### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12636472

Phase

Catalog #: 02018OT3E256T-S Frame : 254/6T Cooling method : IC01 - ODP Insulation class Mounting : F-1 Duty cycle : Cont.(S1) Rotation<sup>1</sup> : Both (CW and CCW) Ambient temperature : -20°C to +40°C Starting method : Direct On Line Altitude : 1000 m.a.s.l. Approx. weight<sup>3</sup> : 213 lb : 2.23 sq.ft.lb Moment of inertia (J) Design : B Output [HP] 20 20 20 Poles 4 4 60 50 Frequency [Hz] 50 Rated voltage [V] 230/460 190-220/380 415 Rated current [A] 50.0/25.0 59.8-51.6/29.9 28.1 L. R. Amperes [A] 315/158 311-269/155 174 LRC [A] 6.3x(Code G) 5.2x(Code F) 6.2x(Code G) No load current [A] 22.9/11.4 22.4-19.4/11.2 13.5 Rated speed [RPM] 1770 1460 1465 Slip [%] 1.67 2.67 2.33 Rated torque [ft.lb] 59.3 71.9 71.7 Locked rotor torque [%] 240 180 220 Breakdown torque [%] 290 220 270 Service factor 1.15 1.15 1.15 Temperature rise 80 K 80 K 80 K 0s (cold) 0s (hot) 0s (cold) 0s (hot) Locked rotor time 27s (cold) 15s (hot) Noise level<sup>2</sup> 64.0 dB(A) 62.0 dB(A) 62.0 dB(A) 25% 50% 92.4 91.8 90.9 Efficiency (%) 75% 92.4 91.2 91.3 100% 93.0 89.7 90.5 25% 50% 0.63 0.72 0.64 Power Factor 75% 0.74 0.82 0.76

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

Bearing type : 6309 Z C3 6208 Z C3 Max. traction : 822 lb Sealing : Without Without Max. compression : 1035 lb

Bearing Seal Bearing Seal

0.81

Lubrication interval : 20000 h 20000 h Lubricant amount : 13 g 8 g Lubricant type : Mobil Polyrex EM

Notes

USABLE @208V 55.3A SF 1.00 SFA 55.3A

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.

0.82

0.85

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### TORQUE AND CURRENT VS SPEED CURVE

#### Three Phase Induction Motor - Squirrel Cage



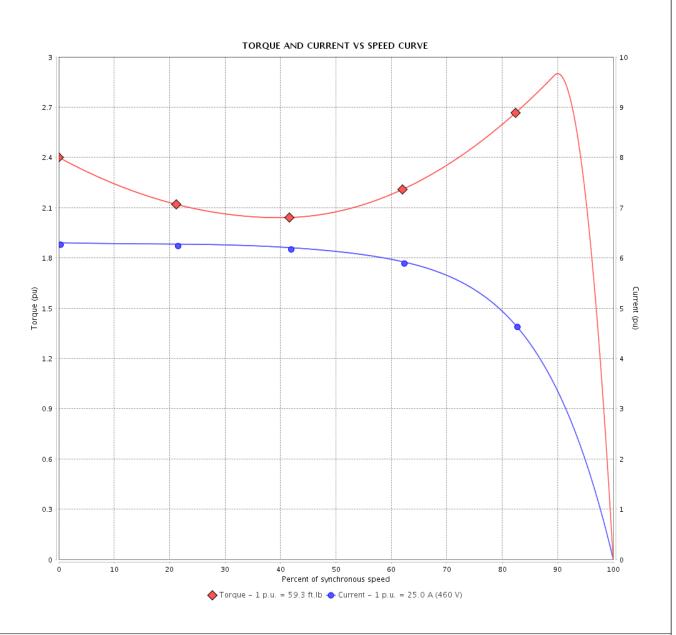
Customer :

