DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 13849696

Catalog #: 03009ST3QIE364TC-W22

Frame : 364/5TC Cooling method : IC411 - TEFC

Insulation class Mounting : F-1

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

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

: 1000 m.a.s.l. Approx. weight³ Altitude : 822 lb

Protection degre	е	: IP55	: IP55 Moment of inertia (J) : 23.5 sq.ft.lb					
Design		: B						
Output [HP]		30	30	30	30			
Poles		8	8	8	8			
Frequency [Hz]		60	50	50	50			
Rated voltage [V]		460	380	400	415			
Rated current [A]		37.0	44.5	42.7	42.0			
L. R. Amperes [A]		229	218	235	248			
LRC [A]		6.2x(Code G)	4.9x(Code E)	5.5x(Code F)	5.9x(Code G)			
No load current [A]	18.0	17.8	19.0	20.0			
Rated speed [RPN	ated speed [RPM]		725	725	730			
Slip [%]	Slip [%]		3.33	3.33	2.67			
Rated torque [ft.lb]		179	219	217	216			
Locked rotor torqu	Locked rotor torque [%]		140	160	170			
Breakdown torque	Breakdown torque [%]		190	210	229			
Service factor		1.25	1.00	1.00	1.00			
Temperature rise		80 K	105 K	105 K	105 K			
Locked rotor time		36s (cold) 20s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)			
Noise level ²		60.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)			
	25%	92.2	91.9	91.9	91.6			
Efficiency (%)	50%	92.4	91.7	91.7	91.7			
Efficiency (70)	75%	92.4	91.0	91.0	91.0			
	100%	92.4	90.6	90.6	91.0			
	25%	0.38	0.44	0.40	0.38			
Power Factor	50%	0.63	0.70	0.66	0.63			
I OWEI FACIOI	75%	0.74	0.79	0.76	0.75			
	100%	0.80	0.83	0.82	0.80			

Drive end Non drive end Foundation loads

Bearing type 6314 C3 6314 C3 Max. traction : 1288 lb Sealing Inpro/Seal Inpro/Seal Max. compression : 2110 lb

Lubrication interval 20000 h 20000 h Lubricant amount 27 g 27 g Mobil Polyrex EM Lubricant type

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.

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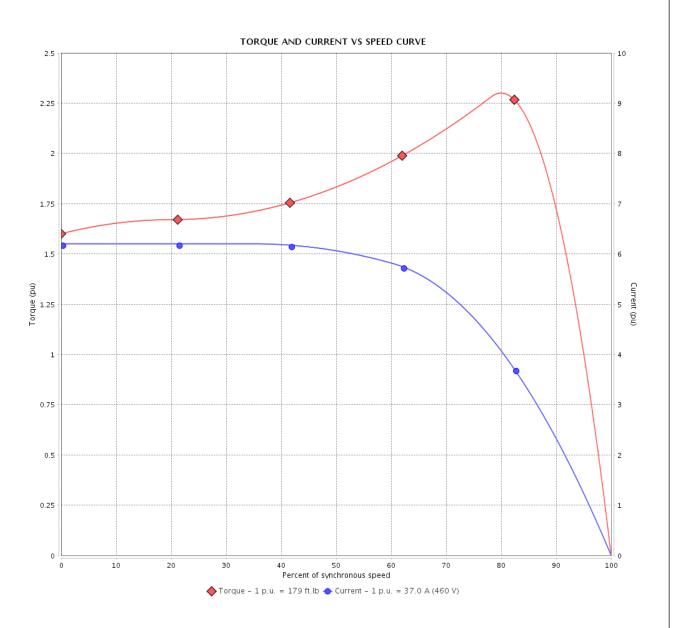


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 13849696

Phase

Catalog #: 03009ST3QIE364TC-W22



Performance : 460 V 60 Hz 8P Rated current : 37.0 A Moment of inertia (J) : 23.5 sq.ft.lb **LRC** : 6.2 Duty cycle : Cont.(S1) Insulation class Rated torque : 179 ft.lb : F Locked rotor torque : 170 % Service factor : 1.25 Breakdown torque : 240 % Temperature rise : 80 K Rated speed : 880 rpm Design : B

