DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T

Frame : 444/5T Cooling method : IC411 - TEFC

Insulation class : F Mounting : F-1

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

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

Altitude : 1000 m.a.s.l. Starting method : Direct On Lin

Protection degree : IP55 Moment of inertia (J)

Moment of inertia (J) : 66.7 sq.ft.lb

Design : B Output [HP] 150 125 125 125 Poles 4 4 4 Frequency [Hz] 60 50 50 50 Rated voltage [V] 380 400 415 460 Rated current [A] 170 169 163 158 L. R. Amperes [A] 1076 1122 1071 1014 6.3x(Code G) 6.0x(Code G) 6.6x(Code H) 7.1x(Code H) LRC [A] No load current [A] 52.0 52.0 55.0 58.0 Rated speed [RPM] 1780 1480 1483 1485 Slip [%] 1.11 1.33 1.13 1.00 Rated torque [ft.lb] 442 443 442 441 Locked rotor torque [%] 210 200 229 250 Breakdown torque [%] 220 220 250 270 Service factor 1.15 1.00 1.00 1.00 Temperature rise 80 K 80 K 80 K 80 K Locked rotor time 39s (cold) 22s (hot) 54s (cold) 30s (hot) 54s (cold) 30s (hot) 54s (cold) 30s (hot) Noise level² 76.0 dB(A) 72.0 dB(A) 72.0 dB(A) 72.0 dB(A) 25% 94.8 94.4 94.9 94.0 50% 95.0 94.5 95.0 94.5 Efficiency (%) 75% 95.0 95.0 95.8 95.0 100% 95.8 95.0 95.0 95.4 0.44 25% 0.49 0.49 0.46 50% 0.72 0.72 0.67 0.69 Power Factor 75% 0.81 0.81 0.79 0.78

<u>Drive end</u> <u>Non drive end</u> Foundation loads

0.85

Bearing type : 6219 C3 6316 C3 Max. traction : 2082 lb Sealing : Viton Viton Seal Max. compression : 4281 lb

8569 h

0.85

Oil Seal Lubrication interval : 8033 h

100%

Lubricant amount : 28 g 34 g Lubricant type : Mobil Polyrex EM

Notes

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.

0.84

0.83

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Customer		

Thermal protection

		<u> </u>		
ID	Application	Туре	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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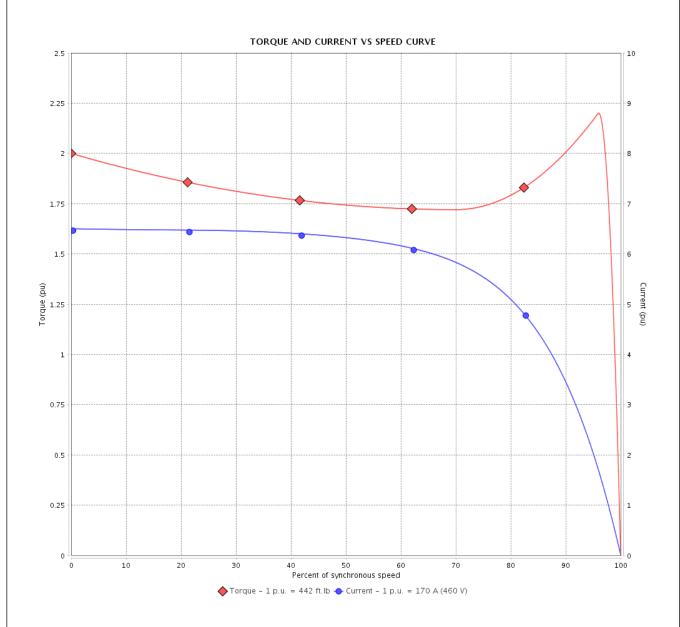
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Catalog # : 15018XT3G445T



Performance	: 460 V 60 Hz 4P		
Rated current	: 170 A	Moment of inertia (J)	: 66.7 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 442 ft.lb	Insulation class	:F ^
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B
Locked rotor time	: 39s (cold) 22s (hot)	1	-

