

Technical Documentation

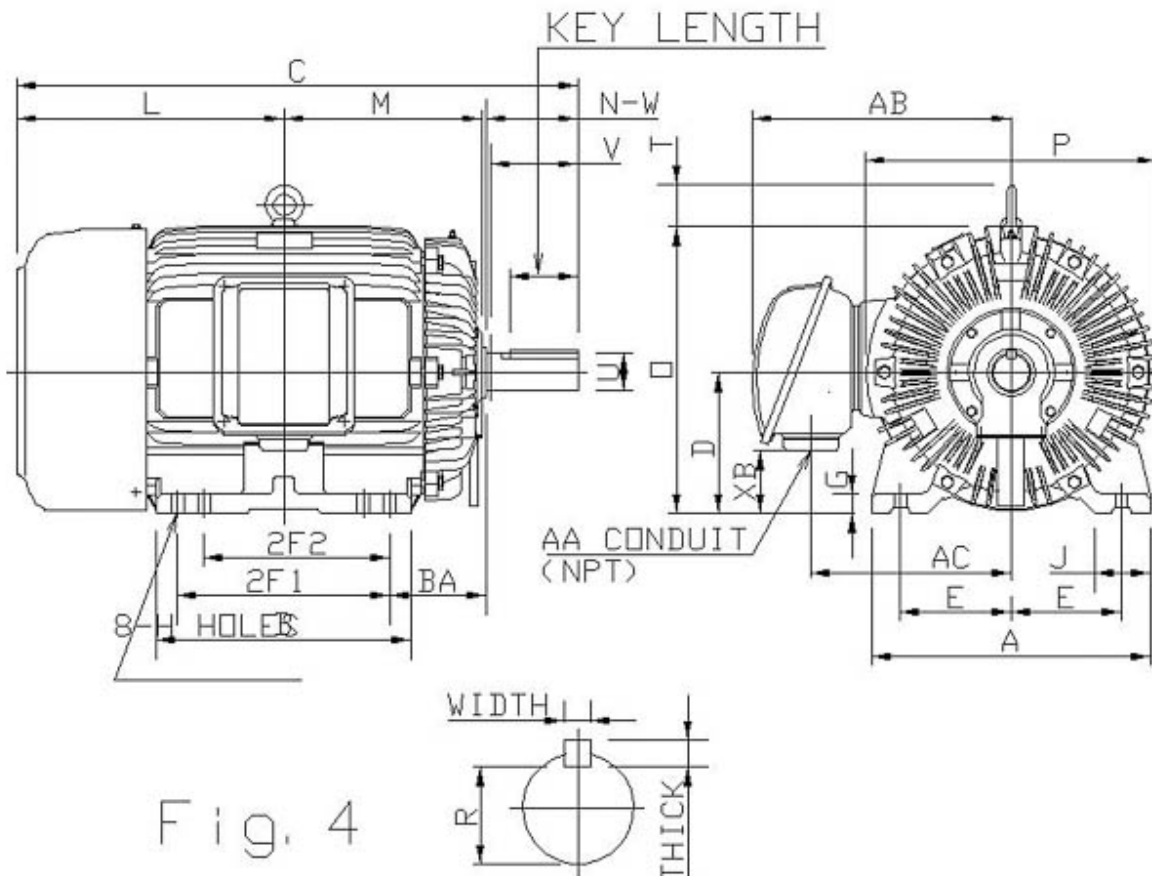
PDX0404

Optim TEFC | AEHH8N

Date: July 1, 2021

Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
PDX0404	AEHH8N	40	1800	230 / 460	60	324T(X)



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
6.25	10.5		0.67	5.25	15.75	12.87	29.49			8	1.1

J	K	L	M	O	P	T
3.15		13.74	10.22	15.5	15.91	2.36

Terminal Housing			
AA	AB	AC	XB
2	16.07	12.2	3.59

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
5.25	2.125	5.15	0.5	0.5	3.91	1.845

