



Technical Documentation

# **APH0102-841**

## **Advantage Plus IEEE 841 | AEHH8B**

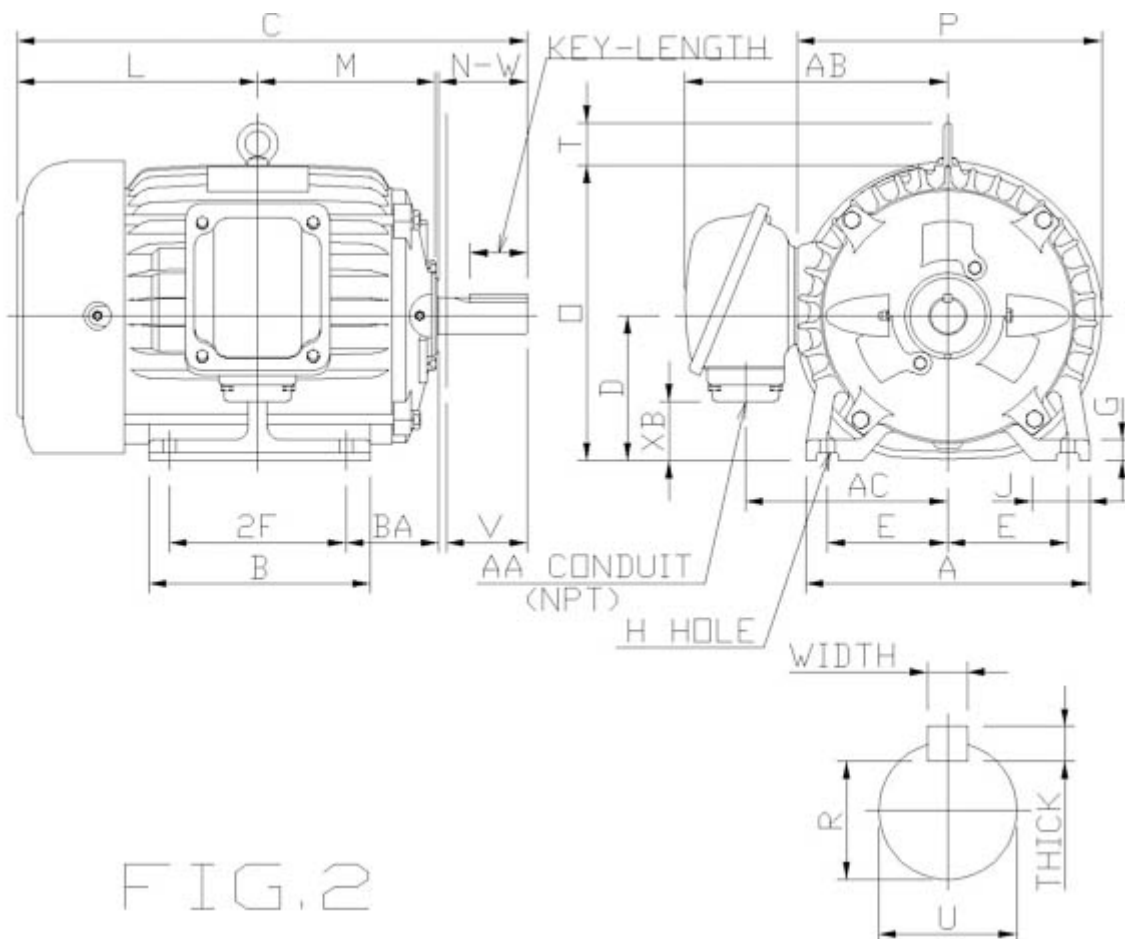
Beaver Electrical Machinery Ltd.

