DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 11461420

Catalog #: 15018XT3E445T

Frame : 444/5T 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 : Direct On Line

Ambient temperature : 1000 m.a.s.l. Approx. weight³ : 2207 lb Altitude

: IP55 Protection degree

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

Output [HP]		150	125	125	125
Poles		4	4	4	4
Frequency [Hz]		60	50	50	50
Rated voltage [V]		230/460	380	400	415
Rated current [A]		340/170	169	163	158
L. R. Amperes [A]		2142/1071	1014	1076	1122
LRC [A]		6.3x(Code G)	6.0x(Code G)	6.6x(Code H)	7.1x(Code H)
No load current [A]]	104/52.0	52.0	55.0	58.0
Rated speed [RPM	1]	1780	1480	1483	1485
Slip [%]		1.11	1.33	1.13	1.00
Rated torque [ft.lb]		442	443	442	441
Locked rotor torqu	e [%]	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 level ²		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
Efficiency (%)	50%	95.0	94.5	95.0	415 158 1122 7.1x(Code H) 58.0 1485 1.00 441 250 270 1.00 80 K t) 54s (cold) 30s (hot) 72.0 dB(A)
Efficiency (%)	75%	95.8	95.0	95.0	95.0
	100%	95.8	95.0	95.0	95.4
	25%	0.49	0.49	0.46	0.44
Power Factor	50%	0.72	0.72	0.69	0.67
1 OWEL FACIOI	75%	0.81	0.81	0.79	0.78
	100%	0.85	0.85	0.84	0.83

Drive end Non drive end Foundation loads

Bearing type 6219 C3 6316 C3 Max. traction : 2078 lb Sealing Viton Lip Seal Max. compression : 4285 lb

Oil Seal

8033 h 8569 h Lubrication interval Lubricant amount 34 g 28 g Mobil Polyrex EM Lubricant type

Notes

USABLE @208V 376A SF 1.00 SFA 376A

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

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

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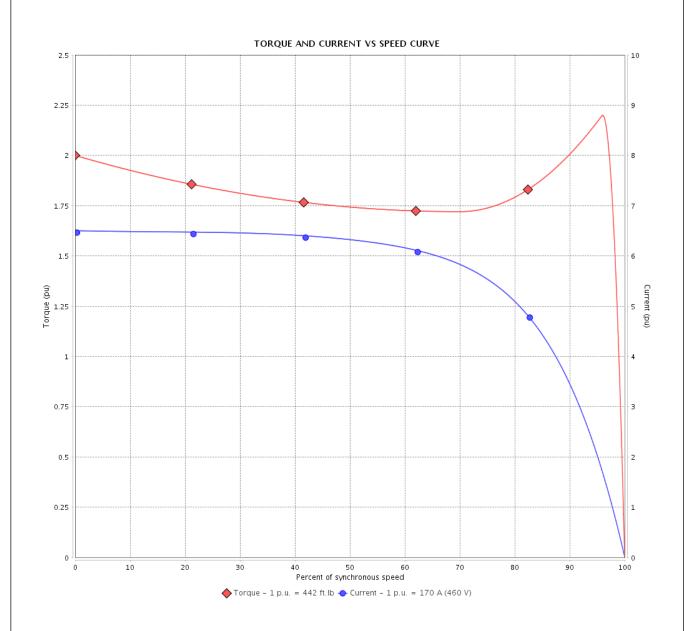


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 11461420

Phase

Catalog #: 15018XT3E445T



Performance	: 230/460 V 60 Hz 4P		
Rated current	: 340/170 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	: 30s (cold) 22s (hot)		

