DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14797786

Catalog #: 00118ET3E56C-S

Frame : 56C 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. Approx. weight³ : 37.3 lb

Aititude		. 1000 m.a.s.i.	Approx. weight	. 37.3 ID
Protection degree		: IP55	Moment of inertia (J)	: 0.1232 sq.ft.lb
Design		: B		
Output [HP]		1	1	1
Poles		4	4	4
Frequency [Hz]		60	50	50
Rated voltage [V]		230/460	190/380	220/415
Rated current [A]		2.94/1.47	3.40/1.70	3.09/1.64
L. R. Amperes [A]		25.3/12.6	22.1/11.0	22.0/11.6
LRC [A]		8.6x(Code M)	6.5x(Code J)	7.1x(Code K)
No load current [A	.]	1.78/0.890	1.76/0.879	1.77/0.938
Rated speed [RPM]		1765	1450	1455
Slip [%]		1.94	3.33	3.00
Rated torque [ft.lb]		2.98	3.62	3.61
Locked rotor torque [%]		280	200	220
Breakdown torque	: [%]	300	270	300
Service factor			1.00	1.00
Temperature rise		80 K	80 K	80 K
Locked rotor time		34s (cold) 19s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)
Noise level ²		52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
	25%	81.0	82.5	81.2
Efficiency (%)	50%	82.5	82.2	81.5
Liliciency (70)	75%	84.0	83.7	83.6
100%		85.5	82.9	83.5
	25%	0.30	0.36	0.33
Power Factor	50%	0.52	0.62	0.58
I OWELL ACIOI	75%	0.66	0.74	0.71
	100%	0.75	0.81	0.79

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

Bearing type : 6204 ZZ 6202 ZZ Max. traction : 87 lb Sealing : V'Ring Without Max. compression : 125 lb

Bearing Seal

Lubrication interval : - - Lubricant amount : - Lubricant type : Mobil Polyrex EM

Notes

USABLE @208V 3.25A SF 1.00 SFA 3.25A

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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TORQUE AND CURRENT VS SPEED CURVE

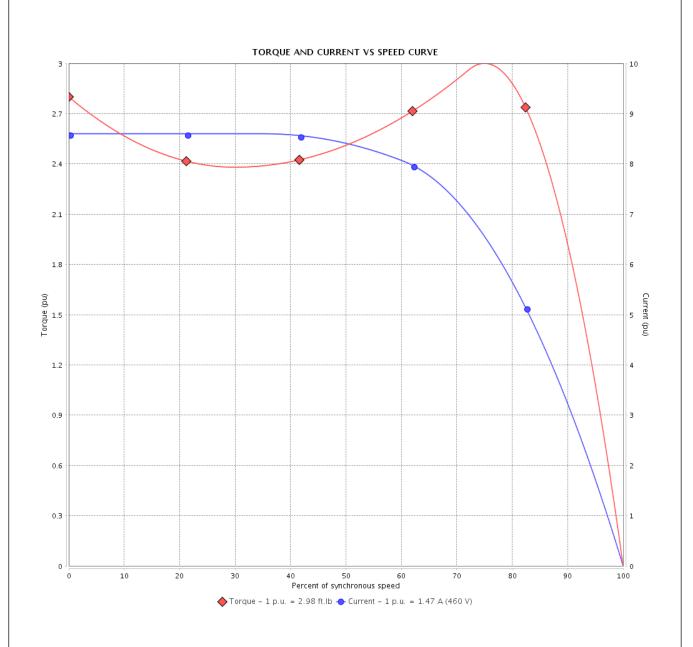
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14797786

Catalog #: 00118ET3E56C-S



Performance : 230/460 V 60 Hz 4P Rated current : 2.94/1.47 A Moment of inertia (J) : 0.1232 sq.ft.lb **LRC** : 8.6 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 2.98 ft.lb Service factor Locked rotor torque : 280 % : 80 K Breakdown torque : 300 % Temperature rise Rated speed : 1765 rpm Design : B

Locked rotor time : 34s (cold) 19s (hot)