Date: July 25, 2022



### Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH0102-841	AEHH8B	10	3600	460	60	215T





Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
4.25	7	5.5	0.41	3.5	9.85	8.35	19.76			5.25	0.7

J	K	L	M	O	P	T
1.75		9.38	6.85	10.62	11.1	1.65

Terminal Housing			
AA	AB	AC	XB
NPT1"	9.78	7.34	2.34

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
3.38	1.375	3.3	0.312	0.312	2.41	1.201

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6308ZC3	6306ZC3	185	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH0102-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
10	2	3510	215T	460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.15	Continuous	B	-40 to 40 °C	<1000 m

#### Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
91	89.5	91.7	91	89.5	88.5	82.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
14.96	220	180	260	3.0	11.5	81
NEMA KVA Code	Inertia (WR <sup>2</sup> )			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft <sup>2</sup> )	NEMA Load (lb-ft <sup>2</sup> )	Max. Allowable (lb-ft <sup>2</sup> )	Cold	Hot	
H	0.573	11	20	17	12	71

#### VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
10	11.5	6-60Hz	3-60Hz	3-6kHz	VPWM or CPWM	1

#### Hazardous Locations Information



CSA Certified
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA
Temp Code (Sinewave / VFD)
T3C / T3B

#### Additional Certifications

Other Certification
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#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6308ZC3	6306ZC3	185

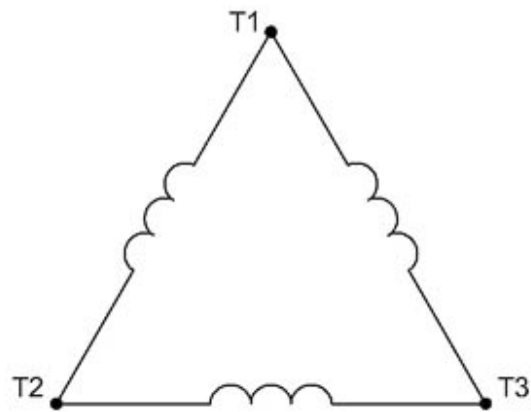
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B	CAT. NO.	APH0102-841		
OUTPUT	10 HP 7.46 kW	FRAME	215T	TEFC	
R.P.M.	3510	POLE	2	INS.	F
VOLTS	460	PHASE	3	Hz	60
AMPS	11.5	CODE	H	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 91		MIN. EFF. 89.5	
BEARINGS	6308ZC3 / 6306ZC3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 185 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-90Hz	1	



