



Dealers Industrial Equipment

No.:

Date: 29-SEP-2016

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Product line : Three-Phase : Explosion Proof - NEMA Premium

Catalog Number : 45018XT3G586/7

List Price : \$65,201

Notes:

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Generated for Model #45018XT3G586/7

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# Dealers Industrial Equipment

No.:

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## DATA SHEET Three-phase induction motor - Squirrel cage rotor

Customer :  
 Product line : Three-Phase : Explosion Proof - NEMA Premium

Frame : 586/7T  
 Output : 450 HP  
 Frequency : 60 Hz  
 Poles : 4  
 Full load speed : 1790 rpm  
 Slip : 0.56 %  
 Voltage : 460 V  
 Rated current : 501 A  
 Locked rotor current : 3260 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 6.5  
 No-load current : 121 A  
 Full load torque : 1302 lb.ft  
 Locked rotor torque : 180 %  
 Breakdown torque : 200 %  
 Design : B  
 Insulation class : F  
 Temperature rise : 105 K  
 Locked rotor time : 24 s (hot)  
 Service factor : 1.15  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000 m  
 Degree of Protection : IP55  
 Approximate weight : 4586 lb  
 Moment of inertia : 213.23 sq.ft.lb  
 Noise level : 83 dB(A)

	D.E.	N.D.E.
Bearings	6322 C3	6319 C3
Regreasing interval	5138 h	7038 h
Grease amount	60 g	45 g

Load	Power factor	Efficiency (%)
100%	0.86	96.2
75%	0.85	96.2
50%	0.81	95.8

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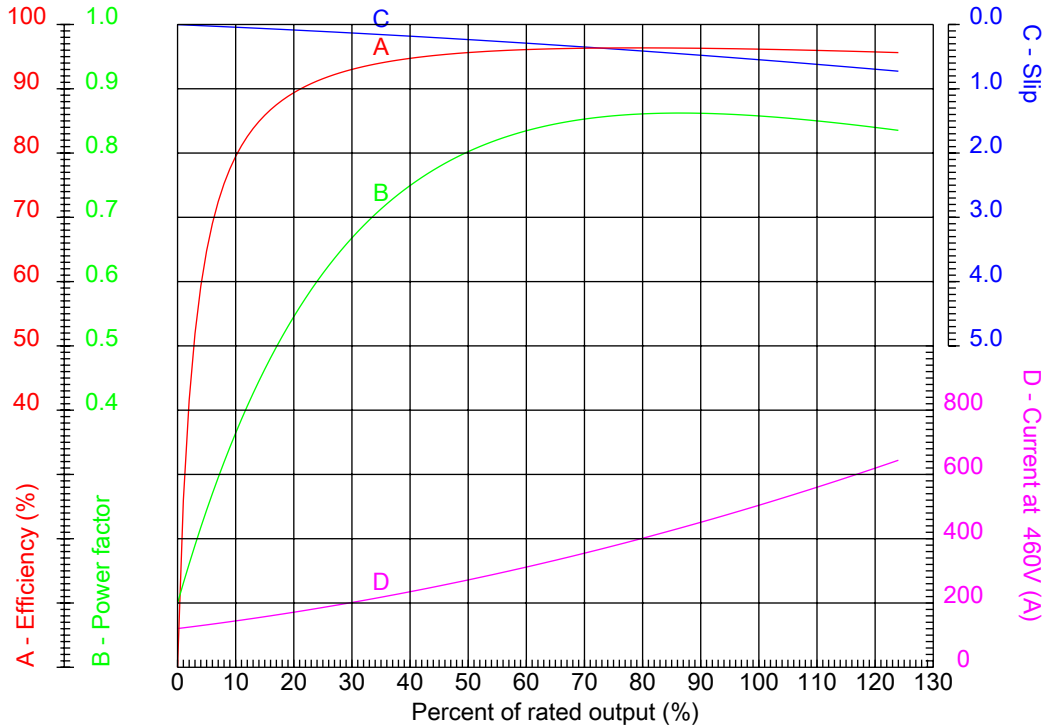
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## PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
 Product line : Three-Phase : Explosion Proof - NEMA Premium

Frame	: 586/7T	Locked rotor current (I <sub>l</sub> /I <sub>n</sub> )	: 6.5
Output	: 450 HP	Duty cycle	: S1
Frequency	: 60 Hz	Service factor	: 1.15
Full load speed	: 1790 rpm	Design	: B
Voltage	: 460 V	Locked rotor torque	: 180 %
Rated current	: 501 A	Breakdown torque	: 200 %
Insulation class	: F		

