
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

Technical Documentation

# **APH0504-841**

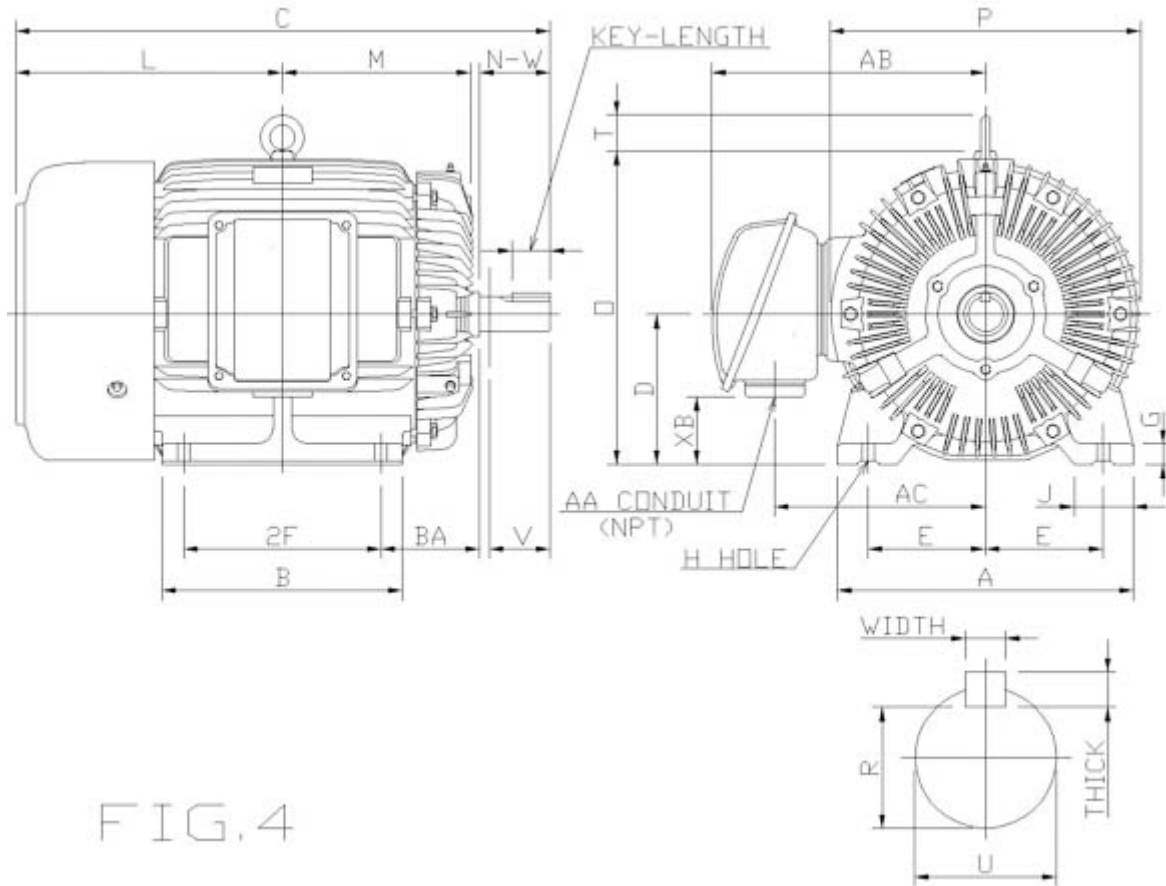
## **Advantage Plus IEEE 841 | AEHH8B**

Beaver Electrical Machinery Ltd.  
Date: July 25, 2022



**Dimensional Drawing**

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH0504-841	AEHH8B	50	1800	460	60	326T





Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
6.25	12	10.5	0.66	5.25	15.75	14.37	31.43			8	1.1

J	K	L	M	O	P	T
3.15		14.93	10.85	16.22	16.55	2.36

Terminal Housing			
AA	AB	AC	XB
NPT2"	14.72	11.3	3.59

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
5.25	2.125	5.15	0.5	0.5	3.91	1.845

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6312ZC3	6212ZC3	719	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH0504-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	4	1770	326T	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.					
94.5	93.6	95	95	87	86	80.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
148.3	210	170	220	13.1	56.9	363
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	
G	10.123	232	427	17	12	76

#### VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
50	56.94	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 / T3

#### Additional Certifications

Other Certification
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#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6312ZC3	6212ZC3	719

