

File E228654

Project 4786929840

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REPORT

on

Motors for Use in Hazardous Locations

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Nanyang, Henan, China

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## and Report

## DESCRIPTION

## PRODUCT COVERED:

USL - Electric motors for use in Hazardous Locations, Class I, Division 1, Groups C and D and Class II, Division 1, Groups F and G.

## GENERAL:

These motors are squirrel electric motors for use in hazardous locations. These motors are suitable for Class I, Division 2, Groups C and D, and Class II, Division 2, Groups F and G when installed in accordance with Article 501.10 (A) of the NEC, Class, I, Division 1, wiring method and Article 502.10 (A) of the NEC, Class, II, Division 1, wiring methods.

## RATINGS:

Frame size	404, 405, 444, 445, 447, 449
Horsepower	See Table 1 for maximum ratings on inverter power See Table 2 for maximum ratings on sinusoidal power
Rpm	3600, 1800, 1200, 900 - 60hz 3000, 1500, 1000, 750 - 50hz
Number of poles	2, 4, 6, 8
Service Factor	1.0 - Sinusoidal Power only (50h/60hz) 1.15 - Sinusoidal Power only (60hz) 1.0 - Inverter Power (both 50 and 60 hz base frequencies)
Duty Rating	Continuous
Insulation Class	F
Maximum Temperature Rise	
Resistance Method	70°C
Operating Temperature or Operating Temperature Code & Ambient Temperature Rating for Class I, Division 1, Groups C and D and Class II, Division 1, Groups F and G.	T3C  -20°C to +40°C @ SF 1.15 -20°C to +40°C @ SF 1.0 (Inverter-duty)
Operating Temperature or Operating Temperature Code (External Surfaces)@ Ambient Temperature Rating for Class I, Division 1, Groups C and D	T2B -20°C to +55°C @ SF 1.15 or -20°C to +55°C @ SF 1.0 (Inverter-duty)
Voltage Ratings	See Tables 1 & 2
Frequency Ratings, Hz	See Tables 1 & 2
Number of Phases	3
Inverter-duty	Constant Torque 5:1 (12-60 Hz @ 60 Hz base frequency and 10-50 Hz @ 50 Hz base frequency) Variable Torque 10:1 (6-60 Hz @ 60 Hz base frequency and 5-50 Hz @ 50 Hz base frequency)

TABLE 1

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP405TS-2	60	100	214.82	107.41	--	--
	50	75	--	--	107.41	97.74
NEXP405TS-4	60	100	218.2	109.1	--	--
	50	75	--	--	109.1	99.28
NEXP405T-4	60	100	218.2	109.1	--	--
	50	75	--	--	109.1	99.28
NEXP404T-6	60	60	137.72	68.86	--	--
	50	45	--	--	68.86	62.66
NEXP405T-6	60	75	167.78	83.89	--	--
	50	60	--	--	83.89	76.34
NEXP404T-8	60	50	121.12	60.56	--	--
	50	40	--	--	60.56	55.11
NEXP405T-8	60	60	146.02	73.01	--	--
	50	50	--	--	73.01	66.44
NEXP444TS-2	60	125	--	129.86	--	--
	50	100	--	--	129.86	118.17
NEXP445TS-2	60	150	--	159.18	--	--
	50	125	--	--	159.18	144.85
NEXP444TS-4	60	125	--	133.22	--	--
	50	100	--	--	133.22	121.23
NEXP444T-4	60	125	--	133.22	--	--
	50	100	--	--	133.22	121.23
NEXP445TS-4	60	150	--	161.06	--	--
	50	125	--	--	161.06	146.56
NEXP445T-4	60	150	--	161.06	--	--
	50	125	--	--	161.06	146.56
NEXP444T-6	60	100	--	112.7	--	--
	50	75	--	--	112.7	102.56
NEXP445T-6	60	125	--	134.91	--	--
	50	100	--	--	134.91	122.77
NEXP444T-8	60	75	--	87.06	--	--
	50	60	--	--	87.06	79.22
NEXP445T-8	60	100	--	118.32	--	--
	50	75	--	--	118.32	107.67
NEXP447TS-2	60	200	--	216.24	--	--
	50	150	--	--	216.24	196.78
NEXP449TS-2	60	250	--	265.37	--	--
	50	200	--	--	265.37	241.49
NEXP447TS-4	60	200	--	220.73	--	--
	50	150	--	--	220.73	200.86
NEXP447T-4	60	200	--	220.73	--	--
	50	150	--	--	220.73	200.86
NEXP449TS-4	60	250	--	272.8	--	--
	50	200	--	--	272.8	248.25
NEXP449T-4	60	250	--	272.8	--	--
	50	200	--	--	272.8	248.25
NEXP447T-6	60	150	--	167.71	--	--
	50	125	--	--	167.71	152.62

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP449T-6	60	200	--	229.16	--	--
	50	150	--	--	229.16	208.54
NEXP447T-8	60	125	--	144.22	--	--
	50	100	--	--	144.22	131.24
NEXP449T-8	60	150	--	177.21	--	--
	50	125	--	--	177.21	161.26

Table 2 - Sinusoidal Power Ratings

Model	Frequency (Hz)	Horse Power (HP)	Ampere(A)			
			230V	460V	380V	415V
NEXP405TS-2	60	100	214.8	107.4	--	--
	50	100	--	--	130.0	119.1
	50	75	--	--	107.4	98.4
NEXP405TS-4	60	100	218.2	109.1	--	--
	50	100	--	--	132.1	120.9
	50	75	--	--	109.1	99.9
NEXP405T-4	60	100	218.2	109.1	--	--
	50	100	--	--	132.1	120.9
	50	75	--	--	109.1	99.9
NEXP404T-6	60	60	137.7	68.9	--	--
	50	60	--	--	83.4	76.3
	50	45	--	--	68.9	63.1
NEXP405T-6	60	75	167.8	83.9	--	--
	50	75	--	--	101.6	93.0
	50	60	--	--	83.9	76.8
NEXP404T-8	60	50	121.1	60.6	--	--
	50	50	--	--	73.3	67.1
	50	40	--	--	60.6	55.5
NEXP405T-8	60	60	146.0	73.0	--	--
	50	60	--	--	88.4	80.9
	50	50	--	--	73.0	66.9
NEXP444TS-2	60	125	--	129.9	--	--
	50	125	--	--	157.2	143.9
	50	100	--	--	129.9	118.9
NEXP445TS-2	60	150	--	159.2	--	--
	50	150	--	--	192.7	176.4
	50	125	--	--	159.2	145.8
NEXP444TS-4	60	125	--	133.2	--	--
	50	125	--	--	161.3	147.7
	50	100	--	--	133.2	122.0
NEXP444T-4	60	125	--	133.2	--	--
	50	125	--	--	161.3	147.7
	50	100	--	--	133.2	122.0
NEXP445TS-4	60	150	--	161.1	--	--
	50	150	--	--	195.0	178.5
	50	125	--	--	161.1	147.5

