DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 14284388

Catalog #: 00158XT3E145TC

Frame : 143/5TC Cooling method : IC411 - TEFC

Insulation class Mounting : F-1

Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW)

: -20°C to +40°C Starting method Ambient temperature : Direct On Line Altitude

· 1000 m a s l · 75 3 lb Approx. weight3

Aititude		: 1000 m.a.s.i.	Approx. weigr		
Protection degre	е	: IP55	Moment of ine	ertia (J) : 0.13	03 sq.ft.lb
Design		: B			
Output [HP]		1.5	1.5	1.5	1.5
Poles		4	4	4	4
Frequency [Hz]		60	50	50	50
Rated voltage [V]		230/460	380	400	415
Rated current [A]		4.10/2.05	2.40	2.33	2.27
L. R. Amperes [A]		36.5/18.2	15.8	16.8	17.5
LRC [A]		8.9x(Code L)	6.6x(Code H)	7.2x(Code J)	7.7x(Code K)
No load current [A]	2.40/1.20	1.20	1.30	1.40
Rated speed [RPN	<i>/</i> I]	1755	1440	1445	1450
Slip [%]		2.50	4.00	3.67	3.33
Rated torque [ft.lb]]	4.49	5.47	5.45	5.43
Locked rotor torqu	e [%]	270	200	229	250
Breakdown torque	[%]	350	260	290	320
Service factor		1.15	1.00	1.00	1.00
Temperature rise		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)
Noise level ²		51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
	25%	80.2	83.7	83.7	80.9
Efficiency (%)	50%	81.5	84.0	84.0	82.5
Linciency (70)	75%	85.5	84.0	84.0	84.0
	100%	86.5	84.0	84.0	85.5
	25%	0.34	0.39	0.35	0.33
Power Factor	50%	0.58	0.66	0.62	0.58
I OWELL ACIOI	75%	0.70	0.77	0.74	0.71
	100%	0.78	0.83	0.81	0.79

Drive end Non drive end Foundation loads

6204 2RS Bearing type 6205 2RS Max. traction : 114 lb Sealing Oil Seal Lip Seal Max. compression : 189 lb

Lubrication interval 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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Thermal protection

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

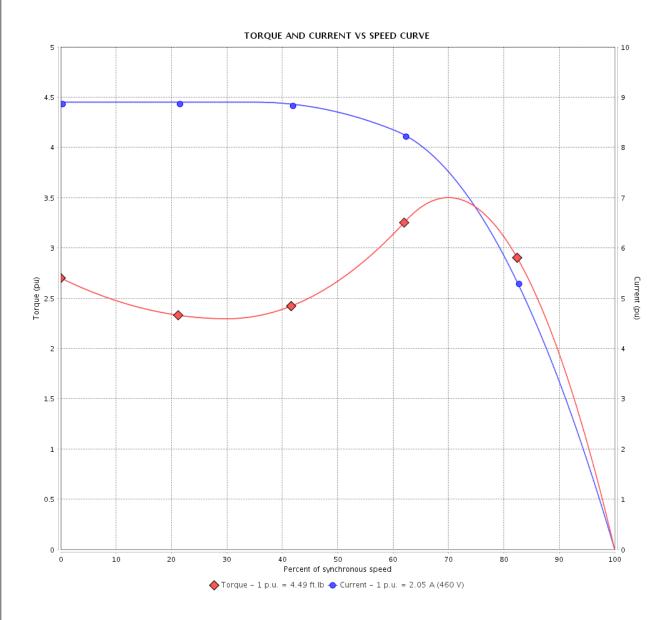
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Customer Product line : NEMA Premium Efficiency Three-Product code: 14284388

> Catalog #: 00158XT3E145TC



Performance	: 230/460 V 60 Hz 4P			
Rated current	: 4.10/2.05 A	Moment of inertia (J)	: 0.1303 sq.ft.lb	
LRC	: 8.9	Duty cycle	: Cont.(S1)	
Rated torque	: 4.49 ft.lb	Insulation class	: F	
Locked rotor torque	: 270 %	Service factor	: 1.15	
Breakdown torque	: 350 %	Temperature rise	: 80 K	
Rated speed	: 1755 rpm	Design	: B	
Locked rotor time	: 25s (cold) 14s (hot)	· ·		

