DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40

Frame : 254JM Cooling method : IC01 - ODP

Insulation class Mounting : F-1

Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW) : -20°C to +40°C Starting method Ambient temperature : Direct On Line

: 1000 m.a.s.l. Approx. weight³ Altitude : 213 lb

: IP23 Protection degree Moment of inertia (J) : 0.8718 sq.ft.lb

Design : B

Output [HP]		20	15	15	15
Poles		2	2	2	2
Frequency [Hz]		60	50	50	50
Rated voltage [V]		230/460	380	400	415
Rated current [A]		48.6/24.3	21.6	21.2	21.5
L. R. Amperes [A]		306/153	147	142	148
LRC [A]		6.3x(Code G)	6.8x(Code H)	6.7x(Code H)	6.9x(Code J)
No load current [A]	16.8/8.40	8.00	9.30	10.3
Rated speed [RPN	/ []	3535	2945	2950	2955
Slip [%]		1.81	1.83	1.67	1.50
Rated torque [ft.lb]		29.7	26.7	26.7	26.7
Locked rotor torque [%]		200	200	220	229
Breakdown torque	[%]	280	290	320	350
Service factor		1.25	1.00	1.00	1.00
Temperature rise		80 K	80 K	80 K	80 K
Locked rotor time		21s (cold) 12s (hot)	18s (cold) 10s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)
Noise level ²					
	25%	90.0	85.6	85.8	85.9
Efficiency (%)	50%	90.2	88.0	88.1	88.2
Efficiency (70)	75%	91.0	88.5	88.6	88.7
	100%	91.0	91.2	91.2	91.2
Power Factor	25%	0.48	0.46	0.39	0.35
	50%	0.72	0.69	0.62	0.57
	75%	0.82	0.80	0.75	0.70
	100%	0.85	0.85	0.82	0.78

Non drive end Foundation loads **Drive end** Bearing type 6309 Z C3 6209 Z C3 Max. traction

Sealing Without Without Max. compression Bearing Seal Bearing Seal

20000 h 20000 h Lubrication interval 9 g Lubricant amount Mobil Polyrex EM Lubricant type

Notes

USABLE @208V 53.7A SF 1.15 SFA 61.8A

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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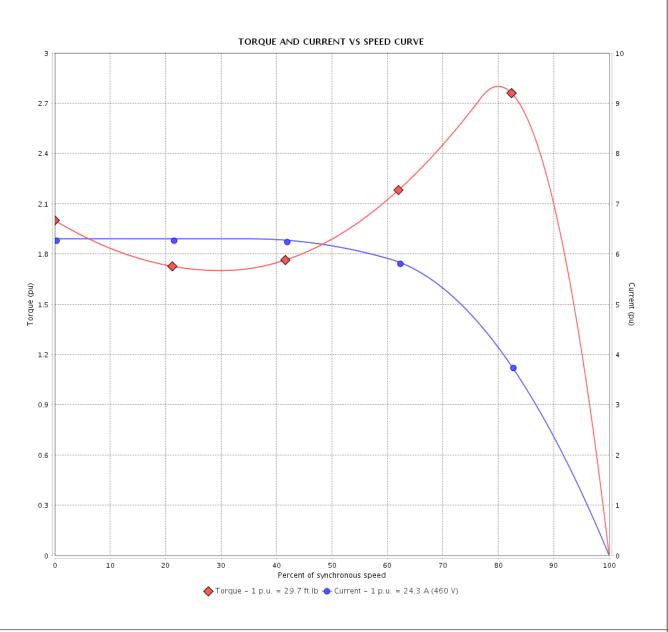
Customer :

Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40



Performance : 230/460 V 60 Hz 2P Rated current : 48.6/24.3 A Moment of inertia (J) : 0.8718 sq.ft.lb **LRC** : 6.3 Duty cycle : Cont.(S1) : 29.7 ft.lb Insulation class Rated torque : F Service factor Locked rotor torque : 200 % : 1.25 Breakdown torque : 280 % Temperature rise : 80 K Rated speed : 3535 rpm Design : B

Locked rotor time : 21s (cold) 12s (hot)

