

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		12821685
			Catalog # :		00152ET3ER182TC-W22
Frame		: 182TC	Cooling method		: IC411 - TEFC
Insulation class		: F	Mounting		: W-6
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		: 95.7 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.4879 sq.ft.lb
Design		: B			
Output [HP]	1.5	1.5	1.5	1.5	1.5
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	5.08/2.54	2.68	2.62	2.64	2.64
L. R. Amperes [A]	39.6/19.8	16.9	18.1	19.5	19.5
LRC [A]	7.8x(Code M)	6.3x(Code J)	6.9x(Code K)	7.4x(Code L)	7.4x(Code L)
No load current [A]	3.25/1.63	1.60	1.71	1.80	1.80
Rated speed [RPM]	1170	955	960	965	965
Slip [%]	2.50	4.50	4.00	3.50	3.50
Rated torque [ft.lb]	6.73	8.25	8.21	8.16	8.16
Locked rotor torque [%]	320	250	300	330	330
Breakdown torque [%]	400	290	330	370	370
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	28s (cold) 16s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	82.8	86.0	84.1	82.8
	50%	84.0	85.5	84.5	84.0
	75%	86.5	86.5	86.5	85.5
	100%	87.5	85.5	86.5	86.5
Power Factor	25%	0.25	0.29	0.27	0.25
	50%	0.45	0.52	0.48	0.45
	75%	0.54	0.63	0.60	0.57
	100%	0.62	0.73	0.70	0.67
Bearing type		Drive end : 6207 ZZ	Non drive end : 6206 ZZ	Foundation loads	
Sealing		: V'Ring	: V'Ring	Max. traction : 145 lb	
Lubrication interval		: -	: -	Max. compression : 241 lb	
Lubricant amount		: -	: -		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 5.62A SF 1.15 SFA 6.46A					
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



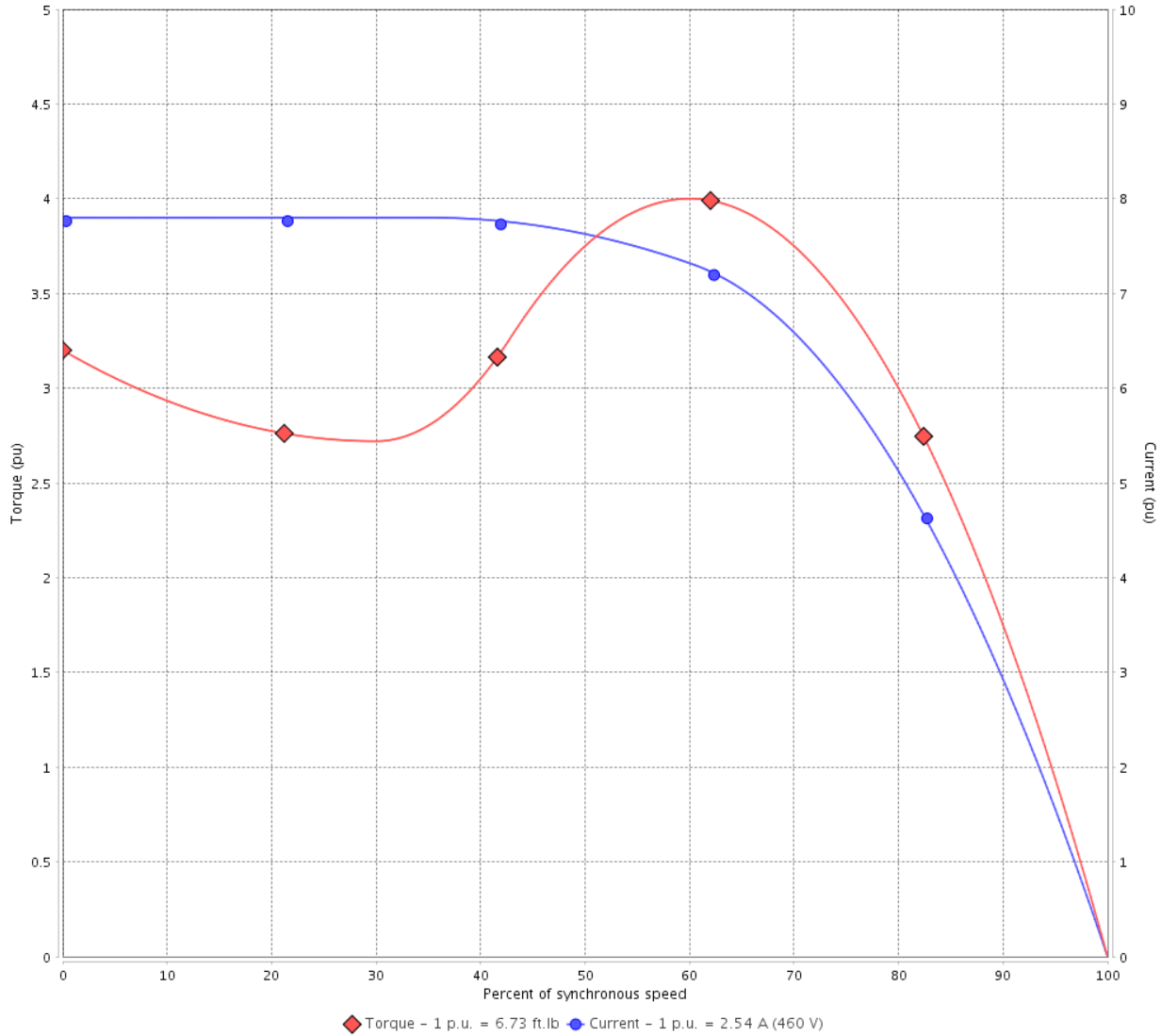
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 5.08/2.54 A
 LRC : 7.8
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 400 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



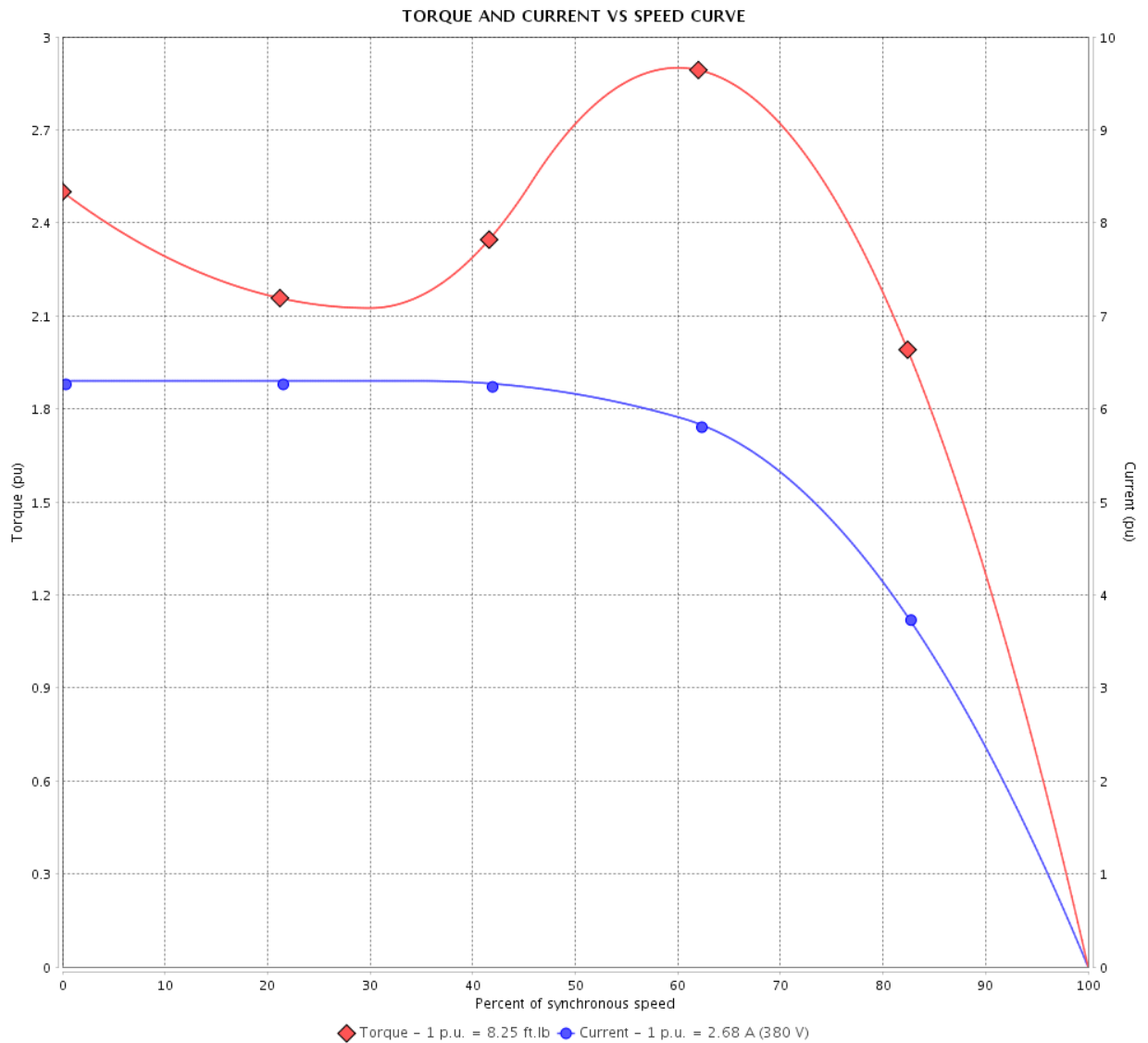
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 6.3
 Rated torque : 8.25 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



