 17 / 21		Revision
Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

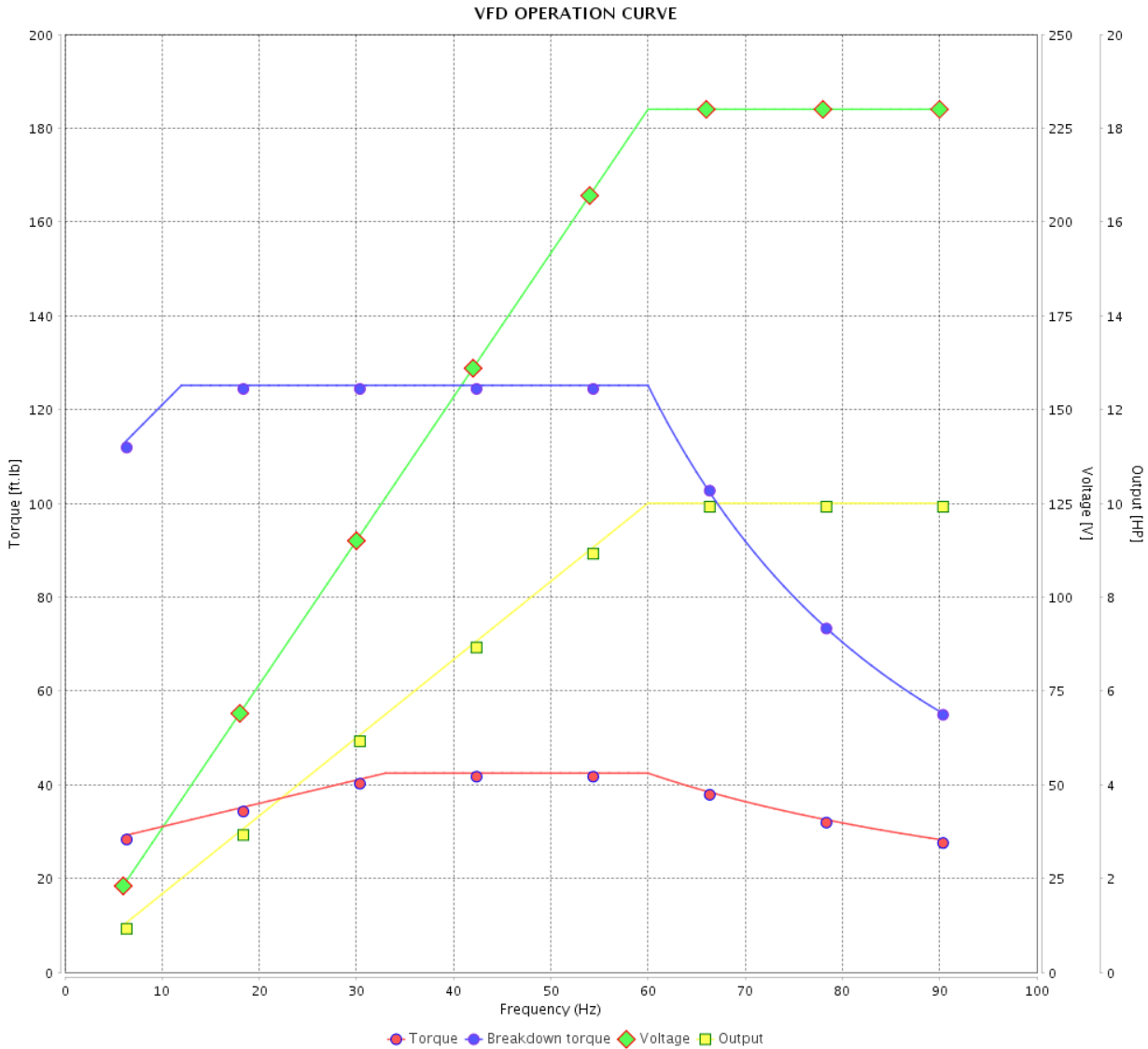


Customer :

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Product code : 12941830

Catalog # : 01012ET3E256JM-W22



Performance : 230/460 V 60 Hz 6P

Rated current : 26.6/13.3 A
 LRC : 6.5
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 Locked rotor torque : 229 %
 Breakdown torque : 280 %
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Moment of inertia (J) : 4.43 sq.ft.lb
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 Insulation class : F
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 21	Revision
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