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

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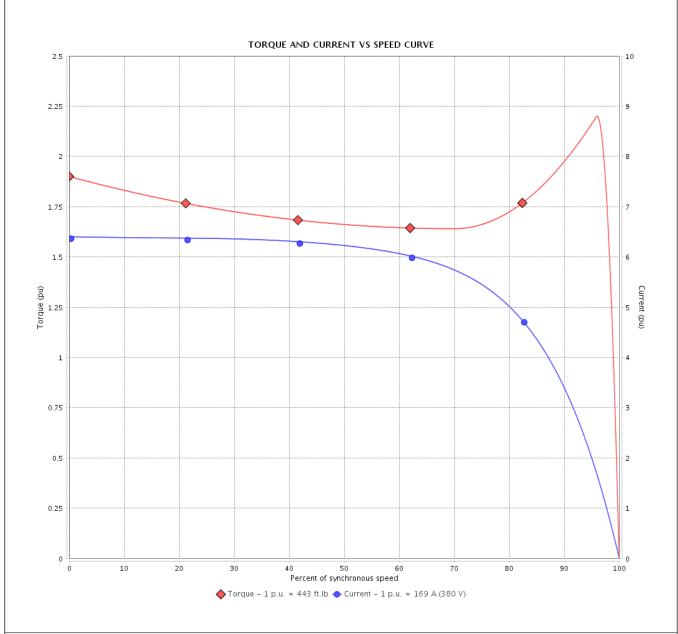
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 11461420

Catalog #: 15018XT3E445T



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) : F Insulation class Rated torque : 443 ft.lb : 200 % Service factor Locked rotor torque : 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: 11461420 Catalog #: 15018XT3E445T 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



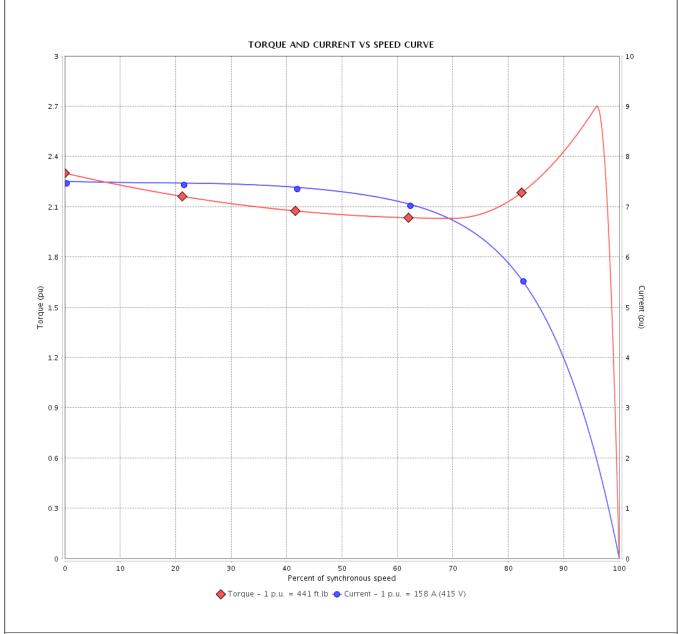
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 11461420

Catalog #: 15018XT3E445T



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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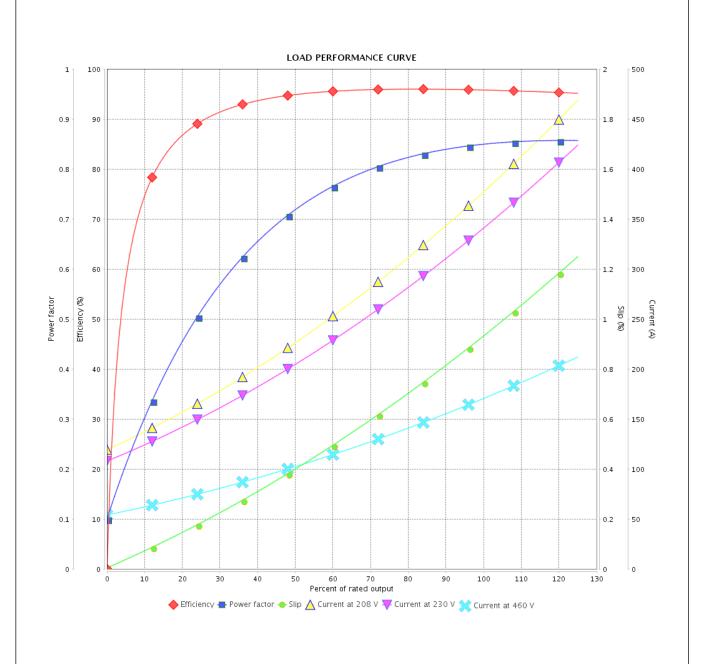


