

Technical Documentation

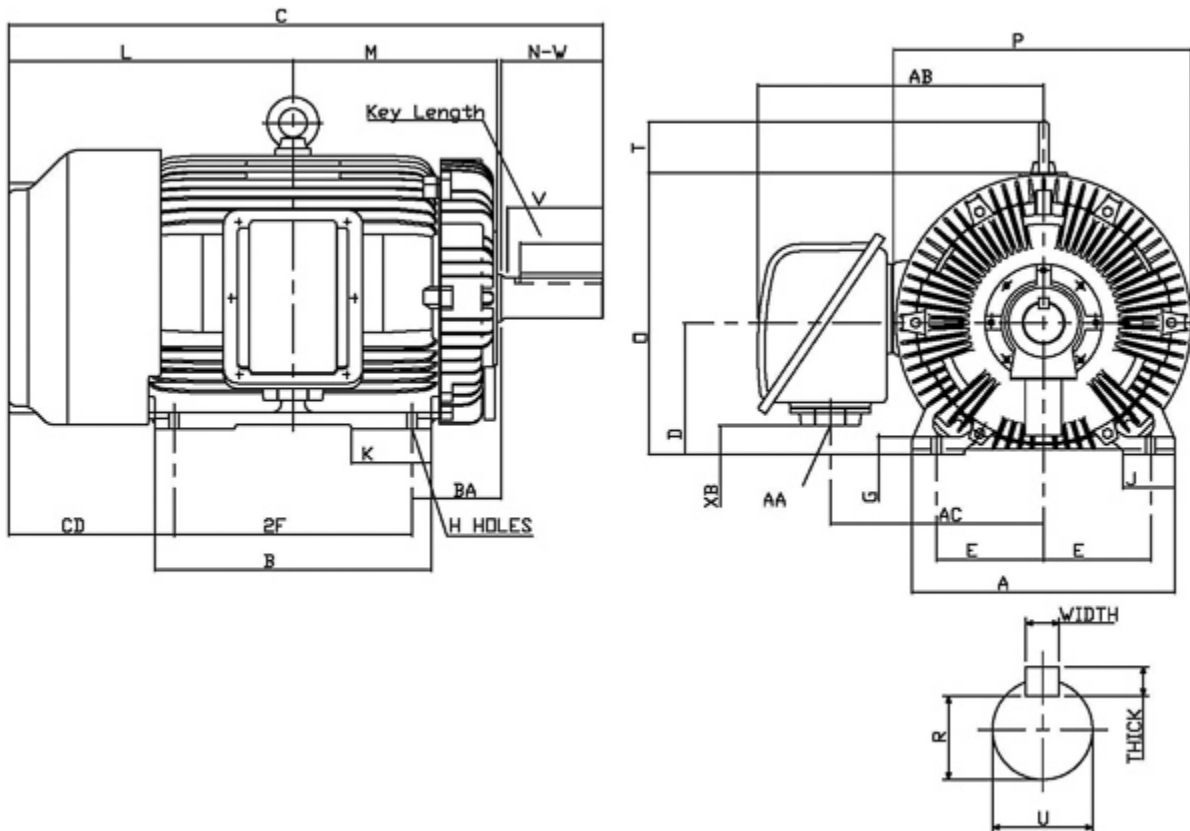
PDH12545R

Optim TEFC | AEHH8N

Date: July 10, 2017

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH12545R	AEHH8N	125	4	93	Continuous	575 V	60	1800



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	NU318	6316	1716	81	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH12545R

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
125	4	1780	444T	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	95.0	94.1	84.0	82.0	77.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
368.00	130	100	220	30.3	116.8	726
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	
0	44.300	542.0	1084.0	24	17	81

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
12-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
NU318	6316	1716

Hazardous Locations Information

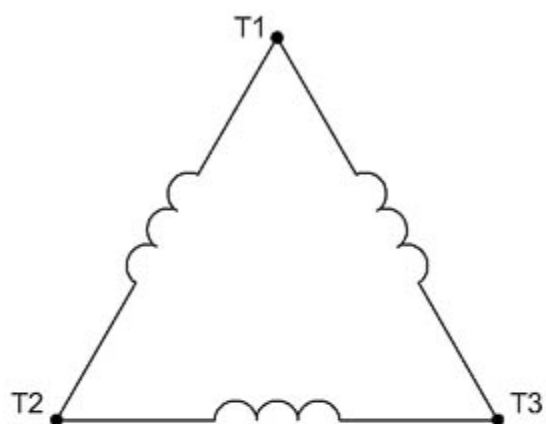
CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH12545R		
OUTPUT	125 HP 93 kW	FRAME	444T	TEFC	
R.P.M.	1780	POLE	4	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	116.8	CODE	0	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 95.4		MIN. EFF. 94.5	
BEARINGS	NU318 / 6316			RATING Cont.	
SER. NO.	TBD		DESIGN	B	WT. 1716 LBS
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	12-60Hz	60-90Hz	1.0 Only	

