DATA SHEET

Three Phase Induction Motor - Squirrel Cage



82.1

81.9

83.5

82.9

0.47

0.75

0.85

0.90

Customer Product line : JP Pump NEMA Premium Product code: 13500643 Efficiency Three-Phase Catalog #: 00156OT3E143JPV-S Frame : 143/5JP Cooling method : IC01 - ODP Insulation class Mounting : W-6 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 : 31.5 lb Moment of inertia (J) Design : B : 0.0835 sq.ft.lb Output [HP] 1.5 1.5 1.5 Poles 2 2 2 60 50 50 Frequency [Hz] Rated voltage [V] 230/460 220/415 190/380 Rated current [A] 3.70/1.85 4.40/2.20 4.02/2.13 L. R. Amperes [A] 31.8/15.9 29.5/14.7 29.7/15.8 LRC [A] 8.6x(Code K) 6.7x(Code H) 7.4x(Code J) No load current [A] 1.62/0.809 1.59/0.796 1.66/0.881 Rated speed [RPM] 3510 2890 2900 Slip [%] 2.50 3.67 3.33 Rated torque [ft.lb] 2.24 2.73 2.72 Locked rotor torque [%] 210 180 200 Breakdown torque [%] 330 250 280 Service factor 1.15 1.15 Temperature rise 80 K 80 K 80 K 0s (cold) 0s (hot) 0s (cold) 0s (hot) Locked rotor time 34s (cold) 19s (hot) Noise level² 62.0 dB(A) 60.0 dB(A) 60.0 dB(A)

83.2

82.7

83.6

82.7

0.51

0.79

0.88

0.92

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

81.1

81.5

84.0

84.0

0.45

0.73

0.83

0.89

Bearing type : 6206 ZZ 6203 ZZ Max. traction : 50 lb Sealing : Without Without Max. compression : 82 lb

Bearing Seal Bearing Seal

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

Notes

Efficiency (%)

Power Factor

USABLE @208V 4.09A SF 1.00 SFA 4.09A

25%

50%

75%

100%

25%

50%

75%

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.

, , , , , , , , , , , , , , , , , , , ,					
Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022	_		1 /	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



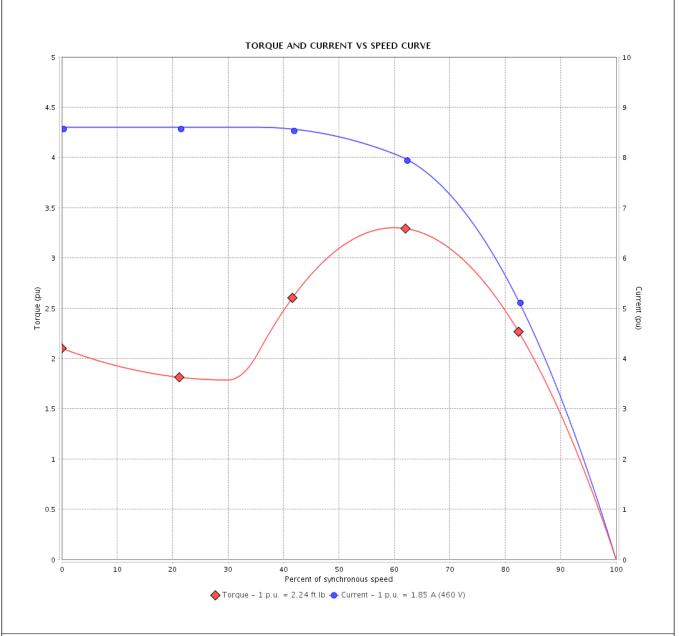
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 13500643

Catalog #: 00156OT3E143JPV-S



Performance : 230/460 V 60 Hz 2P Rated current : 3.70/1.85 A Moment of inertia (J) : 0.0835 sq.ft.lb **LRC** : 8.6 Duty cycle : Cont.(S1) : F : 2.24 ft.lb Insulation class Rated torque : 210 % Service factor Locked rotor torque : 80 K Breakdown torque : 330 % Temperature rise Rated speed : 3510 rpm Design : B

