



Technical Documentation

APH0032-841

Advantage Plus IEEE 841 | AEHH8B

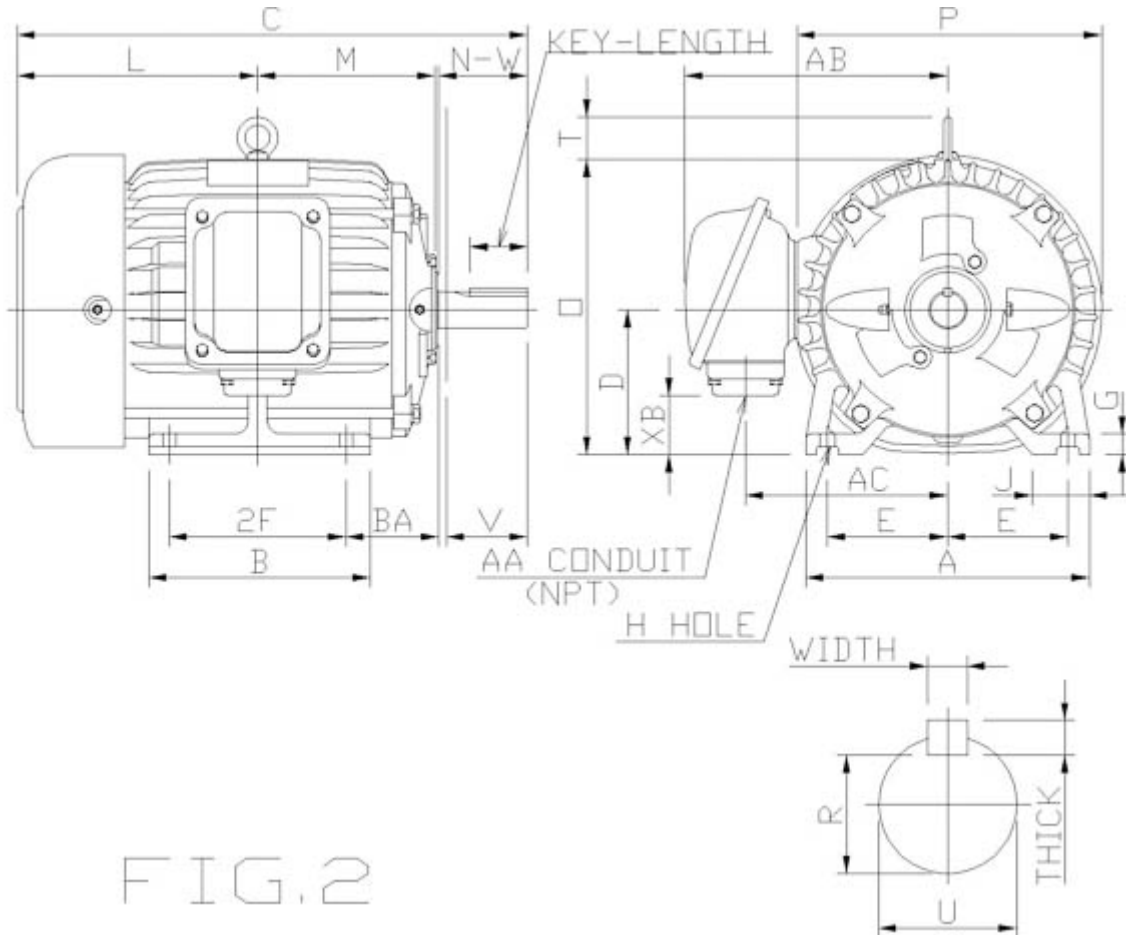
Beaver Electrical Machinery Ltd.

