DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Premium Efficiency Three- Product code : 14799000

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

Altitude : 1000 m a s l

Altitude : 1000 m.a.s.l. Approx. weight³ : 17.2 kg

Protection degree : IP55 Moment of inertia (J) : 0.0046 kgn

Protection degree Design		: IP55 : B	Moment of inertia (J)	: 0.0046 kgm²
Output [HP]		1.5	1.5	1.5
Poles		4	4	4
Frequency [Hz]		60	50	50
Rated voltage [V]		230/460	190-220/380	415
Rated current [A]		4.04/2.02	4.82-4.16/2.41	2.27
L. R. Amperes [A]		33.1/16.6	29.4-25.4/14.7	16.3
LRC [A]		8.2x(Code K)	6.1x(Code H)	7.2x(Code J)
No load current [A	.]	2.17/1.08	2.13-1.84/1.07	1.26
Rated speed [RPI	Л]	1750	1420	1435
Slip [%]		2.78	5.33	4.33
Rated torque [kgfm]		0.622	0.767	0.759
Locked rotor torque [%]		270	210	260
Breakdown torque	: [%]	300	250	300
Service factor			1.15	1.15
Temperature rise		80 K	80 K	80 K
Locked rotor time		37s (cold) 21s (hot)	36s (cold) 20s (hot)	32s (cold) 18s (hot)
Noise level ²		52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
	25%	85.2	86.1	83.8
Efficiency (%)	50%	85.5	84.7	83.5
Elliciency (70)	75%	86.5	84.7	84.9
	100%	86.5	82.7	84.1
	25%	0.35	0.41	0.34
Power Factor	50%	0.59	0.67	0.59
I OWELL ACIOI	75%	0.72	0.78	0.72
	100%	0.79	0.84	0.80

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

Bearing type : 6204 ZZ 6202 ZZ Max. traction : 64 kgf Sealing : V'Ring Without Max. compression : 82 kgf

Bearing Seal

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

Notes

USABLE @208V 4.47A SF 1.00 SFA 4.47A

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.

(1) / 100 / 00 / 10	in load.				
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

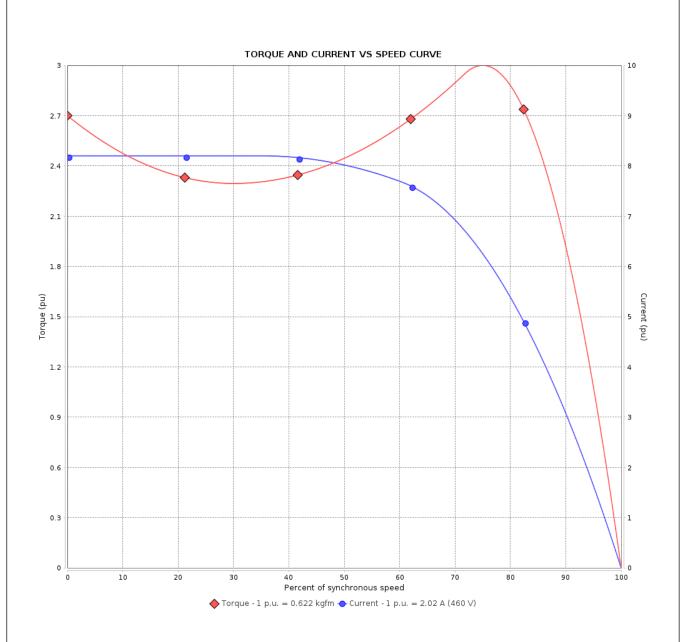


14799000

Customer :

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

Phase



Performance : 230/460 V 60 Hz 4P Rated current : 4.04/2.02 A Moment of inertia (J) : 0.0046 kgm² **LRC** : 8.2 Duty cycle : Cont.(S1) : F : 0.622 kgfm Insulation class Rated torque Service factor Locked rotor torque : 270 % : 80 K Breakdown torque : 300 % Temperature rise Rated speed : 1750 rpm Design : B