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11461420

Phase

Catalog #: 15018XT3E445T



Performance	: 2	230/460 V 60 Hz 4P				
Rated current	: 3	340/170 A	Moment o	f inertia (J)	: 66.7 sq.ft.lb	
LRC	: 6	5.3	Duty cycle	;	: Cont.(S1)	
Rated torque	: 4	42 ft.lb	Insulation	class	: F	
Locked rotor torqu	e : 2	210 %	Service fa	ctor	: 1.15	
Breakdown torque	: 2	220 %	Temperatu	ıre rise	: 80 K	
Rated speed	: 1	780 rpm	Design		: B	
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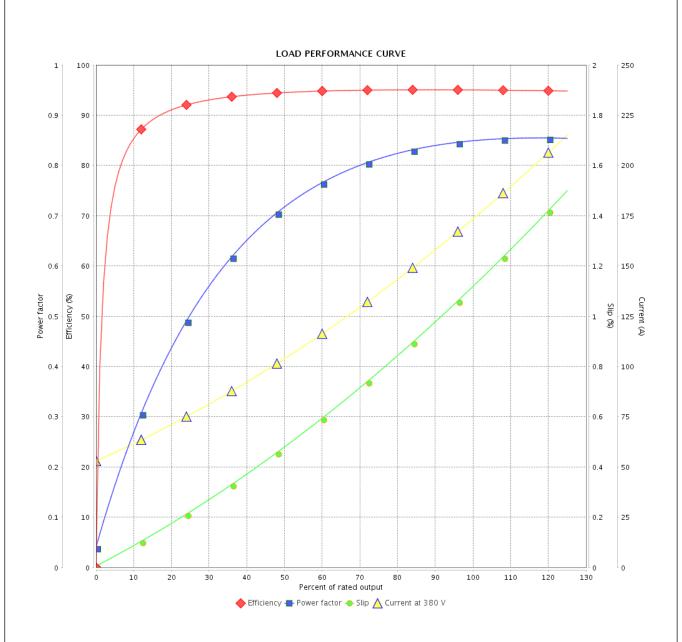
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Product line : NEMA Premium Efficiency Three- Product

Phase

Product code: 11461420

Catalog #: 15018XT3E445T



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 Temperat Design	class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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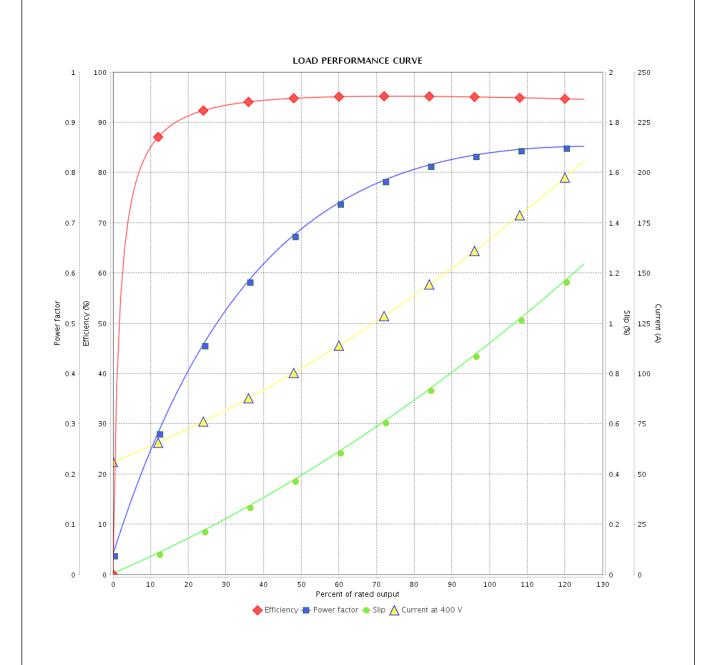


