DATA SHEET

Three Phase Induction Motor - Squirrel Cage



2

Customer :

Product line : Rolled Steel Premium Efficiency Three- Product code : 14799098

Phase

Frame : 56HC 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

2

Altitude : 1000 m.a.s.l. Approx. weight³ : 19.4 kg

Protection degree : IP55 Moment of inertia (J) : 0.0055 kgm²

Design : B

Output [HP] 2

		_	_	_
Poles		4	4	4
Frequency [Hz]		60	50	50
Rated voltage [V]		230/460	190-220/380	415
Rated current [A]		5.44/2.72	6.50-5.61/3.25	3.07
L. R. Amperes [A]		44.6/22.3	39.0-33.7/19.5	21.8
LRC [A]		8.2x(Code K)	6.0x(Code H)	7.1x(Code J)
No load current [A	.]	2.80/1.40	2.75-2.37/1.37	1.64
Rated speed [RPN	Л]	1745	1415	1435
Slip [%]		3.06	5.67	4.33
Rated torque [kgfr	n]	0.832	1.03	1.01
Locked rotor torqu	ie [%]	270	210	270
Breakdown torque [%]		300	240	300
Service factor			1.15	1.15
Temperature rise		80 K	80 K	80 K
Locked rotor time		27s (cold) 15s (hot)	25s (cold) 14s (hot)	21s (cold) 12s (hot)
Noise level ²		52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
	25%			
Efficiency (9/)	50%	85.5	85.4	84.2
Efficiency (%)	75%	87.5	84.9	85.1
	100%	86.5	82.6	84.0
	25%			
Power Factor	50%	0.60	0.68	0.60
Power Factor	75%	0.73	0.80	0.73
	100%	0.80	0.85	0.81

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

Bearing type : 6204 ZZ 6202 ZZ Max. traction : 88 kgf Sealing : V'Ring Without Max. compression : 107 kgf

Bearing Seal

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

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Notes USABLE @208V 6.02A SF 1.00 SFA 6.02A

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

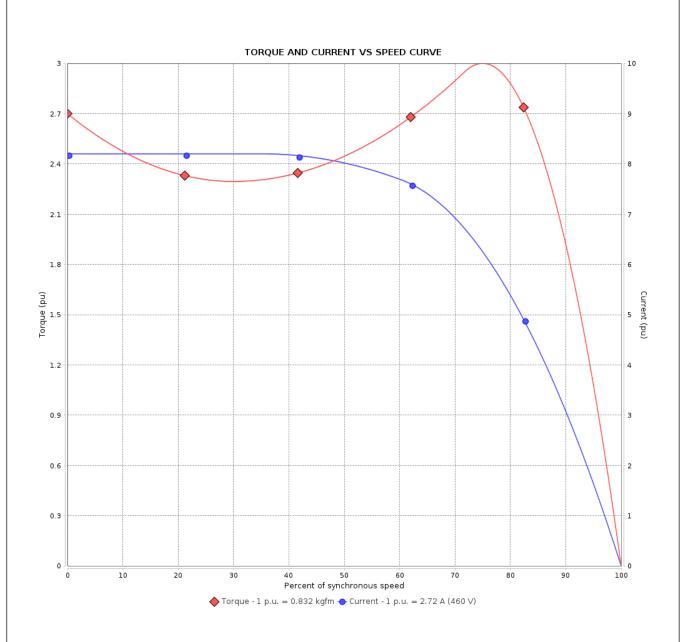
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Premium Efficiency Three- Product code : 14799098

Phase



Performance : 230/460 V 60 Hz 4P Rated current : 5.44/2.72 A Moment of inertia (J) : 0.0055 kgm² **LRC** : 8.2 Duty cycle : Cont.(S1) : 0.832 kgfm Insulation class : F Rated torque Service factor Locked rotor torque : 270 % Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 1745 rpm Design : B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