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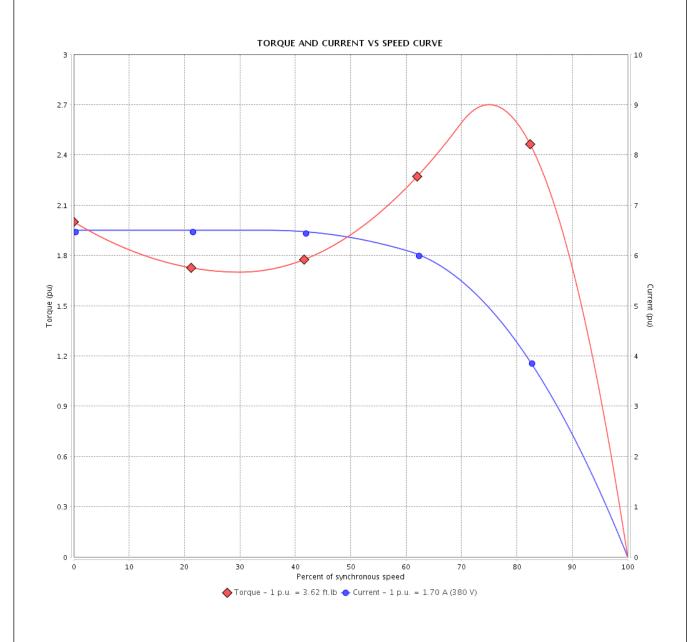
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Customer :

Product line : Premium Efficiency Three-Phase Product code : 14797786

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Performance : 190/380 V 50 Hz 4P Rated current : 3.40/1.70 A Moment of inertia (J) : 0.1232 sq.ft.lb **LRC** : 6.5 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 3.62 ft.lb : 200 % Locked rotor torque Service factor : 1.00 : 80 K Breakdown torque : 270 % Temperature rise : B Rated speed : 1450 rpm Design

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

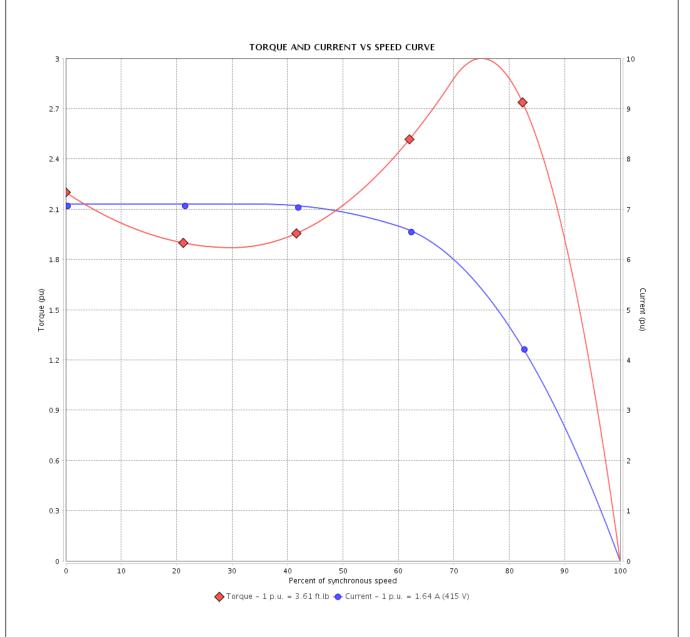
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Customer :

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Performance : 220/415 V 50 Hz 4P Rated current : 3.09/1.64 A Moment of inertia (J) : 0.1232 sq.ft.lb **LRC** : 7.1 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 3.61 ft.lb Service factor Locked rotor torque : 220 % : 1.00 Breakdown torque : 300 % Temperature rise : 80 K Rated speed : B : 1455 rpm Design