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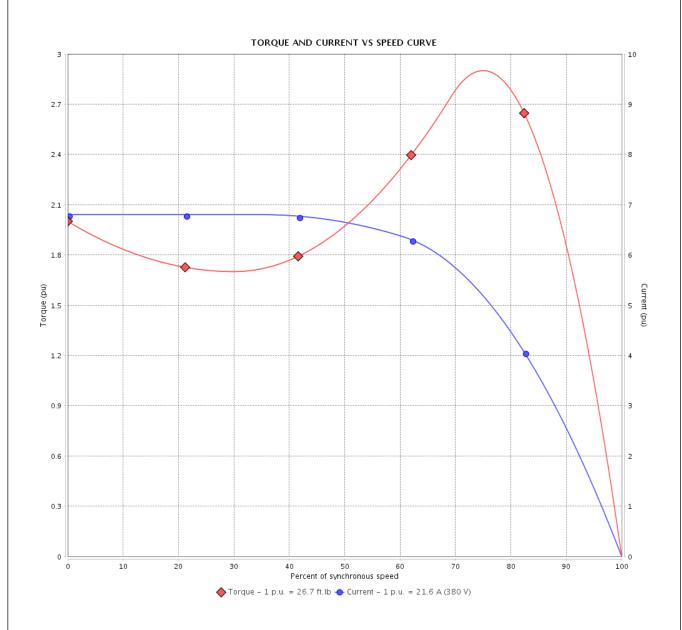
Customer

Product line : W40 JM Pump NEMA Premium Product code:

Efficiency Three-Phase

14483518

Catalog #: 02036OT3E254JM-W40



Performance	: 380 V 50 Hz 2P IE3		
Rated current	: 21.6 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 26.7 ft.lb	Insulation class	:F ` ´
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B
Locked rotor time	: 18s (cold) 10s (hot)		

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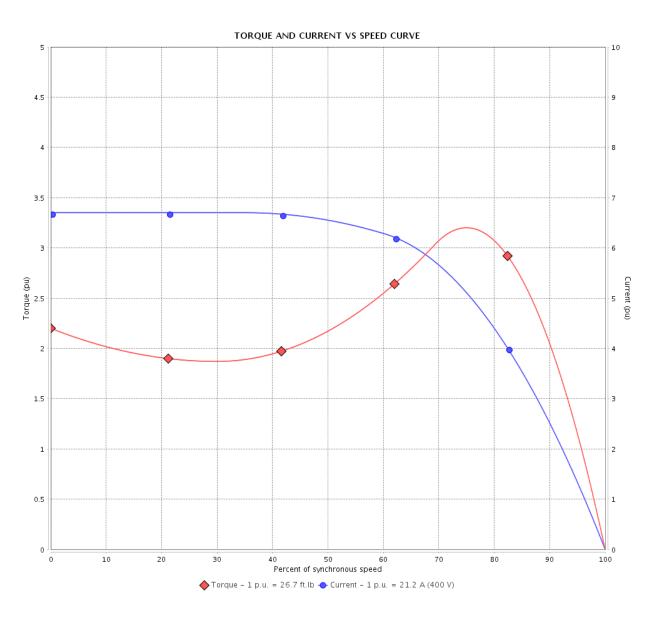
Customer :

Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40



Performance : 400 V 50 Hz 2P IE3 Rated current : 21.2 A Moment of inertia (J) : 0.8718 sq.ft.lb **LRC** : 6.7 Duty cycle : Cont.(S1) : F : 26.7 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 220 % : 1.00 Breakdown torque : 320 % Temperature rise : 80 K Rated speed : B : 2950 rpm Design

Locked rotor time : 19s (cold) 11s (hot)

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Three Phase Induction Motor - Squirrel Cage Customer Product line : W40 JM Pump NEMA Premium Product code: 14483518 Efficiency Three-Phase Catalog #: 02036OT3E254JM-W40 TORQUE AND CURRENT VS SPEED CURVE 4.5 3.5 Current Torque (pu) 0.5 Percent of synchronous speed ◆ Torque - 1 p.u. = 26.7 ft.lb ◆ Current - 1 p.u. = 21.5 A (415 V) Performance : 415 V 50 Hz 2P IE3 Rated current : 21.5 A Moment of inertia (J) : 0.8718 sq.ft.lb **LRC** : 6.9 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 26.7 ft.lb Locked rotor torque : 229 % Service factor : 1.00 Breakdown torque : 350 % Temperature rise : 80 K Rated speed : 2955 rpm Design : B Locked rotor time : 19s (cold) 11s (hot) Date Performed Checked Rev. **Changes Summary**