Locked rotor time : 36s (cold) 20s (hot)

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Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 13849696 Catalog #: 03009ST3QIE364TC-W22 TORQUE AND CURRENT VS SPEED CURVE 4.5 1.8 3.5 1.4 1.2 Torque (pu) 0.8 0.4 0.2 100 Percent of synchronous speed ◆ Torque - 1 p.u. = 219 ft.lb ◆ Current - 1 p.u. = 44.5 A (380 V) Performance : 380 V 50 Hz 8P IE3 Rated current : 44.5 A Moment of inertia (J) : 23.5 sq.ft.lb **LRC** : 4.9 Duty cycle : Cont.(S1) Insulation class Rated torque : 219 ft.lb : F Locked rotor torque : 140 % Service factor : 1.00 : 105 K Breakdown torque : 190 % Temperature rise Rated speed : 725 rpm Design : B Locked rotor time : 27s (cold) 15s (hot)

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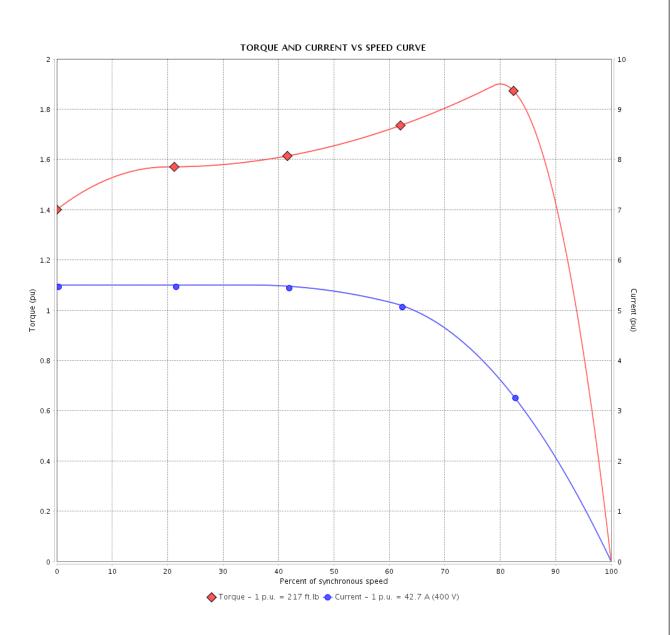


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 13849696

Phase

Catalog #: 03009ST3QIE364TC-W22



Performance	: 400 V 50 Hz 8P IE3		
Rated current	: 42.7 A	Moment of inertia (J)	: 23.5 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 217 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B
Locked rotor time	: 27s (cold) 15s (hot)		

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: 13849696 Catalog #: 03009ST3QIE364TC-W22 TORQUE AND CURRENT VS SPEED CURVE 2.25 1.75 (pd) 1.25 Current (pu) 0.5 0.25 40 50 o. Percent of synchronous speed ◆Torque - 1 p.u. = 216 ft.lb ◆ Current - 1 p.u. = 42.0 A (415 V) Performance : 415 V 50 Hz 8P IE3 : 42.0 A Rated current Moment of inertia (J) : 23.5 sq.ft.lb LRC : 5.9 Duty cycle : Cont.(S1)