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

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			2/	

TORQUE AND CURRENT VS SPEED CURVE



Revision

Page

3/

Three Phase Induction Motor - Squirrel Cage Customer Product line : JP Pump NEMA Premium Product code: 13500643 Efficiency Three-Phase Catalog #: 00156OT3E143JPV-S TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Current Torque (pu) 1.2 0.6 0.3 Percent of synchronous speed ◆ Torque - 1 p.u. = 2.73 ft.lb ◆ Current - 1 p.u. = 2.20 A (380 V) Performance : 190/380 V 50 Hz 2P Rated current : 4.40/2.20 A Moment of inertia (J) : 0.0835 sq.ft.lb **LRC** : 6.7 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 2.73 ft.lb Locked rotor torque : 180 % Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 80 K Rated speed : 2890 rpm Design : B Locked rotor time : 0s (cold) 0s (hot) Date Rev. **Changes Summary** Performed Checked Performed by

Checked by

Date

12/04/2022

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



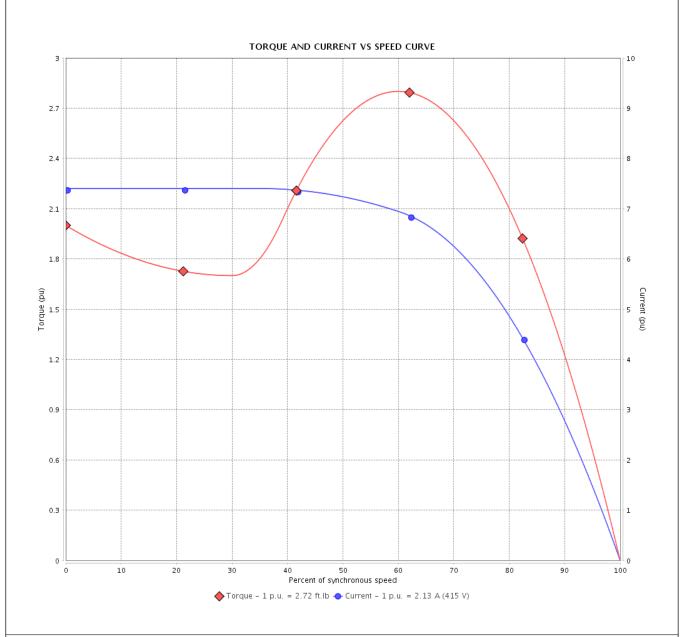
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 13500643

Catalog #: 00156OT3E143JPV-S



Performance : 220/415 V 50 Hz 2P Rated current : 4.02/2.13 A Moment of inertia (J) : 0.0835 sq.ft.lb **LRC** : 7.4 Duty cycle : Cont.(S1) : F : 2.72 ft.lb Insulation class Rated torque Service factor Locked rotor torque : 200 % : 1.15 Breakdown torque : 280 % Temperature rise : 80 K Rated speed : 2900 rpm Design : B

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

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			4 /	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



