

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		11458408
			Catalog # :		01012ET3E256TC-W22
Frame		: 254/6TC	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		: 307 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 : 518 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 825 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.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



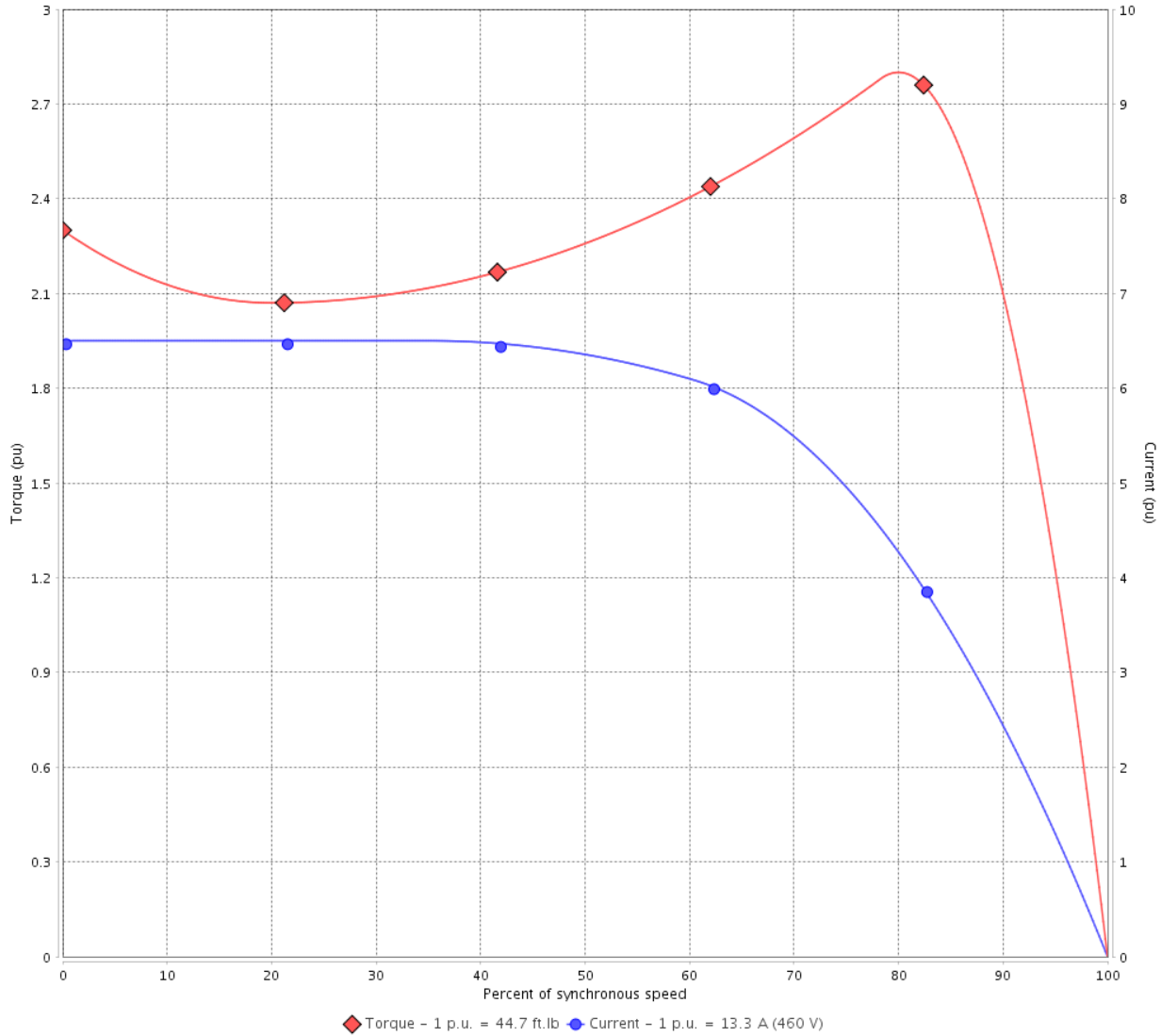
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11458408

Catalog # : 01012ET3E256TC-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)

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TORQUE AND CURRENT VS SPEED CURVE



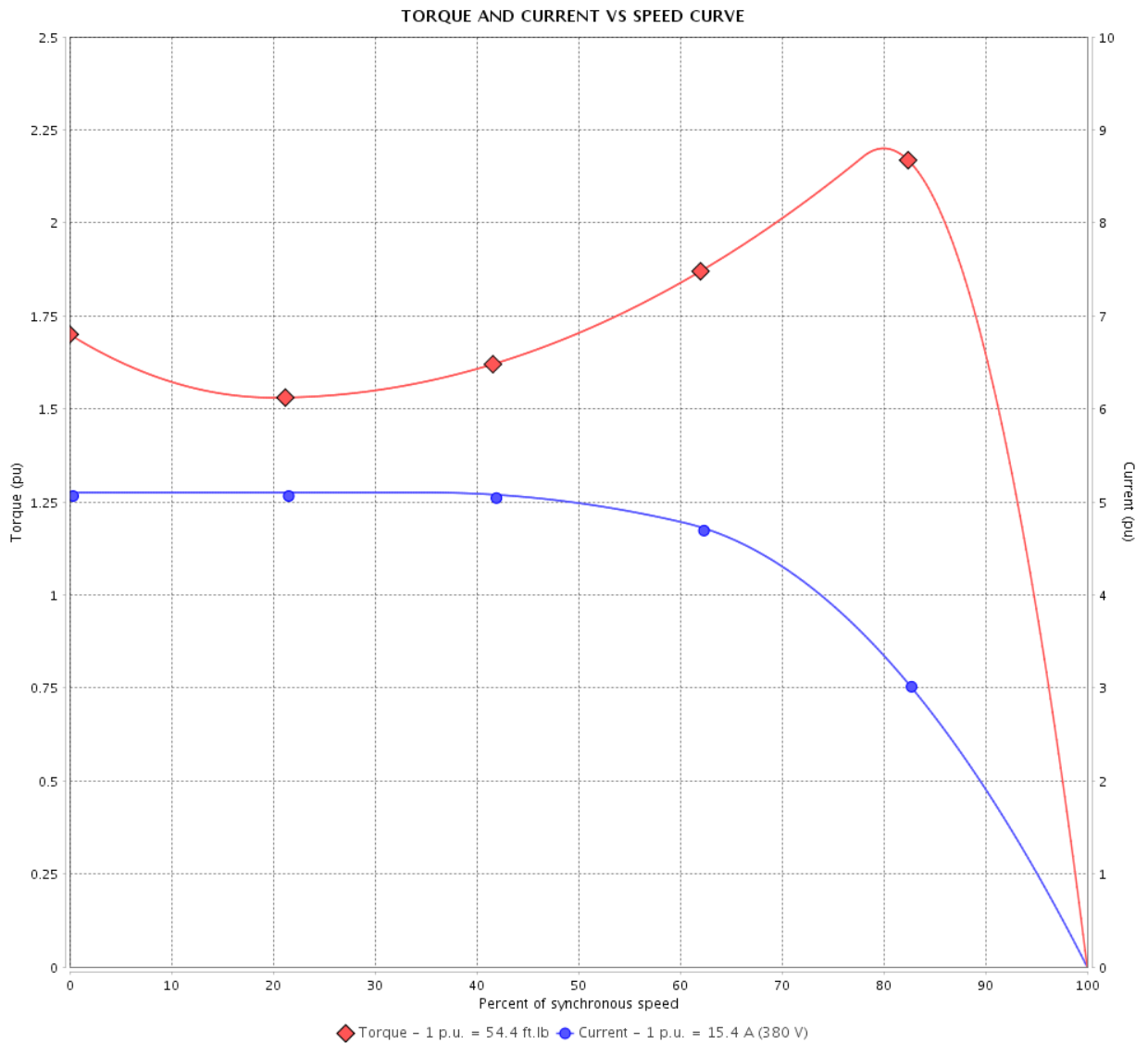
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11458408

Catalog # : 01012ET3E256TC-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)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



