File E228654
Project 10NK08486

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REPORT

on

Motors for Use in Hazardous Locations

*__Wolong Electric Nanyang__ Explosion Protection Group Co Ltd
Nanyang, Henan, China

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, **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 **methods and Article 502.10 (A) of the NEC, Class, II, Division 1, wiring methods.**

RATINGS:

Frame size	143,145,182,184,213,215
*Horsepower	See Table **1for maximum ratings on inverter power** **See Table 2 for maximum ratings on sinusoidal power**
Rpm	3600, 1800, 1200, 900; 3000, 1500, 1000, 750
Number of poles	2, 4, 6, 8
*Service Factor	1.15- Sinusoidal power only **(60Hz)** **1.0 – Sinusoidal power only (50hz)** 1.0 – **Inverter** power **(both 50 and 60 hz base frequencies)**
Duty Rating	Continuous
Insulation Class	F
*Maximum Temperature Rise, Change of Resistance Method	**50°C** @ SF 1.15
Ambient Temperature Rating	-20°C to +55°C @ SF 1.15 -20°C to +40°C @ SF 1.0 (Inverter-duty)
Operating Temperature or Operating Temperature Code (External Surfaces)	T3C
*Voltage Ratings	See **Tables 1 and 2**
***Base** Frequency Ratings, Hz	See **Tables 1 and 2**
Number of Phases	3
Inverter-duty	**See Table 1** 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 – Inverter Power Ratings

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP143T-2	60	1.5	3.7	1.85	--	--
	50	1	--	--	1.85	1.68
NEXP145T-2	60	2	4.9	2.45	--	--
	50	1.5	--	--	2.45	2.23
NEXP143T-4	60	1	2.68	1.34	--	--
	50	0.75	--	--	1.34	1.22
NEXP145T-4	60	1.5	3.88	1.94	--	--
	50	1	--	--	1.94	1.77
NEXP145T-4	60	2	5.2	2.6	--	--
	50	1.5	--	--	2.6	2.37
NEXP143T-6	60	0.75	2.91	1.455	--	--
	50	0.5	--	--	1.455	1.32
NEXP145T-6	60	1	3.28	1.64	--	--
	50	0.75	--	--	1.64	1.49
NEXP182T-2	60	3	6.94	3.47	--	--
	50	2	--	--	3.47	3.16
NEXP184T-2	60	5	11.36	5.68	--	--
	50	3	--	--	5.68	5.17
NEXP182T-4	60	3	7.6	3.8	--	--
	50	2	--	--	3.8	3.46
NEXP184T-4	60	5	12.26	6.13	--	--
	50	3	--	--	6.13	5.58
NEXP182T-6	60	1.5	4.14	2.07	--	--
	50	1	--	--	2.07	1.88
NEXP184T-6	60	2	5.48	2.74	--	--
	50	1.5	--	--	2.74	2.49
NEXP182T-8	60	1	4	2	--	--
	50	0.75	--	--	2	1.82
NEXP184T-8	60	1.5	5.4	2.7	--	--
	50	1	--	--	2.7	2.46
NEXP213T-2	60	7.5	16.58	8.29	--	--
	50	5	--	--	8.29	7.54
NEXP215T-2	60	10	22.48	11.24	--	--
	50	7.5	--	--	11.24	10.23
NEXP213T-4	60	7.5	17.06	8.53	--	--
	50	5	--	--	8.53	7.76
NEXP215T-4	60	10	23.16	11.58	--	--
	50	7.5	--	--	11.58	10.54
NEXP213T-6	60	3	7.88	3.94	--	--
	50	2	--	--	3.94	3.59
NEXP215T-6	60	5	12.58	6.29	--	--
	50	3	--	--	6.29	5.72
NEXP213T-8	60	2	6.4	3.2	--	--
	50	1.5	--	--	3.2	2.91
NEXP215T-8	60	3	9	4.5	--	--
	50	2	--	--	4.5	4.10