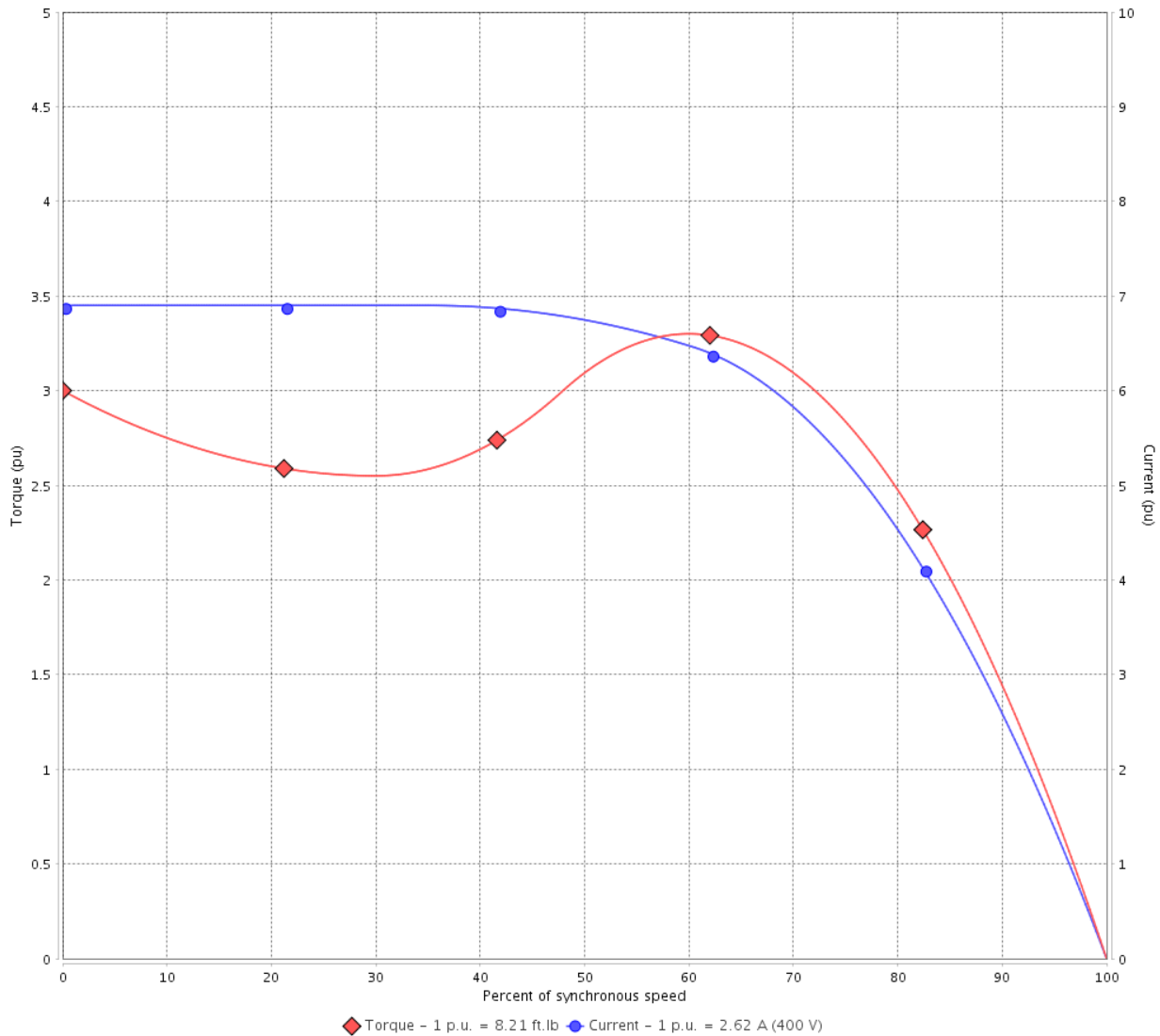
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current	: 2.62 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



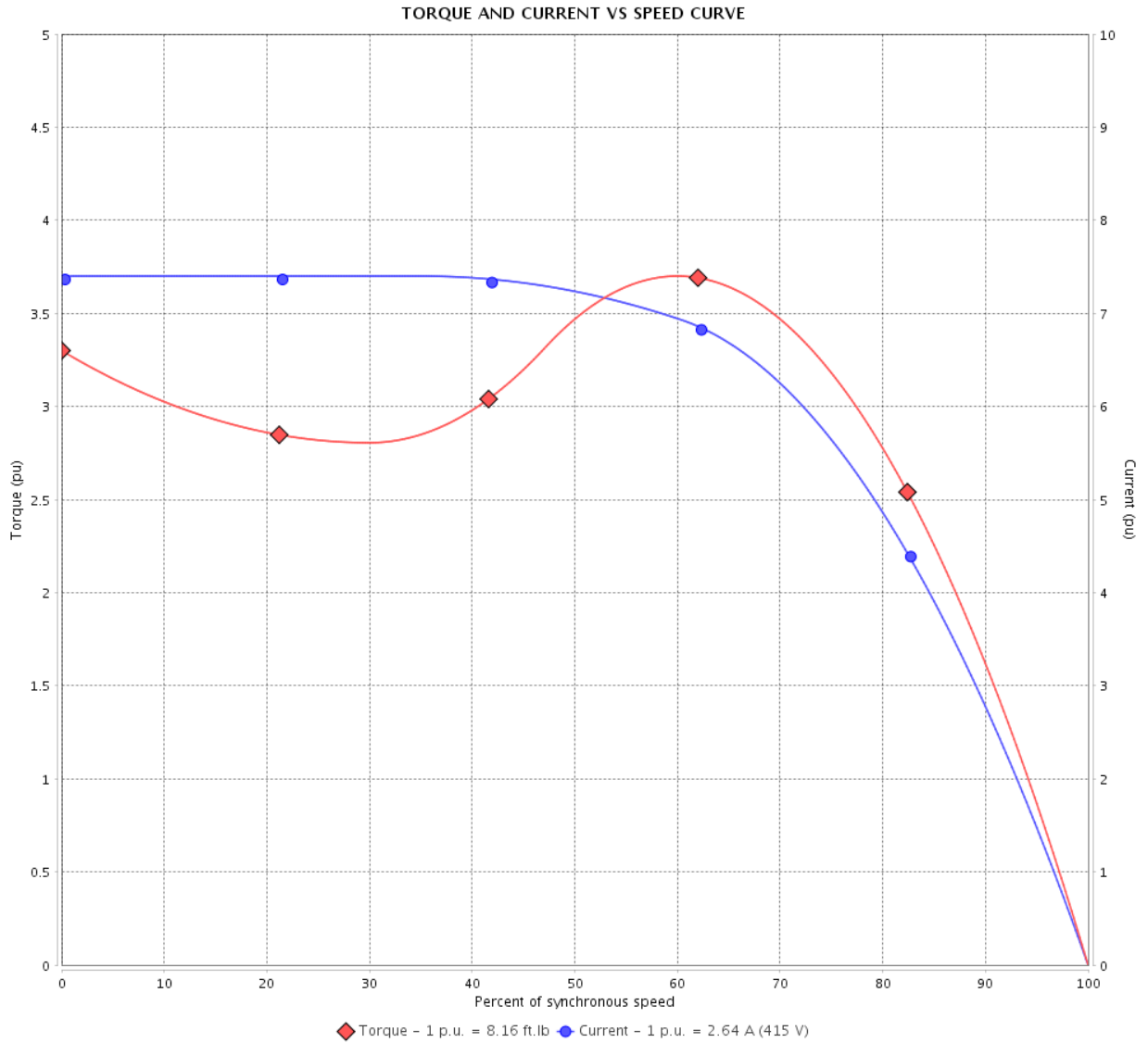
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22



Performance : 415 V 50 Hz 6P IE4

Rated current	: 2.64 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.16 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