Connection Diagram

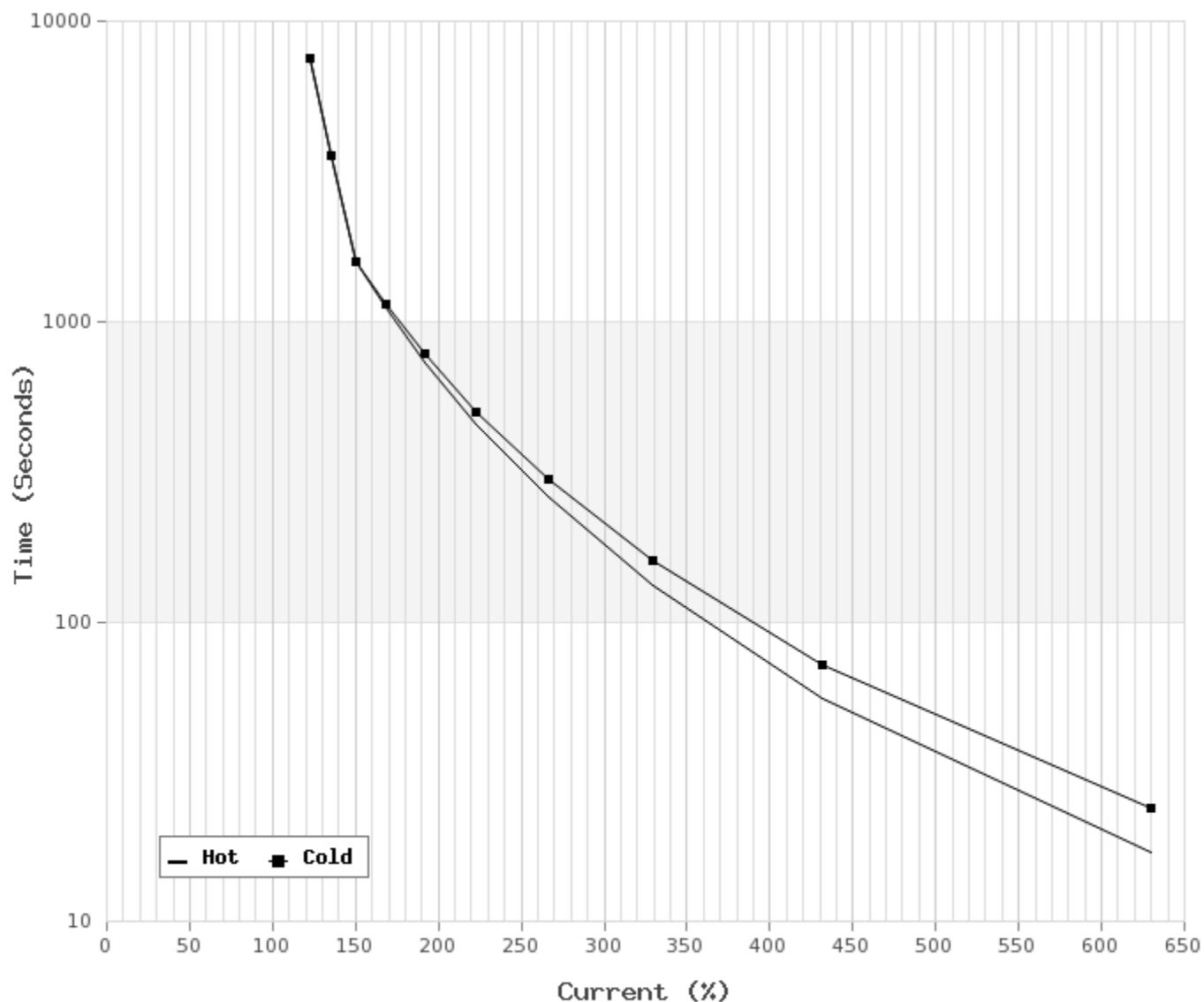


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH12545R		Family: Optim TEFC	
HP	125	Safe Stall Time		Full Load A	0.0 / 116.8 A
Voltage	0 / 575V 60Hz	Hot	17 s	Locked Rotor A	621 %
RPM	1800	Cold	24 s	Locked Rotor A	0.0 / 726 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH12545R		Family: Optim TEFC	
HP	125	Full Load T	368.00 lb-ft	Full Load A	116.8 A
Voltage	575V 60Hz	Locked Rotor T	130 %	Locked Rotor A	726.0 A
RPM	1800	Pull Up T	100 %	Break Down T	220 %

