

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		14319266
			Catalog # :		00158XT3E145T
Frame		: 143/5T	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		: 73.4 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.1303 sq.ft.lb
Design		: B			
Output [HP]	1.5	1.5	1.5	1.5	1.5
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	4.10/2.05	2.40	2.33	2.27	2.27
L. R. Amperes [A]	36.5/18.2	15.8	16.8	17.5	17.5
LRC [A]	8.9x(Code L)	6.6x(Code H)	7.2x(Code J)	7.7x(Code K)	7.7x(Code K)
No load current [A]	2.40/1.20	1.20	1.30	1.40	1.40
Rated speed [RPM]	1755	1440	1445	1450	1450
Slip [%]	2.50	4.00	3.67	3.33	3.33
Rated torque [ft.lb]	4.49	5.47	5.45	5.43	5.43
Locked rotor torque [%]	270	200	229	250	250
Breakdown torque [%]	350	260	290	320	320
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	80.2	83.7	83.7	80.9
	50%	81.5	84.0	84.0	82.5
	75%	85.5	84.0	84.0	84.0
	100%	86.5	84.0	84.0	85.5
Power Factor	25%	0.34	0.39	0.35	0.33
	50%	0.58	0.66	0.62	0.58
	75%	0.70	0.77	0.74	0.71
	100%	0.78	0.83	0.81	0.79
Bearing type		: <u>Drive end</u> 6205 2RS <u>Non drive end</u> 6204 2RS	Foundation loads		
Sealing		: Oil Seal Lip Seal	Max. traction : 114 lb		
Lubrication interval		: - -	Max. compression : 188 lb		
Lubricant amount		: - -			
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 4.53A SF 1.15 SFA 5.21A					
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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Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE



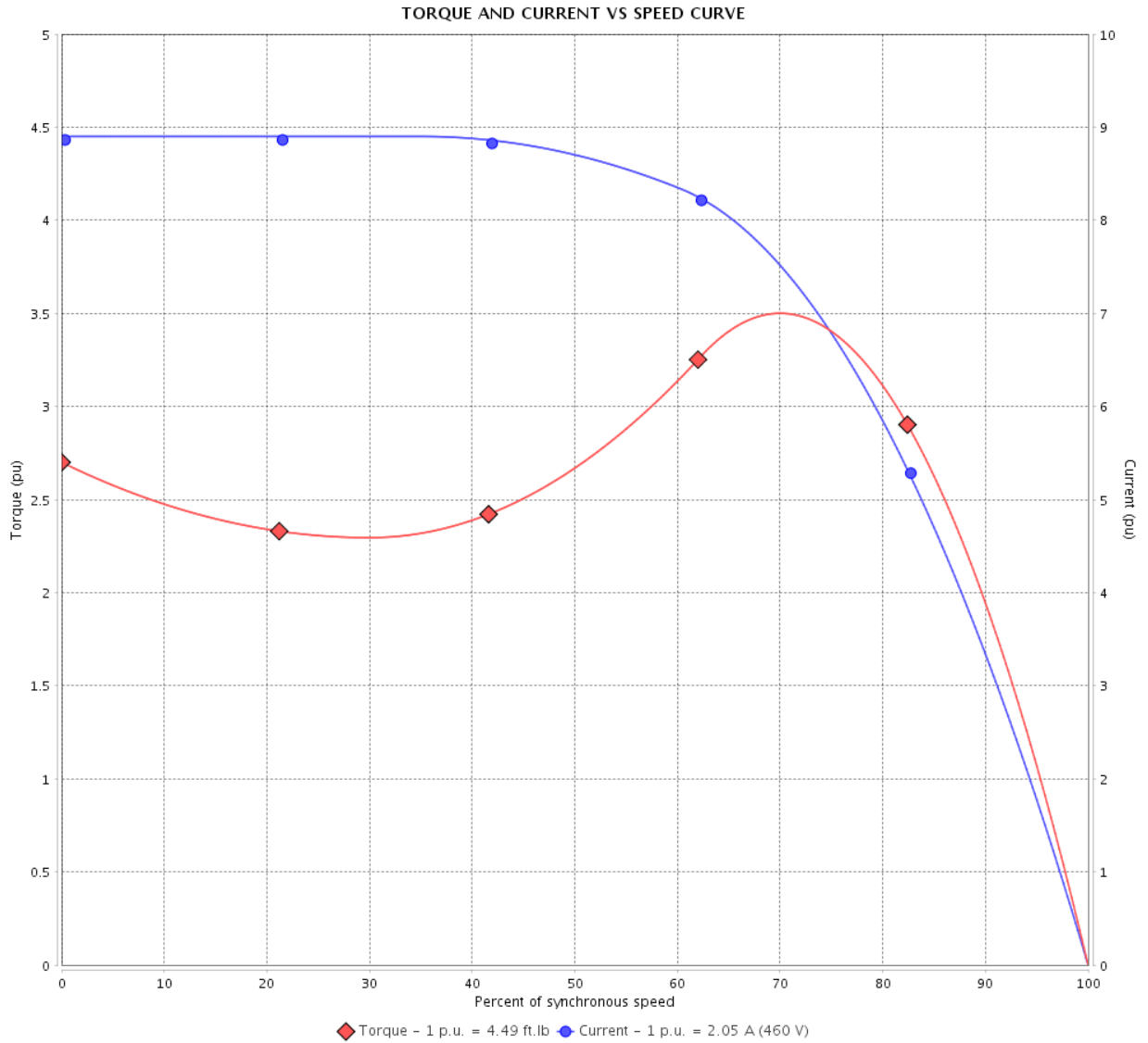
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T



Performance : 230/460 V 60 Hz 4P

Rated current : 4.10/2.05 A
 LRC : 8.9
 Rated torque : 4.49 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 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



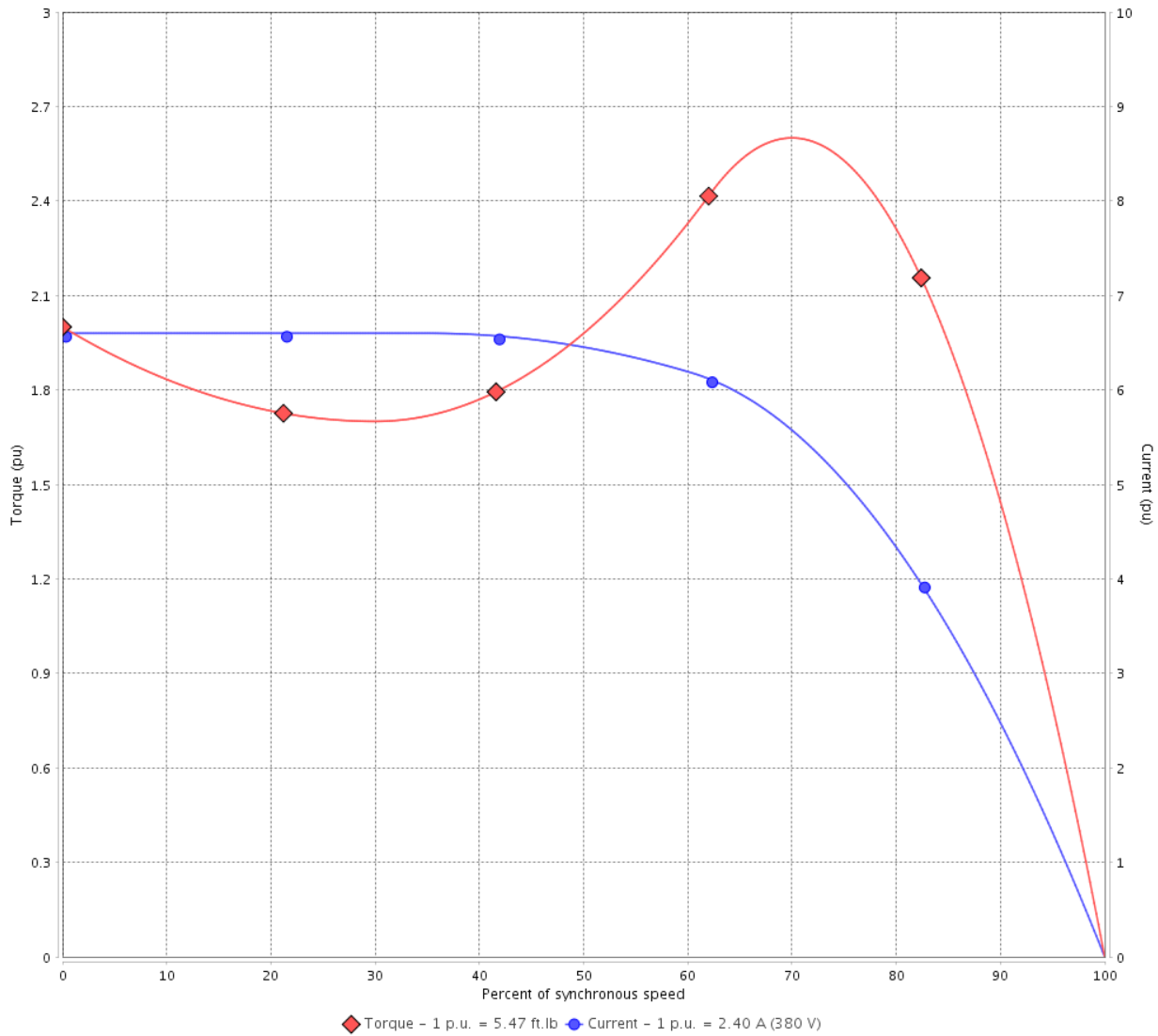
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 2.40 A	Moment of inertia (J)	: 0.1303 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 5.47 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