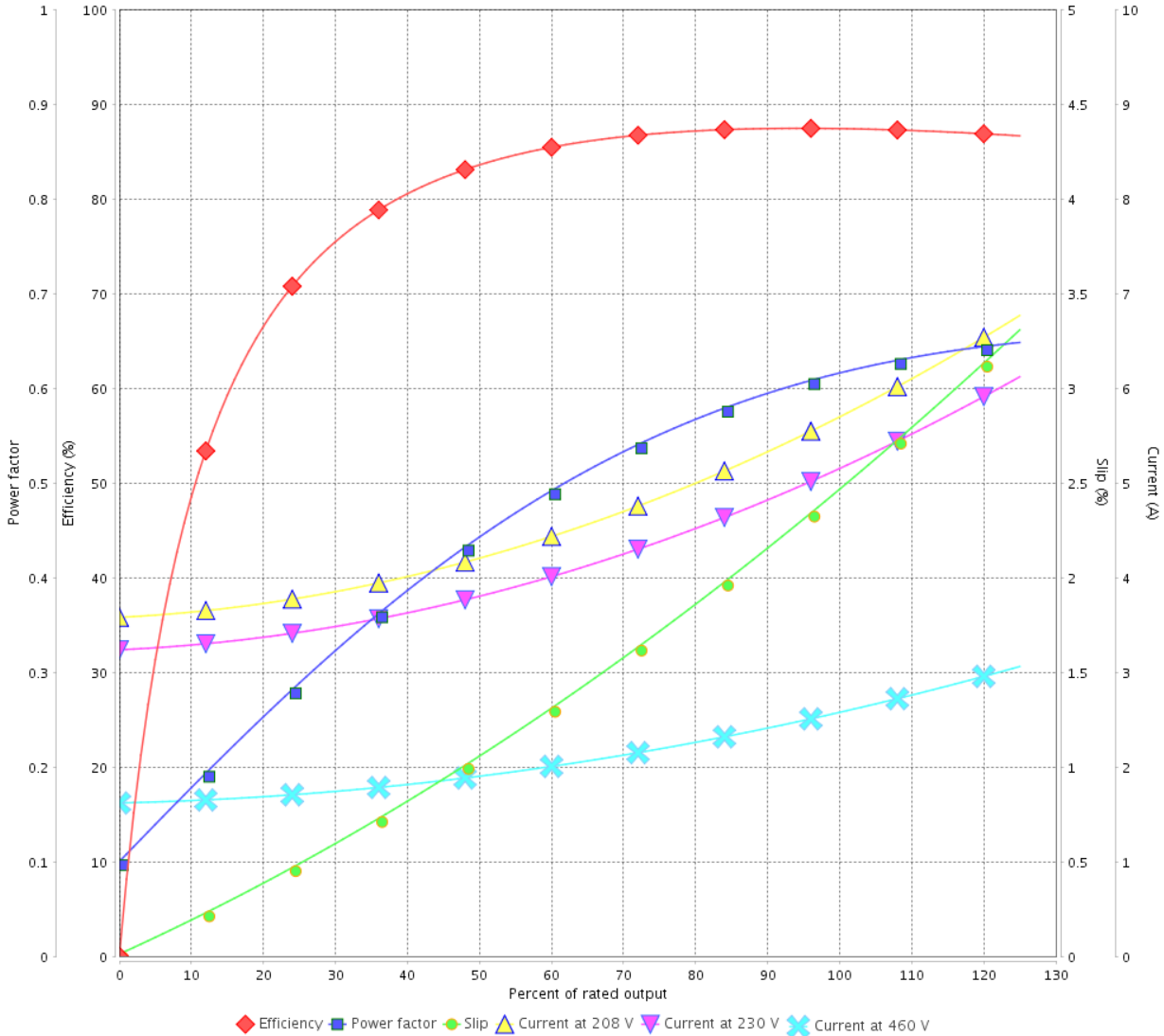
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 5.08/2.54 A
 LRC : 7.8
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 400 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