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11461420

Phase

Catalog #: 15018XT3E445T



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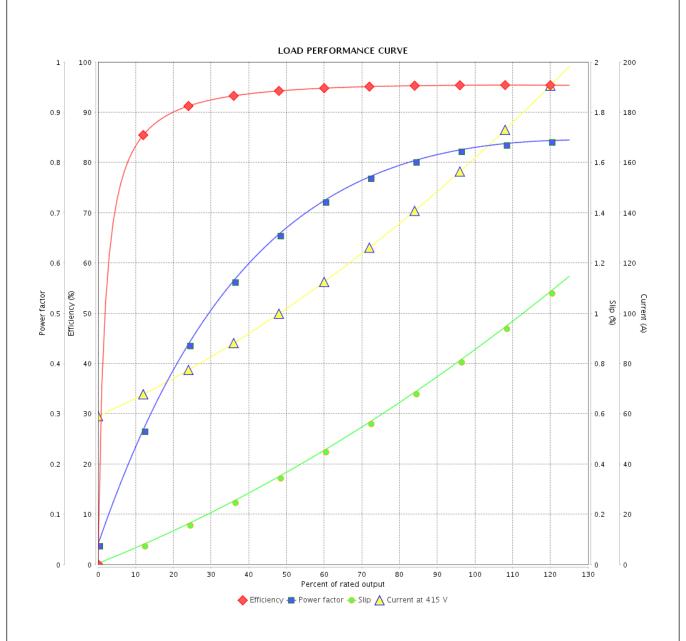
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 11461420

Catalog #: 15018XT3E445T



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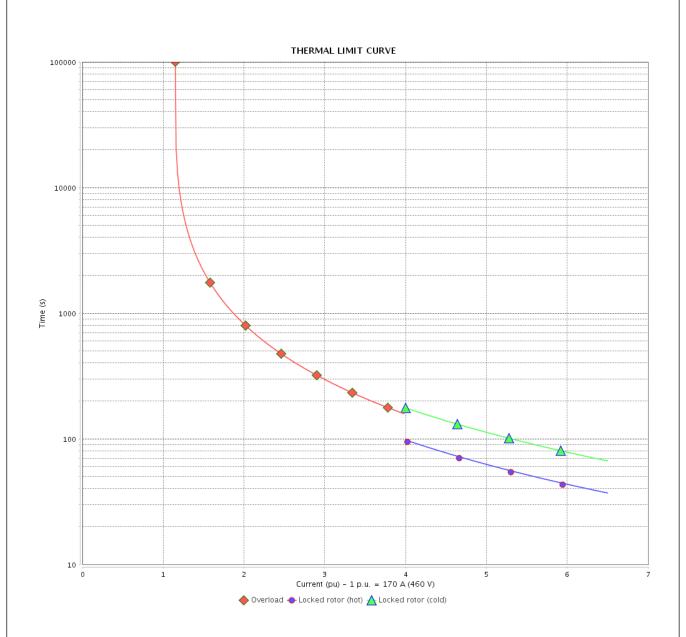