Date: July 25, 2022



Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH0032-841	AEHH8B	3	3600	460	60	182T





Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
3.75	4.5		0.41	2.75	8.82	5.88	14.89			4.5	0.65

J	K	L	M	O	P	T
1.75		7.14	4.87	9.17	9.61	1.3

Terminal Housing			
AA	AB	AC	XB
NPT3/4"	8.31	6.38	1.86

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
2.75	1.125	2.7	0.25	0.25	1.78	0.986

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6306ZC3	6306ZC3	88	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH0032-841
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
3	2	3490	182T	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.					
88.5	86.5	90.2	89.5	90	87	79.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
4.51	280	250	380	1.2	3.5	32
NEMA KVA Code	Inertia (WR ²)			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft ²)	NEMA Load (lb-ft ²)	Max. Allowable (lb-ft ²)	Cold	Hot	
K	0.19	3.5	13	17	12	64

VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
3	3.53	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 / T3C

Additional Certifications

Other Certification

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6306ZC3	6306ZC3	88

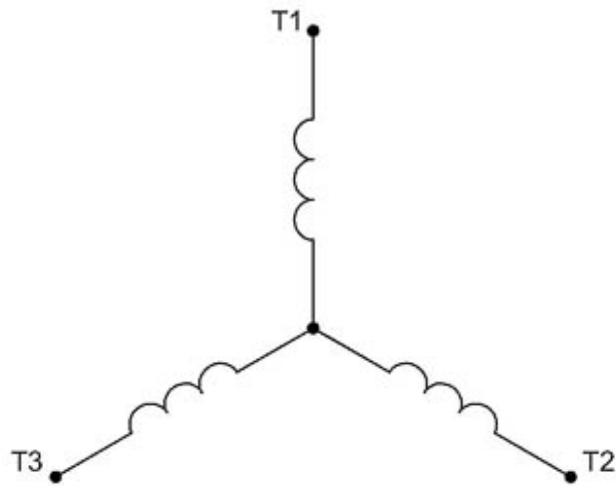
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B	CAT. NO.	APH0032-841		
OUTPUT	3 HP 2.24 kW	FRAME	182T	TEFC	
R.P.M.	3490	POLE	2	INS.	F
VOLTS	460	PHASE	3	Hz	60
AMPS	3.5	CODE	K	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 88.5		MIN. EFF. 86.5	
BEARINGS	6306ZC3 / 6306ZC3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 88 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1	



