



# Elektrim NEMA Premium<sup>®</sup> IEEE841 Severe Duty Motors

**Dominates in Harsh Mill and Chemical Environments and Applications**

1-20 HP 3PH TEFC 60 Hz NEMA AC Foot Mounted and C-Face Motors

## Features

- Motor meets or exceeds IEEE841-2009 standard for petroleum and chemical industry
- Class I, Division II Group A,B,C,D Temp Code T3C
- Class II, Division II Group F, G Temp Code T3C
- Inverter Duty Rated: 4:1CT & 100:1VT
- Low noise <90 dBA and low vibration <0.08 in/sec
- Design: "B"
- Protection Degree: IP55 with no contact mechanical seal
- TEFC Rigid Cast Iron Construction F1 / F2 Convertible
- Warranty: 5-Years
- High locked rotor torque
- 460V 60Hz or 575V 60Hz (3 terminal leads)
- Regreaseable bearings and Inpro/Seal<sup>®</sup> bearing insulators on both ends
- Epoxy paint for rust corrosion protection
- Class "F" insulation with rise below Class "B"
- Insulation system with tropical treatment
- CSA-US certified, UL Recognized, DOE Approved, CE and NEMA Premium<sup>®</sup> marked

## Applications

Ideal for Mill & Chemical Duty applications requiring a IEEE841 motor in petrochemical plants, refineries, tropical climates, mines, foundries, pulp and paper mills, waste management facilities, quarries and processing factories.