Locked rotor time : 37s (cold) 21s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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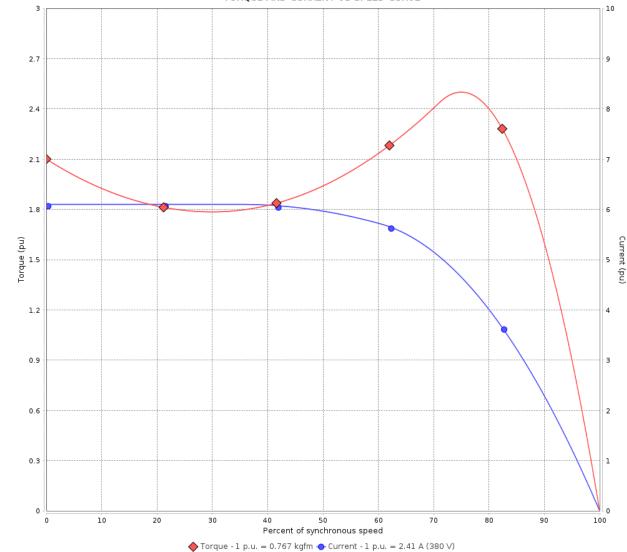
Customer :

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Product code:

14799000





Performance : 190-220/380 V 50 Hz 4P Rated current : 4.82-4.16/2.41 A Moment of inertia (J) : 0.0046 kgm² **LRC** : 6.1 Duty cycle : Cont.(S1) : 0.767 kgfm Insulation class : F Rated torque : 210 % Locked rotor torque Service factor : 1.15

Breakdown torque : 250 % Temperature rise : 80 K
Rated speed : 1420 rpm Design : B

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

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TORQUE AND CURRENT VS SPEED CURVE

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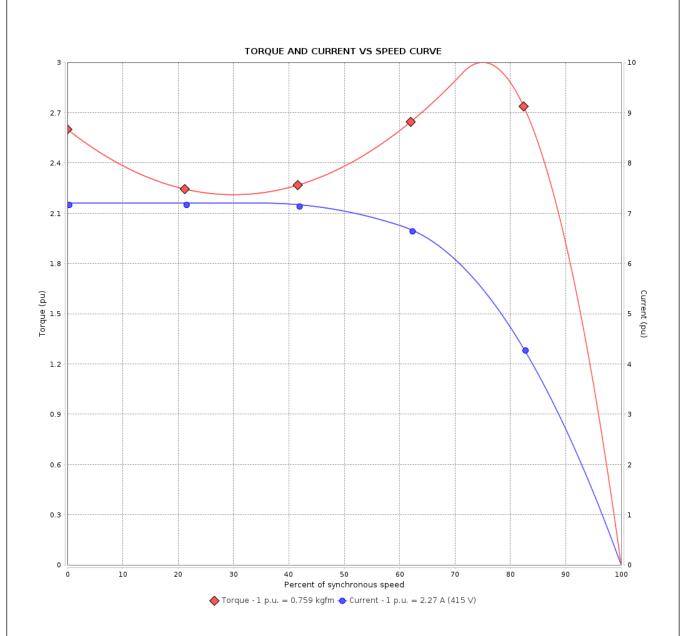
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Breakdown torque

Rated speed

Rated current : 2.27 A Moment of inertia (J)
LRC : 7.2 Duty cycle
Rated torque : 0.759 kgfm Insulation class
Locked rotor torque : 260 % Service factor

: 300 %

: 1435 rpm

Service factor : 1.15
Temperature rise : 80 K
Design : B

: 0.0046 kgm²

: Cont.(S1)

