

HARSH ENVIRONMENT

MOTORS

Totally Enclosed 841XL for Harsh Environments

Reliance 841XL motors are designed to meet or exceed all the requirements of the IEEE specification for motors used in Paper Making, Petrochemical Processing, Metals Conversion and other tough manufacturing environments. Extra tough features give year after year of low maintenance in demanding atmospheres and applications. The 841XL is an excellent choice when conditions are severe and dependability is important.



- Aggregate/Cement
- Food
- Mining
- Forest/Paper
- Petro/Chem
- Unit/Baggage Handling
- HVAC/Industrial Air Handling
- Environmental/Fluid Power
- Automotive
- Metals
- Nuclear

Features:

- Definitions: Premium efficient motors that exceed EPA efficiency levels and have the mechanical features required by IEEE841.
- Warranty: 60 months from date of Manufacture / 48 From date of Installation
- Nameplate Certifications: "CE, CSA, UR"

Electrical Characteristics:

- Phase 3
- Frequency 60hz
- Ambient 40 degree C
- Duty Cycle Continuous
- Insulation Class F
- Service factor 1.15
- Temperature Rise Class B
- Inverter capable and meets NEMA MG-1-1 section IV
- Constant torque speed range on inverter : 6 to 60 hz 140 through 210 frames, 15 to 60 hz 250 through 445 frames and 30 to 60 hz 447 and 449 frames
- Variable torque speed range on inverter : 6 to 60hz all frame size.
- 841XL motors used on inverter power may not meet temperature rise and noise level per IEEE 841.

Application Information:

- Exceeds IEEE841 requirements, designed for long life and reliable operation in severe industrial applications. Built extra tough for durability in moist, contaminated, harsh environments such as chemical plants, petroleum refineries and paper mills.

Construction Features 140T Frame:

- Materials: Cast Iron frame, end shields, conduit box and fan cover.
- Conduit Box: F1 location
- Bearing Type: Double sealed
- Bearing Protection: Inpro seals both ends
- Shaft Material: Stainless steel

- Nameplate Material: Stainless steel
- Drain type & location: T-drains in both end shields

Construction Features 180T-449T Frames:

- Materials: Cast Iron frame, end shields, conduit box and fan cover.
- Conduit Box: F1 location, diagonally split, rotatable in 90 degree increments, gasketed cover, NPT threaded lead outlet, lead separator gasket to frame,

UL listed clamp-type ground lug.

- Bearing Type: Open ball, PLS (Positive Lubrication System)
- Bearing Protection: Inpro seal each end plus cast iron inner caps inboard.
- Shaft Material: Class one 1040/1045 carbon steel
- Nameplate Material: Embossed Stainless steel
- Drain type & location: Stainless steel T-drain in each end shield

Additional Features:

- The motor's stator and rotor are completely epoxy coated for corrosion protection.
- Extra Tough motors are provided with alemite grease fittings for easy bearing maintenance.
- Silicone rubber sealed fits provide superior protection against contaminants entering the motor body.
- PLS (Positive Lubrication System) Patented lubrication system that assures lubrication throughout the bearing. EMT & XEX motors are inverter capable 460 volt and below. Motor insulation rated 1600 volts per NEMA MG1 part 31.40.4.2

