

Technical Documentation

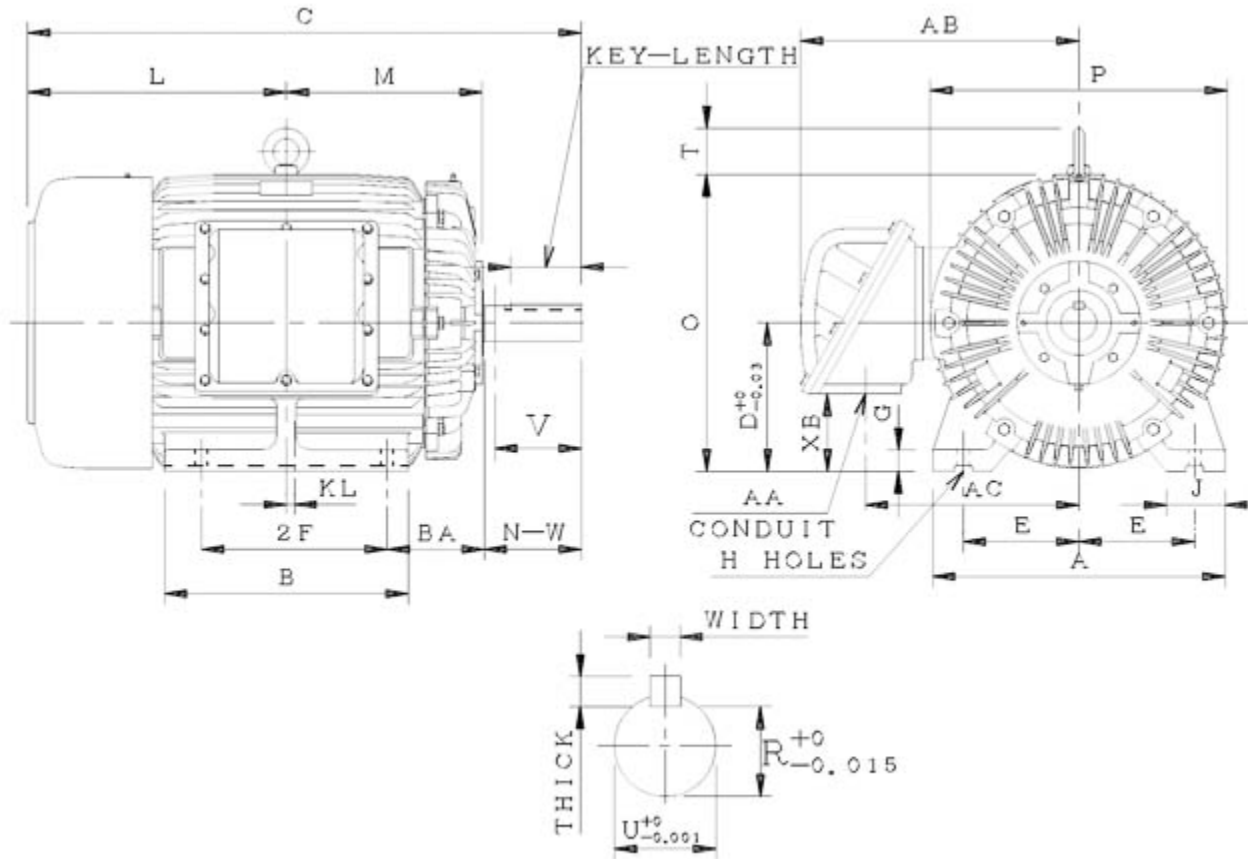
# **XH0302**

## **Optim TEXP | AEHHXU**

Date: July 10, 2017

**Dimensional Drawing**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
XH0302	AEHHXU	30	2	22	Continuous	230 / 460 V	60	3600