Customer	:					
Product line		NEMA Premium Efficiency	Three-	Product code :	11461420	
	Р	hase		Catalog # :	15018XT3E4	.45T
Performance Rated current RC Rated torque ocked rotor toro breakdown torque Rated speed	: 3 : 6 : 4 que : 2 ie : 2	30/460 V 60 Hz 4P 40/170 A .3 42 ft.lb 10 % 20 % 780 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B	
Heating constant						
Cooling constant	İ	Changes Cumman		Dorform	Chaskad	Data
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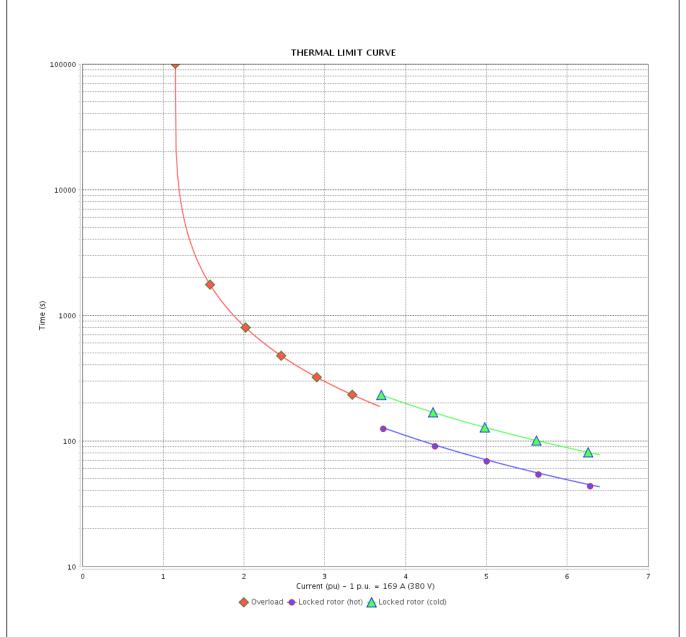


Product line	:	NEMA Premium Efficiency T	「hree-	Product code :	11461420	
		hase		Catalog # :	15018XT3E4	45T
Performance Rated current LRC Rated torque Locked rotor tor Breakdown torq Rated speed	: 1 : 6 : 4 rque : 2 jue : 2	.0 43 ft.lb 00 % 20 %	Duty cycle Insulation Service fa Temperate	class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
Rated current _RC Rated torque _ocked rotor tor	: 1 : 6 : 4 rque : 2 jue : 2 : 1	69 A .0 43 ft.lb 00 % 20 %	Duty cycle Insulation Service fa	e class actor	: Cont.(S1) : F : 1.00	
Rated current LRC Rated torque Locked rotor tor Breakdown torq Rated speed	: 10 : 6 : 4 rque : 2 ; 10 : 10	69 A .0 43 ft.lb 00 % 20 %	Duty cycle Insulation Service fa Temperate	e class actor	: Cont.(S1) : F : 1.00 : 80 K	
Rated current LRC Rated torque Locked rotor tor Breakdown torq Rated speed Heating constar	: 10 : 6 : 4 rque : 2 ; 10 : 10	69 A .0 43 ft.lb 00 % 20 %	Duty cycle Insulation Service fa Temperate	e class actor	: Cont.(S1) : F : 1.00 : 80 K	Date
Rated current LRC Rated torque Locked rotor tor Breakdown torq Rated speed Heating constar Cooling constar	: 10 : 6 : 4 rque : 2 ; 10 : 10	69 A .0 43 ft.lb 00 % 20 % 480 rpm	Duty cycle Insulation Service fa Temperate	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date
Rated current LRC Rated torque Locked rotor tor Breakdown torg Rated speed Heating constar Cooling constar Rev.	: 10 : 6 : 4 rque : 2 ; 10 : 10	69 A .0 43 ft.lb 00 % 20 % 480 rpm	Duty cycle Insulation Service fa Temperate	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date
Rated current LRC Rated torque Locked rotor tor Breakdown torq Rated speed Heating constar Cooling constar	: 10 : 6 : 4 rque : 2 ; 10 : 10	69 A .0 43 ft.lb 00 % 20 % 480 rpm	Duty cycle Insulation Service fa Temperate	e class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date