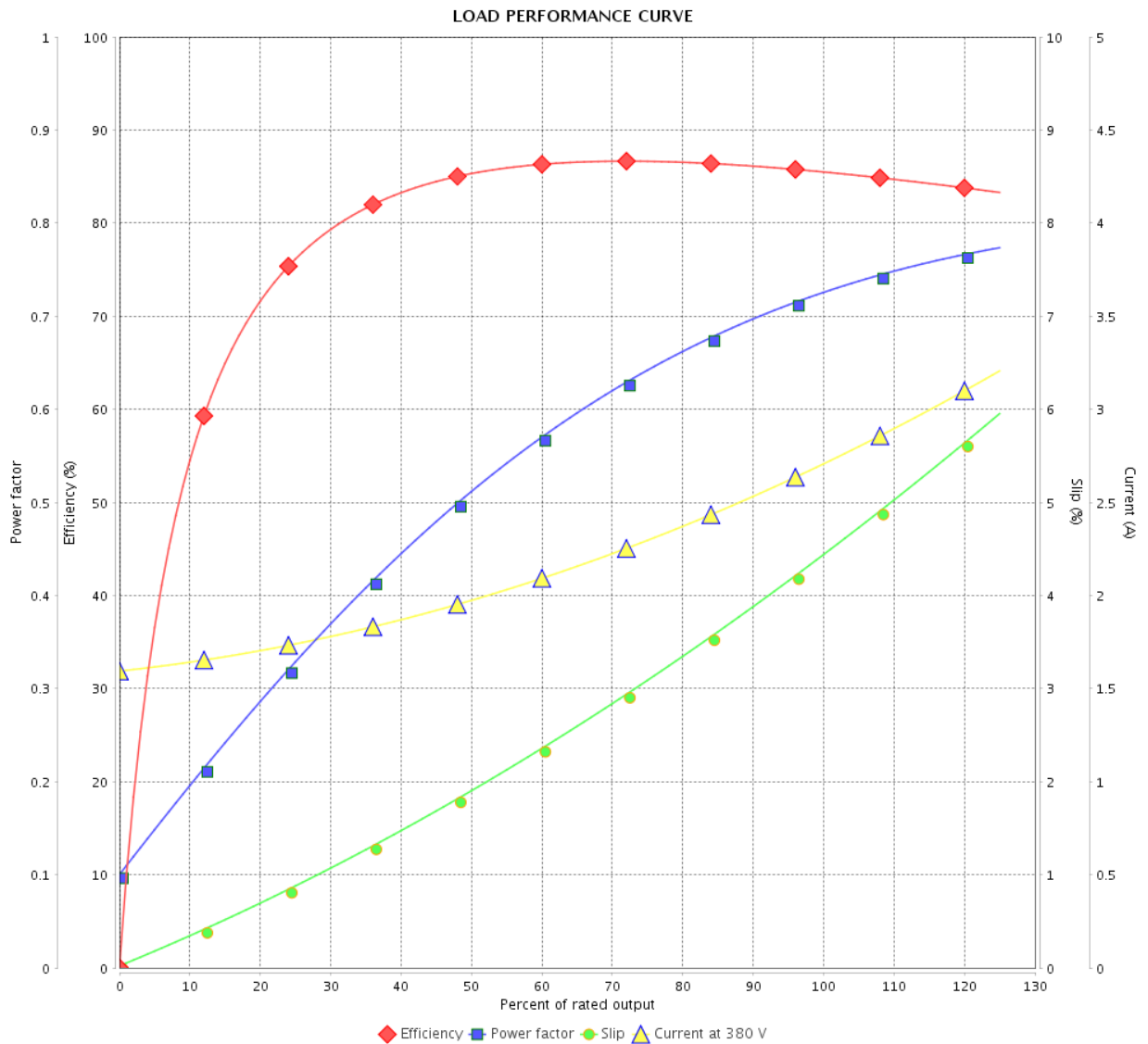


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 6.3
 Rated torque : 8.25 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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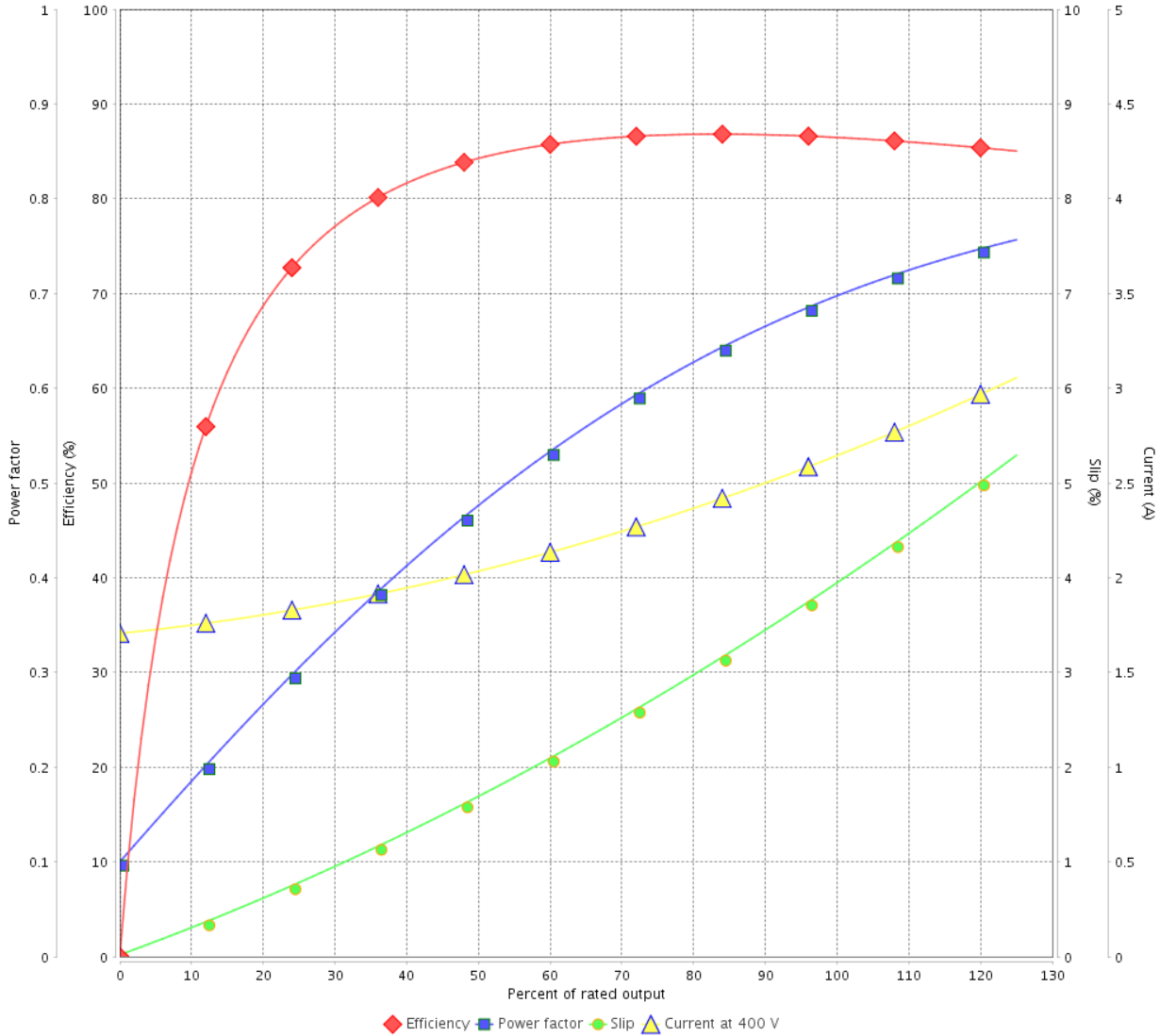
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 6.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

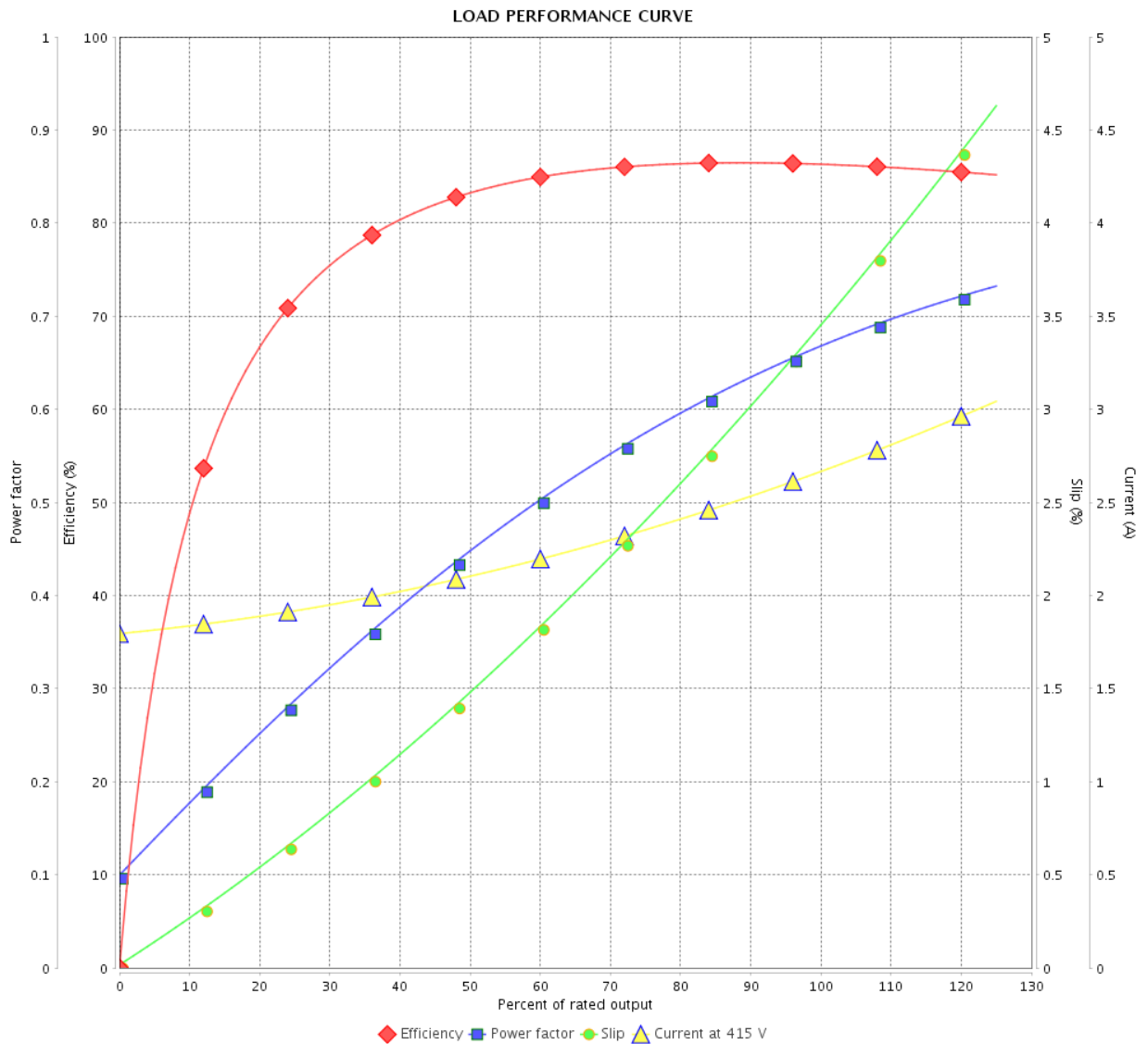


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Catalog # : 00152ET3ER182TC-W22



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 Locked rotor torque : 330 %
 Breakdown torque : 370 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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LRC : 7.8	Duty cycle : Cont.(S1)
Rated torque : 6.73 ft.lb	Insulation class : F
Locked rotor torque : 320 %	Service factor : 1.25
Breakdown torque : 400 %	Temperature rise : 80 K
Rated speed : 1170 rpm	Design : B

Heating constant

Cooling constant

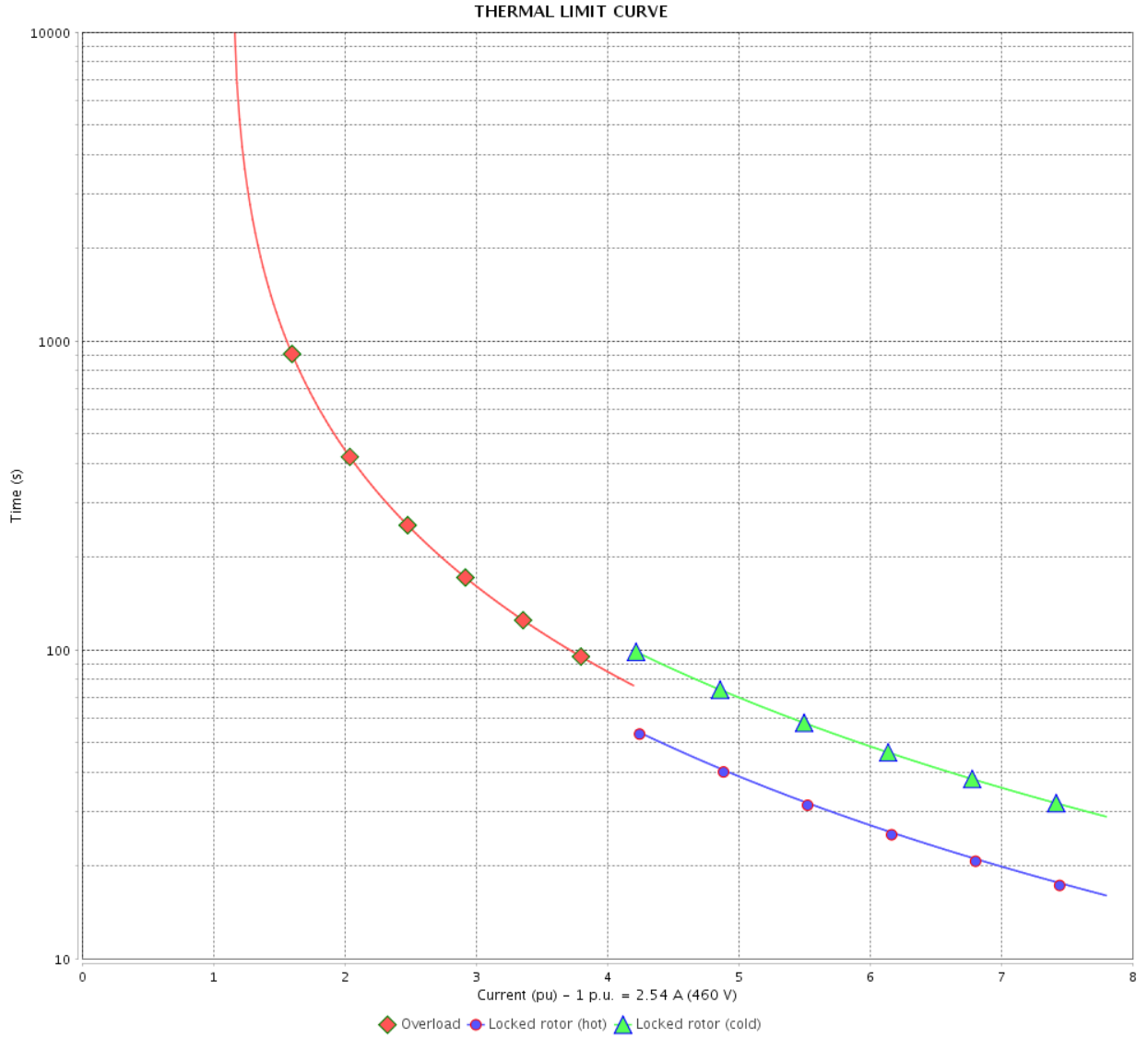
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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Rated current : 2.68 A	Moment of inertia (J) : 0.4879 sq.ft.lb
LRC : 6.3	Duty cycle : Cont.(S1)
Rated torque : 8.25 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 955 rpm	Design : B

