## **DATA SHEET**

### Three Phase Induction Motor - Squirrel Cage



Customer		:				
Product line		: JM Pump NEMA Premium Efficiency Three-Phase			Product code :	14391672
					Catalog # :	00156ET3H143JM-SG
Frame Output		: 143/5JM : 1.5 HP (1.1 kW)			Locked rotor time Temperature rise	: 30s (cold) 17s (hot) : 80 K
Poles		: 2			Duty cycle	: Cont.(S1)
Frequency		: 60 Hz			Ambient temperature	: -20°C to +40°C
Rated voltage		: 575			Altitude	: 1000 m.a.s.l.
Rated current		: 1.50	) A		Protection degree	: IP55
L. R. Amperes		: 13.6	6 A		Cooling method	: IC411 - TEFC
LRC .		: 9.1>	(Code L)		Mounting	: F-1
No load current		: 0.687 A			Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed		: 3520 rpm			Noise level <sup>2</sup>	: 68.0 dB(A)
Slip		: 2.22 %			Starting method	: Direct On Line
Rated torque		: 2.24 ft.lb			Approx. weight <sup>3</sup>	: 34.2 lb
Locked rotor torc		: 229 %				
Breakdown torqu	ıe	: 300 %				
Insulation class		: F				
Service factor	- (1)	: 1.15				
Moment of inertia	a (J)	: 0.1023 sq.ft.lb		1		
Design		: B				
Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	78.4	80.0	82.5	84.0	Max. traction	: 41 lb
Power Factor	0.44	0.71	0.82	0.88	Max. compression	: 75 lb
				re end	Non drive en	<u>d</u>
Bearing type		:	6206 ZZ		6203 ZZ	
Sealing		:	V'Ring		Without Bearing Seal	
Lubrication interv		:		-	-	
Lubricant amoun	it	:		-	-	
Lubricant type		:		Mc	bil Polyrex EM	
Notos						

Notes

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



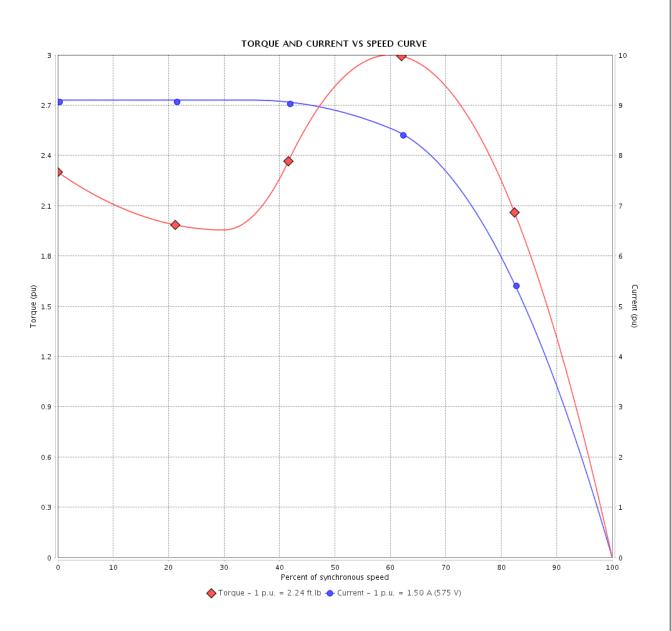
Customer :

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14391672

Catalog #: 00156ET3H143JM-SG



Performance : 575 V 60 Hz 2P Rated current : 1.50 A Moment of inertia (J) : 0.1023 sq.ft.lb **LRC** : 9.1 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 2.24 ft.lb Service factor : 1.15 Locked rotor torque : 229 % Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 3520 rpm Design : B

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

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## LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage



