DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 12575059

Catalog #: 00159ST3QIE184TC-W22

Frame : 182/4TC 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 Approx weight³ · 111 lb

Altitude		: 1000 m.a.s.l. Approx. weight				
Protection degree	е	: IP55	Moment of ine	ertia (J) : 0.57	66 sq.ft.lb	
Design		: B				
Output [HP]		1.5	1.5	1.5	1.5	
Poles		8	8	8	8	
Frequency [Hz]		60	50	50	50	
Rated voltage [V]		460	380	400	415	
Rated current [A]		2.70	3.04	3.01	2.99	
L. R. Amperes [A]		15.9	15.2	16.6	17.9	
LRC [A]		5.9x(Code K)	5.0x(Code H)	5.5x(Code J)	6.0x(Code K)	
No load current [A]]	2.00	1.90	2.00	2.10	
Rated speed [RPM]		865	705	710	715	
Slip [%]		3.89	6.00	5.33	4.67	
Rated torque [ft.lb]		9.11	11.2	11.1	11.0	
Locked rotor torque [%]		290	229	260	290	
Breakdown torque	[%]	340	260	290	320	
Service factor		1.25	1.00	1.00	1.00	
Temperature rise		80 K	80 K	80 K	80 K	
Locked rotor time		30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	
Noise level ²		50.0 dB(A)	46.0 dB(A)	46.0 dB(A)	46.0 dB(A)	
	25%	79.6	80.9	78.1	76.5	
Efficiency (%)	50%	80.0	80.0	78.5	77.0	
Linciency (70)	75%	82.5	80.0	80.0	80.0	
	100%	82.5	78.5	80.0	80.0	
	25%	0.23	0.28	0.26	0.24	
Power Factor	50%	0.43	0.51	0.47	0.44	
1 OWELL ACIO	75%	0.54	0.62	0.58	0.55	
	100%	0.62	0.70	0.66	0.64	

Drive end Non drive end Foundation loads

6207 C3 Bearing type 6206 C3 Max. traction : 169 lb Sealing Inpro/Seal Inpro/Seal Max. compression : 281 lb

20000 h 20000 h Lubrication interval Lubricant amount 7 g 5 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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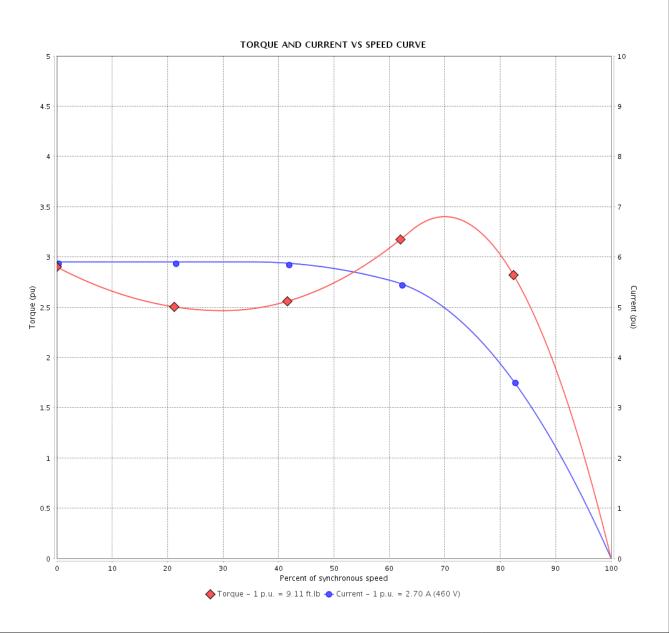
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 12575059

Catalog #: 00159ST3QIE184TC-W22



Performance : 460 V 60 Hz 8P Rated current : 2.70 A Moment of inertia (J) : 0.5766 sq.ft.lb **LRC** : 5.9 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 9.11 ft.lb : 290 % Service factor Locked rotor torque : 1.25 Breakdown torque : 340 % Temperature rise : 80 K Rated speed : 865 rpm Design : B

Locked rotor time : 30s (cold) 17s (hot)

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Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 12575059 Catalog #: 00159ST3QIE184TC-W22 TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Current Torque (pu) 1.2 0.6 0.3