Rated torque Locked rotor torque Breakdown torque Rated speed Locked rotor time	ue : 1' e : 2'	16 ft.lb 70 % 29 % 30 rpm 27s (cold) 15s (hot)	Insulation of Service factor Temperatur Design	ctor	: F : 1.00 : 105 K : B	
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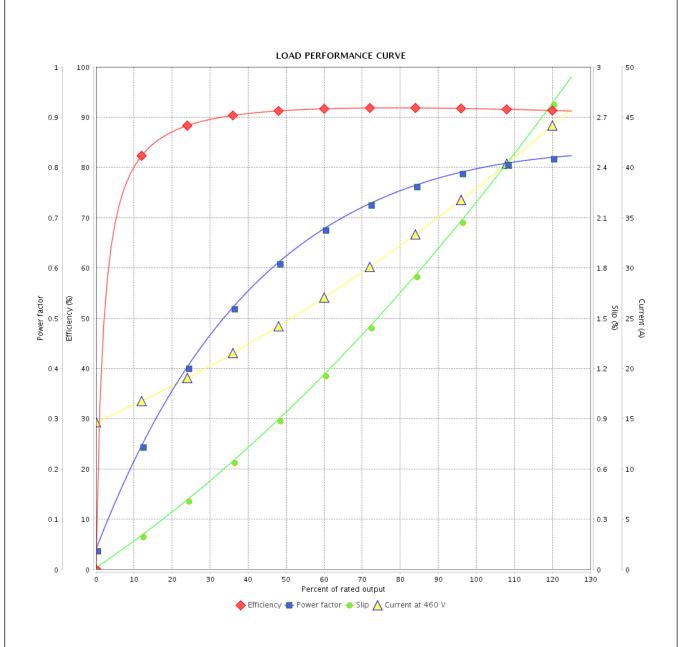
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Performance	: 460 V 60 Hz 8	3P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 37.0 A : 6.2 : 179 ft.lb : 170 % : 240 % : 880 rpm		Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 23.5 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B	
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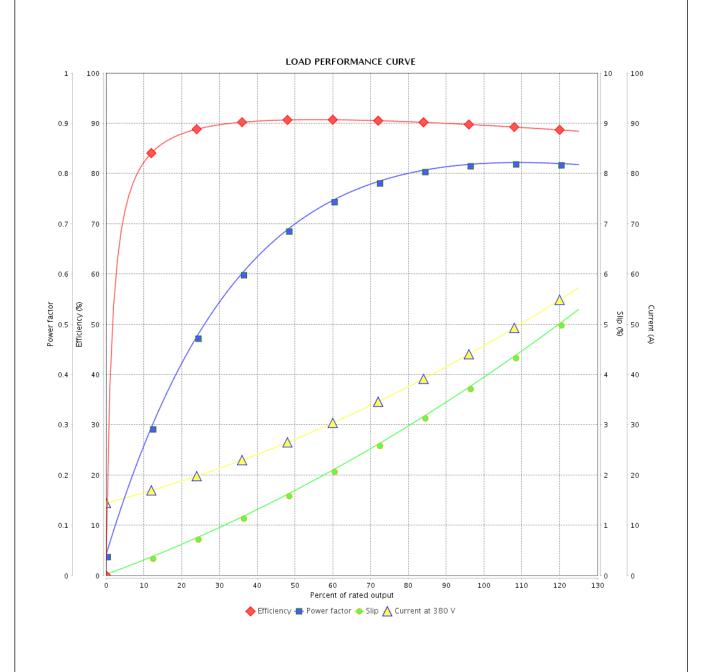