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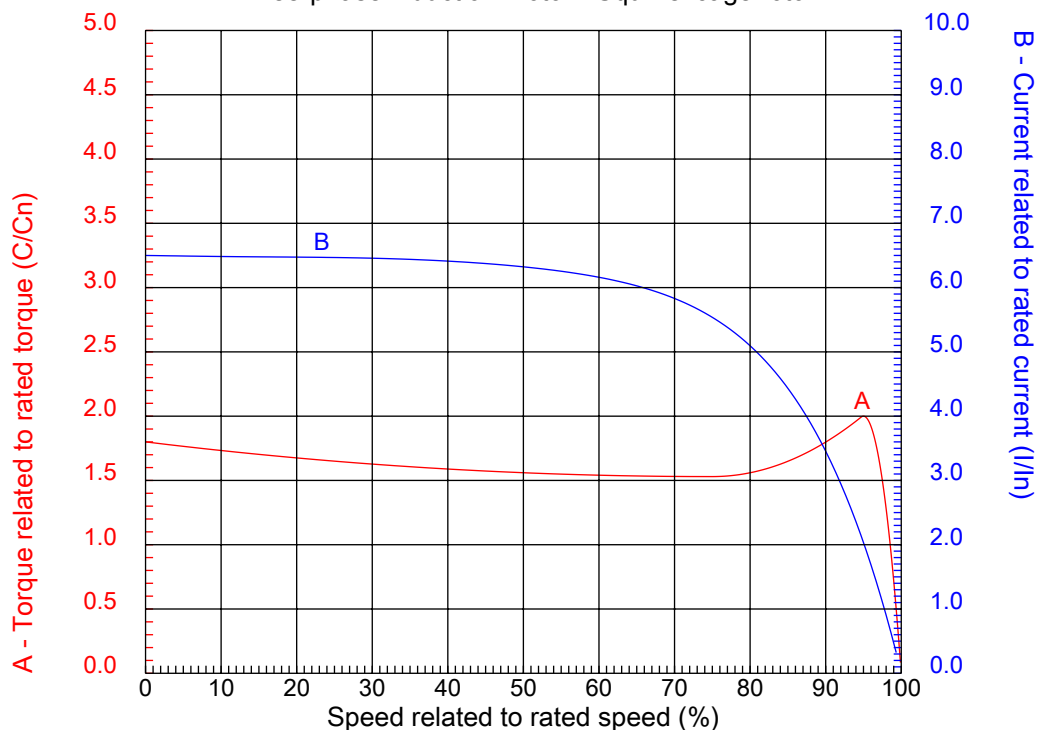
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## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Three-Phase : Explosion Proof - NEMA Premium

Frame	: 586/7T	Locked rotor current (I <sub>l</sub> /I <sub>n</sub> )	: 6.5
Output	: 450 HP	Duty cycle	: S1
Frequency	: 60 Hz	Service factor	: 1.15
Full load speed	: 1790 rpm	Design	: B
Voltage	: 460 V	Locked rotor torque	: 180 %
Rated current	: 501 A	Breakdown torque	: 200 %
Insulation class	: F		

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1 2 3 4 5 6 7 8

A

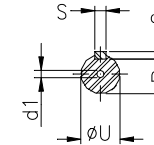
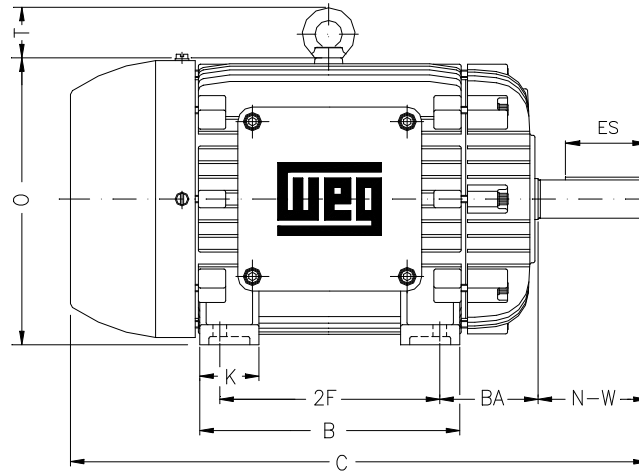
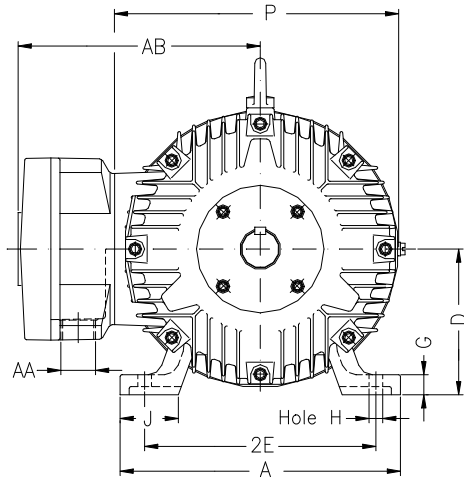
B

C

D

E

F



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Customer:

Three-Phase : Explosion Proof - NEMA Premium

Three-phase induction motor  
Frame 586/7T - IP55

29-SEP-2016



2E 23.000	A 29.528	2F 22.000/25.000	B 29.921	BA 10.00
J 5.236	K 7.874	P 30.709	ES 8.661	depth 1.000
S 1.000	N-W 11.625	U 3.875	R 3.312	AB 25.787
D 14.500	G 2.492	O 30.428	T 4.291	H 1.181
C 61.389	AA 2xNPT 3"	d1 DUNC 7/8"-9	d2 DUNC 3/4"-10	

1 2 3 4 5 6 7 8

A

### PART-WINDING

### WYE-DELTA

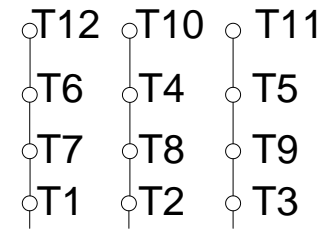
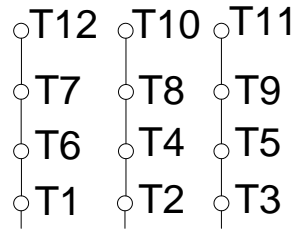
#### START

#### RUN

#### START

#### RUN

B



C

L1 L2 L3

L1 L2 L3

L1 L2 L3

L1 L2 L3

D

E

F

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Customer:

Three-Phase : Explosion Proof - NEMA Premium

Three-phase induction motor  
Frame 586/7T - IP55

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