Performance : 380 V 50 Hz 8P IE3 Rated current : 3.04 A Moment of inertia (J) : 0.5766 sq.ft.lb **LRC** : 5.0 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 11.2 ft.lb Locked rotor torque : 229 % Service factor : 1.00 Breakdown torque : 260 % Temperature rise : 80 K Rated speed : 705 rpm Design : B

Percent of synchronous speed ♦ Torque – 1 p.u. = 11.2 ft.lb ♦ Current – 1 p.u. = 3.04 A (380 V)

Locked rotor time : 30s (cold) 17s (hot)

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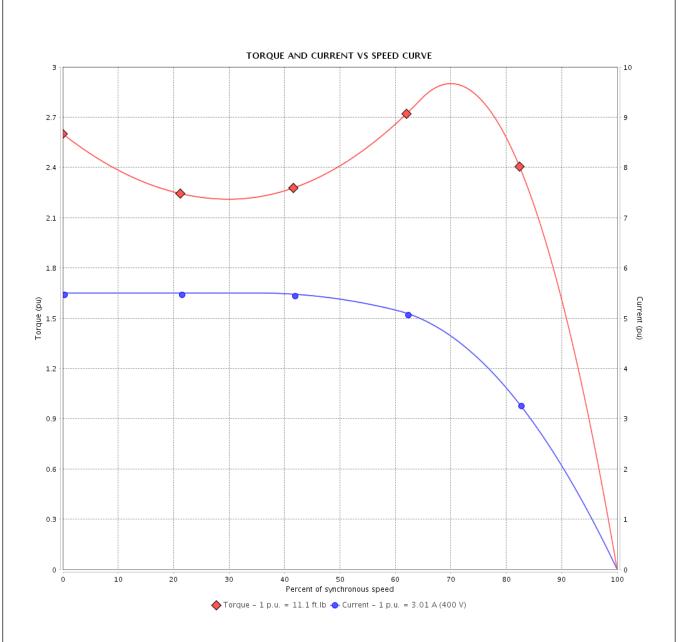
Customer :

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 00159ST3QIE184TC-W22

12575059



Performance : 400 V 50 Hz 8P IE3 Rated current : 3.01 A Moment of inertia (J) : 0.5766 sq.ft.lb **LRC** : 5.5 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 11.1 ft.lb Locked rotor torque : 260 % Service factor : 1.00 Breakdown torque : 290 % Temperature rise : 80 K Rated speed : 710 rpm Design : B

Locked rotor time : 30s (cold) 17s (hot)

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Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 12575059 Catalog #: 00159ST3QIE184TC-W22 TORQUE AND CURRENT VS SPEED CURVE 4.5 3.5 Torque (pu) Current 0.5 Percent of synchronous speed ◆ Torque - 1 p.u. = 11.0 ft.lb ◆ Current - 1 p.u. = 2.99 A (415 V) Performance : 415 V 50 Hz 8P IE3 Rated current : 2.99 A Moment of inertia (J) : 0.5766 sq.ft.lb **LRC** : 6.0 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 11.0 ft.lb : 290 % Locked rotor torque Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 715 rpm Design : B Locked rotor time : 30s (cold) 17s (hot) Date Rev. Performed Checked **Changes Summary** Performed by