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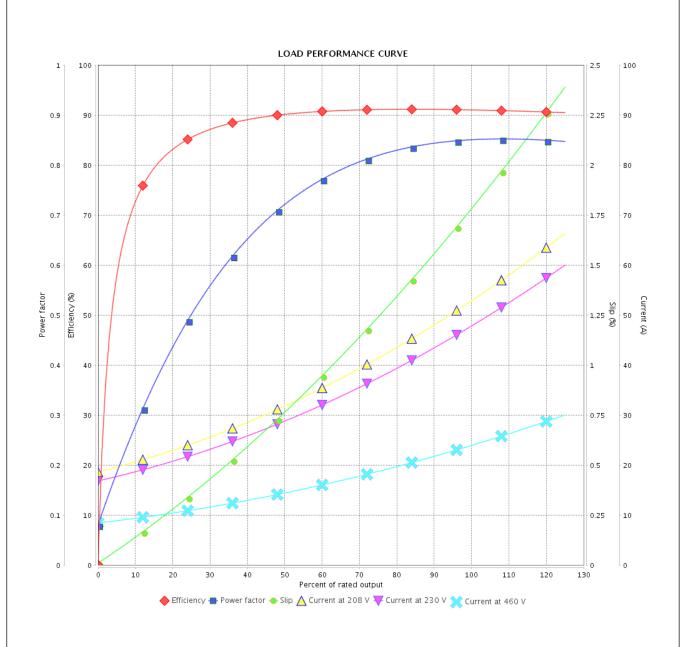
Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40

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Performance : 230/460 V 60 Hz 2P Rated current : 48.6/24.3 A Moment of inertia (J) : 0.8718 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.3 Insulation class Rated torque : 29.7 ft.lb : F Locked rotor torque : 200 % Service factor : 1.25 Breakdown torque : 280 % Temperature rise : 80 K Rated speed : 3535 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Checked by Revision Page

Three Phase Induction Motor - Squirrel Cage



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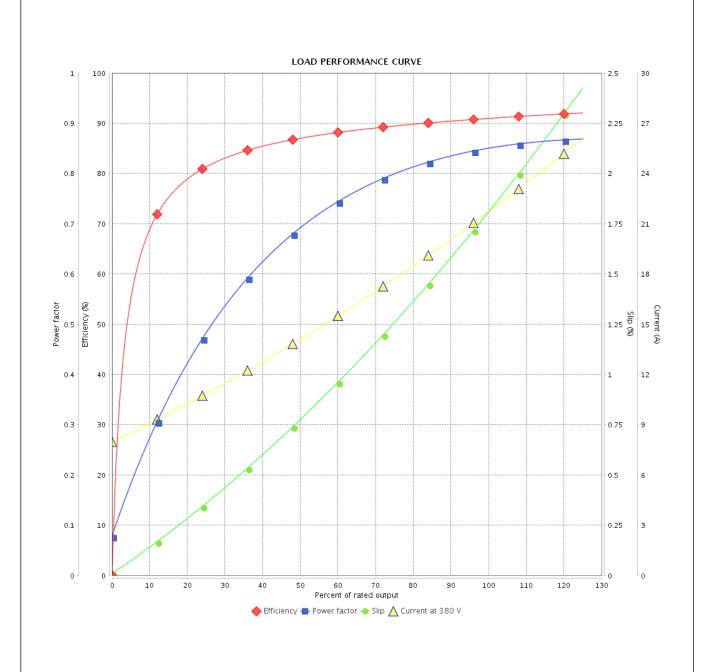
Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40

