



Technical Documentation

# **APH0154-841**

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

Beaver Electrical Machinery Ltd.

Date: July 25, 2022



### Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH0154-841	AEHH8B	15	1800	460	60	254T

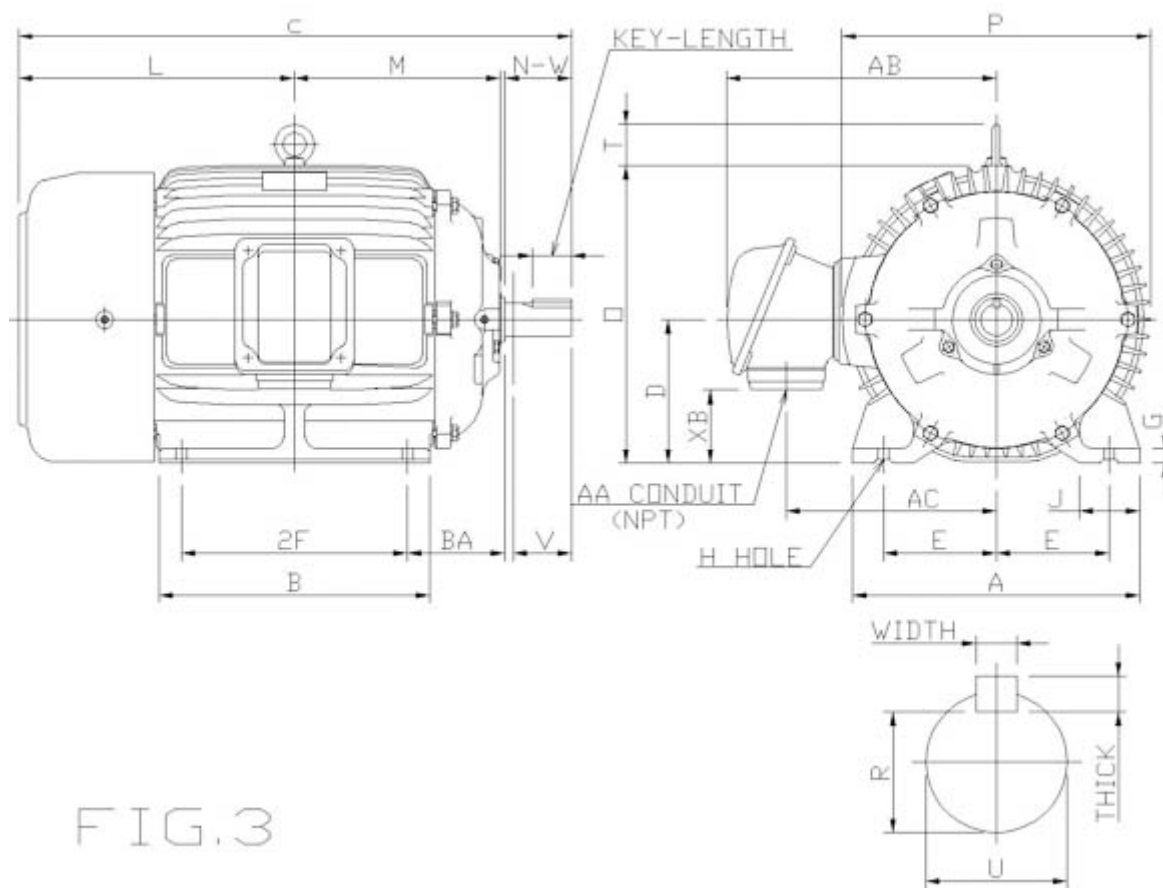


FIG.3



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
5	8.25		0.53	4.25	11.81	9.85	23.78			6.25	0.66

J	K	L	M	O	P	T
1.95		11.41	8.06	12.8	13.15	2.01

Terminal Housing			
AA	AB	AC	XB
NPT11/4"	11.3	8.86	3.22

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
4	1.625	3.9	0.375	0.375	2.91	1.416

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6309ZC3	6307C3	312	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH0154-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
15	4	1765	254T	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.					
92.4	91	93	92.4	88	85	77
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
44.62	245	180	270	6.0	17.3	116
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	2.179	75	220	32	22	64

#### VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
15	17.27	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
6309ZC3	6307C3	312