### Connection Diagram



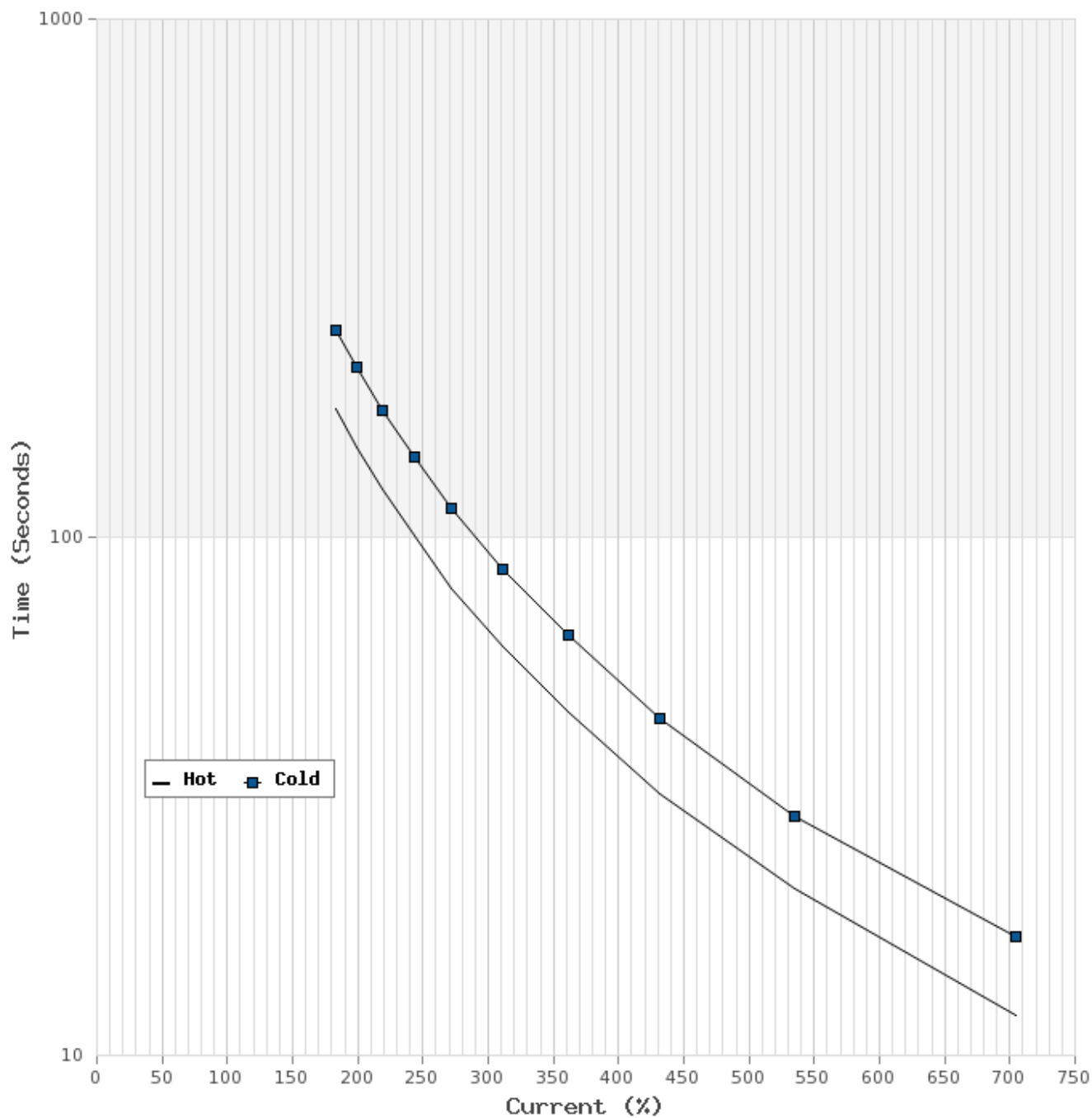
3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D



