

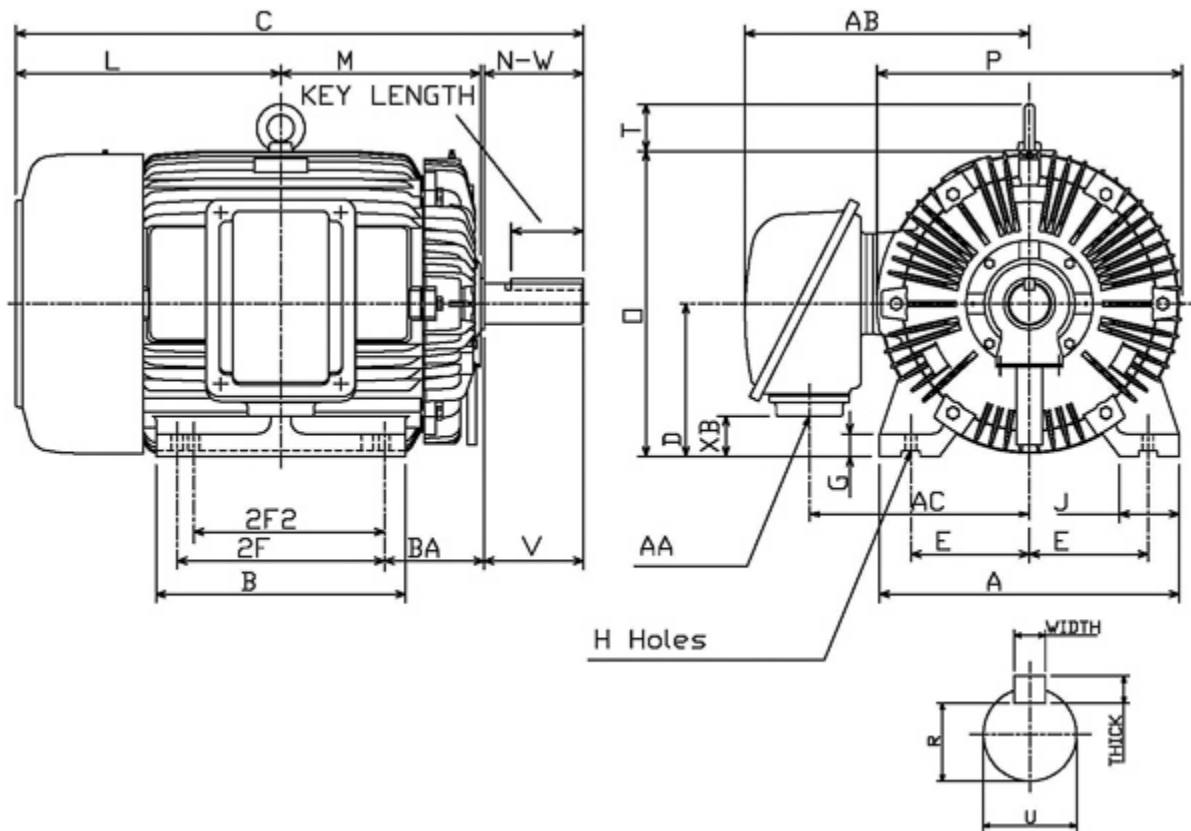
Technical Documentation

**PDH05065**  
**Optim TEFC | AEHH8N**

Date: July 10, 2017

**Dimensional Drawing**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH05065	AEHH8N	50	6	37	Continuous	575 V	60	1200



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
365T	7	12.25	11.25	0.66	5.88	17.7	14.75	33.55		9	
G	J	K	L	M	O	P	T	Key			Keyseat
1.3	3.55		15.67	11.79	18.02	18.03	2.76	Width	Thick	Length	R
								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
3 NPT	16.81	13	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	6313	6213	959	75	F	1.15	Direct Coupling / Belt Drive	Inches	

### Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH05065

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	6	1180	365T	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.					
94.1	93.0	94.5	93.6	86.0	83.0	75.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
222.50	225	170	240	16.7	46.3	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	21.380	620.0	1385.0	29	20	75

#### 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
6313	6213	959

#### Hazardous Locations Information

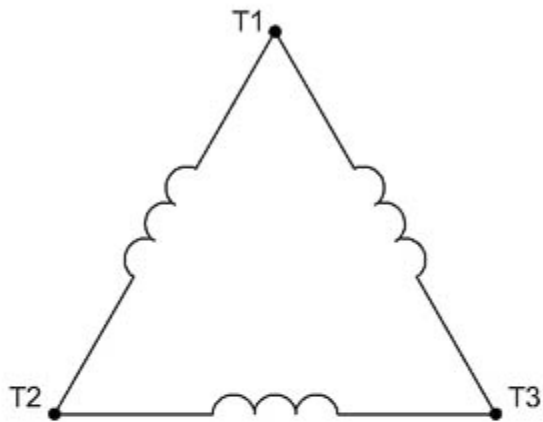
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3

