DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JP Pump NEMA Premium Product code : 14327838

Efficiency Three-Phase

Catalog #: 02036OT3E254JP-SG

Frame : 254/6JP Cooling method : IC01 - ODP

Insulation class : F Mounting : F-1
Duty cycle : Cont.(S1) Rotation¹ : Both (CV

Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW)

Ambient temperature : -20°C to +40°C Starting method : Direct On Line

Altitude : 1000 m.a.s.l. Approx. weight³ : 151 lb

Design : B Moment of inertia (J) : 0.7848 sq.ft.lt

Design		: B	Moment of inertia (J)	: 0.7848 sq.ft.lb	
Output [HP]		20	20	20	
Poles		2	2	2	
Frequency [Hz]		60	50	50	
Rated voltage [V]		230/460	190/380	220/415	
Rated current [A]		47.6/23.8	58.0/29.0	51.7/27.4	
L. R. Amperes [A]		286/143	261/131	264/140	
LRC [A]		6.0x(Code G)	4.5x(Code D)	5.1x(Code E)	
No load current [A	.]	17.0/8.50	16.2/8.09	17.1/9.04	
Rated speed [RPI	Л]	3525	2895	2905	
Slip [%]		2.08	3.50	3.17	
Rated torque [ft.lb]		29.8	36.3	36.2	
Locked rotor torque [%]		180	130	140	
Breakdown torque	: [%]	240	190	210	
Service factor		1.15	1.00	1.00	
Temperature rise		80 K	105 K	80 K	
Locked rotor time		23s (cold) 13s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²		70.0 dB(A)	68.0 dB(A)	68.0 dB(A)	
	25%	90.0	92.6	91.6	
Efficiency (%)	50%	90.2	90.6	90.6	
Efficiency (%)	75%	91.0	89.5	90.0	
	100%	91.0	87.2	88.7	
	25%	0.49	0.56	0.51	
Power Factor	50%	0.76	0.82	0.78	
1 OWELL ACTOR	75%	0.83	0.88	0.86	
	100%	0.87	0.90	0.89	

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

Bearing type : 6309 Z C3 6208 Z C3 Max. traction : 288 lb Sealing : Without Without Max. compression : 439 lb

Bearing Seal Bearing Seal

Lubrication interval:20000 h20000 hLubricant amount:13 g8 gLubricant type:Mobil Polyrex EM

Notes

USABLE @208V 52.6A SF 1.00 SFA 52.6A

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.

(1) / 100 / 00 / 10	in load.				
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



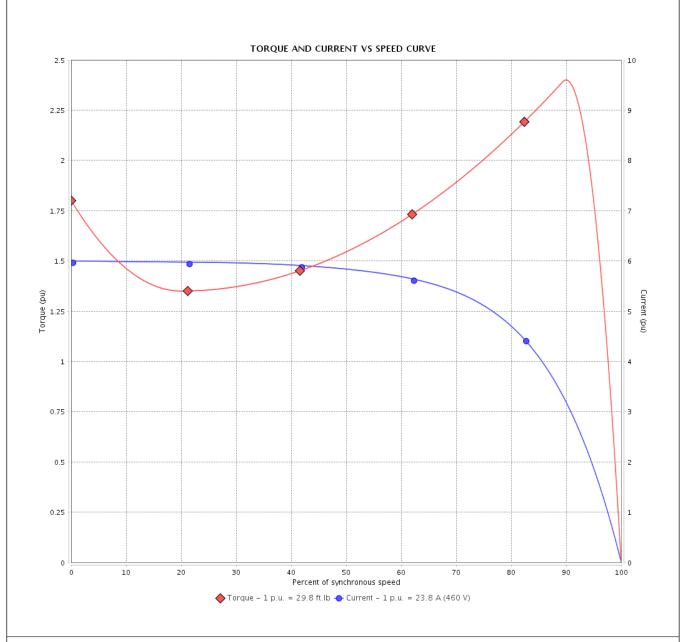
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance : 230/460 V 60 Hz 2P Rated current : 47.6/23.8 A Moment of inertia (J) : 0.7848 sq.ft.lb **LRC** : 6.0 Duty cycle : Cont.(S1) : F : 29.8 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 180 % : 1.15 Breakdown torque : 240 % Temperature rise : 80 K