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Performance	: 380 V 50 Hz 2P IE3	380 V 50 Hz 2P IE3			
Rated current	: 21.6 A	Moment o	f inertia (J)	: 0.8718 sq.ft.lb	
LRC	: 6.8	Duty cycle)	: Cont.(S1)	
Rated torque	: 26.7 ft.lb	Insulation	class	: F ` ´	
Locked rotor torque	: 200 %	Service factor Temperature rise		: 1.00	
Breakdown torque	: 290 %			: 80 K	
Rated speed	: 2945 rpm	Design		: B	
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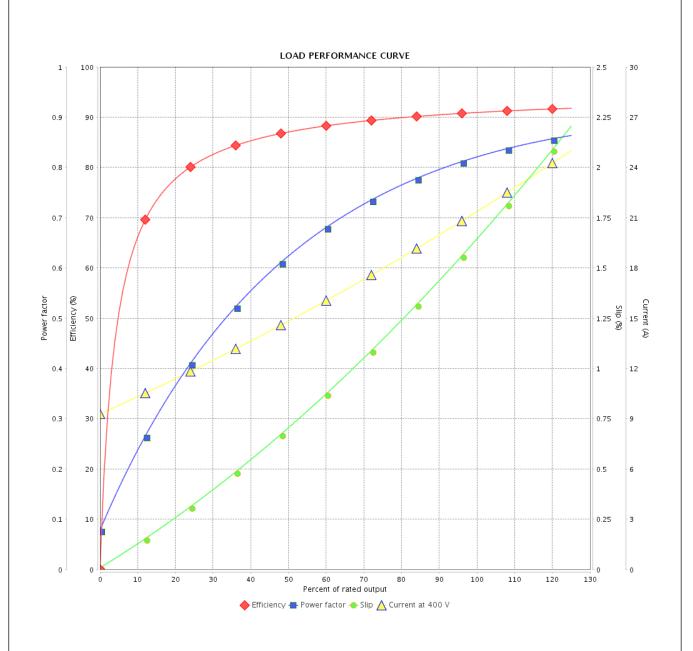
Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

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Performance	: 400 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 21.2 A : 6.7 : 26.7 ft.lb : 220 % : 320 % : 2950 rpm	Moment of Duty cycle Insulation of Service fact Temperature Design	class ctor	: 0.8718 sq.ft. : Cont.(S1) : F : 1.00 : 80 K : B	lb
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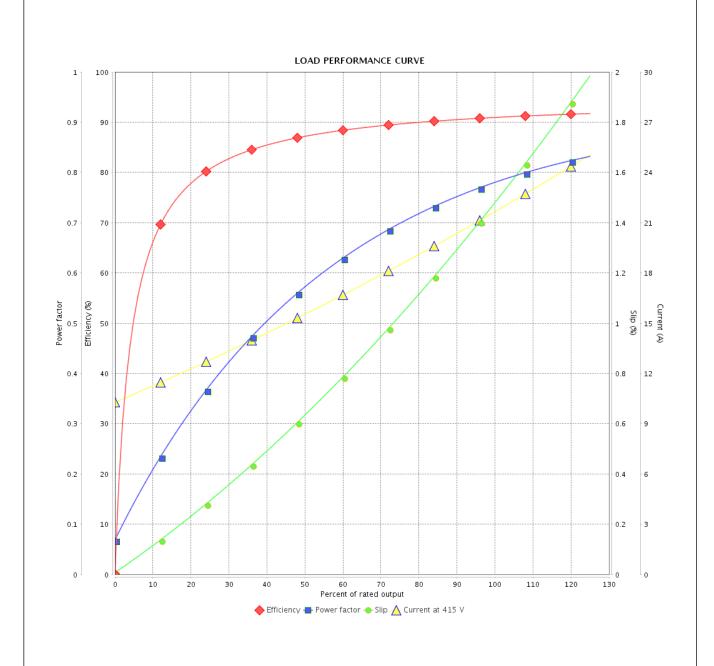
Customer

Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40



Performance	: 4	15 V 50 Hz 2P IE3				
Rated current	: 2	1.5 A	.5 A Moment of iner		: 0.8718 sq.ft.lb	
LRC	: 6	.9	Duty cycle)	: Cont.(S1)	
Rated torque	: 2	6.7 ft.lb	Insulation	class	: F	
Locked rotor torqu	ue : 2	29 %	Service fa	ctor	: 1.00	
Breakdown torque	eakdown torque : 350 % Temperature rise		ıre rise	: 80 K		
Rated speed	: 2	955 rpm	Design		: B	
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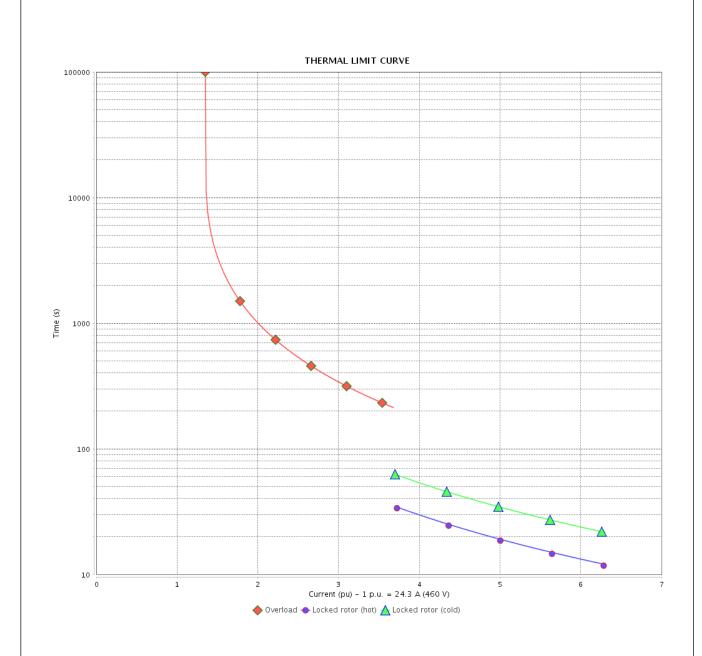


Customer		:				
Product line		: W40 JM Pump NEMA Pren	nium	Product code :	14483518	
Troddot iine		Efficiency Three-Phase				
				Catalog # :	02036OT3E2	254JM-W40
Performance	:	230/460 V 60 Hz 2P				
Rated current	:	48.6/24.3 A	Moment o	of inertia (J)	: 0.8718 sq.ft.l	b
LRC		6.3 29.7 ft.lb	Duty cycle	9	: Cont.(S1) : F	
Rated torque Locked rotor torq		29.7 π.ib 200 %	Insulation Service fa		: ⊢ : 1.25	
Breakdown torqu	ie :	280 %	Temperati		: 80 K	
Rated speed		3535 rpm	Design		: B	
Heating constant						
Cooling constant						
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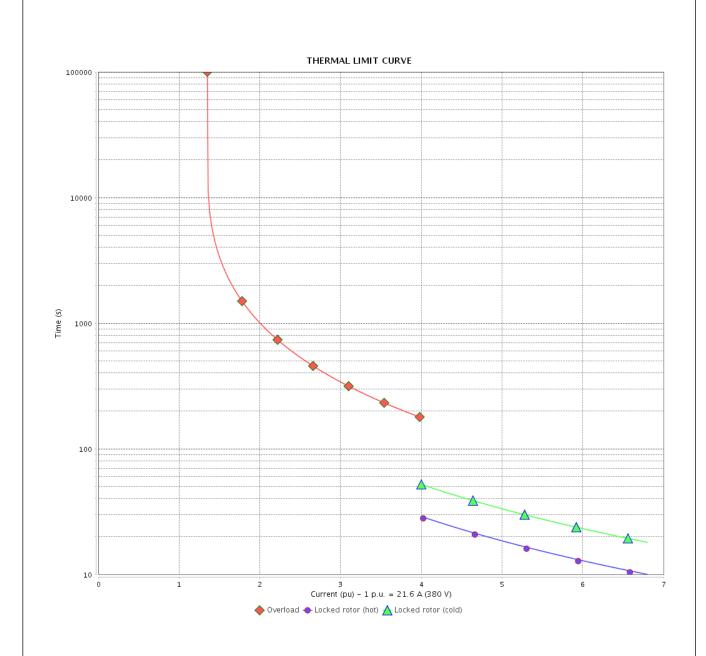