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

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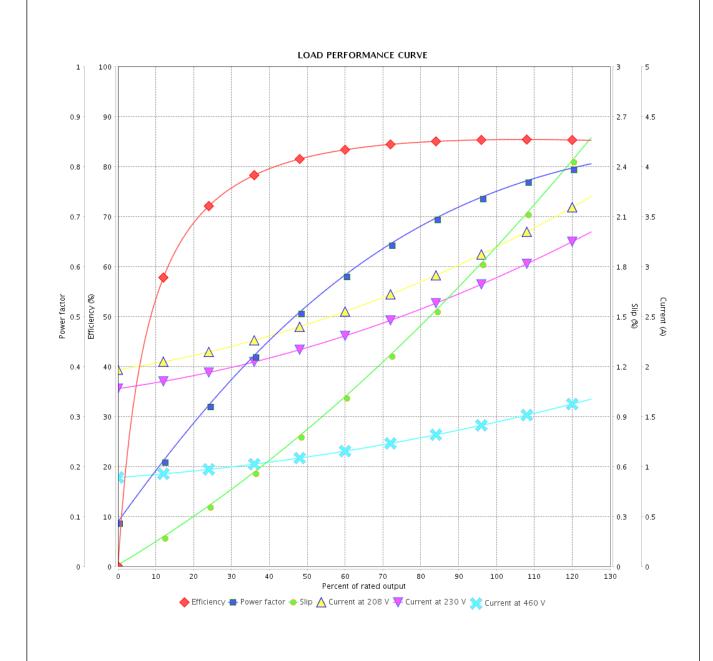
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Performance	: 2	30/460 V 60 Hz 4P				
Rated current	: 2	.94/1.47 A	Moment o	Moment of inertia (J)		.lb
LRC	: 8	.6	Duty cycle	;	: Cont.(S1)	
Rated torque	: 2	.98 ft.lb	Insulation	class	: F	
Locked rotor torg	jue : 2	80 %	Service fa	ctor	:	
Breakdown torqu	•		ıre rise	: 80 K		
Rated speed : 176		765 rpm	Design	Design		
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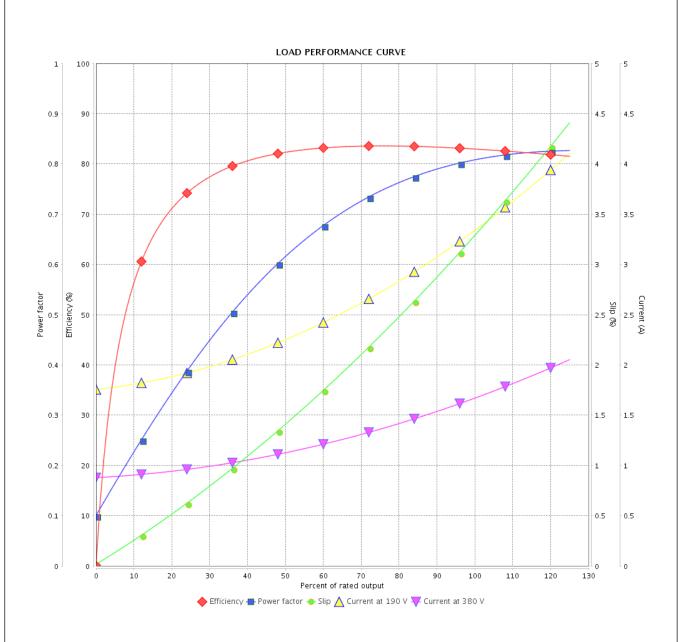
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Performance		: 190/380 V 50 Hz	z 4P			
LRC : 6 Rated torque : 3 Locked rotor torque : 2 Breakdown torque : 2		: 3.40/1.70 A : 6.5 : 3.62 ft.lb : 200 % : 270 % : 1450 rpm	Duty Insula Servi	ation class ce factor erature rise	: 0.1232 sq.ft. : Cont.(S1) : F : 1.00 : 80 K : B	lb
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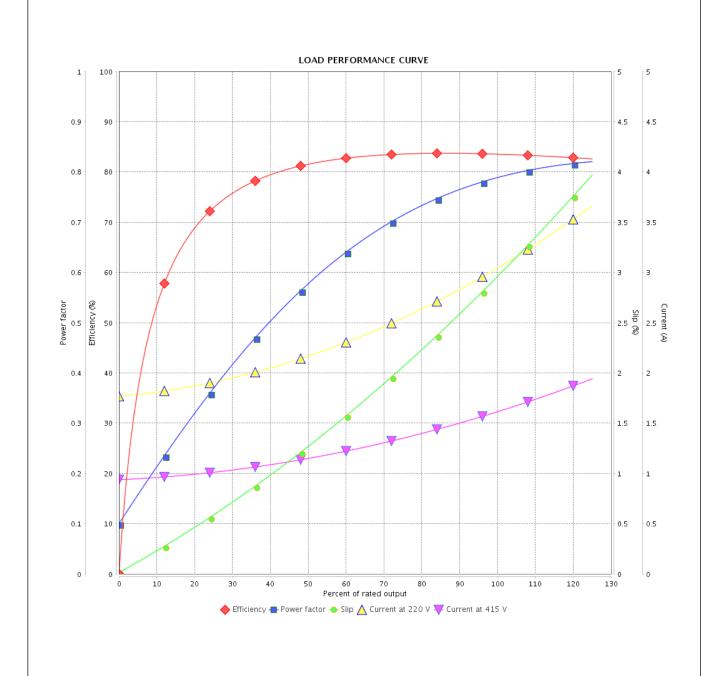
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Performance		220/415 V 50 Hz 4P				
Rated current		3.09/1.64 A	Moment o	Moment of inertia (J)		lh
LRC	-	7.1	Duty cycle	` '	: 0.1232 sq.ft : Cont.(S1)	.10
Rated torque	-	3.61 ft.lb	Insulation		: F	
Locked rotor tord	que :	220 %	Service factor		: 1.00	
Breakdown torqu	•		ure rise	: 80 K		
•		1455 rpm	Design	Design		
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THERMAL LIMIT CURVE

