



Technical Documentation

# **APH0506-841**

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

Beaver Electrical Machinery Ltd.

Date: July 25, 2022



**Dimensional Drawing**

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH0506-841	AEHH8B	50	1200	460	60	365T

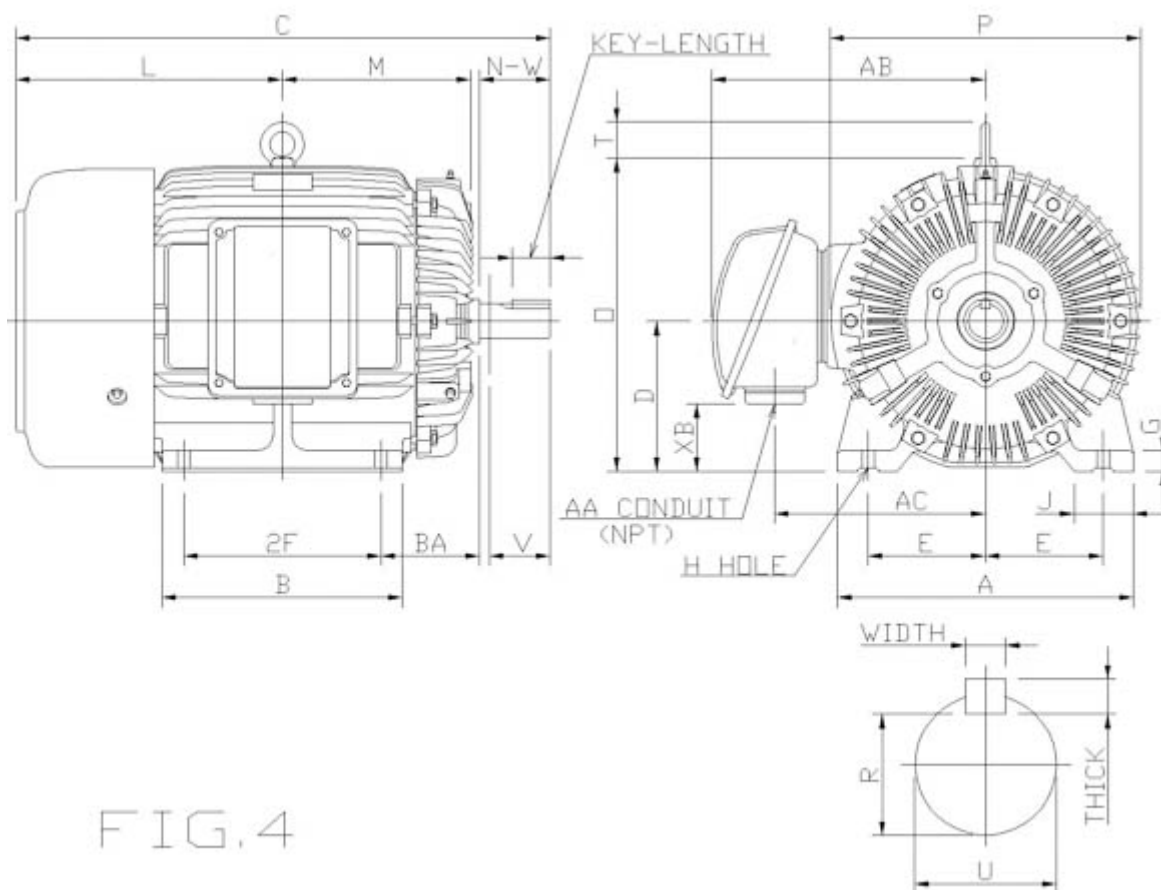


FIG. 4



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
7	12.25	11.25	0.66	5.88	17.7	14.76	33.55			9	1.32

J	K	L	M	O	P	T
3.54		15.67	11.59	17.99	18.03	2.76

Terminal Housing			
AA	AB	AC	XB
NPT3"	16.81	12.99	2.39

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
5.88	2.375	5.75	0.625	0.625	4.28	2.021

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6313ZC3	6213ZC3	959	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH0506-841
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	6	1180	365T	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.					
94.1	93	94.5	93.6	86	83	75.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
222.5	225	170	240	20.9	57.9	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	21.38	620	1385	29	20	75

#### VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
50	57.85	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
6313ZC3	6213ZC3	959