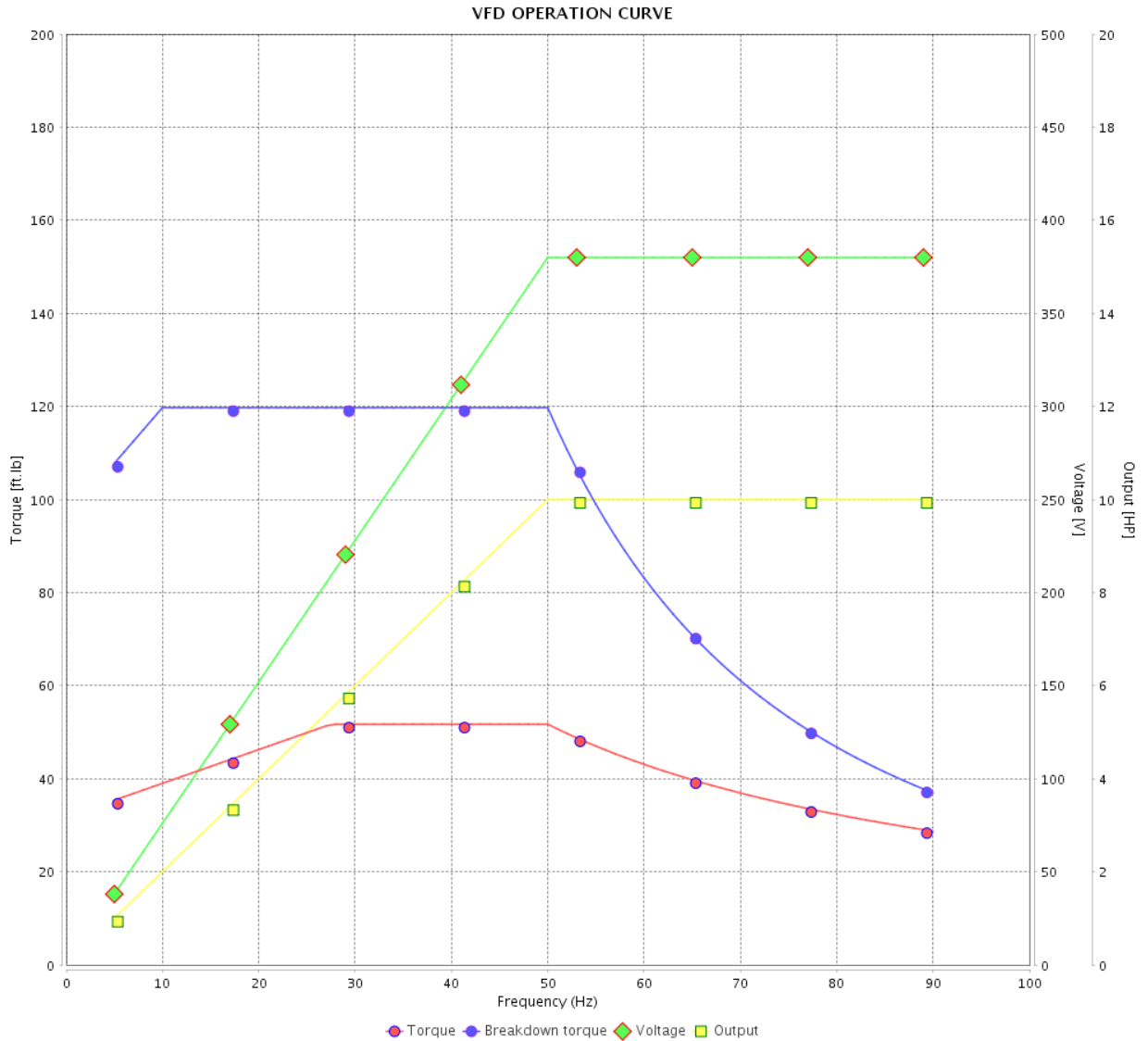


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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 21
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