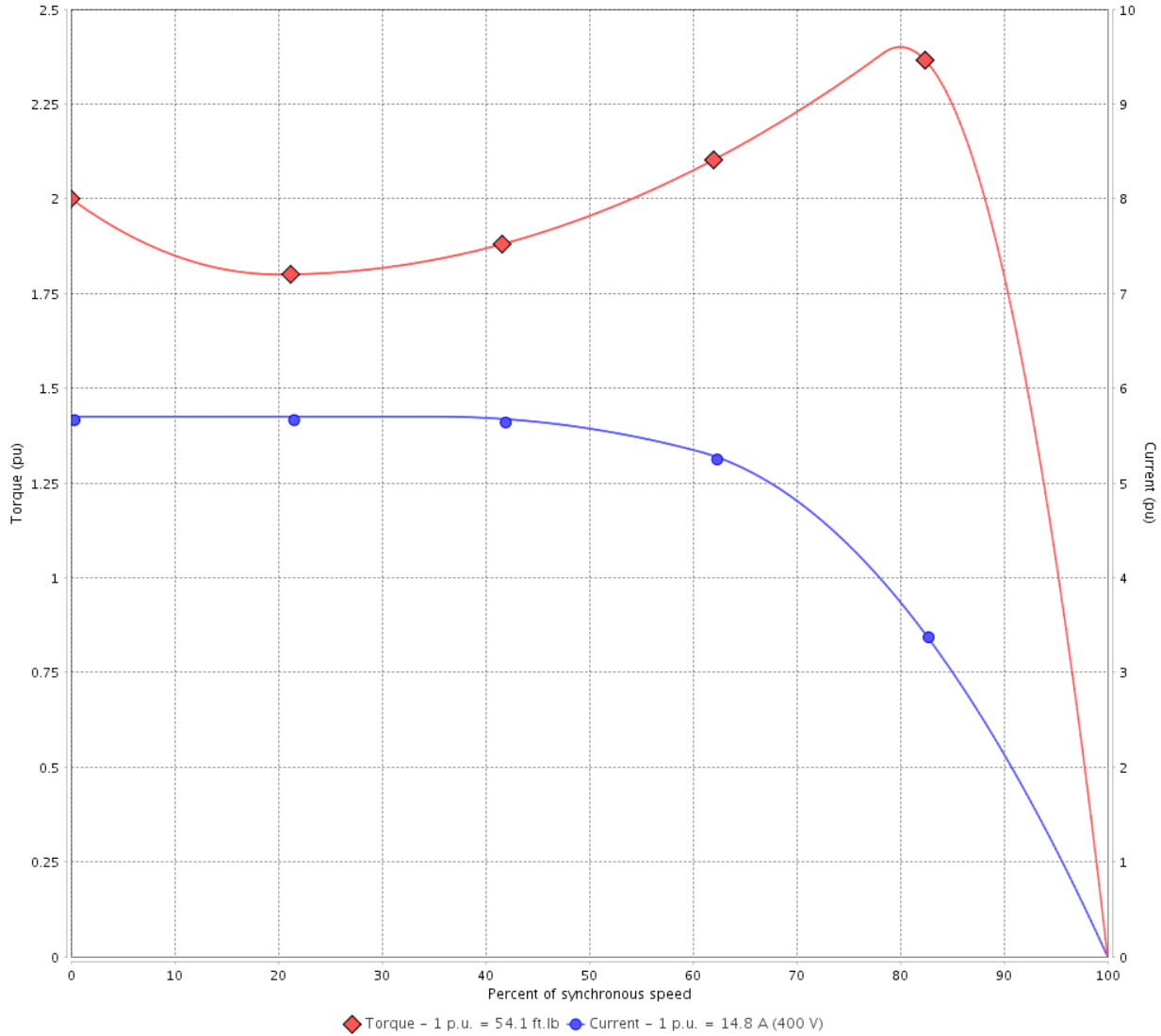
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11458408

Catalog # : 01012ET3E256TC-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)

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TORQUE AND CURRENT VS SPEED CURVE



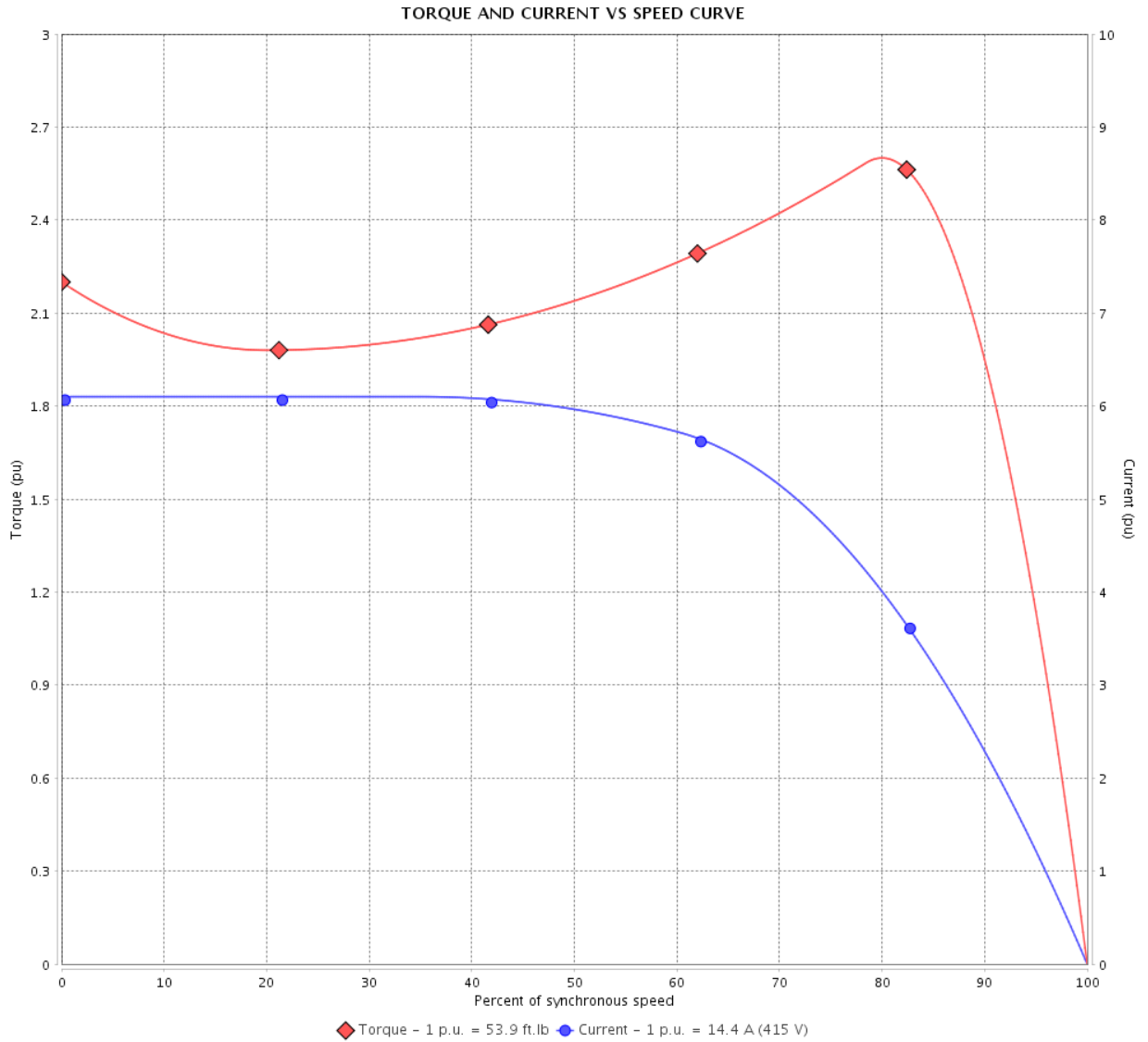
Three Phase Induction Motor - Squirrel Cage

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Product code : 11458408

Catalog # : 01012ET3E256TC-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)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



