

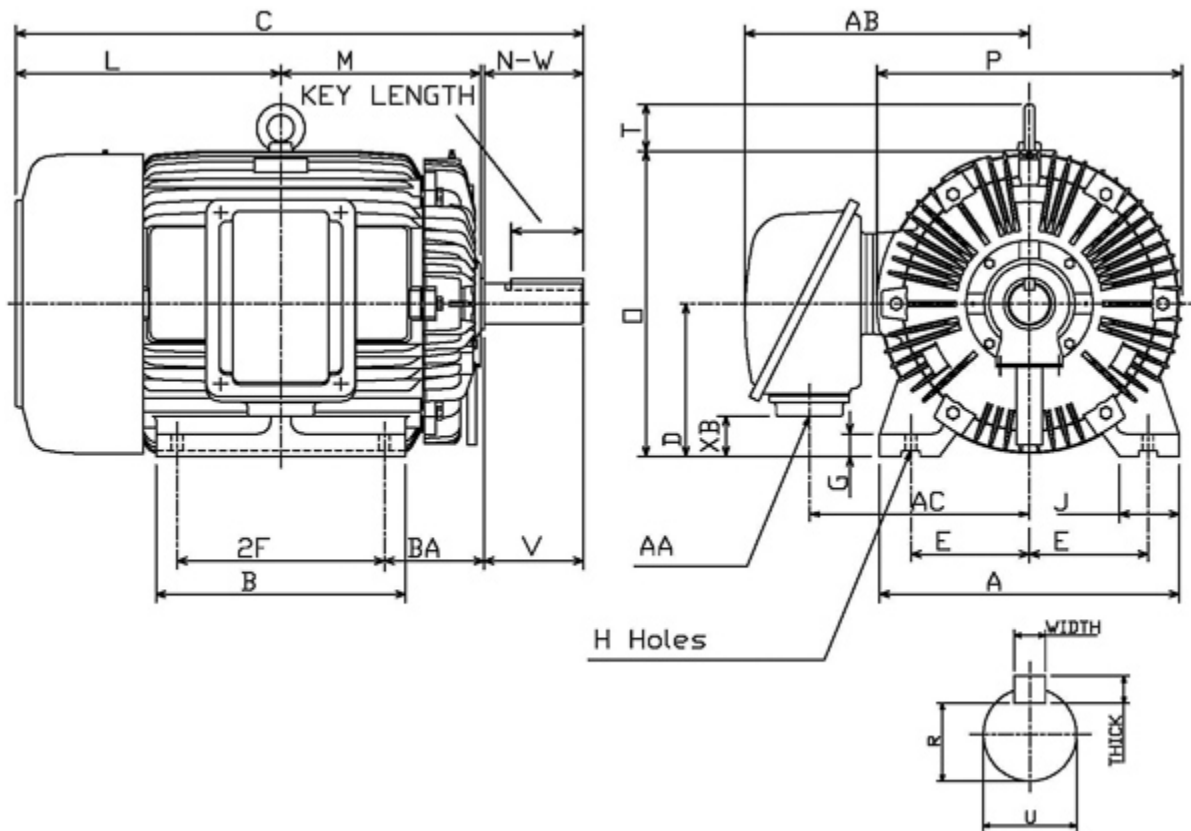
Technical Documentation

PDH0308
Optim TEFC | AEHH8N

Date: July 10, 2017

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH0308	AEHH8N	30	8	22	Continuous	230 / 460 V	60	900



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
364T	7	11.25		0.66	5.88	17.7	13.75	32.57		9	
G	J	K	L	M	O	P	T	Key			Keyseat
1.3	3.55		15.19	11.29	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	856	71	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH0308

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
30	8	885	364T	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.					
93.0	91.7	93.0	92.4	77.5	72.0	62.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
178.00	200	170	200	36.2 / 18.1	77.9 / 39.0	435 / 218
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	17.938	769.0	1833.0	50	35	71

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	856

Hazardous Locations Information

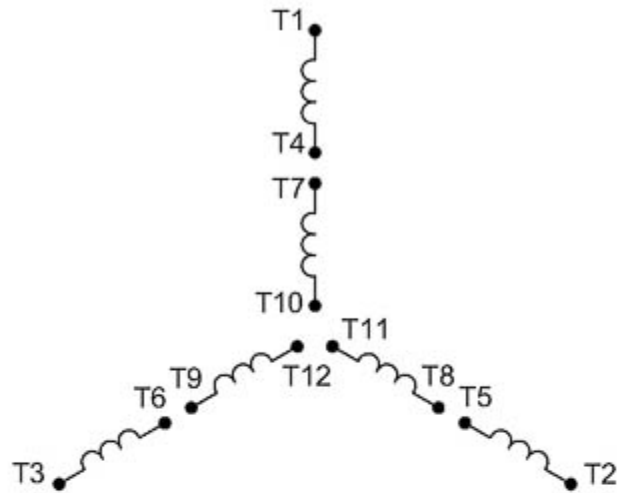
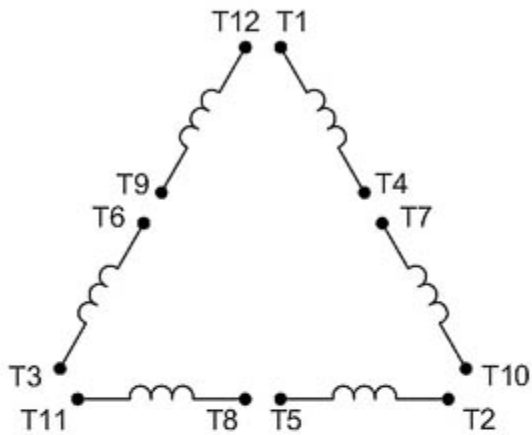
CSA Certified	
Class I, Div 2, Groups B, C & D	
Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3A / T3A