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6312	6310	529	Direct Coupling / Belt Drive	Inches

	
	Date: July 1, 2021

Technical Data Sheet

Motor Type: AEHH8N	Catalogue No: PDX0404
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
40	4	1770	324T(X)	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.15	Continuous	C	-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.					
94.10	93.00	94.50	94.50	86.00	84.50	78.50
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
118.65	205	170	220	21.2 / 10.6	92.6 / 46.3	580.00 / 290.00
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	
G	5.936	49.00	403.00	25	18	74.0

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-90Hz	0	VPWM or CPWM	1.0 Only

Hazardous Locations Information

Additional Certifications

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

Additional Information

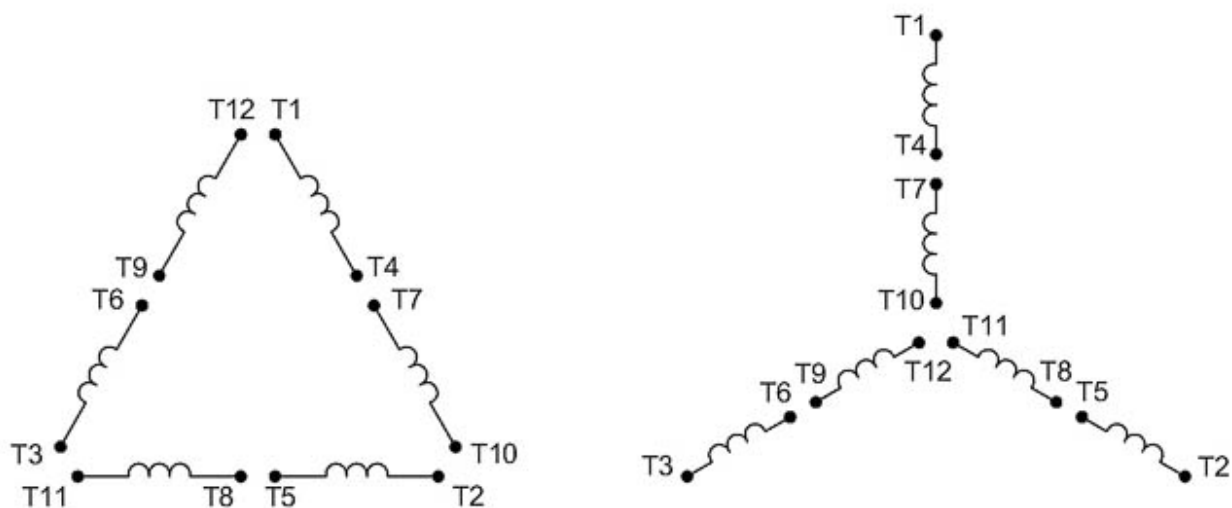
Bearings		Approx. Weight
DE	NDE	lbs
6312	6310	529

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDX0404		
OUTPUT	40 HP 29.84 kW	FRAME	324T(X)	TEFC	
R.P.M.	1770	POLE	4	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	92.6 / 46.3	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 94.10		MIN. EFF. 93.00	
BEARINGS	6312 / 6310			RATING Cont.	
SER. NO.	TBD		DESIGN	C	WT. 529 LBS
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-90Hz	1.0 Only	