: F

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

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LOAD PERFORMANCE CURVE

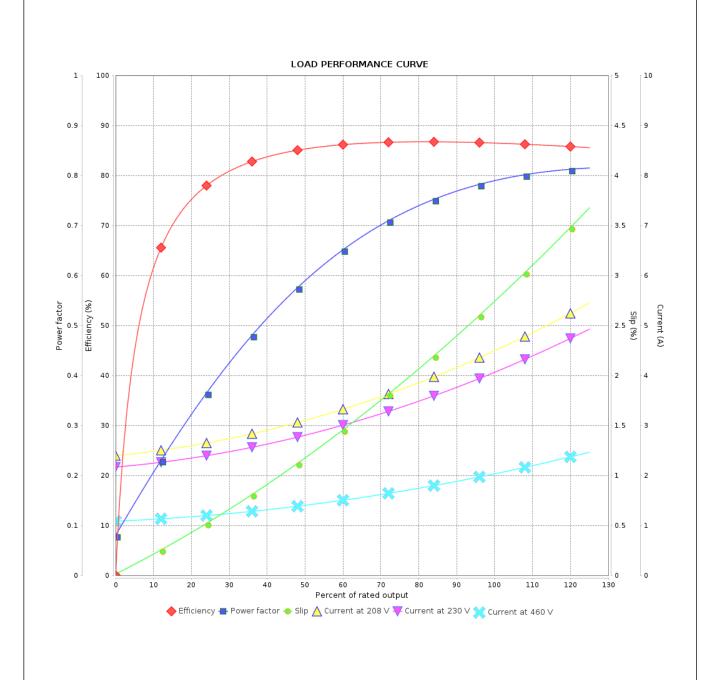
Three Phase Induction Motor - Squirrel Cage



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Phase



Performance	: 23	30/460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torg	: 4.04/2.02 A : 8.2 : 0.622 kgfm : 270 %		Moment of inertia (J) Duty cycle Insulation class Service factor		: 0.0046 kgm² : Cont.(S1) : F :	2
Breakdown torqu Rated speed	e : 30	00 % 750 rpm	Temperature rise		: 80 K : B	
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LOAD PERFORMANCE CURVE

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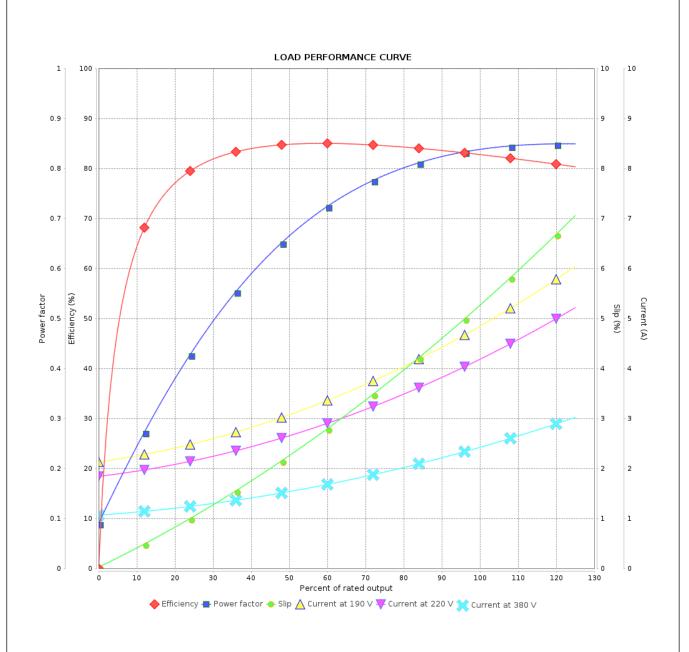
Customer :

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Phase



Performance	: 19	90-220/380 V 50 Hz 4I	Р			
Rated current	: 4.82-4.16/2.41 A Mome		Moment of	of inertia (J)	: 0.0046 kgm	2
LRC	: 6.	1	Duty cycle	e	: Cont.(S1)	
Rated torque	: 0.	767 kgfm	Insulation	class	: F ` ´	
Locked rotor tord	que : 2°	10 %	Service fa	actor	: 1.15	
Breakdown torqu	ie : 2	50 % Temperature rise		: 80 K		
Rated speed	: 14	420 rpm Design			: B	
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Customer :

