

Technical Documentation

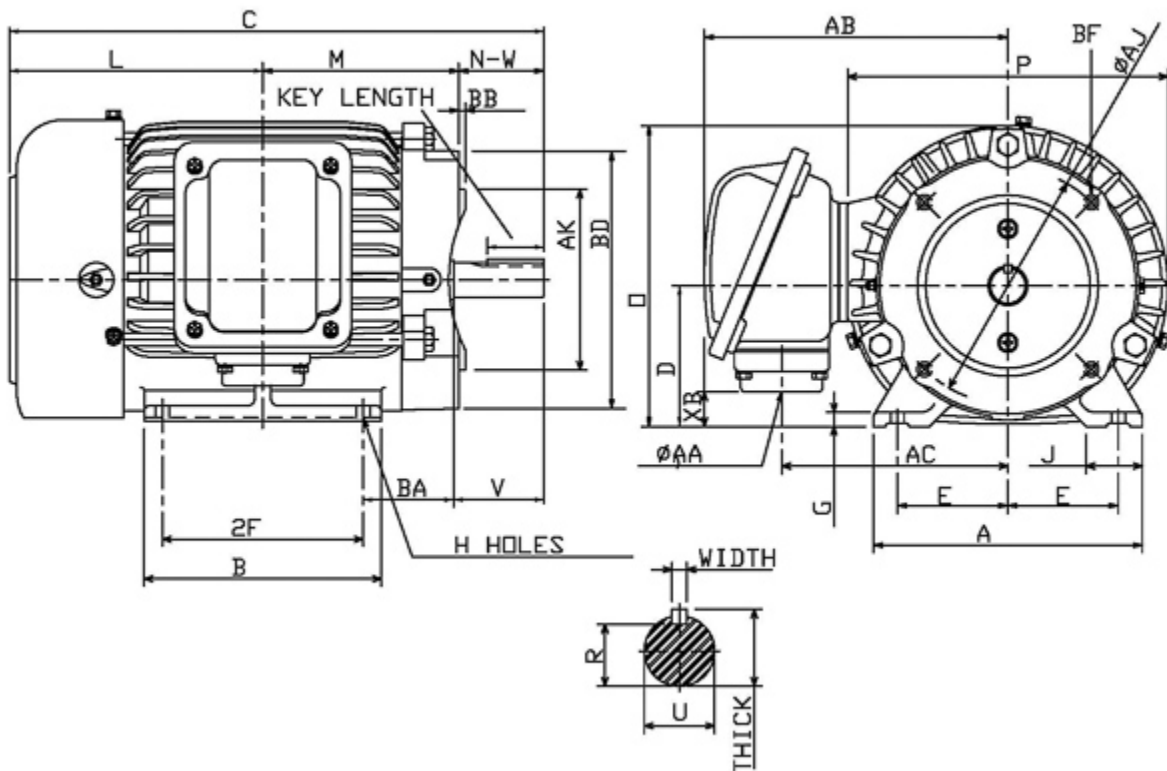
# **PDH0014C**

## **Optim TEFC | AEHH8N**

Date: November 29, 2016

**Dimensional Drawing**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH0014C	AEHH8N	1	4	0.75	Continuous	230 / 460 V	60	1800



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
143TC	2.75	4		0.34	2.25	6.7	5.1	12.34		3.5	
G	J	K	L	M	O	P	T	Key			Keyseat
0.35	1.4		5.84	4.03	7.48	7.97		Width	Thick	Length	R
								0.188	0.188	1.41	0.771
Terminal Housing			Aux Box			C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
3/4 NPT	7.56	5.63	0.86			0.16	2.12	4.5	6.4	5.875	3/8-16UNC
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
2.25	0.875	2.2	6205ZZ	6205ZZ	55	49	F	1.15	Direct Coupling / Belt Drive	Inches	

### Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH0014C

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1	4	1745	143TC	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	<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.					
85.5	82.5	84.0	81.5	73.0	64.5	51.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
3.01	310	280	410	1.6 / 0.8	3.0 / 1.5	30 / 15
NEMA KVA Code	Inertia (WR <sup>2</sup> )			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft <sup>2</sup> )	NEMA Load (lb-ft <sup>2</sup> )	Max. Allowable (lb-ft <sup>2</sup> )	Cold	Hot	
N	0.086	5.8	46.0	71	50	49

