DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer Product line : JP Pump NEMA Premium Product code: 14808721 Efficiency Three-Phase Catalog #: 00118ET3E143JP-SG Frame : 143/5JP 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 : 1000 m.a.s.l. Approx. weight³ : 2.2 lb Altitude : IP55 Protection degree Moment of inertia (J) : 0.1232 sq.ft.lb Design : B Output [HP] 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 3.09/1.64 3.40/1.70

L. R. Amperes [A] 25.3/12.6 22.0/11.6 22.1/11.0 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 1.15 1.15 Temperature rise 80 K 80 K 80 K Locked rotor time 34s (cold) 19s (hot) 0s (cold) 0s (hot) 0s (cold) 0s (hot) Noise level² 52.0 dB(A) 49.0 dB(A) 49.0 dB(A) 25% 81.0 82.5 81.2 50% 82.5 82.2 81.5 Efficiency (%) 75% 84.0 83.7 83.6 82.9 100% 85.5 83.5 25% 0.30 0.36 0.33 50% 0.52 0.62 0.58 Power Factor 75% 0.74 0.71 0.66

0.81

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

0.75

Bearing type : 6206 ZZ 6203 ZZ Max. traction : 93 lb Sealing : V'Ring Without Max. compression : 95 lb

Bearing Seal

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

Notes

USABLE @208V 3.25A SF 1.00 SFA 3.25A

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.

0.79

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



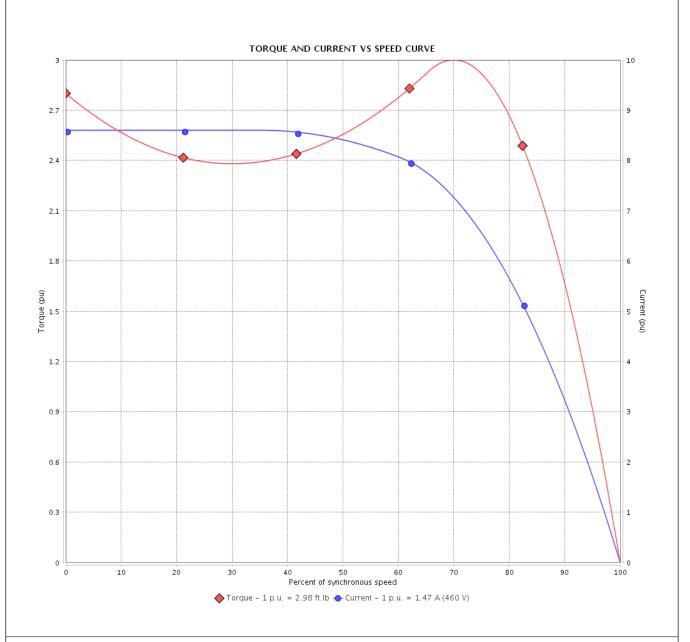
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



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 %

Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 1765 rpm Design : B

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

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Torque (pu)

1.2

0.6



TORQUE AND CURRENT VS SPEED CURVE Three Phase Induction Motor - Squirrel Cage Customer Product line : JP Pump NEMA Premium Product code: 14808721 Efficiency Three-Phase Catalog #: 00118ET3E143JP-SG TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1

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)
Rated torque	: 3.62 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B
Locked rotor time	: 0s (cold) 0s (hot)	J	

40 50 -Percent of synchronous speed ♦ Torque – 1 p.u. = 3.62 ft.lb ♦ Current – 1 p.u. = 1.70 A (380 V)

Looked rotor time		s (doid) do (not)			
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TORQUE AND CURRENT VS SPEED CURVE