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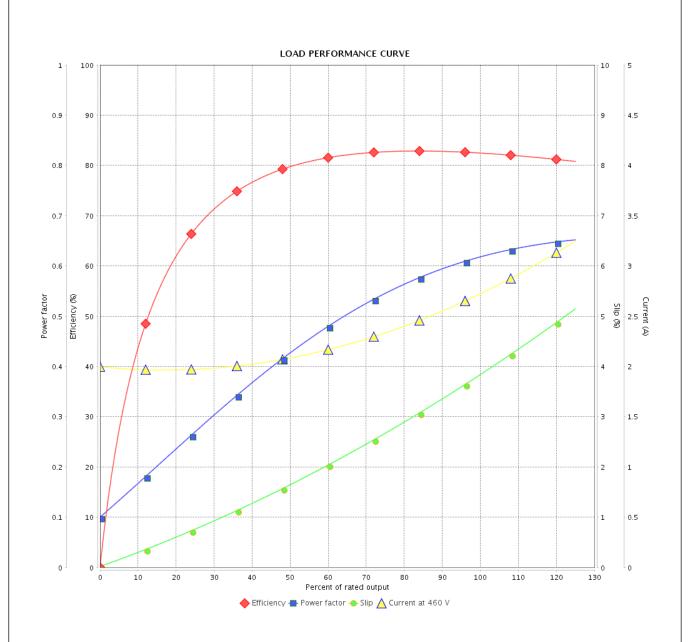
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Performance	: 4	60 V 60 Hz 8P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 5 : 9 uue : 2 ue : 3	2.70 A 5.9 9.11 ft.lb 290 % 840 % 865 rpm	Moment of Duty cycle Insulation Service fa Temperation	class ctor	: 0.5766 sq.ft.ll : Cont.(S1) : F : 1.25 : 80 K : B	b
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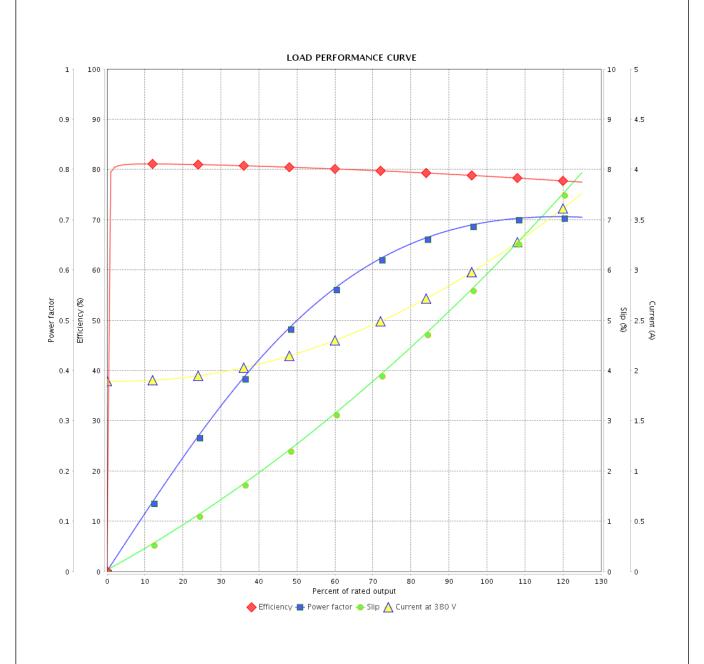
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Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 00159ST3QIE184TC-W22

