

Technical Documentation

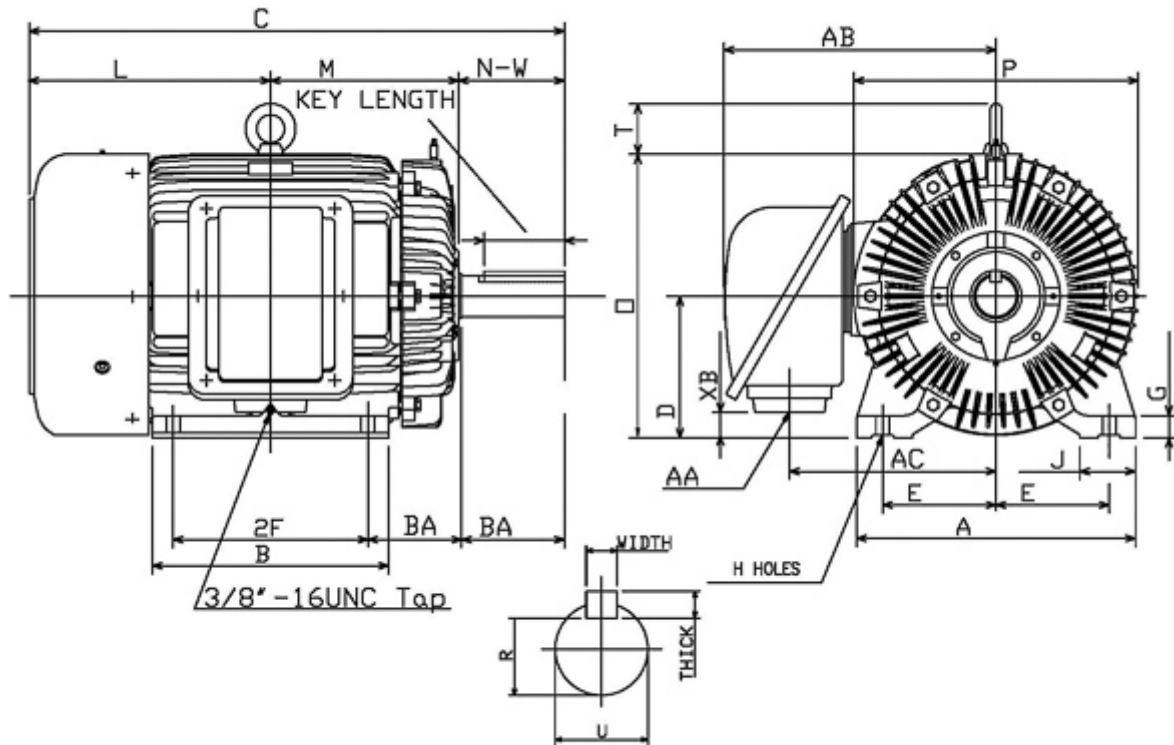
# **APH05085**

## **Advantage Plus IEEE Ready | AEHH8R**


Date: June 26, 2020

### Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
APH05085	AEHH8R	50	8	37	Continuous	575	60	900



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
404T	8	12.25		0.81	6.62	19.68	15.16	36.49		10	
G	J	K	L	M	O	P	T	Key			Keyseat
1.57	3.94		16.49	12.52	20	20.08	3.54	Width	Thick	Length	R
								0.75	0.75	5.65	2.45
Terminal Housing			Aux Box			C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3"	19.41	14.76	1.81								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
7.25	2.875	7.16	6317C3	6313ZC3	1166	73	F	1.15	Direct Coupling / Belt Drive	Inches	

	
	Date: June 26, 2020

### Technical Data Sheet

Motor Type: AEHH8R	Catalogue No: APH05085
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#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	8	885	404T	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.					
93.0	91.7	93.6	93.0	80.5	77.0	67.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
296.60	200	175	230	19.5	50.0	290
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	31.465	1241.00	2666.00	36	25	73

#### VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-120Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

#### 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 / T3A

#### Additional Certifications

Other Certification
Class II, Div 2, Groups F & G

#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6317C3	6313ZC3	1166

**Nameplate Drawing**

# Advantage Plus IEEE Ready

TYPE	AEHH8R	CAT. NO.	APH05085		
OUTPUT	50 HP 37 kW	FRAME	404T	TEFC	
R.P.M.	885	POLE	8	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	50.0	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 93.0		MIN. EFF. 91.7	
BEARINGS	6317C3 / 6313ZC3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 1166 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1.0 Only	