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

: 3525 rpm

Rated speed

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Design

: B

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: 14327838 Efficiency Three-Phase Catalog #: 02036OT3E254JP-SG TORQUE AND CURRENT VS SPEED CURVE 4.5 1.8 3.5 1.4 1.2 Torque (pu) 0.8 0.4 0.2 100 Percent of synchronous speed ◆ Torque - 1 p.u. = 36.3 ft.lb ◆ Current - 1 p.u. = 29.0 A (380 V) Performance : 190/380 V 50 Hz 2P Rated current : 58.0/29.0 A Moment of inertia (J) : 0.7848 sq.ft.lb **LRC** : 4.5 Duty cycle : Cont.(S1) : 36.3 ft.lb Insulation class : F Rated torque Locked rotor torque : 130 % Service factor : 1.00 Breakdown torque : 190 % Temperature rise : 105 K Rated speed : 2895 rpm Design : B Locked rotor time : 0s (cold) 0s (hot) Date **Changes Summary** Performed Checked Rev.

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



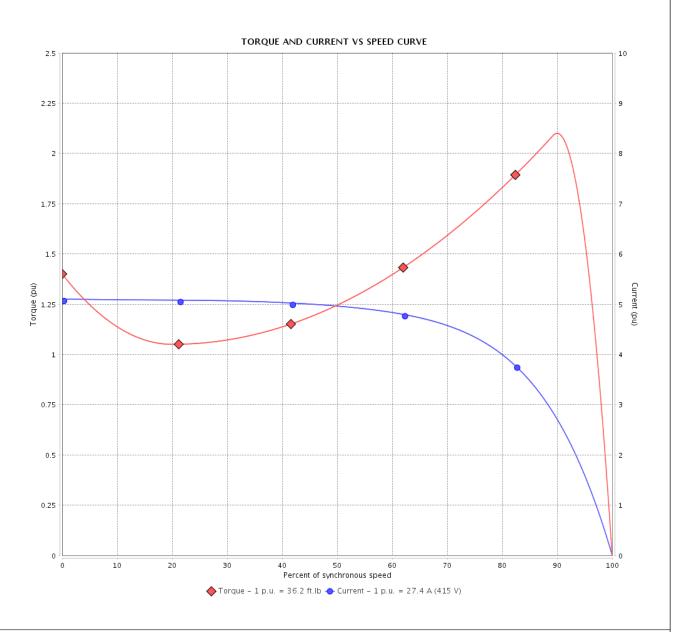
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance : 220/415 V 50 Hz 2P Rated current : 51.7/27.4 A Moment of inertia (J) : 0.7848 sq.ft.lb **LRC** : 5.1 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 36.2 ft.lb Service factor Locked rotor torque : 140 % : 1.00 Breakdown torque : 210 % Temperature rise : 80 K Rated speed : B : 2905 rpm Design