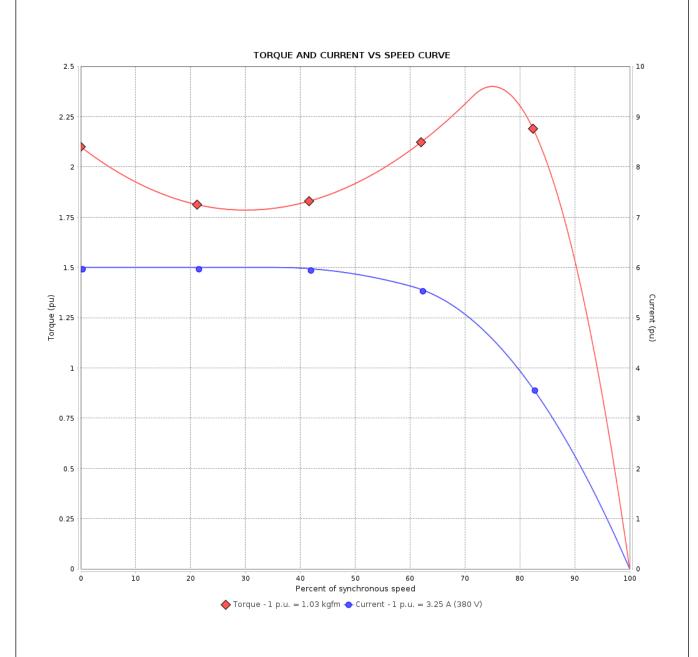


14799098

Customer :

Product line : Rolled Steel Premium Efficiency Three- Product code :

Phase



Performance	: 190-220/380 V 50 Hz 4P			
Rated current	: 6.50-5.61/3.25 A	Moment of inertia (J)	: 0.0055 kgm²	
LRC	: 6.0	Duty cycle	: Cont.(S1)	
Rated torque	: 1.03 kgfm	Insulation class	: F	
Locked rotor torque	: 210 %	Service factor	: 1.15	
Breakdown torque	: 240 %	Temperature rise	: 80 K	
Rated speed	: 1415 rpm	Design	: B	

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

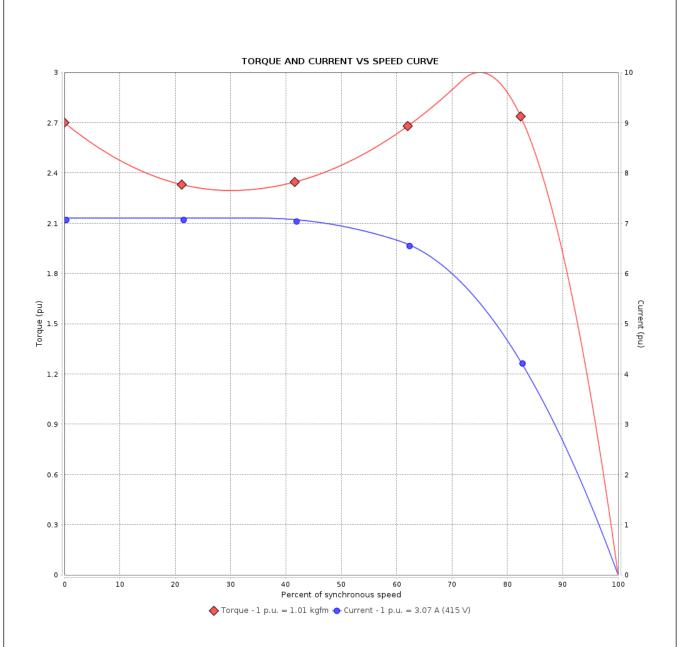


Customer :

Product line : Rolled Steel Premium Efficiency Three-

Product code:

14799098



Performance : 415 V 50 Hz 4P Rated current : 3.07 A Moment of inertia (J) : 0.0055 kgm² **LRC** : 7.1 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 1.01 kgfm Service factor Locked rotor torque : 270 % : 1.15 Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 1435 rpm Design : B

Locked rotor time : 21s (cold) 12s (hot)