* **Table 2 – Sinusoidal Power Ratings**

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP143T-2	60	1.5	3.7	1.85	--	--
	50 50	**1.5** 1	**--** --	**--** --	**2.2** 1.85	**2.1** 1.68
NEXP145T-2	60	2	4.9	2.45	--	--
	50 50	**2** 1.5	**--** --	**--** --	**3.0** 2.45	**2.7** 2.23
NEXP143T-4	60	1	2.68	1.34	--	--
	50 50	**1** 0.75	**--** --	**--** --	**1.6** 1.34	**1.5** 1.22
NEXP145T-4	60	1.5	3.88	1.94	--	--
	50 50	**1.5** 1	**--** --	**--** --	**2.3** 1.94	**2.2** 1.77
NEXP145T-4	60	2	5.2	2.6	--	--
	50 50	**2** 1.5	**--** --	**--** --	**3.1** 2.6	**2.9** 2.37
NEXP143T-6	60	0.75	2.91	1.455	--	--
	50 50	**0.75** 0.5	**--** --	**--** --	**1.8** 1.455	**1.6** 1.32
NEXP145T-6	60	1	3.28	1.64	--	--
	50 50	**1** 0.75	**--** --	**--** --	**2.0** 1.64	**1.8** 1.49
NEXP182T-2	60	3	6.94	3.47	--	--
	50 50	**3** 2	**--** --	**--** --	**4.2** 3.47	**3.8** 3.16
NEXP184T-2	60	5	11.36	5.68	--	--
	50 50	**5** 3	**--** --	**--** --	**6.9** 5.68	**6.3** 5.17
NEXP182T-4	60	3	7.6	3.8	--	--
	50 50	**3** 2	**--** --	**--** --	**4.6** 3.8	**4.2** 3.46
NEXP184T-4	60	5	12.26	6.13	--	--
	50 50	**5** 3	**--** --	**--** --	**7.4** 6.13	**6.8** 5.58
NEXP182T-6	60	1.5	4.14	2.07	--	--
	50 50	**1.5** 1	**--** --	**--** --	**2.5** 2.07	**2.3** 1.88
NEXP184T-6	60	2	5.48	2.74	--	--
	50 50	**2** 1.5	**--** --	**--** --	**3.3** 2.74	**3.0** 2.49
NEXP182T-8	60	1	4	2	--	--
	50 50	**1** 0.75	**--** --	**--** --	**2.4** 2	**2.2** 1.82
***NEXP184T-8**	60	1.5	5.4	2.7	--	--
	50 50	**1.5** 1	**--** --	**--** --	**3.3** 2.7	**3.0** 2.46

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Table 2 Cont.

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP213T-2	60	7.5	16.58	8.29	--	--
	50	7.5	--	--	10.0	9.2
	50	5	--	--	8.29	7.54
NEXP215T-2	60	10	22.48	11.24	--	--
	50	10	--	--	13.6	12.5
	50	7.5	--	--	11.24	10.23
NEXP213T-4	60	7.5	17.06	8.53	--	--
	50	7.5	--	--	10.3	9.5
	50	5	--	--	8.53	7.76
NEXP215T-4	60	10	23.16	11.58	--	--
	50	10	--	--	14.6	13.4
	50	7.5	--	--	11.58	10.54
NEXP213T-6	60	3	7.88	3.94	--	--
	50	3	--	--	4.8	4.4
	50	2	--	--	3.94	3.59
NEXP215T-6	60	5	12.58	6.29	--	--
	50	5	--	--	7.6	7.0
	50	3	--	--	6.29	5.72
NEXP213T-8	60	2	6.4	3.2	--	--
	50	2	--	--	3.9	3.5
	50	1.5	--	--	3.2	2.91
NEXP215T-8	60	3	9	4.5	--	--
	50	3	--	--	5.4	5.0
	50	2	--	--	4.5	4.10

CONSTRUCTION DETAILS:

All dimensions are approximate unless otherwise stated.