12575059



Performance : 380 V 50 Hz 8P IE3							
Rated current	: 3	3.04 A	Moment o	f inertia (J)	: 0.5766 sq.ft.lb		
LRC		5.0	Duty cycle	· · ·	: Cont.(S1)		
Rated torque		11.2 ft.lb	Insulation	class	: F		
Locked rotor torque	e : 2	229 %	Service fa	Service factor			
Breakdown torque	: 2	260 %	Temperati	Temperature rise		: 80 K	
Rated speed	: 7	05 rpm Design		: B			
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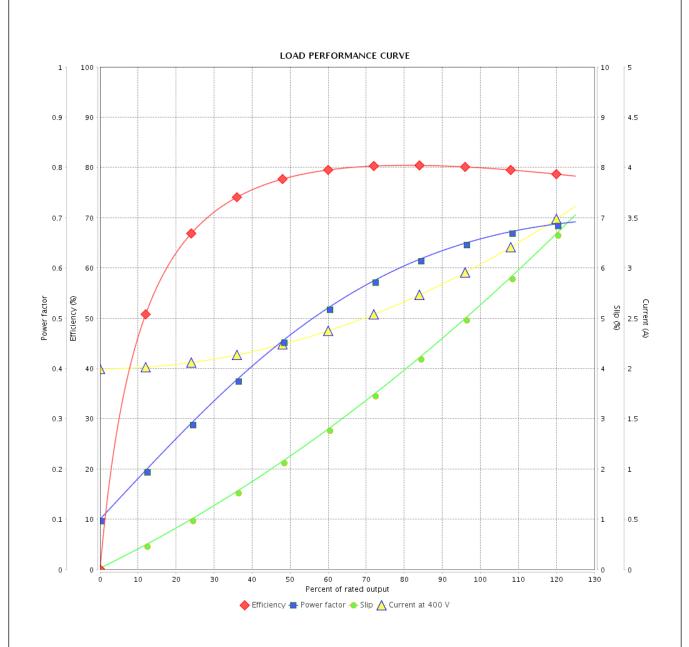
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Performance		: 400 V 50 Hz 8	BP IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed		: 3.01 A : 5.5 : 11.1 ft.lb : 260 % : 290 % : 710 rpm		Moment of inertia (J) : 0.5766 sq.f Duty cycle : Cont.(S1) Insulation class : F Service factor : 1.00 Temperature rise : 80 K Design : B		: F : 1.00 : 80 K	lb
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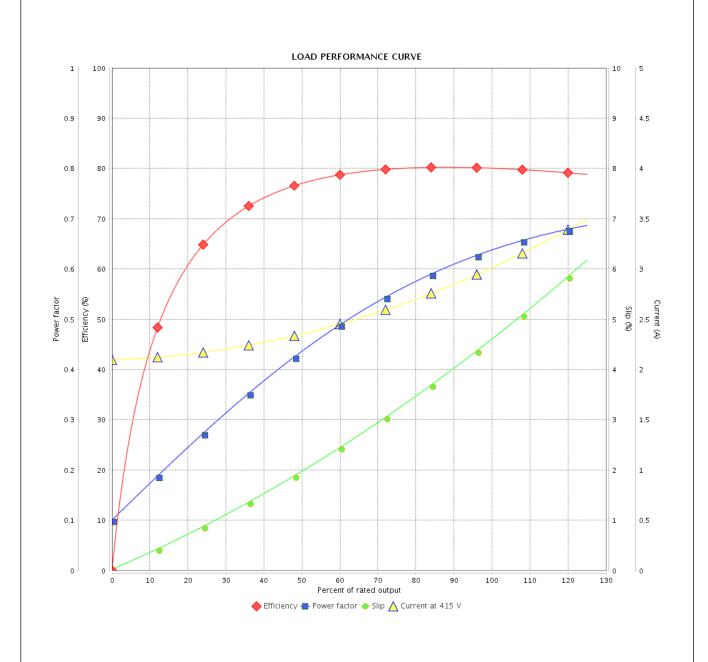


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Product line : NEMA Premium Efficiency Three- Product code : 12575059

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Performance	ormance : 415 V 50 Hz 8P IE3						
Rated current	: 2	.99 A	Moment o	f inertia (J)	: 0.5766 sq.ft.lb		
LRC		.0	Duty cycle	` '	: Cont.(S1)		
Rated torque		1.0 ft.lb	Insulation		: F ` ´		
Locked rotor torque		90 %	Service fa	Service factor			
Breakdown torque	: 3	20 %	Temperati	Temperature rise		: 80 K	
Rated speed	: 7	15 rpm Design		: B			
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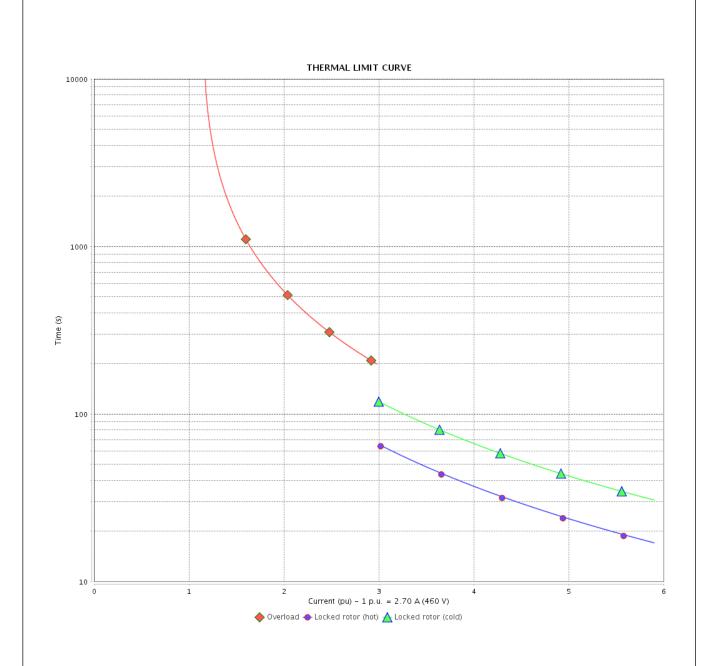