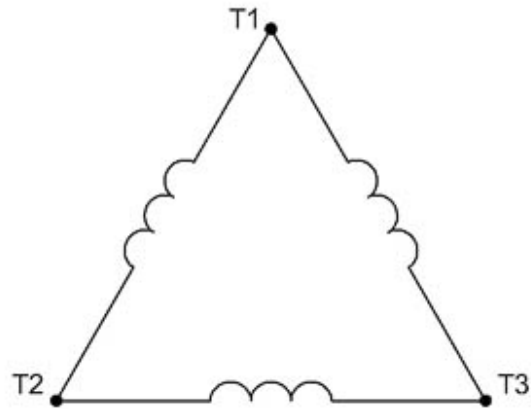
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B		CAT. NO.	APH0154-841	
OUTPUT	15 HP 11.19 kW		FRAME	254T	TEFC
R.P.M.	1765		POLE	4	INS. F
VOLTS	460		PHASE	3	Hz 60
AMPS	17.3		CODE	G	S.F. 1.15
AMBIENT	40 °C		NOM. EFF. 92.4		MIN. EFF. 91
BEARINGS	6309ZC3 / 6307C3				RATING Cont.
SER. NO.	TBD		DESIGN	B	WT. 312 LBS
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1	



### Connection Diagram



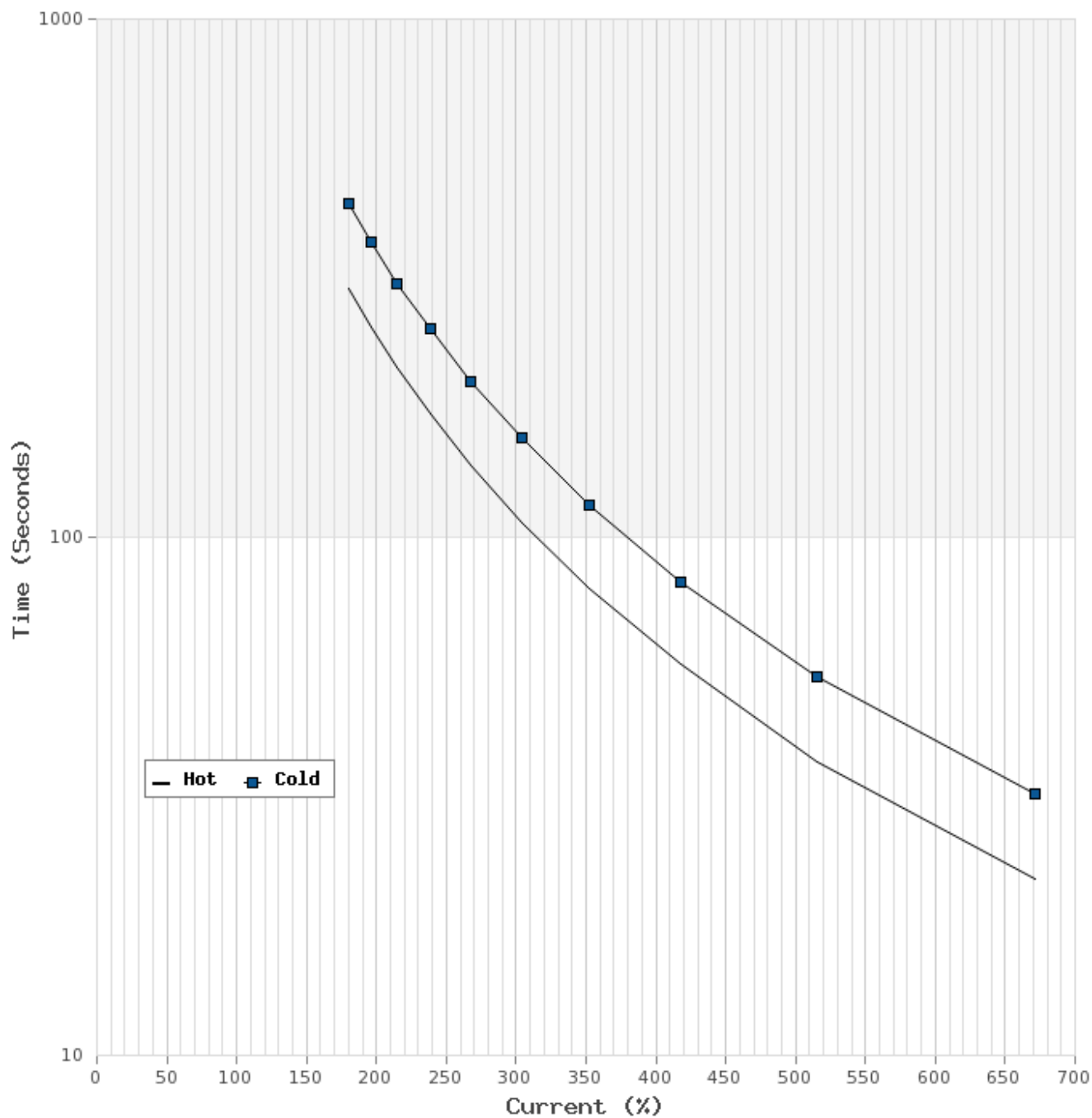
3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D