Customer

Product line : NEMA Premium Efficiency Three- Product code : 13849696

Phase

Catalog #: 03009ST3QIE364TC-W22



Performance	: 38	30 V 50 Hz 8P IE3				
Rated current	Rated current : 44.5 A		Moment o	f inertia (J)	: 23.5 sq.ft.lb	
LRC	: 4.	9	Duty cycle	;	: Cont.(S1)	
Rated torque	: 2	19 ft.lb	Insulation	class	: F	
Locked rotor torqu	e : 14	40 %	Service factor Temperature rise		: 1.00	
Breakdown torque	: 19	90 %			: 105 K	
Rated speed	: 72	25 rpm	Design		: B	
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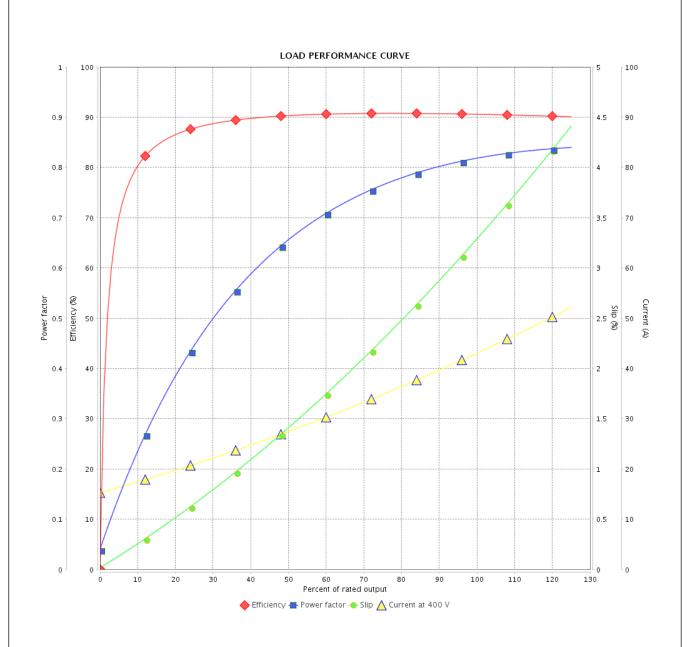
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Performance		: 400 V 50 Hz	8P IE3				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	•	: 42.7 A : 5.5 : 217 ft.lb : 160 % : 210 % : 725 rpm		Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 23.5 sq.ft.lb : Cont.(S1) : F : 1.00 : 105 K : B	
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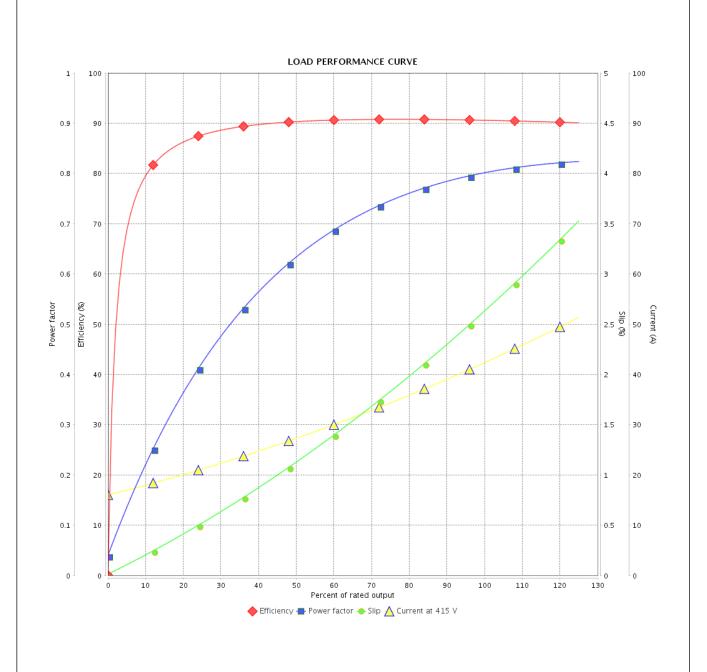


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Product line : NEMA Premium Efficiency Three- Product code : 13849696