Customer		:				
Product line		: NEMA Premium Efficiency Phase	Three-	Product code :	12575059	
				Catalog # :	00159ST3QII	E184TC-W22
Performance		: 460 V 60 Hz 8P			<u> </u>	
Rated current		: 2.70 A	Moment of	of inertia (J)	: 0.5766 sq.ft.ll	0
LRC		: 5.9	Duty cycle	9	: Cont.(S1)	
Rated torque Locked rotor torc		: 9.11 ft.lb : 290 %	Insulation Service fa		: F : 1.25	
Breakdown torqu	ie :	: 340 %	Temperat		: 80 K	
Rated speed		: 865 rpm	Design		: B	
Heating constant						
Cooling constant	t	01 0			01 1 1	
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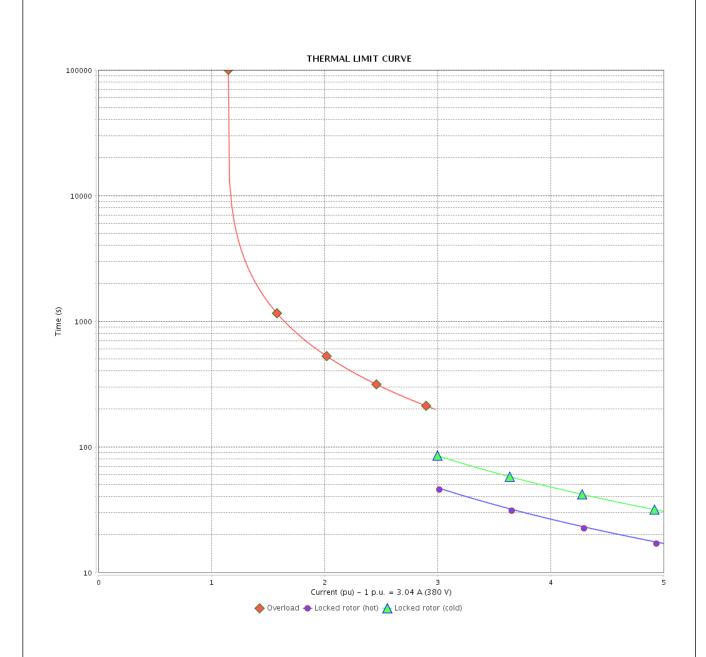


Customer		:				
Product line		: NEMA Premium Efficiency Phase		Product code : Catalog # :	12575059 00159ST3QU	E184TC-W22
				Taking # .		
Performance		380 V 50 Hz 8P IE3		.	0 0	
Rated current LRC	:	: 3.04 A : 5.0	Duty cycle		: 0.5766 sq.ft.ll : Cont.(S1)	b
Rated torque		: 11.2 ft.lb : 229 %	Insulation Service fa	class	: F : 1.00	
Locked rotor tord Breakdown torqu		: 229 % : 260 %	Temperati		: 1.00 : 80 K	
Rated speed		: 705 rpm	Design		: B	
Heating constant						
Cooling constant	t	Change Cours		Dest	Ohl !	D-1-
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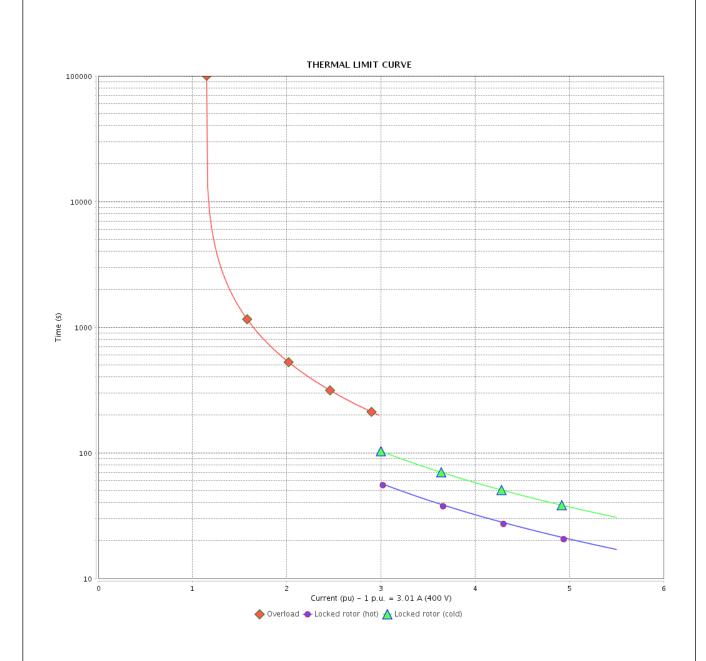