Product line : NEMA Premium Efficiency Three-

Phase

Product code: 12636472

Catalog #: 02018OT3E256T-S



Performance : 230/460 V 60 Hz 4P Rated current : 50.0/25.0 A Moment of inertia (J) : 2.23 sq.ft.lb **LRC** : 6.3 Duty cycle : Cont.(S1) Insulation class Rated torque : 59.3 ft.lb : F Locked rotor torque : 240 % Service factor : 1.15 Breakdown torque : 290 % Temperature rise : 80 K Rated speed : 1770 rpm Design : B

Locked rotor time : 27s (cold) 15s (hot)

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### TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 12636472 Catalog #: 02018OT3E256T-S TORQUE AND CURRENT VS SPEED CURVE 2.25 1.75 1.5 (pd) 1.25 Current 0.5 0.25 Percent of synchronous speed 🔷 Torque – 1 p.u. = 71.9 ft.lb 🔷 Current – 1 p.u. = 29.9 A (380 V)

Performance : 190-220/380 V 50 Hz 4P Rated current : 59.8-51.6/29.9 A Moment of inertia (J) : 2.23 sq.ft.lb **LRC** : 5.2 Duty cycle : Cont.(S1) : 71.9 ft.lb Insulation class : F Rated torque : 180 % : 1.15 Locked rotor torque Service factor Breakdown torque : 220 % Temperature rise : 80 K : B Rated speed : 1460 rpm Design

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

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### TORQUE AND CURRENT VS SPEED CURVE

#### Three Phase Induction Motor - Squirrel Cage



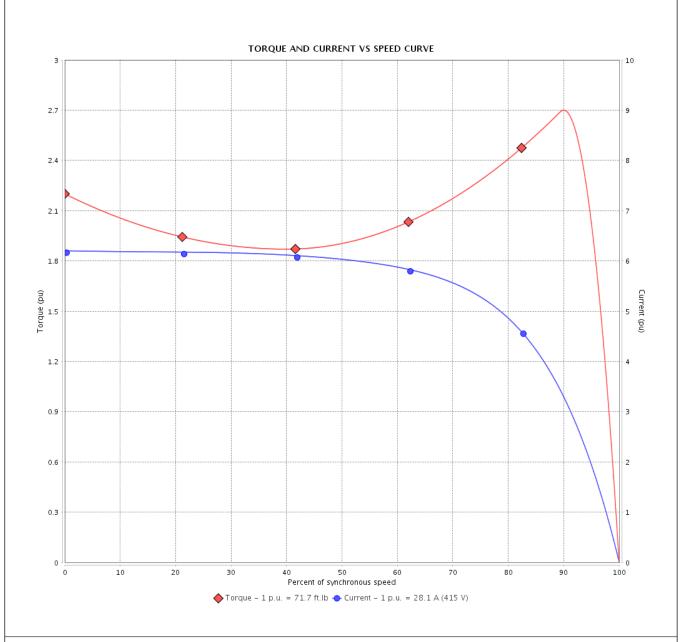
Customer :

Product line : NEMA Premium Efficiency Three- Prod

Phase

Product code: 12636472

Catalog #: 02018OT3E256T-S



Performance : 415 V 50 Hz 4P Rated current : 28.1 A Moment of inertia (J) : 2.23 sq.ft.lb **LRC** : 6.2 Duty cycle : Cont.(S1) Insulation class Rated torque : 71.7 ft.lb : F Service factor Locked rotor torque : 220 % : 1.15 Breakdown torque : 270 % Temperature rise : 80 K

Rated speed : 1465 rpm Design : B

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

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### LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage

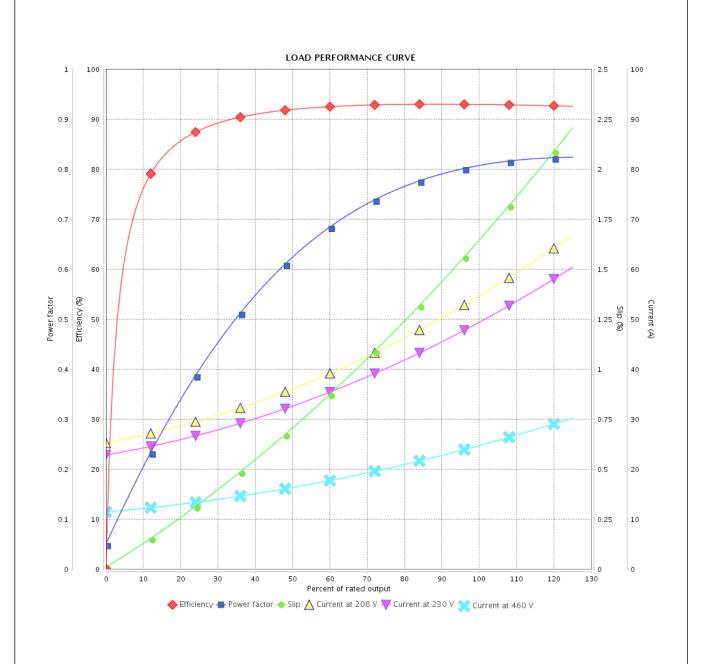


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12636472

Phase

Catalog #: 02018OT3E256T-S



Performance	: 2	230/460 V 60 Hz 4P				
Rated current	:	50.0/25.0 A	Moment o	f inertia (J)	: 2.23 sq.ft.lb	
LRC	: 6	6.3	Duty cycle	}	: Cont.(S1)	
Rated torque	: 5	59.3 ft.lb	Insulation	class	: F	
Locked rotor torqu	e :2	240 %	Service fa	ctor	: 1.15	
Breakdown torque	: 2	290 %	% Temperature rise		: 80 K	
Rated speed	: 1	770 rpm Design			: B	
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### LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage

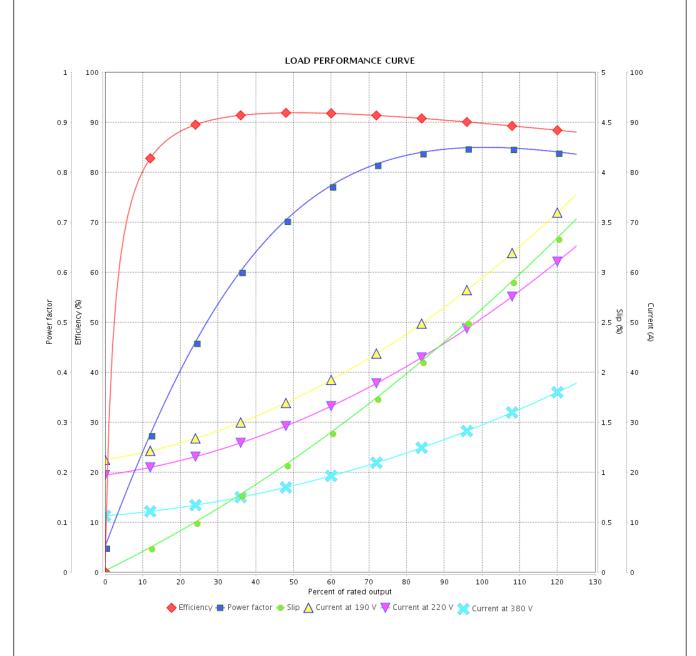


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12636472

Phase

Catalog #: 02018OT3E256T-S



Performance	: 190-220/380 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 59.8-51.6/29.9 A : 5.2 : 71.9 ft.lb : 180 % : 220 % : 1460 rpm	Moment of Duty cycle Insulation of Service fac Temperatur Design	lass tor	: 2.23 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B	
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## LOAD PERFORMANCE CURVE

