

Technical Documentation

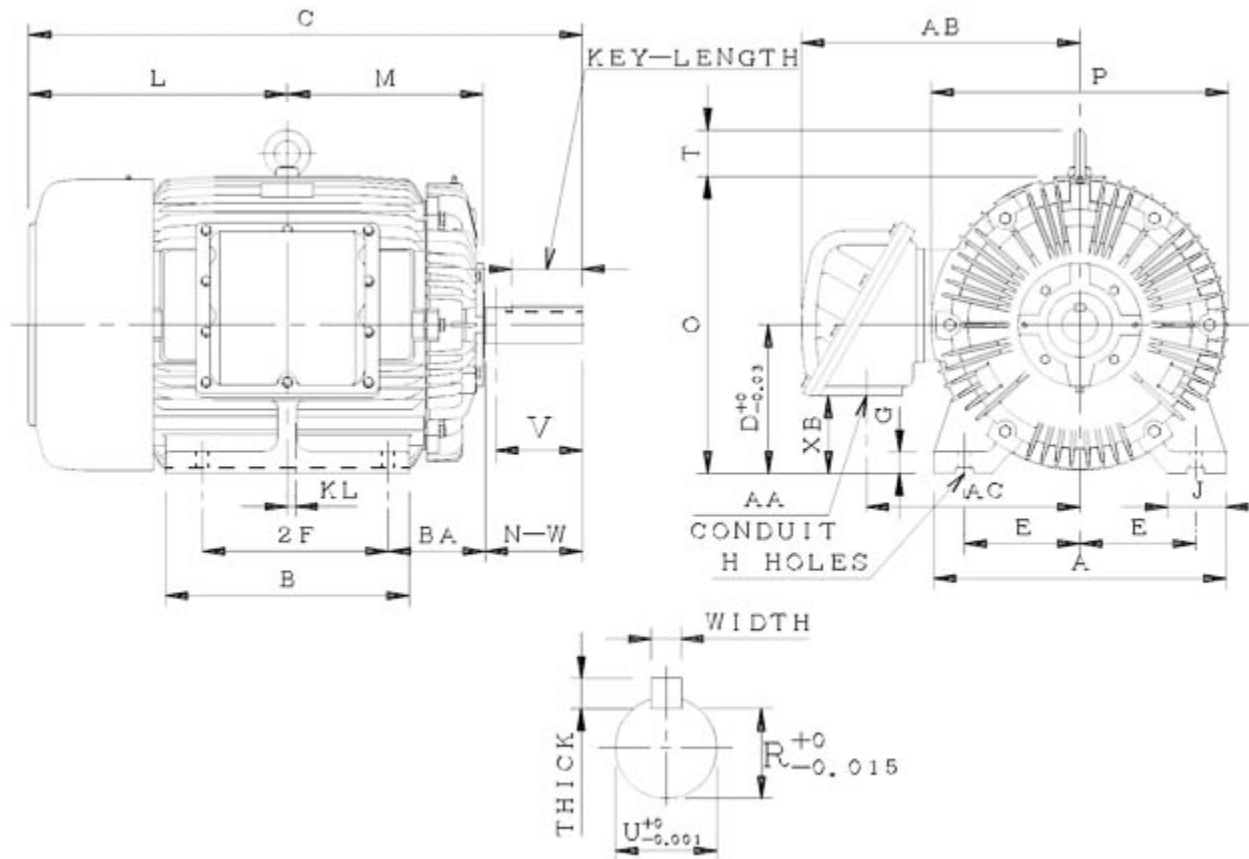
XH05045

Optim TEXP | AEHHXU

Date: December 1, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
XH05045	AEHHXU	50	4	37	Continuous	575 V	60	1800



AEHHXU-SMP-4 1 0

Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
326T		6.25	12		0.66	5.25	15.75	14.35	31.42		8
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
1.1	3.15		14.92	11.04	16.22	16.54	2.36	0.5	0.5	3.91	1.845
Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT2"	16.18	12.17	3.31								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
5.25	2.125	5.15	6312	6212	781	70.0	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHHXU

Catalogue No: XH05045

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	4	1775	326T	575	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	C	-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.					
94.5	93.6	95.0	95.0	85.5	84.5	79.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
147.9	240.0	185.0	210.0	11.2	46.4	290
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	10.1	232.0	366.0	17.0	12.0	70.0

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

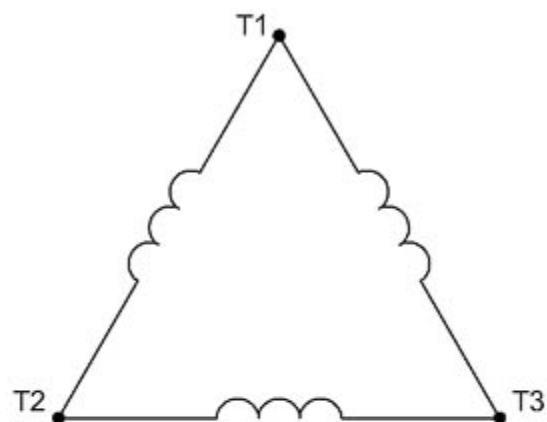
Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6312	6212	781

