

Technical Documentation

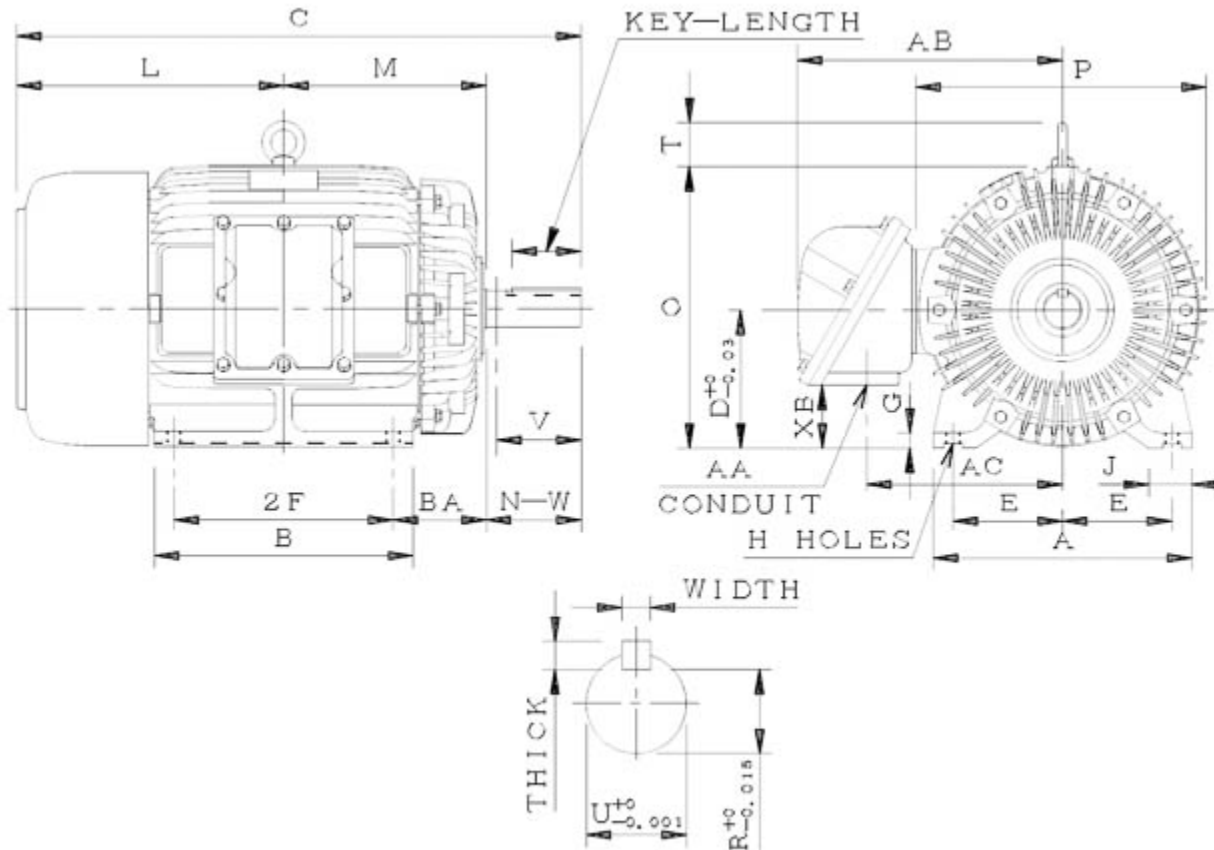
XC0204

Optim TEXP | AEHHXV

Date: December 1, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
XC0204	AEHHXV	20	4	15	Continuous	230 / 460 V	60	1800



AEHHXV-SMP-4 1 0

Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
256T		5	10		0.53	4.25	11.8	11.8	25.52		6.25
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
0.65	1.95		12.27	9.15	12.8	13.15	2	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
NPT11/4"	12.24	8.94	2.83								
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	376	65	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHHXV

Catalogue No: XC0204

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
20	4	1765	256T	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	B	°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	93.0	93.0	85.5	83.0	75.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
59	200	135	255	14.8 / 7.4	47.1 / 23.6	290 / 145
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	2.741	99	172	17	12	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

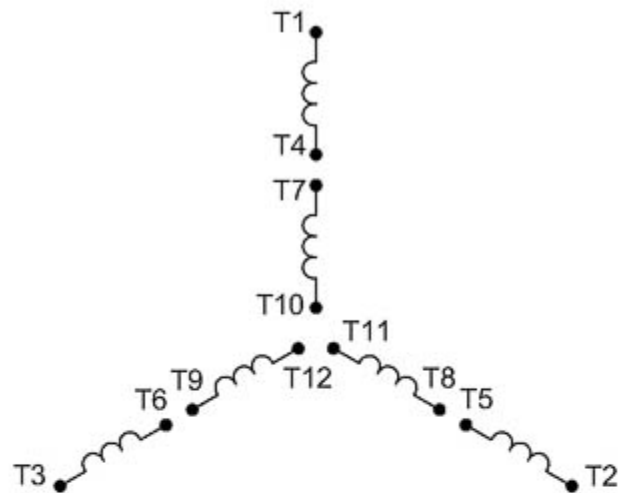
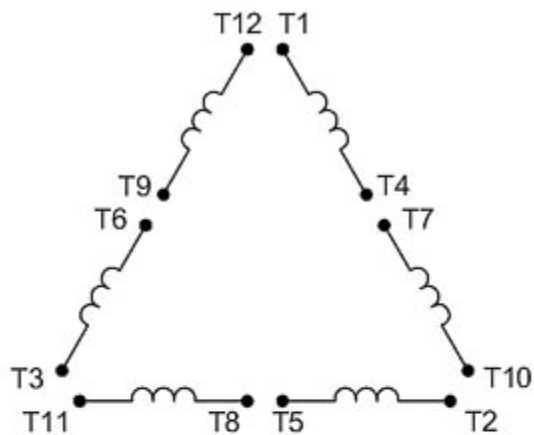
Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6309ZZ	6307ZZ	376