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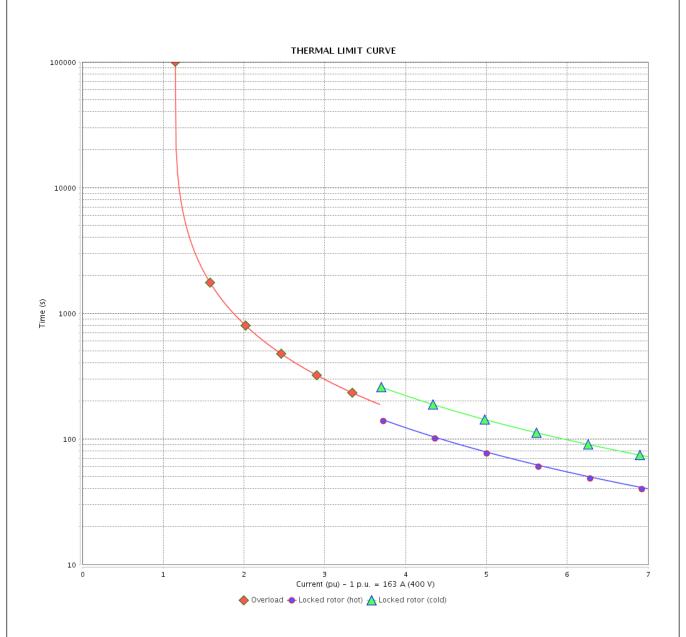


Product line						
i ioduct iiic	:	NEMA Premium Efficiency	Three-	Product code :	11461420	
	F	Phase		Catalog # :	15018XT3E4	45T
Rated current LRC Rated torque Locked rotor tord Breakdown tord	: 1 : 6 : 4 que : 2 ue : 2	00 V 50 Hz 4P IE2 63 A 6.6 42 ft.lb 129 % 150 % 483 rpm	Moment of Duty cycl Insulation Service fa Temperat Design	ı class actor	: 66.7 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
Performance Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed Heating constan	: 1 : 6 : 4 que : 2 ue : 2 : 1	63 A 6.6 42 ft.lb 29 % 250 %	Duty cycle Insulation Service fa Temperat	e ı class actor	: Cont.(S1) : F : 1.00 : 80 K	
Rated current LRC Rated torque Locked rotor tord Breakdown tord 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 i class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	
Rated current LRC Rated torque Locked rotor torq Breakdown torqu 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 ı 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 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 i 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 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 i 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 i class actor ure rise	: Cont.(S1) : F : 1.00 : 80 K : B	Date

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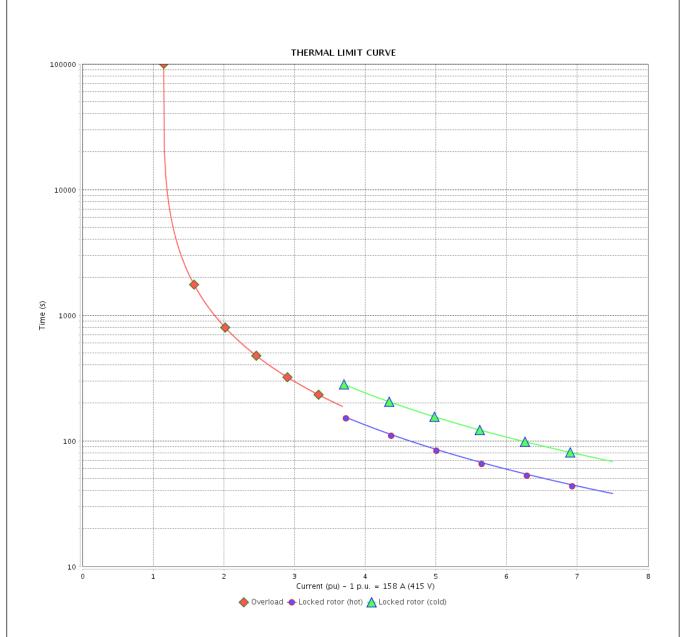


