

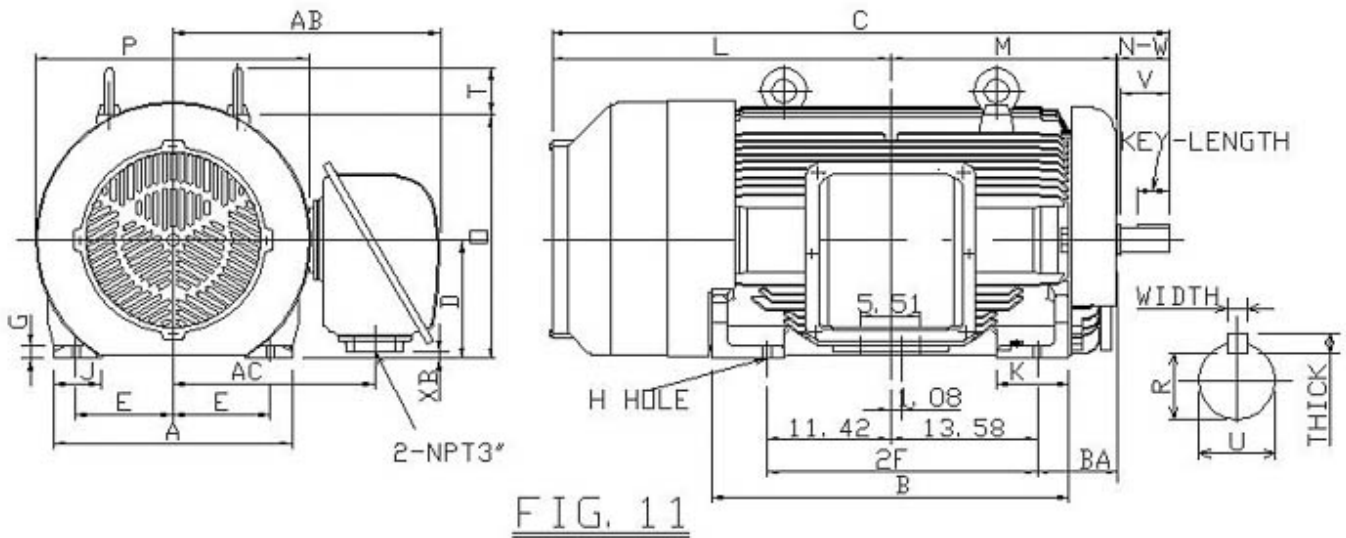
Technical Documentation

PDX4004
Optim TEFC | AEHH8N

Date: July 1, 2021

Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
PDX4004	AEHH8N	400	1800	460	60	449T(X)



Mounting				A	B	C	D	G	J	K	KL
E	2F	H	BA								
9	25	0.81	7.5	22.05	33.07	60.92	11	1.18	4.35	6.7	

L	M	O	P	T
31.34	20.87	22.6	25.7	4.33

Terminal Housing			
AA	AB	AC	XB
2-3	24.8	18.7	0.65

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
8.5	3.375	8	0.875	0.875	6.93	2.88

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6320	6316	3342	Direct Coupling / Belt Drive	Inches

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDX4004

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
400	4	1788	449T(X)	460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.15	Continuous		-40 to 40 °C	<1000 m

Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
96.20		96.40	96.10	88.90	86.80	80.90
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
1174.53	140	120	350		437.9	3000.00
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	
	135.000					

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
20-60Hz	3-60Hz	60-60Hz	0	VPWM or CPWM	1.0 Only

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 / T2C

Additional Certifications

Other Certification
Class II, Div 2, Groups F & G

Additional Information

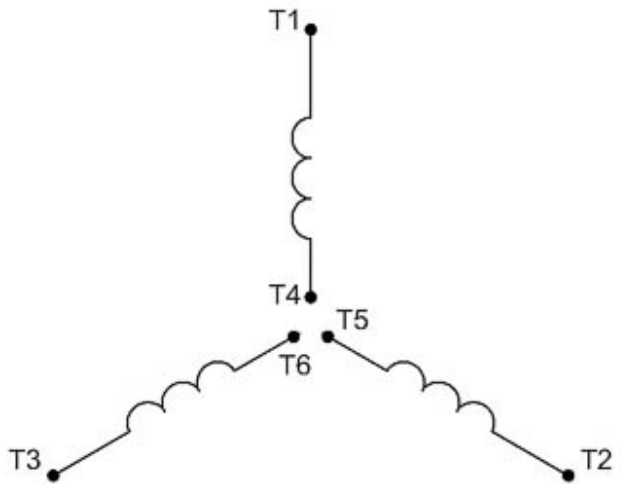
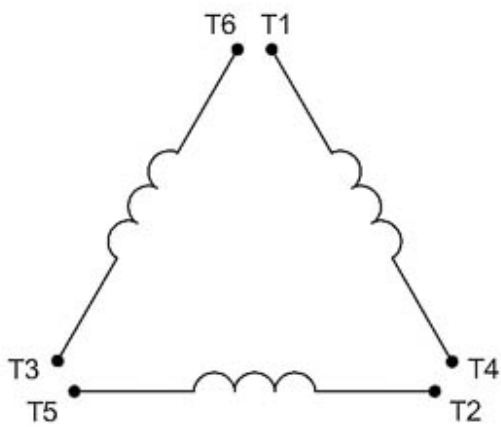
Bearings		Approx. Weight
DE	NDE	lbs
6320	6316	3342