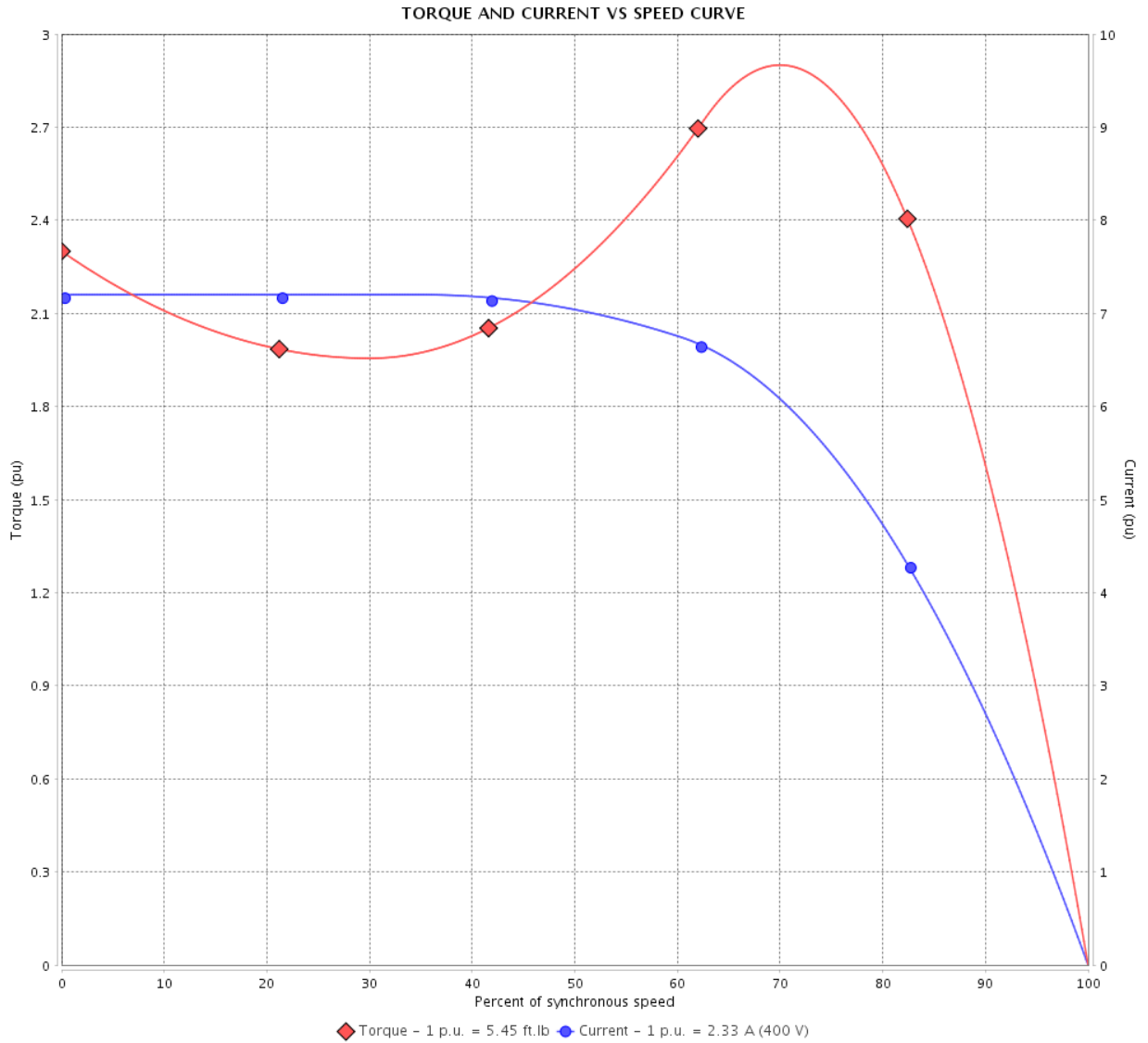
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T



Performance : 400 V 50 Hz 4P IE2

Rated current : 2.33 A
 LRC : 7.2
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



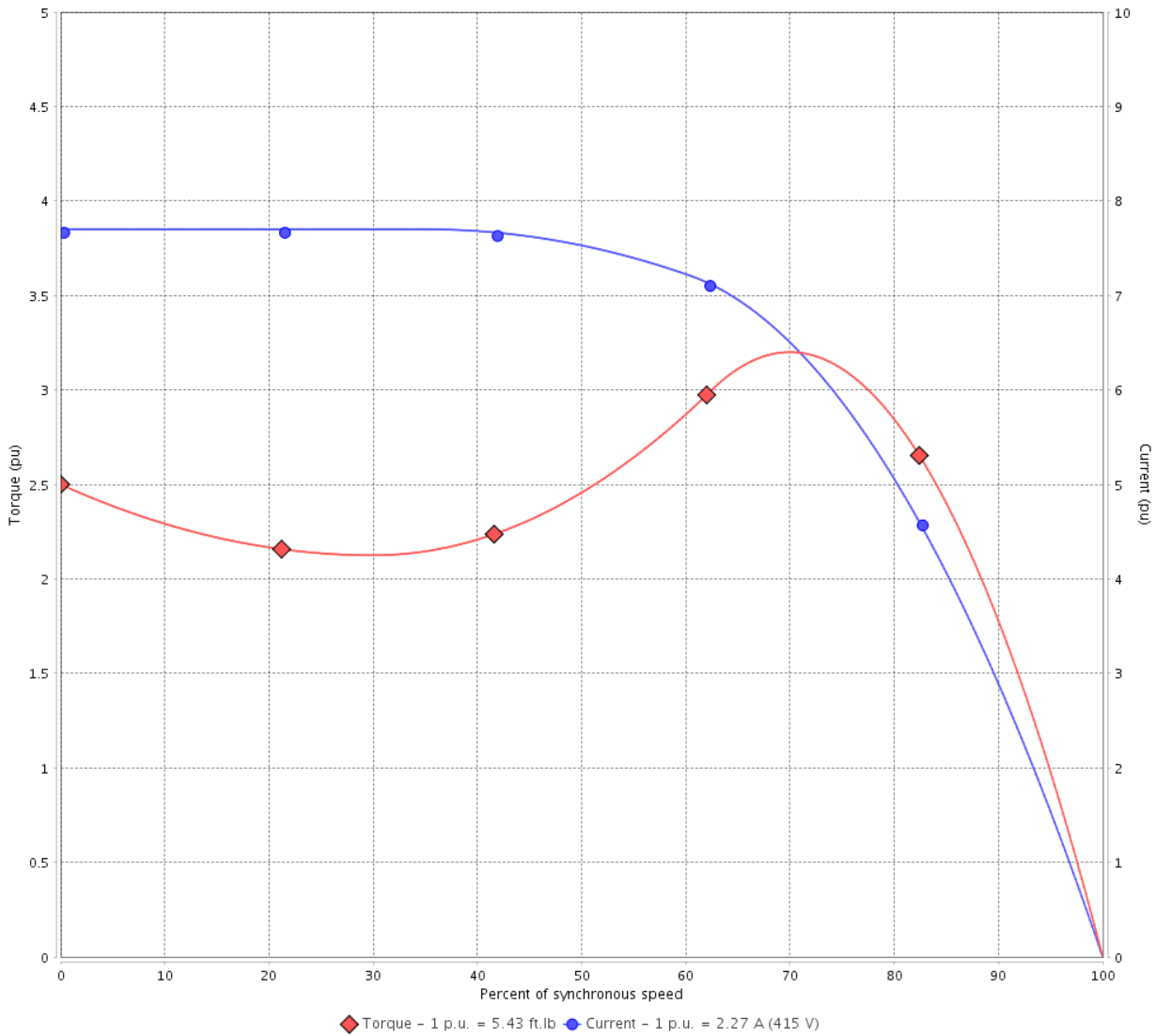
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 2.27 A	Moment of inertia (J)	: 0.1303 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 5.43 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

