



Technical Documentation

APH05045-841

Advantage Plus IEEE 841 | AEHH8B

Beaver Electrical Machinery Ltd.

Date: July 25, 2022



Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH05045-841	AEHH8B	50	1800	575	60	326T

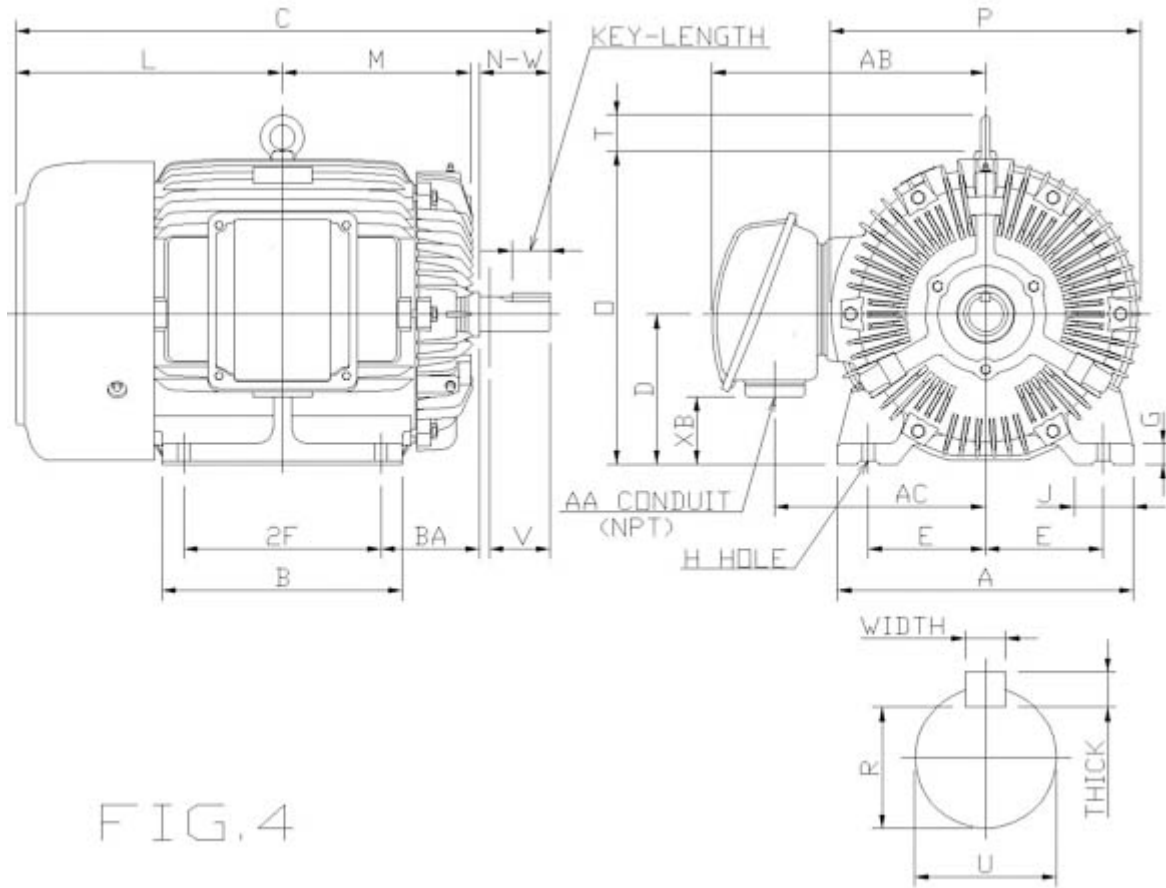


FIG. 4



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: APH05045-841
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	4	1770	326T	575	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	10.5	45.6	290.4
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	
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	45.56	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

Additional Information

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

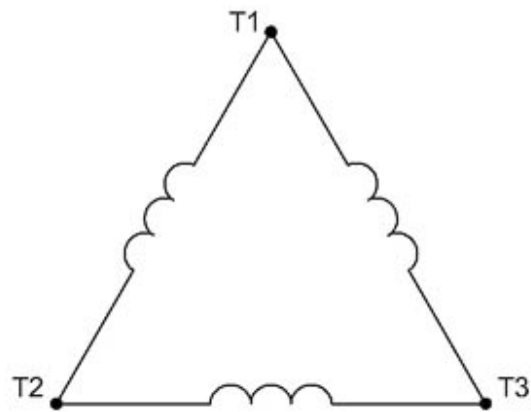
	Beaver Electrical Machinery Ltd.	
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Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B	CAT. NO.	APH05045-841		
OUTPUT	50 HP 37.3 kW	FRAME	326T	TEFC	
R.P.M.	1770	POLE	4	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	45.6	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