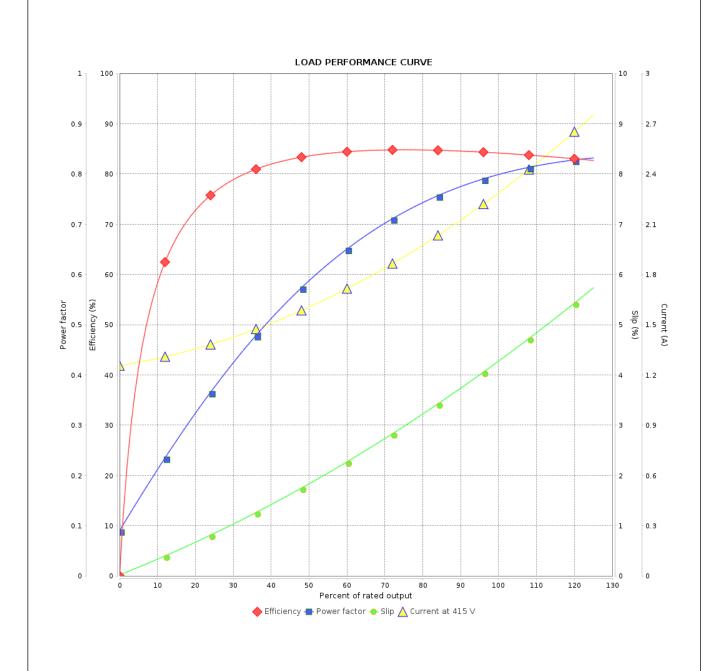
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Product line : Rolled Steel Premium Efficiency Three- Product code : 14799000

Phase



Performance	: 4	15 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor tord Breakdown torqu Rated speed	: 7 : 0 que : 2 ue : 3	.27 A .2 .759 kgfm 60 % 00 % 435 rpm	Moment of Duty cycle Insulation Service for Temperate Design	n class actor	: 0.0046 kgm² : Cont.(S1) : F : 1.15 : 80 K : B	2
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THERMAL LIMIT CURVE

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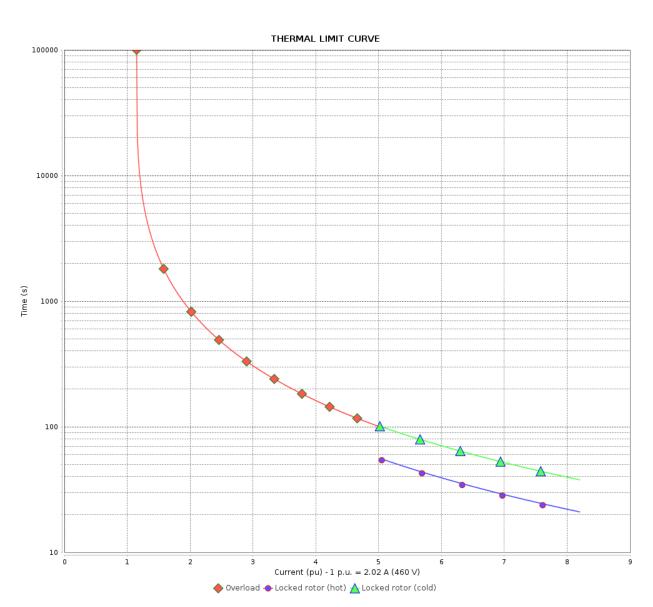


Customer :

Product line : Rolled Steel Premium Efficiency Three-

Phase

Product code: 14799000



Performance : 230/460 V 60 Hz 4P : 4.04/2.02 A Moment of inertia (J) : 0.0046 kgm² Rated current **LRC** Duty cycle : Cont.(S1) : 8.2 Insulation class : F Rated torque : 0.622 kgfm Locked rotor torque : 270 % Service factor : 300 % : 80 K Breakdown torque Temperature rise Rated speed Design : 1750 rpm Heating constant Cooling constant

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THERMAL LIMIT CURVE

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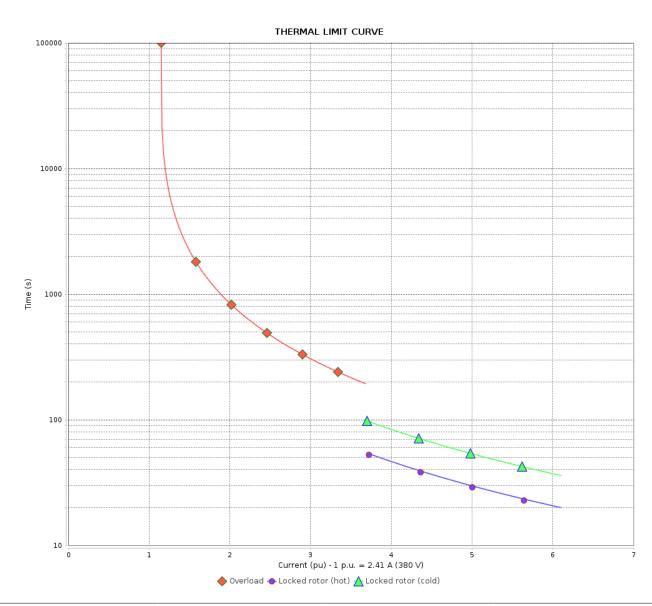