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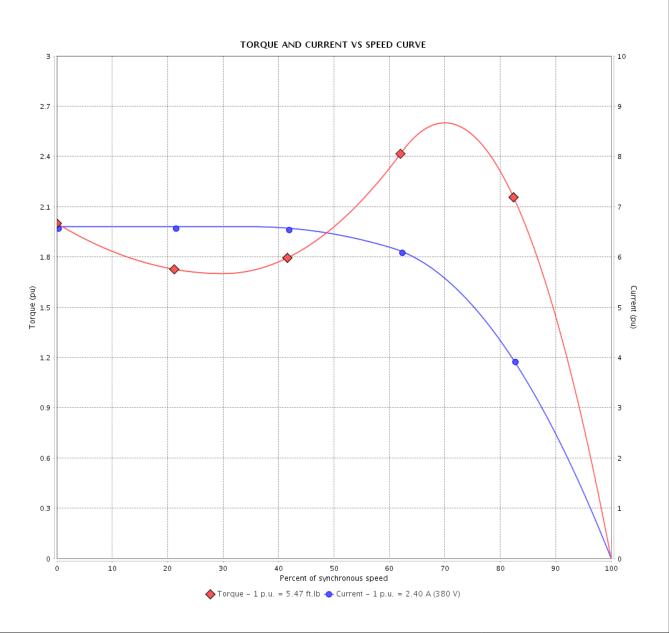
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 14284388

Catalog #: 00158XT3E145TC



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) : F : 5.47 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 200 % : 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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Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 14284388 Catalog #: 00158XT3E145TC TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Current Torque (pu) 1.2 0.6 0.3 Percent of synchronous speed ◆ Torque - 1 p.u. = 5.45 ft.lb ◆ Current - 1 p.u. = 2.33 A (400 V) Performance : 400 V 50 Hz 4P IE2 Rated current : 2.33 A Moment of inertia (J) : 0.1303 sq.ft.lb **LRC** : 7.2 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 5.45 ft.lb : 229 % Locked rotor torque Service factor : 1.00 Breakdown torque : 290 % Temperature rise : 80 K Rated speed : 1445 rpm Design : B Locked rotor time : 27s (cold) 15s (hot) Performed Checked

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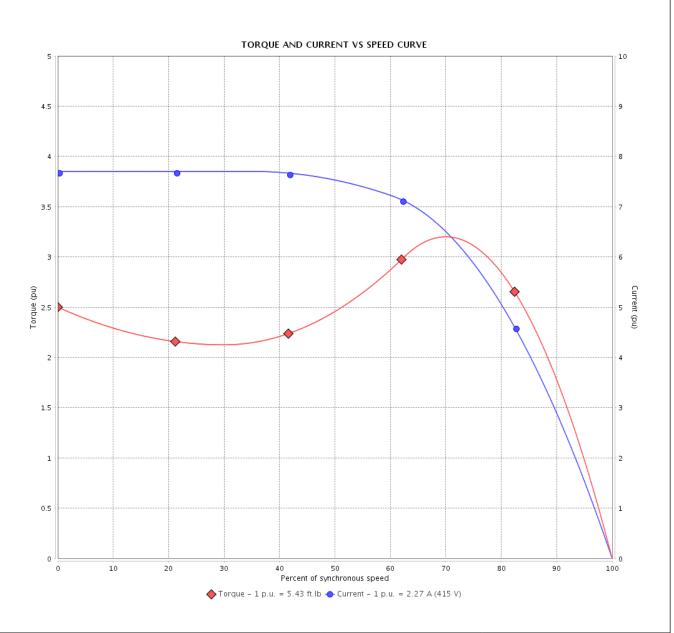
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 14284388