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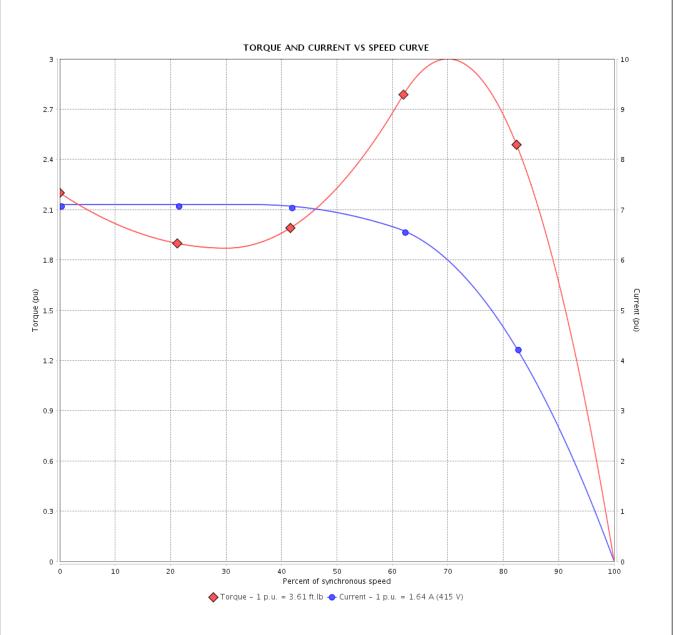
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



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 : 1.15 Locked rotor torque : 220 % Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 1455 rpm Design : B

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

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LOAD PERFORMANCE CURVE

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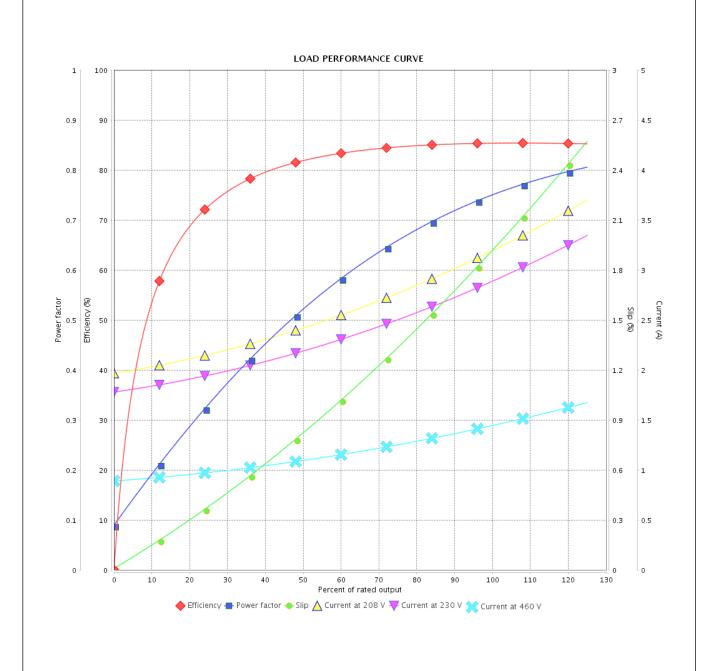
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Product line : JP Pump NEMA Premium

Efficiency Three-Phase

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Danfarmana		20/400 \/ 00 - 4D				
Performance	. 2	30/460 V 60 Hz 4P	Г			
Rated current	: 2	2.94/1.47 A	Moment of	f inertia (J)	: 0.1232 sq.ft	.lb
LRC	: 8	3.6	Duty cycle)	: Cont.(S1)	
Rated torque	: 2	2.98 ft.lb	Insulation	class	: F	
Locked rotor tord	que : 2	80 %	Service fa	ctor	:	
Breakdown torqu	ie : 3	800 %	Temperati	ıre rise	: 80 K	
Rated speed	: 1	765 rpm	Design		: B	
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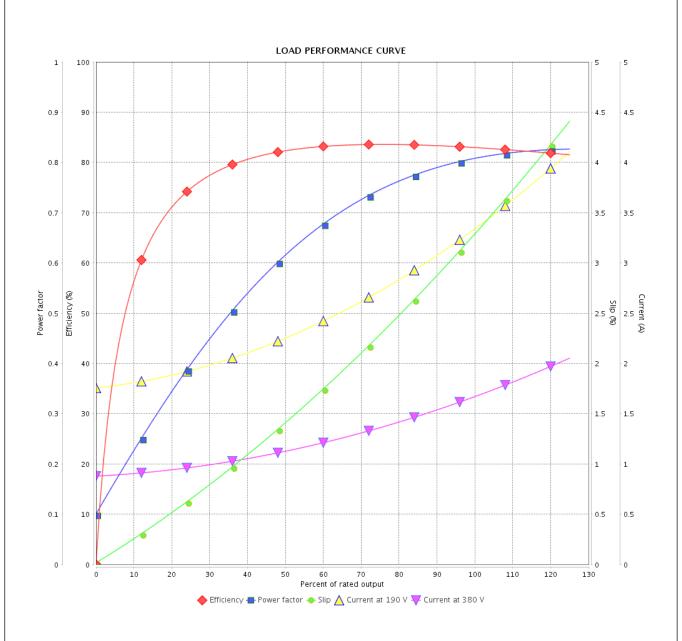
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Efficiency Three-Phase