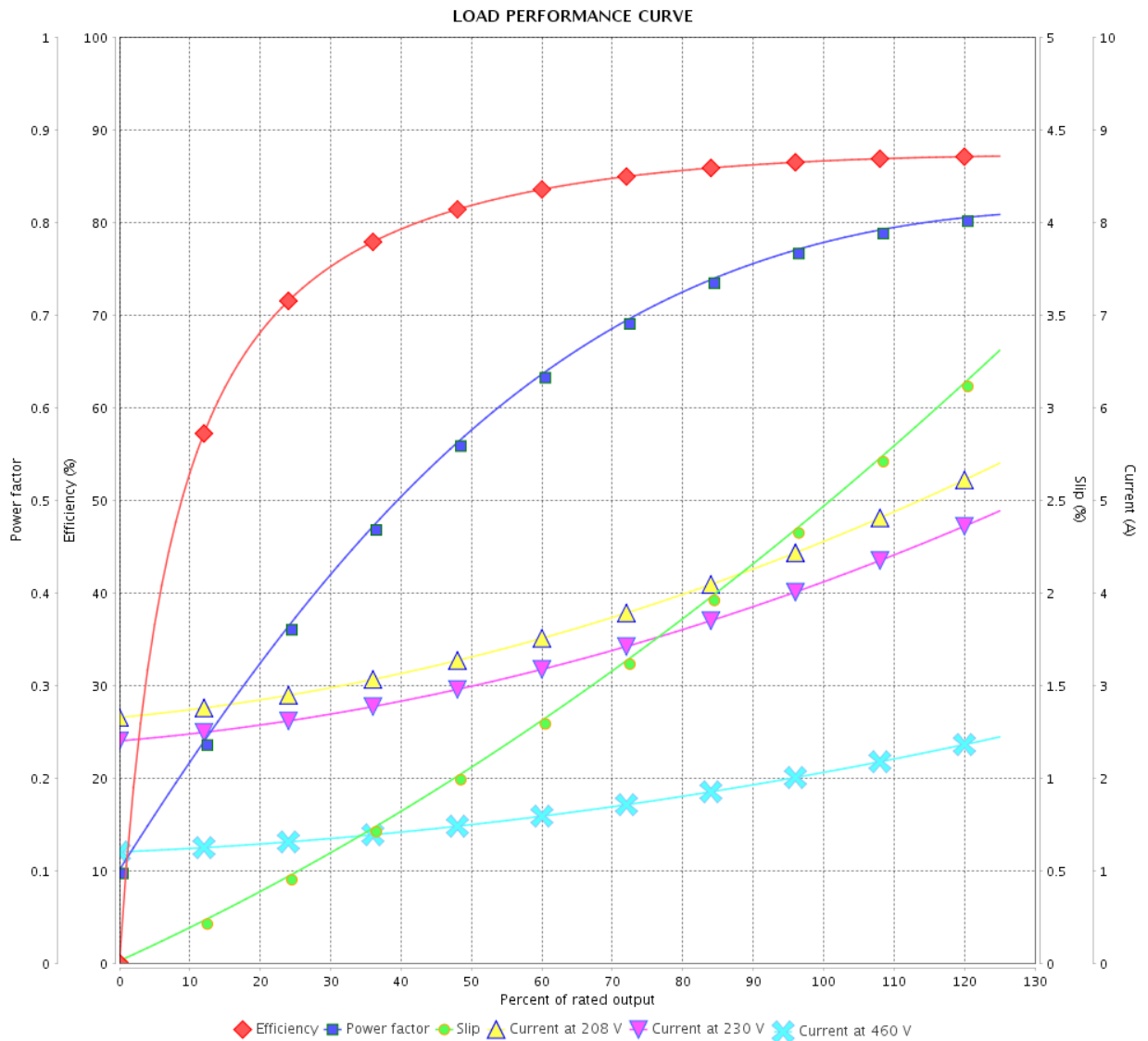


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T



Performance : 230/460 V 60 Hz 4P

Rated current : 4.10/2.05 A
 LRC : 8.9
 Rated torque : 4.49 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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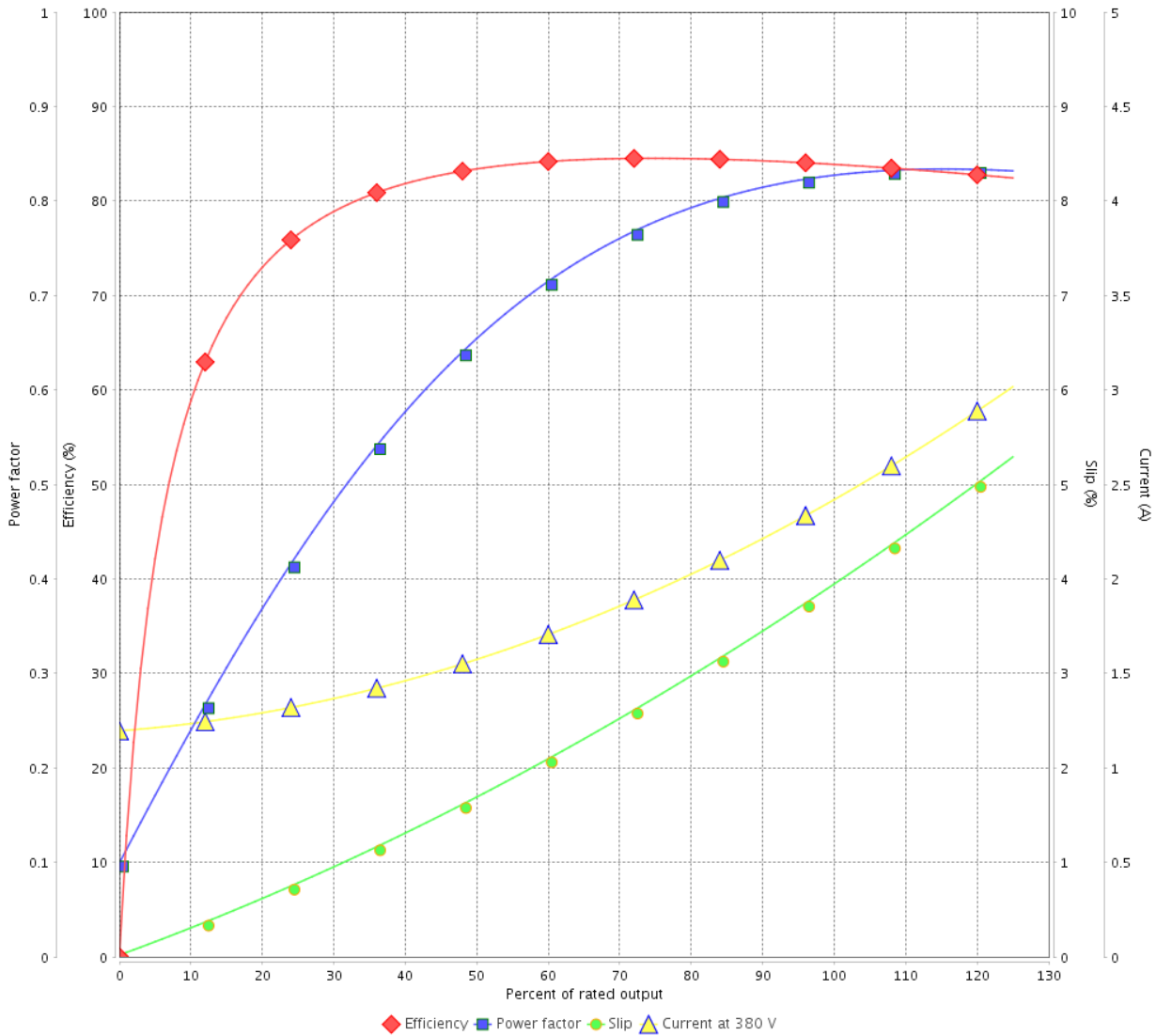
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Performance : 380 V 50 Hz 4P IE2

Rated current : 2.40 A
 LRC : 6.6
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 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