Catalog #: 00158XT3E145TC



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) : F : 5.43 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 250 % : 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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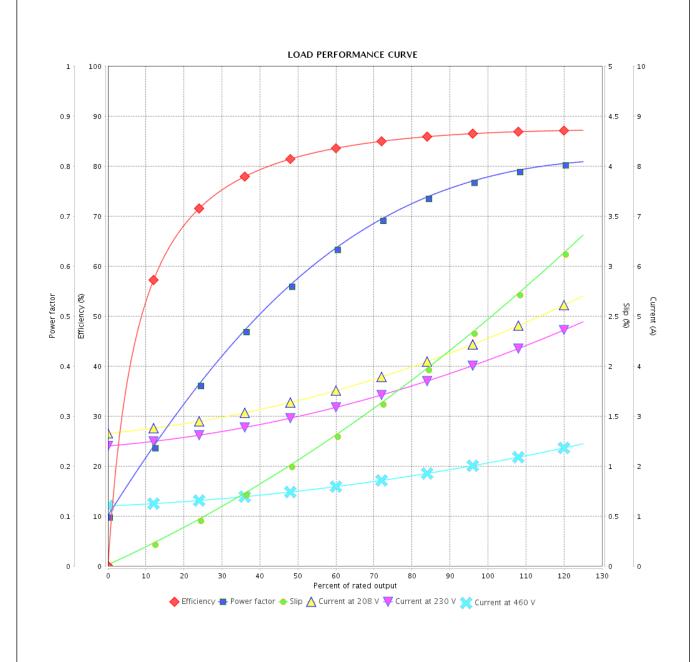
Customer

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 00158XT3E145TC

14284388



Performance	:	: 230/460 V 60 Hz 4P				
Rated current		: 4.10/2.05 A	Moment o	f inertia (J)	: 0.1303 sq.ft.lb	
LRC		: 8.9	Duty cycle	;	: Cont.(S1)	
Rated torque		: 4.49 ft.lb	Insulation	class	: F	
Locked rotor torque		: 270 %	Service fa	ctor	: 1.15	
Breakdown torque		: 350 %	Temperature rise		: 80 K	
Rated speed		: 1755 rpm	Design		: B	
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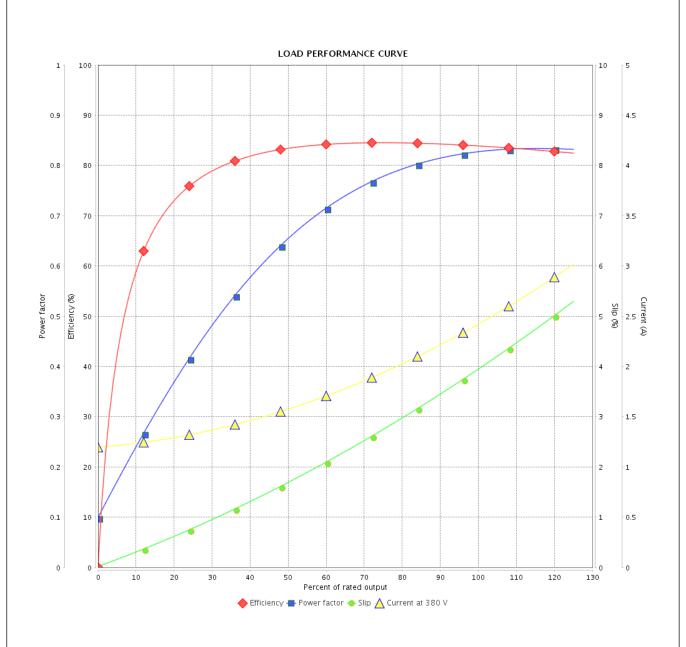
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Product line : NEMA Premium Efficiency Three-

Phase

Product code: 14284388

Catalog #: 00158XT3E145TC



Performance : 380 V 50 Hz 4P IE2 : 2.40 A Rated current Moment of inertia (J) : 0.1303 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.6 : 5.47 ft.lb Insulation class Rated torque : F Locked rotor torque : 200 % Service factor : 1.00 Breakdown torque : 260 % Temperature rise : 80 K Rated speed : 1440 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by

