



Dealers Industrial Equipment

No.:

Date: 29-SEP-2016

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor

Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Catalog Number : 45018EP3GKD580Z-W22

List Price : \$46,410

Notes:

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Generated for Model #45018EP3GKD580Z-W22

Performed by:

Checked:



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No.:

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

Customer :  
 Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Frame : 586/7Z  
 Output : 450 HP  
 Frequency : 60 Hz  
 Poles : 4  
 Full load speed : 1790 rpm  
 Slip : 0.56 %  
 Voltage : 460 V  
 Rated current : 497 A  
 Locked rotor current : 3830 A  
 Locked rotor current (I<sub>L</sub>/I<sub>n</sub>) : 7.7  
 No-load current : 155 A  
 Full load torque : 1302 lb.ft  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Design : A  
 Insulation class : F  
 Temperature rise : 80 K  
 Locked rotor time : 12 s (hot)  
 Service factor : 1.15  
 Duty cycle : S1  
 Ambient temperature : -20°C - +40°C  
 Altitude : 1000 m  
 Degree of Protection : IP55  
 Approximate weight : 3991 lb  
 Moment of inertia : 214.10 sq.ft.lb  
 Noise level : 81 dB(A)

	D.E.	N.D.E.
Bearings	NU-324 C3	6319 C3
Regreasing interval	3000 h	8000 h
Grease amount	72 g	45 g

Load	Power factor	Efficiency (%)
100%	0.87	95.8
75%	0.84	95.8
50%	0.77	95.4

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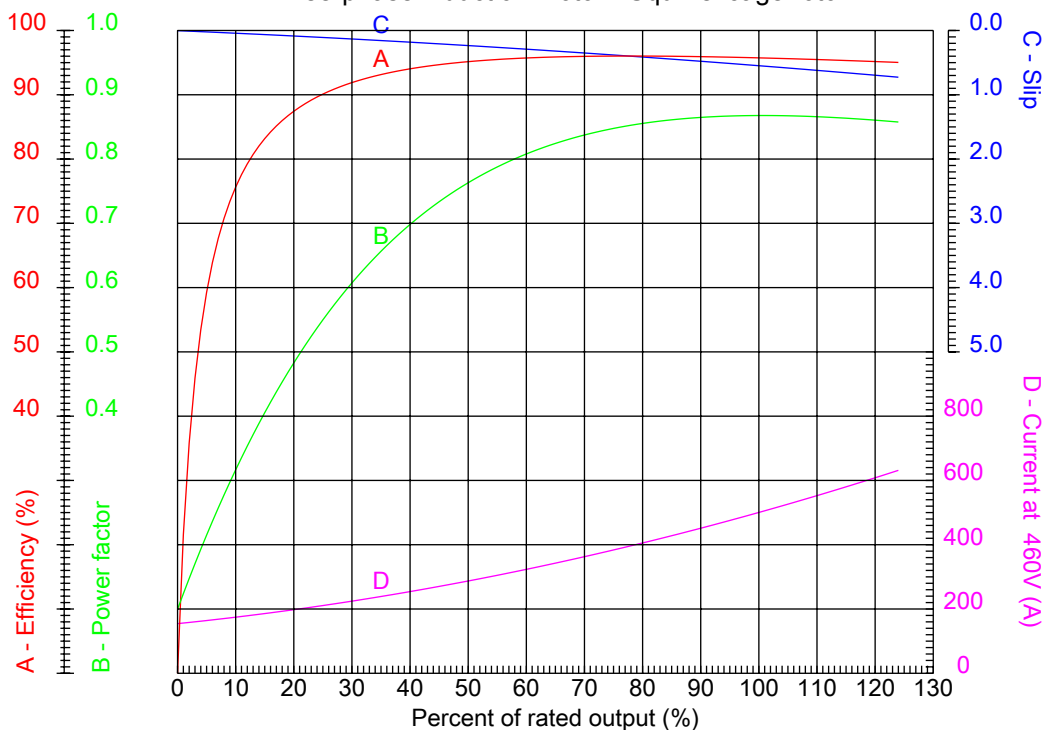
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## PERFORMANCE CURVES RELATED TO RATED OUTPUT

