DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : JM Pump NEMA Premium Product code: 14808961

Efficiency Three-Phase

Catalog #: 00236ET3E145JM-SG

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

Insulation class 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) : 0.1279 sq.ft.lb

Protection degree		: IP55	Moment of Inertia (J)	: 0.1279 sq.π.ib
Design		: B		
Output [HP]		2	2	2
Poles		2	2	2
Frequency [Hz]		60	50	50
Rated voltage [V]		230/460	190/380	220/415
Rated current [A]		4.94/2.47	5.94/2.97	5.39/2.86
L. R. Amperes [A]		48.9/24.5	44.0/22.0	44.2/23.5
LRC [A]		9.9x(Code L)	7.4x(Code J)	8.2x(Code K)
No load current [A	.]	2.13/1.06	2.10/1.05	2.14/1.13
Rated speed [RPI	Л]	3520	2875	2890
Slip [%]		2.22	4.17	3.67
Rated torque [ft.lb]]	2.98	3.65	3.63
Locked rotor torqu		250	229	260
Breakdown torque	: [%]	300	280	310
Service factor			1.15	1.15
Temperature rise		80 K	80 K	80 K
Locked rotor time		23s (cold) 13s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²		68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
	25%			
Efficiency (%)	50%	82.5	84.0	83.7
Efficiency (70)	75%	85.5	84.6	84.9
	100%	85.5	83.3	84.1
	25%			
Power Factor	50%	0.73	0.79	0.76
I OWEI FACIOI	75%	0.83	0.88	0.86
	100%	0.89	0.92	0.90

Non drive end Foundation loads Drive end

Bearing type 6206 ZZ 6203 ZZ Max. traction : 97 lb Without Sealing V'Ring Max. compression : 99 lb

Bearing Seal

Lubrication interval Lubricant amount Mobil Polyrex EM Lubricant type

Notes

USABLE @208V 5.46A SF 1.00 SFA 5.46A

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

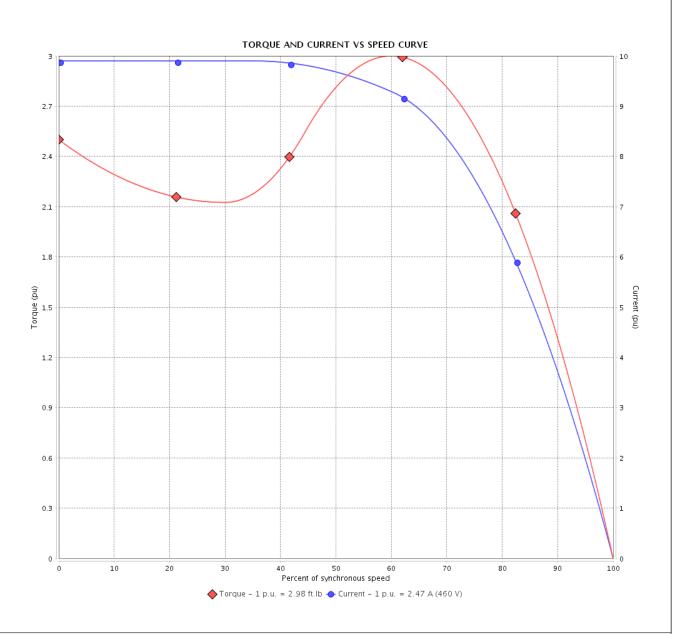


Customer :

Product line : JM Pump NEMA Premium Product code : 14808961

Efficiency Three-Phase

Catalog #: 00236ET3E145JM-SG



Performance : 230/460 V 60 Hz 2P Rated current : 4.94/2.47 A Moment of inertia (J) : 0.1279 sq.ft.lb **LRC** : 9.9 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 2.98 ft.lb Service factor Locked rotor torque : 250 % : 80 K Breakdown torque : 300 % Temperature rise Rated speed : 3520 rpm Design : B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