### Three Phase Induction Motor - Squirrel Cage

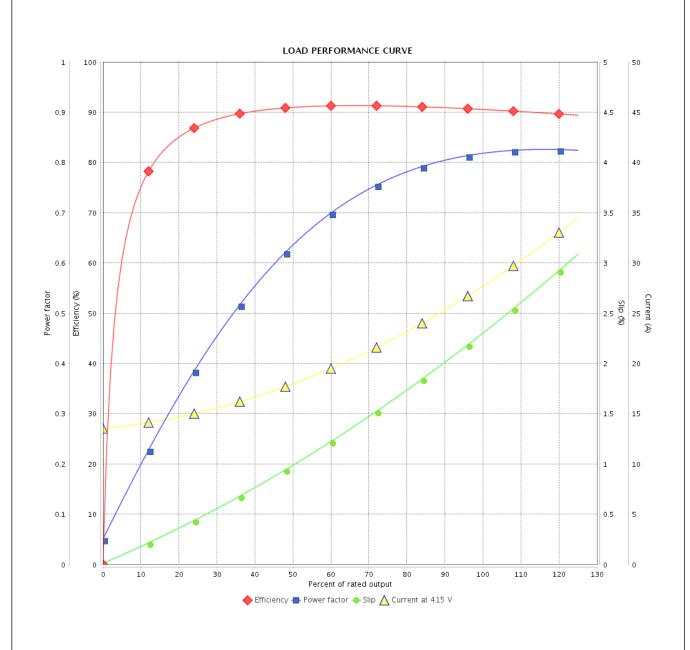


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12636472

Phase

Catalog #: 02018OT3E256T-S



Performance		: 415 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque		: 28.1 A Moment of inertia (J) : 6.2 Duty cycle : 71.7 ft.lb Insulation class : 220 % Service factor : 270 % Temperature rise		: 2.23 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K		
Rated speed		: 1465 rpm	Design		: B	
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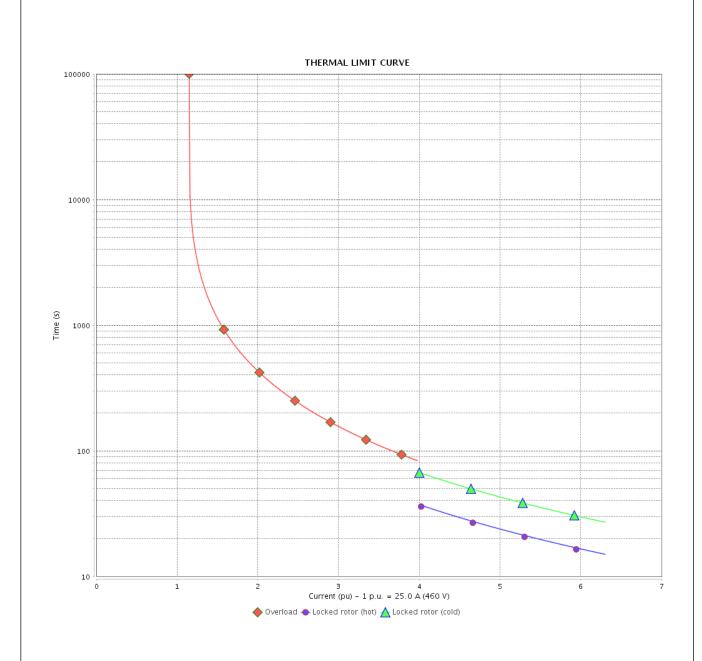


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Product line	1:	NEMA Premium Efficiency	Three-	Product code :	12636472	
		hase		Catalog # :	02018OT3E2	SAT C
			<u>'</u>	Catalog # .	02016013E2	001-3
Performance	: 23	30/460 V 60 Hz 4P				
Rated current		0.0/25.0 A	Moment o	f inertia (J)	: 2.23 sq.ft.lb	
LRC Rated torque	: 6. : 59	3 9.3 ft.lb	Duty cycle Insulation	e class	: Cont.(S1) : F	
Locked rotor torqu	ue : 24	40 %	Service fa	ctor	: 1.15	
Breakdown torque		90 % 770 rpm	Temperatu	ıre rise	: 80 K	
Rated speed	: 17	770 rpm	Design		: B	
Heating constant						
Cooling constant Rev.		Changes Summary		Performed	Checked	Date
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### Three Phase Induction Motor - Squirrel Cage



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### Three Phase Induction Motor - Squirrel Cage