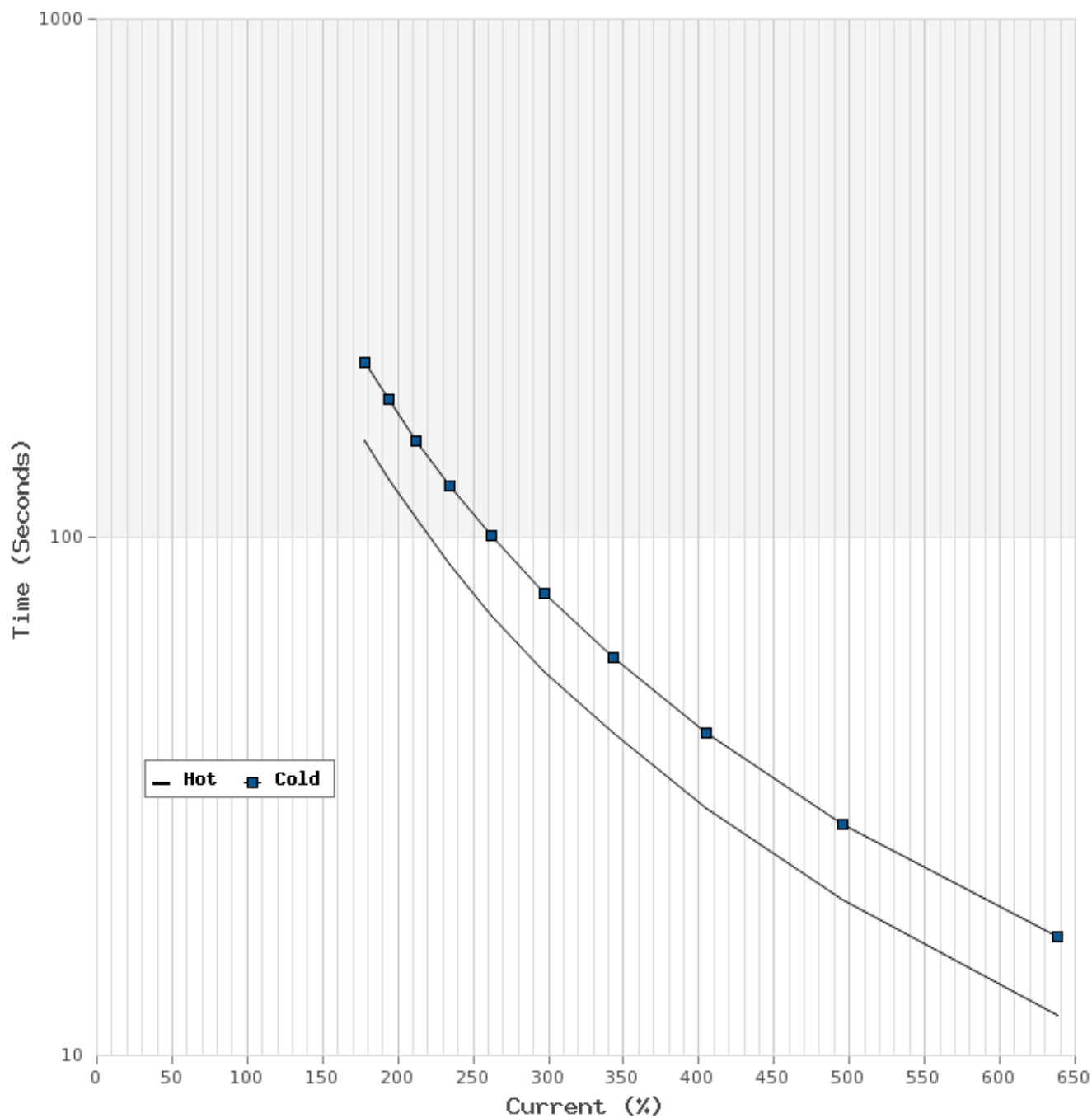
3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D



Thermal Limit Curves

Motor Type: AEHH8B		Catalogue No: APH05045-841		Family: Advantage Plus IEEE 841	
HP	50	Safe Stall Time		Full Load A	45.6 A
Voltage	575V 60Hz	Hot	12 s	% Inrush	637 %
RPM	1800	Cold	17 s	Locked Rotor A	290.4 A





T-N and I-N Curves

Motor Type: AEHH8B		Catalogue No: APH05045-841		Family: Advantage Plus IEEE 841	
HP	50	Full Load T	148.3 lb-ft	Full Load A	45.6 A
Voltage	575V 60Hz	Locked Rotor T	210 %	Locked Rotor A	290.4 A
RPM	1800	Pull Up T	170 %	Break Down T	220 %