Connection Diagram



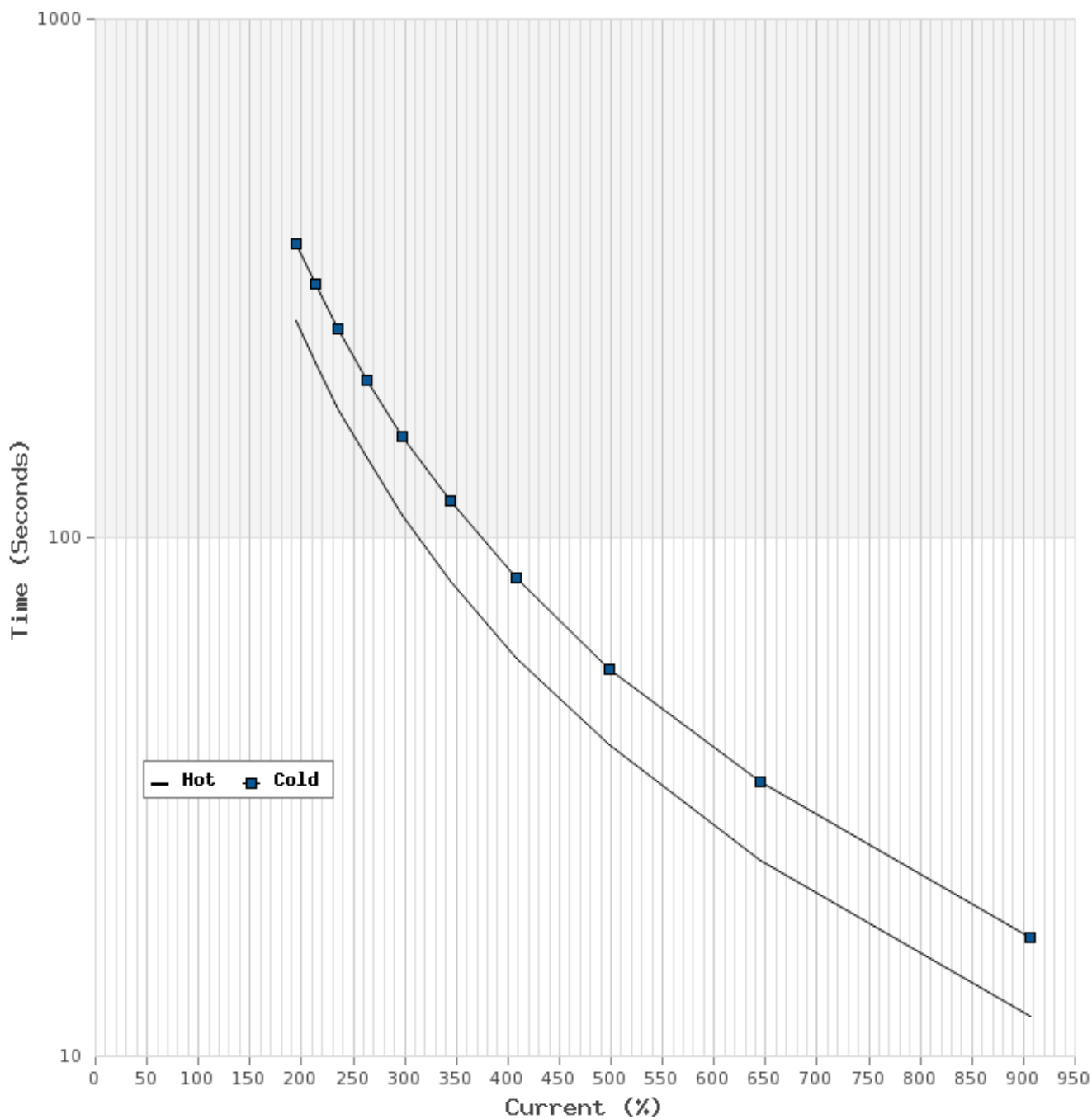
3 LEAD		SINGLE VOLTAGE			WYE
VOLTAGE	CONN.	L1	L2	L3	
-	WYE	1	2	3	