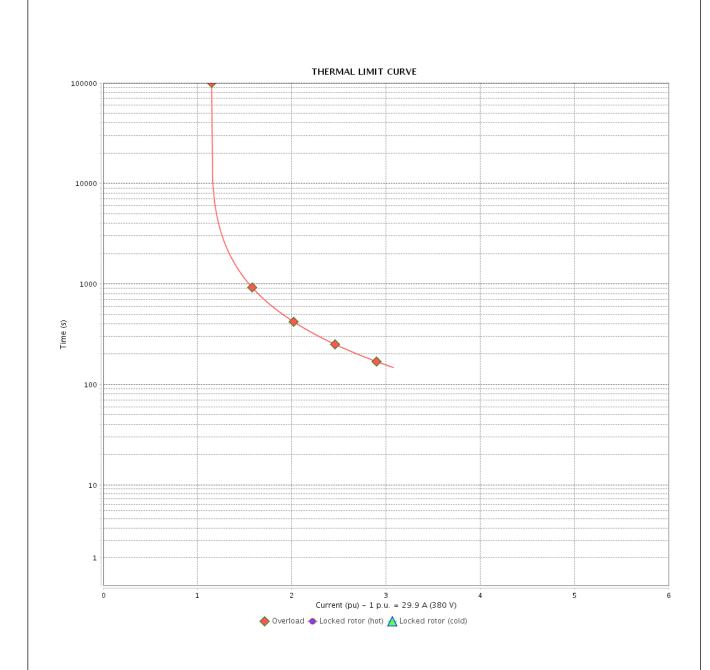


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Product line	: NEMA Premium Efficiency Phase	Three- Product code :  Catalog # :	12636472 02018OT3E256T-	S
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Performance Rated current	: 190-220/380 V 50 Hz 4P : 59.8-51.6/29.9 A	Moment of inertia (J)	: 2.23 sq.ft.lb	
LRC	: 5.2	Duty cycle	: Cont.(S1)	
Rated torque Locked rotor torque	: 71.9 ft.lb : 180 %	Insulation class Service factor	: F : 1.15	
Breakdown torque	: 220 %	Temperature rise	: 80 K	
Rated speed	: 1460 rpm	Design	: B	
Heating constant				
Cooling constant  Rev.	Changes Summary	Performed	Checked	Date
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### Three Phase Induction Motor - Squirrel Cage



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### Three Phase Induction Motor - Squirrel Cage

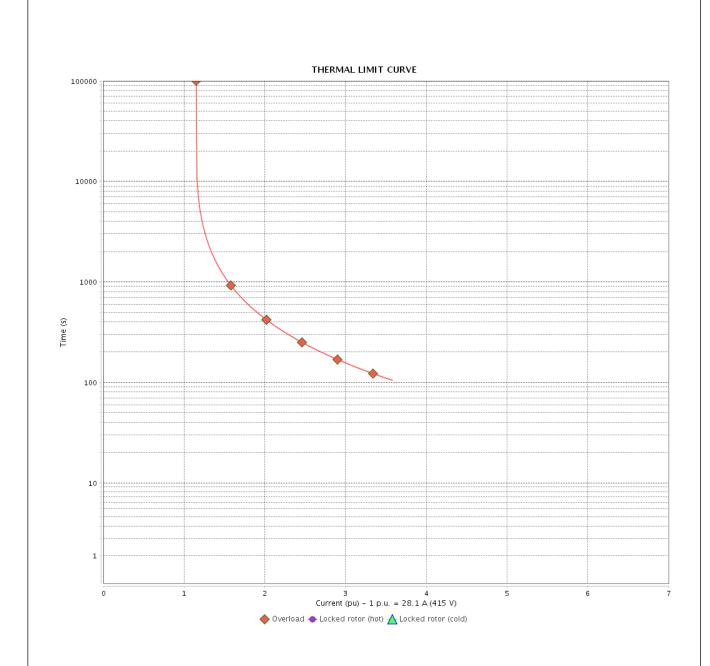


Customer		:				
Product line		: NEMA Premium Efficiency <sup>·</sup> Phase		Product code : Catalog # :	12636472 02018OT3E2	256T-S
Performance		415 V 50 Hz 4P				
Rated current LRC		28.1 A 6.2	Moment o	f inertia (J)	: 2.23 sq.ft.lb : Cont.(S1)	
Rated torque Locked rotor torque Breakdown torque		: 71.7 ft.lb       Insulation         : 220 %       Service fa         : 270 %       Temperat         : 1465 rpm       Design		class ctor	: F : 1.15 : 80 K : B	
Heating constan	t					
Cooling constant		Changes Summary		Performed	Checked	Date
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### Three Phase Induction Motor - Squirrel Cage