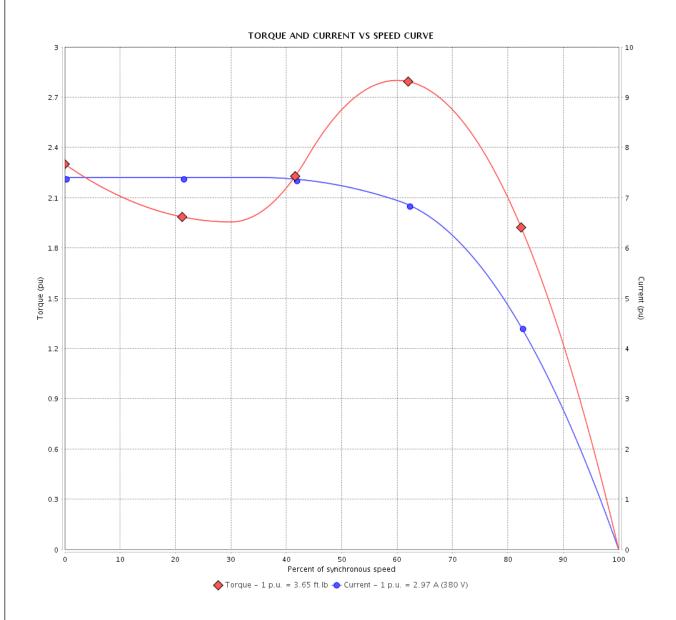
Customer :

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance : 190/380 V 50 Hz 2P Rated current : 5.94/2.97 A Moment of inertia (J) : 0.1279 sq.ft.lb LRC : 7.4 Duty cycle : Cont.(S1) : 3.65 ft.lb Insulation class : F Rated torque : 229 % Locked rotor torque Service factor : 1.15 Breakdown torque : 280 % Temperature rise : 80 K : B Rated speed : 2875 rpm Design

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

		33 (33.4) 33 (1.34)			
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



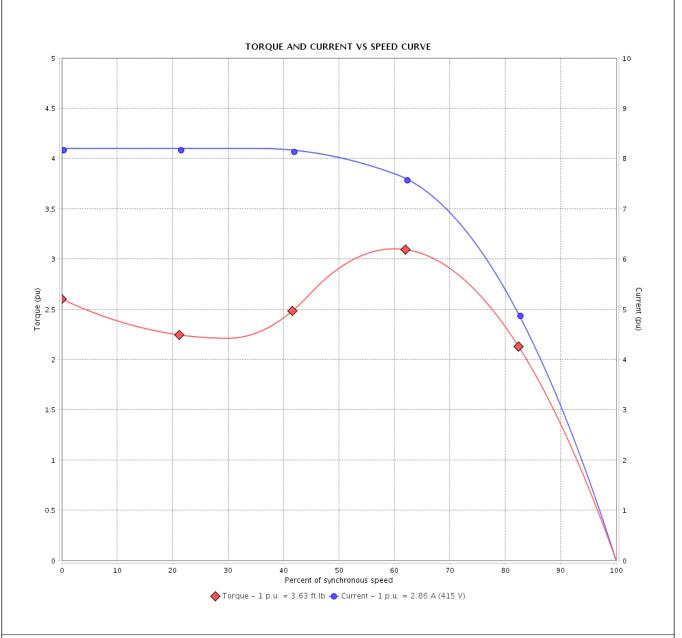
Customer :

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance : 220/415 V 50 Hz 2P Rated current : 5.39/2.86 A Moment of inertia (J) : 0.1279 sq.ft.lb **LRC** : 8.2 Duty cycle : Cont.(S1) : F : 3.63 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 260 % : 1.15 Breakdown torque : 310 % Temperature rise : 80 K Rated speed : 2890 rpm Design : B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



