

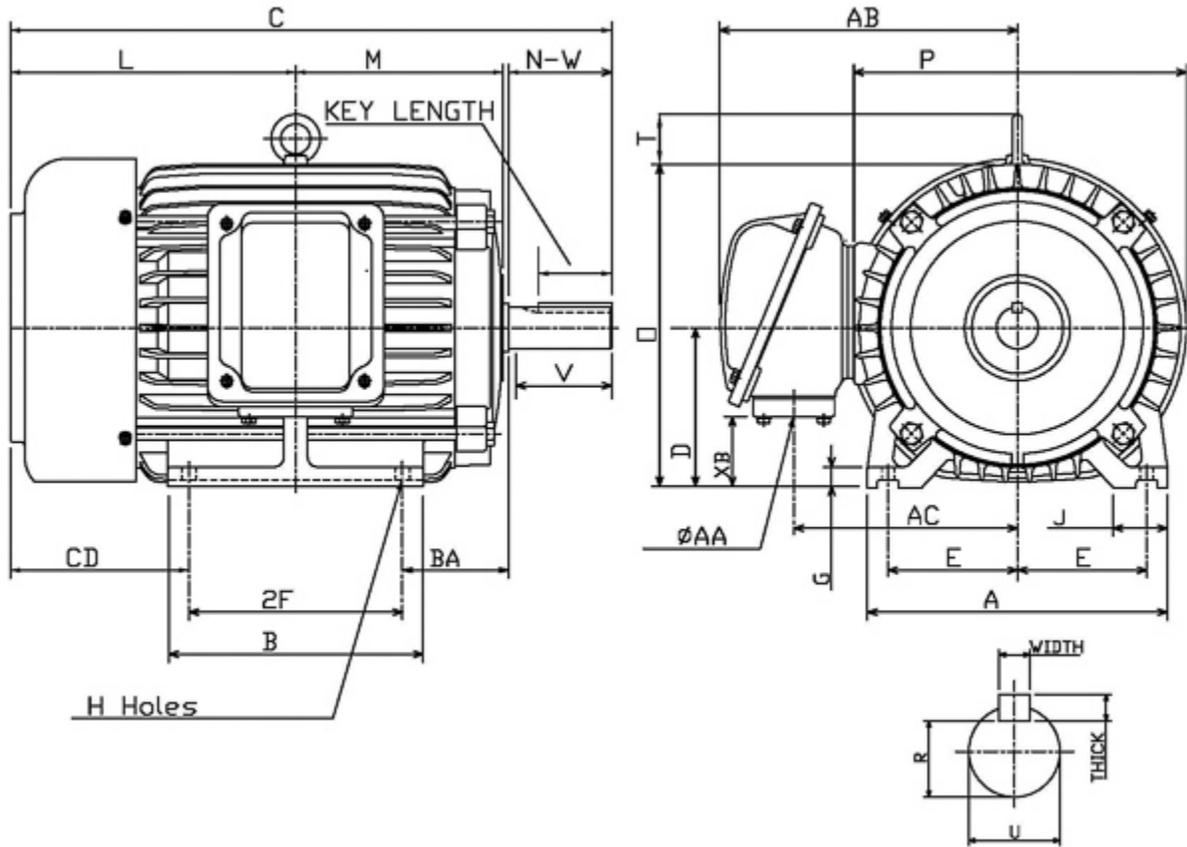
Technical Documentation

PDH1/56
Optim TEFC | AEHH8N

Date: July 10, 2017

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH1/56	AEHH8N	1.5	6	1.1	Continuous	230 / 460 V	60	1200



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
182T	3.75	4.5		0.41	2.75	8.8	5.9	14.71		4.5	
G	J	K	L	M	O	P	T	Key			Keyseat
0.65	1.75		6.96	4.87	9.31	9.61	1.19	Width	Thick	Length	R
								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
3/4 NPT	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	6306ZZ	6306ZZ	92	52	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH1/56

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1.5	6	1170	182T	230 / 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 °C	<3300 ft

Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
87.5	85.5	85.5	82.5	63.5	55.0	42.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
6.73	210	190	350	3.4 / 1.7	5.1 / 2.5	40 / 20
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	0.313	23.0	204.0	97	68	52

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

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6306ZZ	6306ZZ	92

Hazardous Locations Information

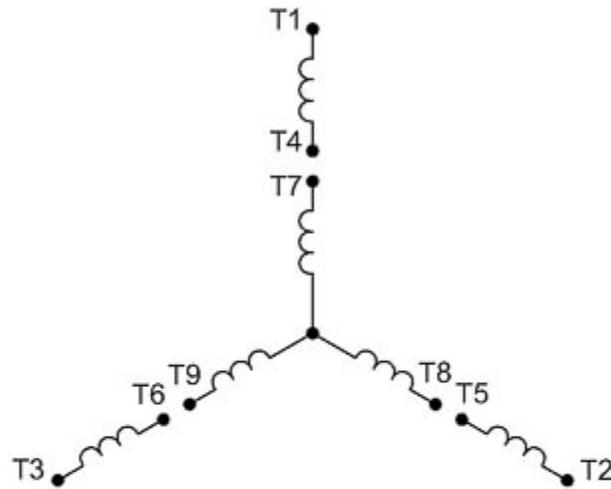
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3C