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Product line		NEMA Premium Efficiency	Three-	Product code :	11461420	
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				Catalog # :	15018XT3E4	45 I
5 (45.7.50.11 40.150				
Performance Rated current		15 V 50 Hz 4P IE3 58 A	Momont	of inactio (I)	: 66 7 og ft lb	
LRC	. 13 : 7.		Duty cycle	of inertia (J) e	: 66.7 sq.ft.lb : Cont.(S1)	
Rated torque		41 ft.lb	Insulation	class	: F	
Locked rotor tord Breakdown tord	que : 29	50 % 70 %	Service fa Temperat		: 1.00 : 80 K	
Rated speed		485 rpm	Design		: B	
Heating constan	 t					
Cooling constan						
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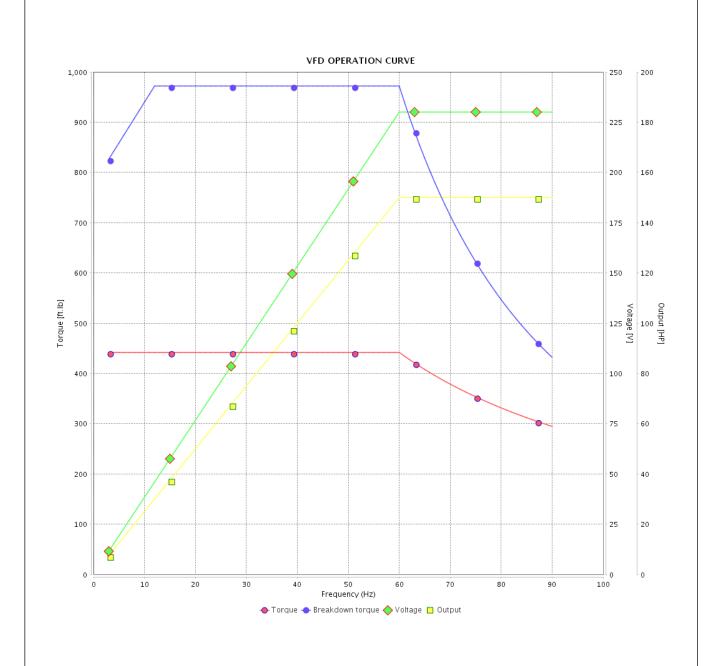


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11461420

Phase

Catalog #: 15018XT3E445T



Performance	: 2	30/460 V 60 Hz 4P				
Rated current : 340		40/170 A	0/170 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 torq	ue : 2	10 %	Service fa	ctor	: 1.15	
Breakdown torque	e : 2	20 %	Temperati	ıre rise	: 80 K	
Rated speed	: 1	780 rpm	Design		: B	
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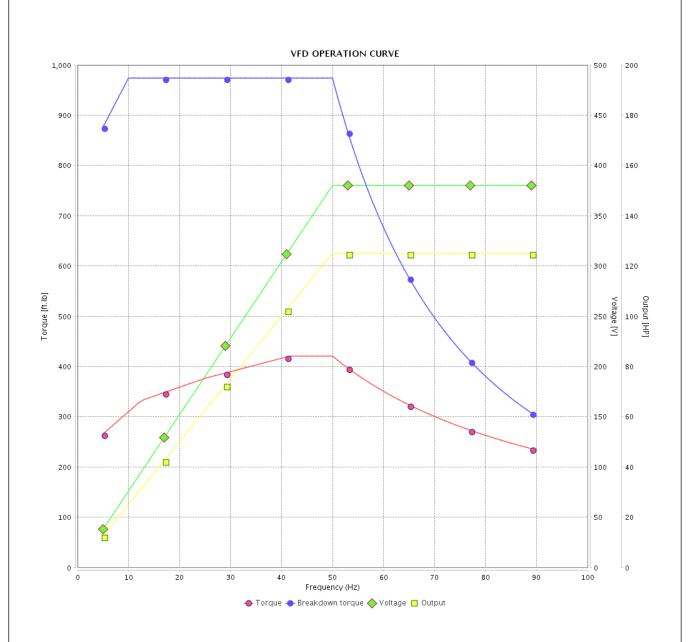
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Phase