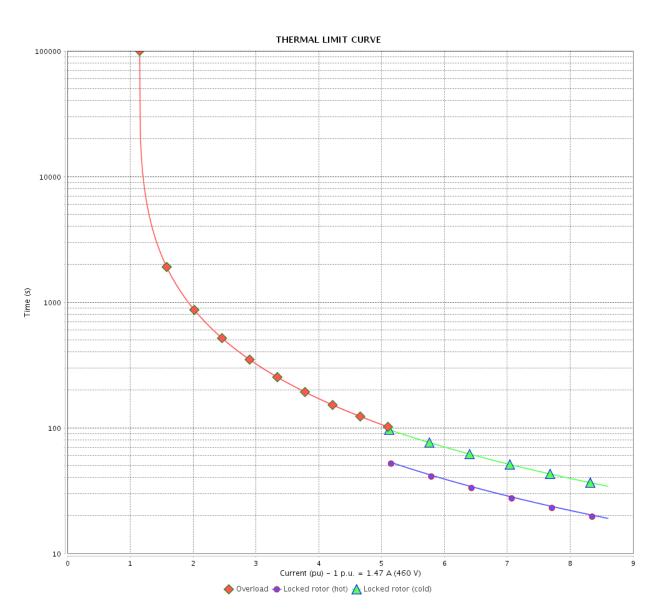
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Performance : 230/460 V 60 Hz 4P Rated current : 2.94/1.47 A Moment of inertia (J) : 0.1232 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 8.6 Insulation class : 2.98 ft.lb Rated torque : F Locked rotor torque : 280 % Service factor Breakdown torque : 300 % : 80 K Temperature rise Rated speed : 1765 rpm Design Heating constant

Cooling constant	t					
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THERMAL LIMIT CURVE