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Product line		: W40 JM Pump NEMA Premium		Product code :	14483518	
	E	fficiency Three-Phase	(Catalog # :	02036OT3E2	254JM-W40
Performance		30 V 50 Hz 2P IE3		· · · · · · ·	0.0740 %1	
Rated current LRC	: 6.		Duty cycle	f inertia (J)	: 0.8718 sq.ft.l : Cont.(S1)	ט
Rated torque Locked rotor torqu		6.7 ft.lb 00 %	Insulation Service fa	class	: F : 1.00	
Breakdown torque	e : 29	90 %	Temperatu		: 80 K	
Rated speed	: 29	945 rpm	Design		: B	
Heating constant						
Cooling constant Rev.		Changes Summary		Performed	Checked	Date
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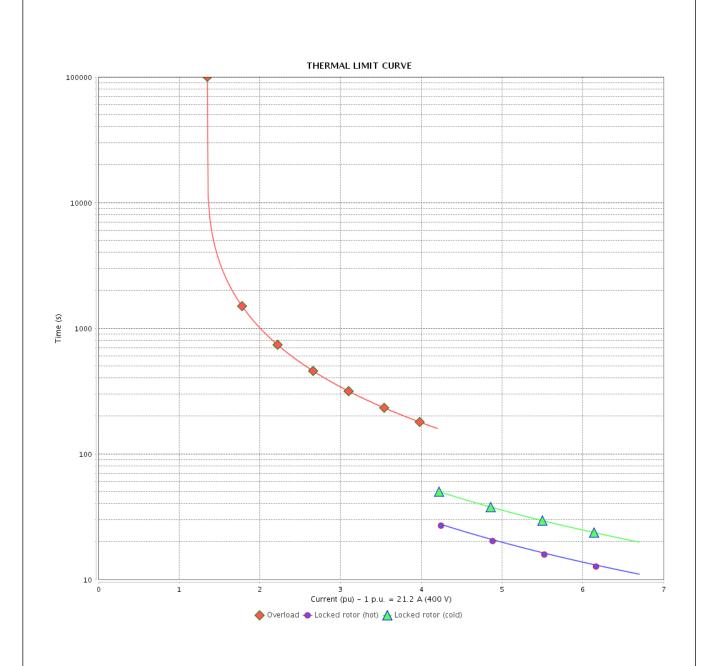


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Customer	:					
Product line		W40 JM Pump NEMA Prem fficiency Three-Phase		Product code :	14483518	
			(Catalog # :	02036OT3E2	54JM-W40
Performance	· 10	00 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 2° : 6. : 20 : 20 : 22 : 32	1.2 A	Moment of Duty cycle Insulation Service far Temperatu Design	class ctor	: 0.8718 sq.ft.lk : Cont.(S1) : F : 1.00 : 80 K : B)
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Heating constant Cooling constant						
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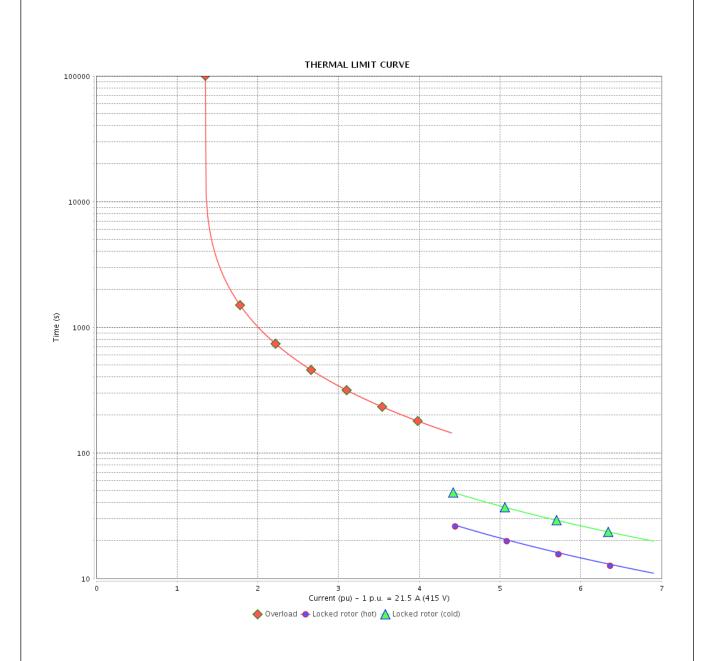