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

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LOAD PERFORMANCE CURVE

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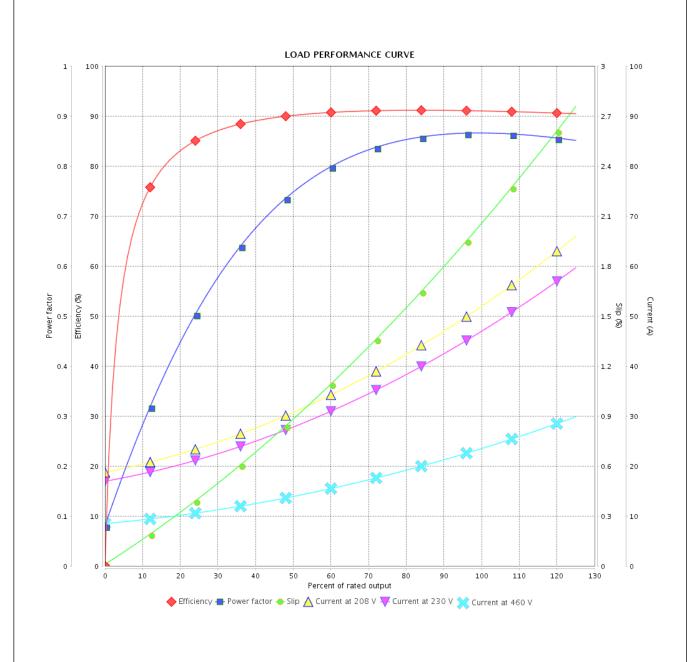
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance		: 230/460 V 60 Hz 2P						
Rated current : 47.6/2		47.6/23.8 A	Moment o	f inertia (J)	: 0.7848 sq.ft.lb			
LRC : 6.0		6.0	Duty cycle	;	: Cont.(S1)			
Rated torque : 2		29.8 ft.lb	Insulation	class	: F			
Locked rotor torque	e :	180 %	Service fa	ctor	: 1.15			
Breakdown torque		240 %	Temperature rise		: 80 K			
Rated speed	:	3525 rpm	Design		: B			
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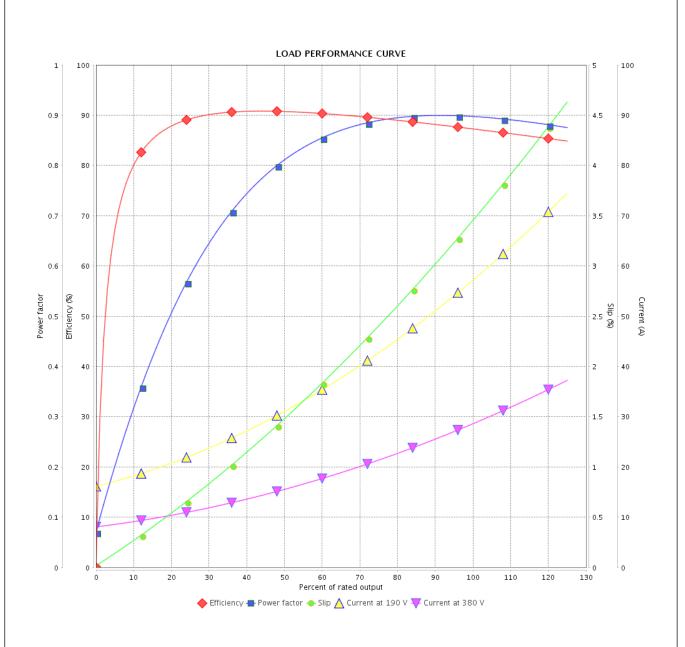
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance		190/380 V 50 Hz 2P			7	
1 enormance		190/300 V 30 112 21				
Rated current	:	58.0/29.0 A	Moment o	f inertia (J)	: 0.7848 sq.ft	.lb
LRC : 4.5		4.5	Duty cycle	;	: Cont.(S1)	
Rated torque :		36.3 ft.lb	Insulation	class	: F	
Locked rotor torque		130 %	Service fa	ctor	: 1.00	
Breakdown torqu		190 %	Temperatu	Temperature rise		
Rated speed	:	2895 rpm	Design		: B	
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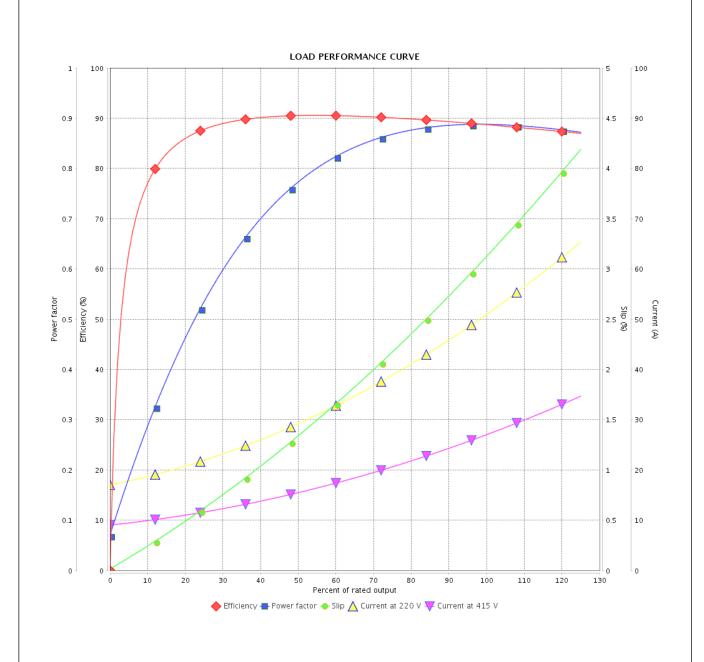
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance	: 220/415 V 50 Hz 2P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 51.7/27.4 A : 5.1 : 36.2 ft.lb : 140 % : 210 % : 2905 rpm	Duty cycle : Cont.(S1) Insulation class : F Service factor : 1.00 Temperature rise : 80 K		: F : 1.00	lb
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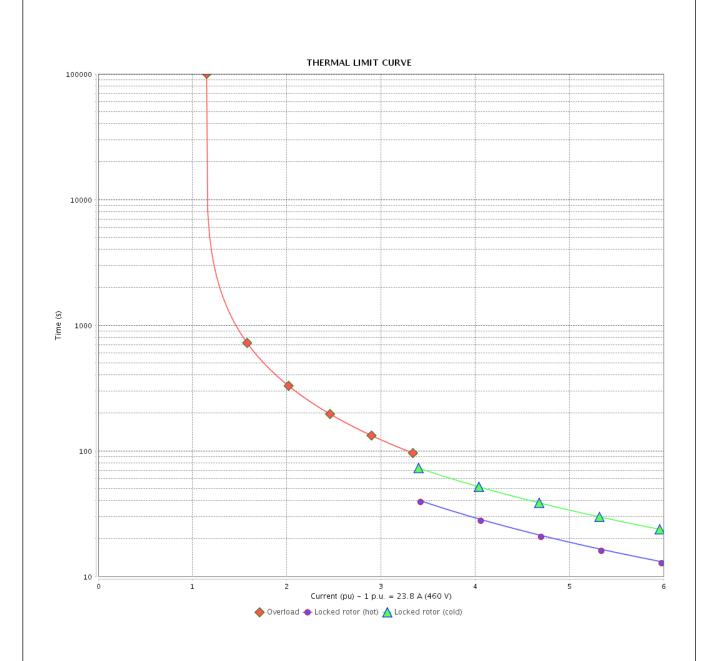