Hazardous Locations Information

CSA/UL Certified	
Class I, Div 1, Groups D; Class II, Div 1, Groups E, F & G Class I, Zone 1, Groups IIA; Class II, Div 1, Groups E, F & G	
Temp Code (Sinewave / VFD)	T3B / T3B

Connection Diagram

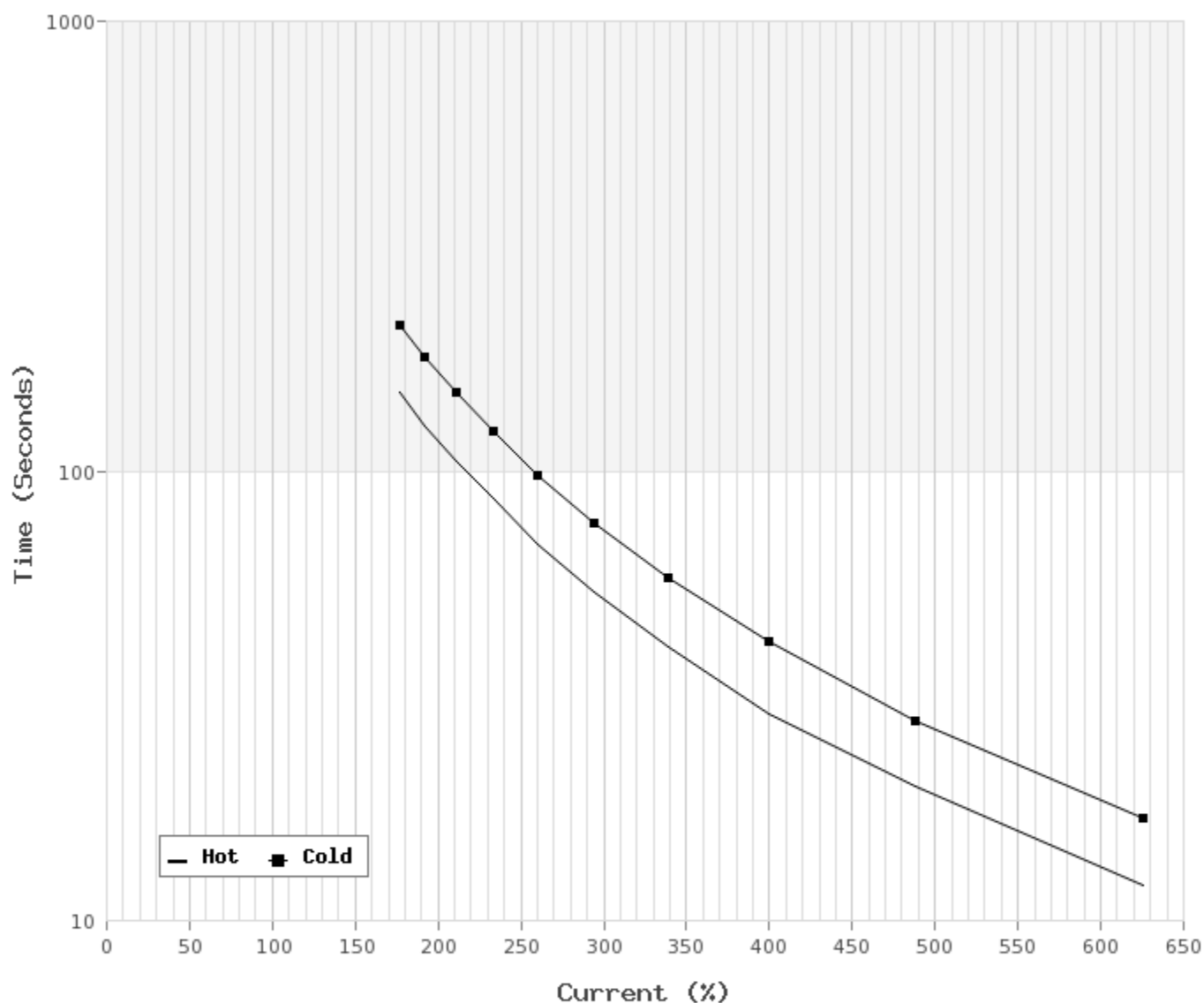


3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D

Thermal Limit Curves

Motor Type: AEHHXU		Catalogue No: XH05045		Family: Optim TEXP	
HP	50	Safe Stall Time		Full Load A	0.0 / 46.4 A
Voltage	0 / 575V 60Hz	Hot	12.0 s	Locked Rotor A	626 %
RPM	1800	Cold	17.0 s	Locked Rotor A	0.0 / 290 A



T-N and I-N Curves

Motor Type: AEHHXU		Catalogue No: XH05045		Family: Optim TEXP	
HP	50	Full Load T	147.9 lb-ft	Full Load A	46.4 A
Voltage	575V 60Hz	Locked Rotor T	240.0 %	Locked Rotor A	290.0 A
RPM	1800	Pull Up T	185.0 %	Break Down T	210.0 %