Phase

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Performance	: 4	15 V 50 Hz 8P IE3				
Rated current	: 4:	2.0 A	Moment o	f inertia (J)	: 23.5 sq.ft.lb	
LRC	: 5	9	Duty cycle)	: Cont.(S1)	
Rated torque	: 2	16 ft.lb	Insulation class		: F	
Locked rotor torqu	ue : 1	70 %	Service fa	ctor	: 1.00	
Breakdown torque	: 2	29 %	Temperati	ıre rise	: 105 K	
Rated speed	: 7	30 rpm	Design		: B	
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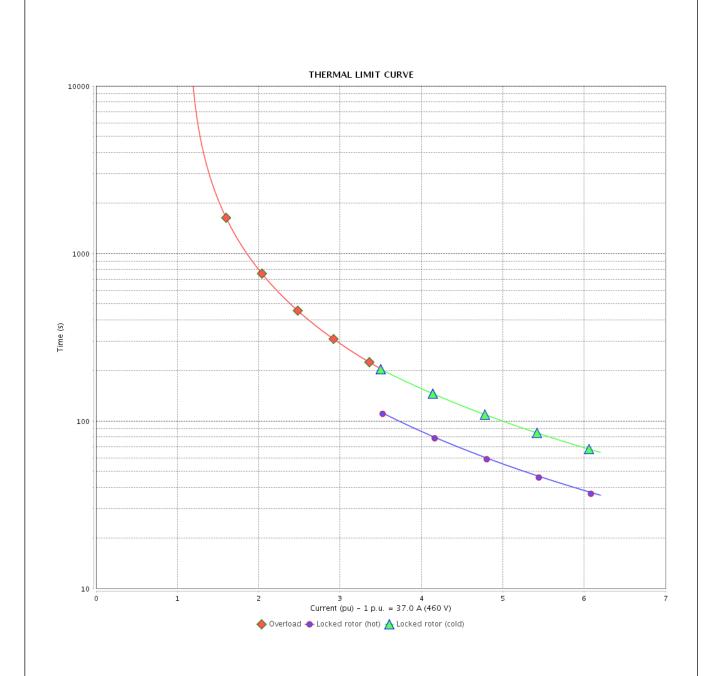


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Product line		NEMA Premium Efficiency hase		Product code : Catalog # :	13849696 03009ST3QIE	:364TC-W22
Performance	: 46	60 V 60 Hz 8P				
Rated current LRC	: 37 : 6.	7.0 A 2	Moment o	f inertia (J)	: 23.5 sq.ft.lb : Cont.(S1)	
Rated torque		79 ft.lb 70 %	Insulation Service fa	class	: F : 1.25	
Locked rotor torque Breakdown torque	e : 24	40 %	Temperatu		: 80 K	
Rated speed		30 rpm	Design		: B	
Heating constant						
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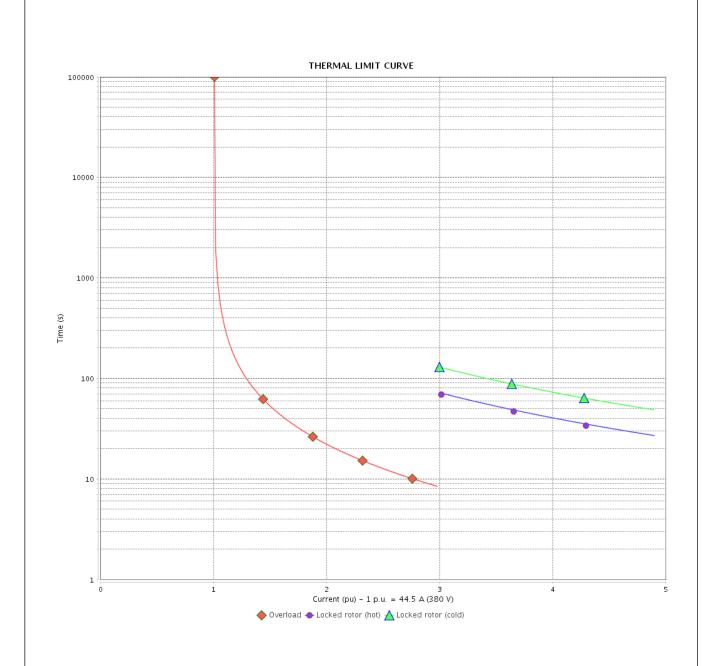