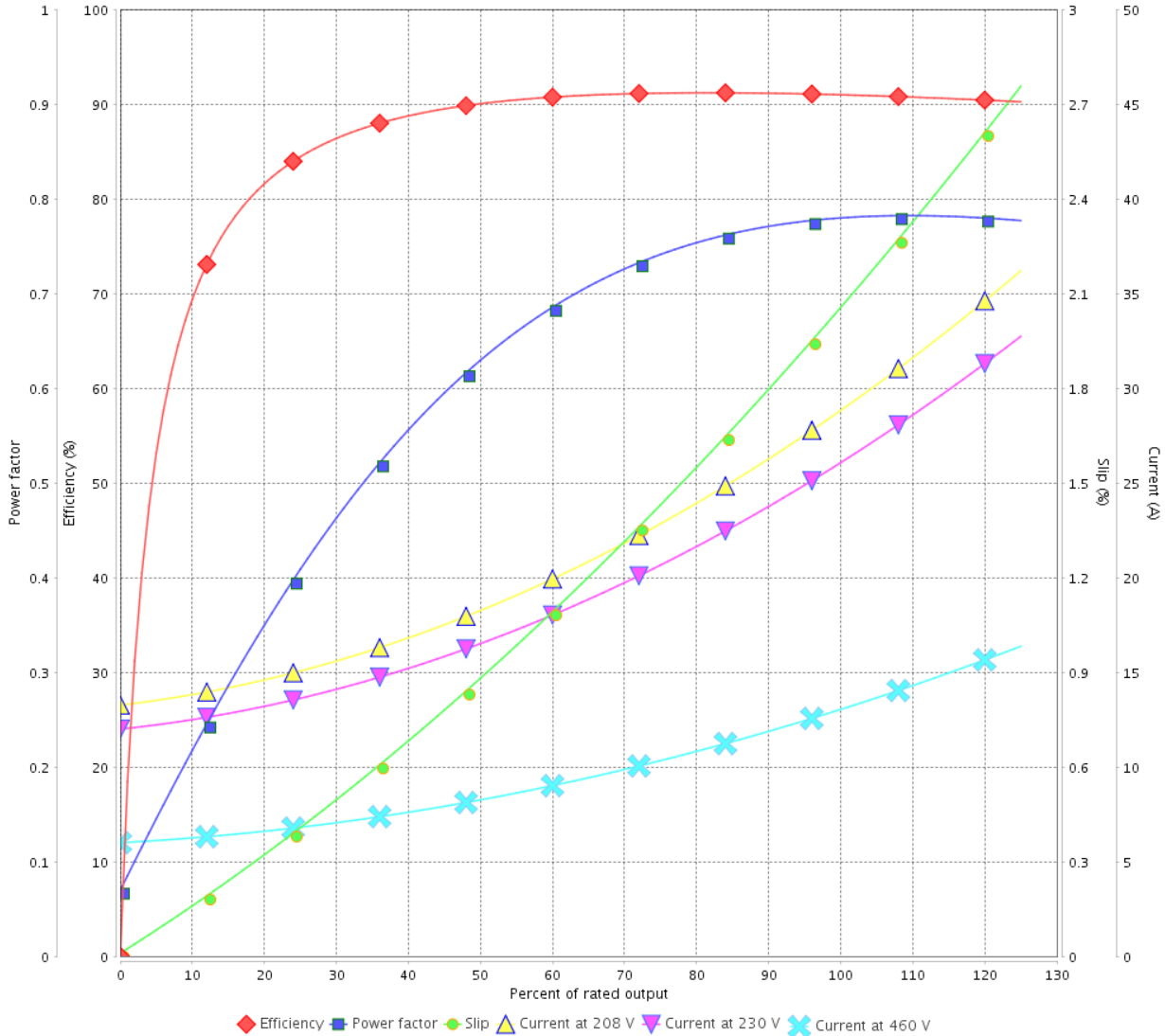
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11458408

Catalog # : 01012ET3E256TC-W22

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

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Date				

LOAD PERFORMANCE CURVE

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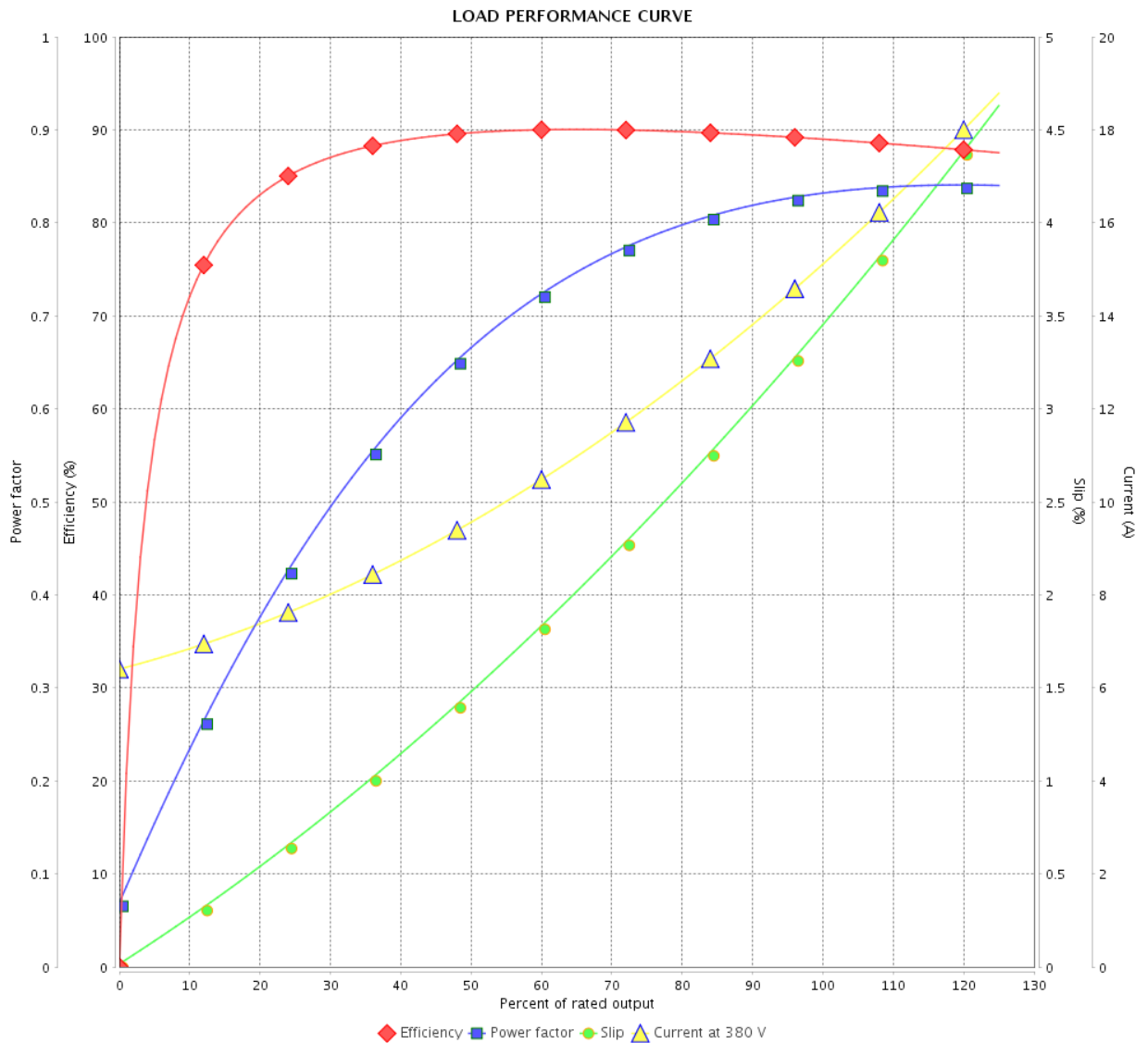


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Product code : 11458408

Catalog # : 01012ET3E256TC-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

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Three Phase Induction Motor - Squirrel Cage