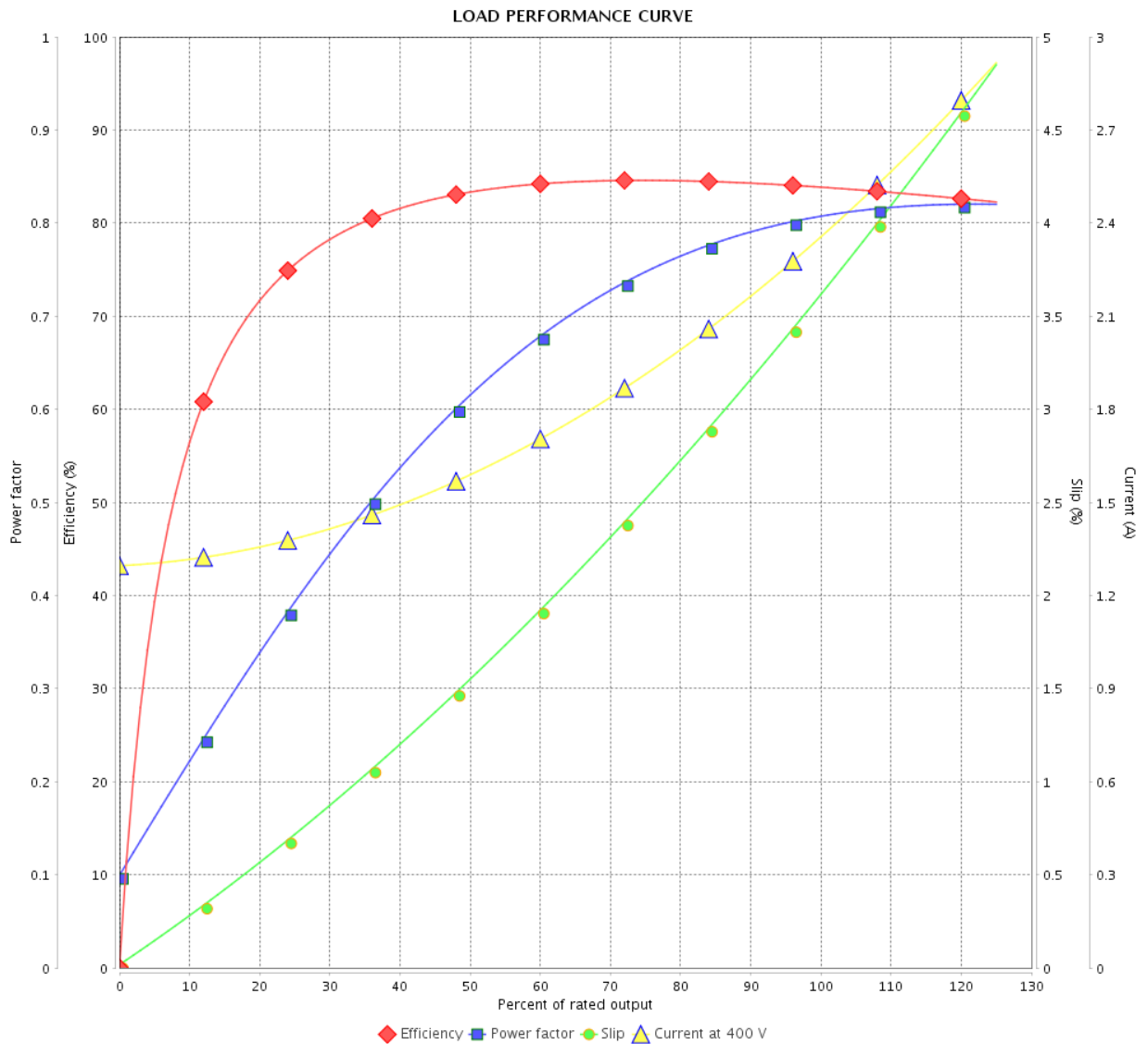


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 Breakdown torque : 290 %
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 Service factor : 1.00
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



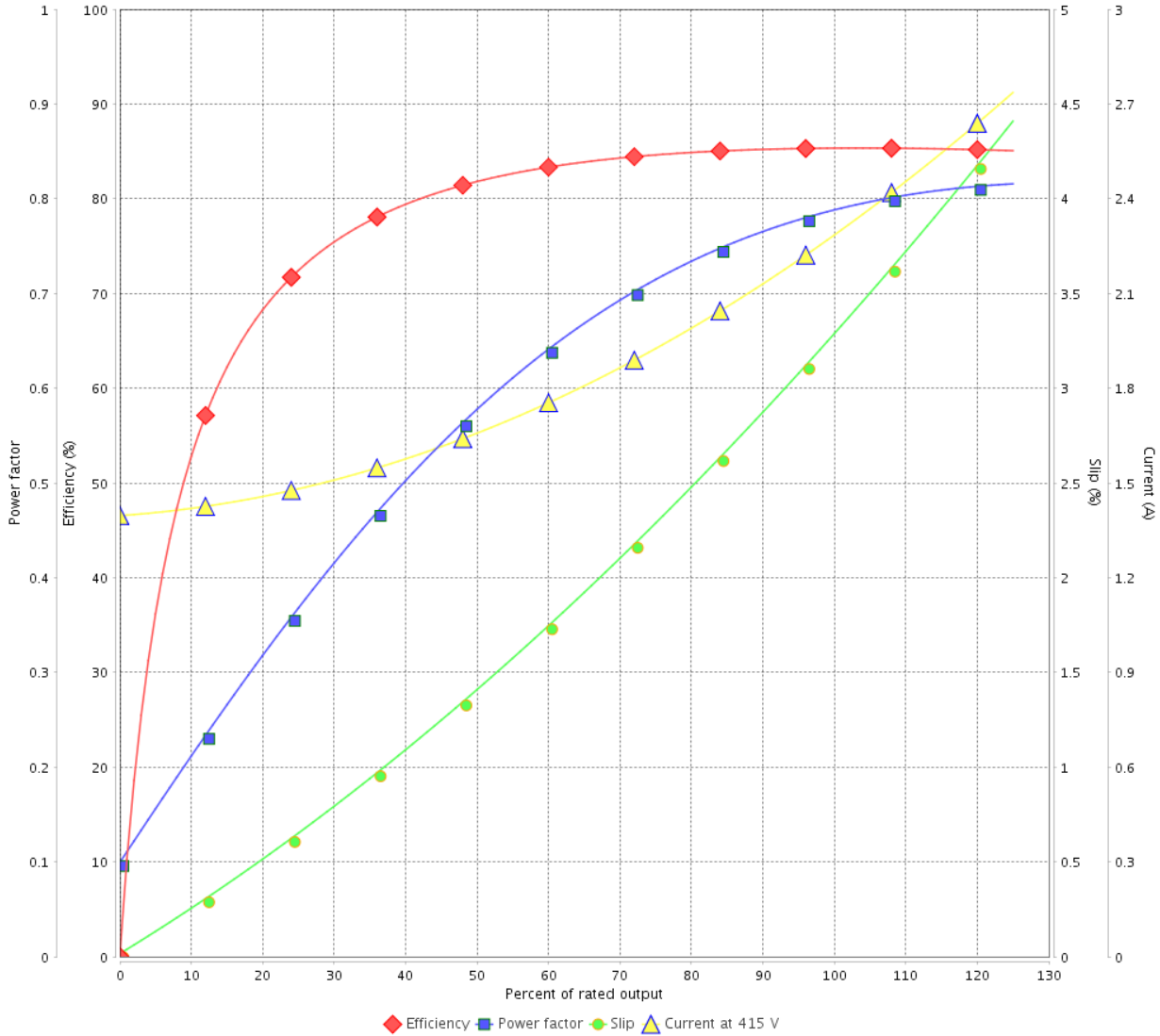
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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 Catalog # : 00158XT3E145T

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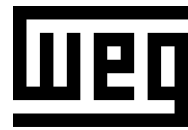
Heating constant

