### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer

Product line : JP Pump NEMA Premium Product code: 14808745

Efficiency Three-Phase

Catalog #: 00158ET3E145JP-SG

Frame : 143/5JP Cooling method : IC411 - TEFC

Insulation class Mounting : F-1

Duty cycle : Cont.(S1) Rotation<sup>1</sup> : Both (CW and CCW) : -20°C to +40°C Ambient temperature Starting method : Direct On Line

: 1000 m.a.s.l. Approx. weight<sup>3</sup> : 2.2 lb Altitude Protection degree : IP55 Moment of inertia (J) : 0.1101 sq.ft.lb Design : B Output [HP] 1.5 1.5 Poles 4 Frequency [Hz] 60 50 50 Rated voltage [V] 230/460 190/380 220/415 Rated current [A] 4.04/2.02 4.38/2.32 4.82/2.41 L. R. Amperes [A] 29.3/15.5 33.1/16.6 29.4/14.7 LRC [A] 8.2x(Code K) 6.1x(Code H) 6.7x(Code J) No load current [A] 2.17/1.08 2.13/1.07 2.20/1.17 Rated speed [RPM] 1750 1420 1430 Slip [%] 2.78 5.33 4.67 Rated torque [ft.lb] 4.50 5.55 5.51 Locked rotor torque [%] 270 210 240 Breakdown torque [%] 300 250 280 Service factor 1.15 1.15 Temperature rise 80 K 105 K 80 K Locked rotor time 37s (cold) 21s (hot) 0s (cold) 0s (hot) 0s (cold) 0s (hot) Noise level<sup>2</sup> 52.0 dB(A) 49.0 dB(A) 49.0 dB(A) 25% 85.2 86.1 85.0 50% 85.5 84.7 84.2 Efficiency (%) 75% 84.7 84.9 86.5 82.7 100% 86.5 83.6 0.37 25% 0.35 0.41 50% 0.59 0.67 0.62

> Foundation loads Non drive end Drive end

0.72

0.79

Bearing type 6206 ZZ 6203 ZZ Max. traction : 133 lb V'Ring Sealing Without Max. compression : 135 lb

Bearing Seal

Lubrication interval Lubricant amount

Mobil Polyrex EM Lubricant type

Notes

Power Factor

USABLE @208V 4.47A SF 1.00 SFA 4.47A

75%

100%

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.

0.75

0.82

0.78

0.84

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### TORQUE AND CURRENT VS SPEED CURVE

#### Three Phase Induction Motor - Squirrel Cage

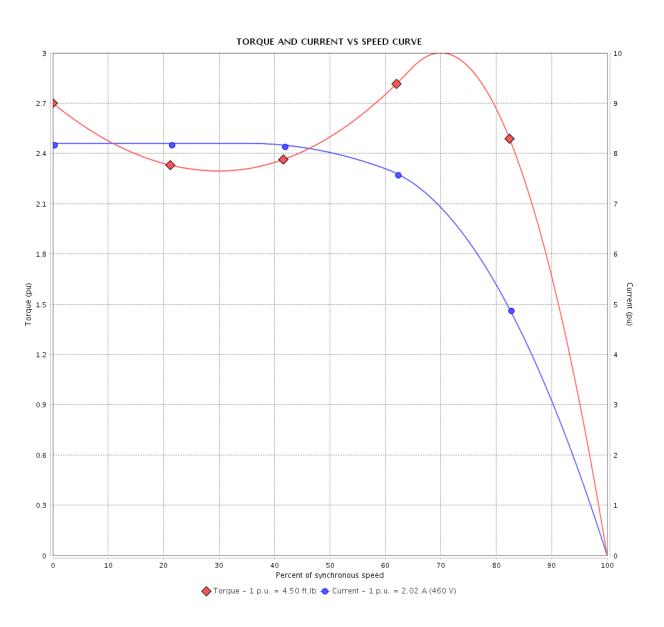


Customer :