### Thermal Limit Curves

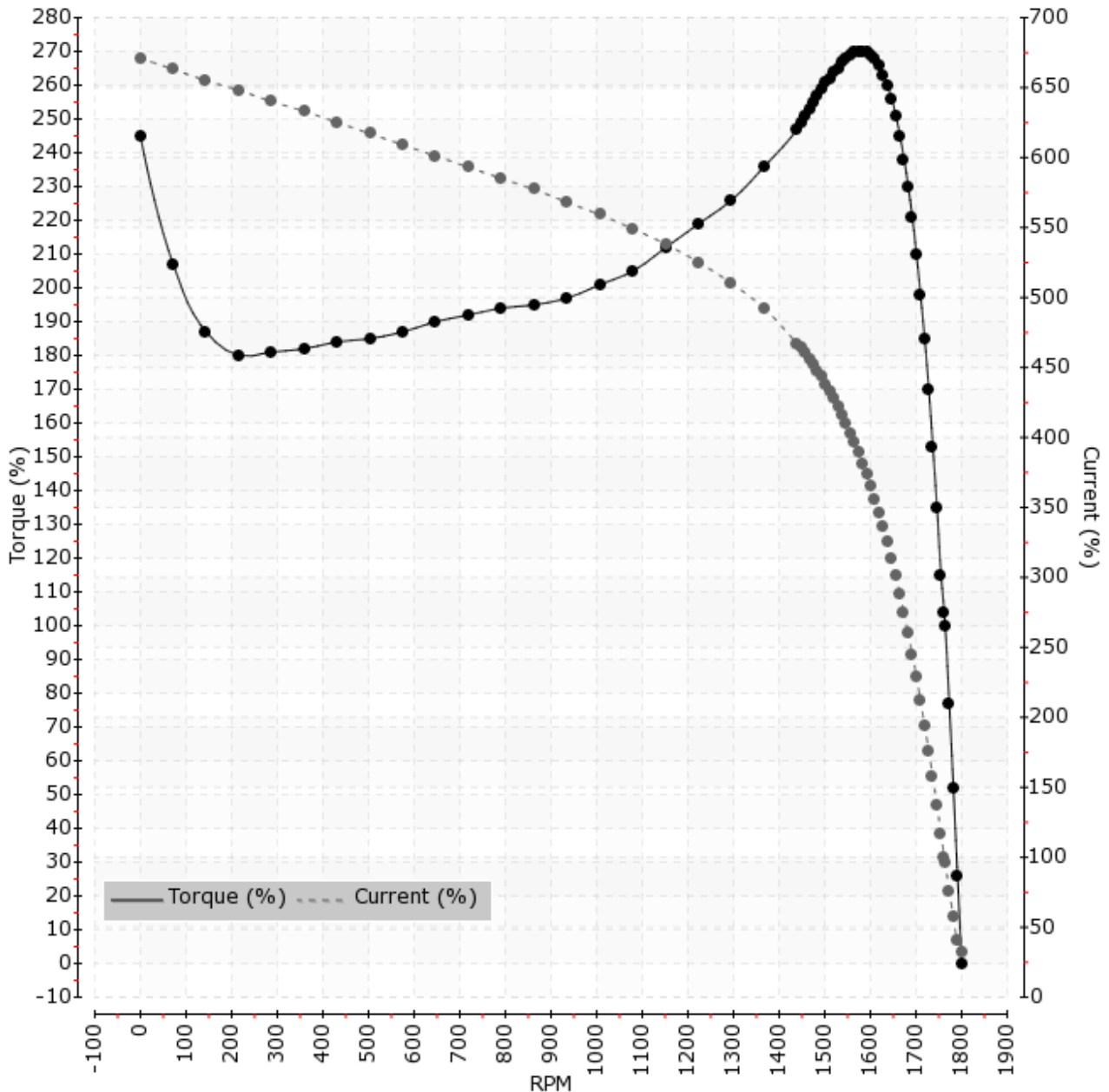
Motor Type: AEHH8B		Catalogue No: APH0154-841		Family: Advantage Plus IEEE 841	
HP	15	Safe Stall Time		Full Load A	17.3 A
Voltage	460V 60Hz	Hot	22 s	% Inrush	672 %
RPM	1800	Cold	32 s	Locked Rotor A	116 A