Heating constant

Cooling constant

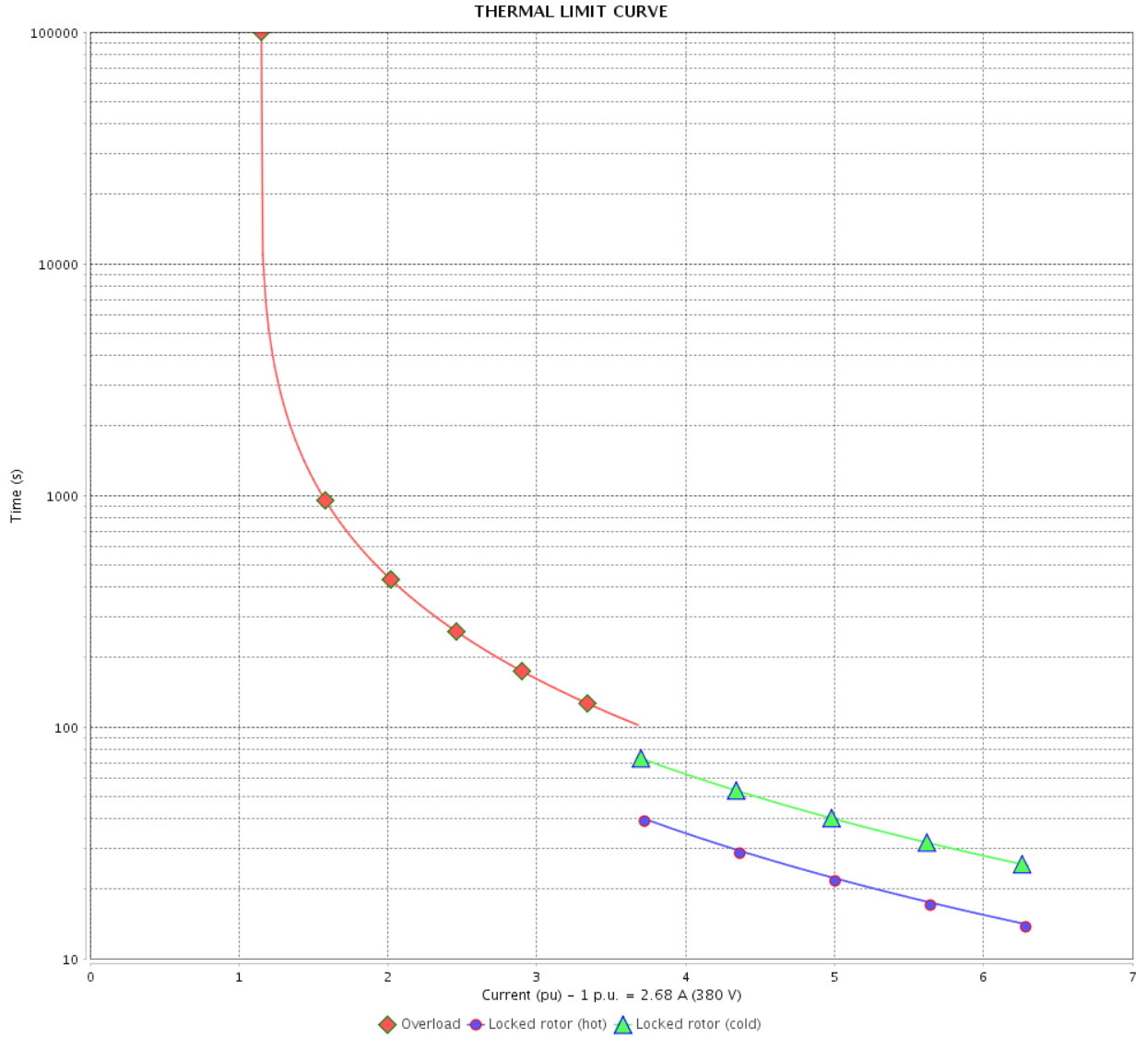
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Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12821685
 Catalog # : 00152ET3ER182TC-W22

Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A	Moment of inertia (J) : 0.4879 sq.ft.lb
LRC : 6.9	Duty cycle : Cont.(S1)
Rated torque : 8.21 ft.lb	Insulation class : F
Locked rotor torque : 300 %	Service factor : 1.00
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 960 rpm	Design : B

Heating constant

Cooling constant

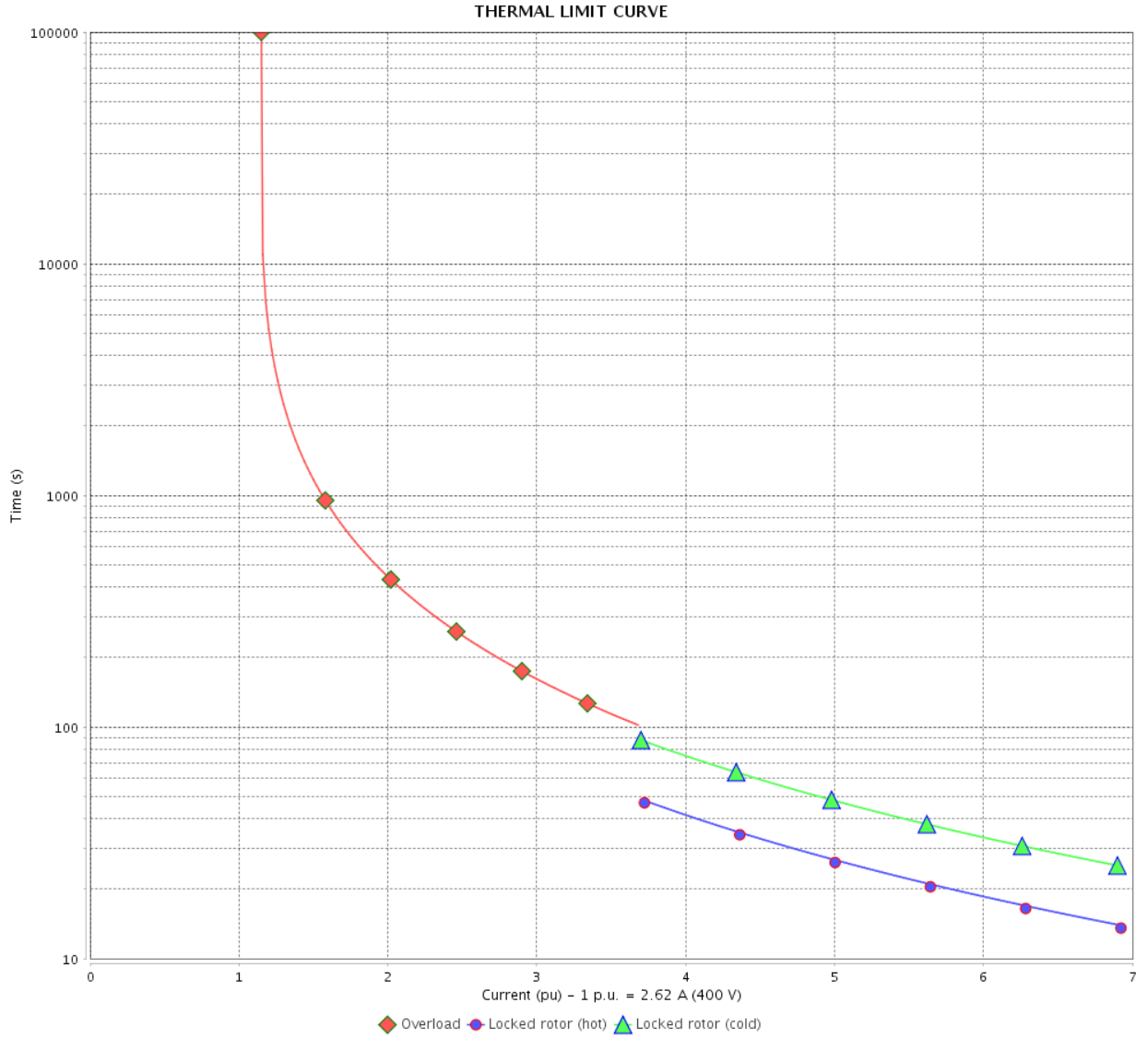
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12821685
Catalog # : 00152ET3ER182TC-W22