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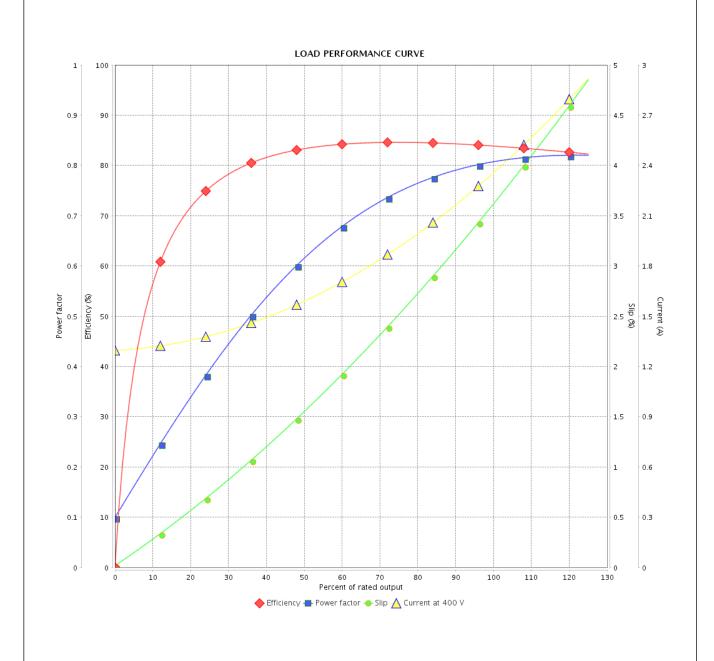


Customer

Product line : NEMA Premium Efficiency Three- Product code : 14284388

Phase

Catalog #: 00158XT3E145TC



Performance	:	400 V 50 Hz 4P IE2				
Rated current		2.33 A	Moment of inertia (J)		: 0.1303 sq.ft.lb	
LRC	:	7.2	Duty cycle	;	: Cont.(S1)	
Rated torque	:	5.45 ft.lb	Insulation	class	: F	
Locked rotor torque		229 %	Service fa	ctor	: 1.00	
Breakdown torqu	ie :	290 %	Temperature rise		: 80 K	
Rated speed	:	1445 rpm	Design		: B	
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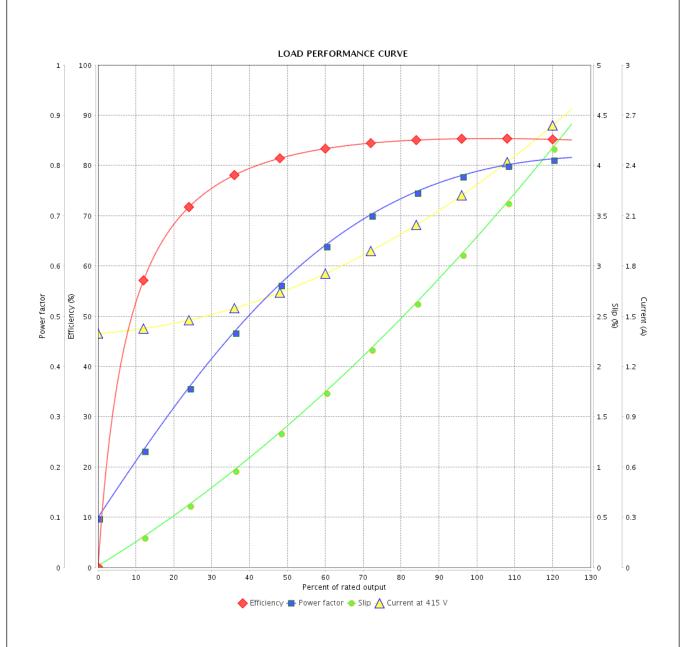
Customer :