Cooling constant

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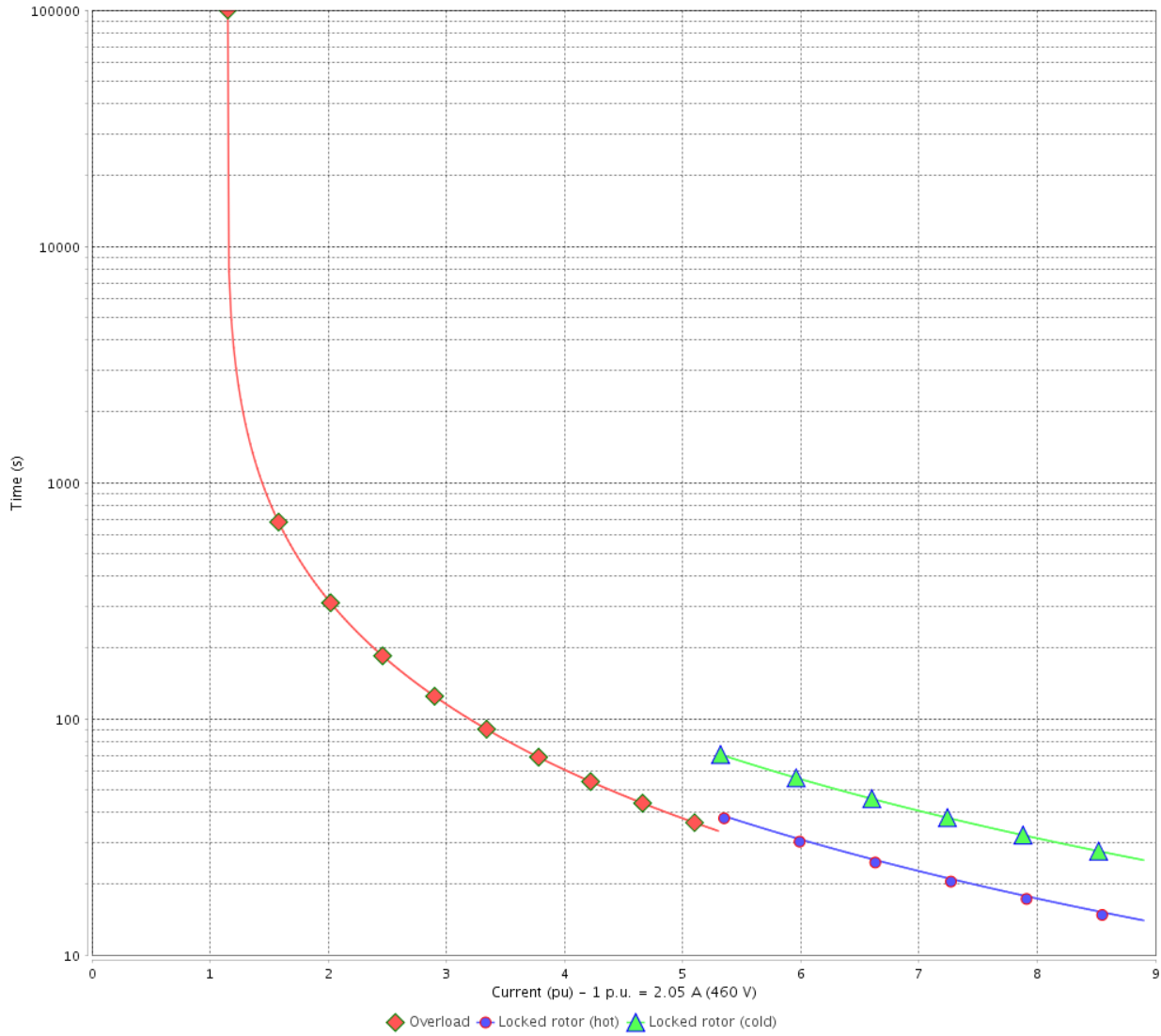
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



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Customer :

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Performance : 380 V 50 Hz 4P IE2

Rated current : 2.40 A	Moment of inertia (J) : 0.1303 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 5.47 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 1440 rpm	Design : B

Heating constant

Cooling constant

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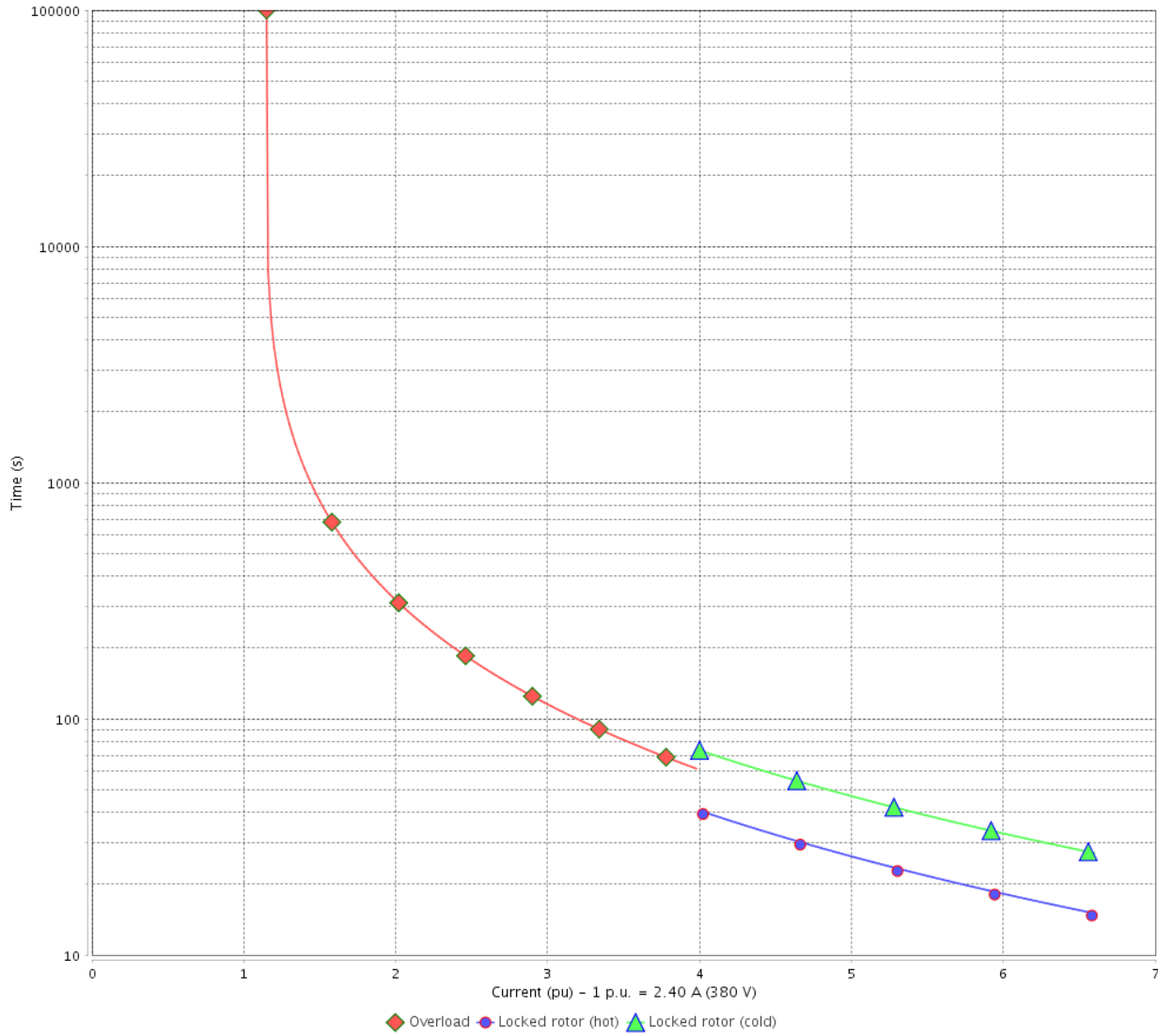
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



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LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 5.45 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1445 rpm	Design : B

Heating constant

Cooling constant

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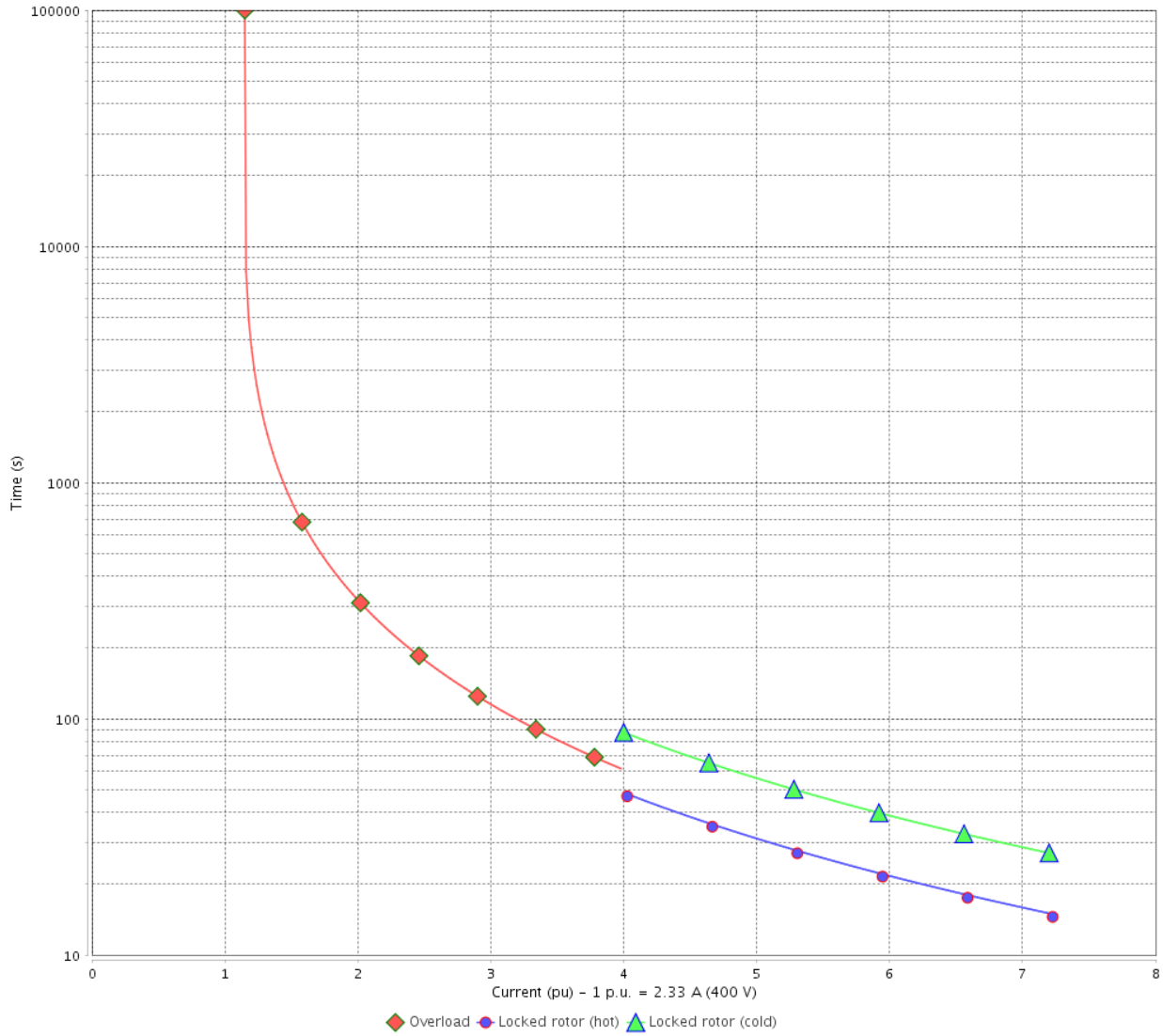
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14319266
 Catalog # : 00158XT3E145T