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH1/56		
OUTPUT	1.5 HP 1.1 kW	FRAME	182T	TEFC	
R.P.M.	1170	POLE	6	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	5.1 / 2.5	CODE	M	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 87.5		MIN. EFF. 85.5	
BEARINGS	6306ZZ / 6306ZZ			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 92 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1.0 Only	

Connection Diagram

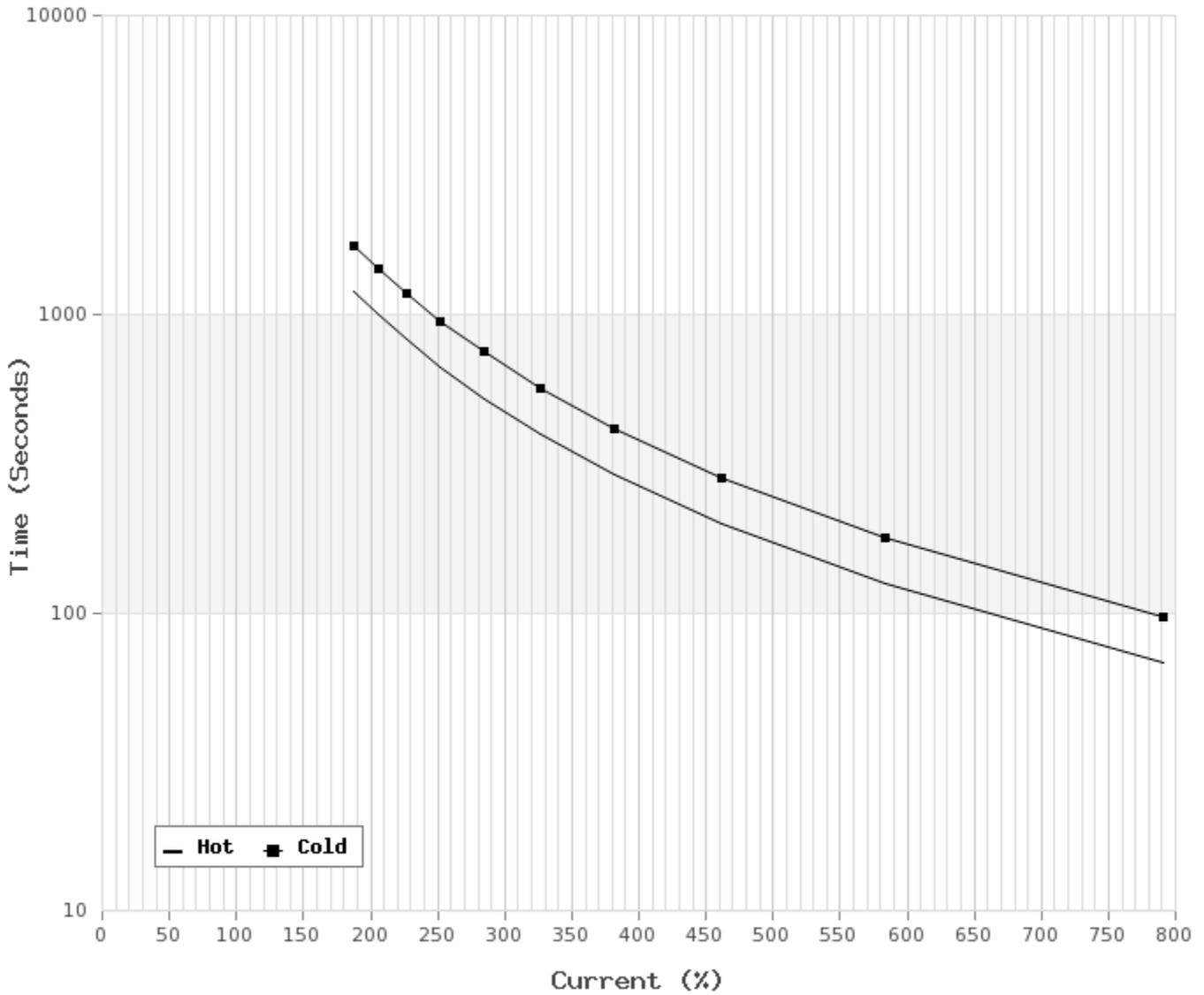


9 LEAD DUAL VOLTAGE WYE					
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD_9Y

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH1/56		Family: Optim TEFC	
HP	1.5	Safe Stall Time		Full Load A	5.1 / 2.5 A
Voltage	230 / 460V 60Hz	Hot	68 s	Locked Rotor A	791 / 791 %
RPM	1200	Cold	97 s	Locked Rotor A	40.0 / 20 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH1/56		Family: Optim TEFC	
HP	1.5	Full Load T	6.73 lb-ft	Full Load A	5.1 / 2.5 A
Voltage	230 / 460V 60Hz	Locked Rotor T	210 %	Locked Rotor A	40.0 / 20.0 A
RPM	1200	Pull Up T	190 %	Break Down T	350 %

