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Project 4786929840

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REPORT

on

Motors for Use in Hazardous Locations

Wolong Electric Nanyang Explosion Protection Group Co Ltd
Nanyang, Henan 473008 China

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

RATINGS:

Frame size	254, 256, 284, 286, 324, 326, 364, 365
Horsepower	See Table 1 for maximum ratings on inverter power & See Table 2 for maximum ratings on sinusoidal power
Rpm	3600, 1800, 1200, 900;
Number of poles	2, 4, 6, 8
Service Factor	1.0 - Sinusoidal Power only (50hz/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	70°C
Resistance Method	T3C
*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.	-20°C to +40°C @ SF 1.15
Operating Temperature or Operating Temperature Code (External Surfaces)@ Ambient Temperature Rating for Class I, *Division 1, Groups C and D	-20°C to +40°C @ SF 1.0 (Inverter-duty) 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 and 2
Frequency Ratings, Hz	See Table 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)

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP254T-2	60	15	32.84	16.42	--	--
	50	10	--	--	16.42	14.94
NEXP256T-2	60	20	44.54	22.27	--	--
	50	15	--	--	22.27	20.27
NEXP254T-4	60	15	33.62	16.81	--	--
	50	10	--	--	16.81	15.30
NEXP256T-4	60	20	45.28	22.64	--	--
	50	15	--	--	22.64	20.60
NEXP254T-6	60	7.5	17.96	8.98	--	--
	50	5	--	--	8.98	8.17
NEXP256T-6	60	10	24.28	12.14	--	--
	50	7.5	--	--	12.14	11.05
NEXP254T-8	60	5	13.7	6.85	--	--
	50	3	--	--	6.85	6.23
NEXP256T-8	60	7.5	20.4	10.2	--	--
	50	5	--	--	10.2	9.28
NEXP284TS-2	60	25	54.86	27.43	--	--
	50	20	--	--	27.43	24.96
NEXP286TS-2	60	30	64.66	32.33	--	--
	50	25	--	--	32.33	29.42
NEXP284TS-4	60	25	55	27.5	--	--
	50	20	--	--	27.5	25.03
NEXP284T-4	60	25	55	27.5	--	--
	50	20	--	--	27.5	25.03
NEXP286TS-4	60	30	65.16	32.58	--	--
	50	25	--	--	32.58	29.65
NEXP286T-4	60	30	65.16	32.58	--	--
	50	25	--	--	32.58	29.65
NEXP284T-6	60	15	34.8	17.4	--	--
	50	10	--	--	17.4	15.83
NEXP286T-6	60	20	46.78	23.39	--	--
	50	15	--	--	23.39	21.28
NEXP284T-8	60	10	27.2	13.6	--	--
	50	7.5	--	--	13.6	12.38
NEXP286T-8	60	15	39.8	19.9	--	--
	50	10	--	--	19.9	18.11
NEXP324TS-2	60	40	88.92	44.46	--	--
	50	30	--	--	44.46	40.46
NEXP324T-2	60	40	88.92	44.46	--	--
	50	30	--	--	44.46	40.46
NEXP326TS-2	60	50	108.82	54.41	--	--
	50	40	--	--	54.41	49.51
NEXP326T-2	60	50	108.82	54.41	--	--
	50	40	--	--	54.41	49.51
NEXP324TS-4	60	40	89.86	44.93	--	--
	50	30	--	--	44.93	40.89
NEXP324T-4	60	40	89.86	44.93	--	--
	50	30	--	--	44.93	40.89

Table 1 Inverter Power Ratings

Table 1, Cont.