WD_3Y



Thermal Limit Curves

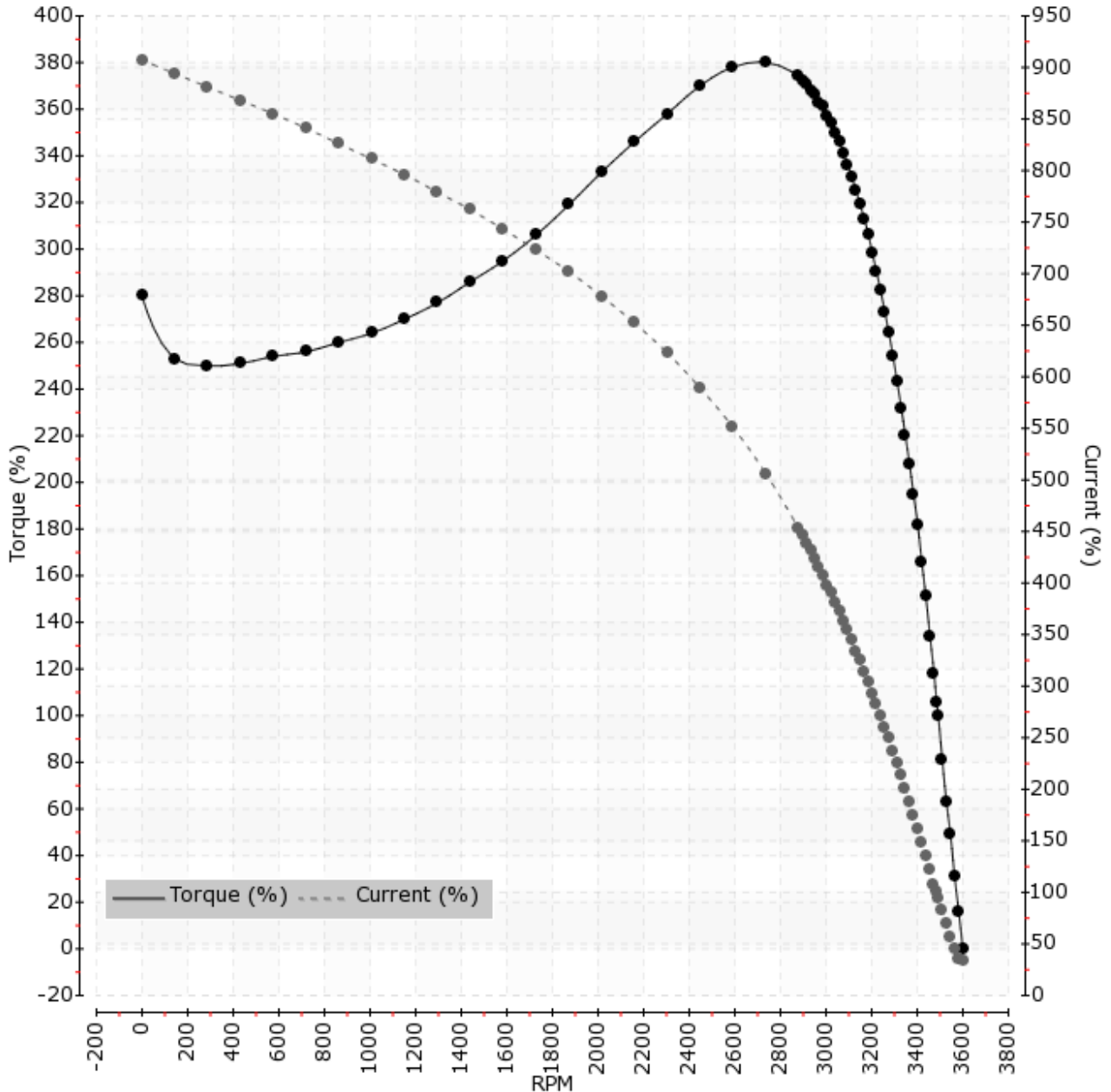
Motor Type: AEHH8B		Catalogue No: APH0032-841		Family: Advantage Plus IEEE 841	
HP	3	Safe Stall Time		Full Load A	3.5 A
Voltage	460V 60Hz	Hot	12 s	% Inrush	907 %
RPM	3600	Cold	17 s	Locked Rotor A	32 A





T-N and I-N Curves

Motor Type: AEHH8B		Catalogue No: APH0032-841		Family: Advantage Plus IEEE 841	
HP	3	Full Load T	4.51 lb-ft	Full Load A	3.5 A
Voltage	460V 60Hz	Locked Rotor T	280 %	Locked Rotor A	32.0 A
RPM	3600	Pull Up T	250 %	Break Down T	380 %





Dimensional Drawing (50 Hz)

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH0032-841	AEHH8B	3	2	2.24	Continuous	380	50	