**Nameplate Drawing**

# Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH05065		
OUTPUT	50 HP 37 kW	FRAME	365T	TEFC	
R.P.M.	1180	POLE	6	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	46.3	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 94.1		MIN. EFF. 93.0	
BEARINGS	6313 / 6213			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 959 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1.0 Only	

**Connection Diagram**

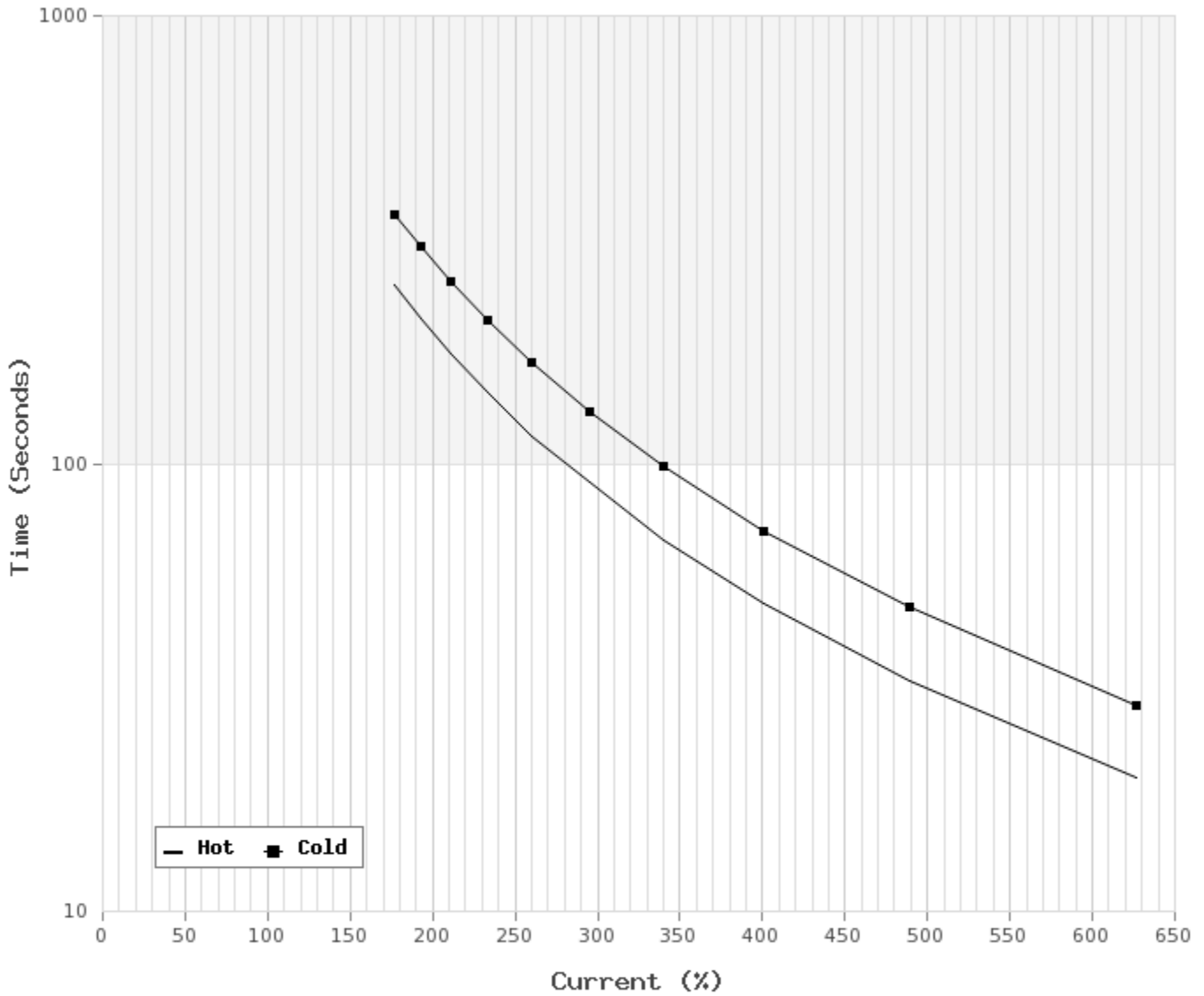


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD\_3D

**Thermal Limit Curves**

Motor Type: AEHH8N		Catalogue No: PDH05065		Family: Optim TEFC	
HP	50	Safe Stall Time		Full Load A	0.0 / 46.3 A
Voltage	0 / 575V 60Hz	Hot	20 s	Locked Rotor A	627 %
RPM	1200	Cold	29 s	Locked Rotor A	0.0 / 290 A



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

Motor Type: AEHH8N		Catalogue No: PDH05065		Family: Optim TEFC	
HP	50	Full Load T	222.50 lb-ft	Full Load A	46.3 A
Voltage	575V 60Hz	Locked Rotor T	225 %	Locked Rotor A	290.0 A
RPM	1200	Pull Up T	170 %	Break Down T	240 %