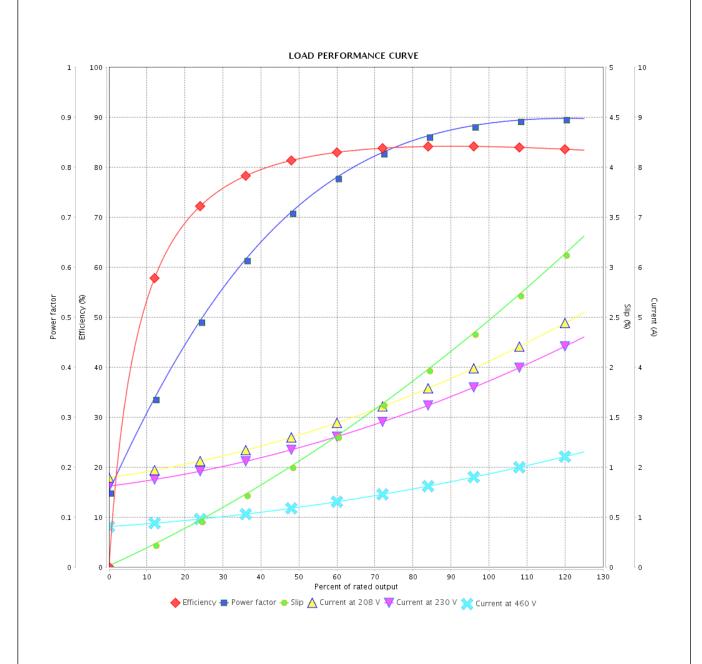
Customer

Product line : JP Pump NEMA Premium Product

Efficiency Three-Phase

Product code: 13500643

Catalog #: 00156OT3E143JPV-S



Performance	:	230/460 V 60 Hz 2P				
Rated current	ated current : 3.70/1.85 A		Moment o	Moment of inertia (J)		.lb
LRC	:	8.6	Duty cycle	;	: Cont.(S1)	
Rated torque	:	2.24 ft.lb	Insulation class		: F	
Locked rotor torque	:	210 %	Service fa	ctor	:	
Breakdown torque	:	330 %	Temperature rise		: 80 K	
Rated speed		: 3510 rpm			: B	
Rev.		Changes Summary		Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	12/04/2022				5 /	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Checked by

Date

12/04/2022

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

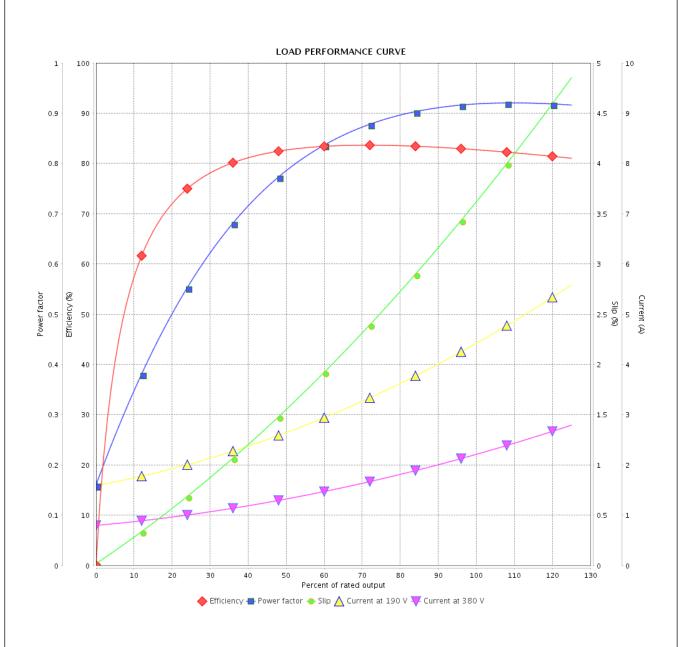
Product code: 13500643

Catalog #: 00156OT3E143JPV-S

Page

6 /

Revision



Performance	: 190/380 V 50 Hz 2P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 4.40/2.20 A : 6.7 : 2.73 ft.lb : 180 % : 250 % : 2890 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class ctor	: 0.0835 sq.ft.ll : Cont.(S1) : F : 1.15 : 80 K : B	b
Rev.	Changes Summary		Performed	Checked	Date
Performed by					