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

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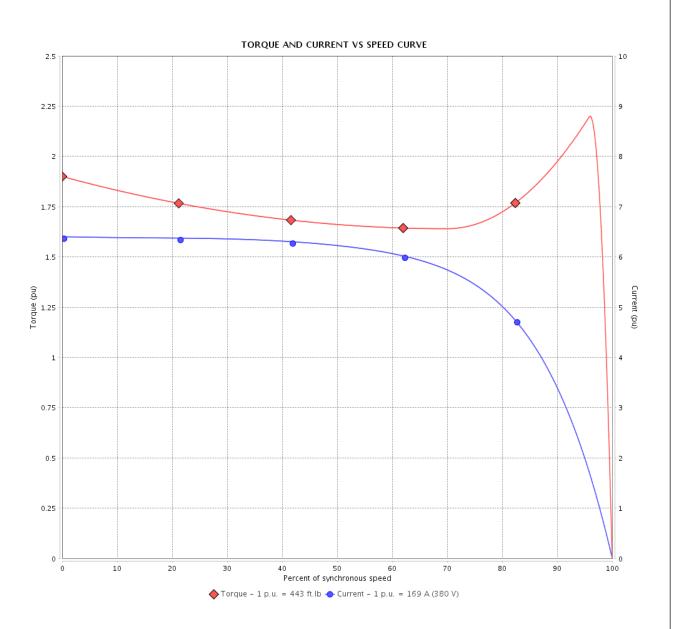
Customer :

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 15018XT3G445T

12378614



Performance : 380 V 50 Hz 4P IE2 Rated current : 169 A Moment of inertia (J) : 66.7 sq.ft.lb **LRC** : 6.0 Duty cycle : Cont.(S1) Insulation class Rated torque : 443 ft.lb : F Locked rotor torque : 200 % Service factor : 1.00 Breakdown torque : 220 % Temperature rise : 80 K Rated speed : 1480 rpm Design : B

Locked rotor time : 54s (cold) 30s (hot)

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Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 12378614 Catalog #: 15018XT3G445T TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Torque (pu) 1.2 0.6 0.3 Percent of synchronous speed ◆ Torque - 1 p.u. = 442 ft.lb ◆ Current - 1 p.u. = 163 A (400 V) Performance : 400 V 50 Hz 4P IE2 Rated current : 163 A Moment of inertia (J) : 66.7 sq.ft.lb **LRC** : 6.6 Duty cycle : Cont.(S1) Insulation class Rated torque : 442 ft.lb : F : 229 % Locked rotor torque Service factor : 1.00 Breakdown torque : 250 % Temperature rise : 80 K Rated speed : 1483 rpm Design : B Locked rotor time : 54s (cold) 30s (hot) Performed Checked Date Rev. **Changes Summary**

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Three Phase Induction Motor - Squirrel Cage



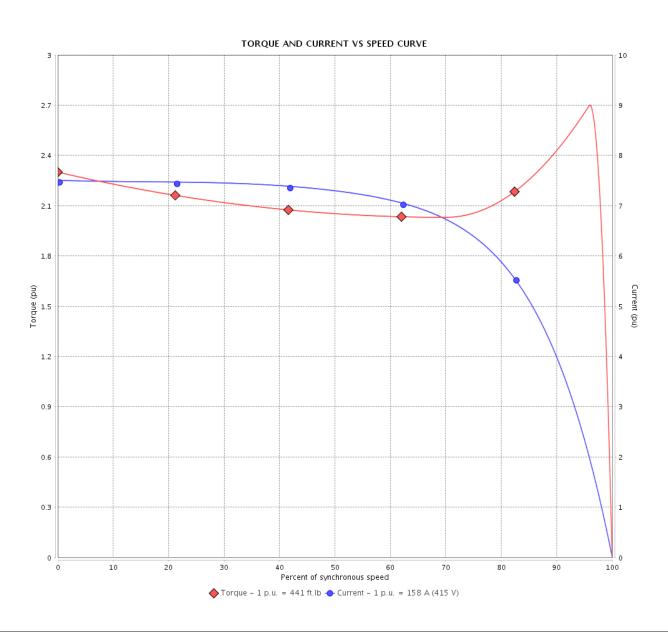
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 12378614