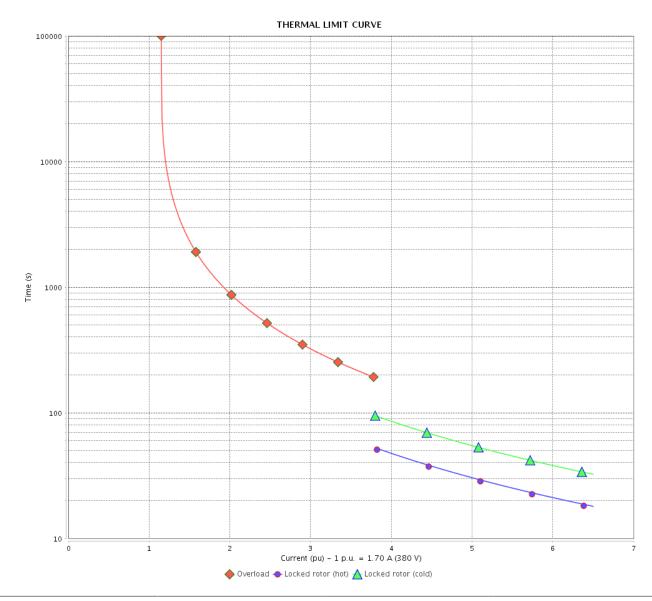
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Performance : 190/380 V 50 Hz 4P : 3.40/1.70 A Moment of inertia (J) : 0.1232 sq.ft.lb Rated current **LRC** Duty cycle : Cont.(S1) : 6.5 Insulation class Rated torque : 3.62 ft.lb : F Locked rotor torque : 200 % Service factor : 1.00 : 270 % : 80 K Breakdown torque Temperature rise Rated speed : 1450 rpm Design : B Heating constant

Cooling constant

Cooling constan	L				
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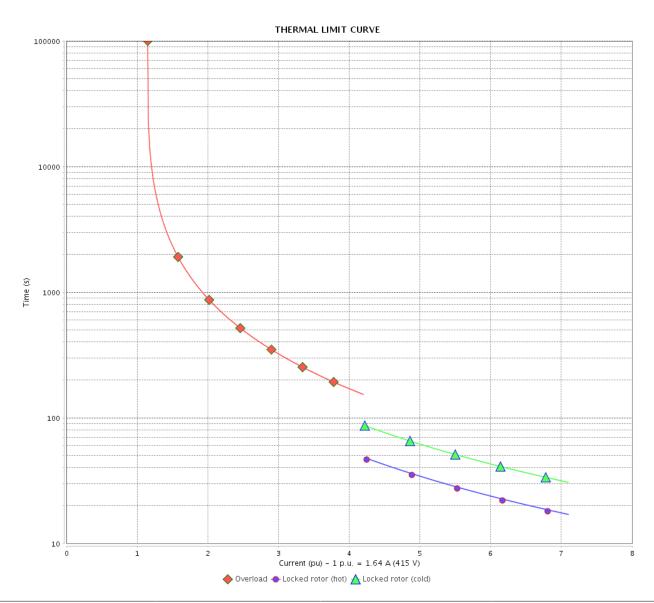
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Cooling constant

J					
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VFD OPERATION CURVE

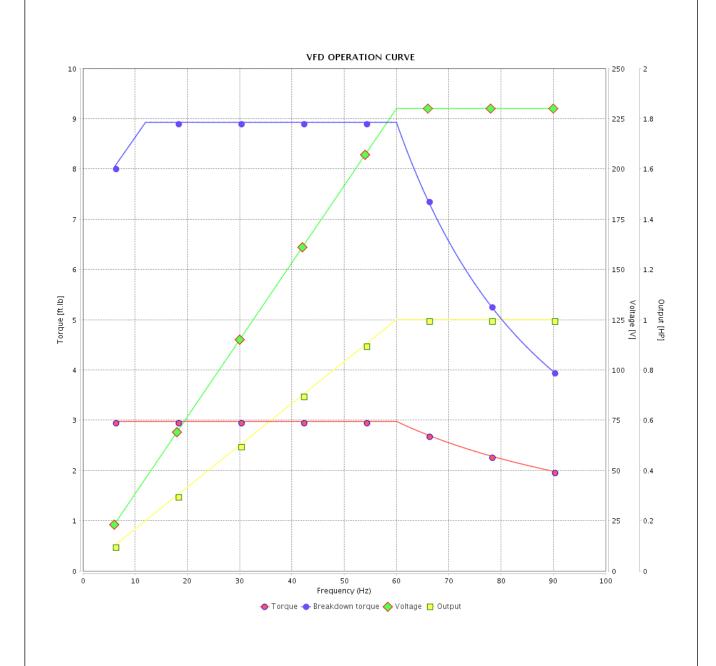
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Performance	: 230/460 V 60 Hz 4P					
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 2.94/1.47 A : 8.6 : 2.98 ft.lb : 280 % : 300 % : 1765 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.1232 sq.ft.lb : Cont.(S1) : F : : 80 K : B		
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VFD OPERATION CURVE