**NEMA  
Premium**



E349304



C US  
Energy Verified  
254347  
**ISO 9001**  
CC1268



# Maximum Performance in Your Toughest Applications

Part Number	HP	RPM	Frame	Torque			FLA		LRA		Efficiency			Power Factor			NEMA Design	CODE	SF	lbs
				FLT lb-FT	LRT %	BDT %	460V	575V	460V	575V	FL	75%	50%	FL	75%	50%				
31NFS-3-1-18	1	1730	143T	3.0	290	310	1.4	1.1	10.5	8.4	86.5	86.5	82.5	78.0	71.5	58.5	B	J	1.15	52
31NFS-3-1-12		1140	145T	4.6	255	300	1.7	1.4	10.5	8.4	84.0	84.2	80.0	66.0	58.0	45.5	B	J	1.15	58
31NFS-3-1.5-36	1.5	3470	143T	2.3	250	310	1.9	1.5	16	12.8	85.5	85.5	83.5	88.5	84.0	75.5	B	K	1.15	52
31NFS-3-1.5-18		1730	145T	4.5	300	320	2.1	1.7	16	12.8	87.5	87.7	86.0	78.5	72.0	60.0	B	K	1.15	58
31NFS-3-1.5-12		1165	182T	6.8	270	280	2.4	1.9	17.5	14	87.5	87.8	85.5	68.0	60.0	46.0	B	K	1.15	97
31NFS-3-2-36	2	3475	145T	3.0	250	315	2.5	2.0	24	19.2	86.5	86.8	85.5	89.0	86.0	77.0	B	K	1.15	60
31NFS-3-2-18		1730	145T	6.1	300	340	2.8	2.3	21.5	17.2	87.5	87.7	85.5	78.0	71.0	60.0	B	K	1.15	58
31NFS-3-2-12		1165	184T	9.0	250	310	2.9	2.3	23	18.4	88.5	88.7	86.5	73.0	65.5	53.0	B	K	1.15	109
31NFS-3-3-36	3	3505	182T	4.5	210	290	3.6	2.9	32	25.6	88.5	88.7	87.0	90.0	87.0	80.0	B	J	1.15	90
31NFS-3-3-18		1745	182T	9.0	260	310	3.9	3.1	32	25.6	90.2	90.3	89.0	81.0	75.0	63.5	B	K	1.15	93
31NFS-3-3-12		1170	213T	13.5	240	300	4.3	3.5	30	24	89.5	89.7	87.0	75.0	66.5	53.0	B	J	1.15	156
31NFS-3-5-36	5	3505	184T	7.5	210	300	5.8	4.7	46	36.8	90.2	90.5	89.0	90.5	88.0	81.0	B	J	1.15	106
31NFS-3-5-18		1745	184T	15.1	260	300	6.4	5.1	46	36.8	90.2	90.4	89.1	82.5	77.0	66.0	B	J	1.15	106
31NFS-3-5-12		1170	215T	22.5	240	300	6.9	5.5	46	36.8	89.5	89.8	87.5	78.0	71.0	60.0	B	J	1.15	192
31NFS-3-7.5-36	7.5	3500	213T	11.3	200	270	9.0	7.2	63.5	50.8	90.2	90.5	89.5	88.0	85.5	79.0	B	H	1.15	162
31NFS-3-7.5-18		1750	213T	22.5	230	260	9.1	7.3	63.5	50.8	91.7	91.3	90.2	86.0	83.0	74.0	B	H	1.15	168
31NFS-3-7.5-12		1170	254T	33.7	200	240	10.1	8.1	63.5	50.8	91.7	92.0	91.5	77.0	72.0	61.5	B	H	1.15	282
31NFS-3-10-36	10	3500	215T	15.0	220	270	11.5	9.2	81	64.8	91.7	91.9	90.5	89.0	87.0	83.5	B	H	1.15	185
31NFS-3-10-18		1750	215T	30.0	225	255	11.9	9.5	81	64.8	91.7	91.9	90.5	87.0	84.0	75.0	B	H	1.15	192
31NFS-3-10-12		1170	256T	44.9	200	240	13.2	10.6	81	64.8	91.7	92.1	91.7	79.0	74.5	65.0	B	H	1.15	310
31NFS-3-15-36	15	3510	254T	22.5	210	270	17.3	13.8	116	92.8	91.0	91.0	90.2	91.0	90.0	86.0	B	G	1.15	300
31NFS-3-15-18		1760	254T	44.8	210	230	18.5	14.8	116	92.8	92.4	92.7	92.5	83.0	80.0	72.5	B	G	1.15	300
31NFS-3-15-12		1170	284T	67.3	210	230	19.4	15.5	116	92.8	92.4	92.6	91.3	80.0	75.5	66.3	B	G	1.15	390
31NFS-3-20-36	20	3510	256T	29.9	210	280	23.0	18.4	145	116	91.0	91.4	90.5	91.0	90.0	87.5	B	G	1.15	325
31NFS-3-20-18		1760	256T	59.7	220	235	24.5	19.6	145	116	93.0	93.4	91.5	83.5	79.5	71.5	B	G	1.15	330
31NFS-3-20-12		1170	286T	89.8	210	225	25.5	20.4	145	116	92.4	92.8	91.5	81.0	78.0	70.0	B	G	1.15	475
31NFS-3-25-36	25	3520	284TS	37.3	230	250	28.7	23.0	182.5	146	91.7	91.7	91.4	90.5	90.0	87.0	B	G	1.15	410
31NFS-3-25-18		1765	284T	74.4	200	220	30.0	24.0	182.5	146	93.6	93.8	93.2	84.0	81.0	73.0	B	G	1.15	410
31NFS-3-25-12		1175	324T	111.8	210	250	30.2	24.2	182.5	146	93.0	93.1	92.2	85.0	81.0	71.0	B	G	1.15	550
31NFS-3-30-36	30	3525	286TS	44.7	235	260	34.1	27.3	217.5	174	92.4	92.7	91.7	91.0	90.0	87.0	B	G	1.15	450