Catalog #: 15018XT3G445T



Performance : 415 V 50 Hz 4P IE3 Rated current : 158 A Moment of inertia (J) : 66.7 sq.ft.lb **LRC** : 7.1 Duty cycle : Cont.(S1) Insulation class Rated torque : 441 ft.lb : F Locked rotor torque : 250 % Service factor : 1.00 Breakdown torque : 270 % Temperature rise : 80 K Rated speed : 1485 rpm Design : B

Locked rotor time : 54s (cold) 30s (hot)

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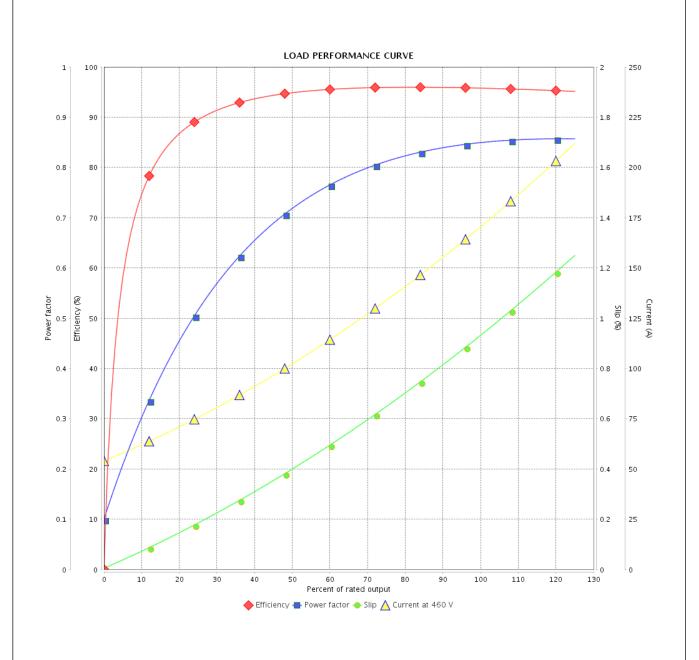


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T



Performance	: 460 V 60 Hz 4P				
Rated current	: 170 A	Moment of inertia (J)		: 66.7 sq.ft.lb	
LRC	: 6.3	Duty cycle		: Cont.(S1)	
Rated torque	: 442 ft.lb	Insulation cla	ass	: F	
Locked rotor torque	: 210 %	Service factor Temperature rise		: 1.15 : 80 K	
Breakdown torque	: 220 %				
Rated speed	: 1780 rpm	Design		: B	
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Phase

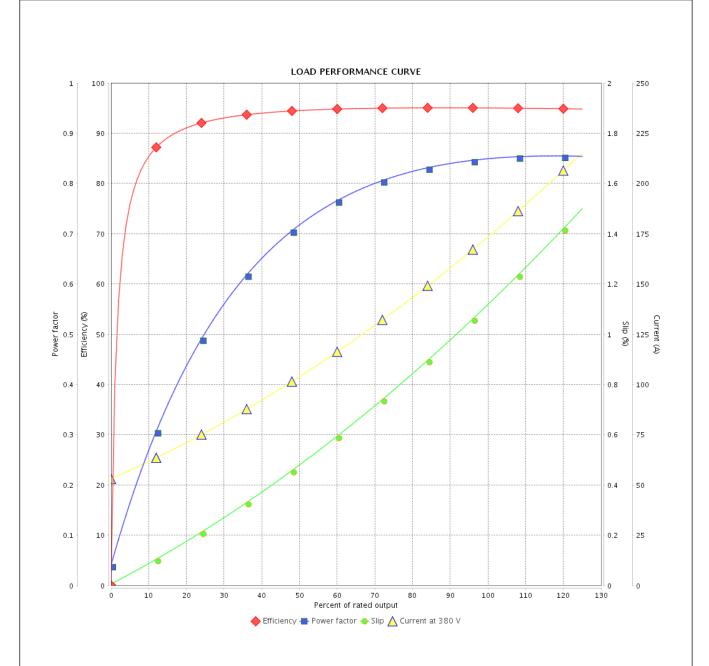
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Performance	: 380 V 50 Hz 4P IE2				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 169 A : 6.0 : 443 ft.lb : 200 % : 220 % : 1480 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class ctor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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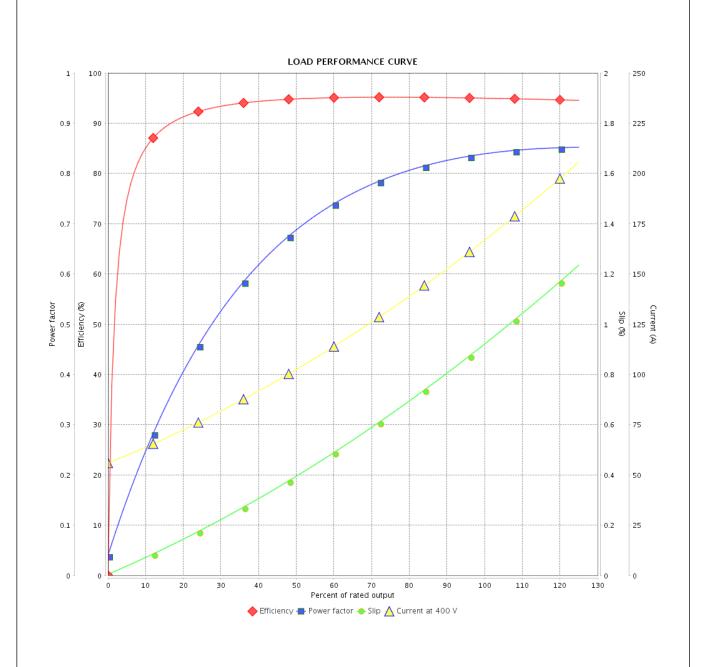