### T-N and I-N Curves

Motor Type: AEHH8B		Catalogue No: APH0154-841		Family: Advantage Plus IEEE 841	
HP	15	Full Load T	44.62 lb-ft	Full Load A	17.3 A
Voltage	460V 60Hz	Locked Rotor T	245 %	Locked Rotor A	116.0 A
RPM	1800	Pull Up T	180 %	Break Down T	270 %





**Dimensional Drawing (50 Hz)**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH0154-841	AEHH8B	15	4	11.19	Continuous	380	50	

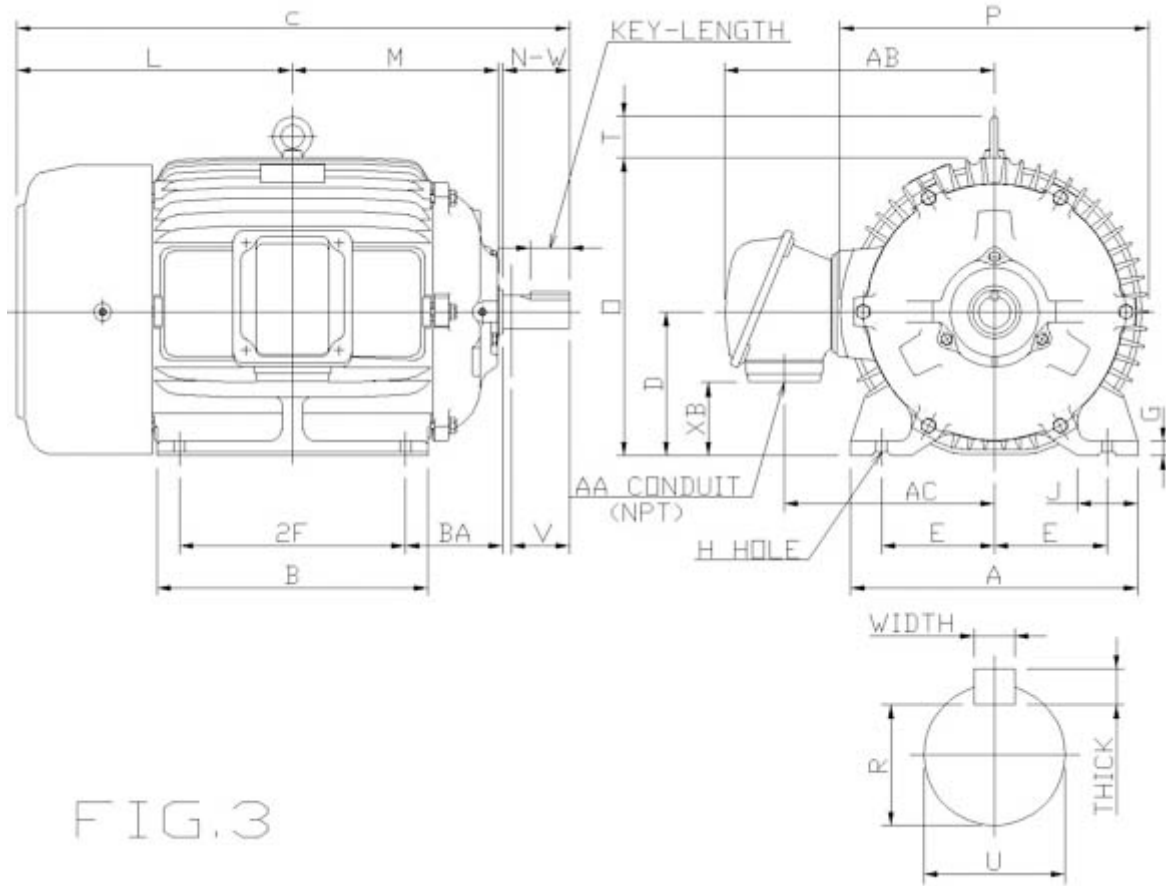


FIG. 3

Frame Size	Mounting					A	B	C	CD	D
	E	2F	2F2	H	BA					
254T	5			0.53	4.25	11.81	9.85	23.78		6.25

G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
0.66	1.95		11.41	8.06	12.8	13.15	2.01	0.375	0.375	2.91	1.416



  

Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT11/4 "	11.3	8.86	3.22								

Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions
N-W	U	V	DE	NDE						
4	1.625	3.9	6309ZC3	6307C3	312	64	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: APH0154-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
15	4		254T	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.					
91	89.5	92.4	92.4	86.5	85.00	79.00
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
54	170	140	205	5.3	21.6	154
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	2.179	116.9	207.14	17	12	64

#### VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-50Hz	3-50Hz	50-100Hz	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
6309ZC3	6307C3	312