### Thermal Limit Curves

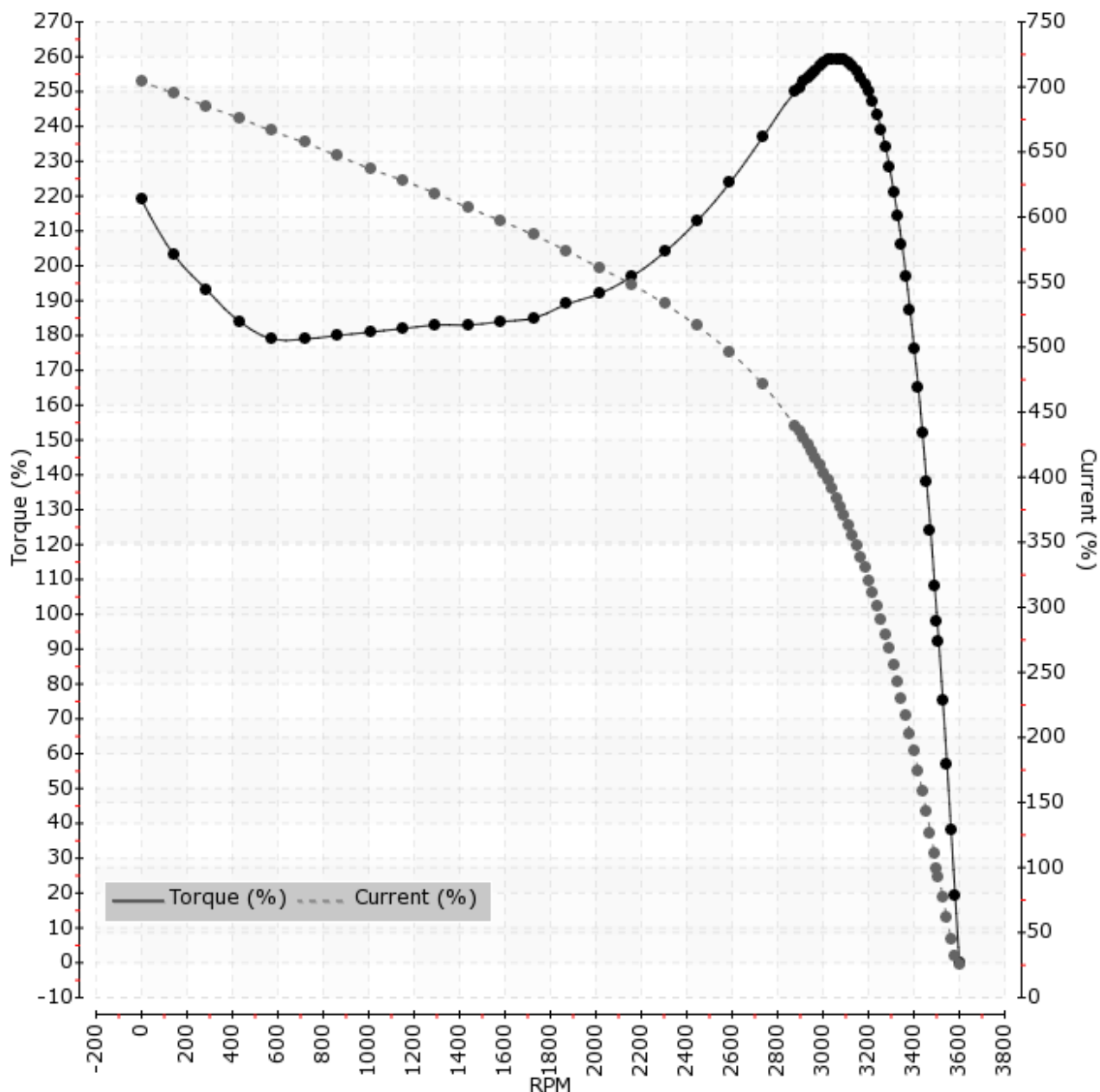
Motor Type: AEHH8B		Catalogue No: APH0102-841		Family: Advantage Plus IEEE 841	
HP	10	Safe Stall Time		Full Load A	11.5 A
Voltage	460V 60Hz	Hot	12 s	% Inrush	704 %
RPM	3600	Cold	17 s	Locked Rotor A	81 A





### T-N and I-N Curves

Motor Type: AEHH8B		Catalogue No: APH0102-841		Family: Advantage Plus IEEE 841	
HP	10	Full Load T	14.96 lb-ft	Full Load A	11.5 A
Voltage	460V 60Hz	Locked Rotor T	220 %	Locked Rotor A	81.0 A
RPM	3600	Pull Up T	180 %	Break Down T	260 %





**Dimensional Drawing (50 Hz)**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH0102-841	AEHH8B	10	2	7.46	Continuous	380	50	

