

	Beaver Electrical Machinery Ltd.	
	No: 015610	
	Date: May 8, 2025	

Technical Documentation

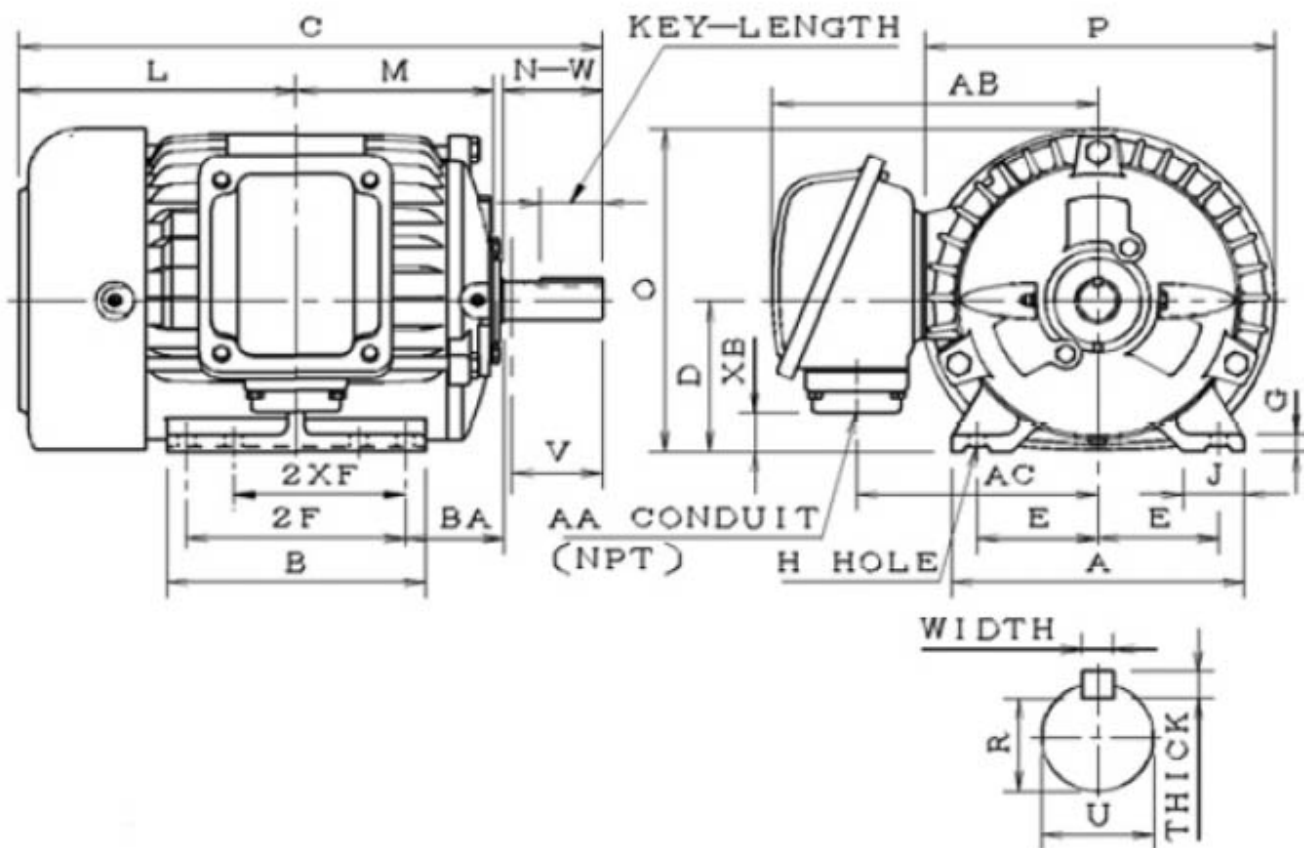
APH1/54-841
Advantage Plus IEEE 841 | AEHH8B

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Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
APH1/54-841	AEHH8B	1.5	1800	460	60	145T



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
2.75	5	4	0.34	2.25	6.7	5.1	13.54			3.5	0.35