#### 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
6205ZZ	6205ZZ	55

#### 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 / T3C

**Connection Diagram**

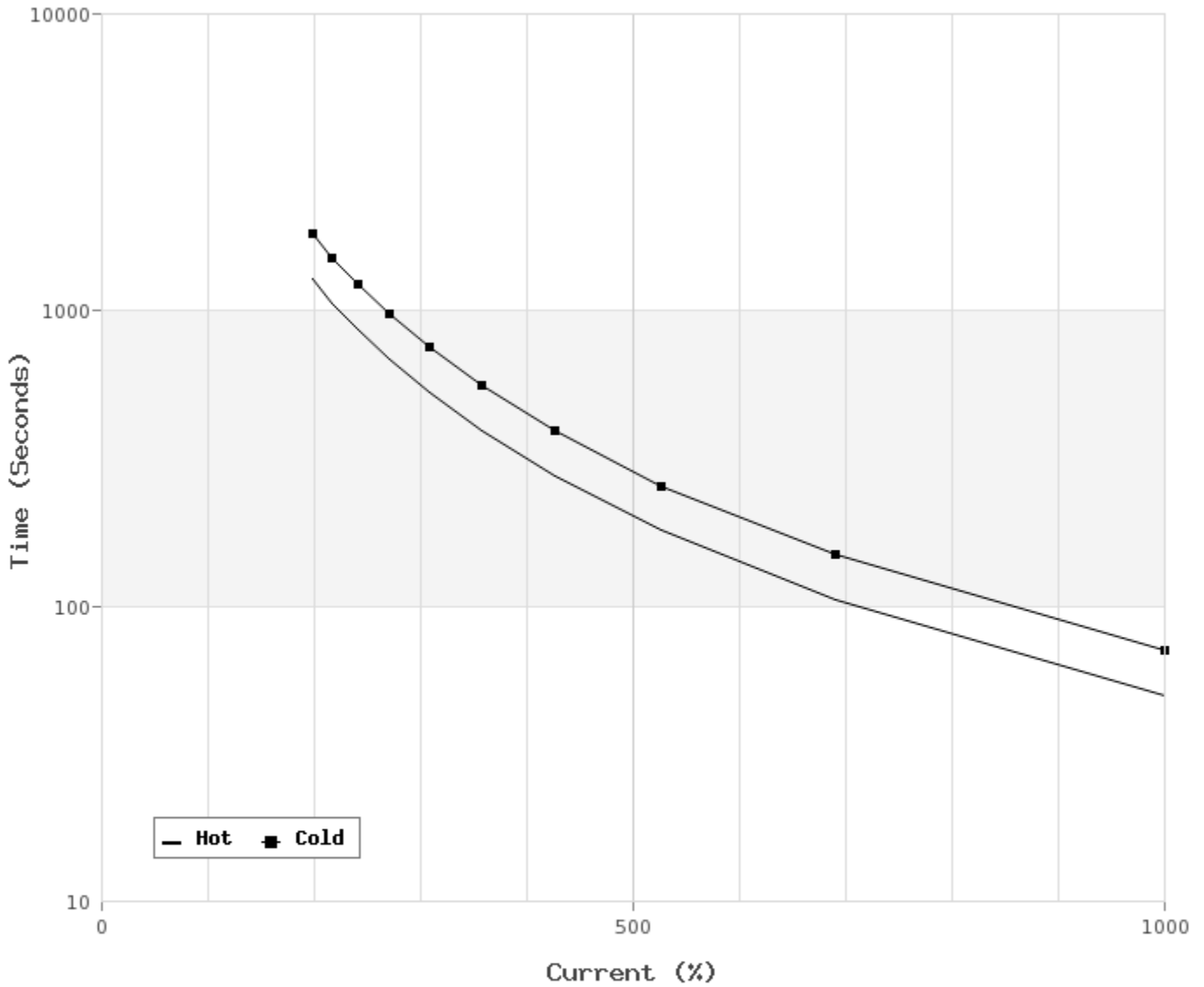


9 LEAD DUAL VOLTAGE WYE					
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD\_9Y

**Thermal Limit Curves**

Motor Type: AEHH8N		Catalogue No: PDH0014C		Family: Optim TEFC	
HP	1	Safe Stall Time		Full Load A	3.0 / 1.5 A
Voltage	230 / 460V 60Hz	Hot	50 s	Locked Rotor A	1,000 / 1,000 %
RPM	1800	Cold	71 s	Locked Rotor A	30.0 / 15 A



**T-N and I-N Curves**

Motor Type: AEHH8N		Catalogue No: PDH0014C		Family: Optim TEFC	
HP	1	Full Load T	3.01 lb-ft	Full Load A	3.0 / 1.5 A
Voltage	230 / 460V 60Hz	Locked Rotor T	310 %	Locked Rotor A	30.0 / 15.0 A
RPM	1800	Pull Up T	280 %	Break Down T	410 %