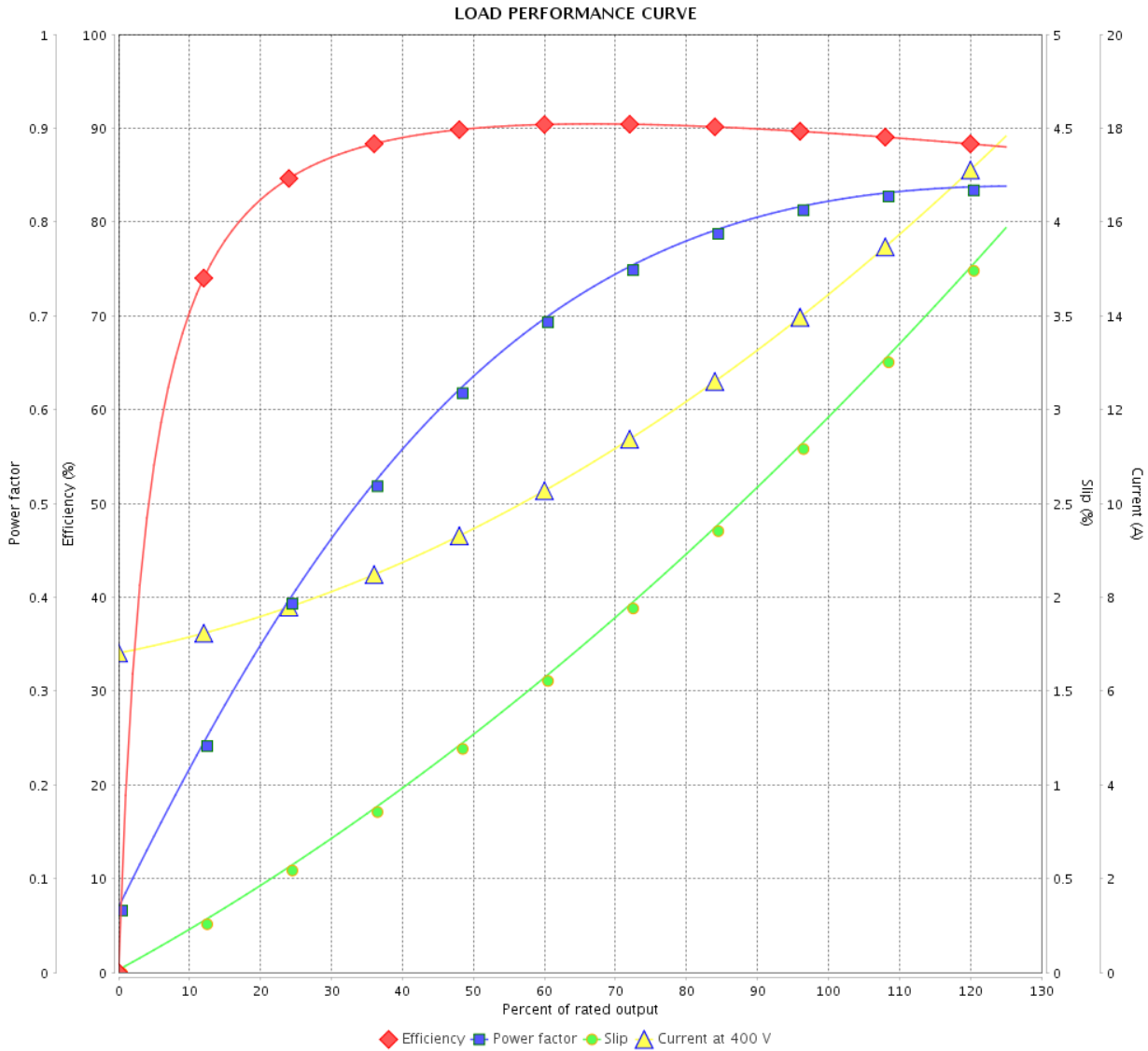


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Catalog # : 01012ET3E256TC-W22



Performance : 400 V 50 Hz 6P IE3

Rated current : 14.8 A
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 Rated torque : 54.1 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 970 rpm

Moment of inertia (J) : 4.43 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 105 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

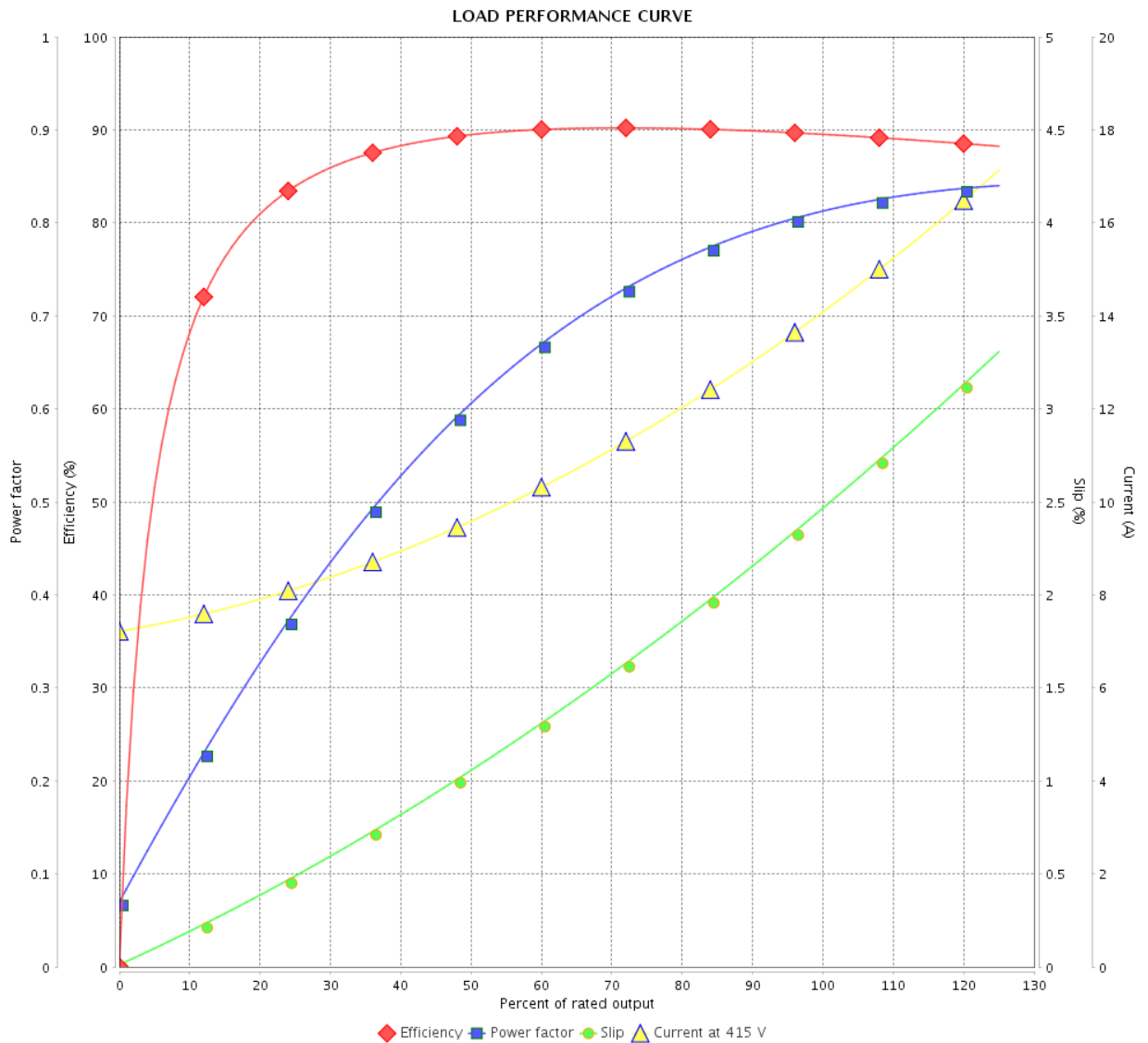


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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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

Heating constant

Cooling constant

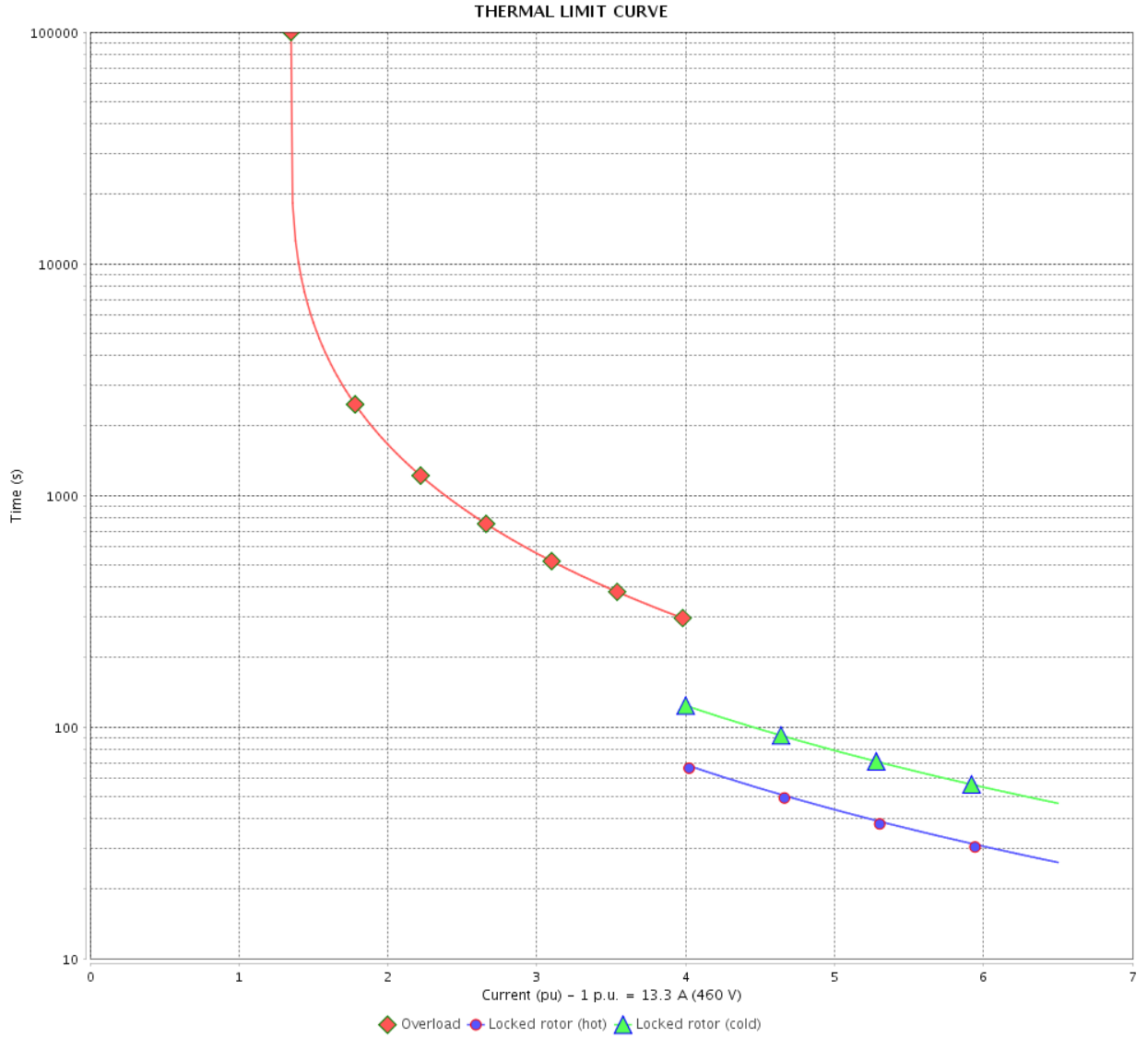
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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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