Product line : NEMA Premium Efficiency Three- Produ

Phase

Product code: 14284388

Catalog #: 00158XT3E145TC



	-							
Performance	: 415 V 50 Hz 4P IE3							
Rated current LRC	: 2.27 A : 7.7	Moment of inertia (J) Duty cycle		: 0.1303 sq.ft.lb : Cont.(S1)				
Rated torque Locked rotor torque	: 7.7 : 5.43 ft.lb : 250 %	Insulation class Service factor Temperature rise		: F : 1.00				
Breakdown torque	: 320 %			: 80 K				
Rated speed	: 1450 rpm	Design		: B				
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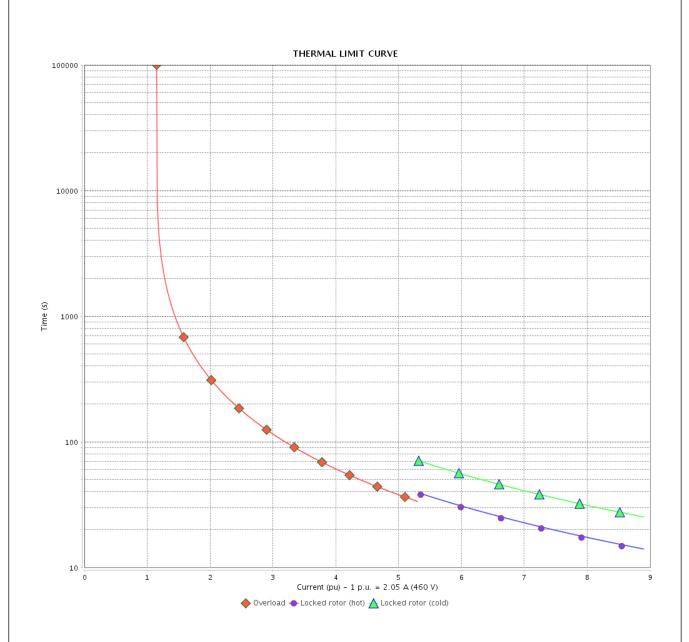


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Product line		NEMA Premium Efficiency	Three-	Product code :	14284388	
i roduct line	F	Phase				
				Catalog # :	00158XT3E ²	145TC
Performance		30/460 V 60 Hz 4P .10/2.05 A	Moment	of inartia (I)	. 0 1202 og ff	lh.
Rated current LRC	. 4 : 8		Duty cycle	of inertia (J) e	: 0.1303 sq.ft. : Cont.(S1)	ID
Rated torque		.49 ft.lb	Insulation	class	: F	
Locked rotor tord Breakdown torqu	μe : 2 ιe : 3	70 % 50 %	Service fa Temperat		: 1.15 : 80 K	
Rated speed		755 rpm	Design	uic iisc	: B	
Heating constan	 t					
Cooling constant						
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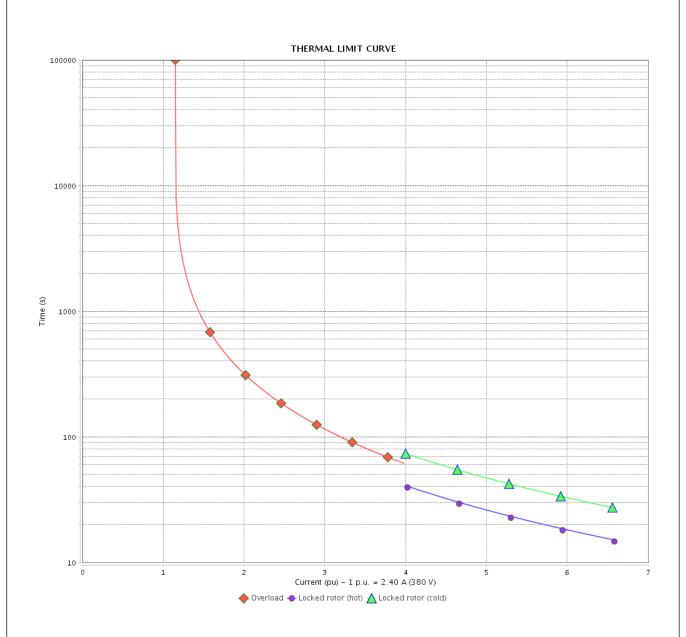