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Product line	: E	JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14327838	
		, ,		Catalog # :	02036OT3E2	254JP-SG
Dorform on		220/460 \/ 60 LI= 0D				
Performance Rated current		230/460 V 60 Hz 2P 47.6/23.8 A	Moment o	f inertia (J)	: 0.7848 sq.ft.l	lh
LRC	: 6	6.0	Duty cycle	;	: Cont.(S1)	~
Rated torque Locked rotor tord		29.8 ft.lb 180 %	Insulation Service fa		: F : 1.15	
Breakdown torqu	ie : 2	240 %	Temperatu		: 80 K	
Rated speed	:3	3525 rpm	Design		: B	
Heating constan						
Cooling constan Rev.	t	Changes Summary		Performed	Checked	Date
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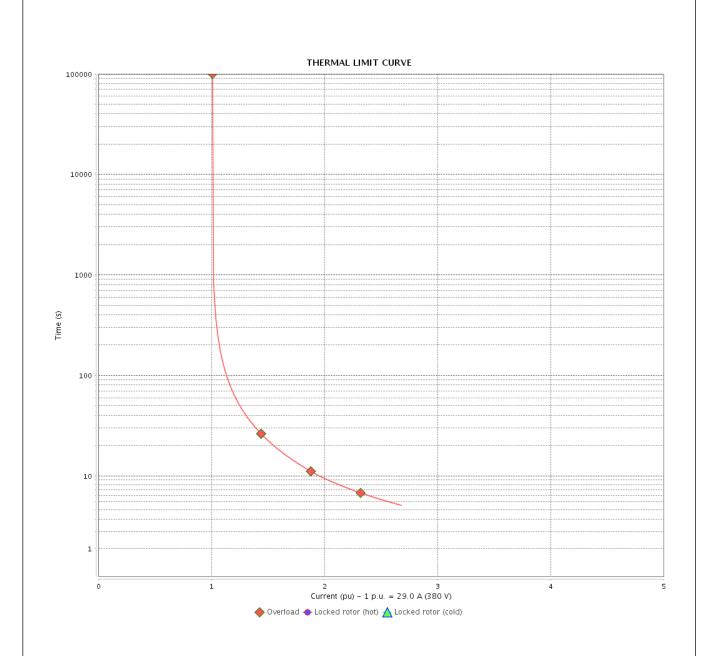