Model	Frequency (Hz)	Horse Power (HP)	Ampere (A)			
			230V	460V	380V	415V
NEXP326TS-4	60	50	110.32	55.16	--	--
	50	40	--	--	55.16	50.20
NEXP326T-4	60	50	110.32	55.16	--	--
	50	40	--	--	55.16	50.20
NEXP324T-6	60	25	59.06	29.53	--	--
	50	20	--	--	29.53	26.87
NEXP326T-6	60	30	69.86	34.93	--	--
	50	25	--	--	34.93	31.79
NEXP324T-8	60	20	52.5	26.25	--	--
	50	15	--	--	26.25	23.89
NEXP326T-8	60	25	64.3	32.15	--	--
	50	20	--	--	32.15	29.26
NEXP364TS-2	60	60	131.54	65.77	--	--
	50	50	--	--	65.77	59.85
NEXP364T-2	60	60	131.54	65.77	--	--
	50	50	--	--	65.77	59.85
NEXP365TS-2	60	75	159.98	79.99	--	--
	50	60	--	--	79.99	72.79
NEXP365T-2	60	75	159.98	79.99	--	--
	50	60	--	--	79.99	72.79
NEXP364TS-4	60	60	133.7	66.85	--	--
	50	50	--	--	66.85	60.83
NEXP364T-4	60	60	133.7	66.85	--	--
	50	50	--	--	66.85	60.83
NEXP365TS-4	60	75	163.62	81.81	--	--
	50	60	--	--	81.81	74.45
NEXP365T-4	60	75	163.62	81.81	--	--
	50	60	--	--	81.81	74.45
NEXP364T-6	60	40	91.82	45.91	--	--
	50	30	--	--	45.91	41.78
NEXP365T-6	60	50	113.54	56.77	--	--
	50	40	--	--	56.77	51.66
NEXP364T-8	60	30	72.9	36.45	--	--
	50	25	--	--	36.45	33.17
NEXP365T-8	60	40	98.6	49.3	--	--
	50	30	--	--	49.3	44.86

Table 2 - Sinusoidal Power Ratings

Model	Frequency (Hz)	Horse Power (HP)	Ampere(A)			
			230V	460V	380V	415V
NEXP254T-2	60	15	32.8	16.4	--	--
	50	15	--	--	19.9	18.2
	50	10	--	--	16.4	15.0
NEXP256T-2	60	20	44.5	22.3	--	--
	50	20	--	--	27.0	24.7
	50	15	--	--	22.3	20.4
NEXP254T-4	60	15	33.6	16.8	--	--
	50	15	--	--	20.3	18.6
	50	10	--	--	16.8	15.4
NEXP256T-4	60	20	45.3	22.6	--	--
	50	20	--	--	27.4	25.1
	50	15	--	--	22.6	20.7
NEXP254T-6	60	7.5	18.0	9.0	--	--
	50	7.5	--	--	10.9	10.0
	50	5	--	--	9.0	8.2
NEXP256T-6	60	10	24.3	12.1	--	--
	50	10	--	--	14.7	13.5
	50	7.5	--	--	12.1	11.1
NEXP254T-8	60	5	13.7	6.9	--	--
	50	5	--	--	8.3	7.6
	50	3	--	--	6.9	6.3
NEXP256T-8	60	7.5	20.4	10.2	--	--
	50	7.5	--	--	12.3	11.3
	50	5.5	--	--	10.2	9.3
NEXP284TS-2	60	25	54.9	27.4	--	--
	50	25	--	--	33.2	30.4
	50	20	--	--	27.4	25.1
NEXP286TS-2	60	30	64.7	32.3	--	--
	50	30	--	--	39.1	35.8
	50	25	--	--	32.3	29.6
NEXP284TS-4	60	25	55.0	27.5	--	--
	50	25	--	--	33.3	30.5
	50	20	--	--	27.5	25.2
NEXP286TS-4	60	30	55.0	27.5	--	--
	50	30	--	--	33.3	30.5
	50	25	--	--	27.5	25.2
NEXP284T-4	60	25	65.2	32.6	--	--
	50	25	--	--	39.4	36.1
	50	20	--	--	32.6	29.8
NEXP286T-4	60	30	65.2	32.6	--	--
	50	30	--	--	39.4	36.1
	50	25	--	--	32.6	29.8

Table 2, Cont.