Product line : JP Pump NEMA Premium Product code : 14808745

Efficiency Three-Phase

Catalog #: 00158ET3E145JP-SG



Performance : 230/460 V 60 Hz 4P Rated current : 4.04/2.02 A Moment of inertia (J) : 0.1101 sq.ft.lb **LRC** : 8.2 Duty cycle : Cont.(S1) : F : 4.50 ft.lb 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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Three Phase Induction Motor - Squirrel Cage Customer Product line : JP Pump NEMA Premium Product code: 14808745 Efficiency Three-Phase Catalog #: 00158ET3E145JP-SG TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Current Torque (pu) 1.2 0.6 0.3 Percent of synchronous speed ◆ Torque - 1 p.u. = 5.55 ft.lb ◆ Current - 1 p.u. = 2.41 A (380 V) Performance : 190/380 V 50 Hz 4P Rated current : 4.82/2.41 A Moment of inertia (J) : 0.1101 sq.ft.lb **LRC** : 6.1 Duty cycle : Cont.(S1) : 5.55 ft.lb Insulation class : F Rated torque Locked rotor torque : 210 % Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 105 K Rated speed : 1420 rpm Design : B Locked rotor time : 0s (cold) 0s (hot) Date Rev. **Changes Summary** Performed Checked

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### TORQUE AND CURRENT VS SPEED CURVE

#### Three Phase Induction Motor - Squirrel Cage



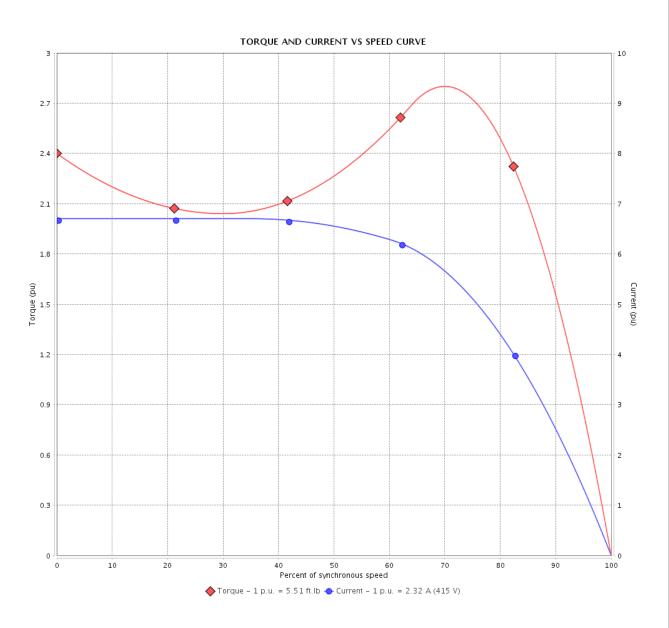
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance : 220/415 V 50 Hz 4P Rated current : 4.38/2.32 A Moment of inertia (J) : 0.1101 sq.ft.lb **LRC** : 6.7 Duty cycle : Cont.(S1) : F : 5.51 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 240 % : 1.15 Breakdown torque : 280 % Temperature rise : 80 K Rated speed : 1430 rpm Design : B

Locked rotor time : 0s (cold) 0s (hot)

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## LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage



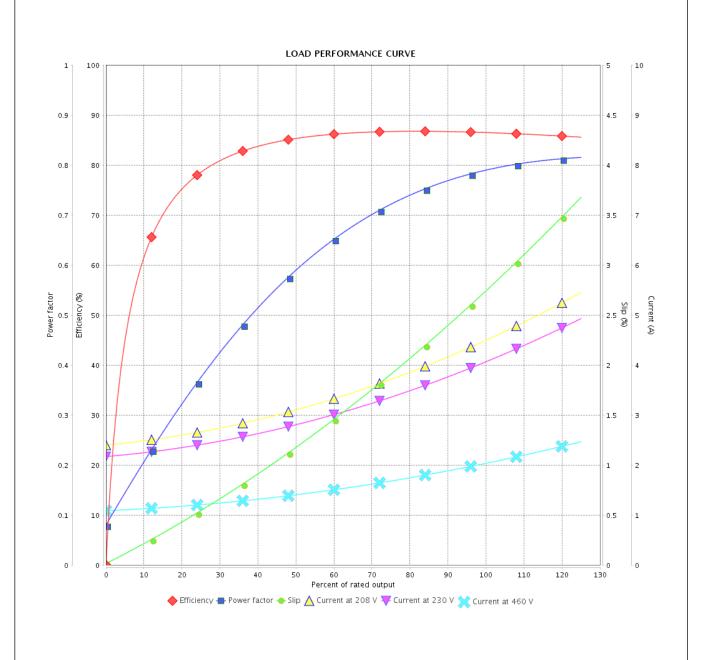
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance	: 2	230/460 V 60 Hz 4P				
Rated current	Rated current : 4.04/2.02 A		Moment o	Moment of inertia (J)		lb
LRC	: 8	8.2	Duty cycle	<b>;</b>	: Cont.(S1)	
Rated torque	: 4	4.50 ft.lb	Insulation	class	: F	
Locked rotor torque	e ::	270 %	Service fa	ctor	:	
Breakdown torque	::	300 %	Temperati	ıre rise	: 80 K	
Rated speed	:	1750 rpm	Design		: B	
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### LOAD PERFORMANCE CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :

