

Technical Documentation

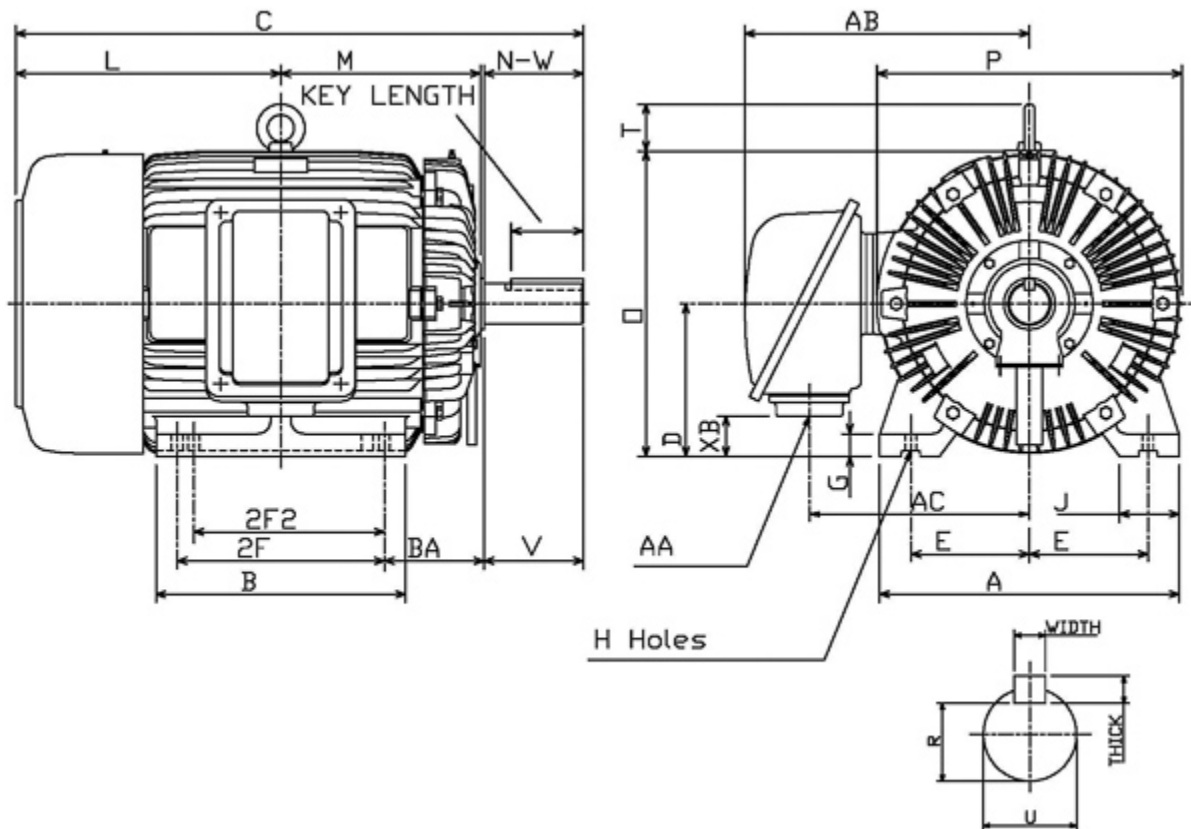
PDH10045

Optim TEFC | AEHH8N

Date: July 10, 2017

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH10045	AEHH8N	100	4	75	Continuous	575 V	60	1800



Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
405T		8	13.75	12.25	0.81	6.62	19.7	16.75	37.8		10
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
1.55	3.95		17.05	13.27	20.04	20.08	2.76	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
3 NPT	19.37	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	7.15	6317	6313	1300	82	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH10045

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
100	4	1775	405T	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.					
95.4	94.5	95.4	95.0	87.5	85.5	80.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
295.80	215	140	215	20.3	89.7	580
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	
G	26.637	441.0	590.0	17	12	82

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6317	6313	1300

Hazardous Locations Information

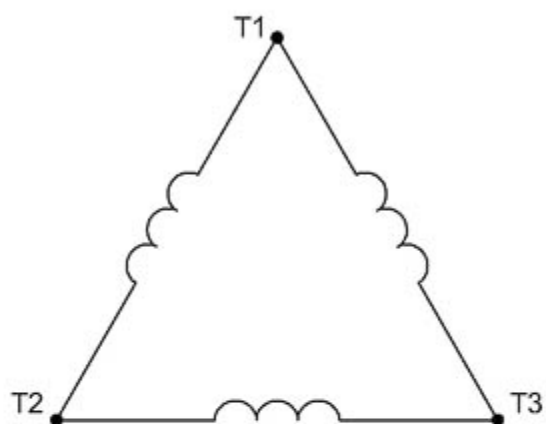
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N		CAT. NO.	PDH10045		
OUTPUT	100 HP 75 kW		FRAME	405T	TEFC	
R.P.M.	1775		POLE	4	INS.	F
VOLTS	575		PHASE	3	Hz	60
AMPS	89.7		CODE	G	S.F.	1.15
AMBIENT	40 °C		NOM. EFF. 95.4		MIN. EFF. 94.5	
BEARINGS	6317 / 6313				RATING Cont.	
SER. NO.	TBD		DESIGN	B	WT. 1300 LBS	
PWM VFD DUTY	VT	CT		CP		S.F.
	3-60Hz	6-60Hz		60-90Hz		1.0 Only