Performance : 415 V 50 Hz 6P IE4

Rated current	: 2.64 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.16 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Heating constant

Cooling constant

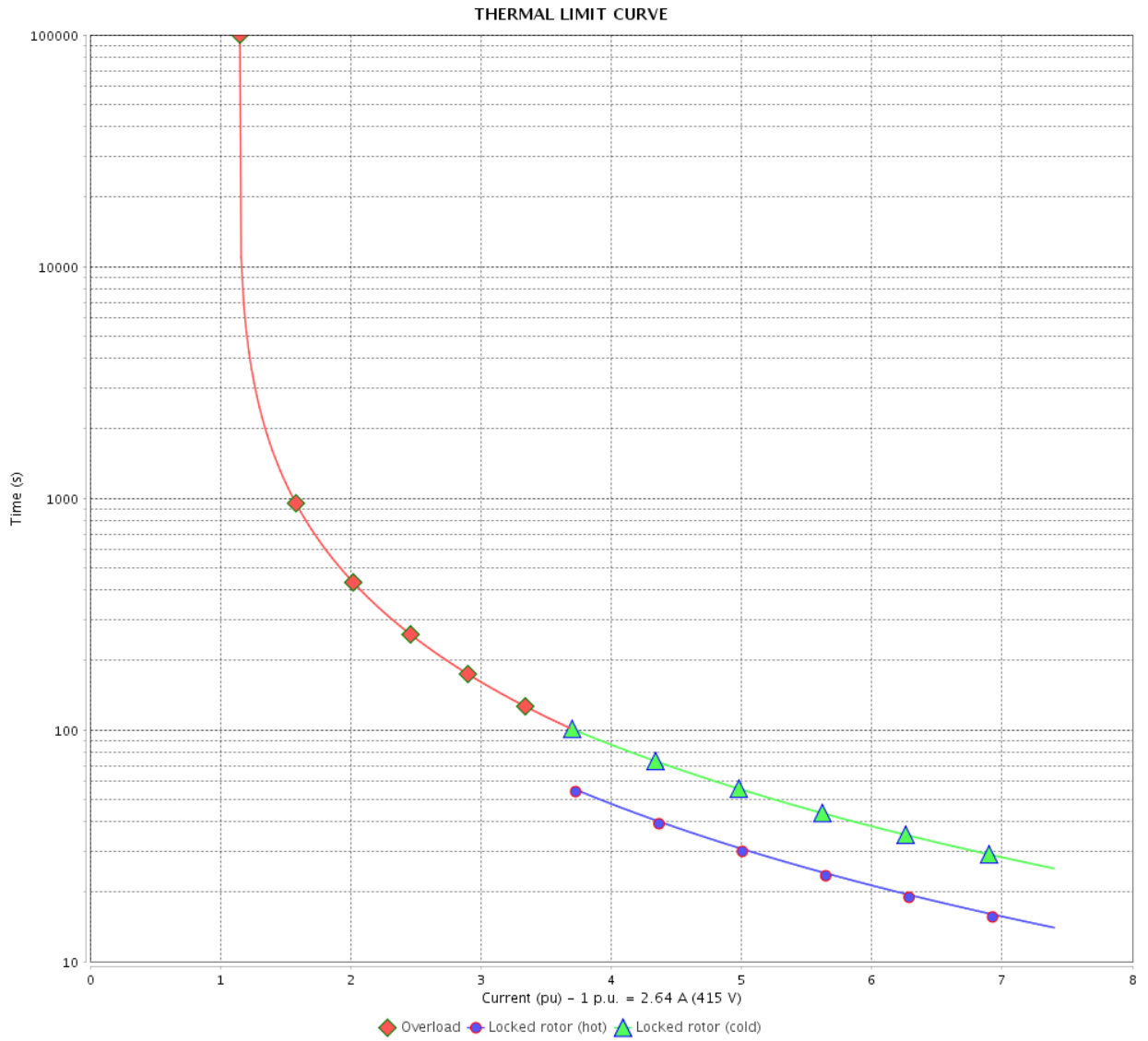
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



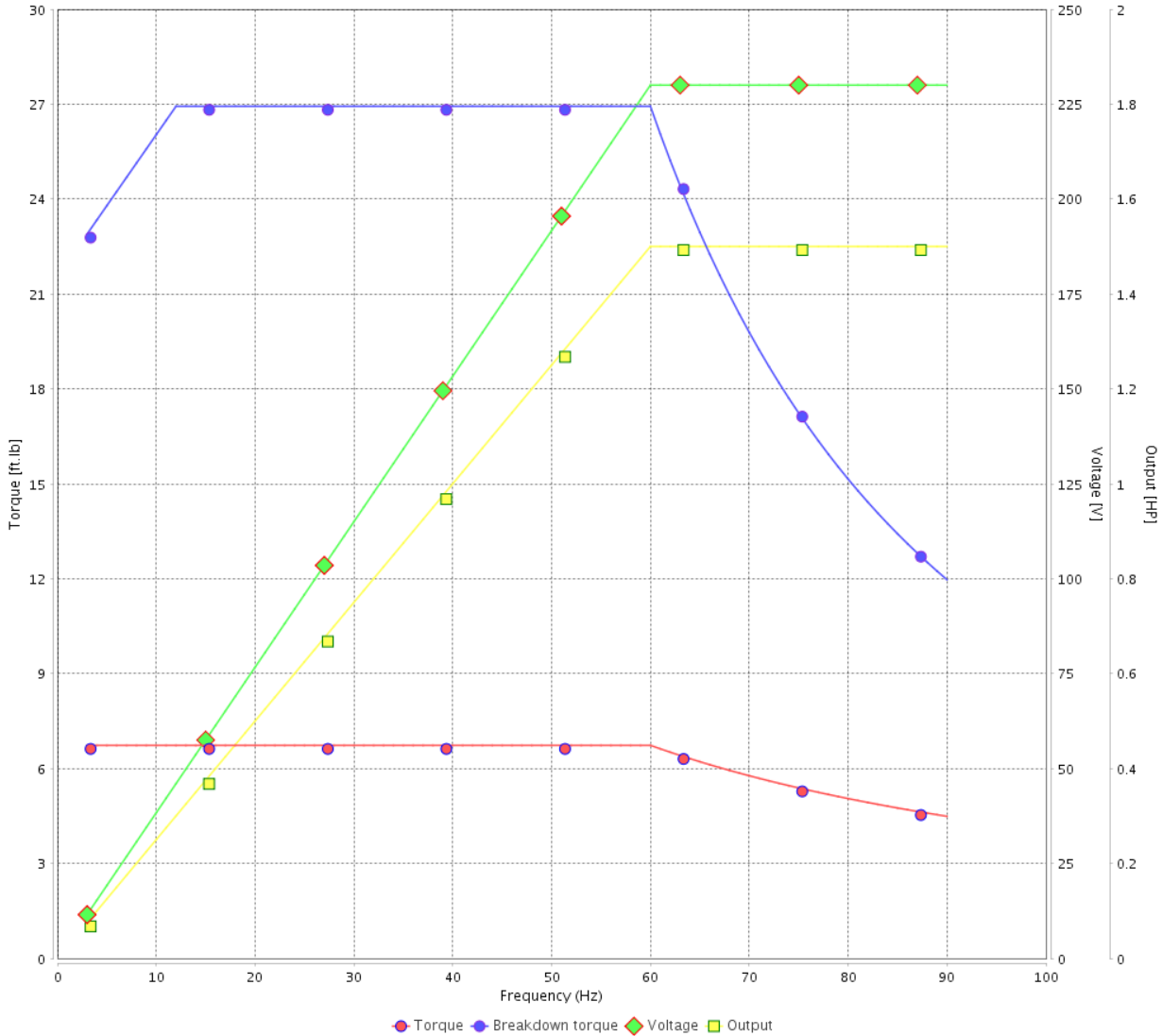
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 5.08/2.54 A
 LRC : 7.8
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 400 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.4879 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
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Checked by				
Date				