Customer	:					
Product line		NEMA Premium Efficiency	Three-	Product code :	14284388	
1 Toddot iino		hase		Catalog #:	00158XT3E1	METO
Performance		80 V 50 Hz 4P IE2		Charles (D)	0.4000 (1)	
Rated current LRC Rated torque	: 6 : 5	.47 ft.lb	Duty cycle Insulation	class	: 0.1303 sq.ft.l : Cont.(S1) : F	lb
Locked rotor tord Breakdown torqu Rated speed	ıe : 2	00 % 60 % 440 rpm	Service fa Temperati Design		: 1.00 : 80 K : B	
Heating constan						
Cooling constanter Rev.	<u>t</u>	Changes Summary		Performed	Checked	Date
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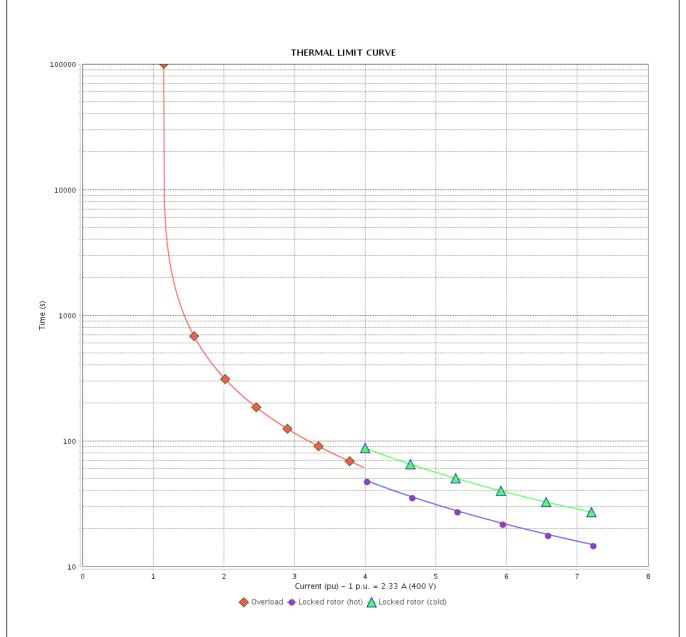


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Product line		NEMA Premium Efficiency T	hree-	Product code :	14284388	
1 Toddot iiilo		hase				METO
	P	hase		Catalog # :	00158XT3E	145TC
Performance Rated current IRC Rated torque	: 2 : 7	.2	Moment o	of inertia (J)	: 0.1303 sq.ft. : Cont.(S1) : F	lb
Locked rotor tord Breakdown torqu Rated speed Heating constant Cooling constant	que : 2 ue : 2 : 1	29 % 90 %	Service fa Temperati Design	ictor	: 1.00 : 80 K : B	
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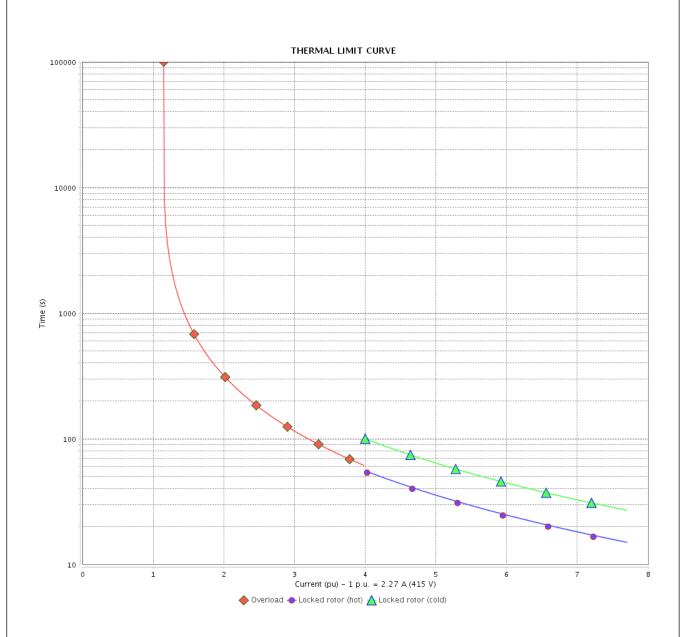


