

Technical Documentation

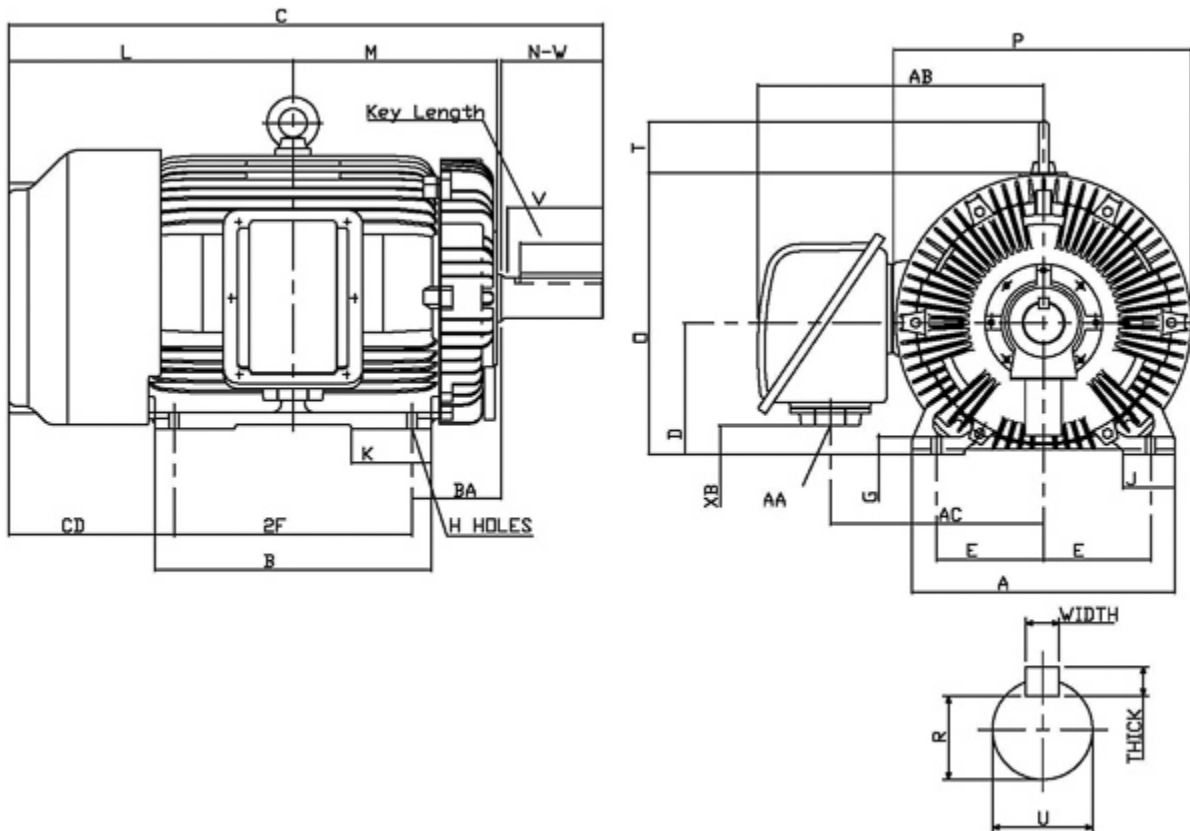
PDH1006

Optim TEFC | AEHH8N

Date: July 10, 2017

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH1006	AEHH8N	100	6	75	Continuous	230 / 460 V	60	1200



Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
444T		9	14.5		0.81	7.5	22.05	17.5	44.4		11
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
1.4	4.35	4.35	21.15	14.4	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	1694	77	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH1006

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
100	6	1182	444T	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.					
95.0	94.1	94.5	93.6	82.5	80.0	73.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
444.00	140	110	230	96.0 / 48.0	238.9 / 119.5	1450 / 725
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	56.000	1181.0	2953.0	21	15	77

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
6318	6316	1694

Hazardous Locations Information

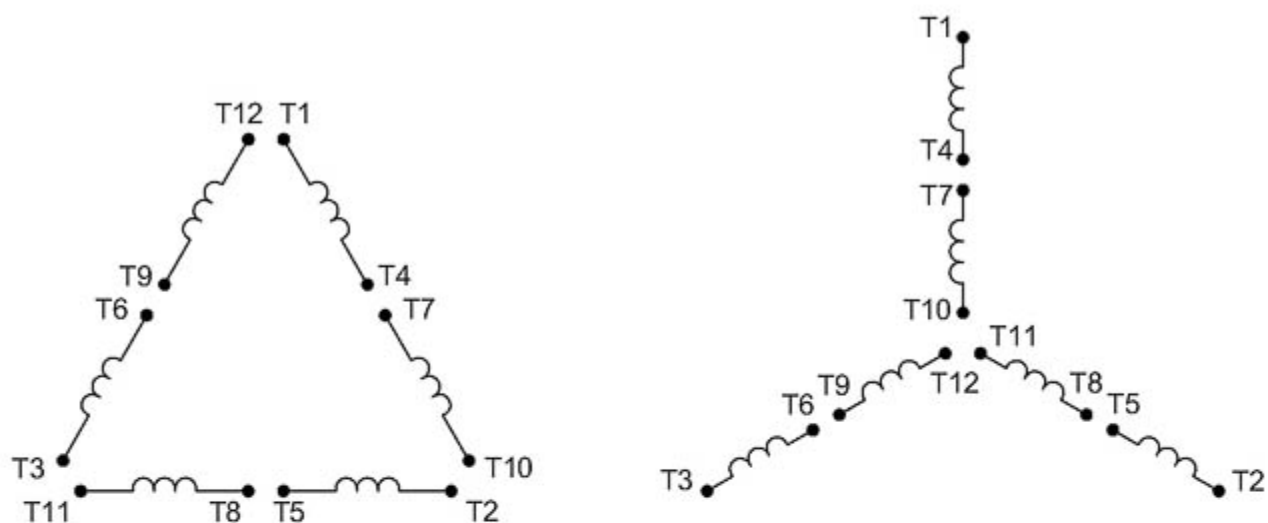
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH1006		
OUTPUT	100 HP 75 kW	FRAME	444T	TEFC	
R.P.M.	1182	POLE	6	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	238.9 / 119.5	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 95.0		MIN. EFF. 94.1	
BEARINGS	6318 / 6316			RATING Cont.	
SER. NO.	TBD		DESIGN	B	WT. 1694 LBS
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-90Hz	1.0 Only	