Three-phase induction motor - Squirrel cage rotor



Customer :  
 Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Frame	: 586/7Z	Locked rotor current (I <sub>l</sub> /I <sub>n</sub> )	: 7.7
Output	: 450 HP	Duty cycle	: S1
Frequency	: 60 Hz	Service factor	: 1.15
Full load speed	: 1790 rpm	Design	: A
Voltage	: 460 V	Locked rotor torque	: 240 %
Rated current	: 497 A	Breakdown torque	: 260 %
Insulation class	: F		

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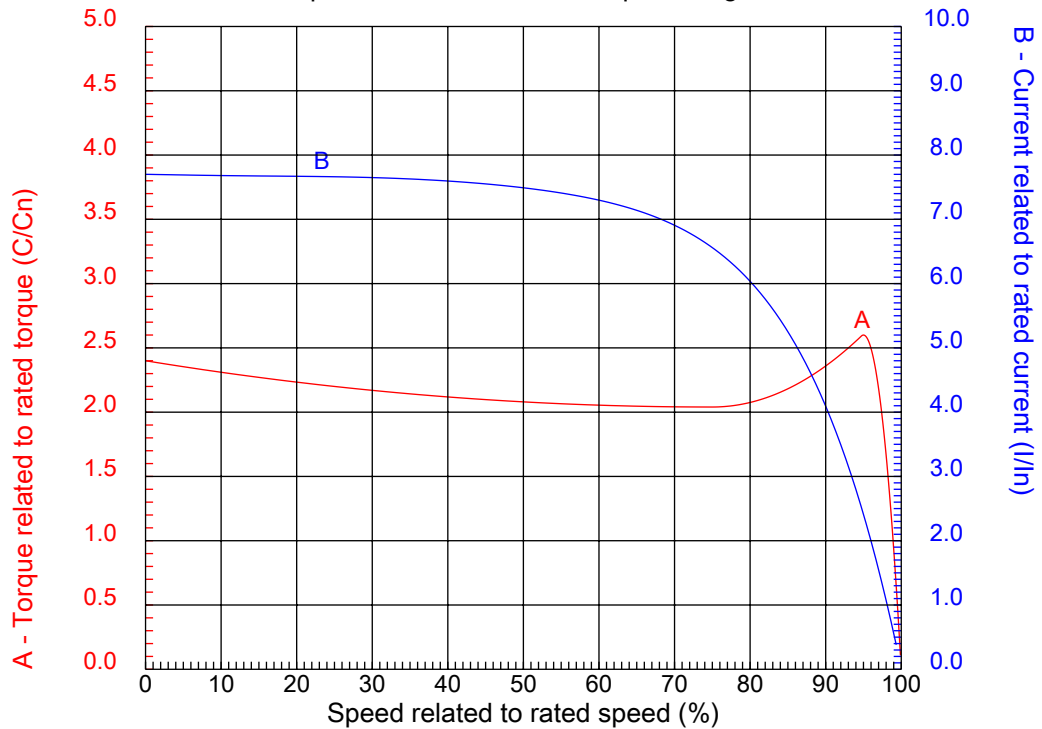
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## CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor - Squirrel cage rotor



Customer :  
Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Frame	: 586/7Z	Locked rotor current (I <sub>l</sub> /I <sub>n</sub> )	: 7.7
Output	: 450 HP	Duty cycle	: S1
Frequency	: 60 Hz	Service factor	: 1.15
Full load speed	: 1790 rpm	Design	: A
Voltage	: 460 V	Locked rotor torque	: 240 %
Rated current	: 497 A	Breakdown torque	: 260 %
Insulation class	: F		