J	K	L	M	O	P	T	Terminal Housing			
							AA	AB	AC	XB
1.4		6.54	4.53	7.48	7.95		NPT3/4"	7.56	5.63	0.86

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
2.25	0.875	2.2	0.188	0.188	1.41	0.771

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6205ZC3	6205ZC3	57	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
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Technical Data Sheet

Motor Type: AEHH8B	Catalogue No: APH1/54-841
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1.5	4	1730	145T	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.					
86.50	84.00	86.50	85.50	78.00	70.00	57.00
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
4.55	300	260	360	1.1	2.1	20.00
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	
M	0.093	8.60	47.00	57	40	50.0

VFD Duty Information

MAX HP	Current (A)	Speed Range			VFD		S.F.
		CT	VT	CHP	Carrier Hz	Type	
1.5	2.08	6-60Hz	3-60Hz	60-120Hz	3-6kHz	VPWM or CPWM	1.0

Hazardous Locations Information

Additional Certifications

CSA Certified	Other Certification
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3C

Additional Information

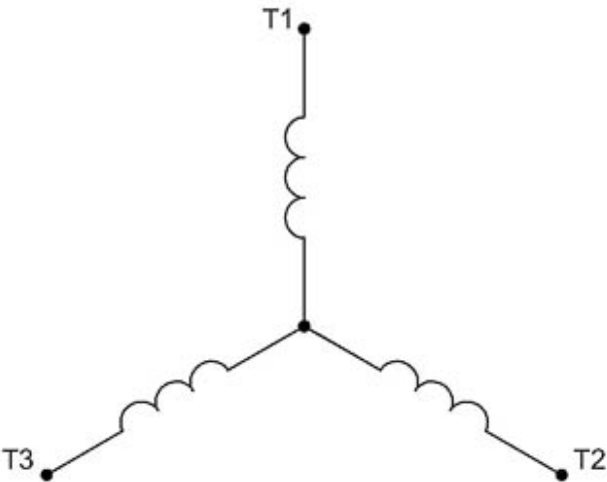
Bearings		Approx. Weight
DE	NDE	lbs
6205ZC3	6205ZC3	57

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Nameplate Drawing

Advantage Plus IEEE 841					
TYPE	AEHH8B		CAT. NO.	APH1/54-841	
OUTPUT	1.5 HP 1.12 kW		FRAME	145T	TEFC
R.P.M.	1730		POLE	4	INS. F
VOLTS	460		PHASE	3	Hz 60
AMPS	2.1		CODE	M	S.F. 1.15
AMBIENT	40 °C		NOM. EFF. 86.50		MIN. EFF. 84.00
BEARINGS	6205ZC3 / 6205ZC3				RATING Cont.
SER. NO.	TBD		DESIGN	B	WT. 57 LBS
PWM VFD DUTY	VT	CT	CP		S.F.
	3-60Hz	6-60Hz	60-120Hz		1.0