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Product line	: NEMA Premium Efficiency ⁻ Phase		Product code :	13849696	
		(Catalog # :	03009ST3QI	E364TC-W22
Performance	: 380 V 50 Hz 8P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque	: 44.5 A : 4.9 : 219 ft.lb : 140 % : 190 % : 725 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 23.5 sq.ft.lb : Cont.(S1) : F : 1.00 : 105 K : B	
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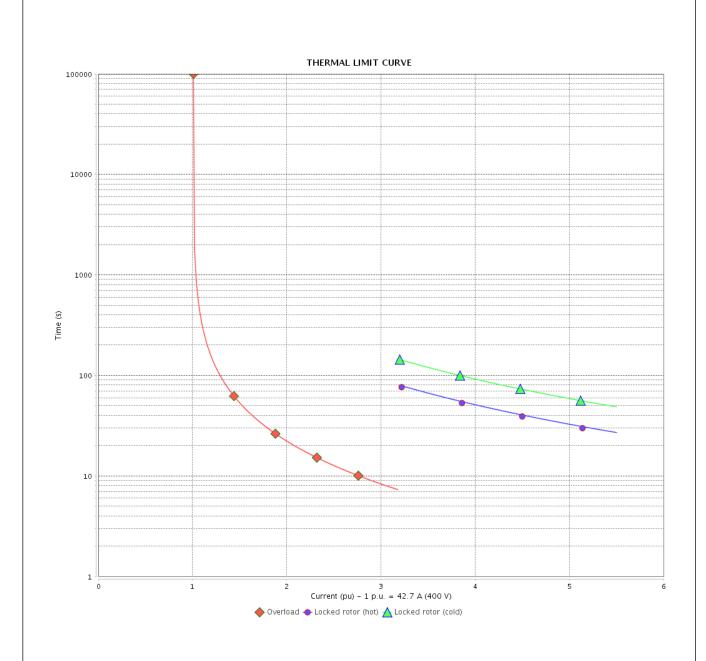


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Product line		: NEMA Premium Efficiency Phase		Product code : Catalog # :	13849696 03009ST3QIE	364TC-W22
Performance Rated current		: 400 V 50 Hz 8P IE3 : 42.7 A	Moment	of inertia (J)	: 22 5 ag ft lb	
LRC		: 5.5	Duty cycle	9	: 23.5 sq.ft.lb : Cont.(S1)	
Rated torque Locked rotor torc		: 217 ft.lb : 160 %	Insulation Service fa		: F : 1.00	
Breakdown torqu		: 210 %	Temperati		: 1.00 : 105 K	
Rated speed		: 725 rpm	Design		: B	
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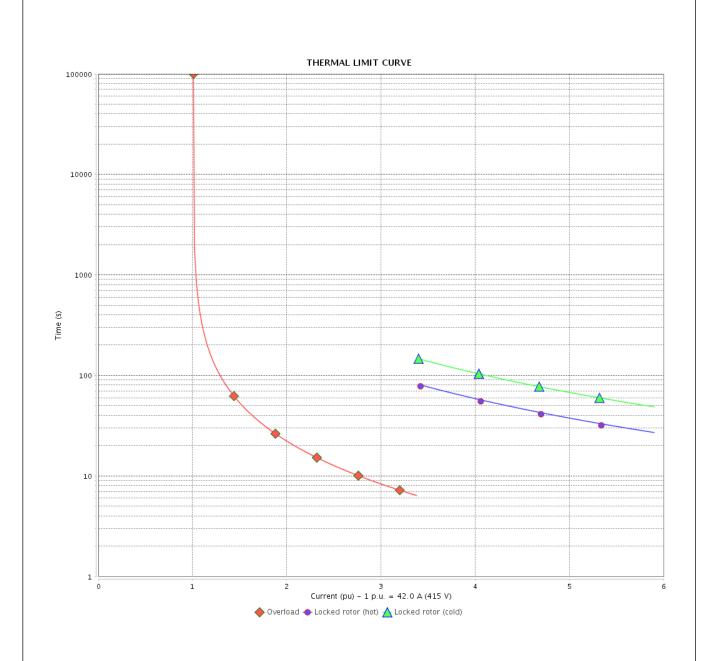