Product code: 11461420

Catalog #: 15018XT3E445T



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

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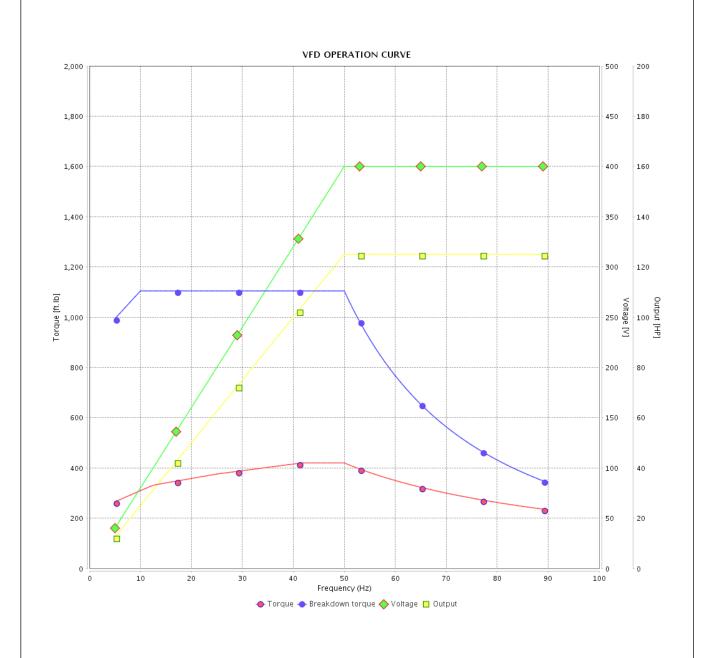


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Product line : NEMA Premium Efficiency Three- Product code : 11461420

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Catalog #: 15018XT3E445T



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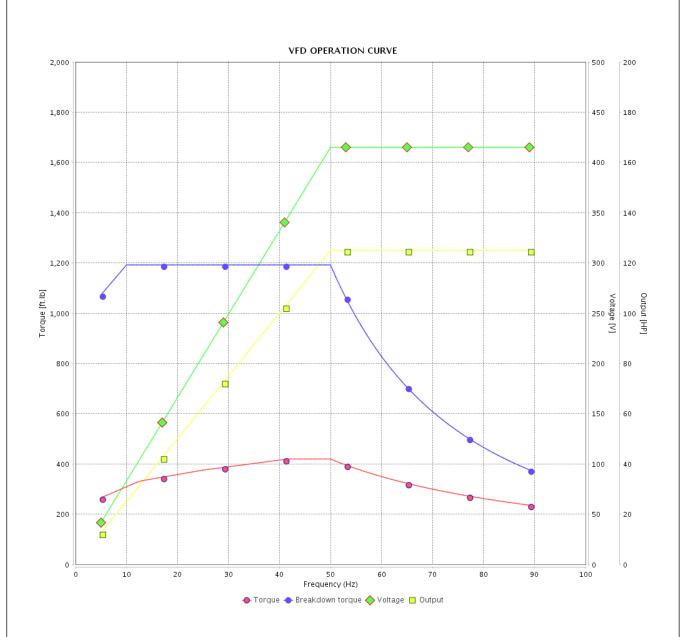
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Performance : 415 V 50 Hz 4P IE3 : 158 A Rated current Moment of inertia (J) : 66.7 sq.ft.lb **LRC** : 7.1 Duty cycle : Cont.(S1) : 441 ft.lb Insulation class : F Rated torque Locked rotor torque : 250 % Service factor : 1.00 Breakdown torque : 270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

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