Connection Diagram

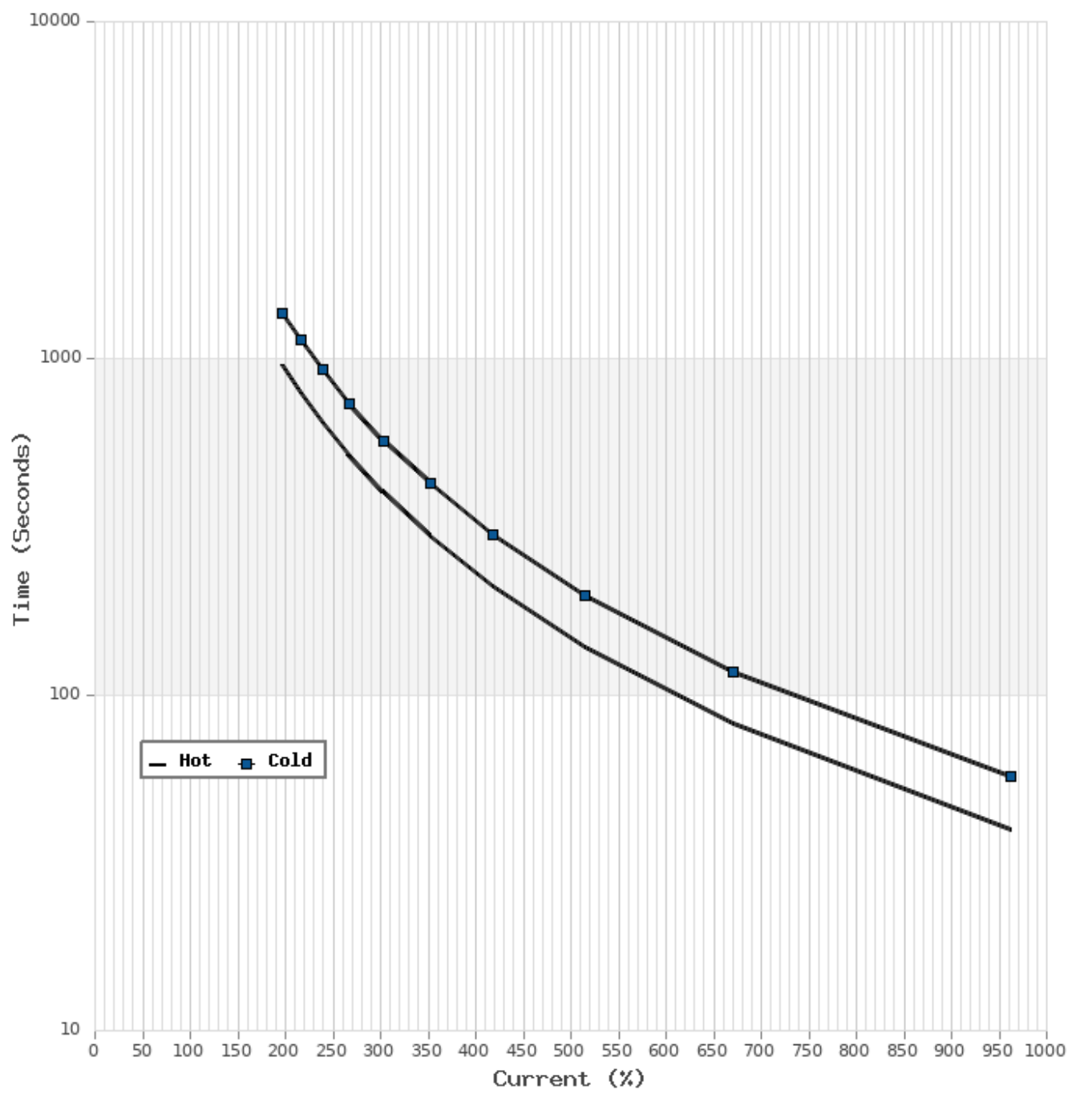


3 LEAD		SINGLE VOLTAGE			WYE
VOLTAGE	CONN.	L1	L2	L3	
-	WYE	1	2	3	

WD_3Y

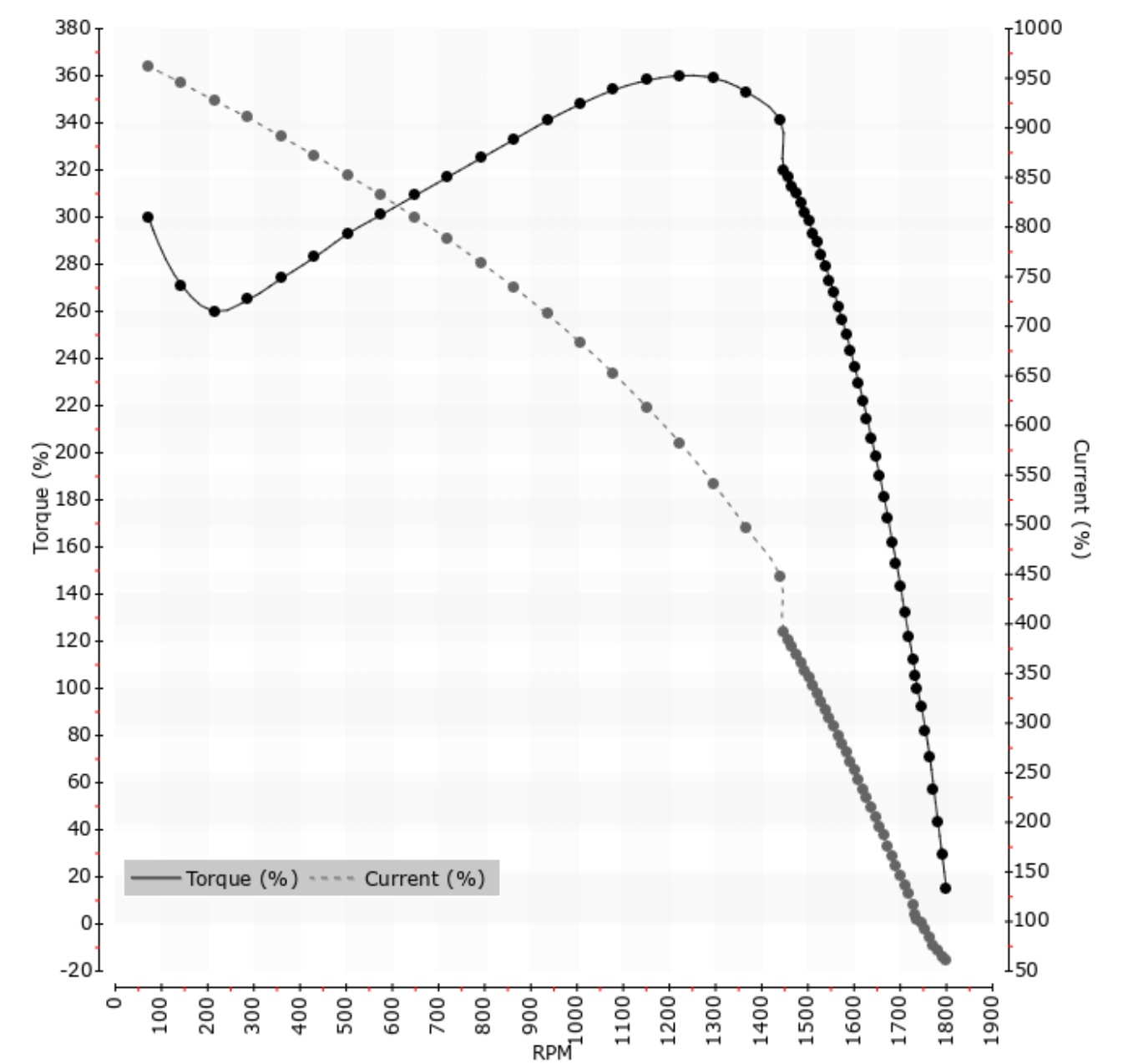
Thermal Limit Curves

Motor Type: AEHH8B		Catalogue No: APH1/54-841		Family: Advantage Plus IEEE 841	
HP	1.5	Safe Stall Time		Full Load A	2.1 A
Voltage	460V 60Hz	Hot	40 s	% Inrush	962 %
RPM	1800	Cold	57 s	Locked Rotor A	20.00 A