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Catalog #: 00118ET3E143JP-SG



Performance	: 190/380 V 50 Hz 4P	: 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 : 1.15 : 80 K : B			
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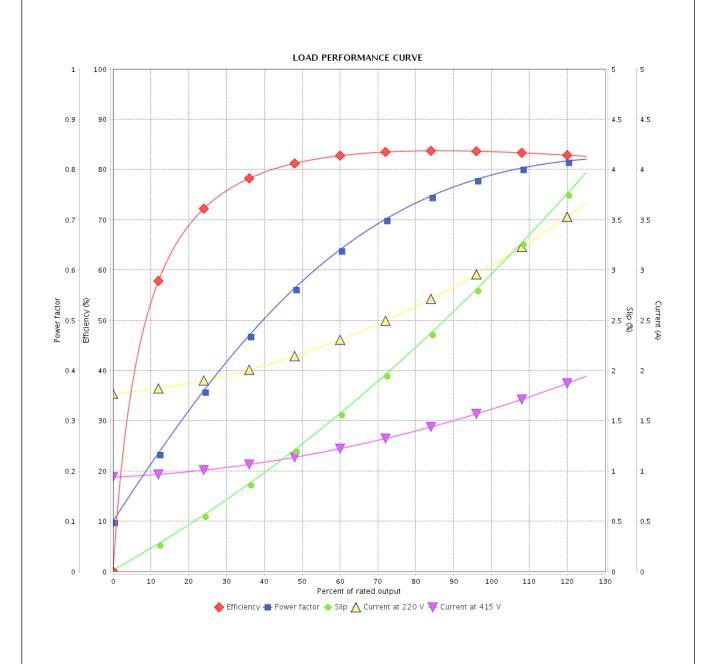
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Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



Performance	: 220/415 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 3.09/1.64 A : 7.1 : 3.61 ft.lb : 220 % : 300 % : 1455 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.1232 sq.ft. : Cont.(S1) : F : 1.15 : 80 K : B	lb
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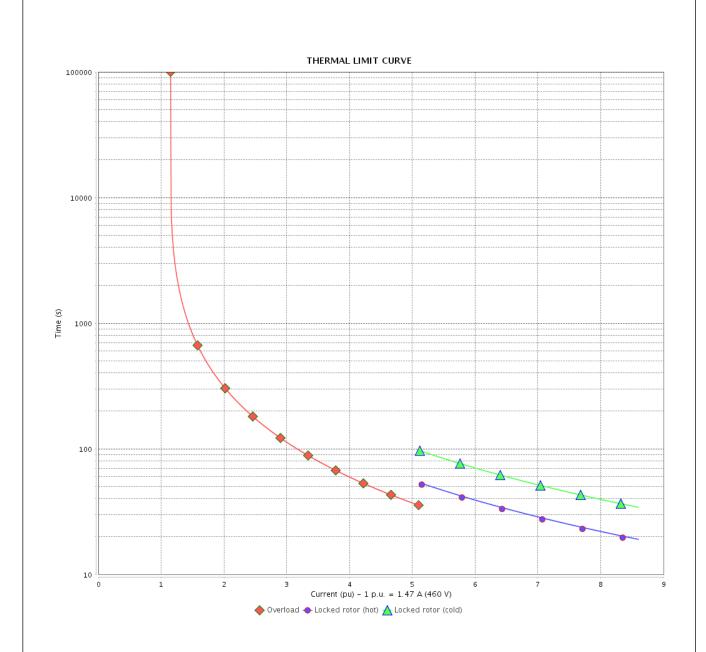


