

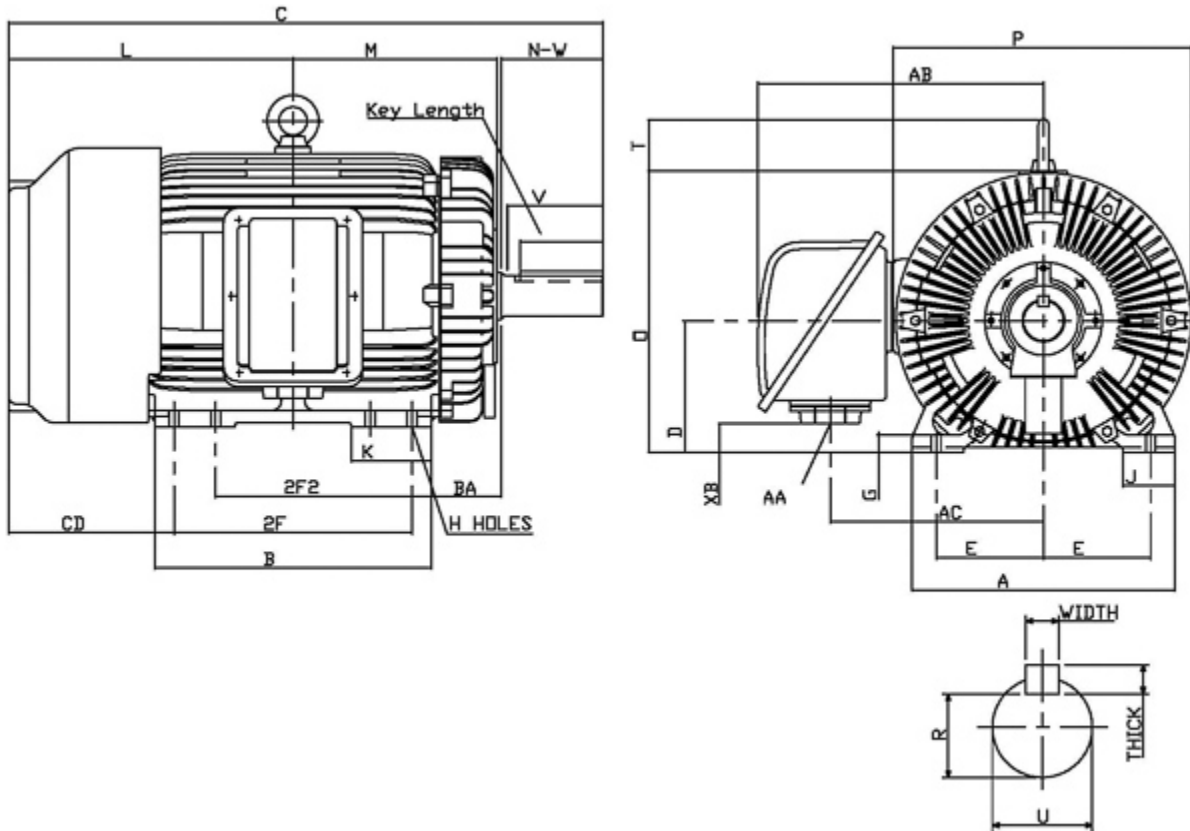
Technical Documentation

**PDH10085**  
**Optim TEFC | AEHH8N**

Date: July 10, 2017

### Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH10085	AEHH8N	100	8	75	Continuous	575 V	60	900



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
445T	9	16.5	14.5	0.81	7.5	22.05	19.5	46.4	13.9	11	
G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
1.4	4.35	5.1	22.15	15.4	23.55	24.75	4.35	0.875	0.875	6.91	2.88
Terminal Housing			Aux Box			C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
3 NPT	24	17.9	2.4								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
8.5	3.375	8	6318	6316	1815	78	F	1.15	Direct Coupling / Belt Drive	Inches	

### Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH10085

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
100	8	885	445T	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	<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.					
93.0	91.7	92.4	91.0	79.0	76.5	68.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
593.00	150	125	210	33.4	102.0	580
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	72.800	2372.0	4744.0	23	17	78

#### VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
12-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6318	6316	1815

#### Hazardous Locations Information

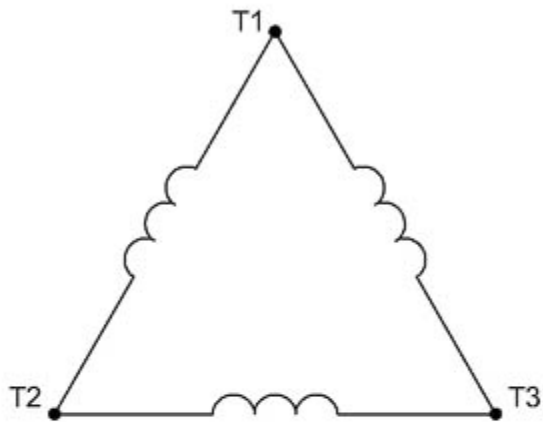
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3 / T3