Customer	:					
Product line	: \ E	W40 JM Pump NEMA Prem fficiency Three-Phase		Product code :	14483518 02036OT3E2	254JM-W40
Performance Rated current LRC Rated torque Locked rotor torq Breakdown torqu Rated speed	: 2 ² : 6. : 20 ue : 2 ² e : 3 ⁸	15 V 50 Hz 2P IE3 1.5 A 9 6.7 ft.lb 29 % 50 % 955 rpm	Moment of Duty cycle Insulation Service fac Temperatu Design	class	: 0.8718 sq.ft.l : Cont.(S1) : F : 1.00 : 80 K : B	b
Heating constant Cooling constant Rev.		Changes Summary		Performed	Checked	Date
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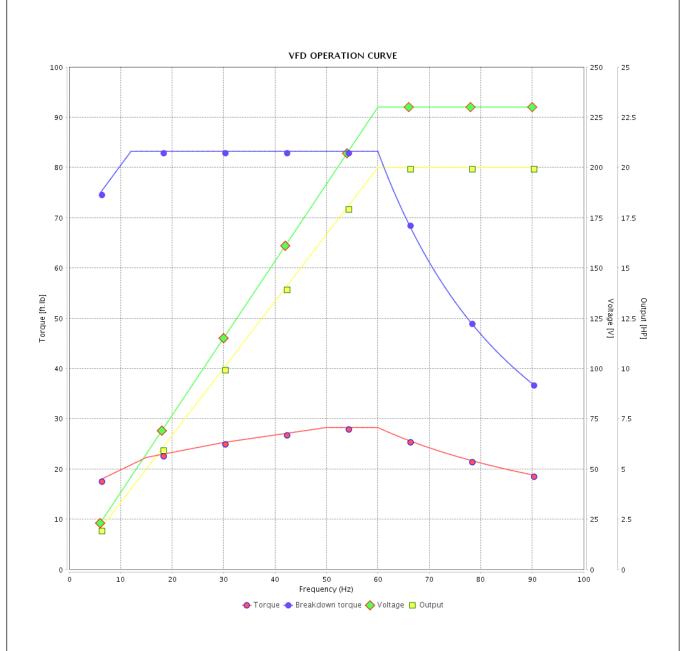
Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40

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Performance	: 230/460 V 60 Hz 2P			
Rated current	: 48.6/24.3 A	Moment of inertia (J)	: 0.8718	sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S	1)
Rated torque	: 29.7 ft.lb	Insulation class	: F	•
Locked rotor torque	: 200 %	Service factor	: 1.25	
Breakdown torque	: 280 %	Temperature rise	: 80 K	
Rated speed	: 3535 rpm	Design	: B	
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Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

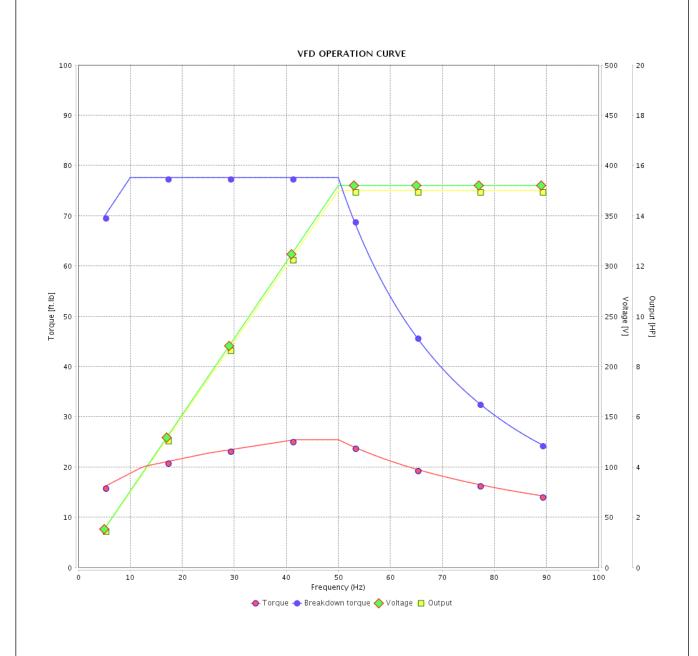
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erformance : 380 V 50 Hz 2P IE3					
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 21.6 A : 6.8 : 26.7 ft.lb : 200 % : 290 % : 2945 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.8718 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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Three Phase Induction Motor - Squirrel Cage