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDX4004		
OUTPUT	400 HP 298.40 kW	FRAME	449T(X)	TEFC	
R.P.M.	1788	POLE	4	INS.	F
VOLTS	460	PHASE	3	Hz	60
AMPS	437.9	CODE		S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 96.20		MIN. EFF.	
BEARINGS	6320 / 6316			RATING Cont.	
SER. NO.	TBD	DESIGN		WT. 3342 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	20-60Hz	60-60Hz	1.0 Only	

Connection Diagram

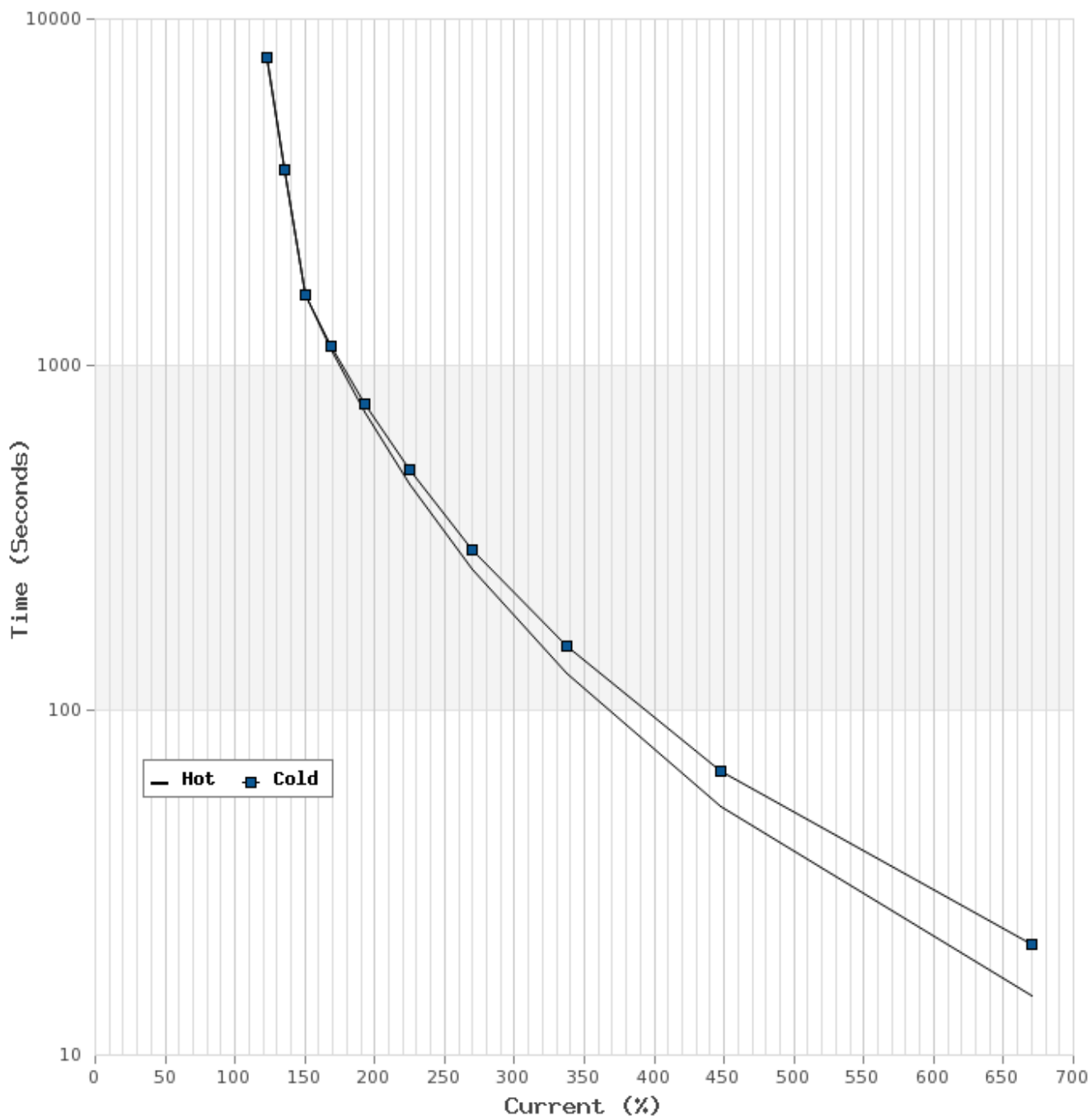


6 LEAD		SINGLE VOLTAGE			WYE/DELTA
CONNECTION		L1	L2	L3	JOIN
START	WYE	1	2	3	4&5&6
RUN	DELTA	1,6	2,4	3,5	-

WD_6YD

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDX4004		Family: Optim TEFC	
HP	400	Safe Stall Time		Full Load A	437.9 A
Voltage	460V 60Hz	Hot	s	% Inrush	685 %
RPM	1800	Cold	s	Locked Rotor A	3000.00 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDX4004		Family: Optim TEFC	
HP	400	Full Load T	1174.53 lb-ft	Full Load A	437.9 A
Voltage	460V 60Hz	Locked Rotor T	140 %	Locked Rotor A	3000.0 A
RPM	1800	Pull Up T	120 %	Break Down T	350 %

