

Technical Documentation

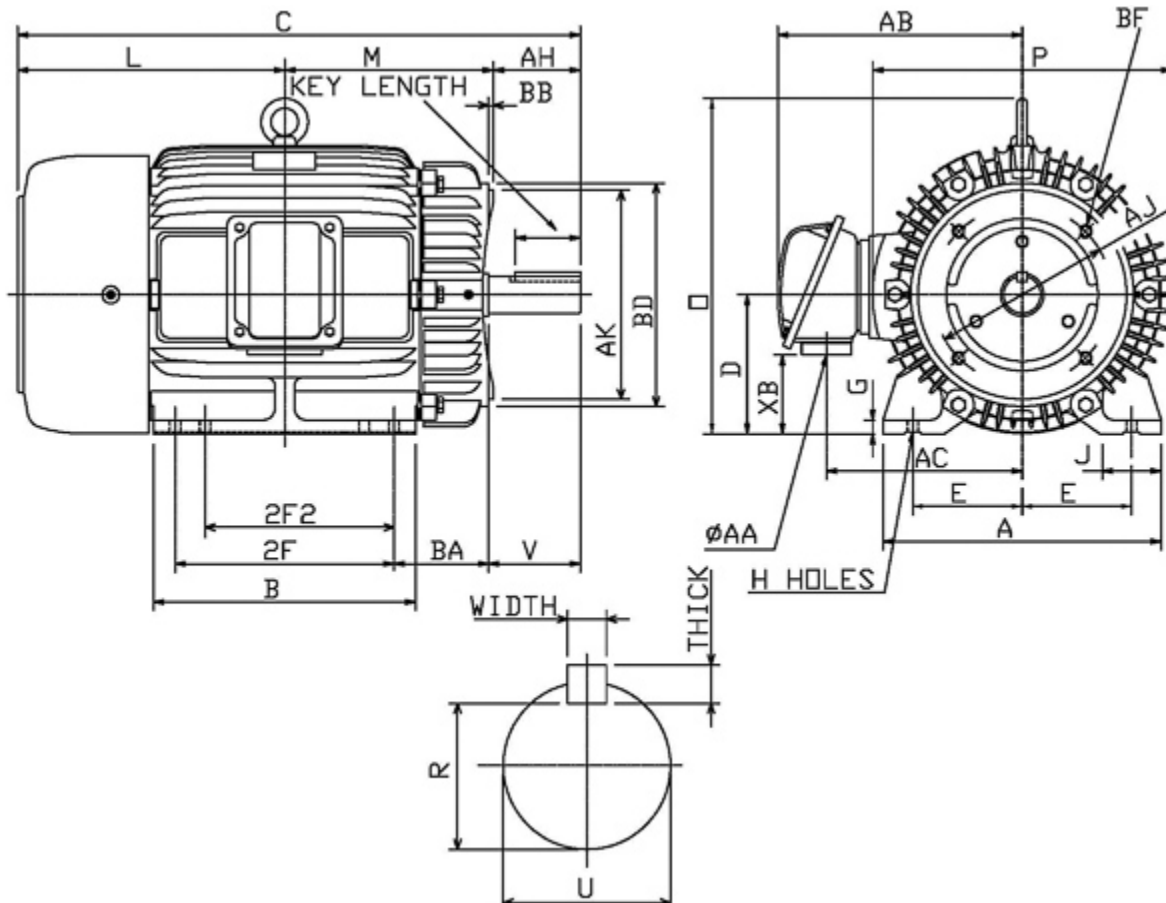
PDH02045C

Optim TEFC | AEHH8N

Date: November 30, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH02045C	AEHH8N	20	4	15	Continuous	575 V	60	1800



Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
256TC	5	10	8.25	0.53	4.25	11.8	11.8	25.44		6.25	
G	J	K	L	M	O	P	T	Key			Keyseat R
								Width	Thick	Length	
0.65	1.95		12.19	8.94	12.83	13.15	1.97	0.375	0.375	2.91	1.416
Terminal Housing			Aux Box			C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
1.25 NPT	11.3	8.86	3.22			0.25	3.75	8.5	9.92	7.25	1/2-13UNC
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
4	1.625	3.9	6309ZZ	6307ZZ	374	65	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH02045C

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
20	4	1760	256TC	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.					
93.0	91.7	92.4	92.4	87.5	84.5	78.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
59.66	200	145	240	5.9	18.4	116
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	2.871	99.0	234.0	39	27	65