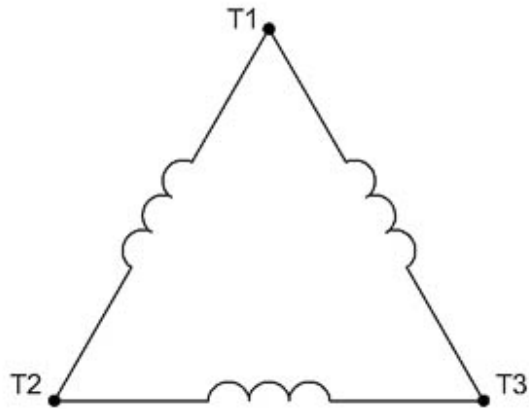
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B	CAT. NO.	APH0504-841		
OUTPUT	50 HP 37.3 kW	FRAME	326T	TEFC	
R.P.M.	1770	POLE	4	INS.	F
VOLTS	460	PHASE	3	Hz	60
AMPS	56.9	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 94.5		MIN. EFF. 93.6	
BEARINGS	6312ZC3 / 6212ZC3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 719 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-90Hz	1	



**Connection Diagram**



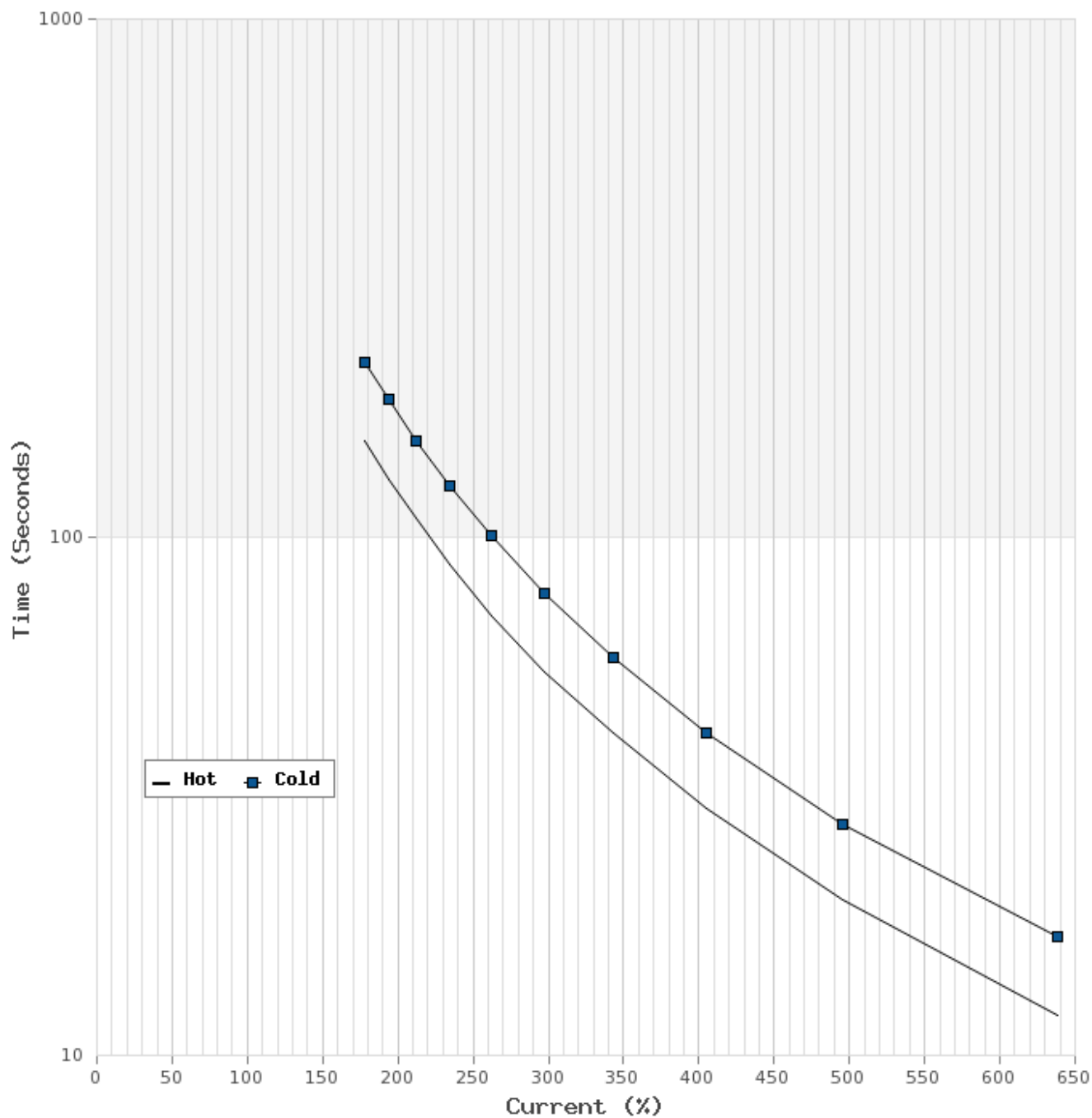
3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D