Hazardous Locations Information

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

Connection Diagram

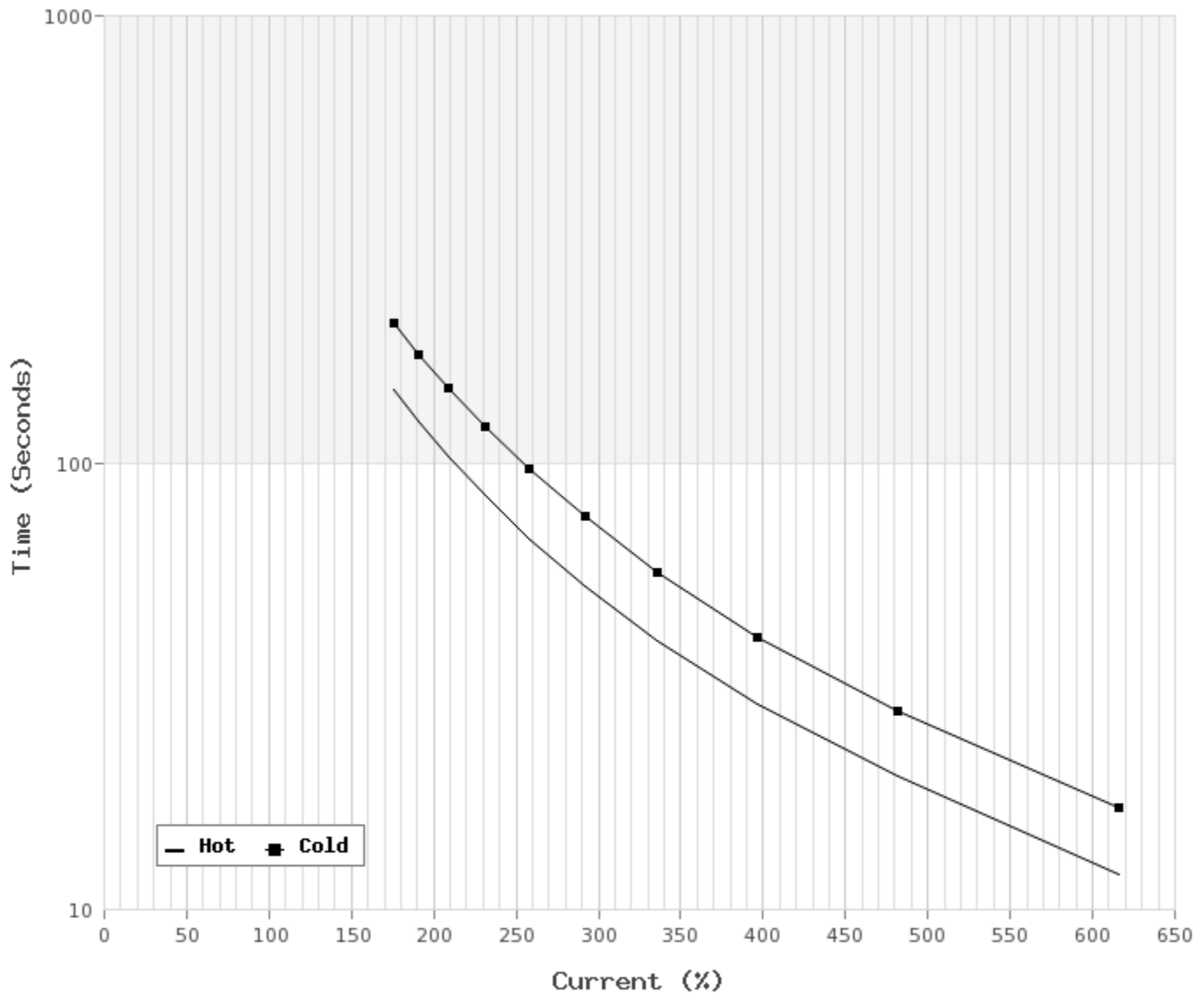


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHHXV		Catalogue No: XC0204		Family: Optim TEXP	
HP	20	Safe Stall Time		Full Load A	47.1 / 23.6 A
Voltage	230 / 460V 60Hz	Hot	12 s	Locked Rotor A	616 / 614 %
RPM	1800	Cold	17 s	Locked Rotor A	290.0 / 145 A



T-N and I-N Curves

Motor Type: AEHHXV		Catalogue No: XC0204		Family: Optim TEXP	
HP	20	Full Load T	59 lb-ft	Full Load A	47.1 / 23.6 A
Voltage	230 / 460V 60Hz	Locked Rotor T	200 %	Locked Rotor A	290.0 / 145.0 A
RPM	1800	Pull Up T	135 %	Break Down T	255 %