Heating constant

Cooling constant

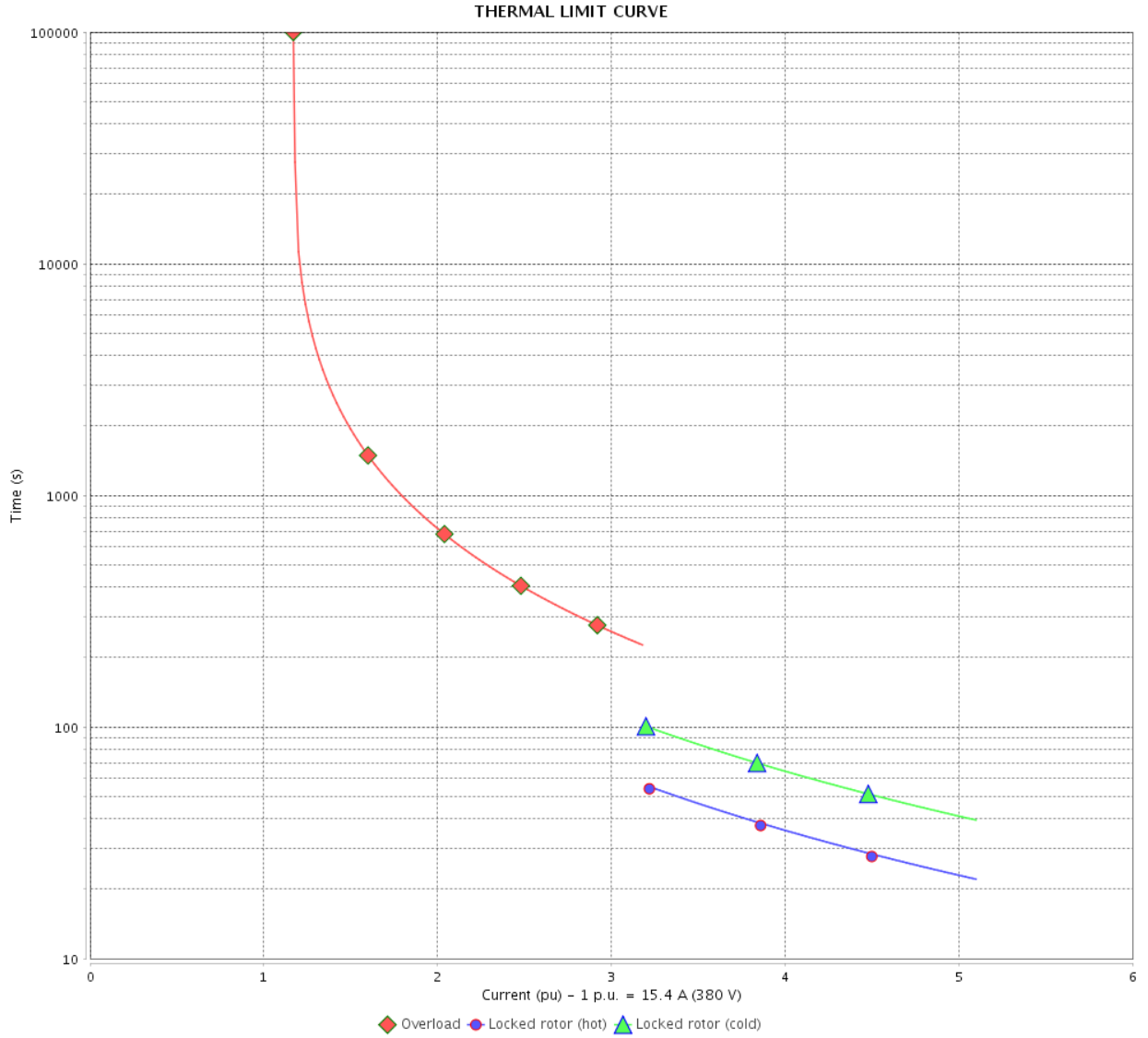
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Rated torque	: 54.1 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Heating constant

Cooling constant

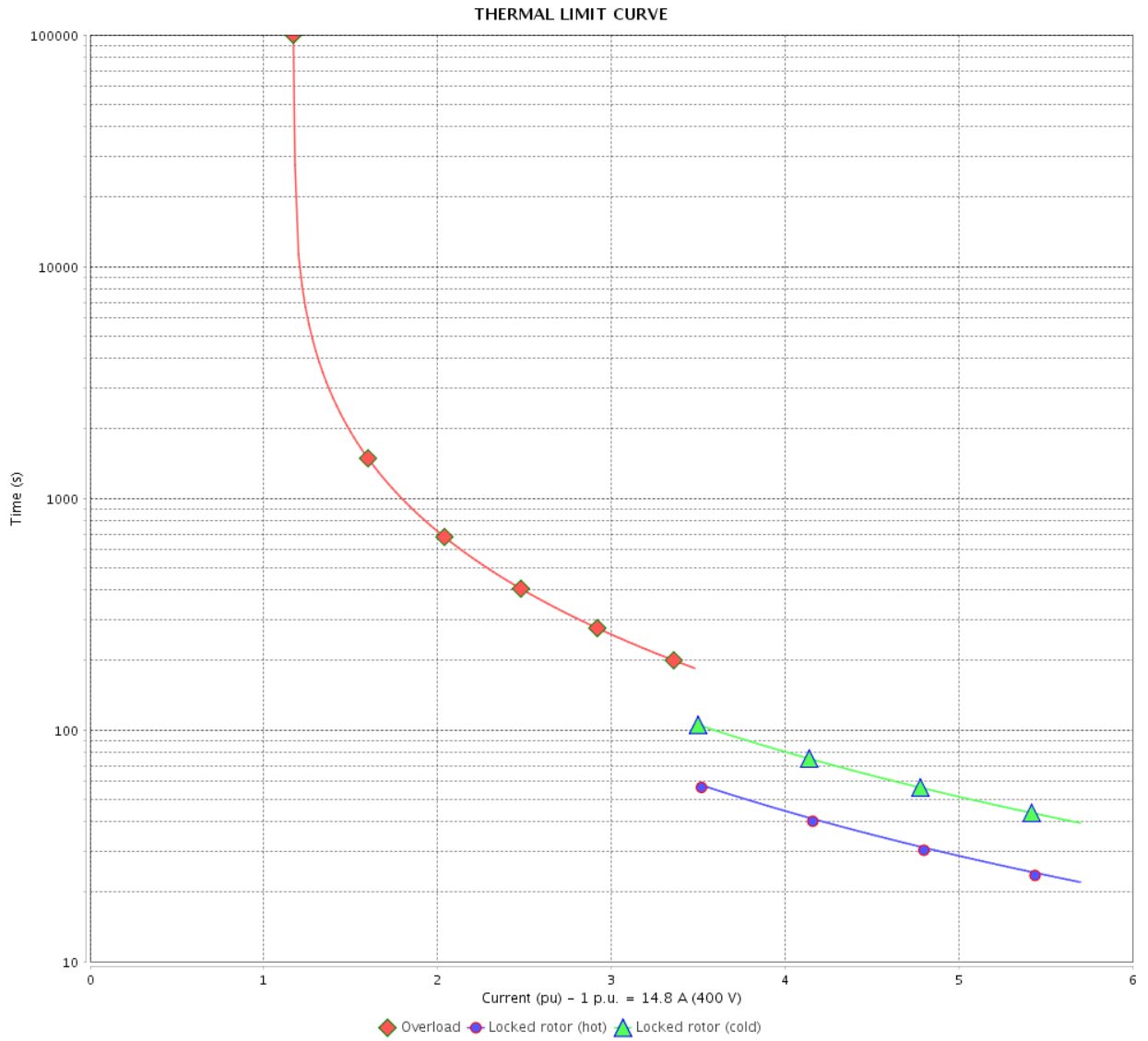
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Performed by				
Checked by			Page	Revision
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE