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T



Performance	: 4	100 V 50 Hz 4P IE2				
Rated current	: 1	163 A	Moment o	f inertia (J)	: 66.7 sq.ft.lb	
LRC	: 6	3.6	Duty cycle)	: Cont.(S1)	
Rated torque	: 4	142 ft.lb	Insulation	class	: F	
Locked rotor torqu	e : 2	229 %	Service fa	ctor	: 1.00	
Breakdown torque	: 2	250 %	Temperature rise		: 80 K	
Rated speed	: 1	1483 rpm	Design		: B	
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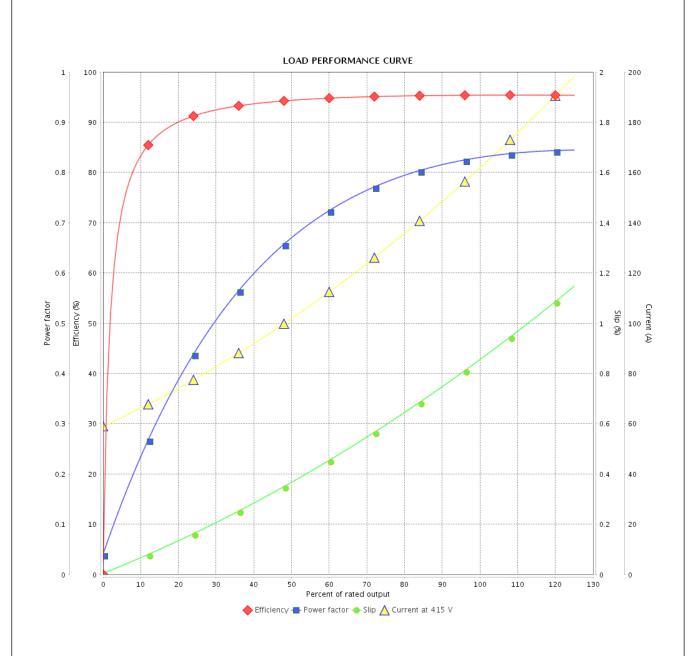