Connection Diagram

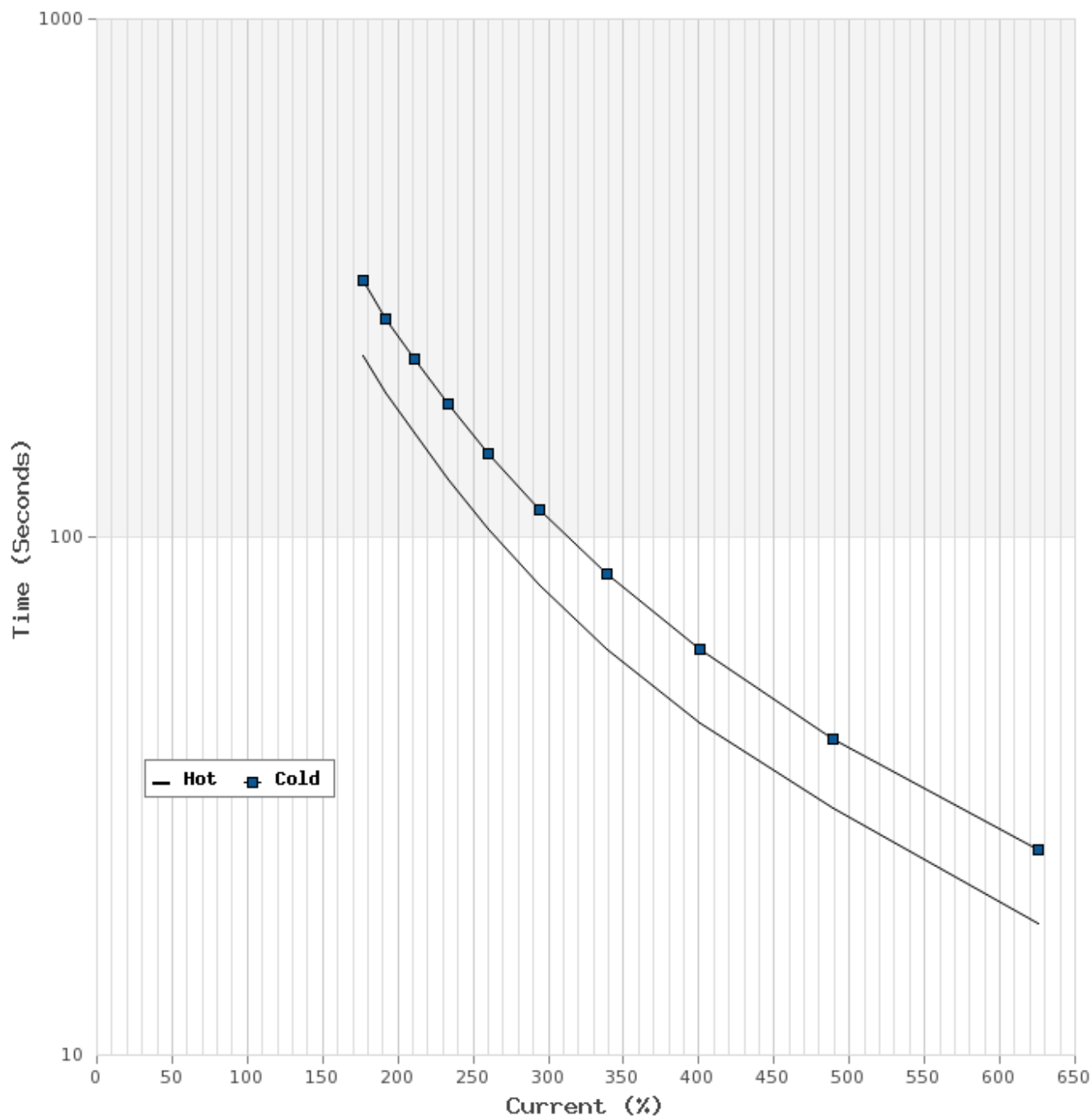


12 LEAD		DUAL VOLTAGE		WYE/DELTA		
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDX0404		Family: Optim TEFC	
HP	40	Safe Stall Time		Full Load A	92.6 / 46.3 A
Voltage	230 / 460V 60Hz	Hot	18 s	% Inrush	626 / 627 %
RPM	1800	Cold	25 s	Locked Rotor A	580.00 / 290.00 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDX0404		Family: Optim TEFC	
HP	40	Full Load T	118.65 lb-ft	Full Load A	92.6 / 46.3 A
Voltage	230 / 460V 60Hz	Locked Rotor T	205 %	Locked Rotor A	580.0 / 290.0 A
RPM	1800	Pull Up T	170 %	Break Down T	220 %