Customer		:				
Product line		: JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14327838	
		Ellicities Tillee-i Hase		Catalog # :	02036OT3E2	254JP-SG
Performance		: 190/380 V 50 Hz 2P				
Rated current		: 58.0/29.0 A	Moment of	of inertia (J)	: 0.7848 sq.ft.l	b
LRC Rated torque		: 4.5 : 36.3 ft.lb	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor tord	que :	: 130 %	Service fa	ictor	: 1.00	
Breakdown torqu		: 190 %	Temperat	ure rise	: 105 K	
Rated speed		: 2895 rpm	Design		: B	
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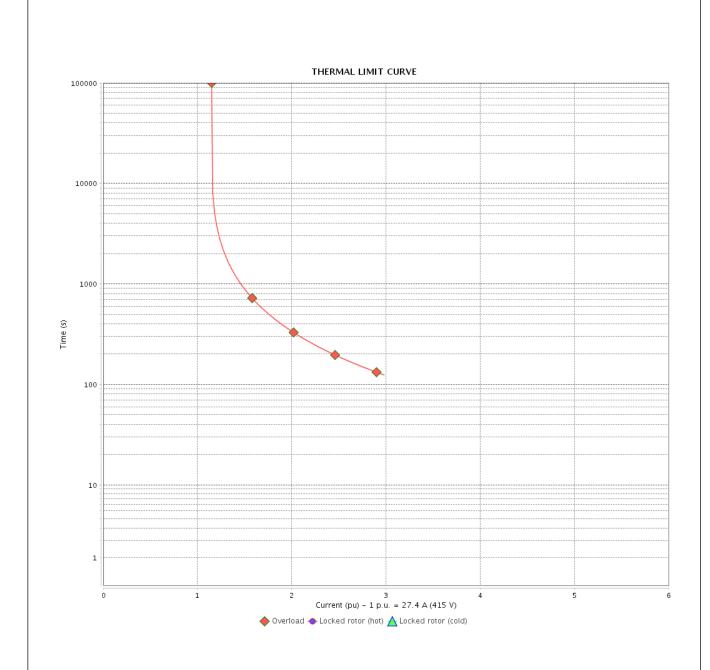


Customer	:			
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	Product code : Catalog # :	14327838 02036OT3E	054 IP. S.C
		Catalog # .	02030013E2	2040F-3G
Performance	: 220/415 V 50 Hz 2P			
	: 51.7/27.4 A	Moment of inertia (J)	: 0.7848 sq.ft.	b
LRC	: 5.1	Duty cycle	: Cont.(S1)	
	: 36.2 ft.lb : 140 %	Insulation class Service factor	: F : 1.00	
Breakdown torque	: 210 %	Temperature rise	: 80 K	
	: 2905 rpm	Design	: B	
Heating constant				
Cooling constant				
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Date

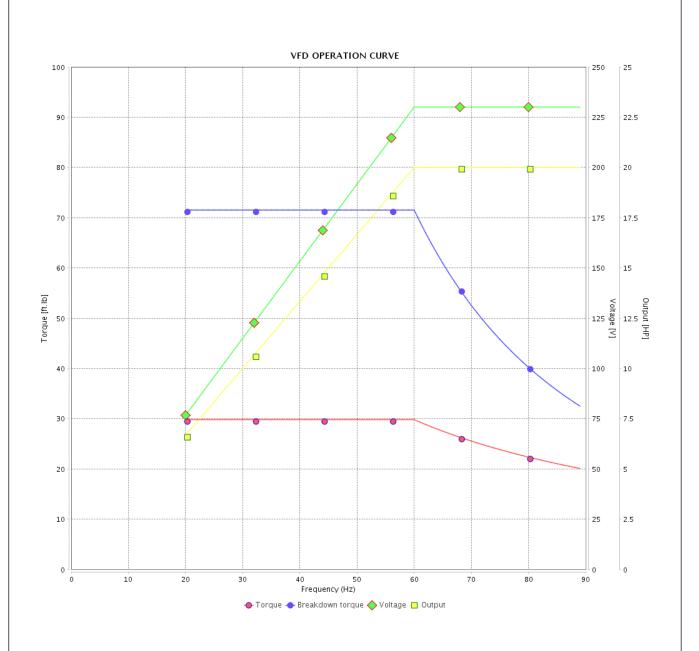
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Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 14327838

Catalog #: 02036OT3E254JP-SG



Performance : 230/460 V 60 Hz 2P Rated current : 47.6/23.8 A Moment of inertia (J) : 0.7848 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.0 Insulation class : 29.8 ft.lb : F Rated torque Locked rotor torque : 180 % Service factor : 1.15 Breakdown torque : 240 % Temperature rise : 80 K Rated speed : 3525 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by Page Checked by Revision

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