Date

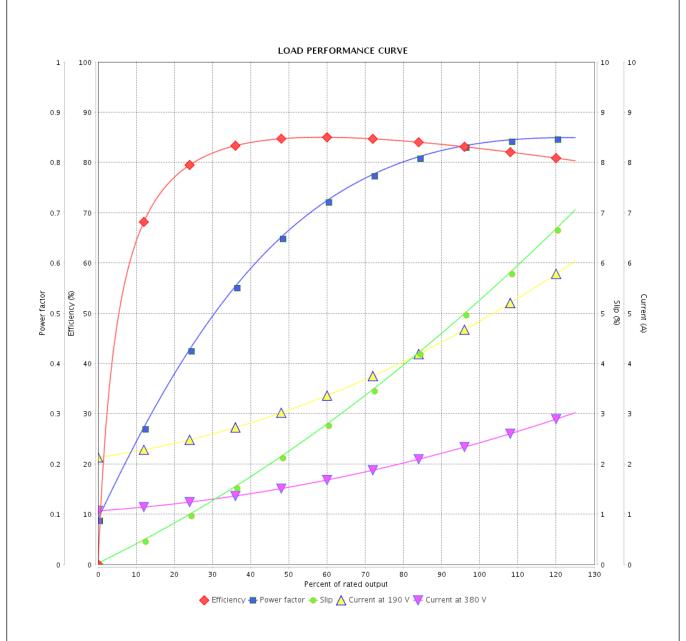
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Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance : 190/380 V 50 Hz 4P Rated current : 4.82/2.41 A Moment of inertia (J) : 0.1101 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.1 Insulation class Rated torque : 5.55 ft.lb : F Locked rotor torque : 210 % Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 105 K Rated speed : 1420 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Checked by Revision Page

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## LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage



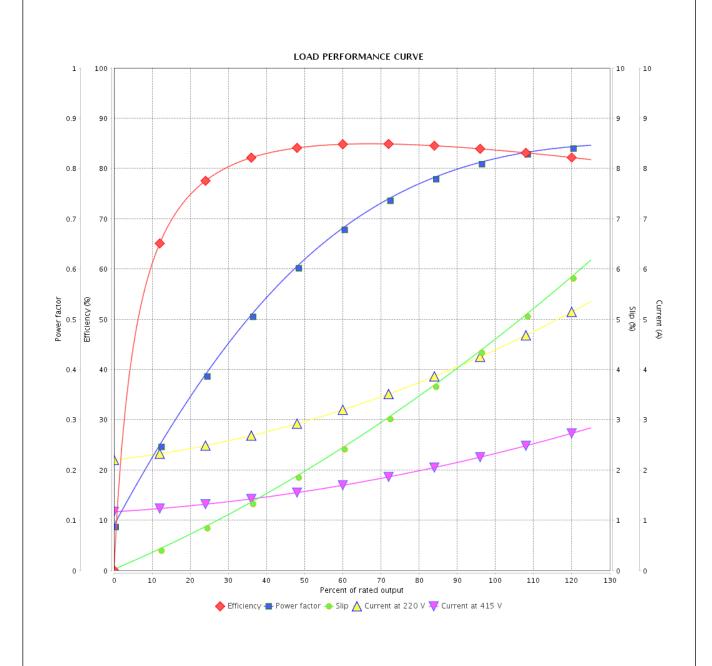
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance	:	220/415 V 50 Hz 4P				
Rated current : 4.38/2.32 A		4.38/2.32 A	Moment o	f inertia (J)	: 0.1101 sq.ft.lb	
LRC	:	6.7	Duty cycle	<b>;</b>	: Cont.(S1)	
Rated torque	:	5.51 ft.lb	Insulation	class	: F	
Locked rotor torque	e :	240 %	Service fa	ctor	: 1.15	
Breakdown torque : 280 %		280 %	Temperature rise		: 80 K	
Rated speed	:	1430 rpm	Design		: B	
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### Three Phase Induction Motor - Squirrel Cage