Customer	:			
Product line	: JP Pump NEMA Premium	Product co	de: 14808721	
	Efficiency Three-Phase	Catalog # :		:143 ID SC
		- 3.5.09 // .	222_70_	
Performance Rated current	: 230/460 V 60 Hz 4P : 2.94/1.47 A	Mamont of inartia (1)	. 0.1222 og f	ł Ib
LRC	: 8.6	Moment of inertia (J) Duty cycle	: Cont.(S1)	LID
Rated torque Locked rotor torque	: 2.98 ft.lb : 280 %	Insulation class Service factor	: F	
Breakdown torque	: 300 %	Temperature rise	: 80 K	
Rated speed	: 1765 rpm	Design	: B	
Heating constant				
Cooling constant				
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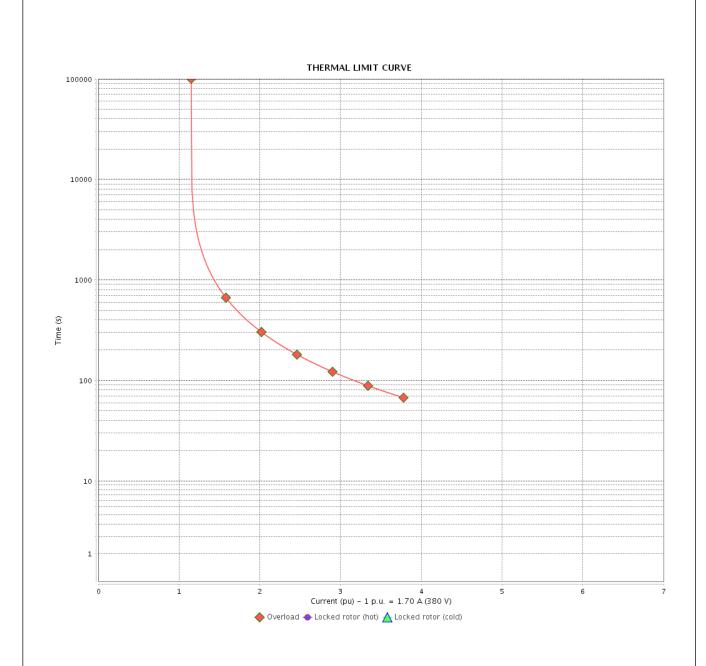


Customer	:			
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	Product code : Catalog # :	14808721 00118ET3E1	13 ID SC
			3011021021	
Performance	: 190/380 V 50 Hz 4P			
Rated current	: 3.40/1.70 A	Moment of inertia (J)	: 0.1232 sq.ft.ll	
LRC	: 6.5	Duty cycle	: Cont.(S1)	•
Rated torque Locked rotor torque	: 3.62 ft.lb : 200 %	Insulation class Service factor	: F : 1.15	
Breakdown torque	: 270 %	Temperature rise	: 80 K	
Rated speed	: 1450 rpm	Design	: B	
Heating constant				
Cooling constant	01 0		01	
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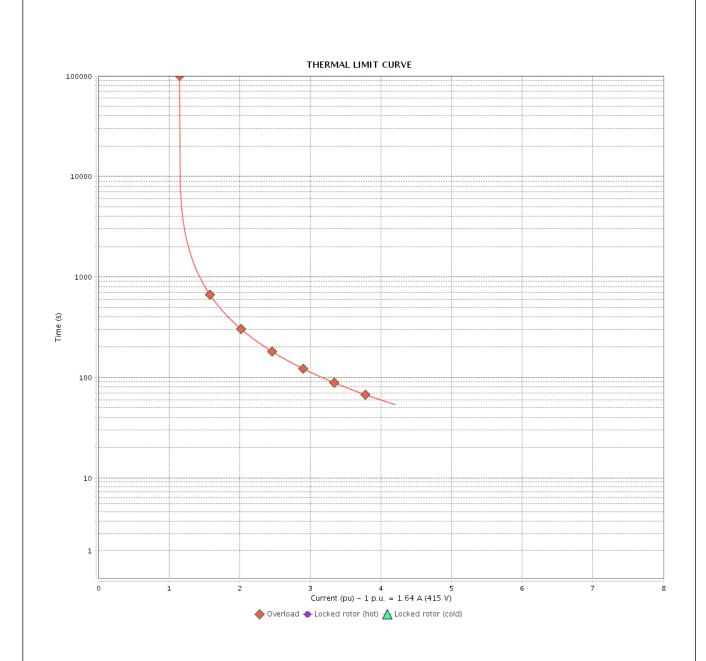