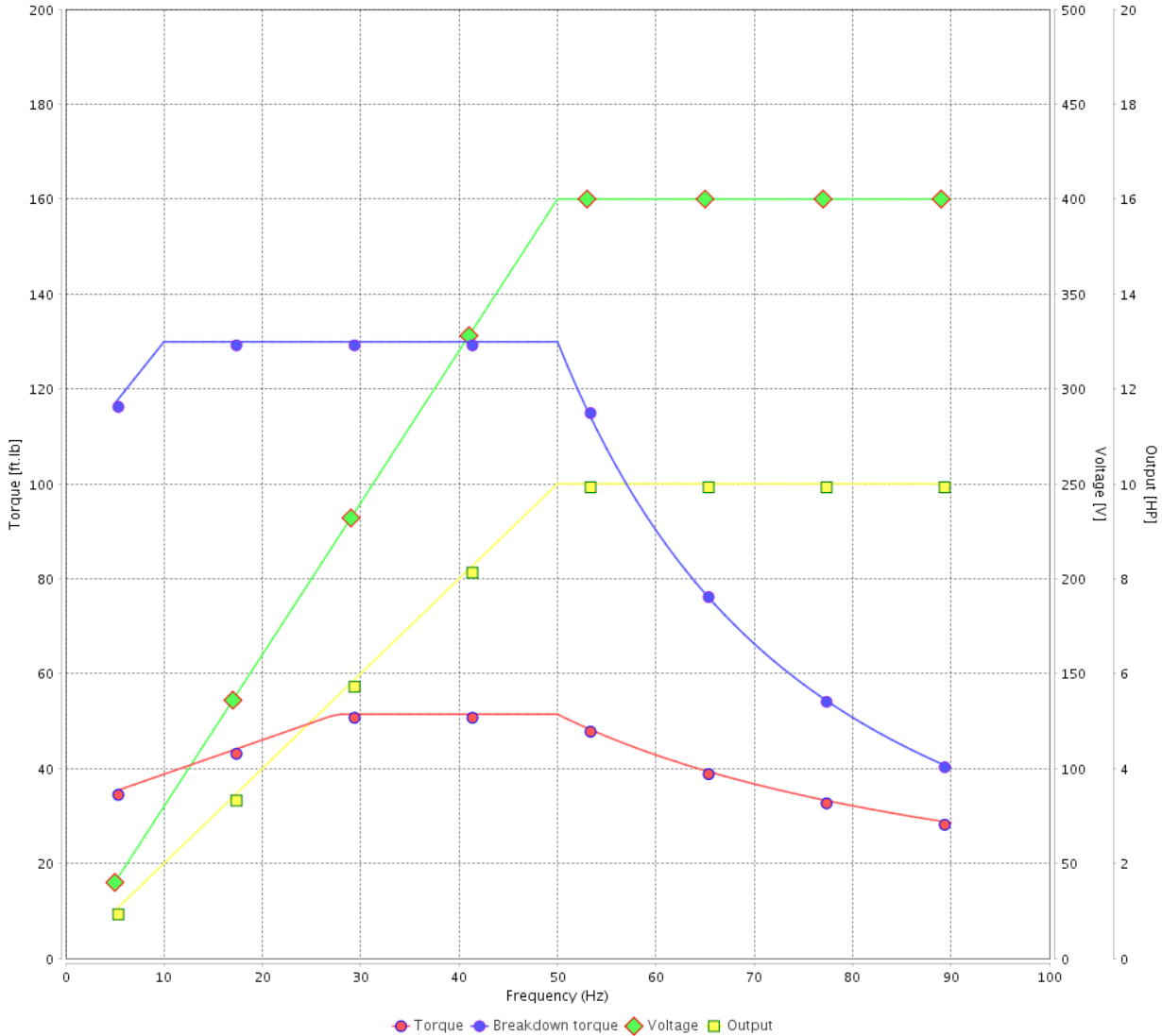
Customer :

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VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE3

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 Breakdown torque : 240 %
 Rated speed : 970 rpm

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Performed by			Page 20 / 21	Revision
Checked by				
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