Connection Diagram

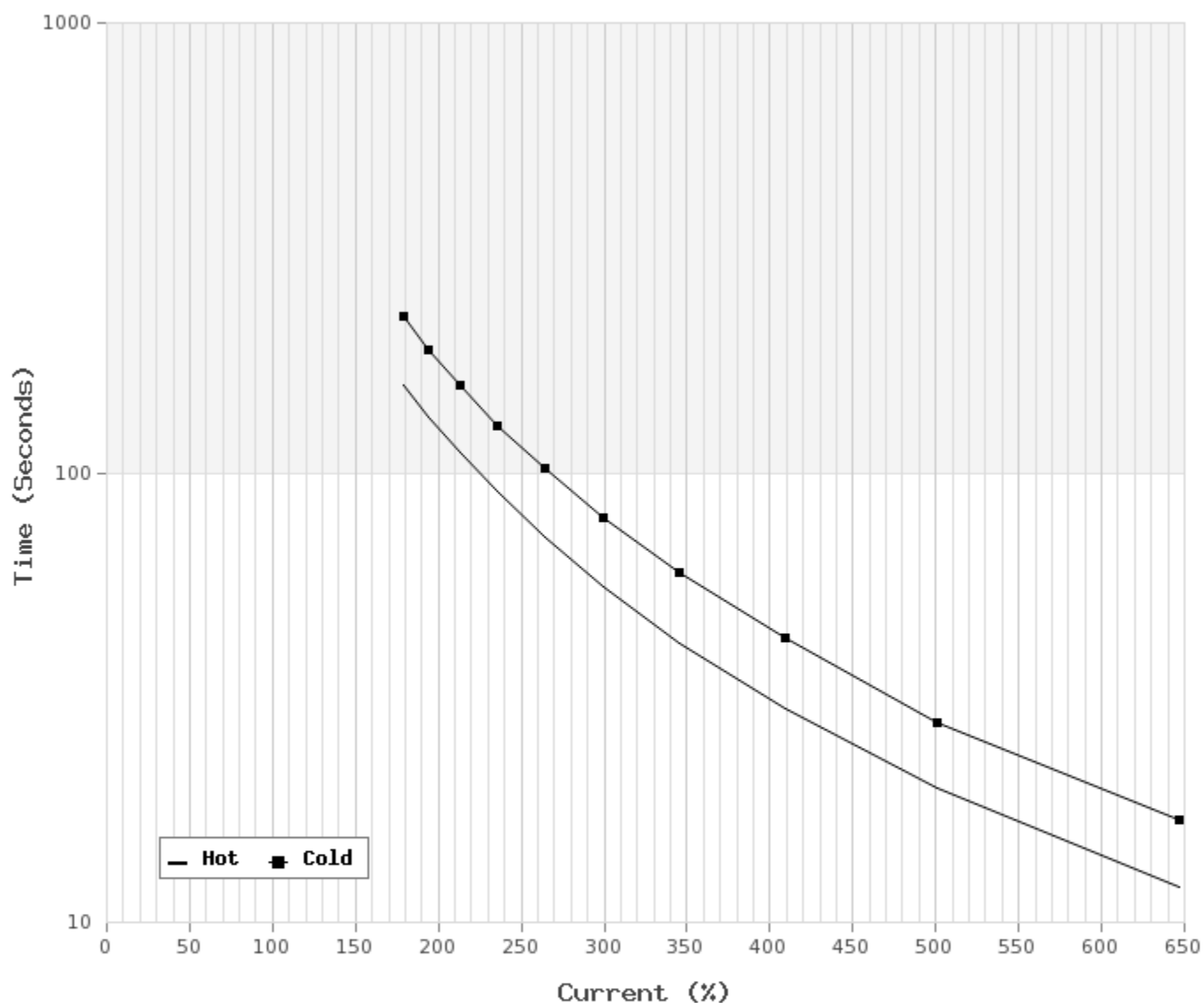


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH10045		Family: Optim TEFC	
HP	100	Safe Stall Time		Full Load A	0.0 / 89.7 A
Voltage	0 / 575V 60Hz	Hot	12 s	Locked Rotor A	646 %
RPM	1800	Cold	17 s	Locked Rotor A	0.0 / 580 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH10045		Family: Optim TEFC	
HP	100	Full Load T	295.80 lb-ft	Full Load A	89.7 A
Voltage	575V 60Hz	Locked Rotor T	215 %	Locked Rotor A	580.0 A
RPM	1800	Pull Up T	140 %	Break Down T	215 %