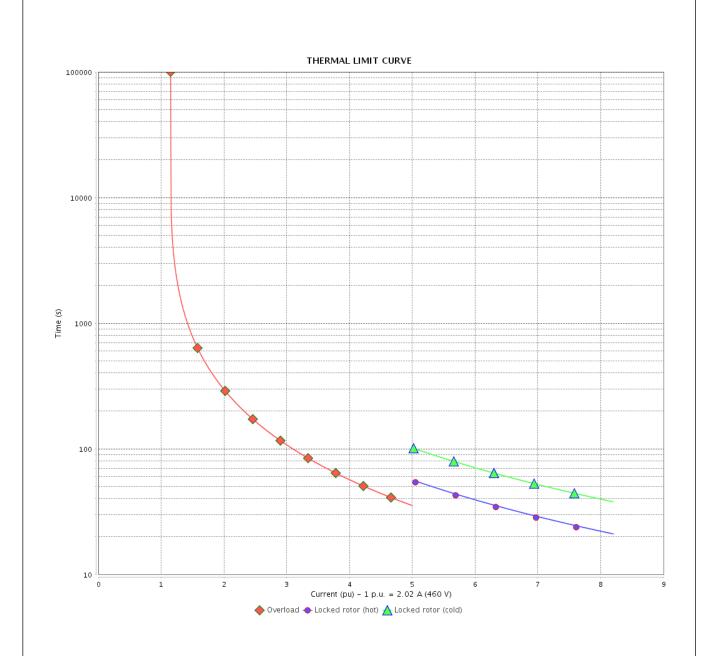


Customer	:			
Product line	: JP Pump NEMA Premium	Product code :	14808745	
	Efficiency Three-Phase			45 ID 00
		Catalog # :	00158ET3E1	14001-00
Performance	: 230/460 V 60 Hz 4P		0.4404 6.1	
Rated current LRC	: 4.04/2.02 A : 8.2	Moment of inertia (J)  Duty cycle	: 0.1101 sq.ft.l : Cont.(S1)	D
Rated torque	: 4.50 ft.lb	Insulation class	: F	
Locked rotor torque Breakdown torque	: 270 % : 300 %	Service factor Temperature rise	: : 80 K	
Rated speed	: 1750 rpm	Design	: B	
Heating constant				
Cooling constant				
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### Three Phase Induction Motor - Squirrel Cage



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### Three Phase Induction Motor - Squirrel Cage

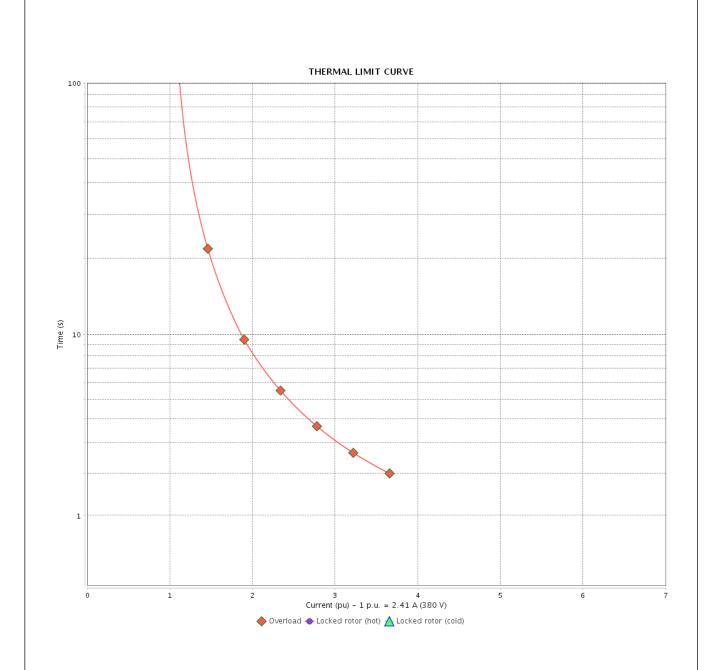


Customer		:				
Product line		: JP Pump NEMA Premium Efficiency Three-Phase		Product code : Catalog # :	14808745 00158ET3E1	45JP-SG
Performance		190/380 V 50 Hz 4P		<b>5</b>	0.4404 6.11	
Rated current LRC	:	4.82/2.41 A 6.1	Duty cycle		: 0.1101 sq.ft.lb : Cont.(S1)	)
Rated torque		5.55 ft.lb	Insulation Service fa		: F : 1 15	
Locked rotor tord Breakdown torqu		210 % 250 %	Temperati		: 1.15 : 105 K	
Rated speed		1420 rpm	Design		: B	
Heating constant						
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### Three Phase Induction Motor - Squirrel Cage