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Catalog # : 01012ET3E256TC-W22

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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

Heating constant

Cooling constant

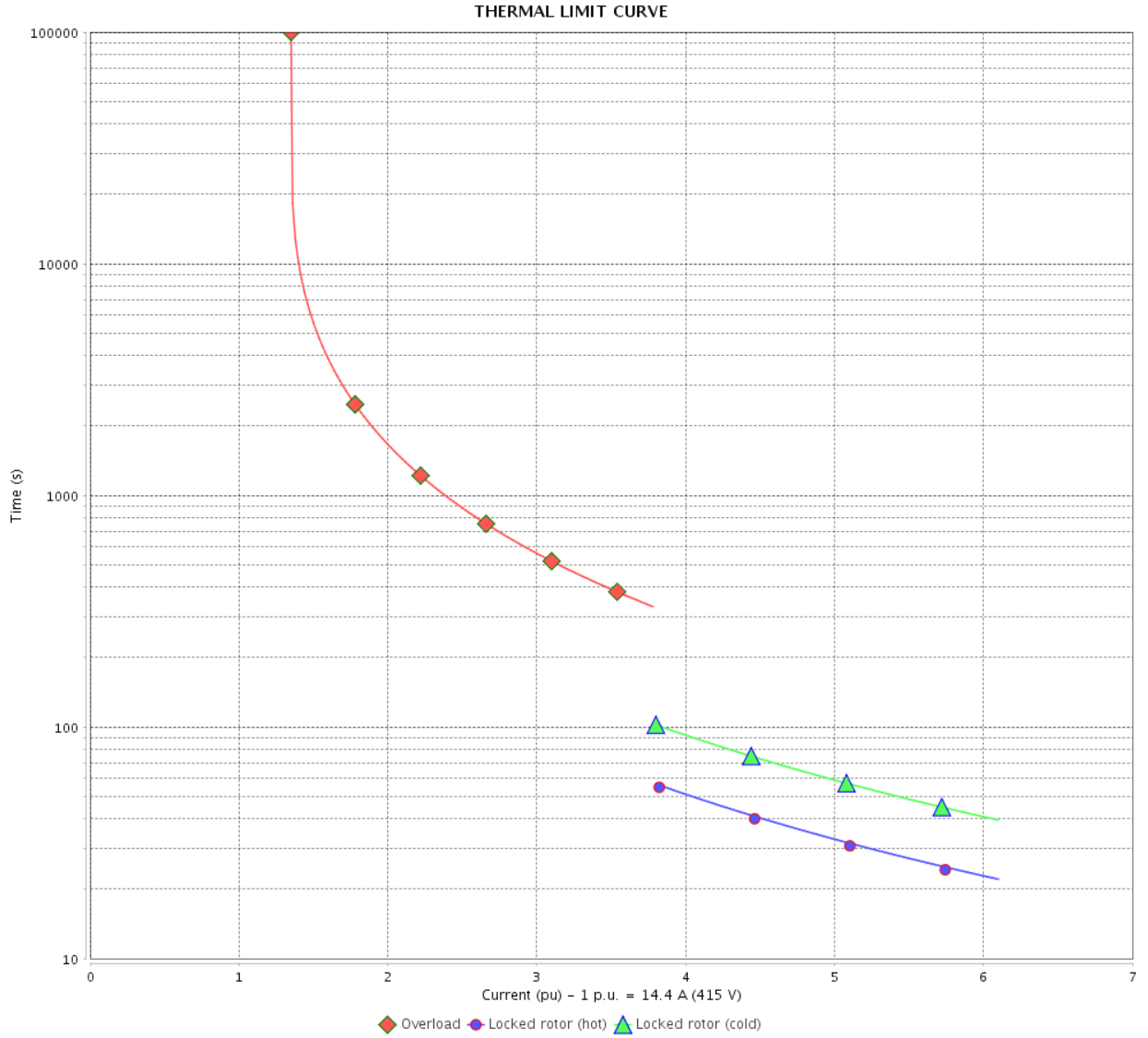
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Checked by			Page	Revision
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

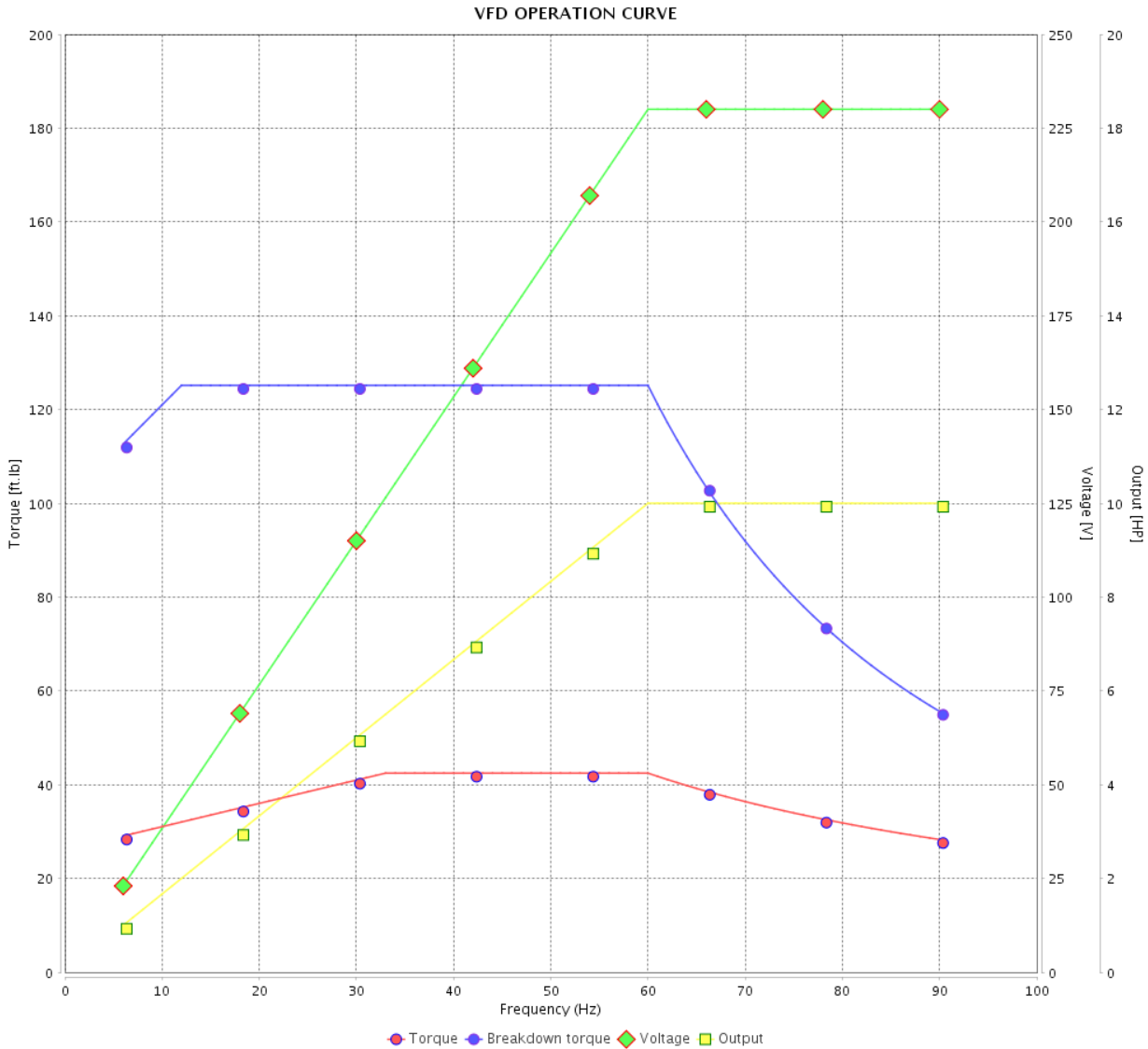


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11458408

Catalog # : 01012ET3E256TC-W22



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 18 / 21	Revision
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Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