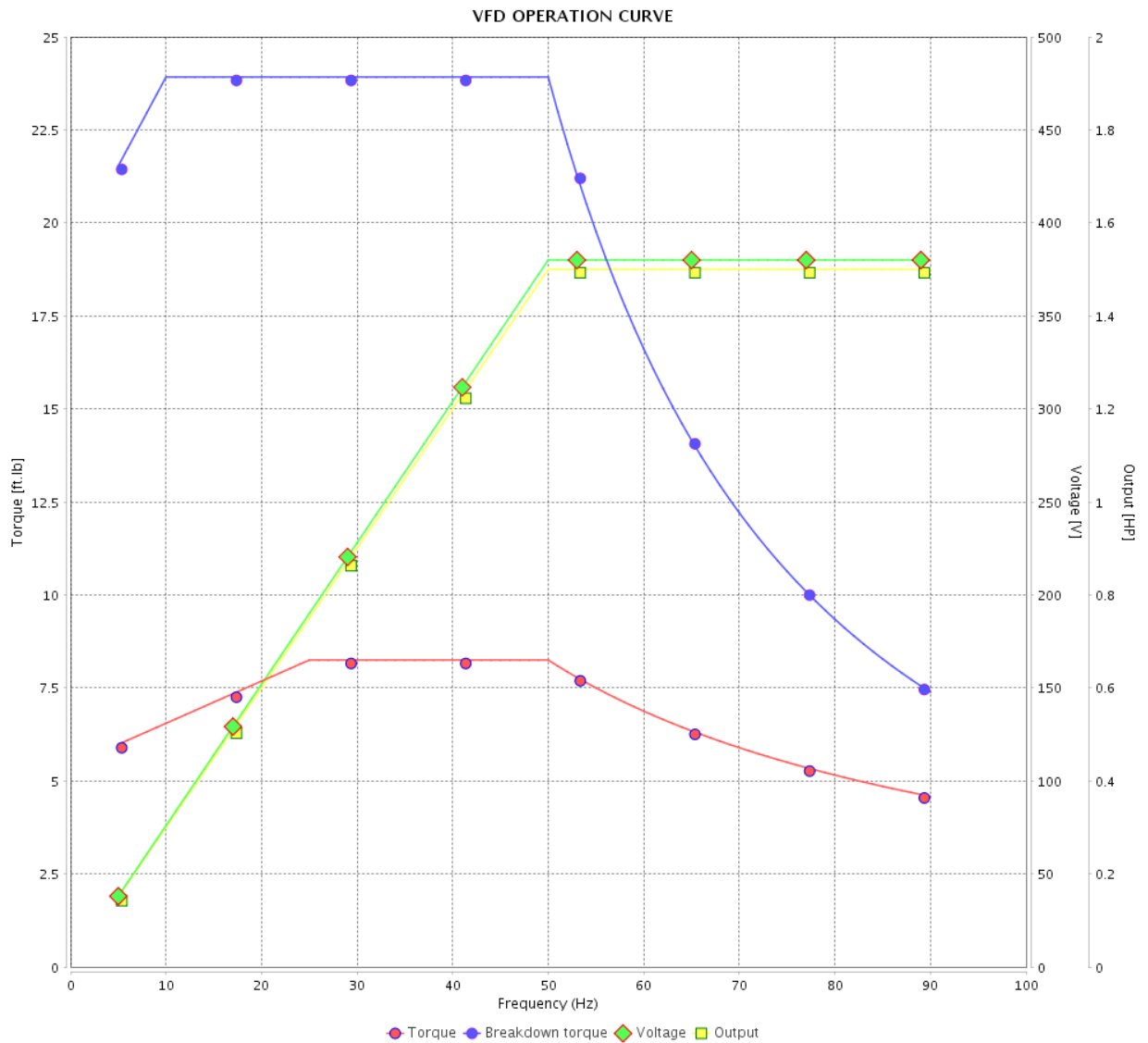
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12821685
 Catalog # : 00152ET3ER182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current	: 2.68 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.25 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 955 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
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Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



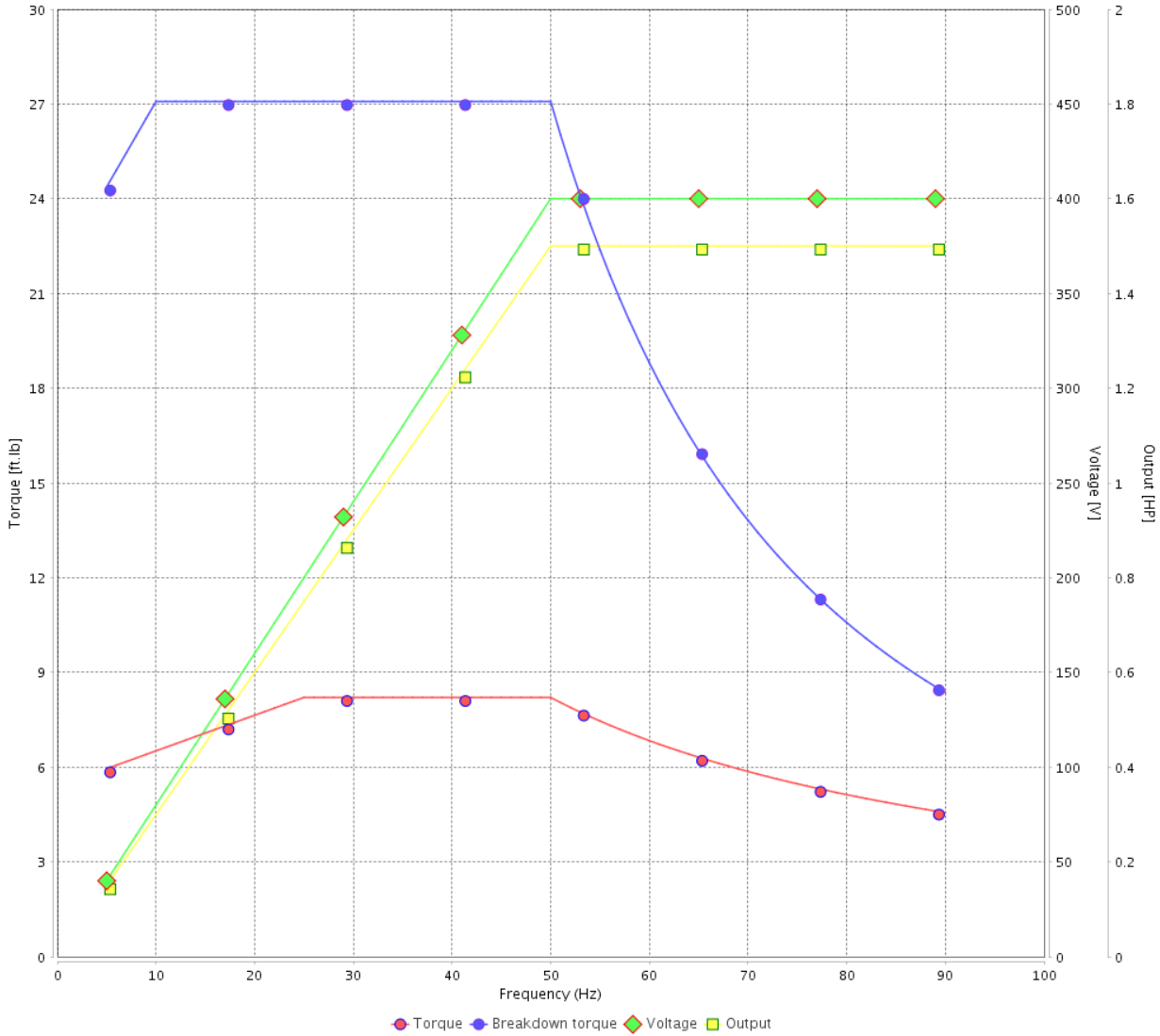
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12821685

Catalog # : 00152ET3ER182TC-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 6.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