**Connection Diagram**

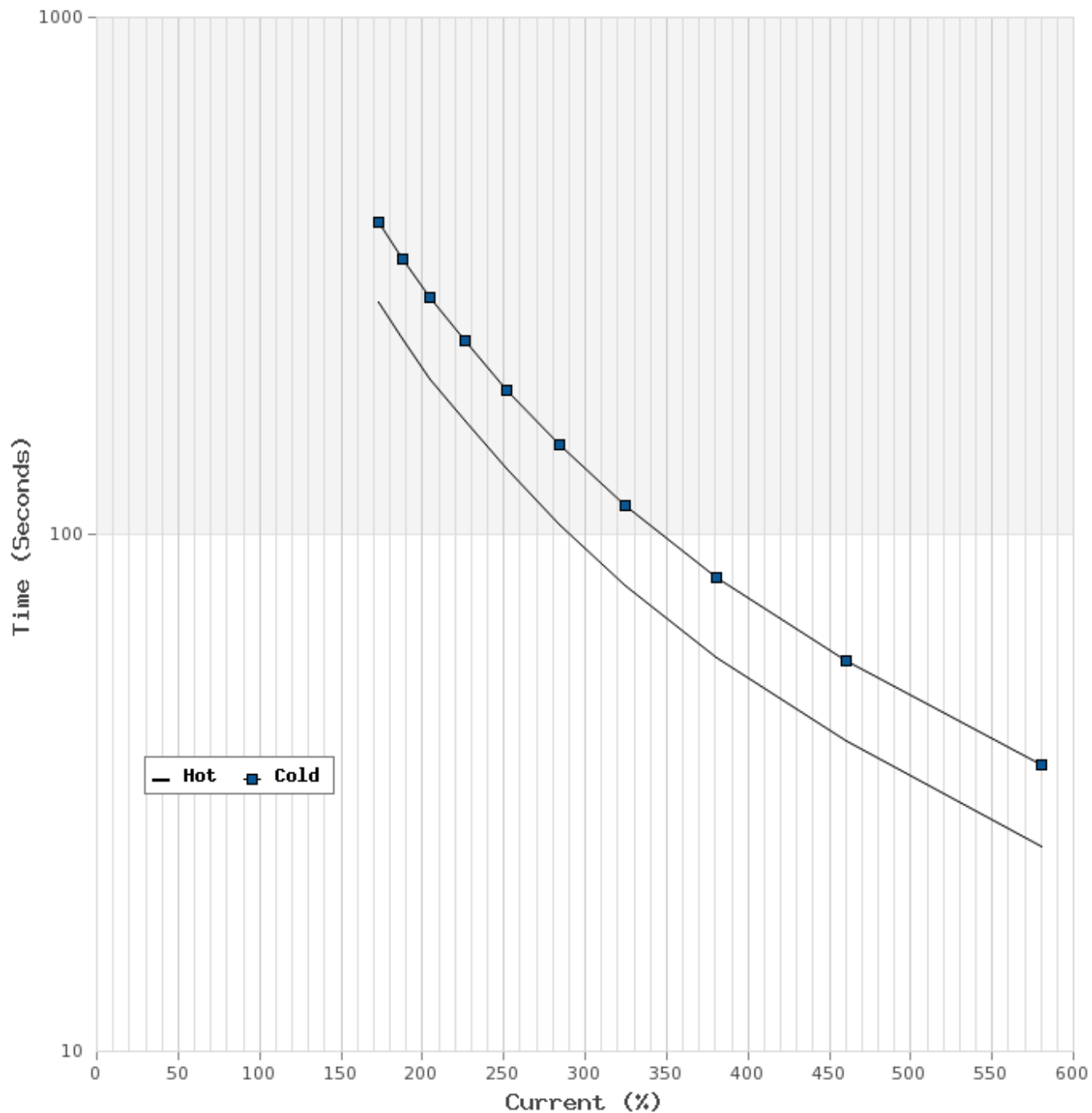


3 LEAD		SINGLE VOLTAGE			DELTA
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D

### Thermal Limit Curves

Motor Type: AEHH8R		Catalogue No: APH05085		Family: Advantage Plus IEEE Ready	
HP	50	Safe Stall Time		Full Load A	50.0 A
Voltage	575V 60Hz	Hot	25 s	% Inrush	580 %
RPM	900	Cold	36 s	Locked Rotor A	290 A



**T-N and I-N Curves**

Motor Type: AEHH8R		Catalogue No: APH05085		Family: Advantage Plus IEEE Ready	
HP	50	Full Load T	296.60 lb-ft	Full Load A	50.0 A
Voltage	575V 60Hz	Locked Rotor T	200 %	Locked Rotor A	290.0 A
RPM	900	Pull Up T	175 %	Break Down T	230 %

