

Technical Documentation

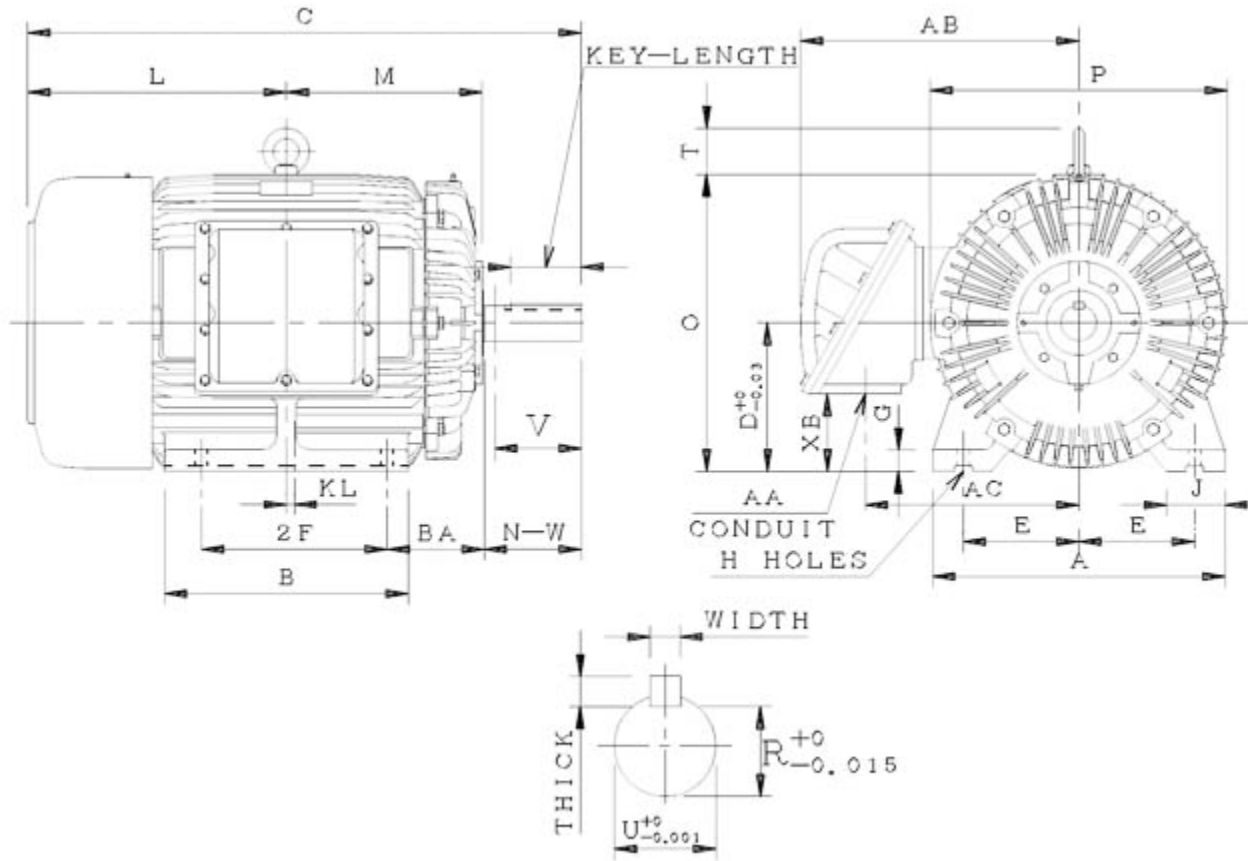
XH0506

Optim TEXP | AEHHXU

Date: December 1, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
XH0506	AEHHXU	50	6	37	Continuous	230 / 460 V	60	1200



AEHHXU-SMP-4 1 0

Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
365T	7	12.25		0.66	5.88	17.7	14.75	33.55		9	
G	J	K	L	M	O	P	T	Key			Keyseat
1.3	3.55		15.67	11.79	18	18.15	2.76	Width	Thick	Length	R
								0.625	0.625	4.28	2.201
Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3"	16.97	12.95	4.57								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
5.88	2.375	5.75	6313	6213	1019	65	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHHXU

Catalogue No: XH0506

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	6	1180	365T	230 / 460	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.					
94.1	93.0	94.0	93.0	83.5	79.5	70.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
222	235	175	235	46.4 / 23.2	119.0 / 59.6	725 / 363
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	20.006	620	1325	32	22	65