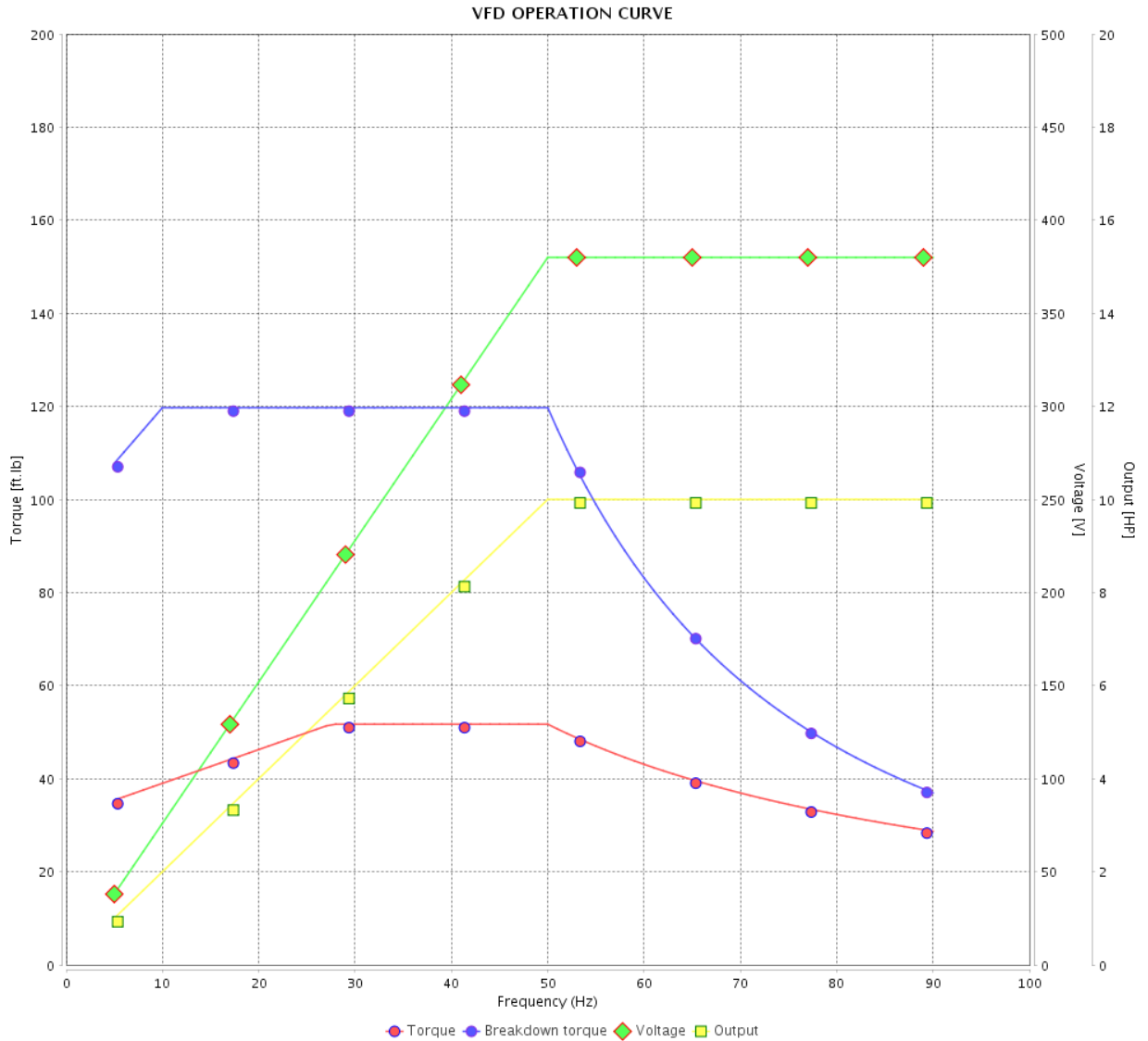


Customer :

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Catalog # : 01012ET3E256TC-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
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

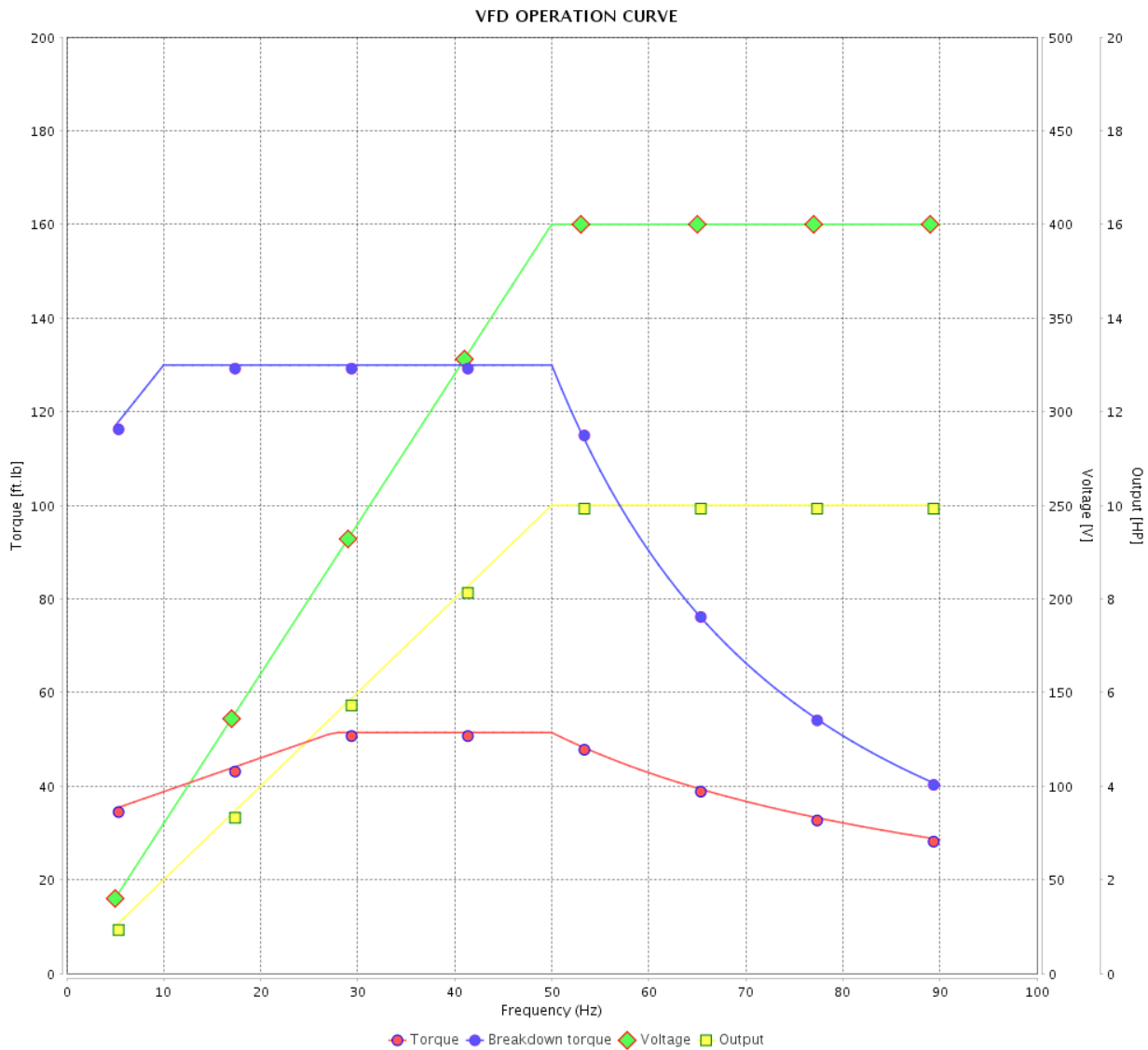


Customer :