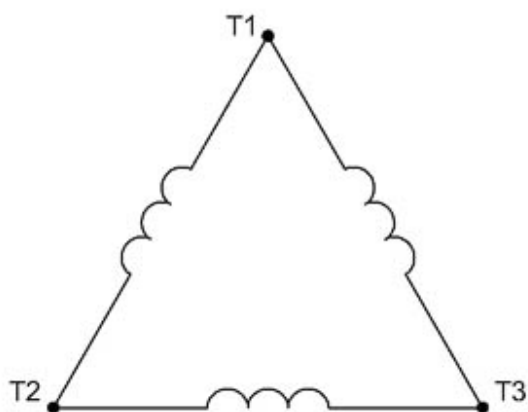
	Beaver Electrical Machinery Ltd.	
	Date: July 25, 2022	

### Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B	CAT. NO.	APH0506-841		
OUTPUT	50 HP 37.3 kW	FRAME	365T	TEFC	
R.P.M.	1180	POLE	6	INS.	F
VOLTS	460	PHASE	3	Hz	60
AMPS	57.9	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 94.1		MIN. EFF. 93	
BEARINGS	6313ZC3 / 6213ZC3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 959 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1	



### Connection Diagram



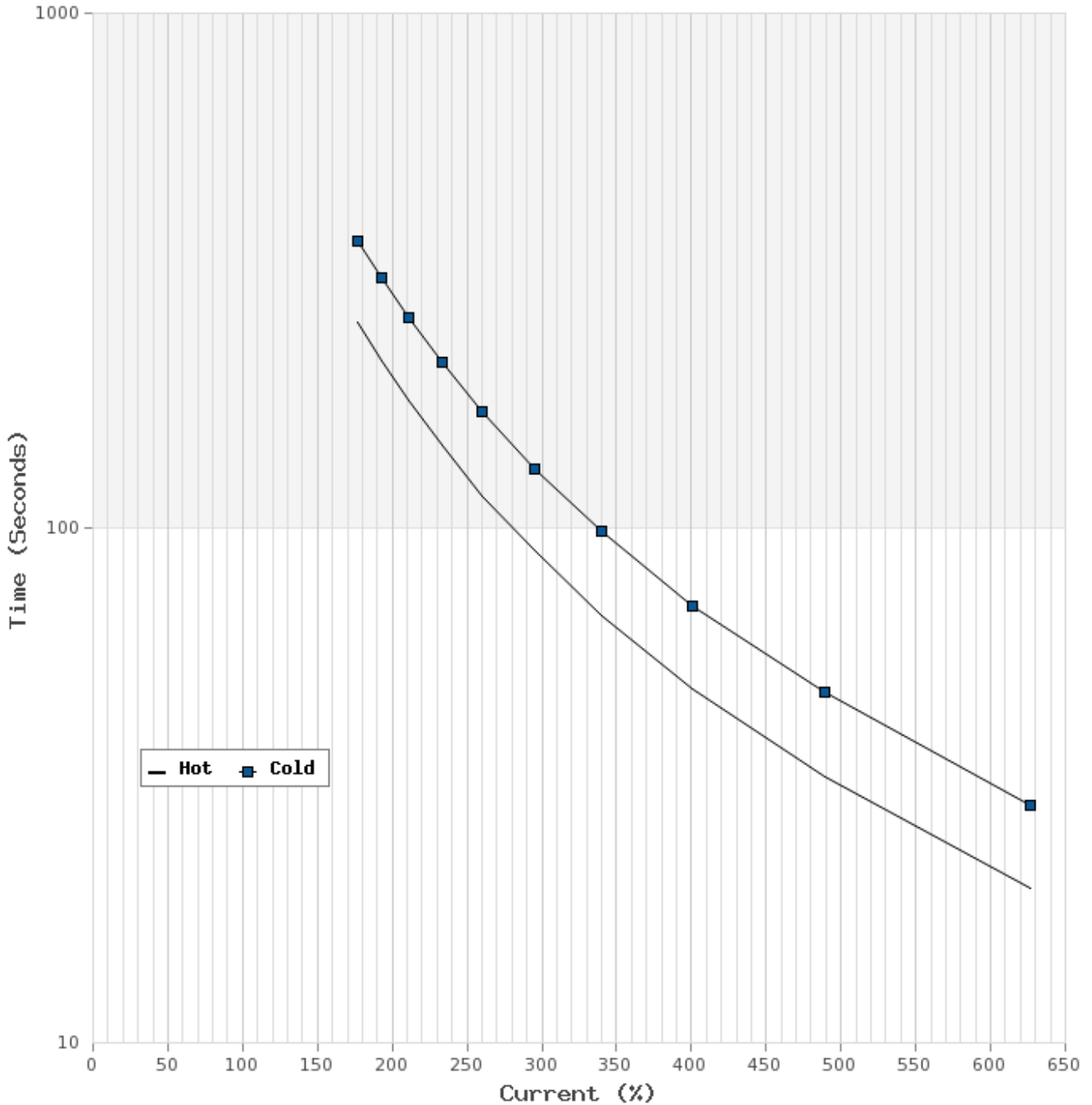
3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D