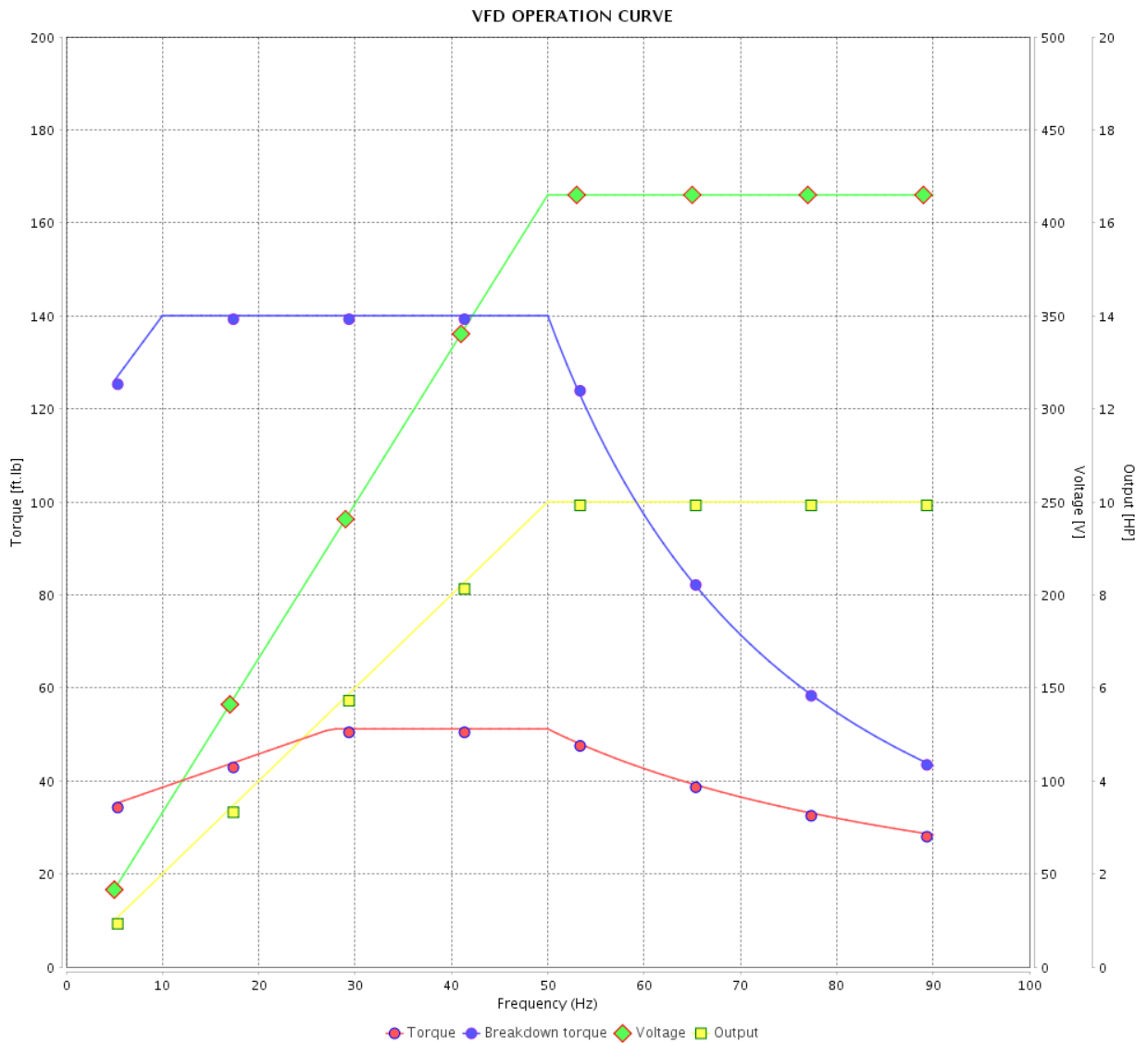


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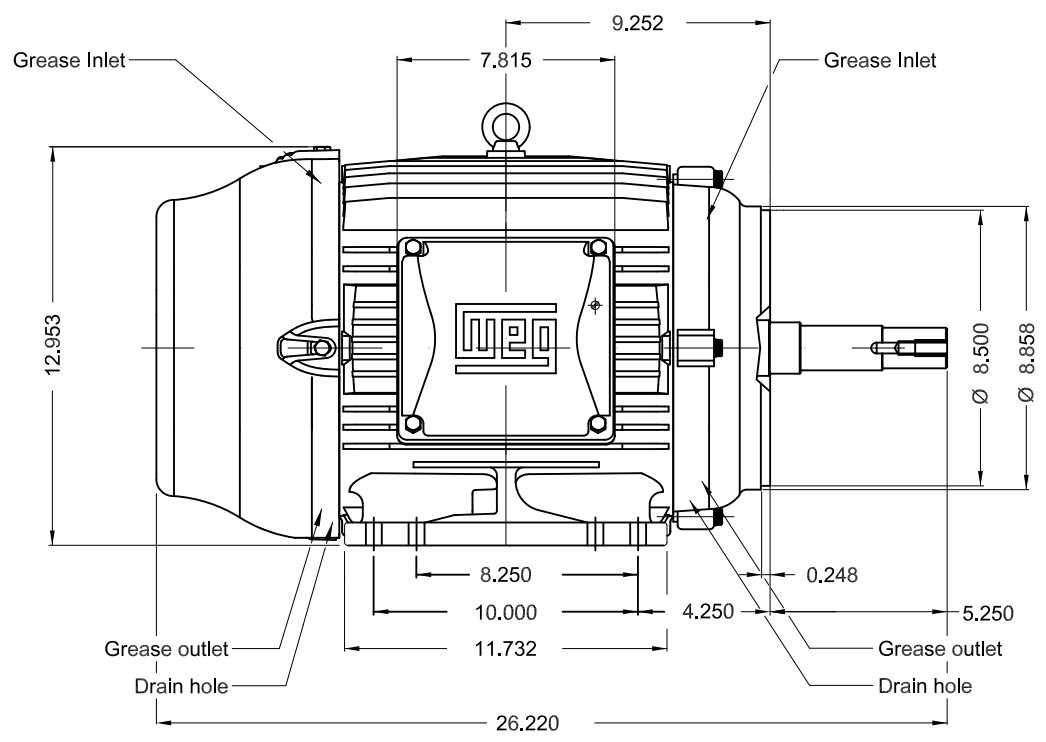
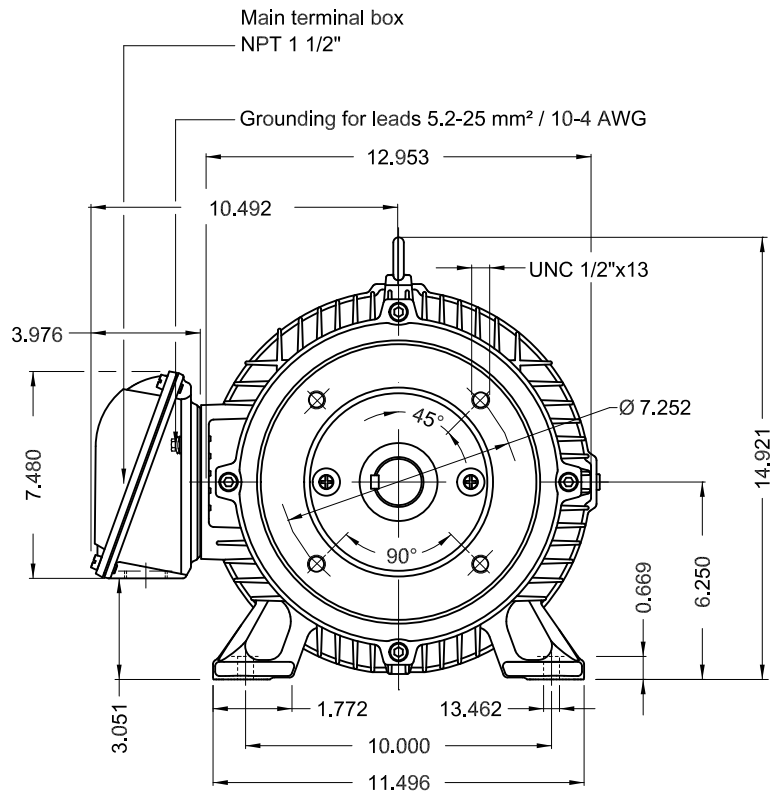
Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 21 / 21
Checked by				
Date	12/04/2022			
				Revision

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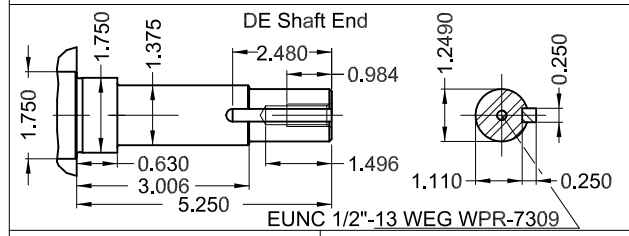
A

B

C



D



E

Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B34R(D)

10 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF. FRAME 254/6JM IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

PREVIEW
 WDD





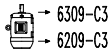
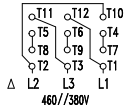
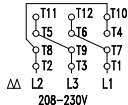
FOR SAFE AREA
MOD.TE1BFOXON

For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr. F and G - T4
For 60Hz use on PWM, Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.0SF, T3A



JM010406NPW22
MADE IN BRAZIL
12941830

PH 3	FR 254/6JM	HP(kW) 10.0(7.5)	Hz 60
V 230/460	A 26.6/13.3	RPM 1175	DES B
NEMA NOM EFF 91.0 %	INS. CL. F Δ T 80 K	IP55	
ENCL TEFC	DUTY CONT.	AMB. 40°C	
CODE H	PF 0.78	SF 1.25	SFA 33.3/16.6
USABLE @208V	28.5 A	SF 1.15	SFA 32.8
10HP 7.5kW 50Hz 380V 15.4A 965RPM SF1.00 EFF 89.1% (IE3)	ALT 1000 m.a.s.l.		



MOBIL POLYREX EM
13 g 20000 h

ALT 1000 m.a.s.l. 306 Lbs