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Rated current : 2.27 A	Moment of inertia (J) : 0.1303 sq.ft.lb
LRC : 7.7	Duty cycle : Cont.(S1)
Rated torque : 5.43 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 1450 rpm	Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
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Date	08/06/2022			

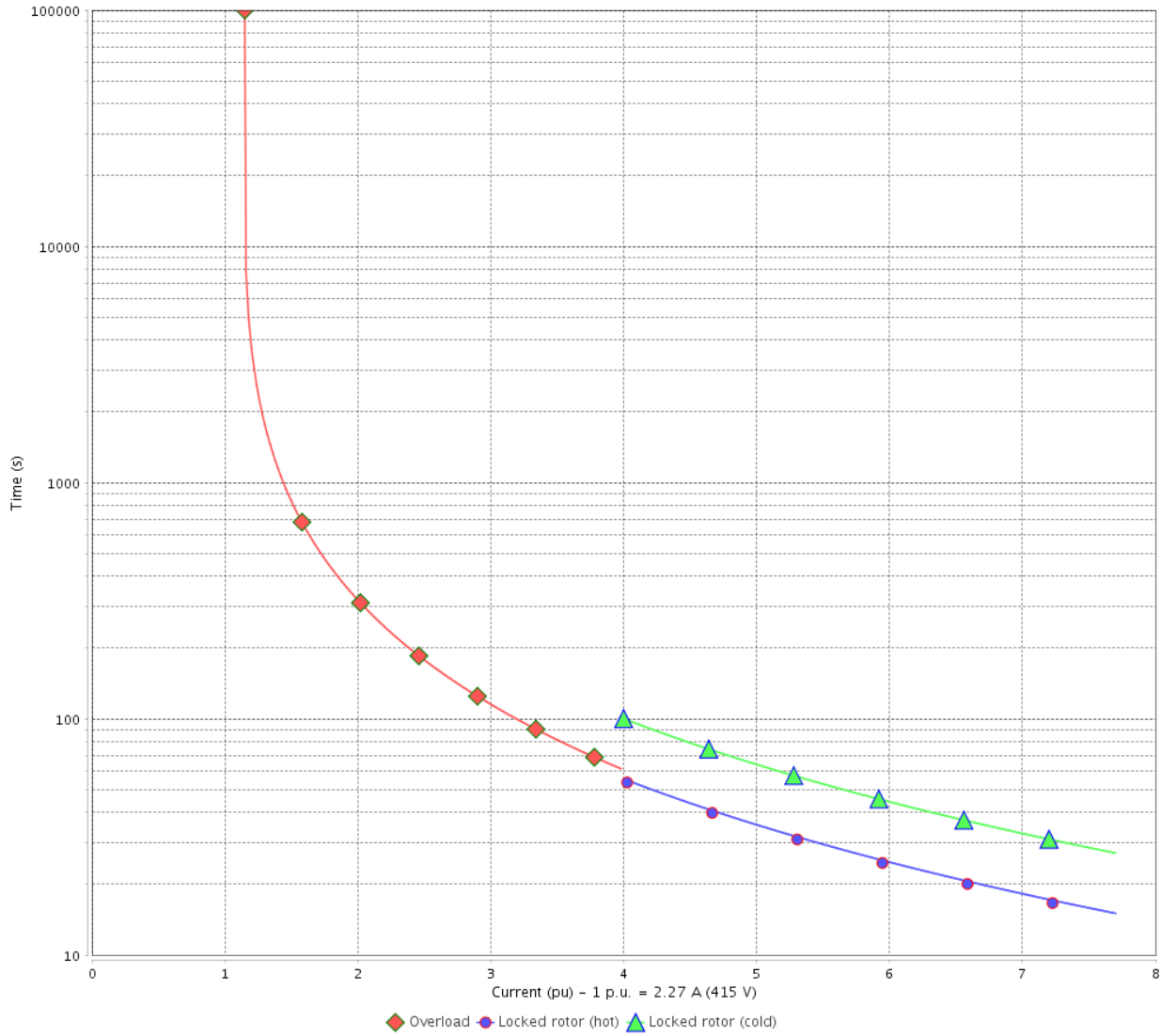
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



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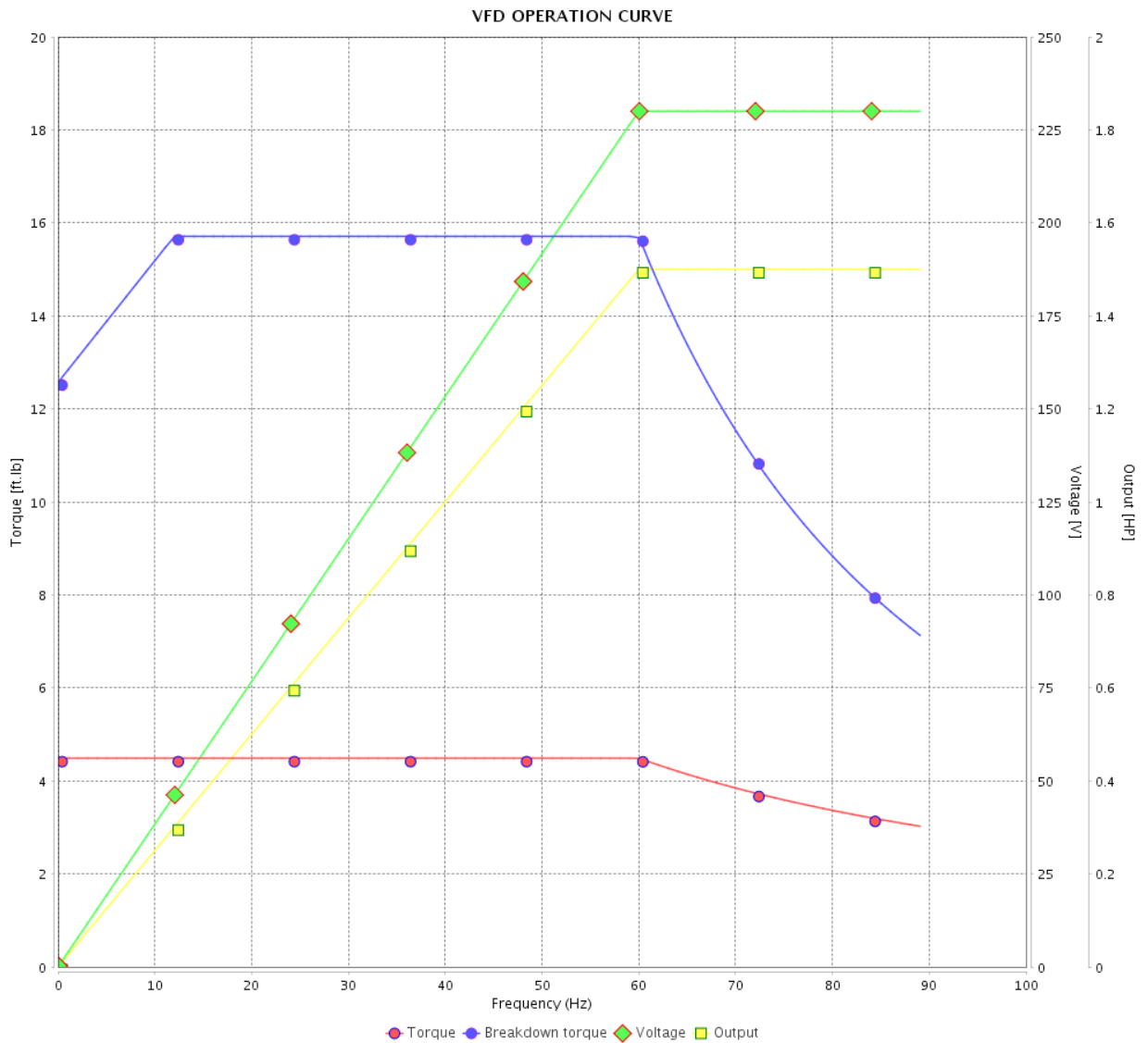
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