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T



Performance	: 415 V 50 Hz 4P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 158 A : 7.1 : 441 ft.lb : 250 % : 270 % : 1485 rpm	Moment of Duty cycle Insulation of Service fact Temperatur Design	class ctor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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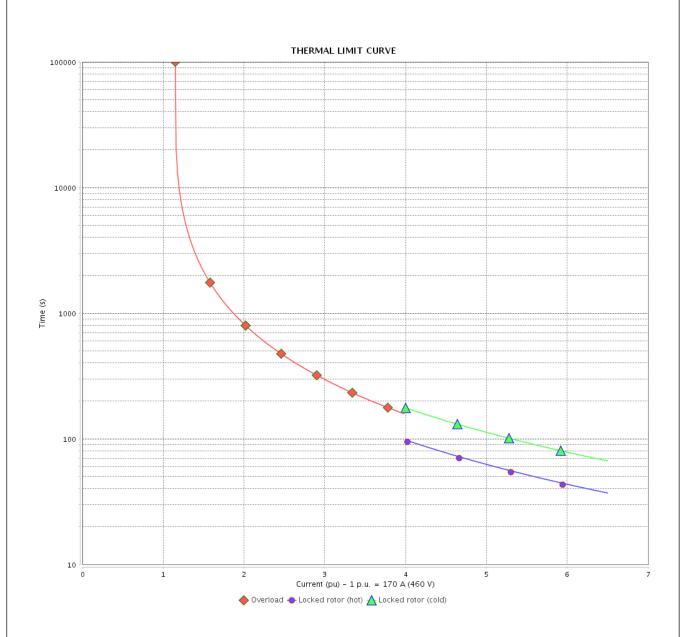


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Product line		NEMA Premium Efficiency	Three-	Product code :	12378614	
	Р	hase		Catalog # :	15018XT3G4	145T
Performance Rated current LRC Rated torque Locked rotor tord Breakdown torque Rated speed	: 1 : 6 : 4 jue : 2 ie : 2	60 V 60 Hz 4P 70 A .3 42 ft.lb 10 % 20 % 780 rpm	Moment of Duty cycle Insulation Service fa Temperat Design	class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B	
Heating constant						
Cooling constant Rev.		Changes Summary		Performed	Checked	Date
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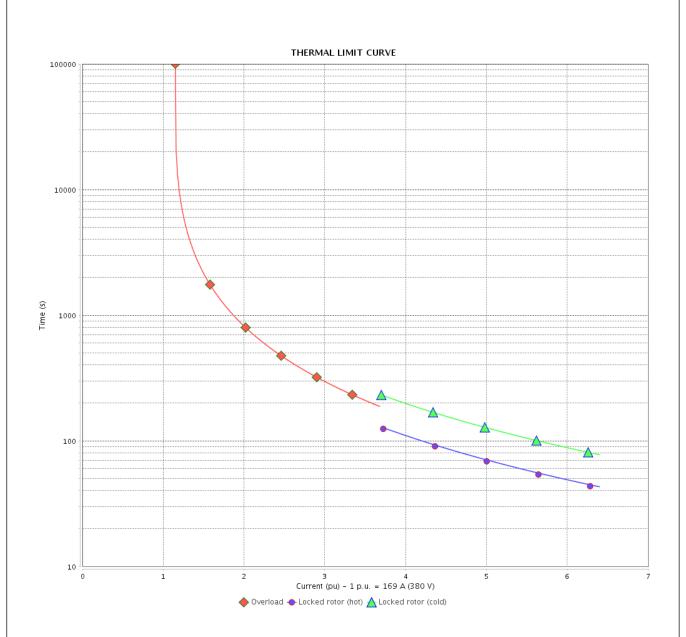


Customer	:					
Product line		NEMA Premium Efficiency [·] hase	Three-	Product code :	12378614	
				Catalog # :	15018XT3G4	145T
Performance	: 38	80 V 50 Hz 4P IE2				
Rated current		69 A	Moment of	of inertia (J)	: 66.7 sq.ft.lb	
LRC	: 6.		Duty cycle	е	: Cont.(S1)	
Rated torque Locked rotor tord		43 ft.lb 00 %	Insulation Service fa		: F : 1.00	
Breakdown torqu		00 % 20 %	Temperat		: 1.00 : 80 K	
Rated speed		480 rpm	Design	a.c. 1100	: B	
		•	3			
Heating constant						
Cooling constant		Change O		De-f	Ohl l	D-4-
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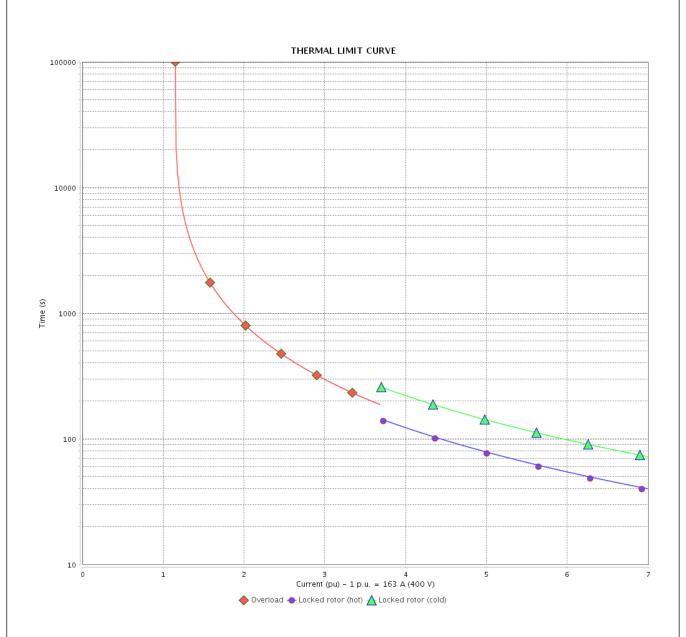