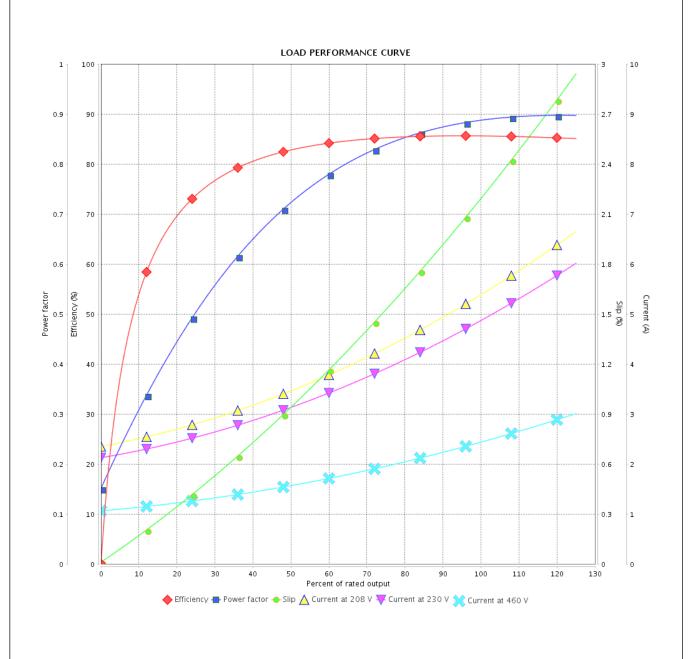
Customer

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance	:	230/460 V 60 Hz 2P				
Rated current	nt : 4.94/2.47 A		Moment o	Moment of inertia (J)		lb
LRC	:	9.9	Duty cycle	;	: Cont.(S1)	
Rated torque	:	2.98 ft.lb	Insulation	class	: F	
Locked rotor torque	e :	250 %	Service fa	ctor	:	
Breakdown torque			Temperati	Temperature rise : 80 K		
Rated speed	:	3520 rpm	Design		: B	
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LOAD PERFORMANCE CURVE

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Customer :

Checked by

Date

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Product line : JM Pump NEMA Premium

Efficiency Three-Phase

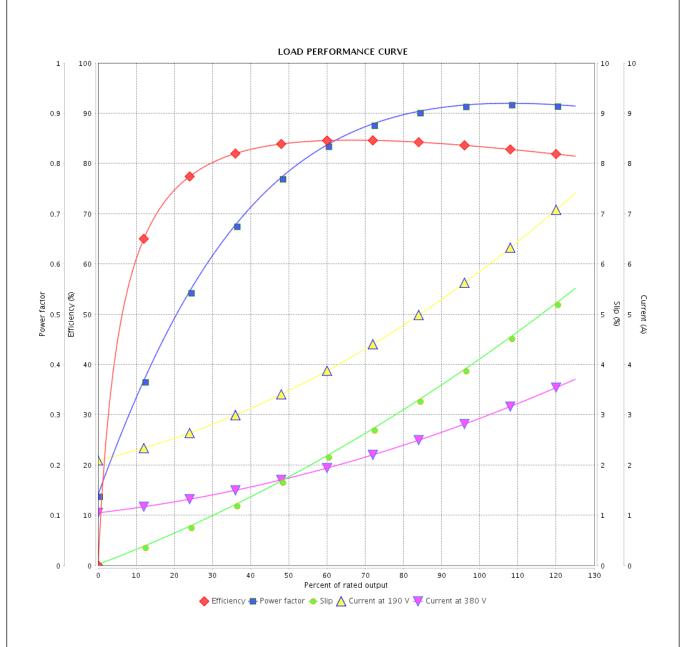
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Performance	: 190/38	0 V 50 Hz 2P				
Rated current LRC Rated torque Locked rotor torq Breakdown torqu Rated speed		lb	Moment of inertia (J) : 0.1279 sq.ft.lb Duty cycle : Cont.(S1) Insulation class : F Service factor : 1.15 Temperature rise : 80 K Design : B		lb	
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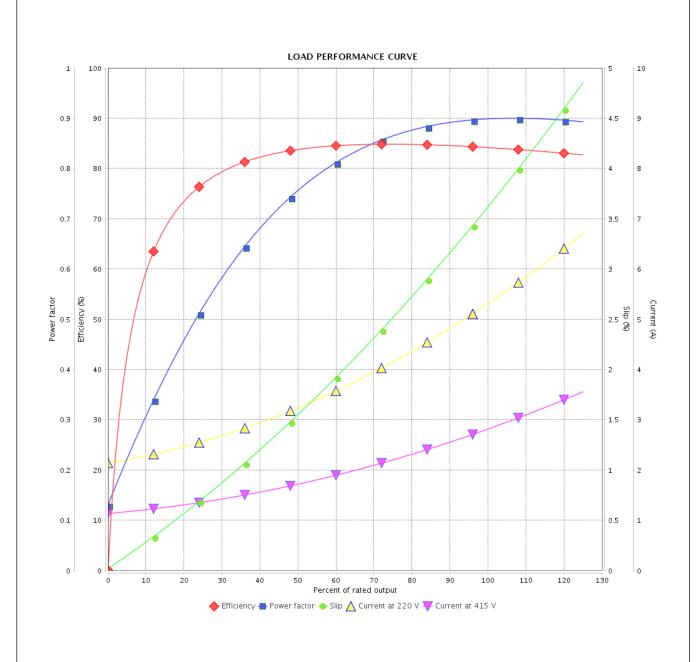
Customer