AEHHXU-SMP-4 1 0

Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
286TS	5.5	11		0.53	4.75	14	13.2	26.93		7	
G	J	K	L	M	O	P	T	Key			Keyseat
0.7	2.95		13.42	10.18	14.52	15.04	2.36	Width	Thick	Length	R
								0.375	0.375	1.93	1.416
Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT1 1/2"	13.23	9.92	3.57								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
3.25	1.625	3.2	6211C3	6211C3	502	77	F	1.15	Direct Coupling	Inches	

### Technical Data Sheet

Motor Type: AEHHXU

Catalogue No: XH0302

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
30	2	3530	286TS	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	B	-40 to 40°C °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.					
92.4	91.0	93.0	93.0	92.0	91.5	88.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
45	195	140	230	11.5 / 5.8	66.1 / 33.0	435 / 218
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	
G	1.959	30	73	24	17	77

#### 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
6211C3	6211C3	502

#### Hazardous Locations Information

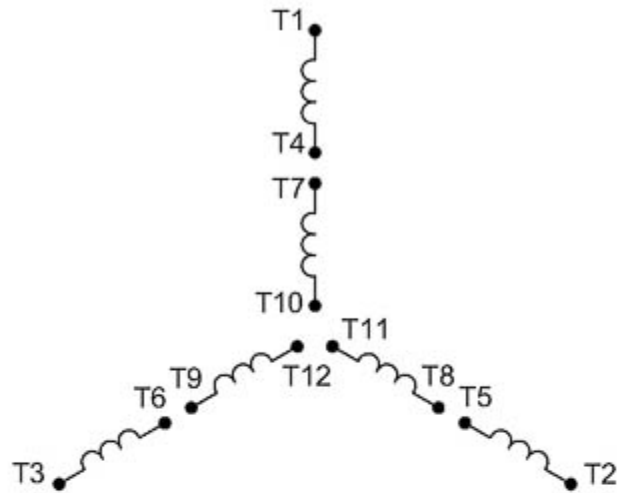
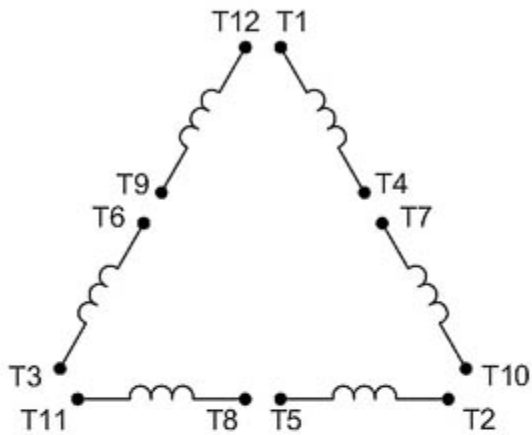
CSA/UL Certified	
Class I, Div 1, Groups D; Class II, Div 1, Groups E, F & G Class I, Zone 1, Groups IIA; Class II, Div 1, Groups E, F & G	
Temp Code (Sinewave / VFD)	T3B / T3B

**Nameplate Drawing**

# Optim TEXP

TYPE	AEHHXU	CAT. NO.	XH0302		
OUTPUT	30 HP 22 kW	FRAME	286TS	TEXP	
R.P.M.	3530	POLE	2	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	66.1 / 33.0	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 92.4		MIN. EFF. 91.0	
BEARINGS	6211C3 / 6211C3			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 502 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-90Hz	1.0 Only	