### Thermal Limit Curves

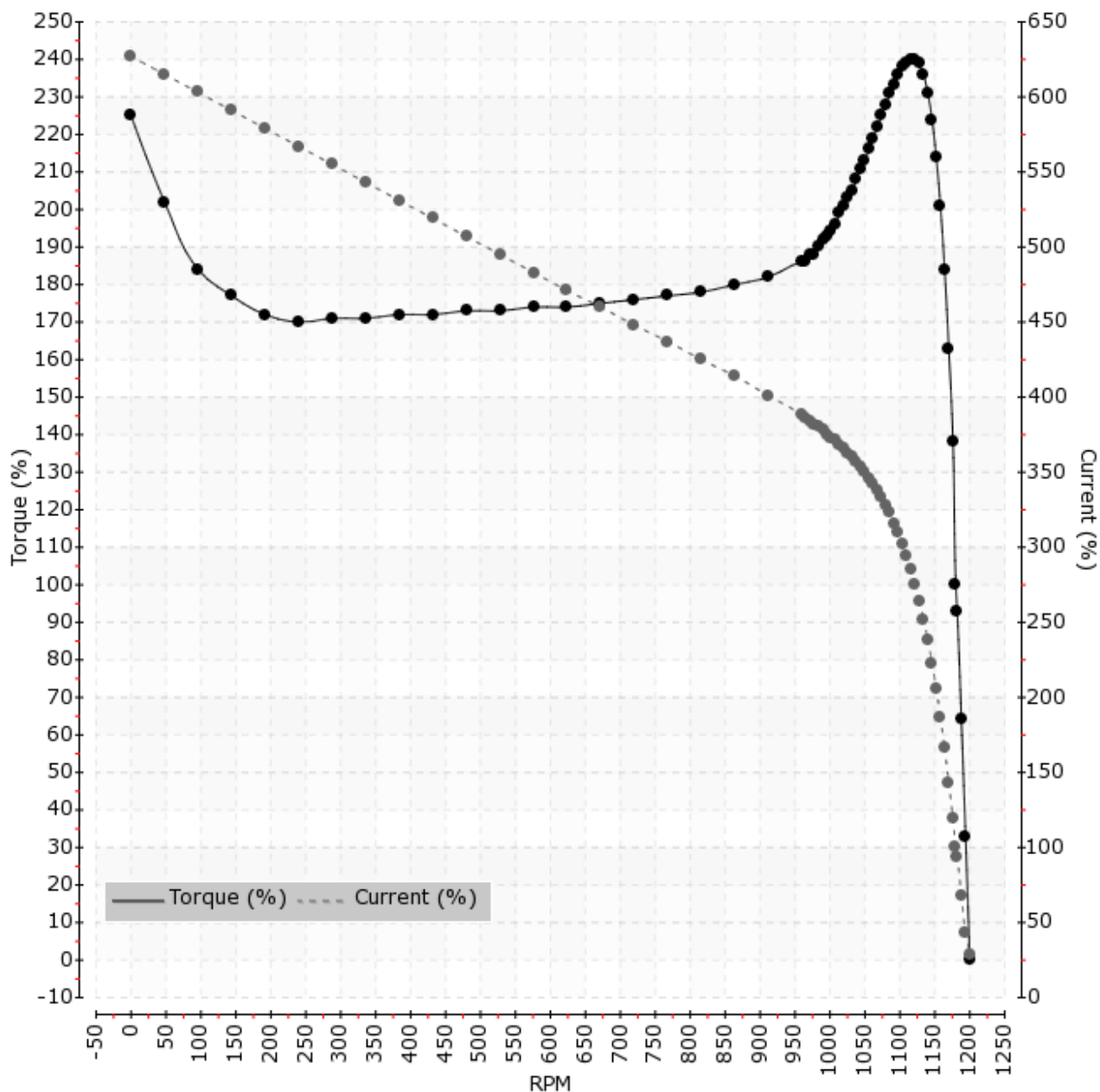
Motor Type: AEHH8B		Catalogue No: APH0506-841		Family: Advantage Plus IEEE 841	
HP	50	Safe Stall Time		Full Load A	57.9 A
Voltage	460V 60Hz	Hot	20 s	% Inrush	627 %
RPM	1200	Cold	29 s	Locked Rotor A	363 A