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Product line		NEMA Premium Efficiency	Three-	Product code :	12378614	
	·	Tiase		Catalog # :	15018XT3G4	45T
Rated current LRC Rated torque Locked rotor tord Breakdown tord	: 1 : 6 : 4 que : 2 ue : 2	.42 ft.lb .29 % .50 %	Duty cycle Insulation Service fa Temperat	class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
Performance Rated current LRC Rated torque Locked rotor tord Breakdown torque Rated speed Heating constan	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 %	Duty cycle Insulation Service fa	e class actor	: Cont.(S1) : F : 1.00	
Rated current LRC Rated torque Locked rotor tord Breakdown torqt Rated speed	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 250 %	Duty cycle Insulation Service fa Temperat	e class actor	: Cont.(S1) : F : 1.00 : 80 K	
Rated current LRC Rated torque Locked rotor torg Breakdown torg Rated speed	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 250 %	Duty cycle Insulation Service fa Temperat	e class actor	: Cont.(S1) : F : 1.00 : 80 K	Date
Rated current LRC Rated torque Locked rotor torq Breakdown torqu Rated speed Heating constan Cooling constan	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 50 % 483 rpm	Duty cycle Insulation Service fa Temperat	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date
Rated current LRC Rated torque Locked rotor torq Breakdown torqu Rated speed Heating constan Cooling constan	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 50 % 483 rpm	Duty cycle Insulation Service fa Temperat	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date
Rated current RC Rated torque ocked rotor tord Breakdown torque Rated speed Heating constan Cooling constan Rev.	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 50 % 483 rpm	Duty cycle Insulation Service fa Temperat	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date

Three Phase Induction Motor - Squirrel Cage



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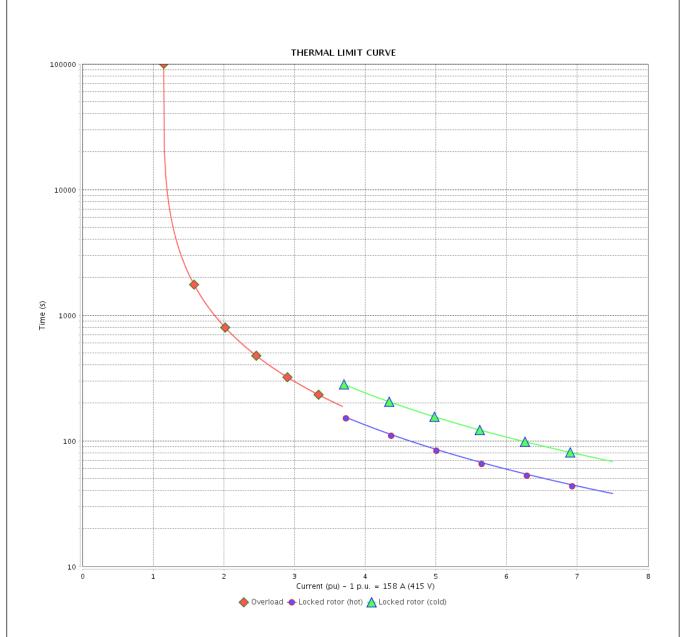