**Connection Diagram**

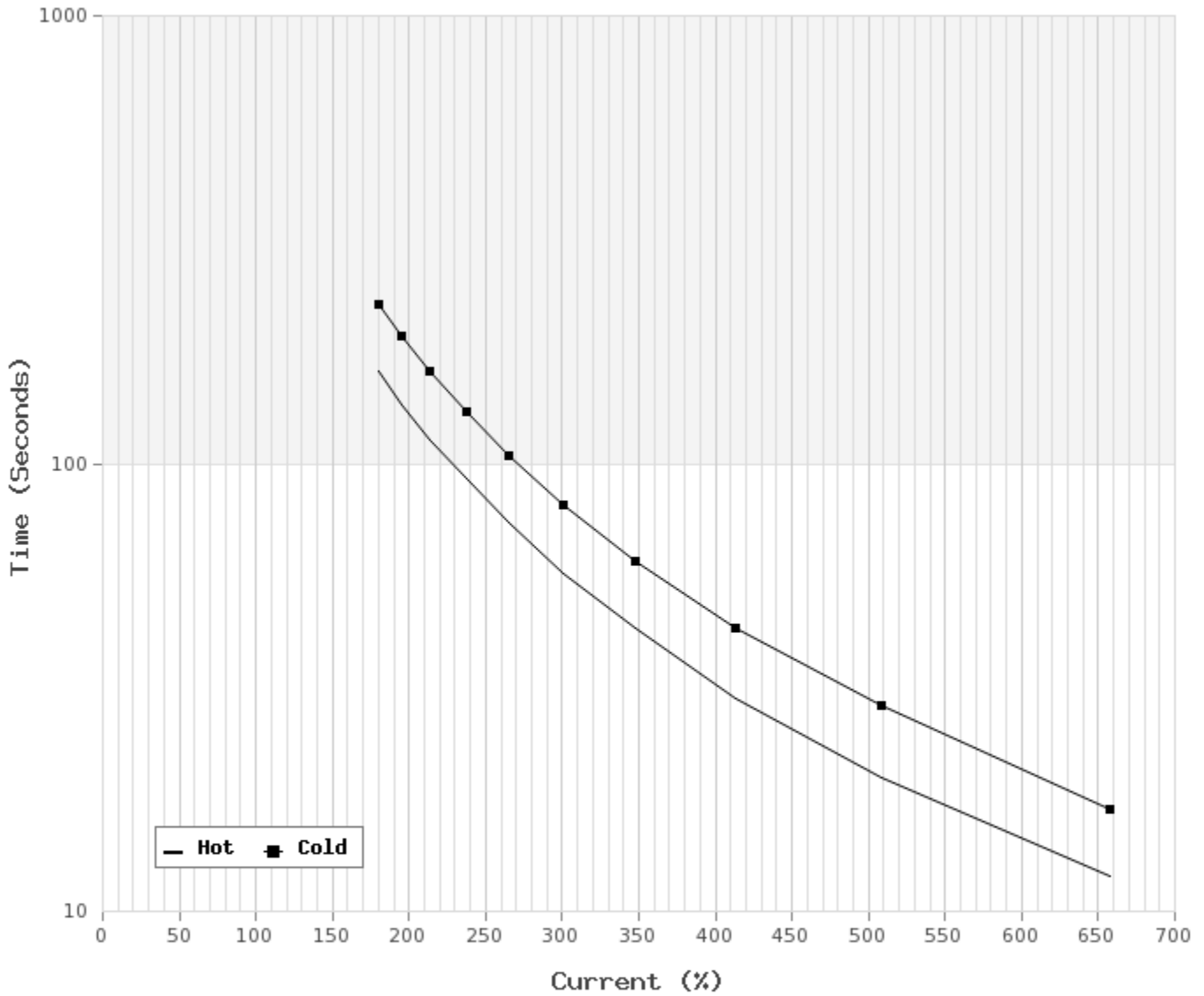


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD\_12YD

**Thermal Limit Curves**

Motor Type: AEHHXU		Catalogue No: XH0302		Family: Optim TEXP	
HP	30	Safe Stall Time		Full Load A	66.1 / 33.0 A
Voltage	230 / 460V 60Hz	Hot	17 s	Locked Rotor A	658 / 661 %
RPM	3600	Cold	24 s	Locked Rotor A	435.0 / 218 A



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

Motor Type: AEHHXU		Catalogue No: XH0302		Family: Optim TEXP	
HP	30	Full Load T	45 lb-ft	Full Load A	66.1 / 33.0 A
Voltage	230 / 460V 60Hz	Locked Rotor T	195 %	Locked Rotor A	435.0 / 218.0 A
RPM	3600	Pull Up T	140 %	Break Down T	230 %