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Darfarmana	. 0	200/445 \/ 50 LI= 2D				
Performance	. 2	20/415 V 50 Hz 2P				
Rated current	: 5	.39/2.86 A	Moment o	f inertia (J)	: 0.1279 sq.ft.	lb
LRC	: 8	.2	Duty cycle	;	: Cont.(S1)	
Rated torque	: 3	.63 ft.lb	Insulation	class	: F	
Locked rotor torqu	ıe : 2	60 %	Service fa	ctor	: 1.15	
Breakdown torque	kdown torque : 310 % Temperature rise		ıre rise	: 80 K		
Rated speed	: 2	390 rpm Design		: B		
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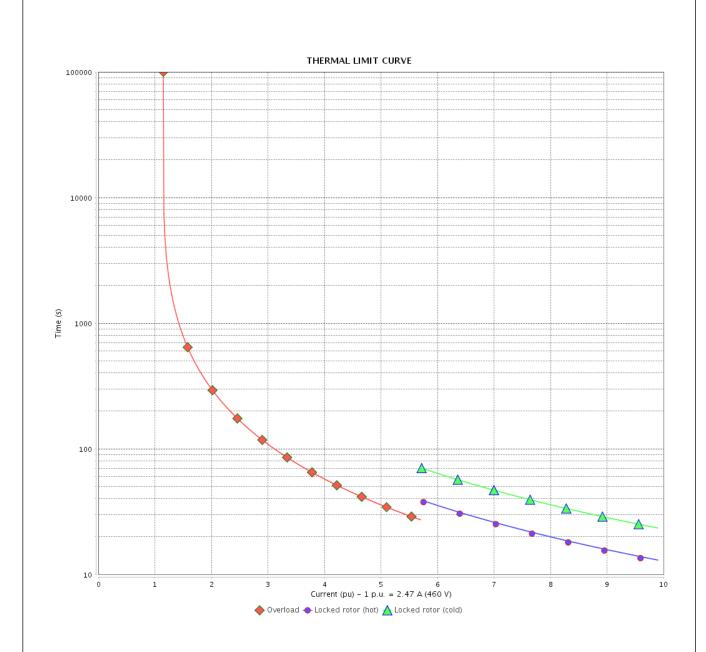


Customer		:				
Product line		: JM Pump NEMA Premium Efficiency Three-Phase		Product code :	14808961	
		Ellicities Tillee-i Hase		Catalog # :	00236ET3E1	45JM-SG
Performance	:	: 230/460 V 60 Hz 2P				
Rated current		: 4.94/2.47 A	Moment o	of inertia (J)	: 0.1279 sq.ft.l	b
LRC Rated torque		: 9.9 : 2.98 ft.lb	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor tord	que :	: 250 %	Service fa		:	
Breakdown torqu	ue :	: 300 %	Temperat	ure rise	: 80 K	
Rated speed		: 3520 rpm	Design		: B	
Heating constan						
Cooling constant	Ţ.	Changes Summary		Performed	Checked	Date
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Three Phase Induction Motor - Squirrel Cage



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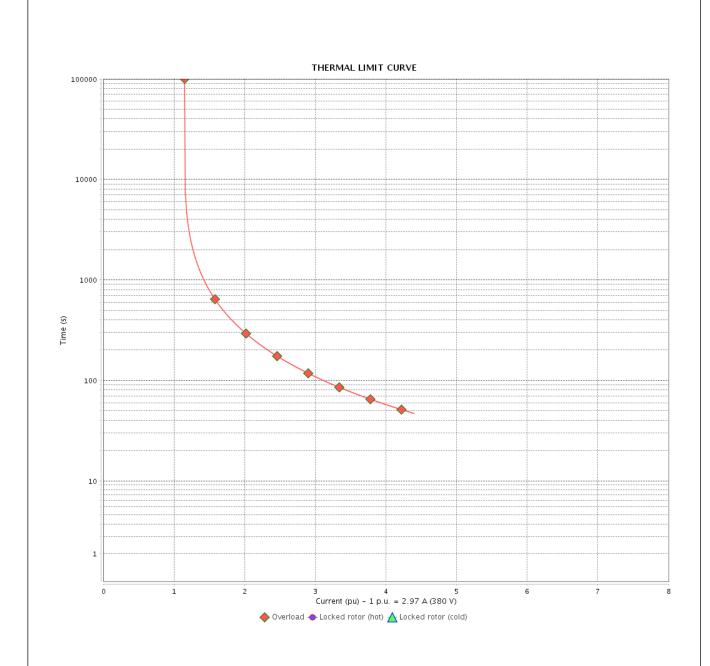