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### Three Phase Induction Motor - Squirrel Cage

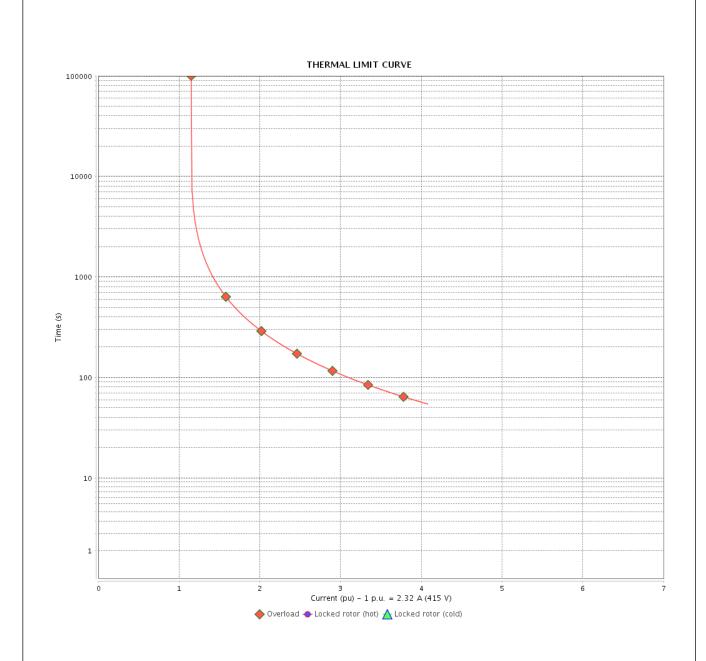


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Product line	: E	JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14808745	
	_			Catalog # :	00158ET3E1	45JP-SG
Performance		220/415 V 50 Hz 4P				
Rated current LRC	: 4 : 6	I.38/2.32 A	Moment o Duty cycle	f inertia (J)	: 0.1101 sq.ft.l : Cont.(S1)	b
Rated torque	: 5	5.51 ft.lb	Insulation	class	: F	
Locked rotor tord		240 % 280 %	Service fa		: 1.15 : 80 K	
Breakdown torqu Rated speed		430 rpm	Temperatu Design	ire rise	: 80 K : B	
Heating constant			-			
Cooling constant						
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### Three Phase Induction Motor - Squirrel Cage



Customer



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## VFD OPERATION CURVE

### Three Phase Induction Motor - Squirrel Cage



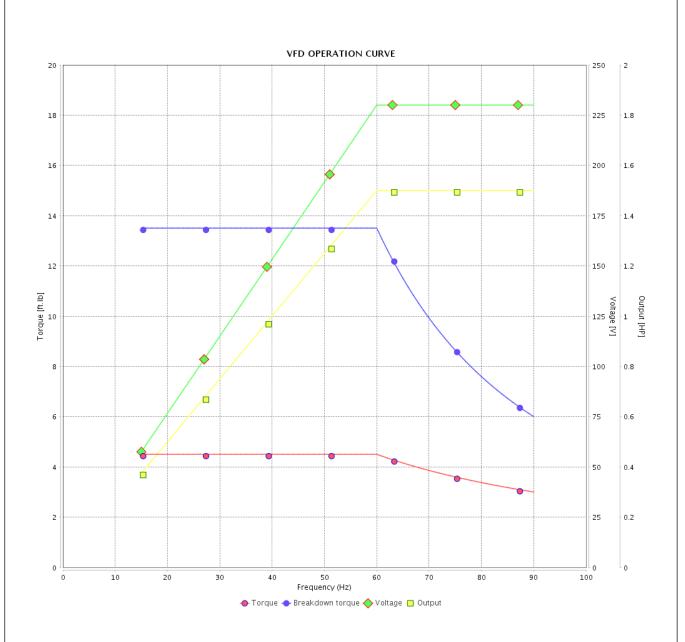
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance	: 230/460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	C : 8.2 Duty cycle led torque : 4.50 ft.lb Insulation class ked rotor torque : 270 % Service factor akdown torque : 300 % Temperature rise		Duty cycle : Cont.(S1) Insulation class : F Service factor : Temperature rise : 80 K		lb
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## VFD OPERATION CURVE