Customer



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### VFD OPERATION CURVE

### Three Phase Induction Motor - Squirrel Cage



Customer :

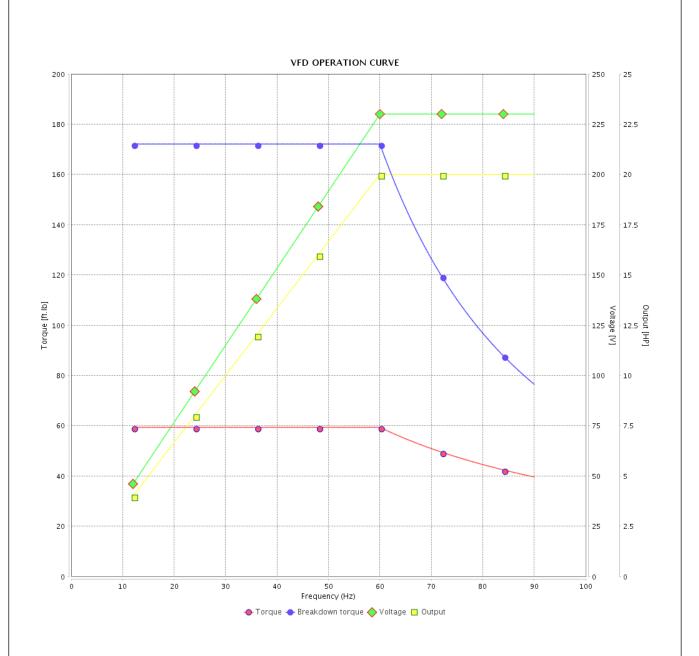
Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 02018OT3E256T-S

12636472

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Performance	. 20	20/460 \/ 60 H= 4D						
Periormance	. Z	: 230/460 V 60 Hz 4P						
Rated current	: 50	0.0/25.0 A Moment of inertia (J)		: 2.23 sq.ft.lb				
LRC		3	Duty cycle	Duty cycle				
Rated torque	: 59	9.3 ft.lb	Insulation	Insulation class		: F		
Locked rotor torqu	ue : 24	40 %	Service fa	Service factor		: 1.15		
Breakdown torque	e : 29	90 %	Temperati	Temperature rise				
Rated speed	: 17	770 rpm	Design	Design				
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## VFD OPERATION CURVE

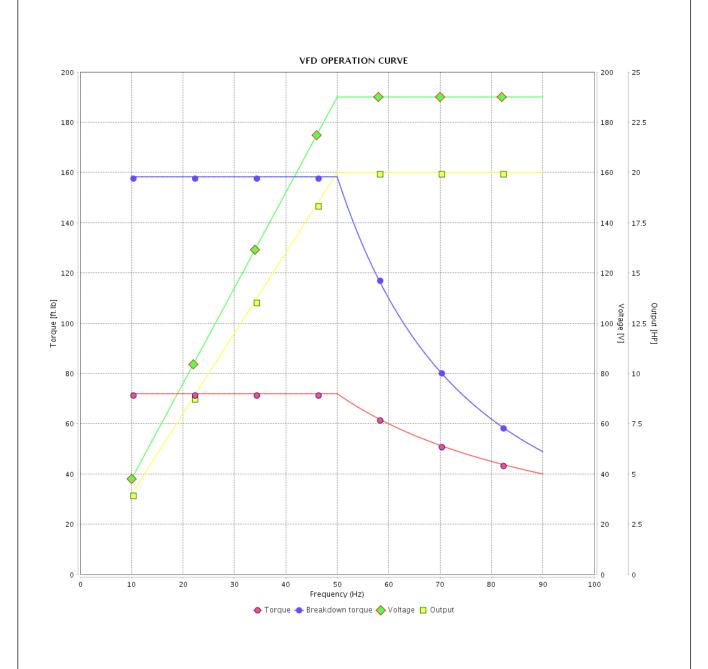
### Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 12636472