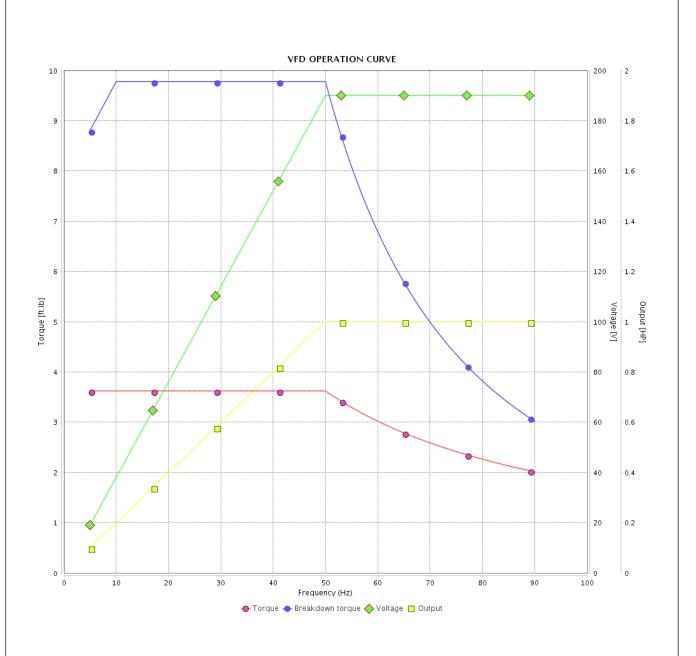
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Performance	: 190/380 V 50 Hz 4P			
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 3.40/1.70 A : 6.5 : 3.62 ft.lb : 200 % : 270 % : 1450 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 0.1232 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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VFD OPERATION CURVE

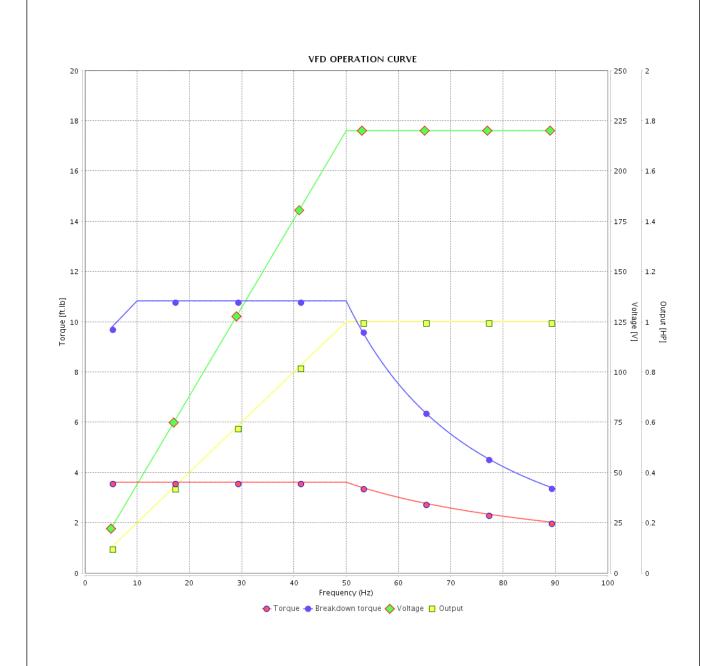
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Performance		: 220/415 V 50 Hz 4P					
Rated current		.09/1.64 A	Moment of inertia (J)		: 0.1232 sq.ft.lb		
LRC		.1		Duty cycle		: Cont.(S1)	
Rated torque		.61 ft.lb	Insulation class		: F		
Locked rotor torque		20 %	Service fa	Service factor		: 1.00	
Breakdown torqu	ie : 30	00 %	Temperati	Temperature rise			
Rated speed	: 14	455 rpm Design			: B		
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