**Nameplate Drawing**

# Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH10085		
OUTPUT	100 HP 75 kW	FRAME	445T	TEFC	
R.P.M.	885	POLE	8	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	102.0	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 93.0		MIN. EFF. 91.7	
BEARINGS	6318 / 6316			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 1815 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	12-60Hz	60-90Hz	1.0 Only	

**Connection Diagram**

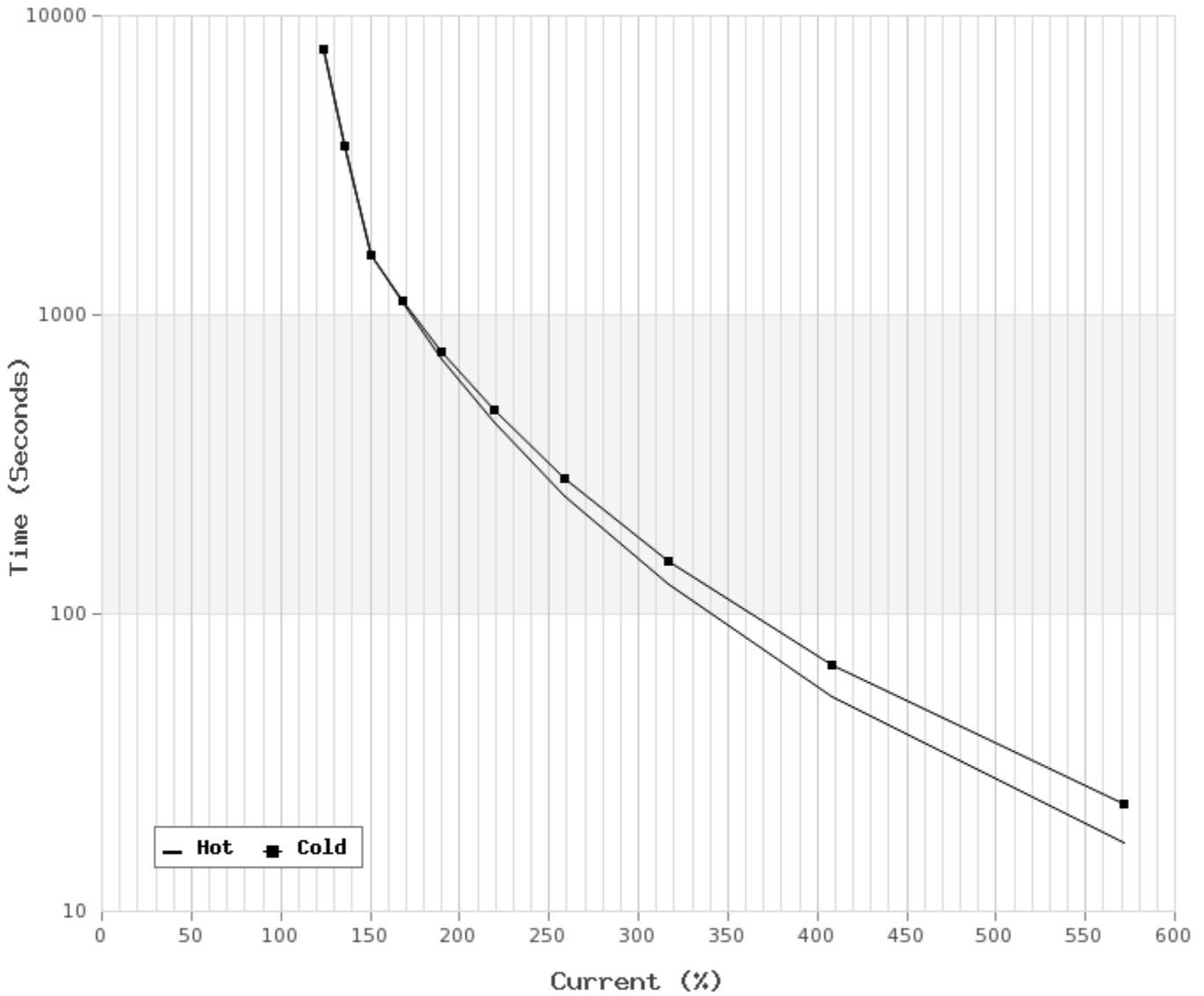


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D

**Thermal Limit Curves**

Motor Type: AEHH8N		Catalogue No: PDH10085		Family: Optim TEFC	
HP	100	Safe Stall Time		Full Load A	0.0 / 102.0 A
Voltage	0 / 575V 60Hz	Hot	17 s	Locked Rotor A	569 %
RPM	900	Cold	23 s	Locked Rotor A	0.0 / 580 A



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

Motor Type: AEHH8N		Catalogue No: PDH10085		Family: Optim TEFC	
HP	100	Full Load T	593.00 lb-ft	Full Load A	102.0 A
Voltage	575V 60Hz	Locked Rotor T	150 %	Locked Rotor A	580.0 A
RPM	900	Pull Up T	125 %	Break Down T	210 %