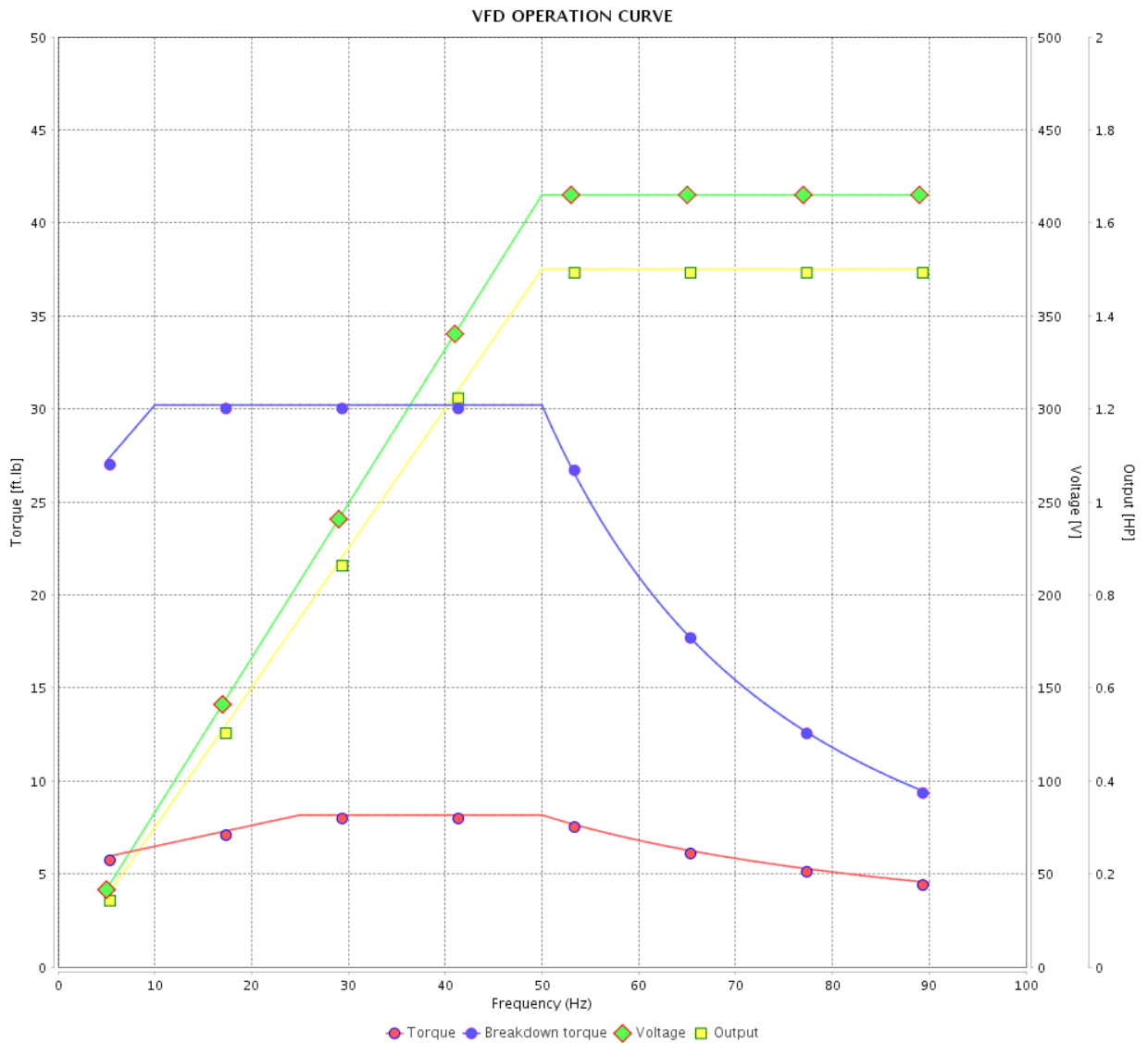


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 LRC : 7.4
 Rated torque : 8.16 ft.lb
 Locked rotor torque : 330 %
 Breakdown torque : 370 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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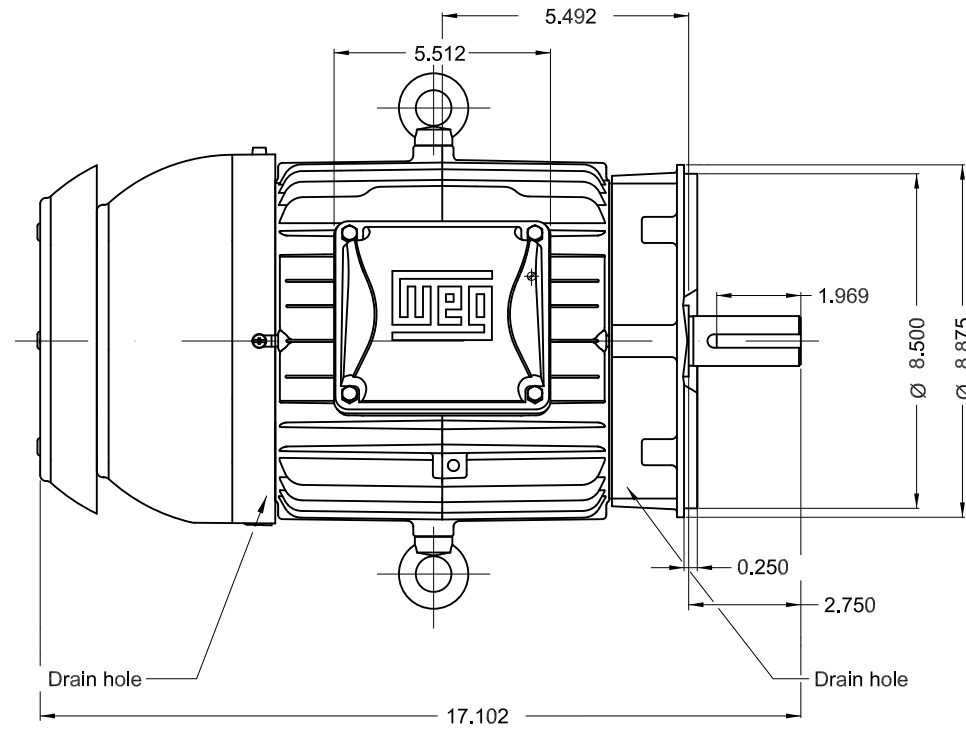
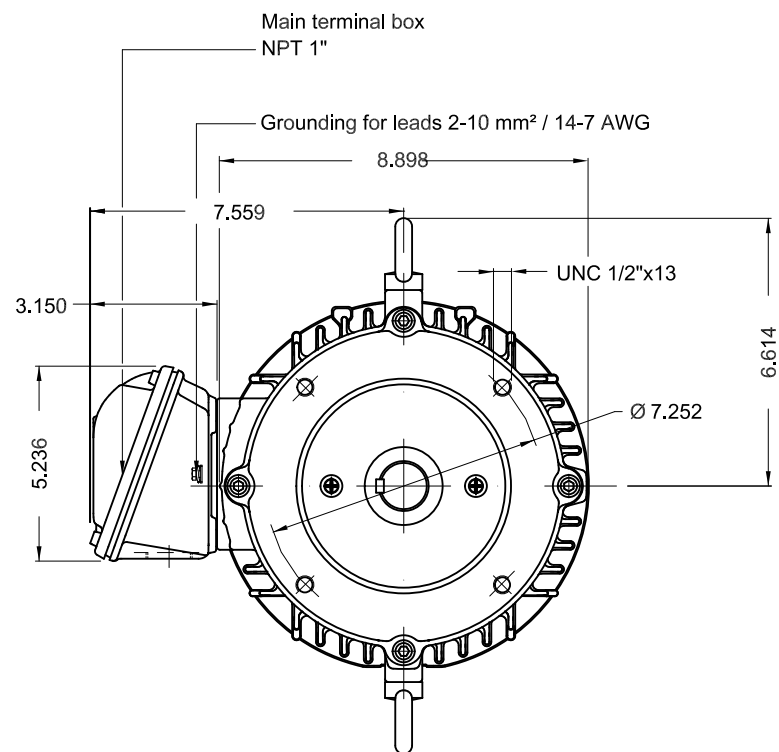
A

B

C

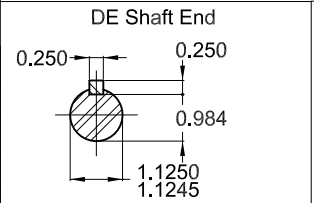
D

E



1.5 HP 06 Poles 60 Hz A

- Bearing cap
- Color RAL 5009
- Painting plan 207A
- Mounting NEMA W-6
- Mounting V18



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF. FRAME 182TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.							
		WMO Jaragua do Sul	Product Engineering	SHEET 1 / 1			

PREVIEW
WDD



MADE IN BRAZIL
12821685



MODEL 00152ET3ER182TC-W22

Inverter Duty Motor
Severe Duty



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 - T5
For use on PWM: Gr. A, B, C, D, F and G,
VT 1000:1, CT 20:1, 1.00SF - T4A



3PT9
LISTED

FOR SAFE AREA
Mod. TE1BFOXON
CC029A

PH3 60Hz Fr. 182TC 1000m.a.s.l. IP55 TEFC 96lb

V 230/460

A 5.08/2.54

HP 1.5

kW 1.1

SF 1.25

SFA 6.35/3.17

RPM 1170

PF 0.62

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 87.5%

DUTY CONT.

DES B Code M

USABLE @208V 5.62A SF 1.15 SFA 6.46

1.5HP 1.1kW 50Hz 380V 2.68A 955RPM SF 1.00 EFF 85.5% (IE4)