T-N and I-N Curves

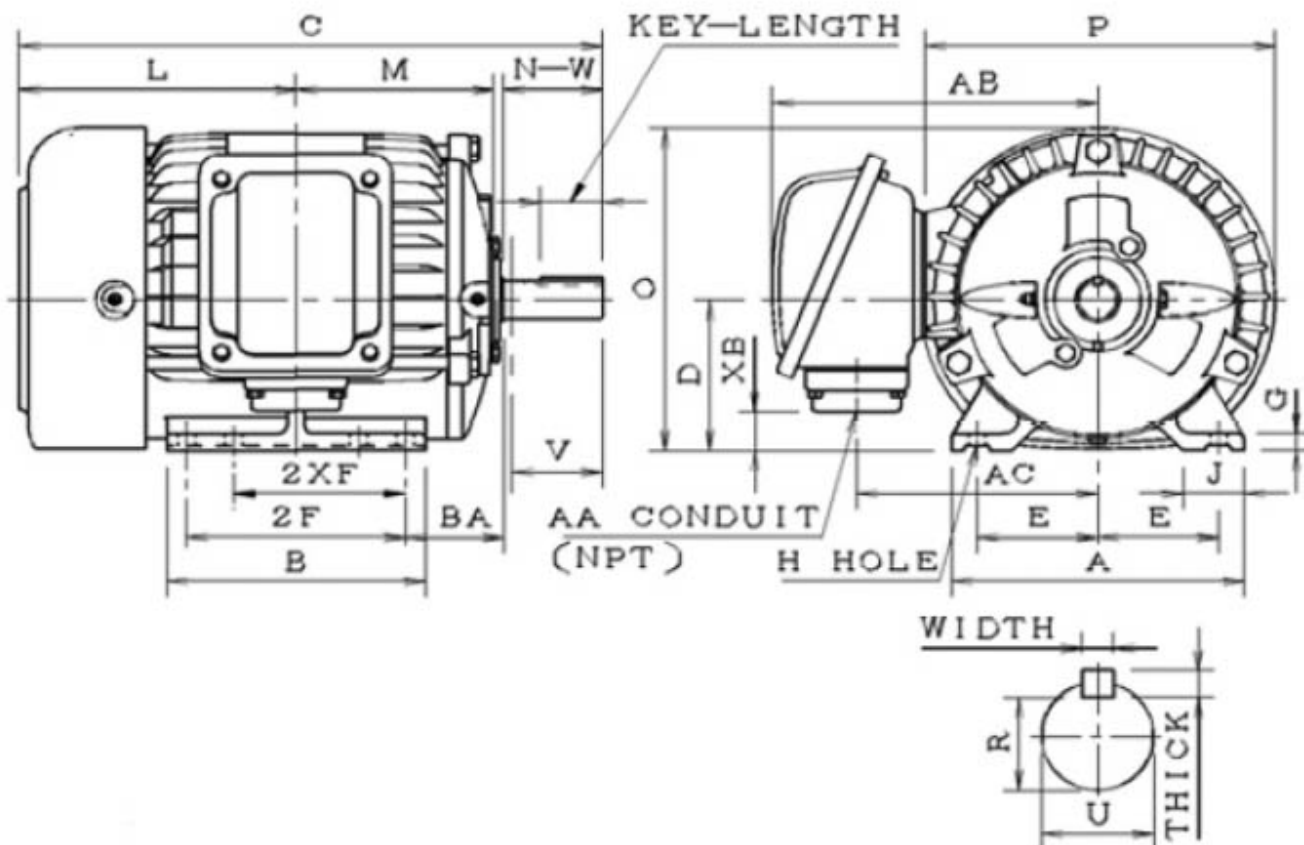
Motor Type: AEHH8B		Catalogue No: APH1/54-841		Family: Advantage Plus IEEE 841	
HP	1.5	Full Load T	4.55 lb-ft	Full Load A	2.1 A
Voltage	460V 60Hz	Locked Rotor T	300 %	Locked Rotor A	20.0 A
RPM	1800	Pull Up T	260 %	Break Down T	360 %



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Dimensional Drawing (50 Hz)

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH1/54-841	AEHH8B	1.5	4	1.12	Continuous	380	50	1425



Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
145T		2.75		4	0.34	2.25	6.7	5.1	13.54		3.5
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
0.35	1.4		6.54	4.53	7.48	7.95		0.188	0.188	1.41	0.771
Terminal Housing				Aux Box			C/D Flange				
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3/4"	7.56	5.63	0.86								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
2.25	0.875	2.2	6205ZC3	6205ZC3	57	50.0	F	1.00	Direct Coupling / Belt Drive	Inches	

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Technical Data Sheet (50 Hz)

Motor Type: AEHH8B	Catalogue No: APH1/54-841
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1.5	4	1425	145T	380	50	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.00	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.					
84.00	81.50	85.50	85.50	84.50	78.50	66.50
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
6	210	175	265	1.1	2.4	27.00
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	
N	0.093	13.3	48.57	31	22	50.0

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	1.0

Hazardous Locations Information

Additional Certification

CSA Certified	Other Certification
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3C

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6205ZC3	6205ZC3	57