Customer	:	:			·	
Product line		NEMA Premium Efficiency ⁻ Phase		Product code : Catalog # :	12575059 00159ST3QI	E184TC-W22
Performance	: 4	400 V 50 Hz 8P IE3				
Rated current LRC Rated torque Locked rotor tord Breakdown torque Rated speed	: : : : que : : : ue : : :	3.01 A 5.5 11.1 ft.lb 260 % 290 % 710 rpm	Moment or Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.5766 sq.ft.l : Cont.(S1) : F : 1.00 : 80 K : B	b
Heating constant	t					
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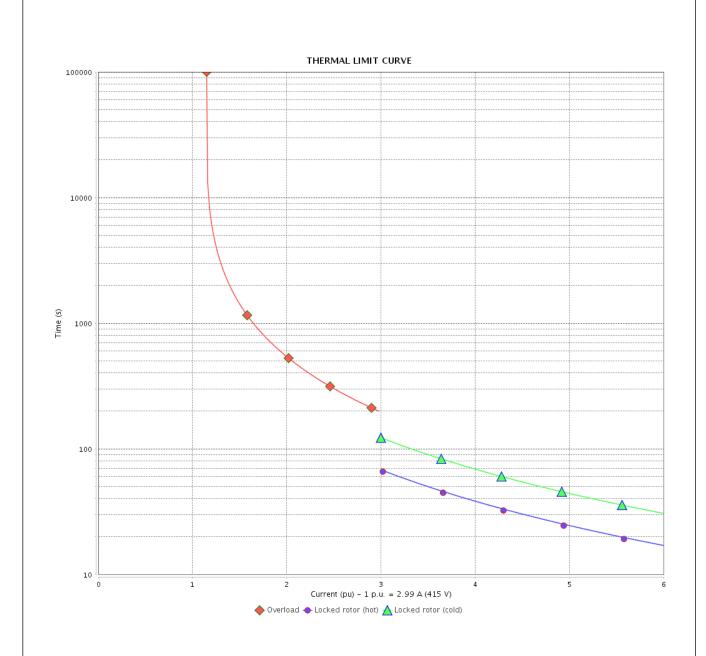


Product line : NEMA Premium Efficiency Three-Product code : 12575059 Phase Catalog #: 00159ST3QIE184TC-W22
Catalog # . 00 109513QIE 1041C-W2.
Performance : 415 V 50 Hz 8P IE3
Rated current : 2.99 A Moment of inertia (J) : 0.5766 sq.ft.lb
LRC : 6.0 Duty cycle : Cont.(S1)
LRC : 6.0 Duty cycle : Cont.(S1) Rated torque : 11.0 ft.lb Insulation class : F
LRC: 6.0Duty cycle: Cont.(S1)Rated torque: 11.0 ft.lbInsulation class: FLocked rotor torque: 290 %Service factor: 1.00Breakdown torque: 320 %Temperature rise: 80 K
LRC: 6.0Duty cycle: Cont.(S1)Rated torque: 11.0 ft.lbInsulation class: FLocked rotor torque: 290 %Service factor: 1.00Breakdown torque: 320 %Temperature rise: 80 KRated speed: 715 rpmDesign: B
LRC : 6.0 Duty cycle : Cont.(S1) Rated torque : 11.0 ft.lb Insulation class : F Locked rotor torque : 290 % Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 715 rpm Design : B
LRC : 6.0 Duty cycle : Cont.(S1) Rated torque : 11.0 ft.lb Insulation class : F Locked rotor torque : 290 % Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 715 rpm Design : B
LRC : 6.0 Duty cycle : Cont.(S1) Rated torque : 11.0 ft.lb Insulation class : F Locked rotor torque : 290 % Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 715 rpm Design : B Heating constant Cooling constant
LRC : 6.0 Duty cycle : Cont.(S1) Rated torque : 11.0 ft.lb Insulation class : F Locked rotor torque : 290 % Service factor : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : 715 rpm Design : B Heating constant Cooling constant