Model	Frequency (Hz)	Horse Power (HP)	Ampere(A)			
			230V	460V	380V	415V
NEXP284T-6	60	15	34.8	17.4	--	--
	50	15	--	--	21.1	19.3
	50	10	--	--	17.4	15.9
NEXP286T-6	60	20	46.8	23.4	--	--
	50	20	--	--	28.3	25.9
	50	15	--	--	23.4	21.4
NEXP284T-8	60	10	27.2	13.6	--	--
	50	10	--	--	16.5	15.1
	50	7.5	--	--	13.6	12.5
NEXP286T-8	60	15	39.8	19.9	--	--
	50	15	--	--	24.1	22.1
	50	10	--	--	19.9	18.2
NEXP324TS-2	60	40	88.9	44.5	--	--
	50	40	--	--	53.8	49.3
	50	30	--	--	44.5	40.7
NEXP324T-2	60	40	88.9	44.5	--	--
	50	40	--	--	53.8	49.3
	50	30	--	--	44.5	40.7
NEXP326TS-2	60	50	108.8	54.4	--	--
	50	50	--	--	65.9	60.3
	50	40	--	--	54.4	49.8
NEXP326T-2	60	50	108.8	54.4	--	--
	50	50	--	--	65.9	60.3
	50	40	--	--	54.4	49.8
NEXP324TS-4	60	40	89.9	44.9	--	--
	50	40	--	--	54.4	49.8
	50	30	--	--	44.9	41.1
NEXP324T-4	60	40	89.9	44.9	--	--
	50	40	--	--	54.4	49.8
	50	30	--	--	44.9	41.1
NEXP326TS-4	60	50	110.3	55.2	--	--
	50	50	--	--	66.8	61.1
	50	40	--	--	55.2	50.5
NEXP326T-4	60	50	110.3	55.2	--	--
	50	50	--	--	66.8	61.1
	50	40	--	--	55.2	50.5
NEXP324T-6	60	25	59.1	29.5	--	--
	50	25	--	--	35.7	32.7
	50	20	--	--	29.5	27.0
NEXP326T-6	60	30	69.9	34.9	--	--
	50	30	--	--	42.3	38.7
	50	25	--	--	34.9	32.0

Table 2, Cont.

Model	Frequency (Hz)	Horse Power (HP)	Ampere(A)			
			230V	460V	380V	415V
NEXP324T-8	60	20	52.5	26.3	--	--
	50	20	--	--	31.8	29.1
	50	15	--	--	26.3	24.0
NEXP326T-8	60	25	64.3	32.2	--	--
	50	25	--	--	38.9	35.6
	50	20	--	--	32.2	29.4
NEXP364TS-2	60	60	131.5	65.8	--	--
	50	60	--	--	79.6	72.9
	50	50	--	--	65.8	60.2
NEXP364T-2	60	60	131.5	65.8	--	--
	50	60	--	--	79.6	72.9
	50	50	--	--	65.8	60.2
NEXP365TS-2	60	75	160.0	80.0	--	--
	50	75	--	--	96.8	88.7
	50	60	--	--	80.0	73.2
NEXP365T-2	60	75	160.0	80.0	--	--
	50	75	--	--	96.8	88.7
	50	60	--	--	80.0	73.2
NEXP364TS-4	60	60	133.7	66.9	--	--
	50	60	--	--	80.9	74.1
	50	50	--	--	66.9	61.2
NEXP364T-4	60	60	133.7	66.9	--	--
	50	60	--	--	80.9	74.1
	50	50	--	--	66.9	61.2
NEXP365TS-4	60	75	163.6	81.8	--	--
	50	75	--	--	99.0	90.7
	50	60	--	--	81.8	74.9
NEXP365T-4	60	75	163.6	81.8	--	--
	50	75	--	--	99.0	90.7
	50	60	--	--	81.8	74.9
NEXP364T-6	60	40	91.8	45.9	--	--
	50	40	--	--	55.6	50.9
	50	30	--	--	45.9	42.0
NEXP365T-6	60	50	113.5	56.8	--	--
	50	50	--	--	68.7	62.9
	50	40	--	--	56.8	52.0
NEXP364T-8	60	30	72.9	36.5	--	--
	50	30	--	--	44.1	40.4
	50	25	--	--	36.5	33.4
NEXP365T-8	60	40	98.6	49.3	--	--
	50	40	--	--	59.7	54.6
	50	30	--	--	49.3	45.1