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 Product code : 14319266
 Catalog # : 00158XT3E145T



Performance : 230/460 V 60 Hz 4P

Rated current : 4.10/2.05 A
 LRC : 8.9
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 Locked rotor torque : 270 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



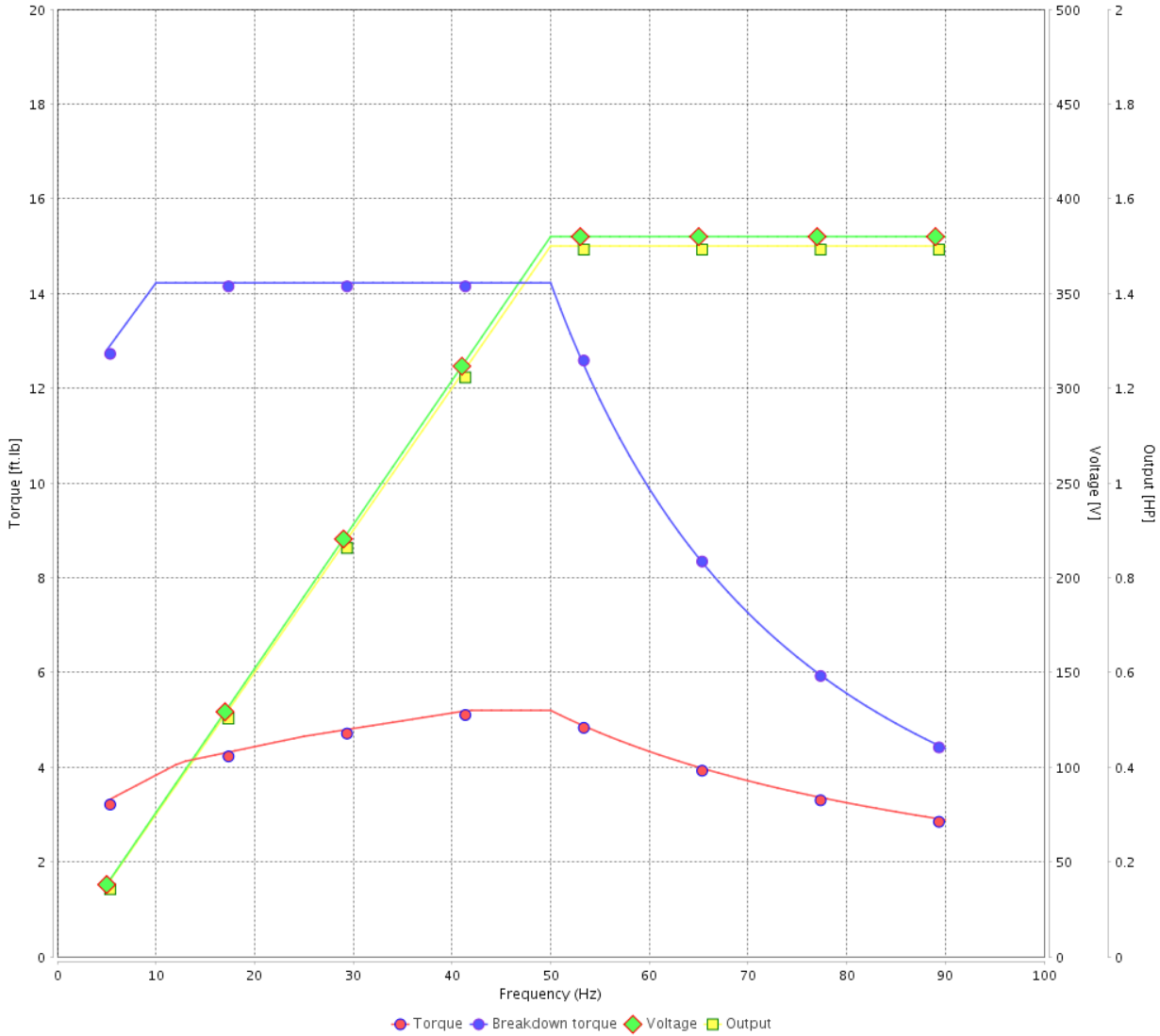
Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14319266

Catalog # : 00158XT3E145T

VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current : 2.40 A
 LRC : 6.6
 Rated torque : 5.47 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

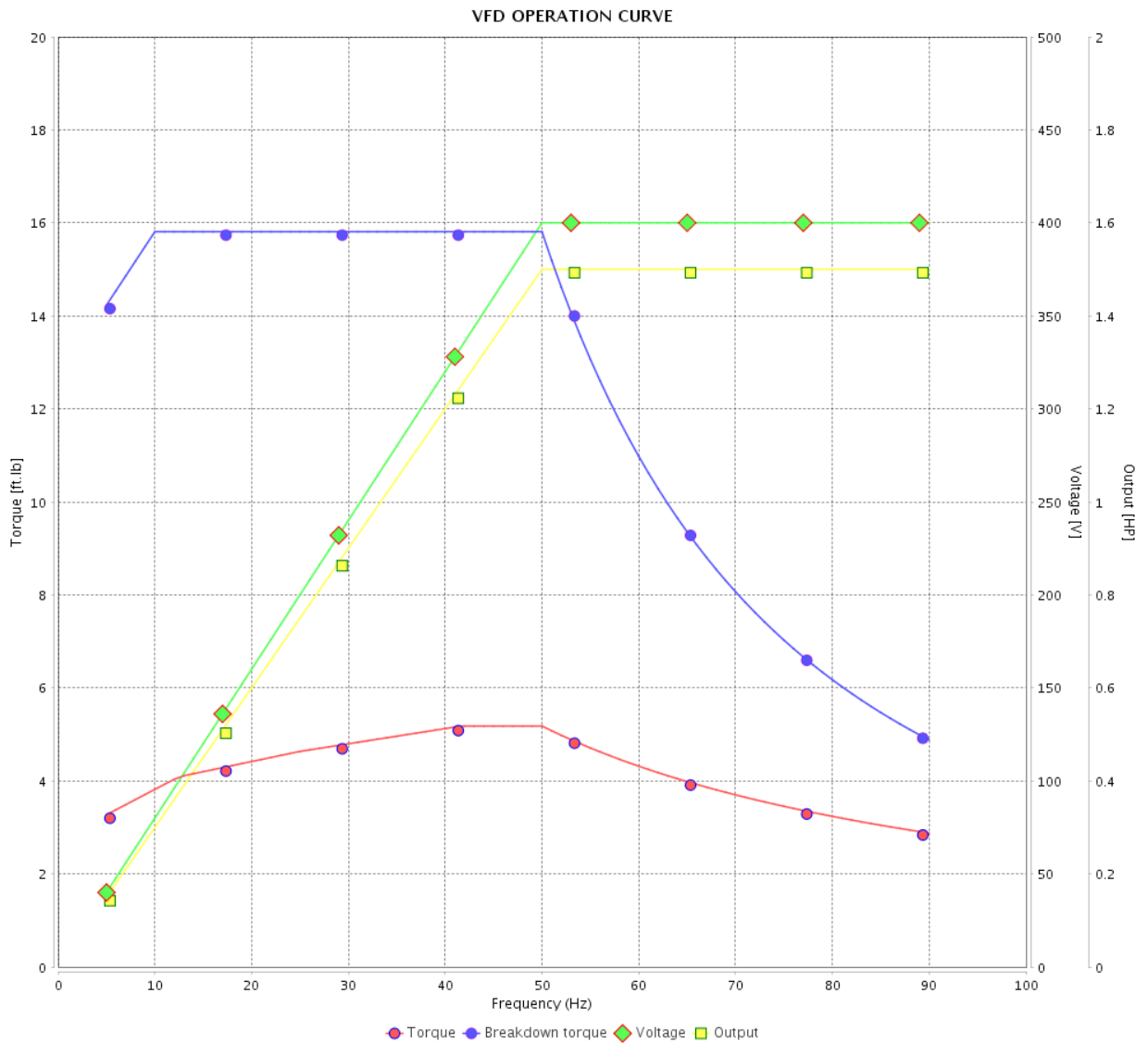


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Performance : 400 V 50 Hz 4P IE2

Rated current : 2.33 A
 LRC : 7.2
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1303 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