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
6309ZZ	6307ZZ	374

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 / T3B

Connection Diagram

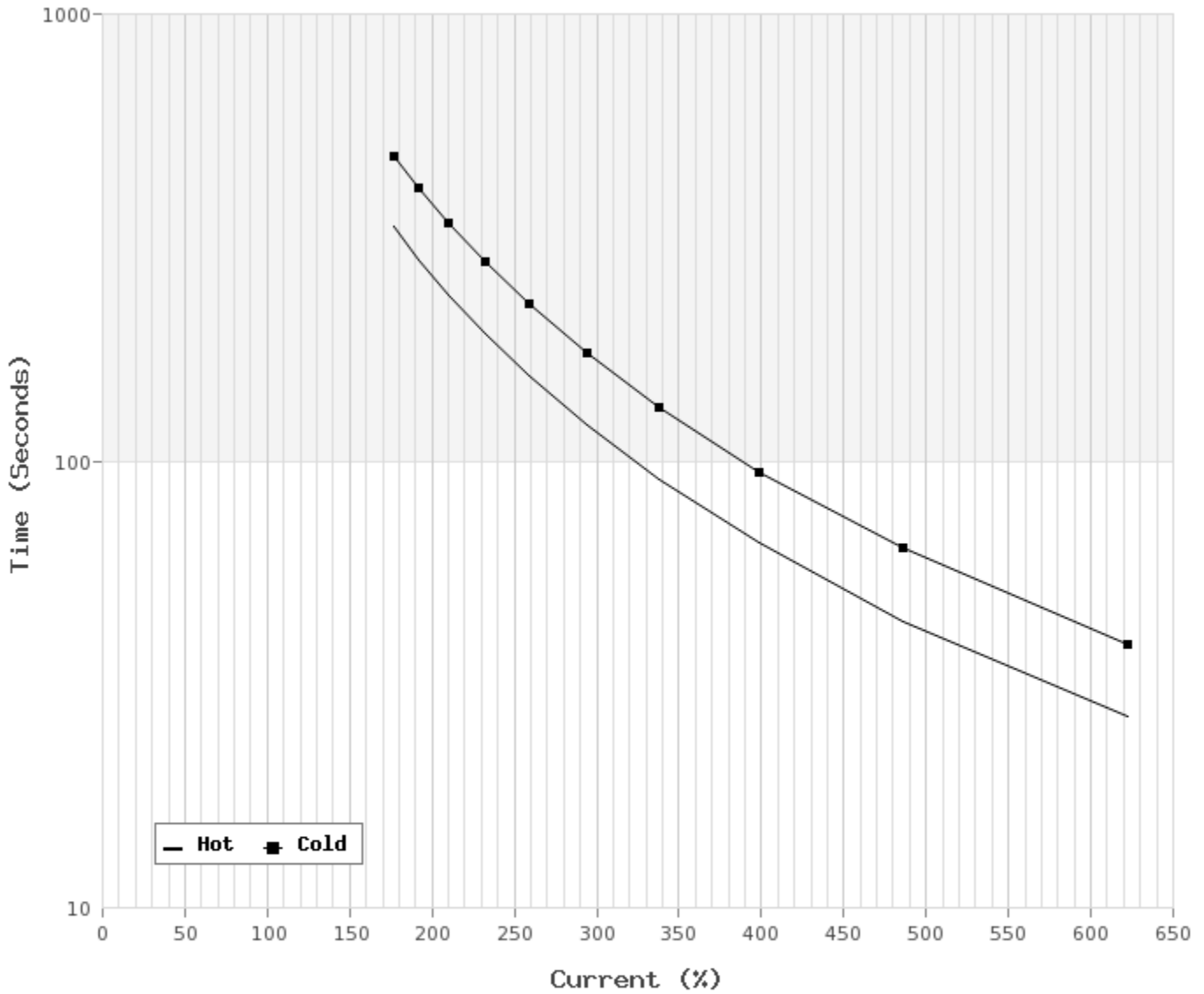


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH02045C		Family: Optim TEFC	
HP	20	Safe Stall Time		Full Load A	0.0 / 18.4 A
Voltage	0 / 575V 60Hz	Hot	27 s	Locked Rotor A	630 %
RPM	1800	Cold	39 s	Locked Rotor A	0.0 / 116 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH02045C		Family: Optim TEFC	
HP	20	Full Load T	59.66 lb-ft	Full Load A	18.4 A
Voltage	575V 60Hz	Locked Rotor T	200 %	Locked Rotor A	116.0 A
RPM	1800	Pull Up T	145 %	Break Down T	240 %