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Product line	: I P	NEMA Premium Efficiency hase		Product code : Catalog # :	14284388 00158XT3E	145TC
Performance	: 4'	15 V 50 Hz 4P IE3				
Rated current LRC Rated torque Locked rotor torque		: 2.27 A		class	: 0.1303 sq.ft. : Cont.(S1) : F : 1.00 : 80 K : B	lb
Heating constant						
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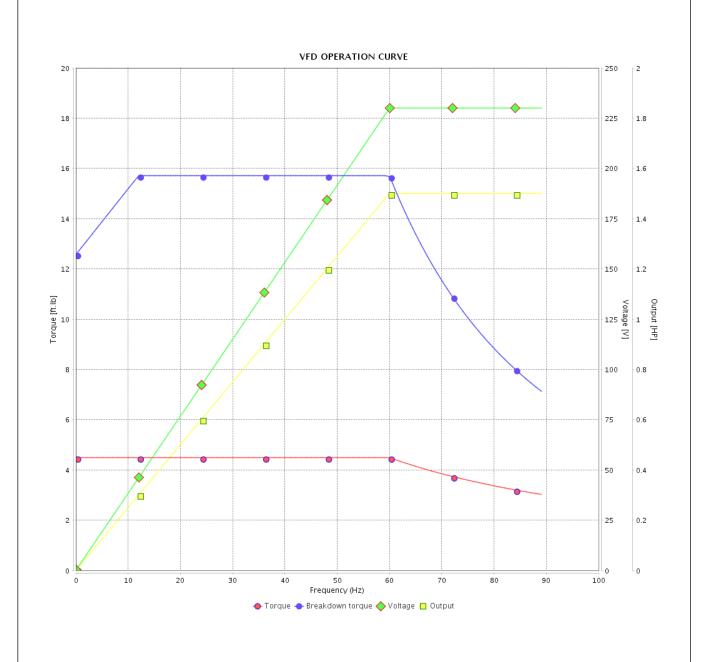


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Performance					
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 4.10/2.05 A Moment of inertia (J) : 0.13 : 8.9 Duty cycle : Con : 4.49 ft.lb Insulation class : F : 270 % Service factor : 1.15 : 350 % Temperature rise : 80 k : 1755 rpm Design : B		Duty cycle Insulation class Service factor Temperature rise		lb
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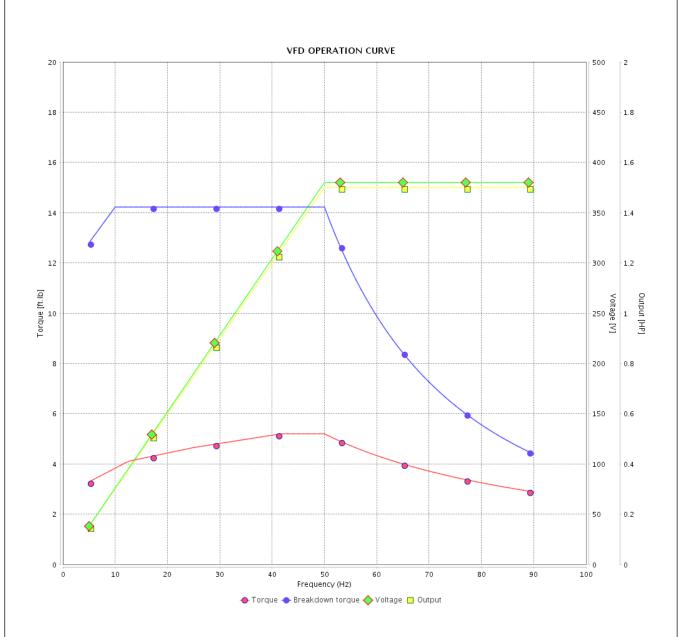
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Product line : NEMA Premium Efficiency Three- Product