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



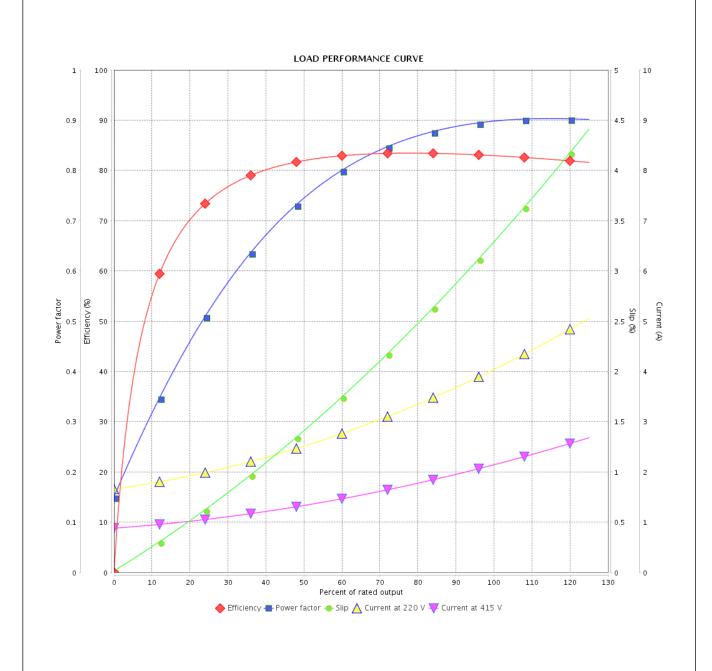
Customer

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 13500643

Catalog #: 00156OT3E143JPV-S



Performance	:	220/415 V 50 Hz 2P				
Rated current	ed current : 4.02/2.13 A		Moment o	f inertia (J)	: 0.0835 sq.ft.lb	
LRC	:	7.4	Duty cycle	Duty cycle		
Rated torque	:	2.72 ft.lb	Insulation	class	: F	
Locked rotor torq	jue :	200 %	Service fa	Service factor		
Breakdown torqu	ue : 280 % Temperature rise		ıre rise	: 80 K		
Rated speed	:	2900 rpm	Design		: B	
Rev.		Changes Summary	у	Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	12/04/2022				7 /	

Three Phase Induction Motor - Squirrel Cage

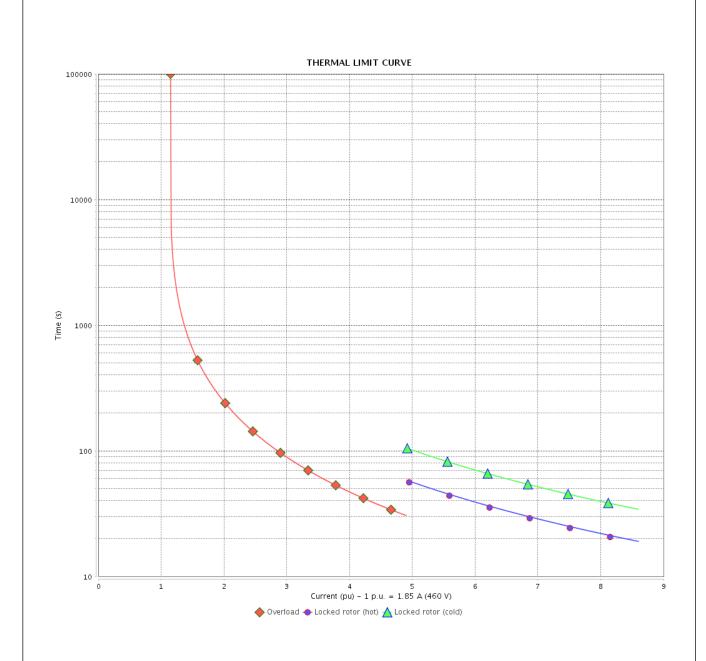


Customer		:			·	
D 1 1"		1D.D. 115144.D. :		5	10500010	
Product line		: JP Pump NEMA Premium Efficiency Three-Phase		Product code :	13500643	
				Catalog # :	00156OT3E	143JPV-S
Performance	:	230/460 V 60 Hz 2P				
Rated current		3.70/1.85 A	Moment o	of inertia (J)	: 0.0835 sq.ft.	b
LRC Rated torque		8.6 2.24 ft.lb	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor torc	jue :	210 %	Service fa	ictor	:	
Breakdown torqu	ie :	330 %	Temperati	ure rise	: 80 K : B	
Rated speed		3510 rpm	Design		. D	
Heating constant						
Cooling constant						
Rev.		Changes Summary		Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	12/04/2022				8/	