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Product line		NEMA Premium Efficiency	Three-	Product code :	12378614	
1 Toddot IIITo		hase				
				Catalog # :	15018XT3G4	451
Performance	. 4	15 V 50 Hz 4P IE3				
Rated current		58 A	Moment o	of inertia (J)	: 66.7 sq.ft.lb	
LRC	: 7	.1	Duty cycle	е	: Cont.(S1)	
Rated torque Locked rotor tord		41 ft.lb 50 %	Insulation Service fa		: F : 1.00	
Breakdown torqu	ie : 2	70 %	Temperat		: 80 K	
Rated speed	: 1	485 rpm	Design		: B	
Heating constan	t					
Cooling constan	t			,	1	
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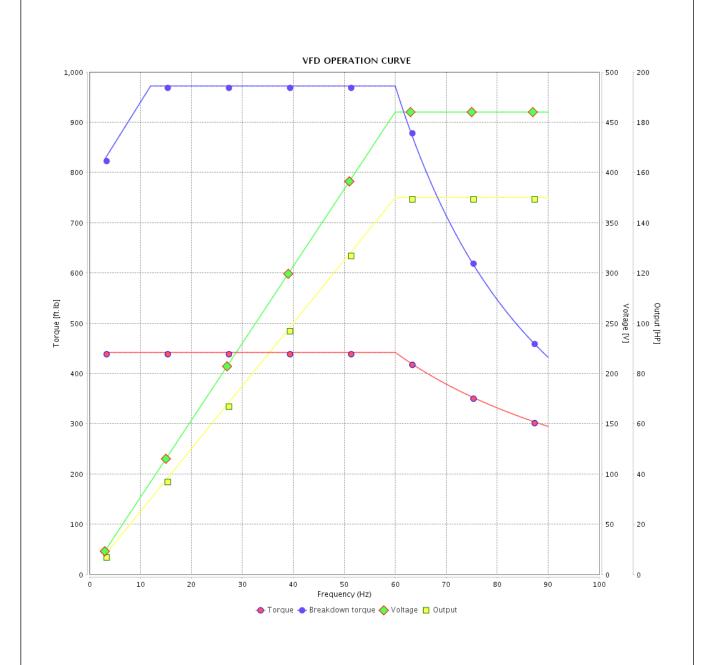


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T



Performance	: 4	60 V 60 Hz 4P				
Rated current : 17		70 A	Moment of inertia (J)		: 66.7 sq.ft.lb	
LRC	: 6	.3	Duty cycle)	: Cont.(S1)	
Rated torque	: 4	42 ft.lb	Insulation	class	: F	
Locked rotor torque	e : 2	10 %	Service fa	ctor	: 1.15	
Breakdown torque		20 %	Temperati	Temperature rise		
Rated speed		780 rpm	Design	Design		
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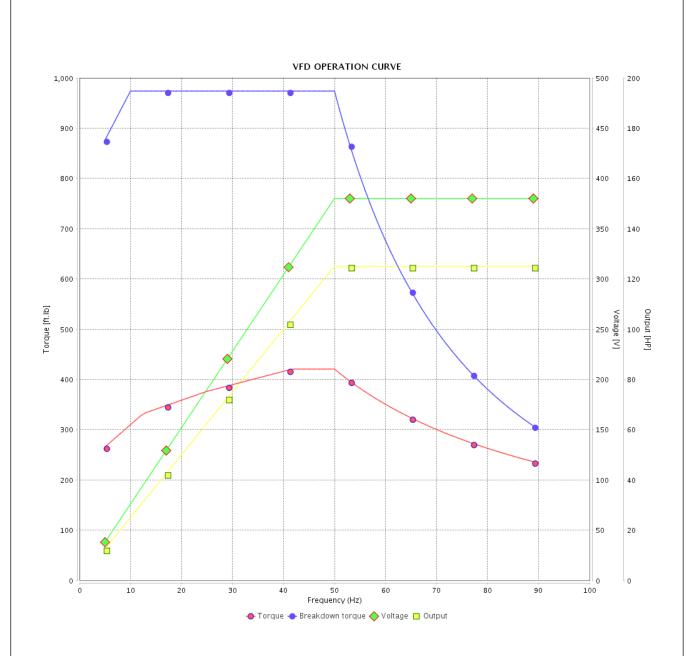
Product line : NEMA Premium Efficiency Three- Product code :