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
6313	6213	1019

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

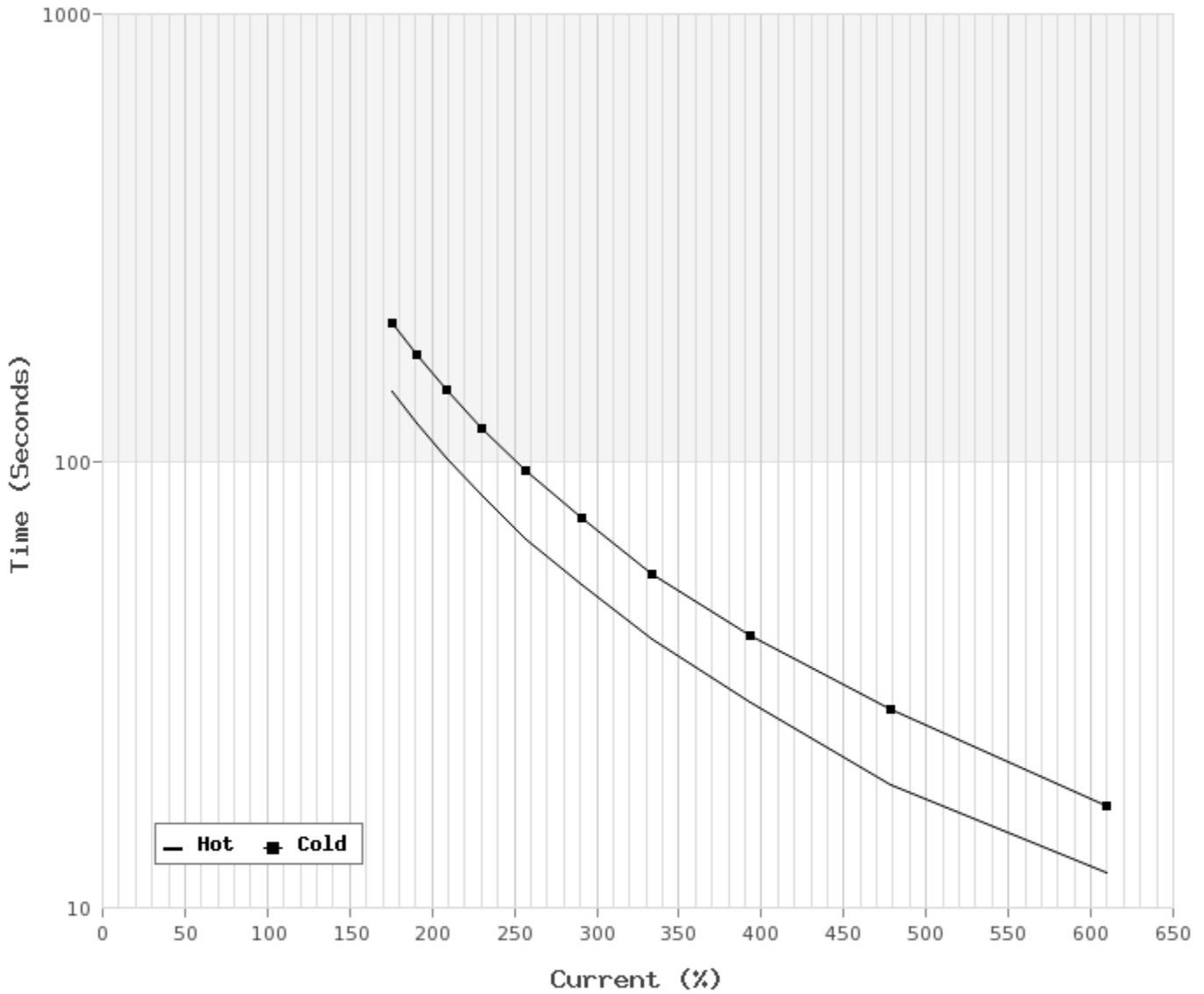


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHHXU		Catalogue No: XH0506		Family: Optim TEXP	
HP	50	Safe Stall Time		Full Load A	119.0 / 59.6 A
Voltage	230 / 460V 60Hz	Hot	22 s	Locked Rotor A	609 / 609 %
RPM	1200	Cold	32 s	Locked Rotor A	725.0 / 363 A



T-N and I-N Curves

Motor Type: AEHHXU		Catalogue No: XH0506		Family: Optim TEXP	
HP	50	Full Load T	222 lb-ft	Full Load A	119.0 / 59.6 A
Voltage	230 / 460V 60Hz	Locked Rotor T	235 %	Locked Rotor A	725.0 / 363.0 A
RPM	1200	Pull Up T	175 %	Break Down T	235 %