Customer :

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Phase

Product code: 14799000



: 190-220/380 V 50 Hz 4P Performance : 4.82-4.16/2.41 A Moment of inertia (J) : 0.0046 kgm² Rated current **LRC** Duty cycle : Cont.(S1) : 6.1 Insulation class Rated torque : 0.767 kgfm : F Locked rotor torque : 210 % Service factor : 1.15 : 250 % : 80 K Breakdown torque Temperature rise : 1420 rpm : B Rated speed Design Heating constant

Cooling constant	t				
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



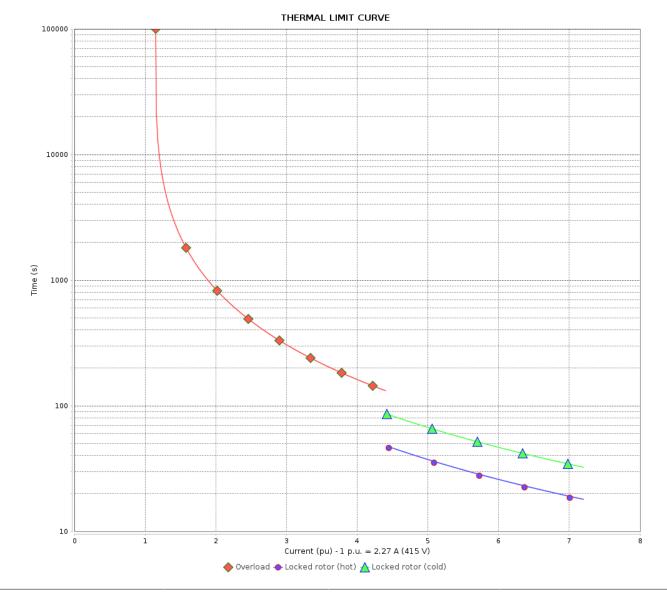
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Product line : Rolled Steel Premium Efficiency Three-

Phase

Product code :

14799000



Performance : 415 V 50 Hz 4P

Rated current : 2.27 A
LRC : 7.2
Rated torque : 0.759 kgfm
Locked rotor torque : 260 %
Breakdown torque : 300 %

: 1435 rpm

Moment of inertia (J) : 0.0046 kgm²

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.15

Temperature rise : 80 K
Design : B

Heating constant

Rated speed

Cooling constant	t					
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VFD OPERATION CURVE

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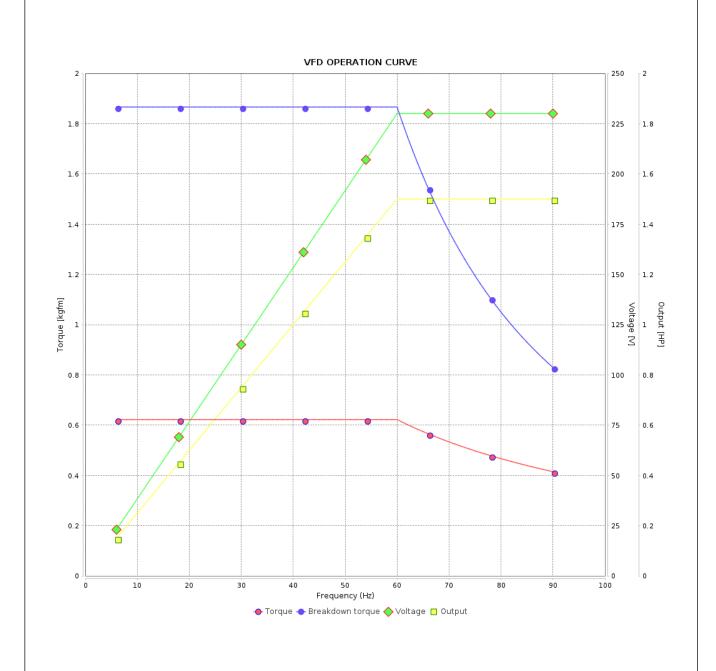
Customer :