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LOAD PERFORMANCE CURVE

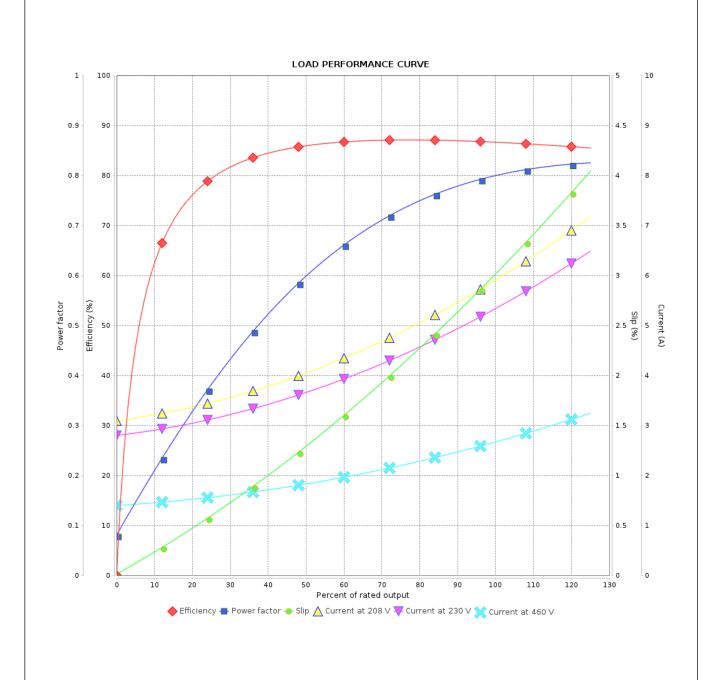
Three Phase Induction Motor - Squirrel Cage



Customer :

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Phase



Performance	: 23	30/460 V 60 Hz 4P				
Rated current LRC	: 5. : 8.	44/2.72 A Moment of ir			: 0.0055 kgm²	2
Rated torque		2 832 kgfm	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor torqu		70 %	Service fa		: : 80 K	
Breakdown torque Rated speed		00 % 745 rpm	Temperati Design	Temperature rise Design		
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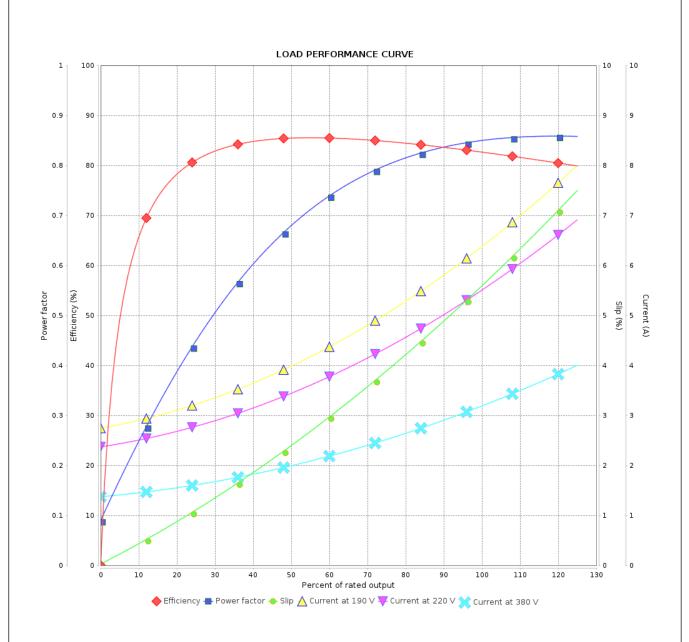
Product code:

14799098



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Date



Performance	: 190-220/380 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 6.50-5.61/3.25 A : 6.0 : 1.03 kgfm : 210 % : 240 % : 1415 rpm	Moment of Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.0055 kgm² : Cont.(S1) : F : 1.15 : 80 K : B	
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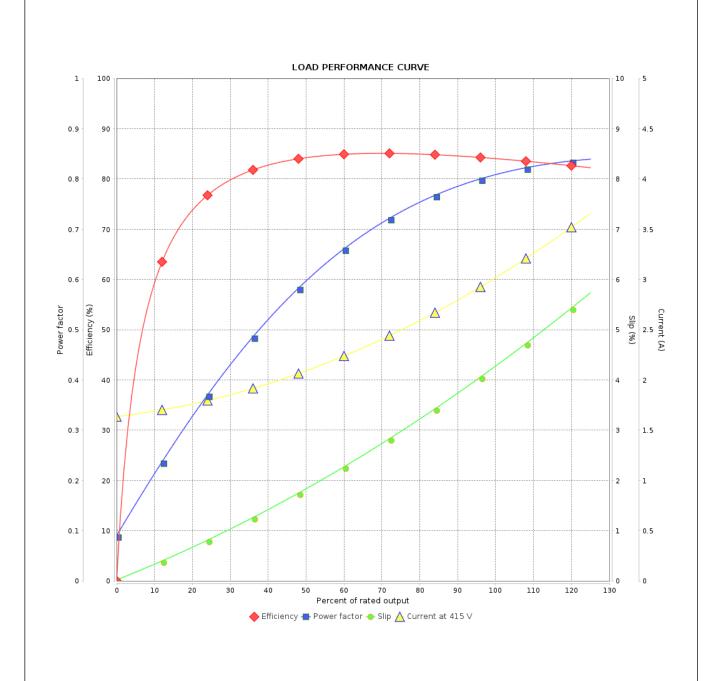
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Phase



Performance	: 415 V 50 Hz 4P				
Rated current	: 3.07 A	Moment of	f inertia (J)	: 0.0055 kgm²	
LRC	: 7.1	Duty cycle	;	: Cont.(S1)	
Rated torque	: 1.01 kgfm	Insulation	class	: F	
Locked rotor torque	: 270 %	Service fa	ctor	: 1.15	
Breakdown torque	: 300 %	Temperati	ure rise	: 80 K	
Rated speed	: 1435 rpm	Design		: B	
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THERMAL LIMIT CURVE

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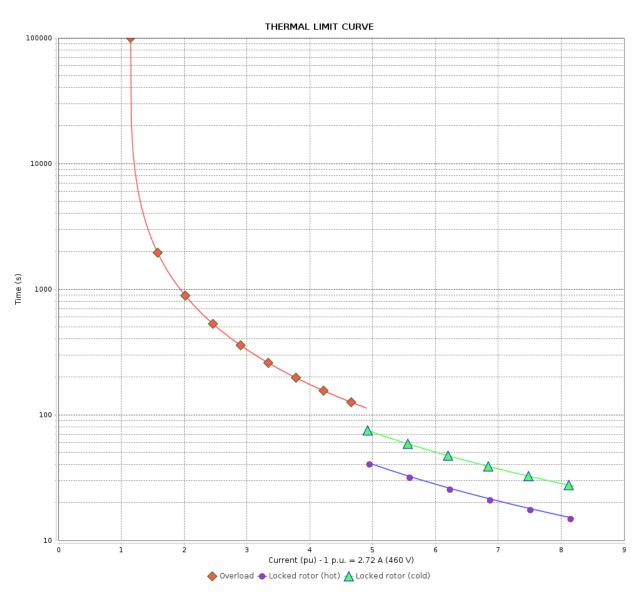


Customer :

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Phase

Product code: 14799098



Performance : 230/460 V 60 Hz 4P Moment of inertia (J) : 0.0055 kgm² Rated current : 5.44/2.72 A **LRC** Duty cycle : Cont.(S1) : 8.2 Insulation class Rated torque : 0.832 kgfm : F Locked rotor torque : 270 % Service factor : 300 % : 80 K Breakdown torque Temperature rise : B Rated speed : 1745 rpm Design Heating constant Cooling constant