### Three Phase Induction Motor - Squirrel Cage



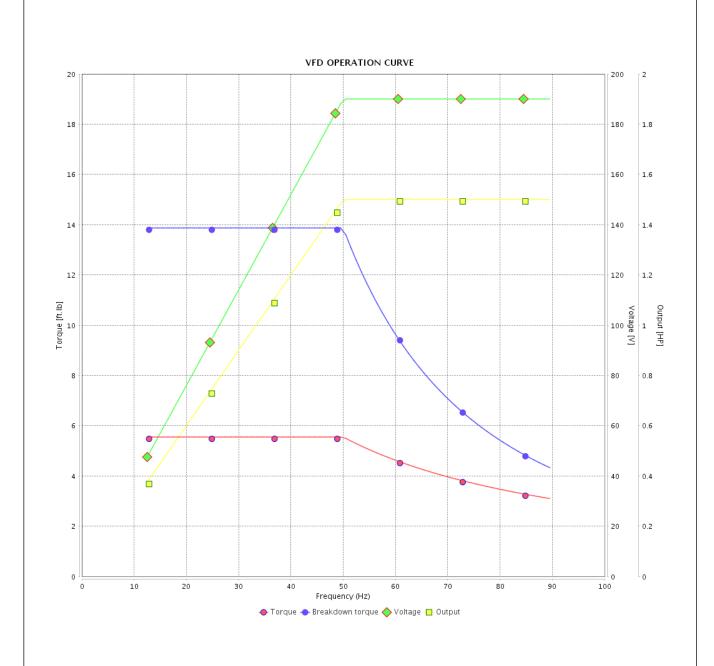
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808745

Catalog #: 00158ET3E145JP-SG



Performance	: 1	: 190/380 V 50 Hz 4P							
Rated current	: 4	: 4.82/2.41 A Mom		f inertia (J)	: 0.1101 sq.ft.lb				
LRC		1 Duty cycle		: Cont.(S1)					
Rated torque	: 5	5.55 ft.lb Insulation class		:F ` ´					
Locked rotor torqu	ie : 2	10 %	Service factor		: 1.15				
Breakdown torque	: 2	250 % Tempera		ıre rise	: 105 K				
Rated speed	: 1	: 1420 rpm		Design					
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## VFD OPERATION CURVE

### Three Phase Induction Motor - Squirrel Cage



Customer :

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Product line : JP Pump NEMA Premium

Efficiency Three-Phase

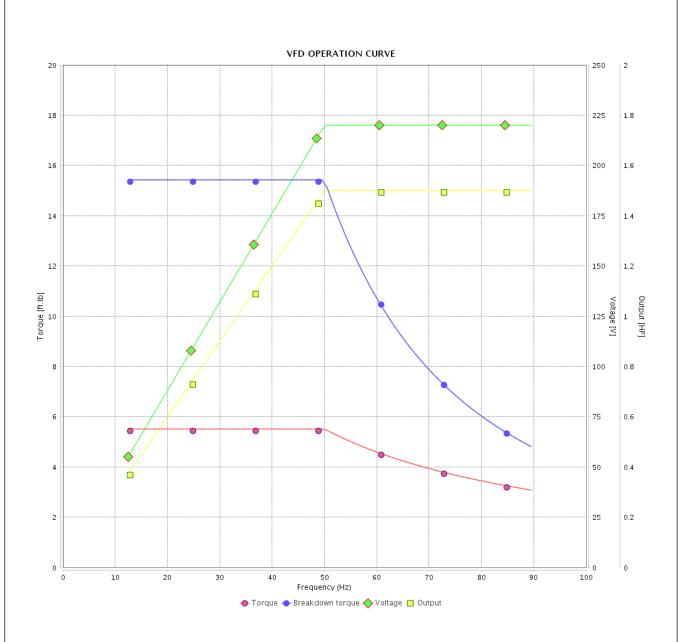
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Performance	: 220/415 V 50 Hz 4P	: 220/415 V 50 Hz 4P							
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed		Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.1101 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B					
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