Connection Diagram

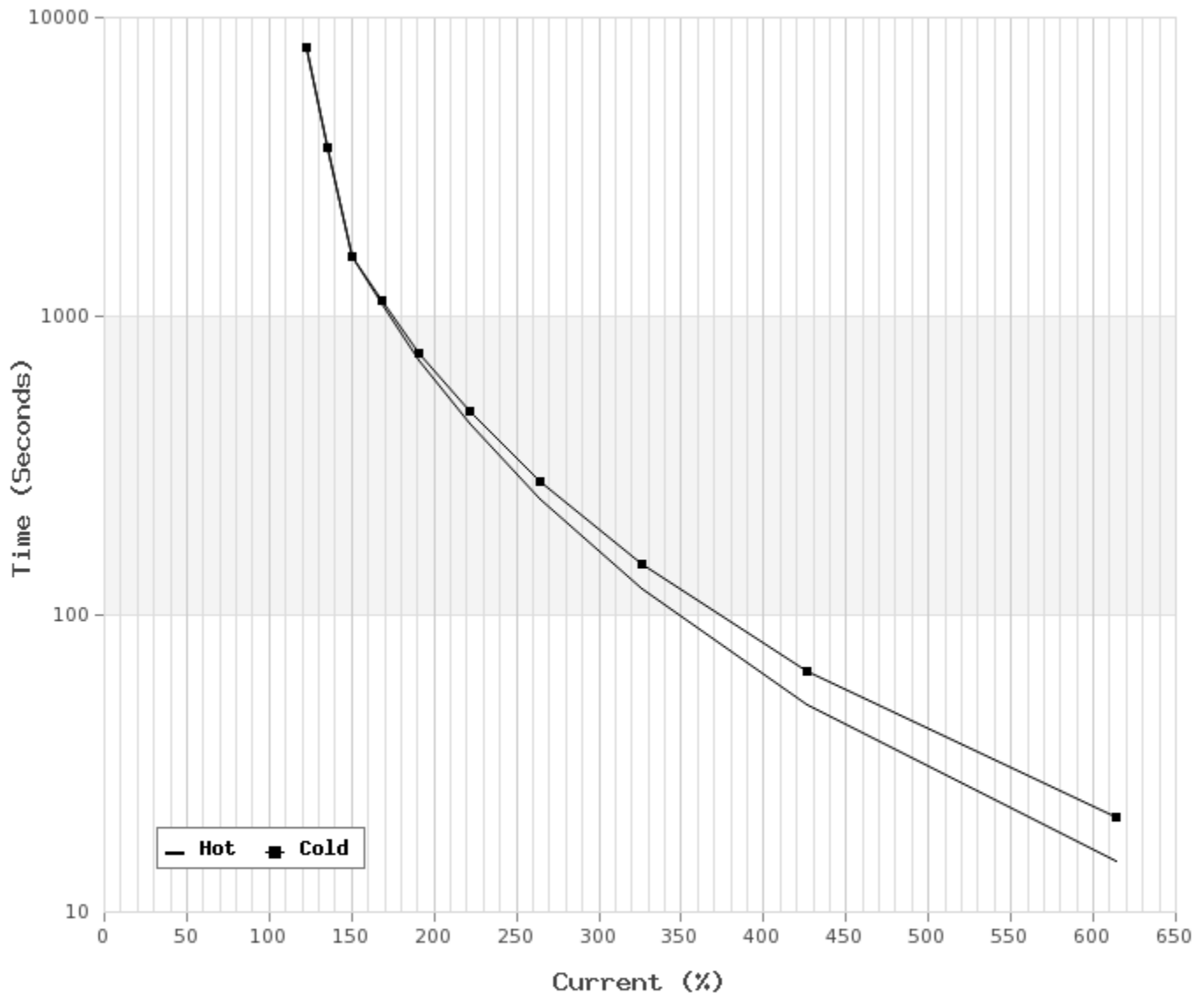


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH1006		Family: Optim TEFC	
HP	100	Safe Stall Time		Full Load A	238.9 / 119.5 A
Voltage	230 / 460V 60Hz	Hot	15 s	Locked Rotor A	607 / 607 %
RPM	1200	Cold	21 s	Locked Rotor A	1,450.0 / 725 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH1006		Family: Optim TEFC	
HP	100	Full Load T	444.00 lb-ft	Full Load A	238.9 / 119.5 A
Voltage	230 / 460V 60Hz	Locked Rotor T	140 %	Locked Rotor A	1,450.0 / 725.0 A
RPM	1200	Pull Up T	110 %	Break Down T	230 %