### Thermal Limit Curves

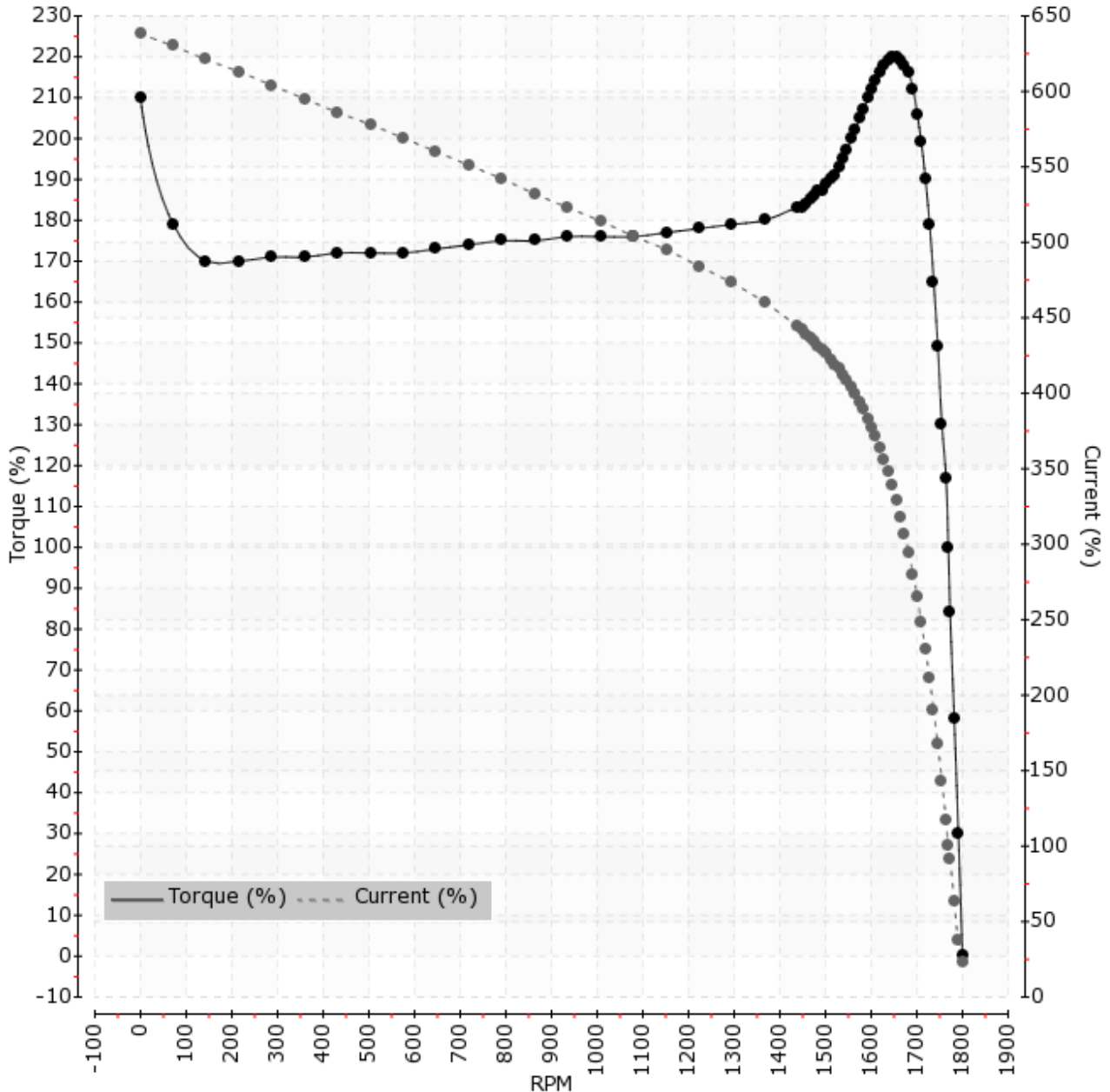
Motor Type: AEHH8B		Catalogue No: APH0504-841		Family: Advantage Plus IEEE 841	
HP	50	Safe Stall Time		Full Load A	56.9 A
Voltage	460V 60Hz	Hot	12 s	% Inrush	638 %
RPM	1800	Cold	17 s	Locked Rotor A	363 A