HP	RPM	Frame Size	FLA	Locked Amps	CODE	NOM eff	MIN eff	Power Factor Full Load	FL Torque LB. FT.	BD Torque LB. FT.	PU Torque LB. FT.	LR Torque LB. FT.
3	3600	182T	3.6	30	K	88.5	87.5	88.3	4.48	16.4	7.84	8.74
	1800	182T	3.8	31	K	88.5	87.5	83.5	8.97	31.4	18.8	19.3
	1200	213T	4.2	31	K	89.5	88.5	74.8	13.4	45.3	22.5	23.9
	900	L215T	4.7	25.1	H	85.5	84	70.4	18.3	48.6	29.6	29.6
5	3600	184T	5.9	46	J	88.5	87.5	89.7	7.48	23.6	13.2	14.2
	1800	L184T	6.1	45	J	88.5	87.5	86.9	15	43	28.6	31.1
	1200	L215T	6.8	46	J	89.5	88.5	76.9	22.5	69.2	36.1	38.3
	900	254T	7.3	45	J	89.5	88.5	71.6	29.8	94	39	45
7.5	3600	213T	8.5	63	H	90.2	89.5	91.5	11.2	33.6	19.6	20.3
	1800	213T	9	62	H	90.2	89.5	86.4	22.4	61.5	41.4	50.3
	1200	254T	9.6	61	H	90.2	89.5	81	33.6	90.9	50	56
	900	256T	10.5	62	H	90.2	89.5	74.3	44.8	123	50	60
10	3600	215T	11.1	81	H	91	90.2	93.6	15	45.3	25.4	27.7
	1800	L215T	11.9	79.9	H	90.2	89.5	87.2	29.9	81.7	48.9	56.9
	1200	256T	12.5	78	G	91	90.2	82.2	44.8	119	67.2	73.9
	900	284T	13.6	80	H	90.2	89.5	76	59.4	154	91	96
15	3600	254T	16.8	116	G	91.7	91	90.8	22.3	64.7	36.8	41.3
	1800	254T	18.1	116	G	92.4	91.7	83.9	44.6	123	80.3	93.7
	1200	284T	18.7	110	G	92.4	91.7	81.2	66.7	170	118	135
	900	286T	20.1	116	G	90.2	89.5	77	89.2	225	135	145
20	3600	256T	22.3	145	G	91.7	91	91.2	29.8	82.8	47.9	56.6
	1800	256T	24	145	G	92.4	91.7	84.3	59.6	160	112	128
	1200	286T	24.8	143	G	92.4	91.7	81.6	89.1	225	153	179
	900	324T	26.5	140	G	91	90.2	77.2	119	270	152	160
25	3600	284TS	28.1	182	G	93	92.4	89.2	37	101	52	57
	1800	284T	29.7	181	G	93.6	93	84.1	74.1	185	131	152
	1200	324T	29.8	173	F	93	92.4	84.3	111	257	182	198
30	3600	286TS	33.8	215	G	93	92.4	89.1	44.5	125	60.1	66.8
	1800	286T	36.1	217	G	93.6	93	83.1	89.1	250	169	192
	1200	326T	35.8	216	G	93.6	93	83.7	133	313	228	273
40	3600	324TS	45.2	298	G	94.1	93.6	88	59	159	92.1	114
	1800	324T	47.7	287	G	94.1	93.6	83.3	118	290	180	220
	1200	364T	49.4	290	G	94.1	93.6	80.5	177	430	241	280
50	3600	326TS	56.3	372	G	94.1	93.6	88.2	73.8	199	118	147
	1800	326T	58.8	355	G	94.5	94.1	84.2	148	378	240	285
	1200	365T	61.7	345	F	94.1	93.6	80.6	221	510	295	340
60	3600	364TS	66.3	435	G	95	94.5	89.2	88.4	250	115	138
	1800	364T	68	430	G	95	94.5	87	177	445	285	320
	1200	404T	69	425	G	95	94.5	85.8	265	655	385	422
75	3600	365TS	81.9	542	G	95	94.5	90.1	111	313	150	185
	1800	365T	86	542	G	95	94.5	86	221	560	370	425
	1200	405T	86.9	542	G	95	94.5	85	332	810	520	550
100	3600	405TS	107	725	G	95	94.5	91.8	147	406	220	249
	1800	405T	112	725	G	95.4	95	87.4	295	735	400	445
	1200	444T	115	725	G	95	94.5	85.6	442	1100	620	705
125	3600	444TS	136	907	G	95.4	95	89.9	184	535	231	285
	1800	444T	139	907	G	95.8	95.4	87.9	368	955	525	544
	1200	445T	143	907	G	95.4	95	85.8	551	1522	680	756
150	3600	445TS	165	980	F	96.2	95.8	88.5	220	497	298	968
	1800	445T	165	1085	G	96.2	95.8	88.5	441	1165	660	692
	1200	447T	174	1060	G	96.2	95.8	83.9	661	1480	1090	1500
200	3600	445TS	226	1350	F	96.2	95.8	86.1	294	700	410	505
	1800	447T	218	1410	G	96.2	95.8	89.3	589	1525	855	870
	1200	449T	223	1464	G	96.2	95.8	87.3	884	2280	1242	1357
250	3600	447TS	263	1735	F	96.2	95.8	92.4	367	966	502	624
	1800	449T	273	1820	G	96.2	95.8	89	736	1816	1052	1160
	1200	449T	283	1827	G	96.2	95.8	86	1104	2759	1531	1744
300	3600	449T	319	2199	G	95.8	95.4	91.6	441	1221	678	745
	1800	449T	327	2200	G	96.5	96.2	89	882	2285	1240	1300
	1200	449T	342	2105	G	95.4	95	86	1326	3232	1673	2085
350	3600	449TS	373	2499	G	95.8	95.4	91.3	514	1355	734	840
	1800	449T	387	2476	G	96.2	95.8	88	1031	2681	1449	1598

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