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Performance : 380 V 50 Hz 4P IE2 : 2.40 A Rated current Moment of inertia (J) : 0.1303 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.6 : 5.47 ft.lb Insulation class Rated torque : F Locked rotor torque : 200 % Service factor : 1.00 Breakdown torque : 260 % Temperature rise : 80 K Rated speed : 1440 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by

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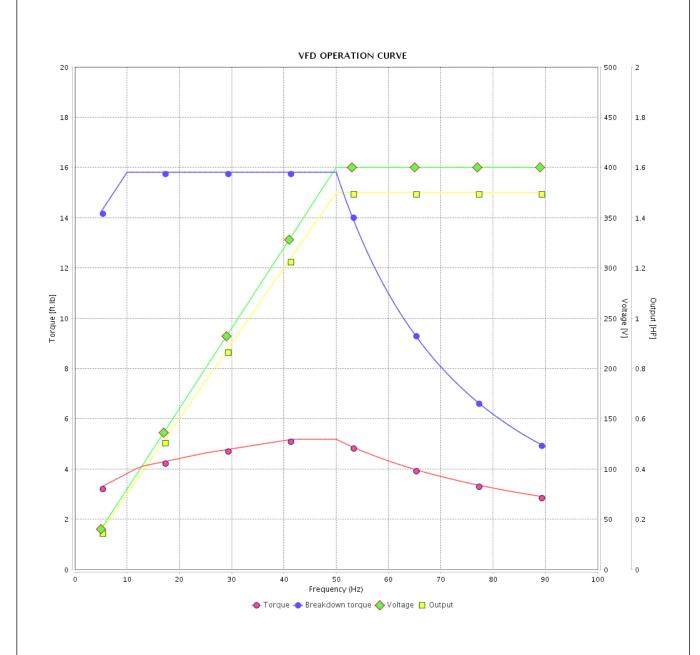
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14284388

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Performance	: 400 V 50 Hz 4P IE2				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 2.33 A : 7.2 : 5.45 ft.lb : 229 % : 290 % : 1445 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.1303 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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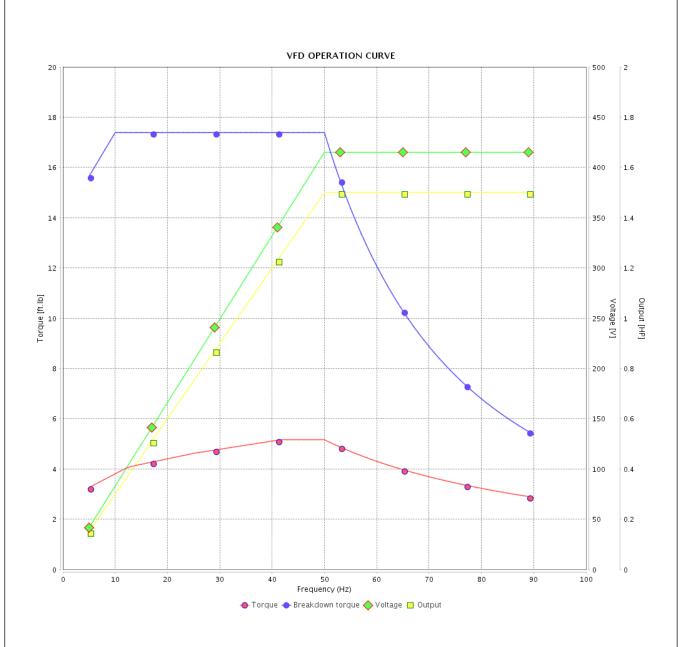
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Product line : NEMA Premium Efficiency Three-

Phase

Product code: 14284388

Catalog #: 00158XT3E145TC



Performance : 415 V 50 Hz 4P IE3 : 2.27 A Rated current Moment of inertia (J) : 0.1303 sq.ft.lb **LRC** : 7.7 Duty cycle : Cont.(S1) : 5.43 ft.lb Insulation class : F Rated torque Locked rotor torque : 250 % Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 1450 rpm Design : B Rev. **Changes Summary** Performed Checked Date

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