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Date

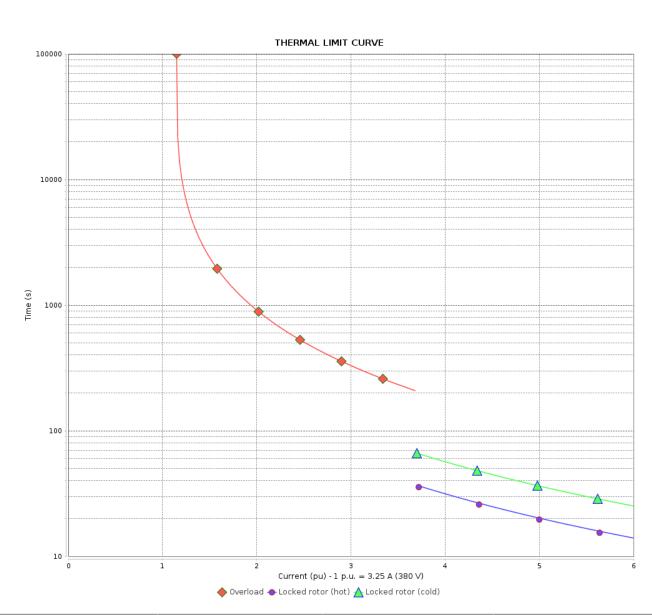
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Product line : Rolled Steel Premium Efficiency Three-

Product code:

14799098

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: 190-220/380 V 50 Hz 4P Performance : 6.50-5.61/3.25 A Moment of inertia (J) : 0.0055 kgm² Rated current **LRC** Duty cycle : Cont.(S1) : 6.0 Insulation class Rated torque : 1.03 kgfm : F Locked rotor torque : 210 % Service factor : 1.15 : 240 % Breakdown torque Temperature rise : 80 K : 1415 rpm Rated speed Design : B Heating constant Cooling constant

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Three Phase Induction Motor - Squirrel Cage



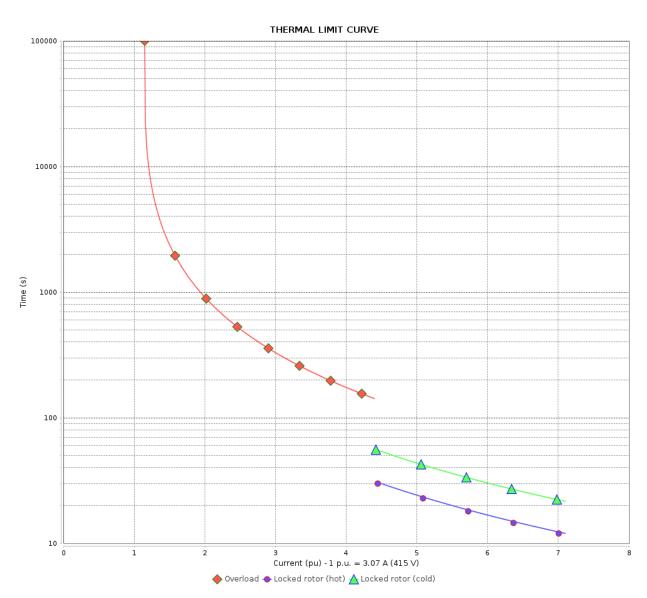
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Cooling Constant					
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



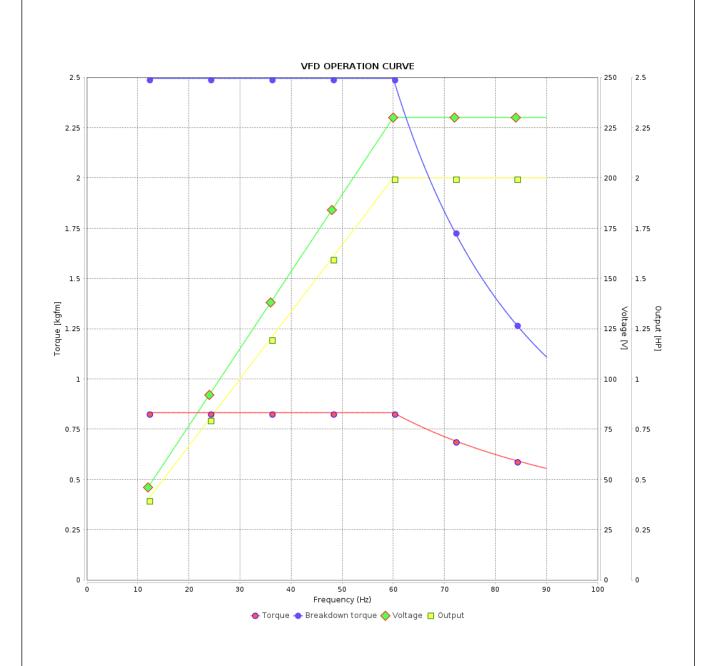
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Phase