### T-N and I-N Curves

Motor Type: AEHH8B		Catalogue No: APH0506-841		Family: Advantage Plus IEEE 841	
HP	50	Full Load T	222.5 lb-ft	Full Load A	57.9 A
Voltage	460V 60Hz	Locked Rotor T	225 %	Locked Rotor A	363.0 A
RPM	1200	Pull Up T	170 %	Break Down T	240 %





**Dimensional Drawing (50 Hz)**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH0506-841	AEHH8B	50	6	37.3	Continuous	380	50	

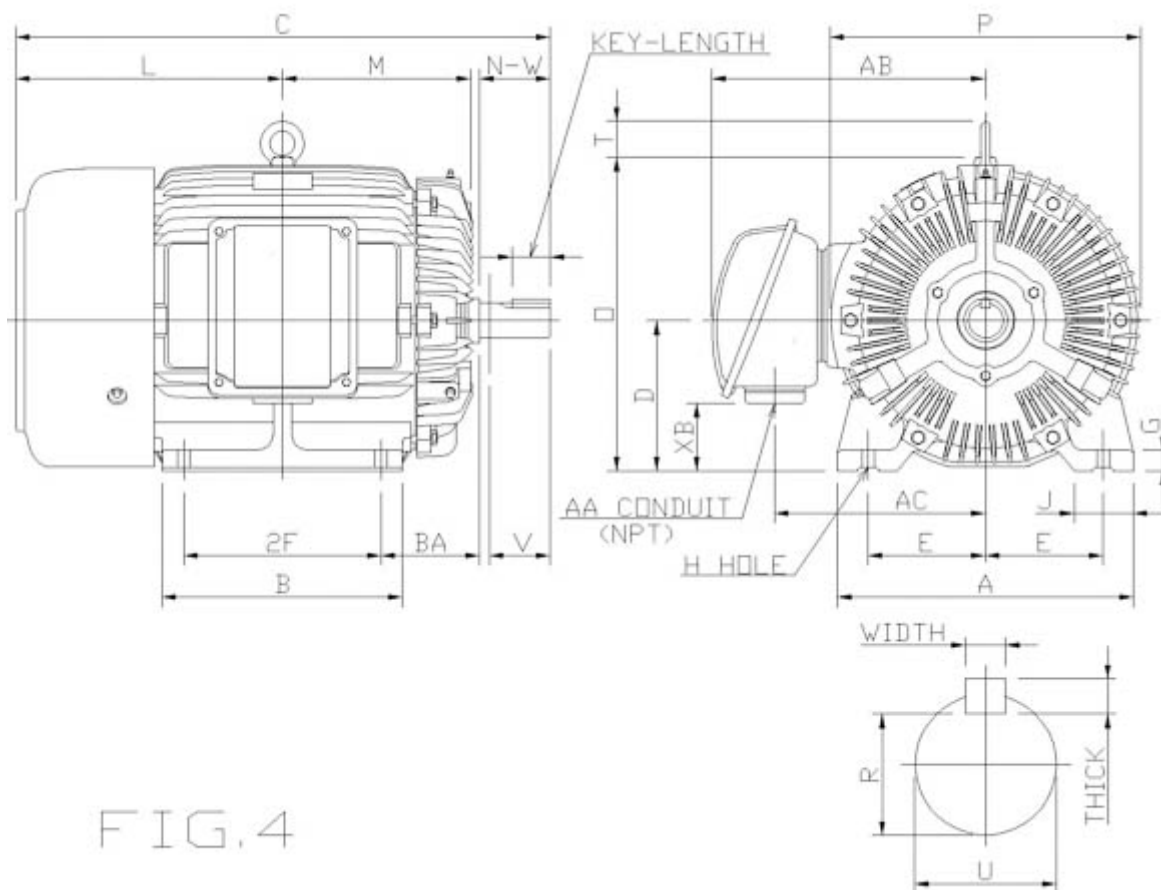


FIG. 4

Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
365T	7		11.25	0.66	5.88	17.7	14.76	33.55		9	
G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
1.32	3.54		15.67	11.59	17.99	18.03	2.76	0.625	0.625	4.28	2.021
Terminal Housing			Aux Box			C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3"	16.81	12.99	2.39								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
5.88	2.375	5.75	6313ZC3	6213ZC3	959	75	F	1	Direct Coupling / Belt Drive	Inches	