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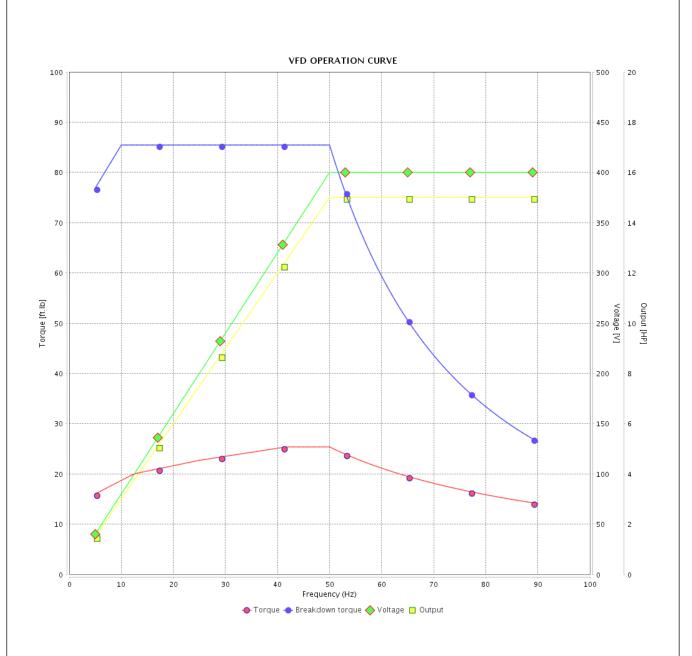
Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40

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Performance	: 400 V 50 Hz 2P IE3			
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 21.2 A Moment of inertia (J) : 6.7 Duty cycle : 26.7 ft.lb Insulation class : 220 % Service factor : 320 % Temperature rise : 2950 rpm Design		: 0.8718 sq.ft.lb : Cont.(S1) : F : 1.00 : 80 K : B	
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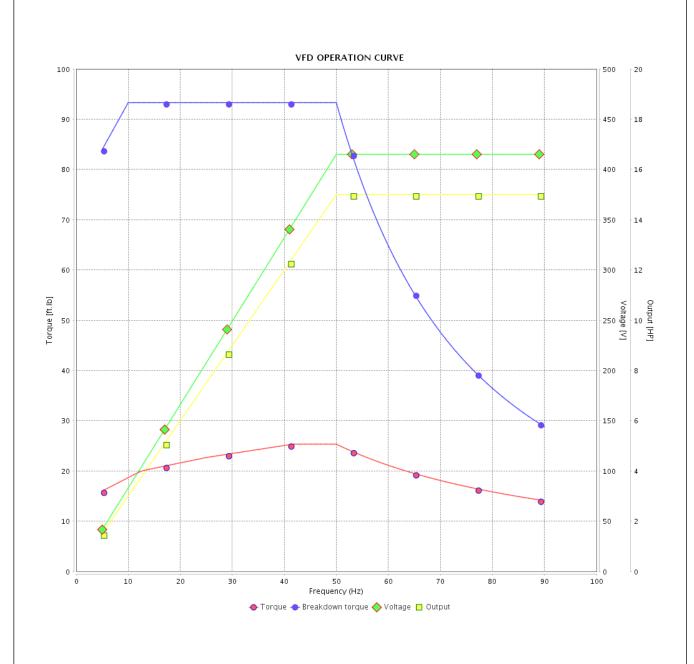
Customer

Product line : W40 JM Pump NEMA Premium

Efficiency Three-Phase

Product code: 14483518

Catalog #: 02036OT3E254JM-W40



Performance : 415 \		15 V 50 Hz 2P IE3				
		1.5 A	Moment o	Moment of inertia (J)		.lb
LRC	: 6.	: 6.9 Duty cycle		: Cont.(S1)		
Rated torque	: 20	6.7 ft.lb	Insulation	class	: F	
Locked rotor torq	ue : 22	29 %	Service factor		: 1.00	
Breakdown torque :		50 %	Temperati	Temperature rise		
Rated speed		955 rpm	Design	Design		
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