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Phase

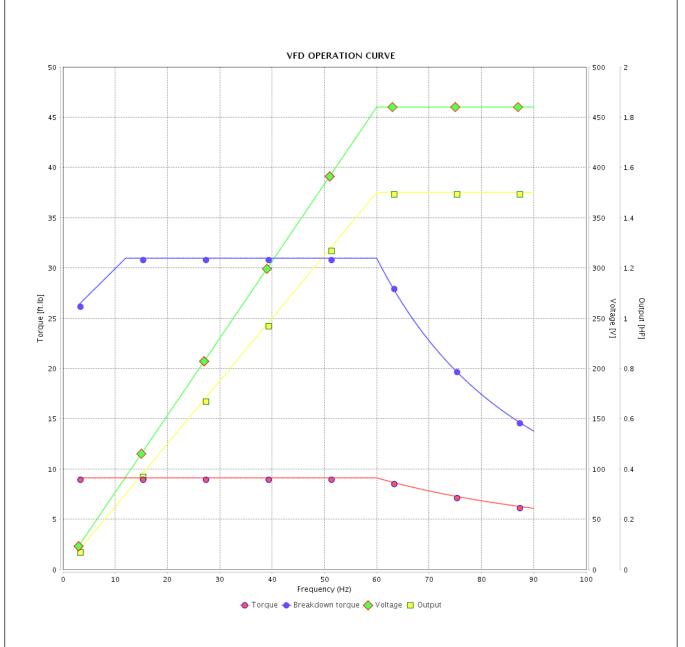
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Performance	: 460 V 60 Hz 8P				
Rated current	: 2.70 A	Moment of	f inertia (J)	: 0.5766 sq.ft.lk)
LRC	: 5.9	Duty cycle	;	: Cont.(S1)	
Rated torque	: 9.11 ft.lb	Insulation class		: F	
Locked rotor torque	: 290 %	Service factor		: 1.25	
Breakdown torque	: 340 %	Temperature rise		: 80 K	
Rated speed	: 865 rpm	Design		: B	
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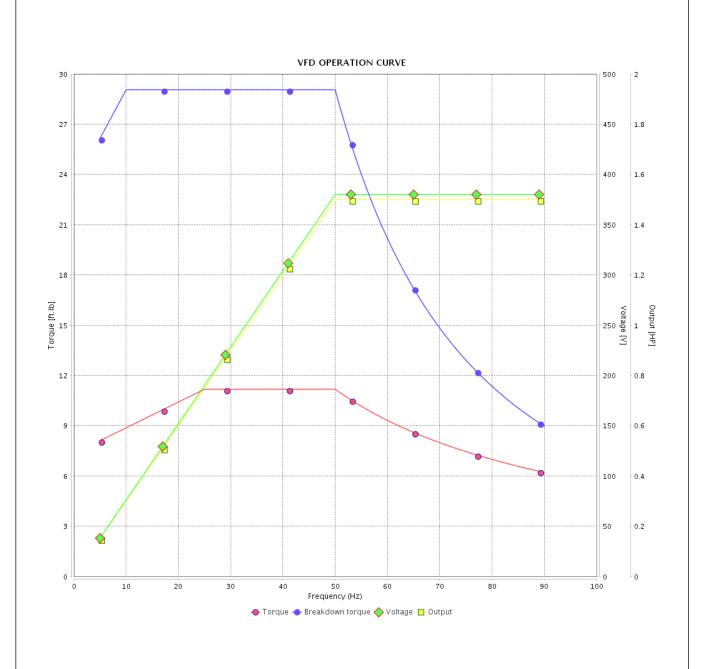