Phase

Product code: 12378614

15018XT3G445T

Catalog #:



Performance : 380 V 50 Hz 4P IE2 : 169 A Rated current Moment of inertia (J) : 66.7 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.0 : 443 ft.lb Insulation class Rated torque : F Locked rotor torque : 200 % Service factor : 1.00 Breakdown torque : 220 % Temperature rise : 80 K Rated speed : 1480 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Page Checked by Revision

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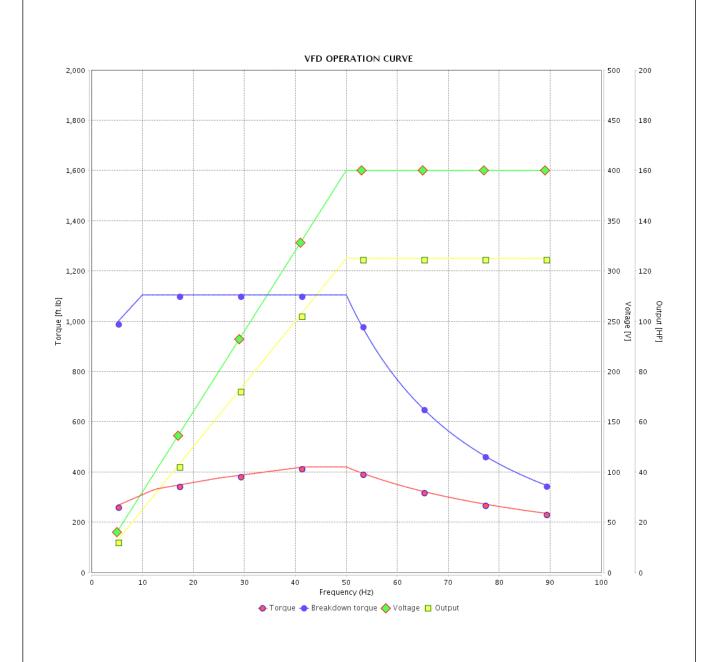


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12378614

Phase

Catalog #: 15018XT3G445T



Performance	: 400 V 50 Hz 4P IE2				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 163 A : 6.6 : 442 ft.lb : 229 % : 250 % : 1483 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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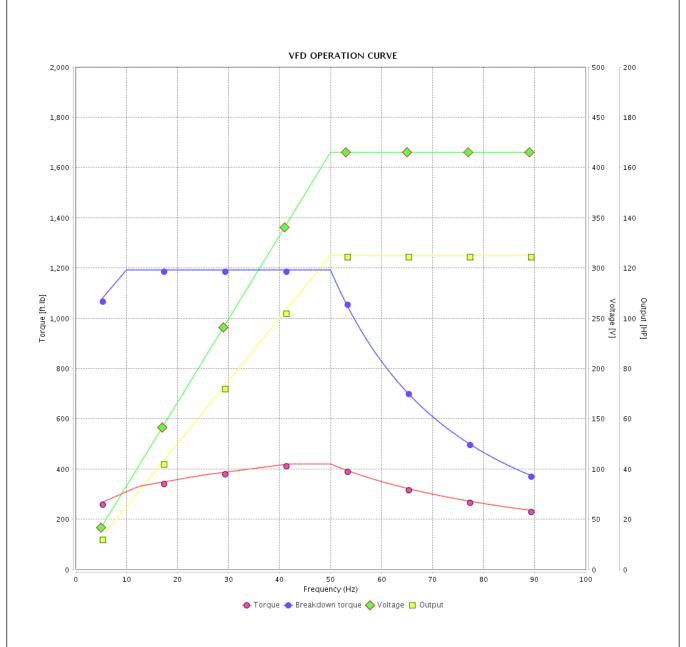
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Product line : NEMA Premium Efficiency Three-

Phase

Product code: 12378614

Catalog #: 15018XT3G445T



Performance : 415 V 50 Hz 4P IE3 : 158 A Rated current Moment of inertia (J) : 66.7 sq.ft.lb **LRC** : 7.1 Duty cycle : Cont.(S1) : 441 ft.lb Insulation class : F Rated torque Locked rotor torque : 250 % Service factor : 1.00 Breakdown torque : 270 % Temperature rise : 80 K Rated speed : 1485 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by

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