Three Phase Induction Motor - Squirrel Cage



Customer



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			9 /	

Three Phase Induction Motor - Squirrel Cage

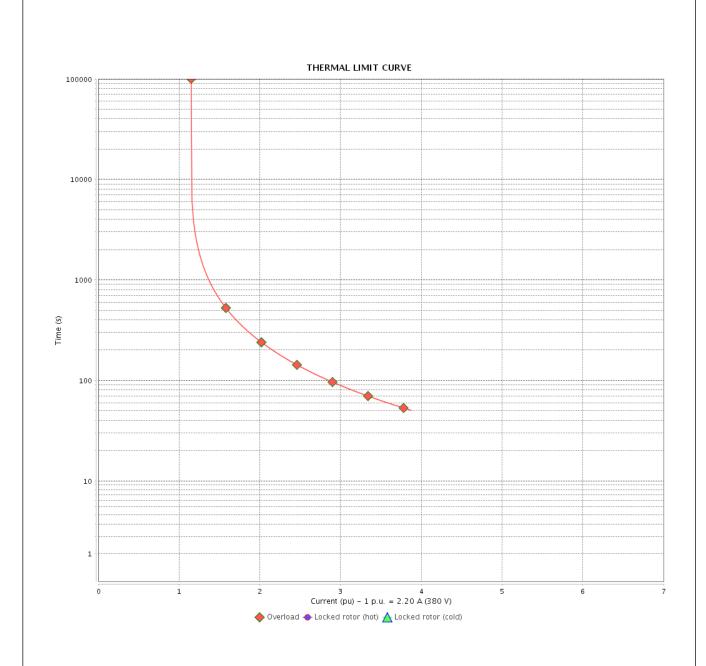


Customer		:				
Product line		: JP Pump NEMA Premium Efficiency Three-Phase		Product code :	13500643	
		Emoleticy Trifee-i flase		Catalog # :	00156OT3E	143JPV-S
Performance	:	190/380 V 50 Hz 2P				
Rated current		4.40/2.20 A	Moment o	of inertia (J)	: 0.0835 sq.ft.	b
LRC Rated torque		6.7 2.73 ft.lb	Duty cycle Insulation		: Cont.(S1) : F	
Locked rotor tord	que :	180 %	Service fa		. r : 1.15	
Breakdown torqu	ue :	250 %	Temperat	ure rise	: 80 K	
Rated speed		2890 rpm	Design		: B	
Heating constant						
Cooling constant	t	Changes Summary		Performed	Checked	Date
1/67.		Onanges Summery		r enomieu	CHECKEU	Dale
Performed by				I		
Checked by					Page	Revision
Date	12/04/2022				10 /	