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH0308		
OUTPUT	30 HP 22 kW	FRAME	364T	TEFC	
R.P.M.	885	POLE	8	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	77.9 / 39.0	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 93.0		MIN. EFF. 91.7	
BEARINGS	6313 / 6213			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 856 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1.0 Only	

Connection Diagram

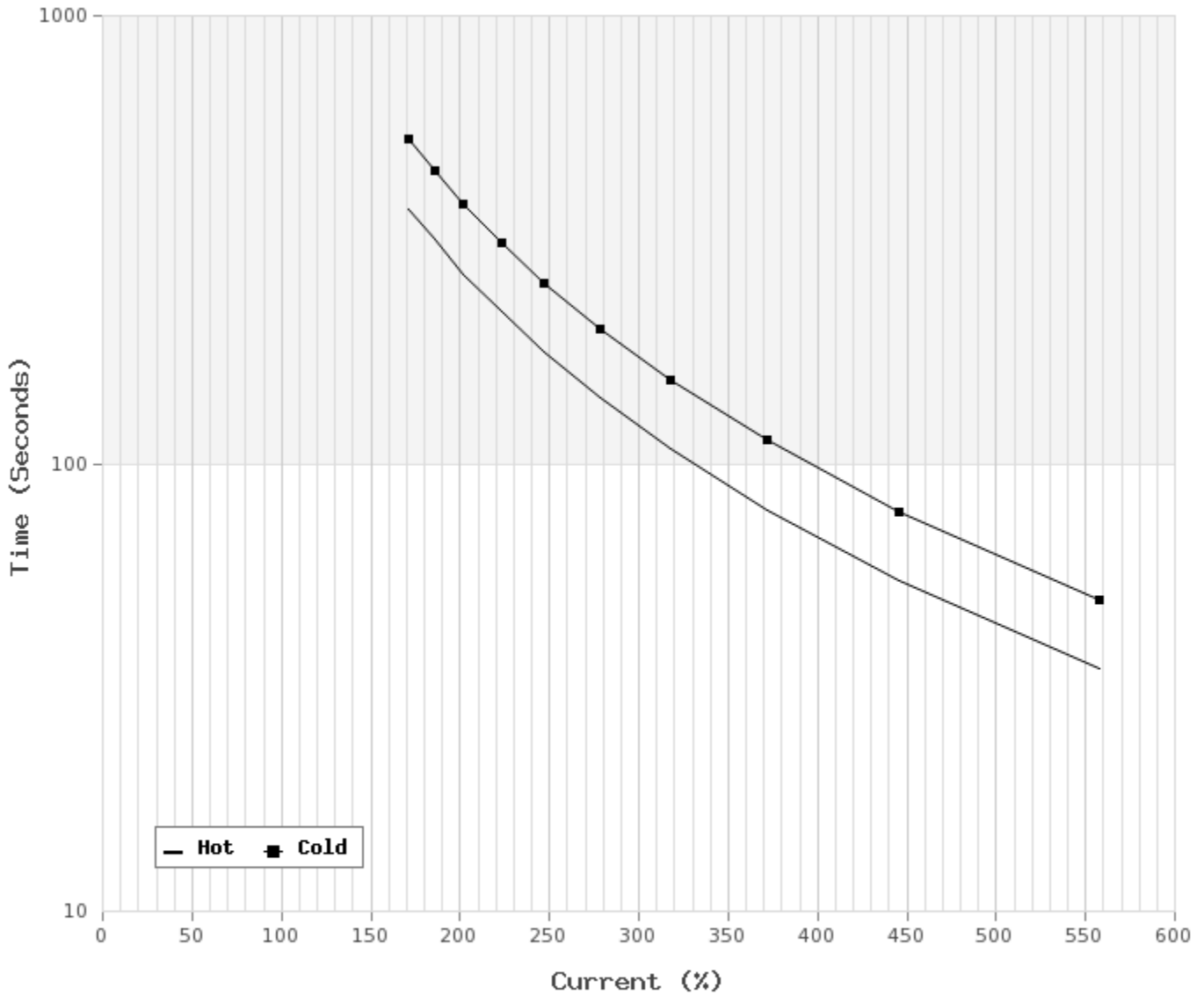


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH0308		Family: Optim TEFC	
HP	30	Safe Stall Time		Full Load A	77.9 / 39.0 A
Voltage	230 / 460V 60Hz	Hot	35 s	Locked Rotor A	558 / 559 %
RPM	900	Cold	50 s	Locked Rotor A	435.0 / 218 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH0308		Family: Optim TEFC	
HP	30	Full Load T	178.00 lb-ft	Full Load A	77.9 / 39.0 A
Voltage	230 / 460V 60Hz	Locked Rotor T	200 %	Locked Rotor A	435.0 / 218.0 A
RPM	900	Pull Up T	170 %	Break Down T	200 %