Customer		:				
Product line		: NEMA Premium Efficiency Phase		Product code : Catalog # :	13849696 03009ST3QIE	364TC-W22
Performance		: 415 V 50 Hz 8P IE3				
Rated current LRC		: 42.0 A : 5.9	Duty cycle		: 23.5 sq.ft.lb : Cont.(S1)	
Rated torque Locked rotor torc		: 216 ft.lb : 170 %	Insulation Service fa		: F : 1.00	
Breakdown torqu	ie	: 229 %	Temperati		: 105 K	
Rated speed		: 730 rpm	Design		: B	
Heating constant Cooling constant						
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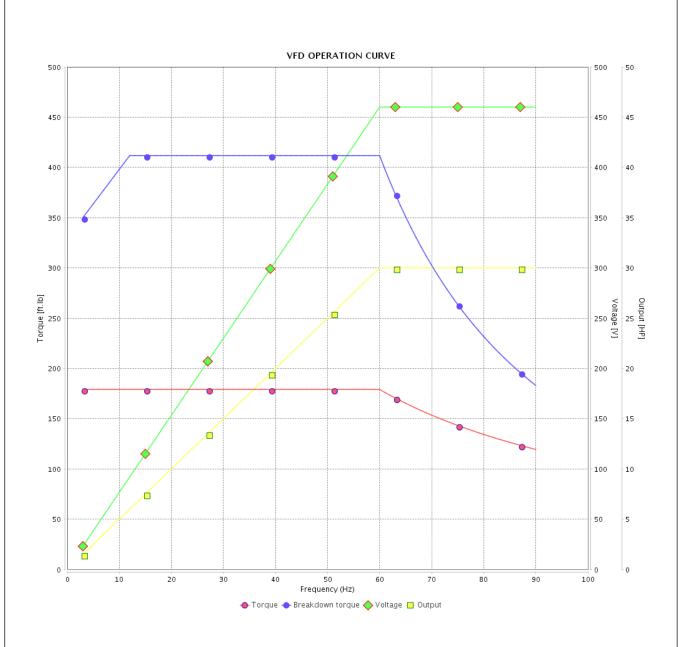
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Performance	: 4	60 V 60 Hz 8P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 6 : 1 jue : 1	7.0 A 5.2 79 ft.lb 70 % 40 % 80 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class ctor	: 23.5 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B	
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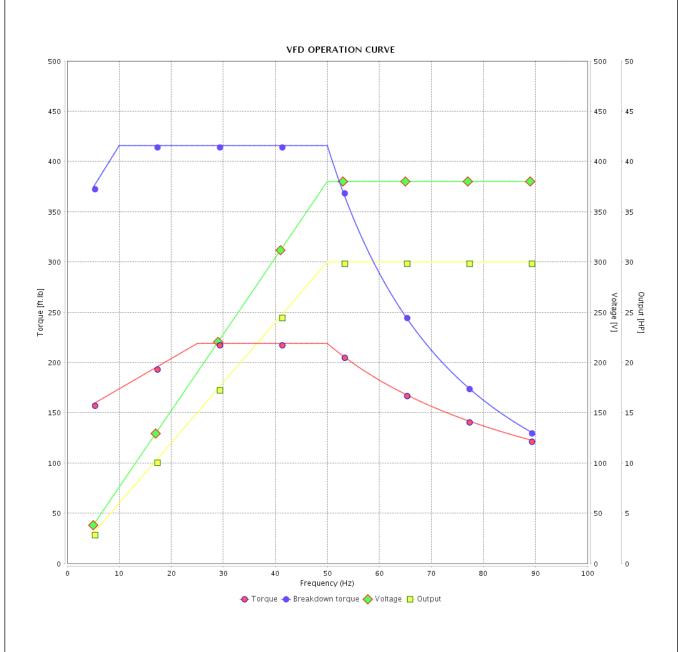