Customer	:					
Product line		JP Pump NEMA Premium Efficiency Three-Phase	I	Product code :	14808721	
	_	inciency fritee-i flase		Catalog # :	00118ET3E1	43JP-SG
Performance	. 2	20/415 V 50 Hz 4P				
Rated current		.09/1.64 A	Moment of	f inertia (J)	: 0.1232 sq.ft.l	h
LRC	: 7	. .1	Duty cycle		: Cont.(S1)	
Rated torque Locked rotor torc		.61 ft.lb 20 %	Insulation Service fa		: F : 1.15	
	IIIE /	00 %	Temperatu		: 80 K	
		00 /0			. 00 K	
Breakdown torqu	ie : 3	455 rpm	Design	1100	: B	
Breakdown torqu Rated speed Heating constant	ue : 3 : 1					
Breakdown torqu Rated speed	ie : 3 : 1	455 rpm			: B	
Breakdown torqu Rated speed Heating constant	ie : 3 : 1			Performed		Date
Breakdown torqu Rated speed Heating constant Cooling constant Rev.	ie : 3 : 1	455 rpm			: B	Date
Breakdown torqu Rated speed Heating constant Cooling constant	ie : 3 : 1	455 rpm			: B	Date Revision

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



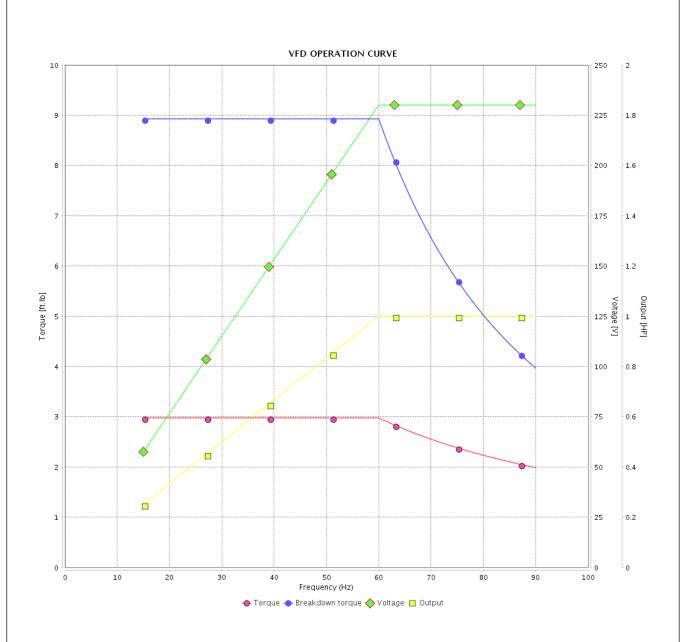
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



Performance	. 2	30/460 V 60 Hz 4P				
renomiance	. 2	30/400 V 00 HZ 4F				
Rated current	: 2	.94/1.47 A	47 A Moment of inertia (J)		: 0.1232 sq.ft.lb	
LRC	: 8	.6	Duty cycle	Duty cycle		
Rated torque	: 2	.98 ft.lb	Insulation	Insulation class		
Locked rotor torg	iue : 2	80 %	Service fa	Service factor		
Breakdown torqu		00 %	Temperati	Temperature rise		
Rated speed		765 rpm	Design			
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