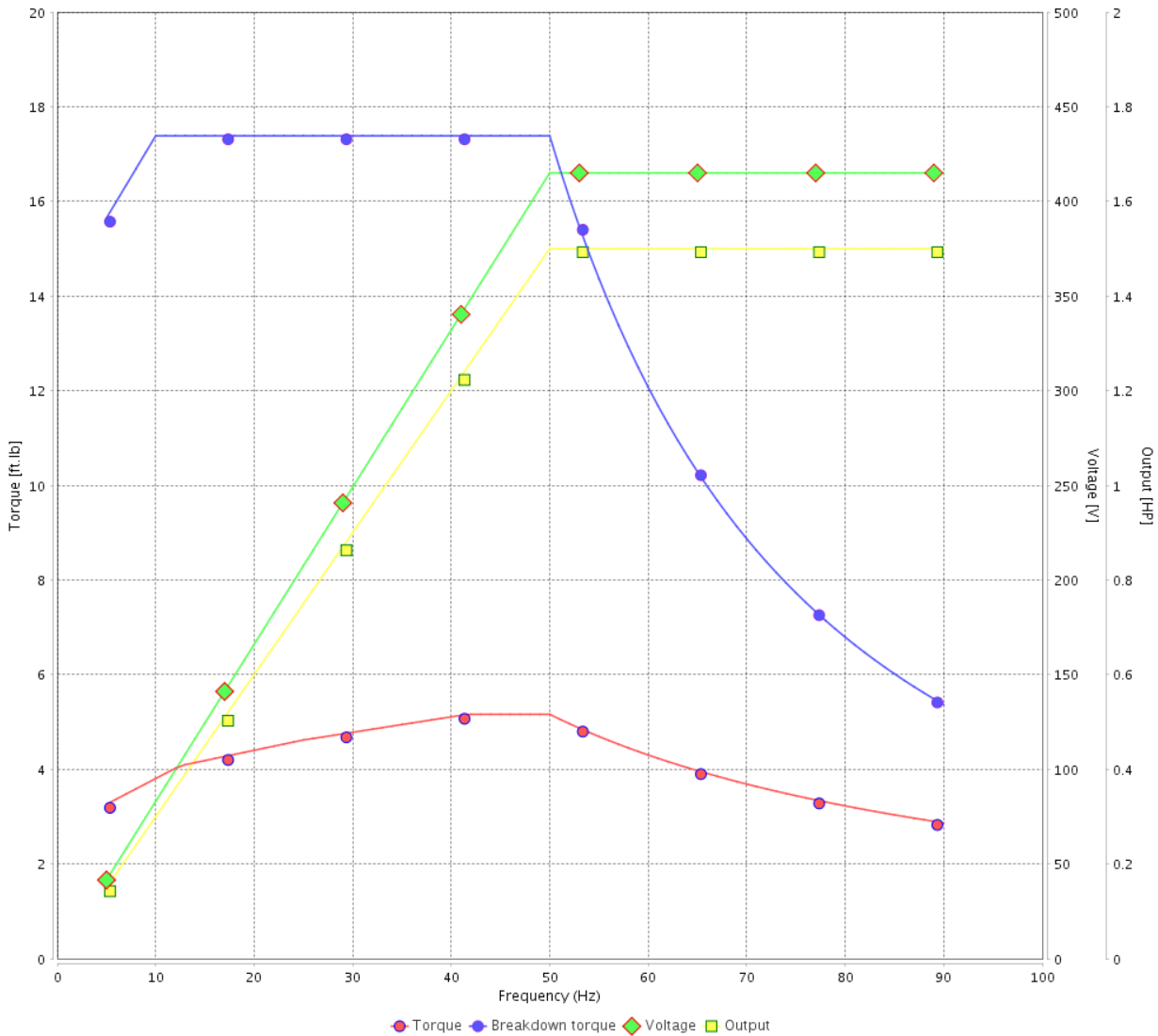
Customer :

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Catalog # : 00158XT3E145T

VFD OPERATION CURVE

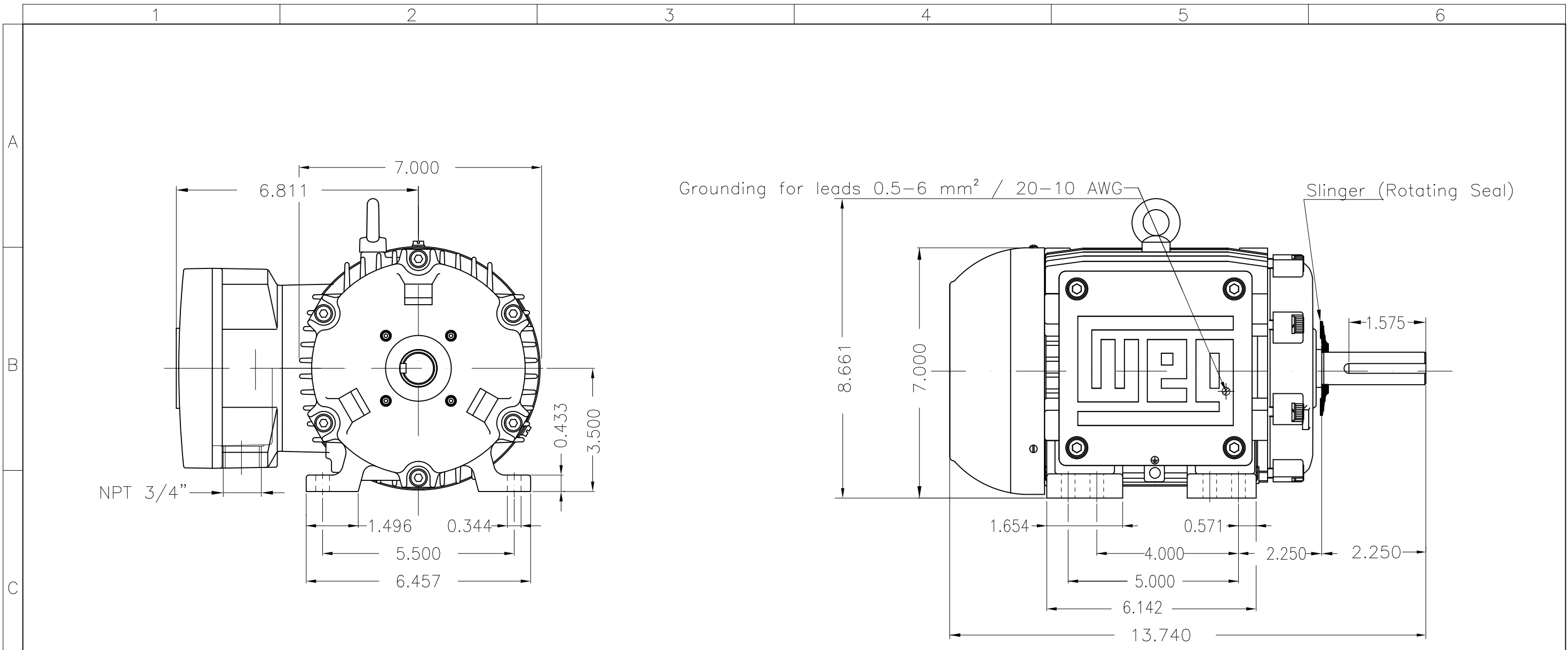


Performance : 415 V 50 Hz 4P IE3

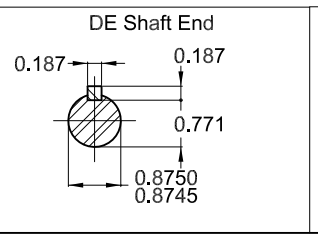
Rated current : 2.27 A
 LRC : 7.7
 Rated torque : 5.43 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 320 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Color RAL 5009
 Painting plan 202P
 Mounting NEMA F-1
 Mounting B3R(D)



1.5 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF. FRAME 143/5T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering			

PREVIEW
 WDD
 SHEET 1 / 1

MADE IN BRAZIL


W21X NEMA
Premium

14319266

CC029A

Inverter Duty Motor
Severe Duty


LISTED

MODEL 00158XT3E145T

PH 3 | FR 143/5T

HP(kW) 1.5(1.1)

HZ 60

IP55

V 230/460

A 4.10/2.05

RPM 1755

NEMA NOM EFF 86.5%

PF 0.78

SFA 4.71/2.36

DES B

INS CL F ΔT 80 K | SF 1.15

ENCL TEFC

DUTY CONT.

CODE L

ALT 1000

m.a.s.l.

AMB 40°C

USABLE @208V

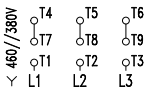
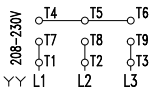
4.53 A

SF 1.15

SFA 5.21

AMB 55°C SF1.0

1.5HP 1.1kW 50Hz 380V 2.40A 1440RPM SF1.00 EFF 84.0% (IE2)



→ 6205-2RS MOBIL POLYREX EM

→ 6204-2RS

73 Lbs

C US
Energy Verified

TEMP CODE T3C

CSA/UL: Class I - Div. 1 - Groups C and D

CSA: Class II - Div. 1 - Groups F and G

CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.