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1 2 3 4 5 6 7 8

A

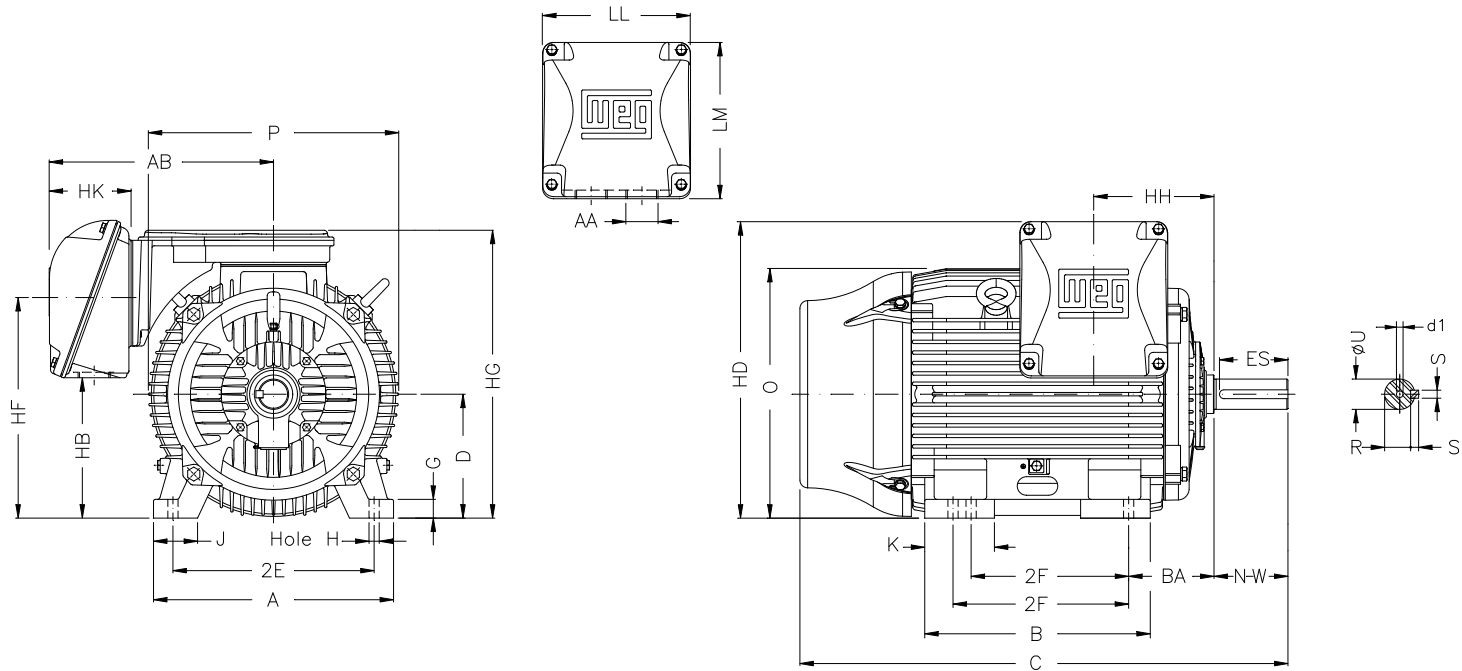
B

C

D

E

F



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2E 23.000	J 5.512	A 29.528	P 28.977	AB 23.189
2F 22.000/25.000	K 9.055	B 29.921	BA 10.000	U 4.375
N-W 11.625	ES 8.661	S 1.000	R 3.816	depth 1.000
D 14.500	G 2.492	HB 18.575	O 28.985	HD 35.740
HF 26.732	HG 35.236	HH 13.346	HK 8.661	H 1.181
C 61.902	LL 15.906	LM 17.165	AA 2xNPT 3"	d1 DUNC 7/8"-9
d2 DUNC 3/4"-10				

Performed by:

Checked:

Customer:

Three-Phase: W22 Crusher Duty TEFC (IP55)

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

29-SEP-2016



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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Three-phase induction motor  
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