Customer

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Performance	: 3	80 V 50 Hz 8P IE3				
LRC : 5. Rated torque : 1 Locked rotor torque : 2 Breakdown torque : 20		1.2 ft.lb 29 % 60 %	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise		: 0.5766 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K	
Rated speed Rev.			Design	Performed	: B Checked	Date
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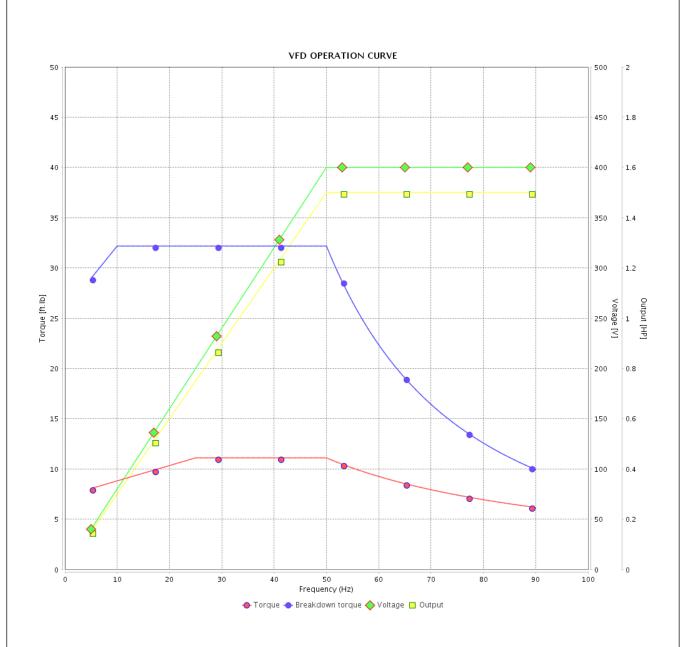
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Performance : 400 V 50 Hz 8P IE3 Rated current : 3.01 A Moment of inertia (J) : 0.5766 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 5.5 Insulation class : 11.1 ft.lb : F Rated torque Locked rotor torque : 260 % Service factor : 1.00 Breakdown torque : 290 % Temperature rise : 80 K Rated speed : 710 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by

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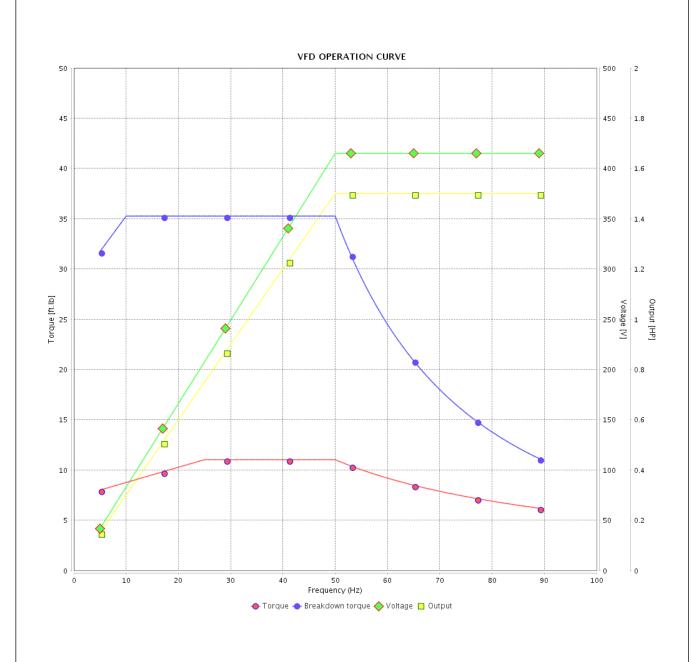


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Catalog #: 00159ST3QIE184TC-W22



Performance	: 4	15 V 50 Hz 8P IE3	3			
Rated current	: 2.	.99 A	Moment of	of inertia (J)	: 0.5766 sq.ft.lb	
LRC	: 6.	.0	Duty cycle	e	: Cont.(S1)	
Rated torque	: 11	1.0 ft.lb	Insulation	class	:F	
Locked rotor torqu	ie : 29	90 %	Service fa	octor	: 1.00	
Breakdown torque	: 32	20 %	Temperati	ure rise	: 80 K	
Rated speed	: 7	: 715 rpm			: B	
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