Customer	:					
Product line	:	JM Pump NEMA Premium	ı	Product code :	14808961	
	E	Efficiency Three-Phase		Catalog # :	00236ET3E1	45 IM-SG
Performance		190/380 V 50 Hz 2P				
Rated current		5.94/2.97 A	Moment of	finertia (J)	: 0.1279 sq.ft.	b
LRC Rated torque		7.4 3.65 ft.lb	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor tord		229 %	Service fa		. r : 1.15	
Breakdown torqu Rated speed	ue : 2	280 % 2875 rpm	Temperatu Design	re rise	: 80 K : B	
Heating constan						
Cooling constant	t	Changes Comme		Davis	Ohl !	Data
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Three Phase Induction Motor - Squirrel Cage



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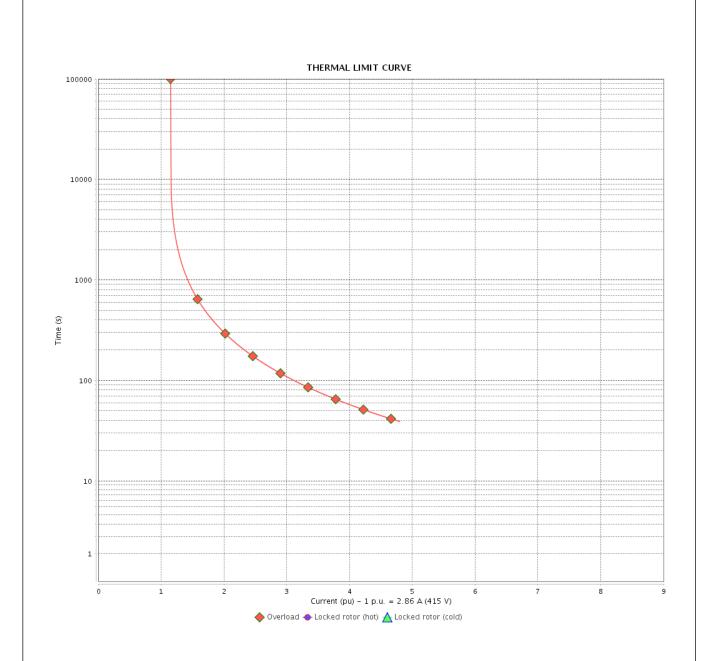


Customer	:					
Product line	•.	JM Pump NEMA Premium	ı	Product code :	14808961	
	Ei	fficiency Three-Phase				
				Catalog # :	00236ET3E1	45JM-SG
5		20//45.7/50.11.0D				
Performance Rated current		20/415 V 50 Hz 2P 39/2.86 A	Moment of	f inertia (J)	: 0.1279 sq.ft.l	h
LRC	: 8.	2	Duty cycle		: Cont.(S1)	
Rated torque Locked rotor torc		63 ft.lb 60 %	Insulation Service fac	class	: F : 1.15	
Breakdown torqu	ie : 3′	10 %	Temperatu		: 80 K	
Rated speed		390 rpm	Design		: B	
Heating constant						
Cooling constant			Т			
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



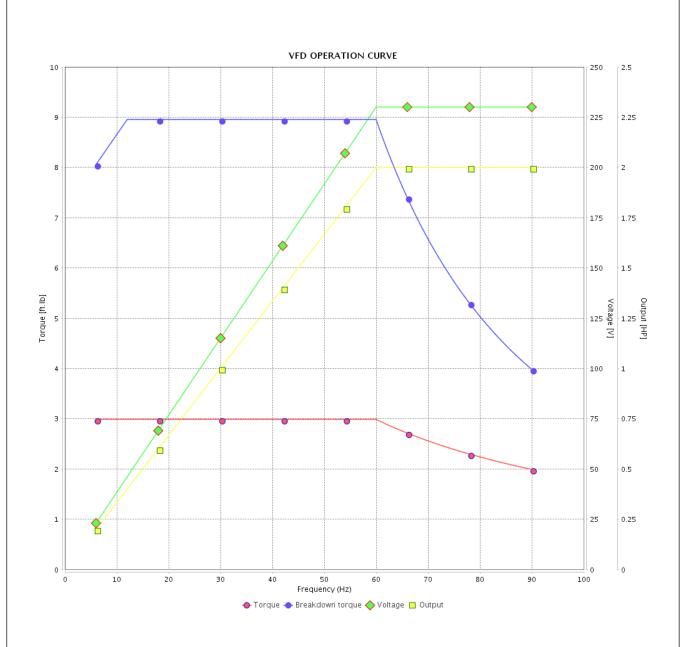
Customer

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance	: 2	30/460 V 60 Hz 2P					
Rated current		.94/2.47 A	Moment of inertia (J)		: 0.1279 sq.ft.lb		
LRC : 9		.9	Duty cycle	Duty cycle		: Cont.(S1)	
Rated torque		.98 ft.lb	Insulation class		:F `´		
Locked rotor tord	que : 2	50 %	Service fa	Service factor			
Breakdown torqu	ue : 3	00 %	Temperat	Temperature rise		: 80 K	
Rated speed	: 3	520 rpm	Design	Design			
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