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Performance	: 230/460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 5.44/2.72 A : 8.2 : 0.832 kgfm : 270 % : 300 % : 1745 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0055 kgm² : Cont.(S1) : F : : 80 K : B	
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

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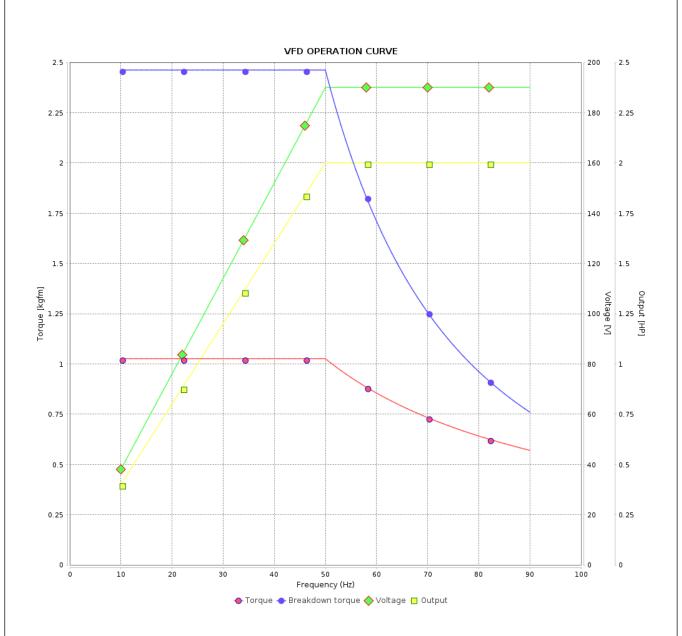
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Performance	: 190-220/380 V 50 Hz 4P					
Rated current	: 6.50-5.61/3.25 A	Moment of inertia (J) Duty cycle Insulation class Service factor		: 0.0055 kgm² : Cont.(S1)		
LRC	: 6.0					
Rated torque	: 1.03 kgfm			: F : 1.15		
Locked rotor torque	: 210 %					
Breakdown torque	: 240 %	Temperature i	Temperature rise			
Rated speed	: 1415 rpm	Design		: B		
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VFD OPERATION CURVE

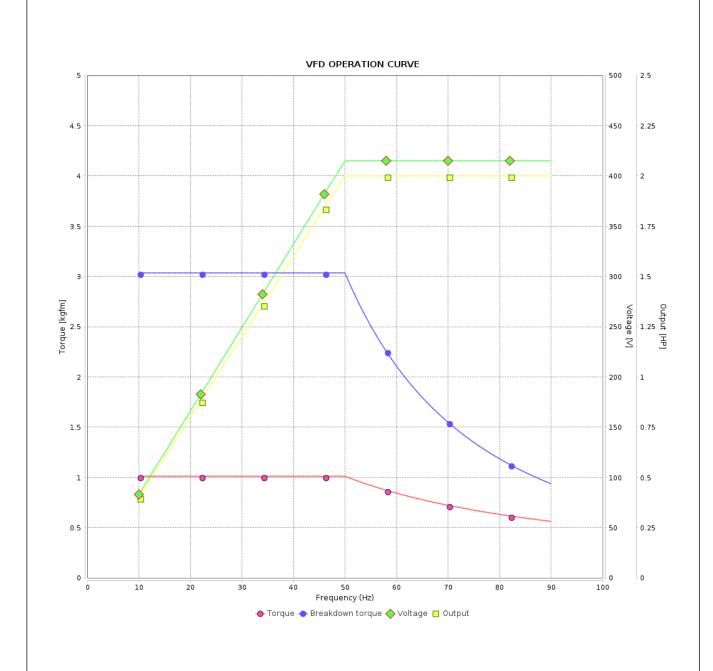
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Performance	: 415 V 50 Hz 4P				
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