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Phase

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Performance	: 3	80 V 50 Hz 8P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed		4.5 A .9 19 ft.lb 40 % 90 % 25 rpm	Duty cycle Insulation Service fa	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		
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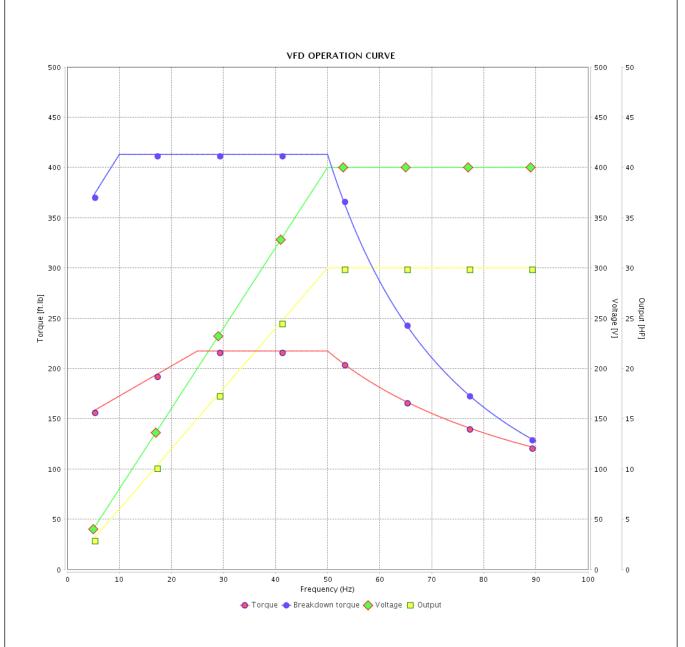
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Performance	: 4	400 V 50 Hz 8P IE3				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 5 : 2 ue : 1	42.7 A 5.5 217 ft.lb 160 % 210 % 725 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class ctor	: 23.5 sq.ft.lb : Cont.(S1) : F : 1.00 : 105 K : B	
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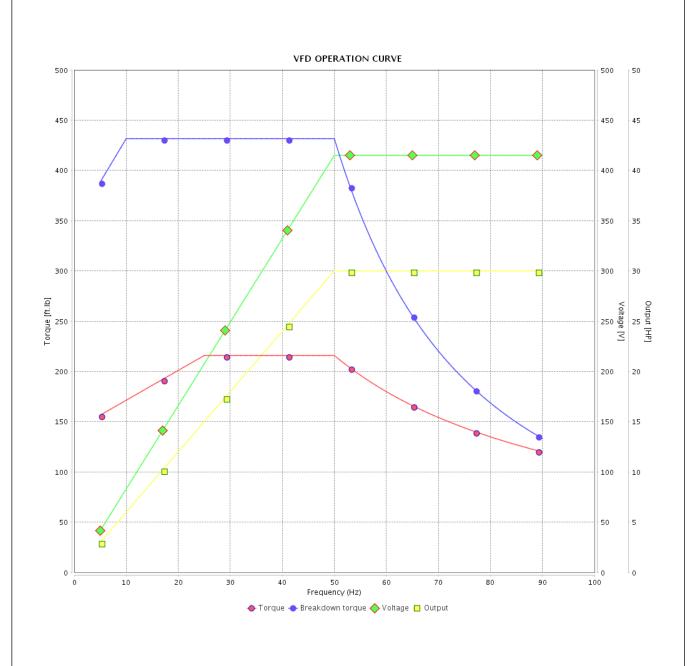


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Product line : NEMA Premium Efficiency Three- Product code : 13849696

Phase

Catalog #: 03009ST3QIE364TC-W22



Performance	: 4	115 V 50 Hz 8P IE3				
Rated current	: 4	: 42.0 A Moment of		of inertia (J) : 23.5 sq.ft.l		
LRC	: 5	5.9	Duty cycle	}	: Cont.(S1)	
Rated torque	: 2	216 ft.lb	Insulation	class	: F	
Locked rotor torque	e :1	170 %	Service factor		: 1.00	
Breakdown torque	: 2	229 %	Temperature rise		: 105 K	
Rated speed	: 7	730 rpm	Design		: B	
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