31NFS-3-30-18		1765	286T	89.3	200	230	36.0	28.8	217.5	174	93.6	93.9	92.5	84.0	81.5	75.0	B	G	1.15	475
31NFS-3-30-12		1175	326T	134.1	215	255	36.0	28.8	217.5	174	93.0	93.3	92.5	85.5	81.5	72.0	B	G	1.15	616
31NFS-3-40-36	40	3530	324TS	59.5	180	240	46.7	37.4	290	232	93.0	93.3	92.4	88.0	87.0	83.0	B	G	1.15	630
31NFS-3-40-18		1770	324T	118.7	200	215	47.4	38.0	290	232	95.0	95.3	94.4	84.5	82.0	76.0	B	G	1.15	600
31NFS-3-40-12		1180	364T	178.1	200	220	48.0	38.4	290	232	94.5	94.7	93.7	84.0	82.0	75.0	B	G	1.15	850
31NFS-3-50-36	50	3550	326TS	74.4	180	240	57.0	45.6	362.5	290	93.6	93.8	92.5	88.5	87.0	83.0	B	G	1.15	650
31NFS-3-50-18		1770	326T	148.4	200	220	59.0	47.2	362.5	290	95.0	95.3	94.5	84.5	82.5	75.0	B	G	1.15	716
31NFS-3-50-12		1180	365T	222.6	200	230	60.0	48.0	362.5	290	94.5	94.8	94.3	84.0	83.0	75.5	B	G	1.15	960
31NFS-3-60-36	60	3565	364TS	88.5	160	220	68.0	54.4	435	348	94.1	94.3	93.5	89.0	86.0	80.5	B	G	1.15	820
31NFS-3-60-18		1770	364T	178.0	200	240	71.5	57.2	435	348	95.0	95.2	94.3	84.0	81.0	78.0	B	G	1.15	850
31NFS-3-60-12		1180	404T	267.1	200	240	74.0	59.2	435	348	95.0	95.1	94.3	82.0	79.5	72.0	B	G	1.15	1402
31NFS-3-75-36	75	3565	365TS	110.6	160	220	84.0	67.2	542.5	434	94.5	94.6	93.5	89.0	87.5	83.5	B	G	1.15	880
31NFS-3-75-18		1770	365T	222.6	200	240	90.0	72.0	542.5	434	95.4	95.3	94.5	84.0	81.4	75.5	B	G	1.15	935
31NFS-3-75-12		1180	405T	333.8	200	240	90.5	72.4	542.5	434	95.0	95.3	94.5	83.0	80.5	73.0	B	G	1.15	1488
31NFS-3-100-36	100	3540	405TS	148.4	160	240	114.0	91.2	725	580	94.5	94.5	93.4	88.0	87.0	82.5	B	G	1.15	1464
31NFS-3-100-18		1775	405T	295.9	200	250	120.0	96.0	725	580	95.4	95.3	93.5	83.0	78.0	67.0	B	G	1.15	1488
31NFS-3-100-12		1180	444T	445.1	200	250	121.0	96.8	725	580	95.0	95.1	94.2	82.5	80.5	73.0	B	G	1.15	1900
31NFS-3-125-36	125	3550	444TS	184.9	160	220	145.0	116.0	907.5	726	95.0	94.7	93.5	86.5	84.5	77.0	B	G	1.15	1852
31NFS-3-125-18		1775	444T	369.9	180	230	143.0	114.4	907.5	726	95.8	96.0	95.0	87.0	85.0	81.0	B	G	1.15	1900
31NFS-3-125-12		1180	445T	556.4	200	240	150.0	120.0	907.5	726	95.4	95.7	94.5	83.0	81.0	74.0	B	G	1.15	2024
31NFS-3-150-36	150	3550	445TS	221.9	160	220	173.0	138.4	1085	868	95.0	94.6	93.6	87.0	84.5	78.0	B	G	1.15	2000
31NFS-3-150-18		1780	445T	442.6	180	230	169.0	135.2	1085	868	95.8	96.0	95.1	88.0	87.0	83.0	B	G	1.15	2100
31NFS-3-150-12		1180	447T	667.7	200	240	178.0	142.4	1085	868	95.8	96.0	95.1	83.5	81.0	73.5	B	G	1.15	2310
31NFS-3-200-36	200	3560	447TS	295.1	160	220	114.0	182.4	725	580	95.4	95.0	93.7	87.5	85.5	79.0	B	G	1.15	1852
31NFS-3-200-18		1780	447T	590.1	180	230	110.0	176	725	580	96.2	96.4	95.5	89.0	87.5	83.0	B	G	1.15	2700
31NFS-3-200-12		1185	449T	887.3	190	210	117.0	187	725	580	95.8	95.9	95.0	84.0	82.0	75.0	B	G	1.15	3200
31NFS-3-250-36	250	3570	449TS	368.2	160	230	138.0	221	912.5	730	95.8	95.5	94.0	89.0	87.0	84.0	B	G	1.15	2900
31NFS-3-250-18		1785	449T	736.4	180	230	137.0	219	912.5	730	96.2	96.2	95.0	89.5	88.0	84.0	B	G	1.15	3200

Non-stock item available by special order. Motors can be modified from Footed to C-Face and vice versa. C-Face part number prefix = 31NCS. Motors up to 500HP available upon request.

## SOLUTIONS TO MEET YOUR NEEDS

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