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Product code : 11458408

Catalog # : 01012ET3E256TC-W22



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

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

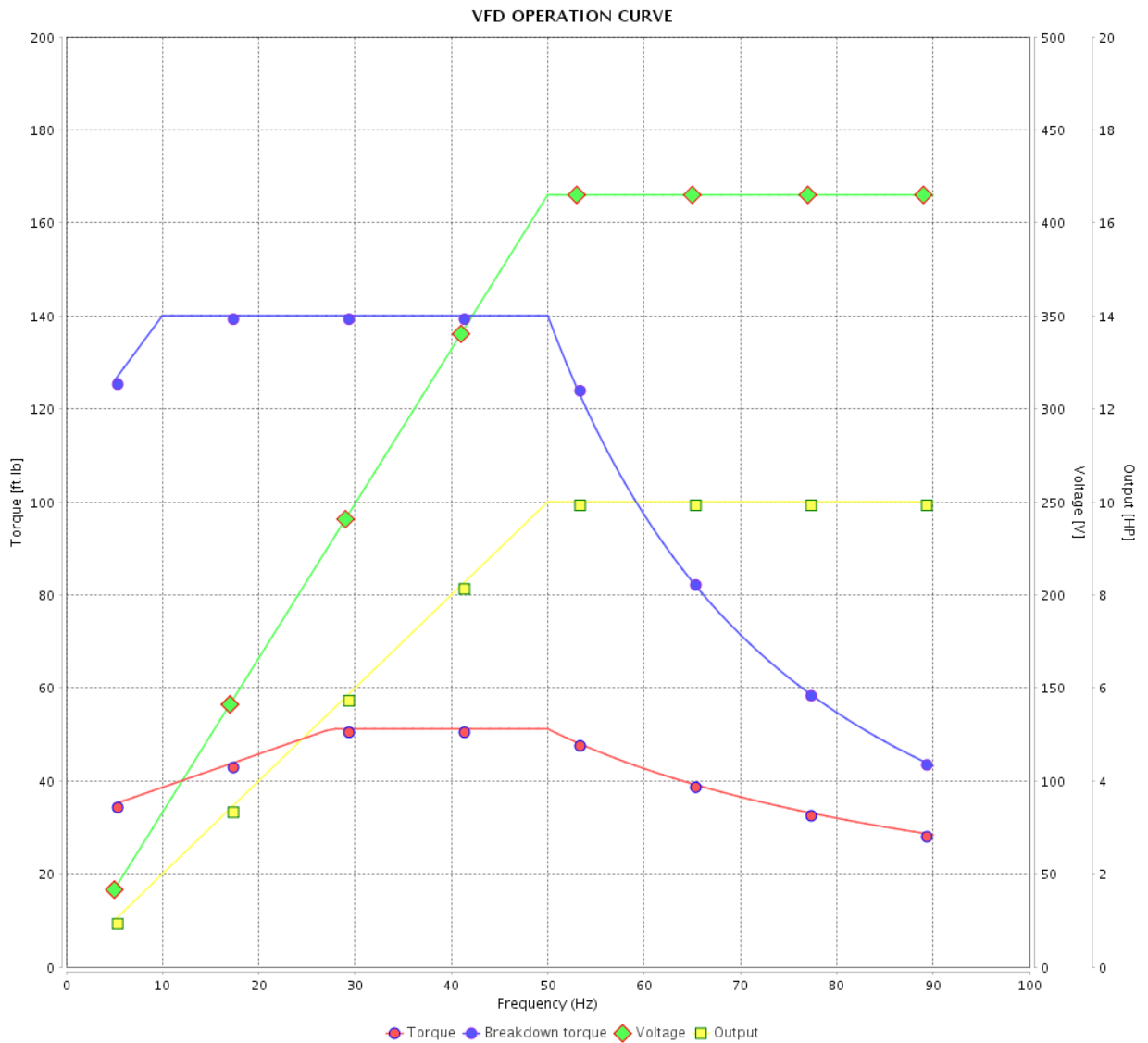


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Performance : 415 V 50 Hz 6P IE3

Rated current : 14.4 A
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 Rated torque : 53.9 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 975 rpm

Moment of inertia (J) : 4.43 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

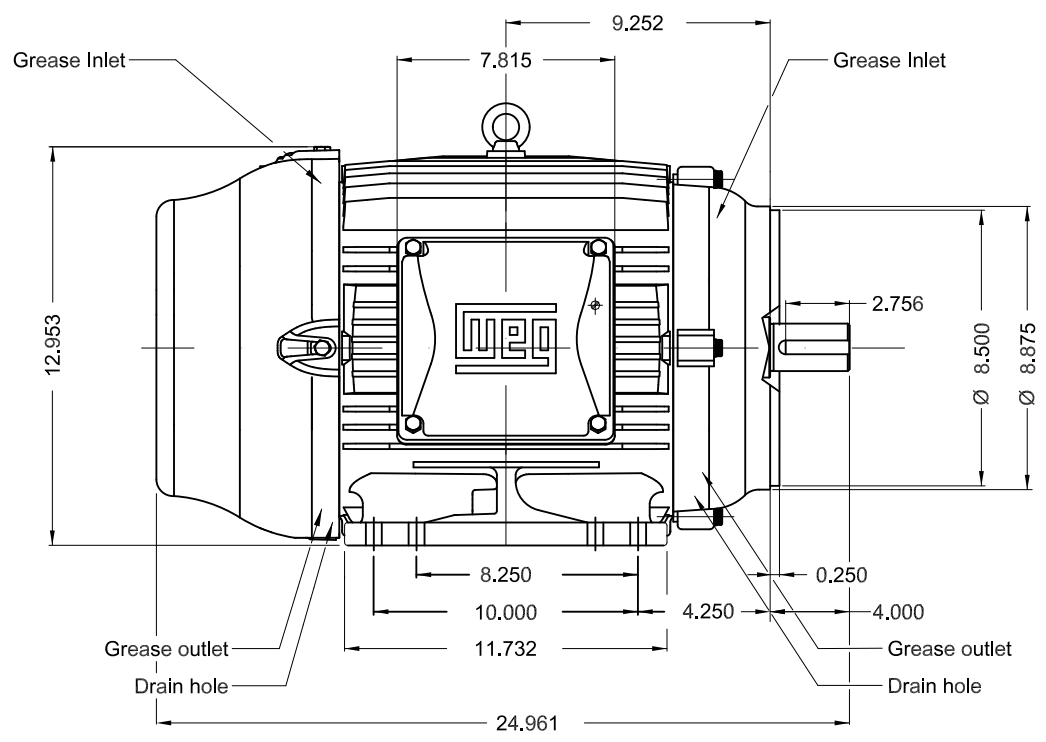
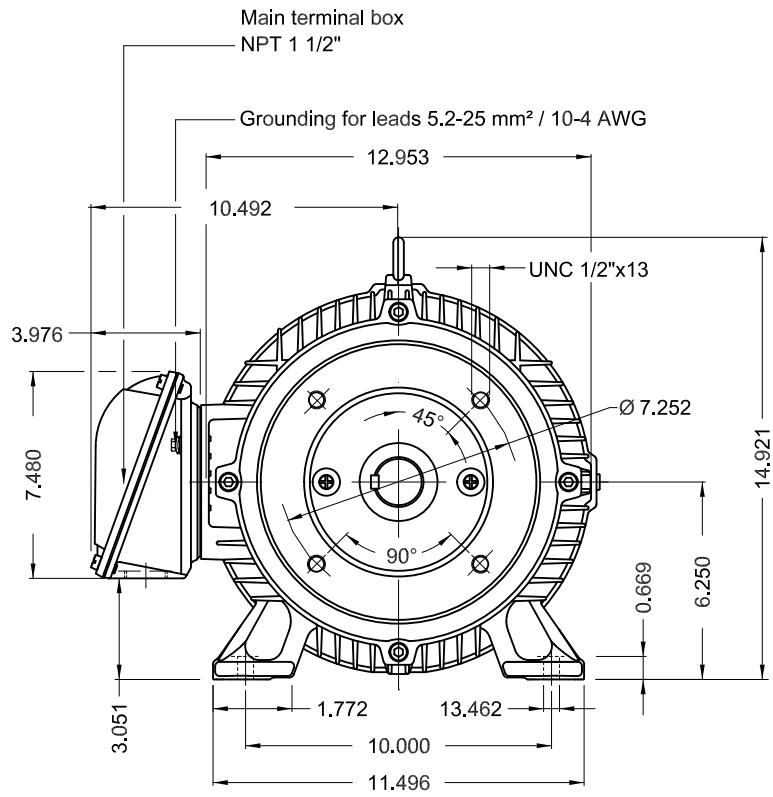
Rev.	Changes Summary	Performed	Checked	Date
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1 2 3 4 5 6

A

B

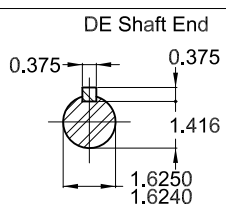
C



D

E

Color RAL 5009
 Painting plan 203A
 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 W22 PREM. EFF.					
CHECKED		FRAME 254/6TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD





FOR SAFE AREA
Mod.TE1BFOXON
CC029A



For use on 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 use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 01012ET3E256TC-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 254/6TC 1000m.a.s.l. IP55 TEFC 307lb

V 230/460

A 26.6/13.3

HP 10

kW 7.5

SF 1.25

SFA 33.3/16.6

RPM 1175

PF 0.78

AMB 40°C

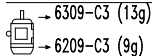
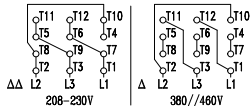
INS cl. F DT80K NEMA NOM EFF 91.0%

DUTY CONT.

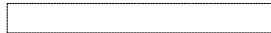
DES B Code H

USABLE @208V 28.5A SF 1.15 SFA 32.8

10HP 7.5kW 50Hz 380V 15.4A 965RPM SF 1.00 EFF 89.1% (IE3)



MOBIL POLYREX EM (20000h)



MADE IN BRAZIL
11458408