Three Phase Induction Motor - Squirrel Cage



Customer



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			11 /	

Three Phase Induction Motor - Squirrel Cage

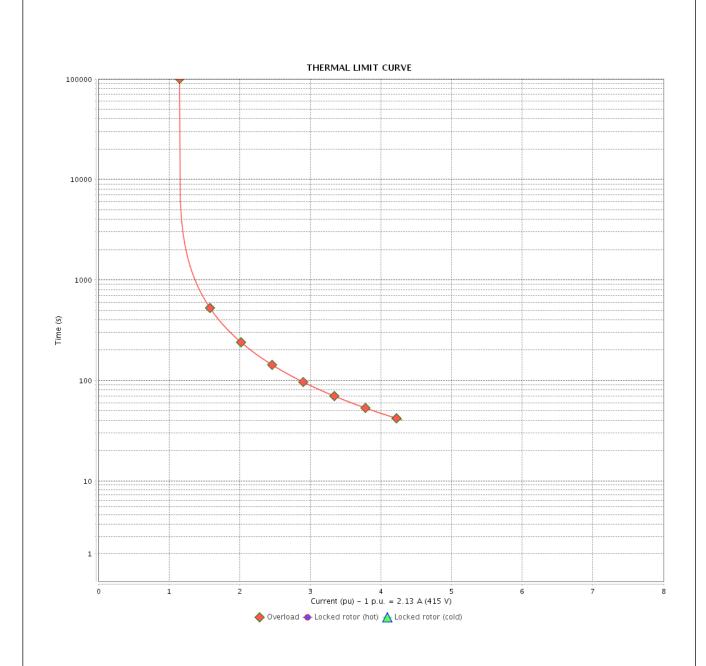


Customer	:					
Product line	:.	Efficiency Three-Phase		Product code :	13500643	
	E			Catalog # :	00156OT3E1	43JPV-S
- ·		00///5 \/ 50 \				
Performance Rated current		20/415 V 50 Hz 2P .02/2.13 A	Moment of	f inertia (J)	: 0.0835 sq.ft.l	h
LRC	: 7.	.4	Duty cycle		: Cont.(S1)	D .
Rated torque Locked rotor torq		.72 ft.lb 00 %	Insulation Service fa		: F : 1.15	
Breakdown torqu	e : 28	80 %	Temperatu		: 80 K	
Rated speed	: 29	900 rpm	Design		: B	
Heating constant						
Cooling constant Rev.		Changes Summary		Performed	Checked	Date
1164.		Changes Summary		i enomieu	Ollecked	Dale
Performed by						
Checked by		-			Page	Revision
D-/	10/01/0000	1			10/	

Three Phase Induction Motor - Squirrel Cage



Customer



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			13 /	

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



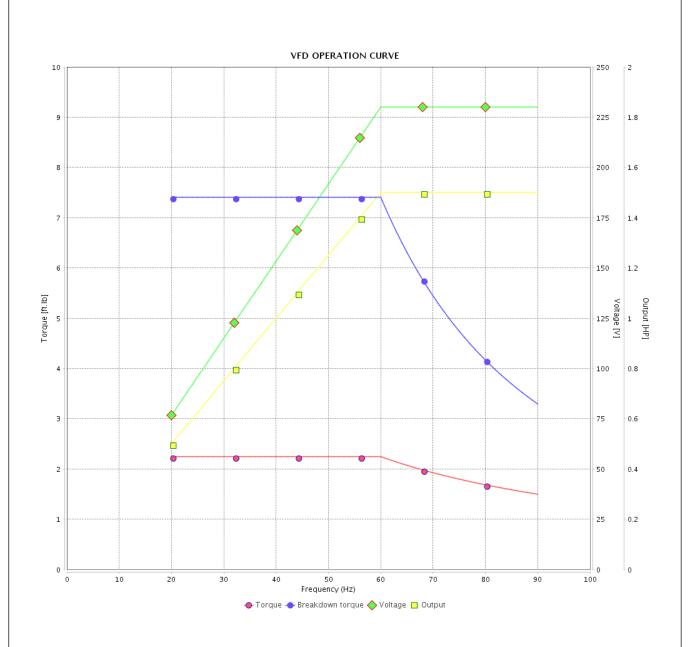
Customer :

Product line : JP Pump NEMA Premium

Efficiency Three-Phase

Product code: 13500643

Catalog #: 00156OT3E143JPV-S



Performance	: 230/460 V 60 Hz 2P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 3.70/1.85 A : 8.6 : 2.24 ft.lb : 210 % : 330 % : 3510 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0835 sq.ft.lb : Cont.(S1) : F : : 80 K : B	
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision

14/

12/04/2022

Date