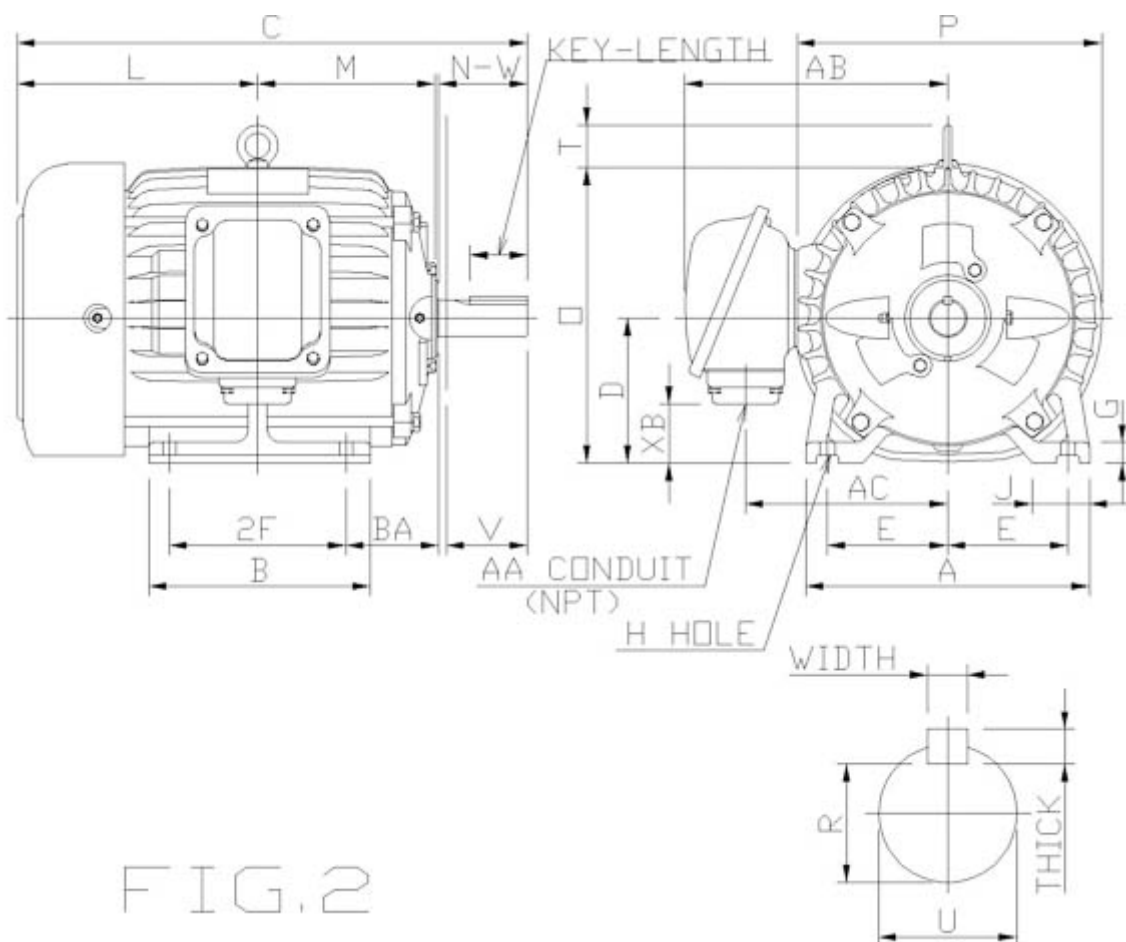




FIG. 2

Frame Size	Mounting					A	B	C	CD	D
	E	2F	2F2	H	BA					
182T	3.75			0.41	2.75	8.82	5.88	14.89		4.5

G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
0.65	1.75		7.14	4.87	9.17	9.61	1.3	0.25	0.25	1.78	0.986

Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3/4"	8.31	6.38	1.86								

Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions
N-W	U	V	DE	NDE						
2.75	1.125	2.7	6306ZC3	6306ZC3	88	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: APH0032-841
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
3	2		182T	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.					
85.5	82.5	87.5	87.5	92.5	91.00	85.00
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
6	285	275	315	1.1	4.3	43
NEMA KVA Code	Inertia (WR ²)			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft ²)	NEMA Load (lb-ft ²)	Max. Allowable (lb-ft ²)	Cold	Hot	
L	0.19	5.4	13.71	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 / T3C

Additional Certification

Other Certification

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6306ZC3	6306ZC3	88