**T-N and I-N Curves**

Motor Type: AEHH8B		Catalogue No: APH0504-841		Family: Advantage Plus IEEE 841	
HP	50	Full Load T	148.3 lb-ft	Full Load A	56.9 A
Voltage	460V 60Hz	Locked Rotor T	210 %	Locked Rotor A	363.0 A
RPM	1800	Pull Up T	170 %	Break Down T	220 %





**Dimensional Drawing (50 Hz)**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH0504-841	AEHH8B	50	4	37.3	Continuous	380	50	

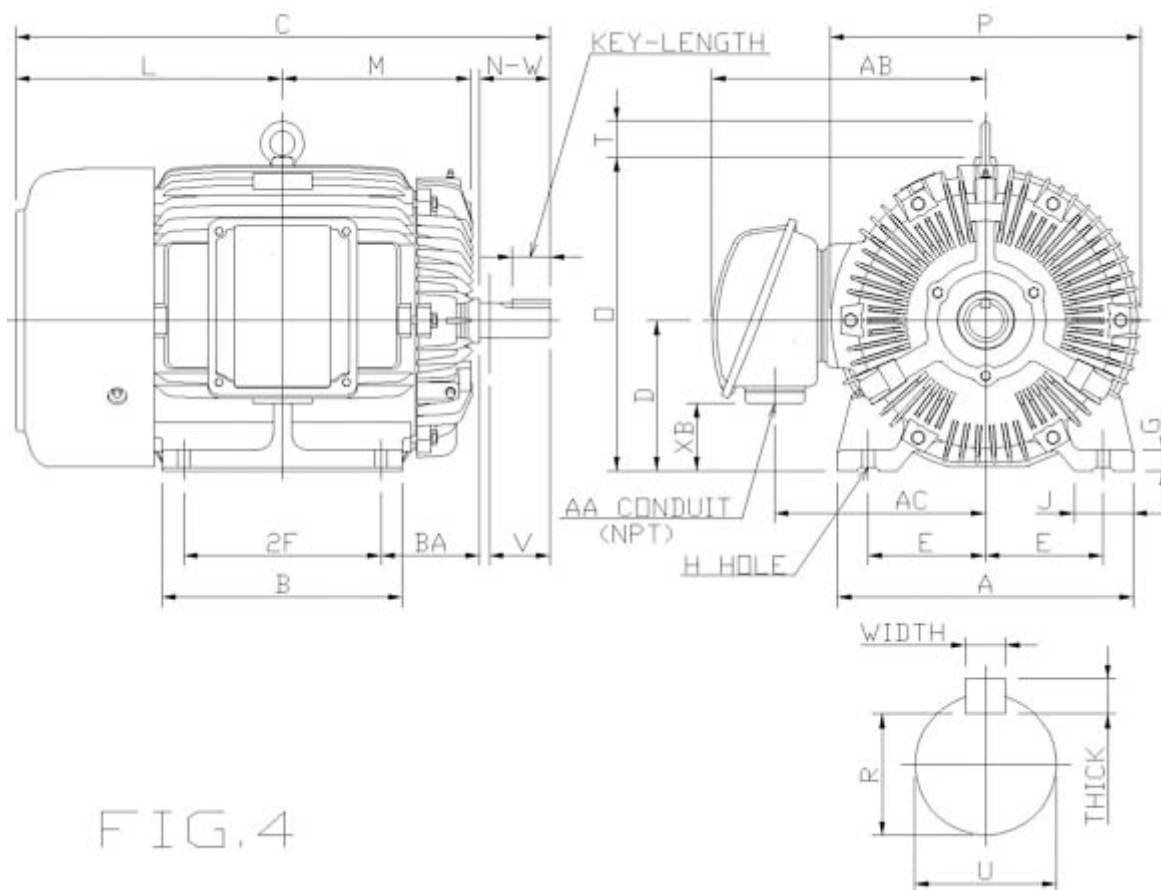


FIG. 4



Frame Size	Mounting					A	B	C	CD	D
	E	2F	2F2	H	BA					
326T	6.25		10.5	0.66	5.25	15.75	14.37	31.43		8

G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
1.1	3.15		14.93	10.85	16.22	16.55	2.36	0.5	0.5	3.91	1.845

Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT2"	14.72	11.3	3.59								

Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions
N-W	U	V	DE	NDE						
5.25	2.125	5.15	6312ZC3	6212ZC3	719	76	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: APH0504-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	4		326T	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.					
93.6	92.4	94.5	95	86.5	87.50	85.50
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
179	135	120	184	12.5	70.0	482
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	10.123	361.2	522.86	17	12	76

#### 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 / T3

#### Additional Certification

Other Certification
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#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6312ZC3	6212ZC3	719