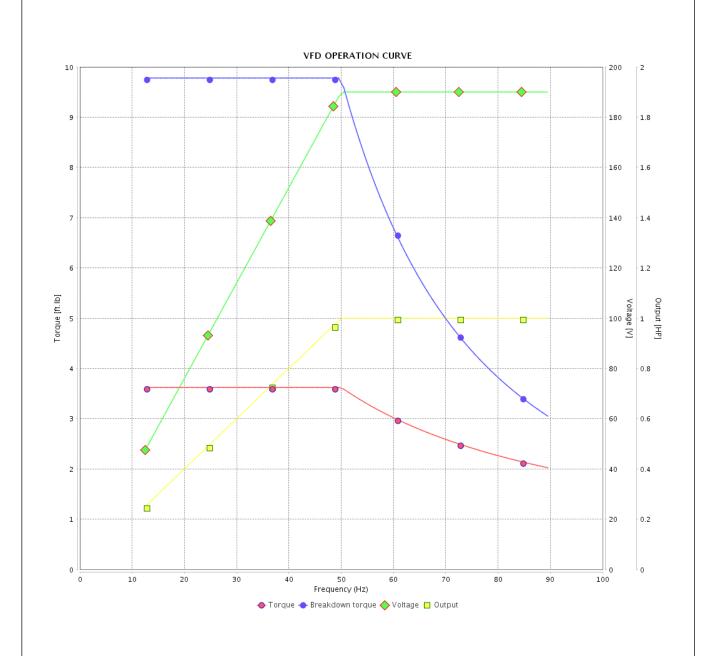
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



Performance	: 19	90/380 V 50 Hz 4P					
Rated current : 3.		.40/1.70 A	ı	Moment of inertia (J)		lb	
LRC : 6.5		.5	Duty cycle	Duty cycle			
Rated torque : 3		.62 ft.lb	Insulation	Insulation class			
Locked rotor torque : 2		00 %	Service fa	Service factor		: 1.15	
Breakdown torque		70 %	Temperati	Temperature rise			
Rated speed	: 14	Design		: B			
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VFD OPERATION CURVE

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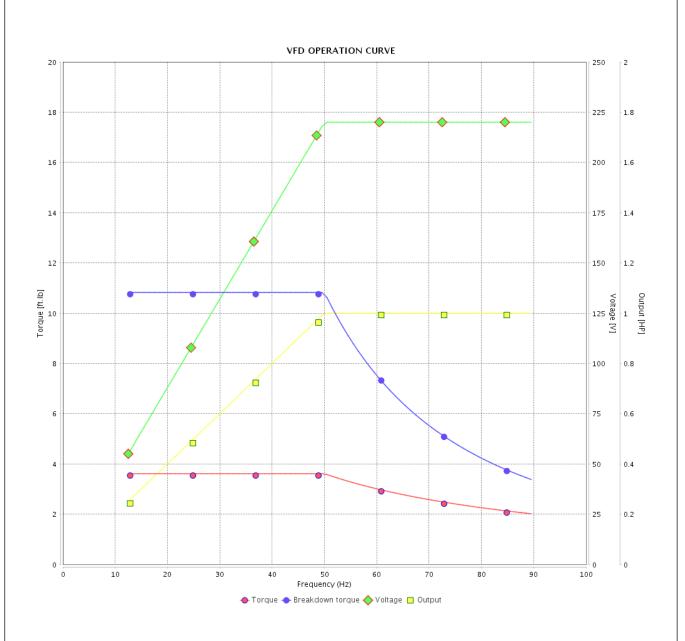
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808721

Catalog #: 00118ET3E143JP-SG



Performance					
Rated current	: 3.09/1.64 A	Moment of inertia (J)		: 0.1232 sq.ft.lb	
LRC	: 7.1	Duty cycle		: Cont.(S1)	
Rated torque	: 3.61 ft.lb	Insulation class		: F	
Locked rotor torque	: 220 %	Service factor		: 1.15	
Breakdown torque	: 300 %	Temperature rise		: 80 K	
Rated speed	: 1455 rpm	Design		: B	
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