Catalog #: 02018OT3E256T-S



Performance	rmance : 190-220/380 V 50 Hz 4P					
Rated current : 59		9.8-51.6/29.9 A	Moment o	Moment of inertia (J)		
LRC	_RC : 5.2		Duty cycle	Duty cycle		
Rated torque			class	ss : F		
Locked rotor torque :		80 %	Service fa	Service factor		
Breakdown torque		20 %	Temperati	Temperature rise		
Rated speed	: 14	1460 rpm Design			: B	
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### VFD OPERATION CURVE

### Three Phase Induction Motor - Squirrel Cage



Customer :

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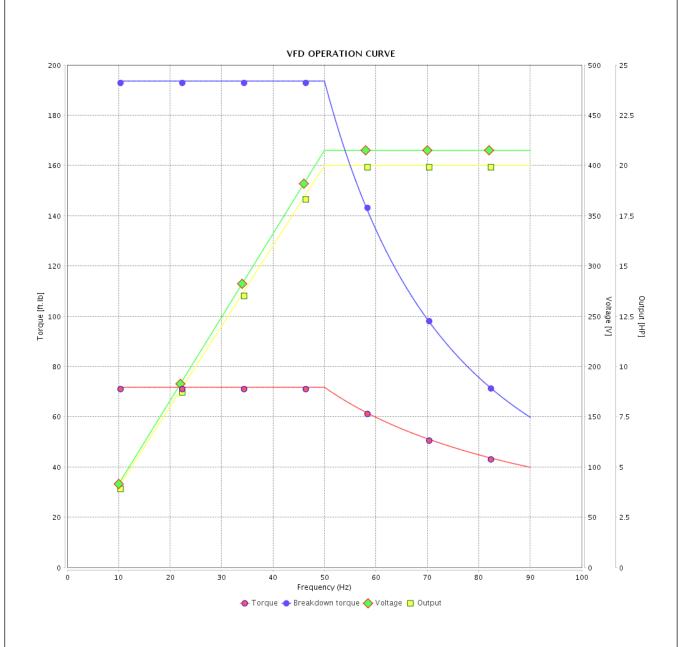
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Product line : NEMA Premium Efficiency Three- Produ