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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	: 4.04/2.02 A : 8.2 : 0.622 kgfm : 270 % : 300 % : 1750 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0046 kgm² : Cont.(S1) : F : : 80 K : B		
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

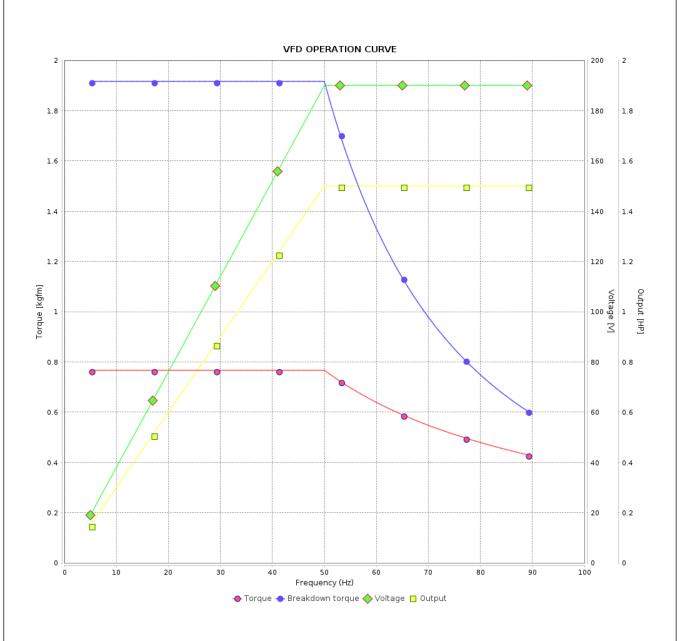
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Performance	: 190-220/380 V 50 Hz 4P					
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 4.82-4.16/2.41 A : 6.1 : 0.767 kgfm : 210 % : 250 % : 1420 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0046 kgm² : Cont.(S1) : F : 1.15 : 80 K : B		
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VFD OPERATION CURVE

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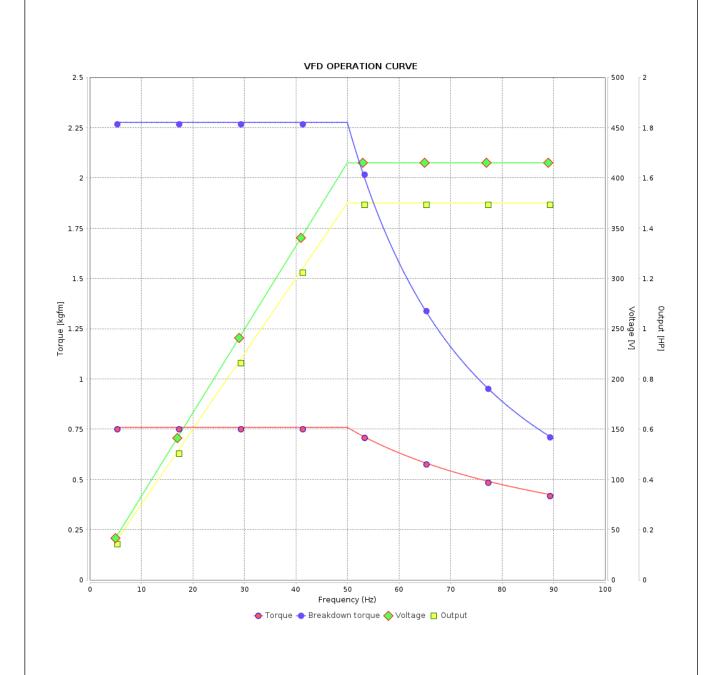
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Performance	: 415 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 2.27 A : 7.2 : 0.759 kgfm : 260 % : 300 % : 1435 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0046 kgm² : Cont.(S1) : F : 1.15 : 80 K : B	
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