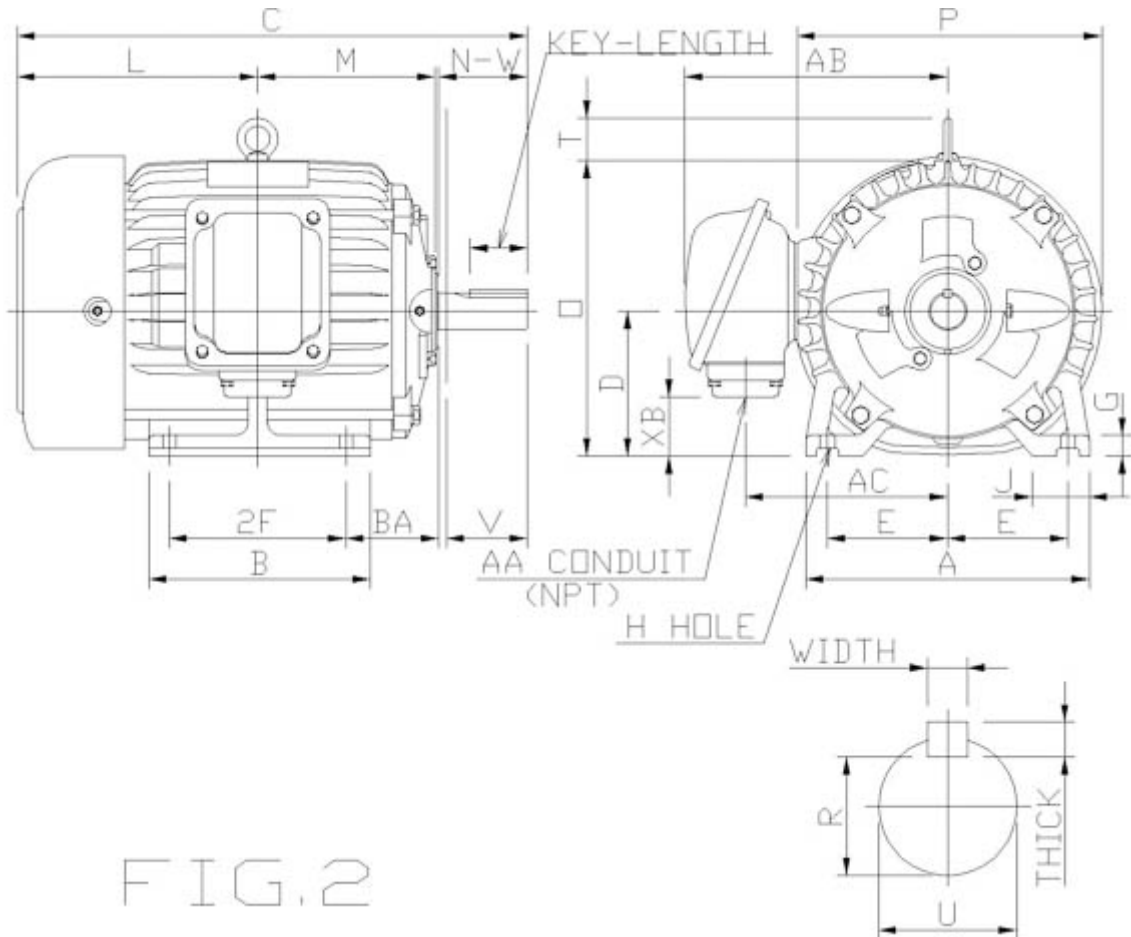


FIG. 2

Frame Size	Mounting					A	B	C	CD	D
	E	2F	2F2	H	BA					
215T	4.25		5.5	0.41	3.5	9.85	8.35	19.76		5.25

G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
0.7	1.75		9.38	6.85	10.62	11.1	1.65	0.312	0.312	2.41	1.201



  

Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT1"	9.78	7.34	2.34								

Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions
N-W	U	V	DE	NDE						
3.38	1.375	3.3	6308ZC3	6306ZC3	185	71	F	1	Direct Coupling / Belt Drive	Inches



	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Technical Data Sheet (50 Hz)

Motor Type: AEHH8B	Catalogue No: APH0102-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
10	2		215T	380	50	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1	Continuous	B	-40 to 40 °C	<1000 m

#### Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
89.5	87.5	91	91.7	92	92.00	89.00
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
18	175	155	225	2.1	13.8	107
NEMA KVA Code	Inertia (WR <sup>2</sup> )			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft <sup>2</sup> )	NEMA Load (lb-ft <sup>2</sup> )	Max. Allowable (lb-ft <sup>2</sup> )	Cold	Hot	
H	0.573	16.9	25.71	17	12	71

#### VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-50Hz	3-50Hz	50-75Hz	3-6kHz	VPWM or CPWM	1

#### Hazardous Locations Information

CSA Certified
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA
Temp Code (Sinewave / VFD)      T3C / T3B

#### Additional Certification

Other Certification
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#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6308ZC3	6306ZC3	185