Phase

Product code: 12636472

Catalog #: 02018OT3E256T-S

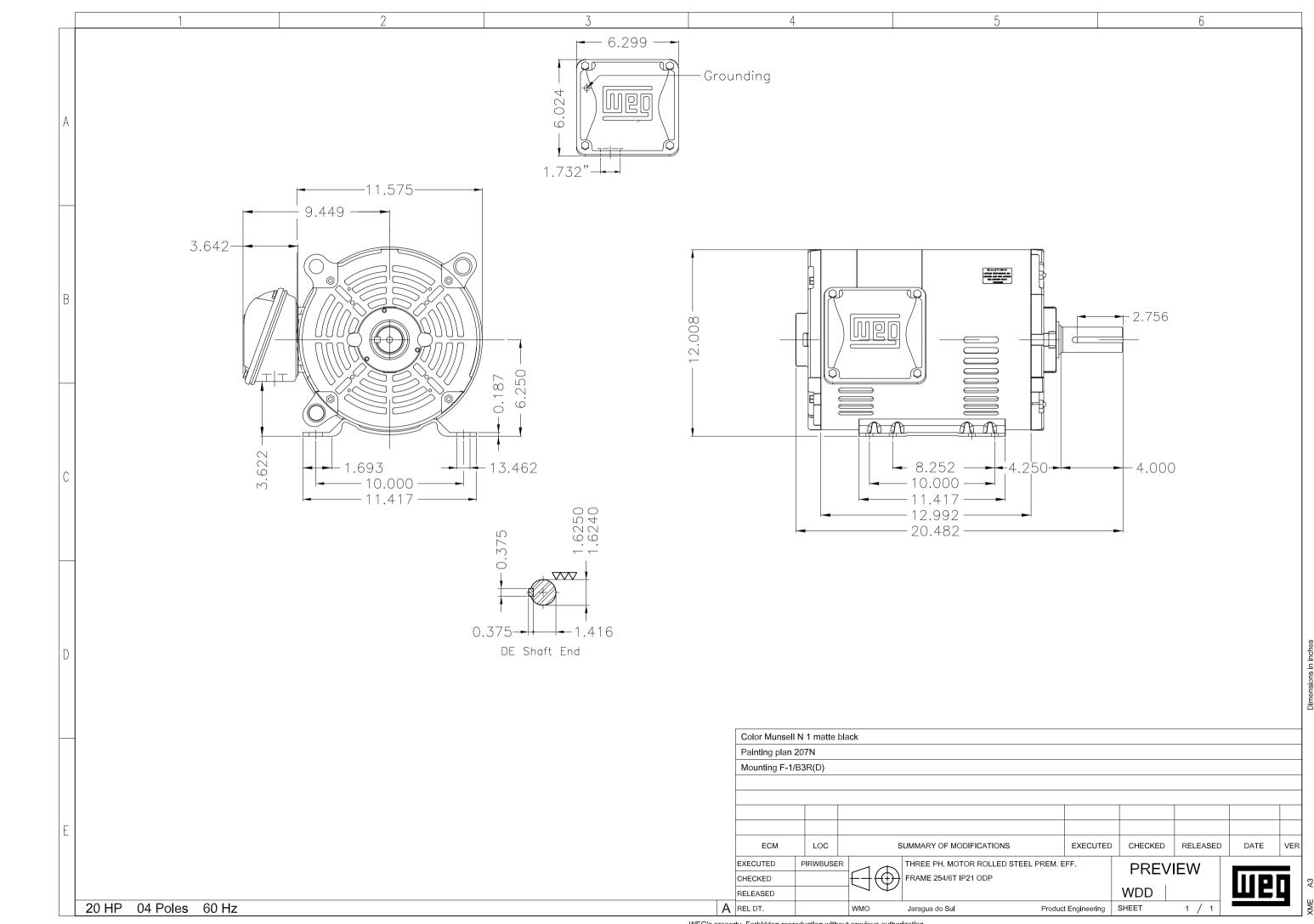


Performance	: 4	15 V 50 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 6 : 7 jue : 2	8.1 A 5.2 1.7 ft.lb 120 % 170 % 465 rpm	Moment of Duty cycle Insulation Service fa Temperation	class ctor	: 2.23 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B	
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Energy Verifi

MODEL 020180T3E256T-S N01.TODICOXON

12636472

MADE IN MÉXICO

9 S/N 4 2APR2022

254/6T CONT

1000 m.a.s.l

F AT 80K

NSC

50.0/25.0 57.5/28.7

1.15

230/460

U CODE DES SABLE @ 208V 55.3A 20°C 900

SF1.00 NCL 2

ZPM 3FA 냃 쌆

> 20HP 59.8-53.0/29.9-28.1A LTERNATE RATING:

93.0%

NOM EFF NEMA

1480RPM 50 Hz ODE 6208-Z-C3

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

IEC 60034-1 2000bh

E 1

SF1.15

190-220/380-415V

**EFF 89.7%** 

MOBIL POLYREX EM

8309-Z-C3

牌

T11 OT12

T4-YEL T2-WH T6-GRY

71-BLU 13-ORG F5-BLK L7-PNK

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MOT

NTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

777





shocks. Disconnect power source before servicing unit. WARNING: Motor must be grounded in accordance with local ind national electrical codes to prevent serious electrical



choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine

conformément aux codes électriques locaux et nationaux afin d'éviter tout