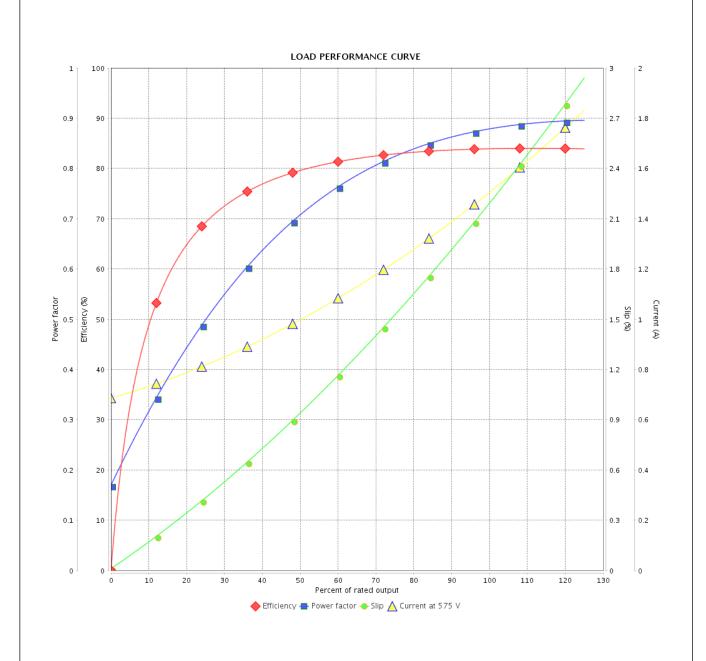
Customer

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14391672

Catalog #: 00156ET3H143JM-SG



Performance         : 575 V 60 Hz 2P           Rated current         : 1.50 A         Moment of inertia (J)         : 0.1023 sq.ft.ll           LRC         : 9.1         Duty cycle         : Cont.(S1)           Rated torque         : 2.24 ft.lb         Insulation class         : F           Locked rotor torque         : 229 %         Service factor         : 1.15	b	
LRC : 9.1 Duty cycle : Cont.(S1) Rated torque : 2.24 ft.lb Insulation class : F	b	
Rated torque : 2.24 ft.lb Insulation class : F		
Locked rotor torque : 229 % Service factor : 1.15	: F	
	: 1.15	
Breakdown torque : 300 % Temperature rise : 80 K	: 80 K	
Rated speed : 3520 rpm Design : B	: B	
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# THERMAL LIMIT CURVE

### Three Phase Induction Motor - Squirrel Cage



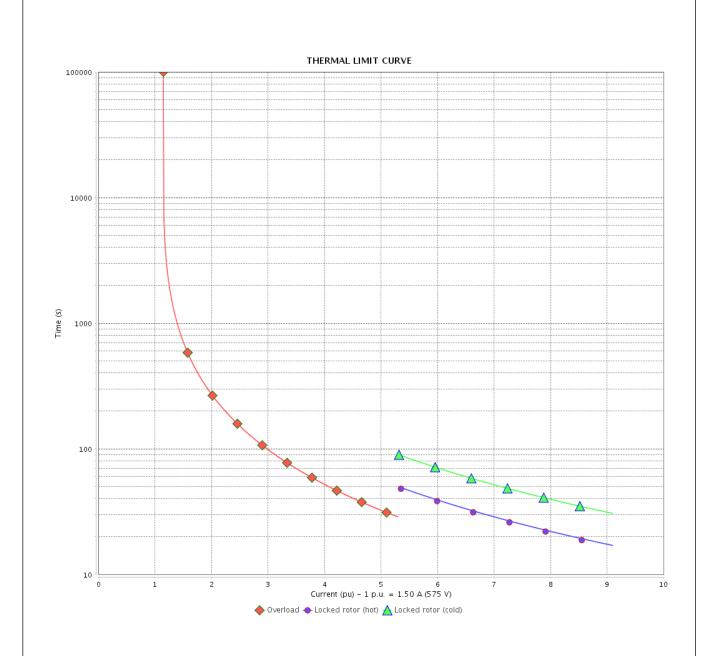
Customer	:					
Product line	:.	JM Pump NEMA Premium	I	Product code :	14391672	
		fficiency Three-Phase	(	Catalog # :	00156ET3H1	43JM-SG
Performance	: 57	75 V 60 Hz 2P				
Rated current	: 1.	.50 A	Moment of	f inertia (J)	: 0.1023 sq.ft.l	b
LRC Rated torque	: 9. · 2	.1 .24 ft.lb	Duty cycle Insulation	: class	: Cont.(S1) : F	
Locked rotor torqu	ue : 22	29 %	Service fa	ctor	: 1.15	
Breakdown torque Rated speed		00 % 520 rpm	Temperatu Design	ıre rise	: 80 K : B	
		020 Ipili	Design		. <i>U</i>	
Heating constant Cooling constant						
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer



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## VFD OPERATION CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :

Date

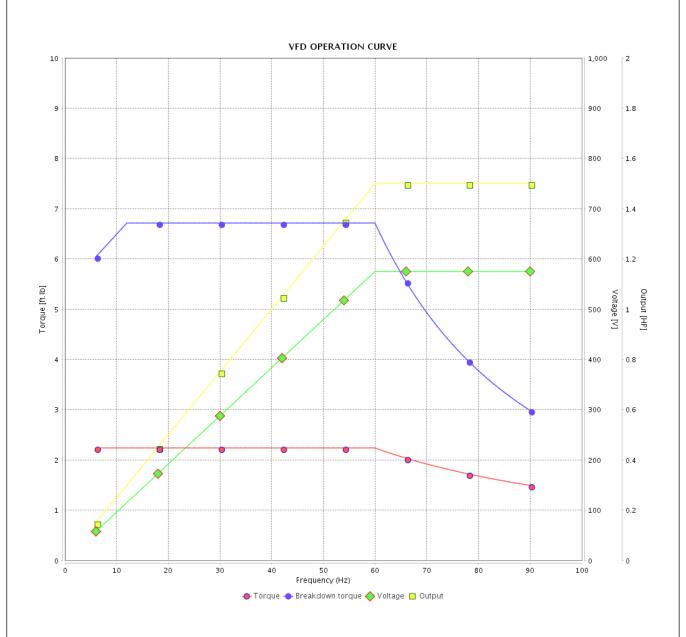
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Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14391672

Catalog #: 00156ET3H143JM-SG



Performance : 575 V 60 Hz 2P : 1.50 A Rated current Moment of inertia (J) : 0.1023 sq.ft.lb **LRC** : 9.1 Duty cycle : Cont.(S1) : 2.24 ft.lb Insulation class Rated torque : F Locked rotor torque : 229 % Service factor : 1.15 Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 3520 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Checked by Revision Page

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