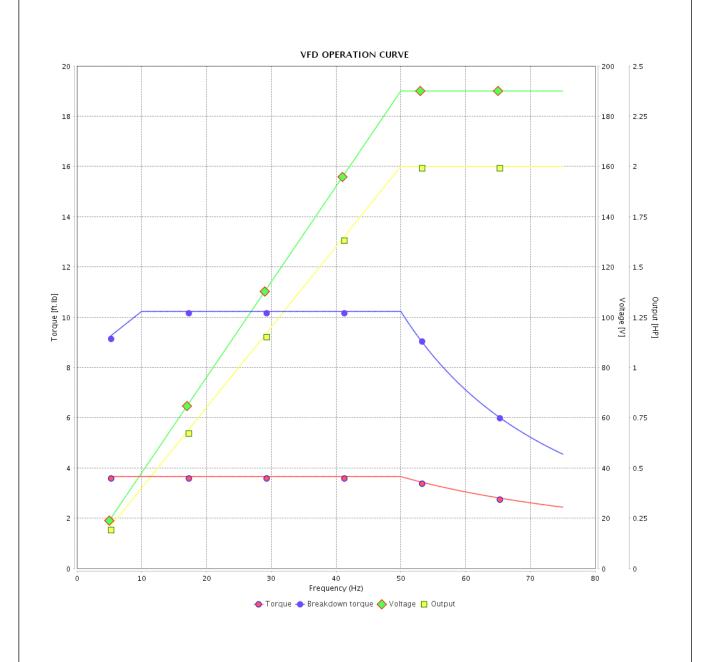
Customer

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance	: 19	90/380 V 50 Hz 2P					
Rated current		94/2.97 A Moment of inertia (J)		: 0.1279 sq.ft.lb			
LRC :		4	Duty cycle	Duty cycle			
Rated torque		65 ft.lb	Insulation	Insulation class		: F	
Locked rotor torqu	ue : 22	29 %	Service fa	Service factor		: 1.15	
Breakdown torque	e : 28	30 %	Temperati	Temperature rise			
Rated speed	: 28	875 rpm Design		: B			
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VFD OPERATION CURVE

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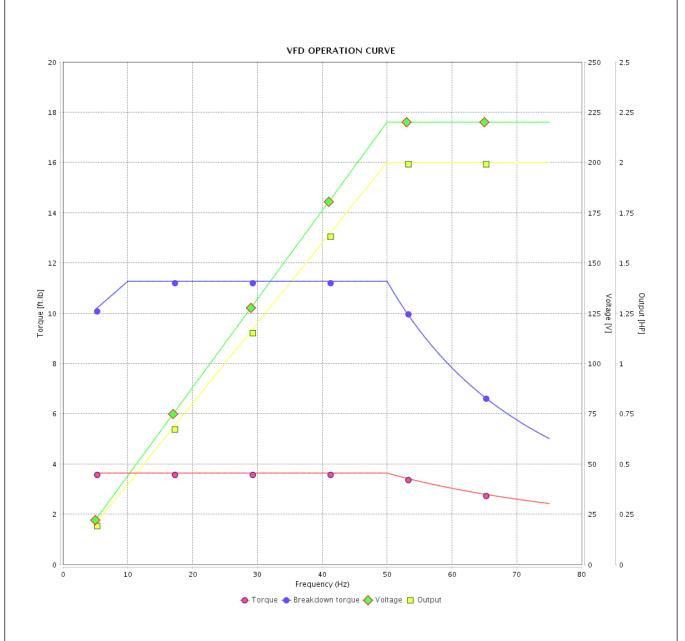
Customer :

Product line : JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14808961

Catalog #: 00236ET3E145JM-SG



Performance	: 220/415 V 50 Hz 2P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 5.39/2.86 A : 8.2 : 3.63 ft.lb : 260 % : 310 % : 2890 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design	: 0.1279 sq.ft : Cont.(S1) : F : 1.15 : 80 K : B	: F : 1.15 : 80 K	
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