

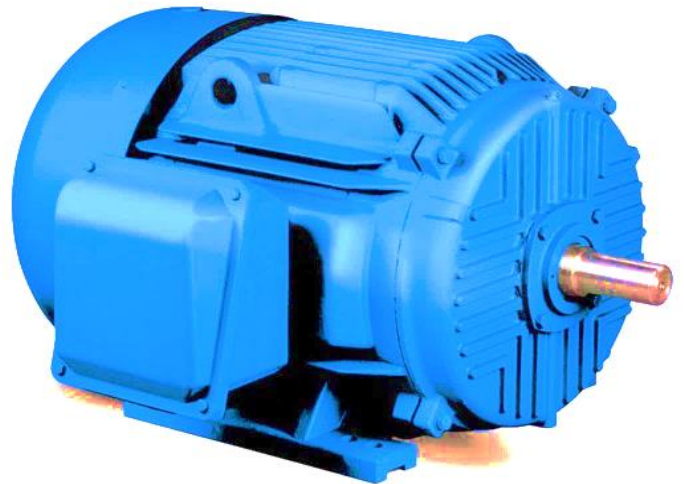


Electric Motors - [www.felm.it](http://www.felm.it)



# NEMA MG-1 MOTORS

CC Number by DOE – Nema Premium Efficiency tab 12-12



# CERTIFICATE OF COMPLIANCE

Certificate Number E481791  
Report Reference E481791-20210430  
Issue Date 2021-APRIL-30

Issued to: FELM srl  
Via MorandilInvernoITMIIT20001

This certificate confirms that representative samples of Motors for Appliance Applications - Component See Addendum Page

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

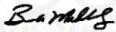
Standard(s) for Safety: UL 1004-1- Standards for Rotating Electrical Machines - General Requirements.  
CSA C22.2 No. 100-14- Standard for Motors and generators

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This Certificate of Compliance does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

\*\*\*80G-2,\*\*\*80G-4,\*\*\*80K-2,\*\*\*90L-2,\*\*\*90L-4,\*\*\*90L-6,\*\*\*90S-2,\*\*\*90S-4,\*\*\*90S-6,\*\*\*100L-2,\*\*\*100L-4,\*\*\*100L-6,\*\*\*100LX-4,\*\*\*112M-2,\*\*\*112M-4,\*\*\*112M-6,\*\*\*132M-4,\*\*\*132M-6,\*\*\*132MX-6,\*\*\*132S-2,\*\*\*132S-4,\*\*\*132S-6,\*\*\*132SX-2,\*\*\*160L-2,\*\*\*160L-4,\*\*\*160L-6,\*\*\*160LX-2,\*\*\*160LX-4,\*\*\*160LX-6,\*\*\*160LY-2,\*\*\*180L-4,\*\*\*180L-6,\*\*\*180M-2,\*\*\*180M-4,\*\*\*200L-2,\*\*\*200L-4,\*\*\*200L-6,\*\*\*200LX-2,\*\*\*200LX-6,\*\*\*225M-2,\*\*\*225M-4,\*\*\*225M-6,\*\*\*225S-4,\*\*\*250M-2,\*\*\*250M-4,\*\*\*250M-6,\*\*\*280M-2,\*\*\*280M-4,\*\*\*280M-6,\*\*\*280S-2,\*\*\*280S-4,\*\*\*280S-6,\*\*\*315L-2,\*\*\*315L-4,\*\*\*315L-6,\*\*\*315LX-2,\*\*\*315LX-4,\*\*\*315LX-6,\*\*\*315M-2,\*\*\*315M-4,\*\*\*315M-6,\*\*\*315S-2,\*\*\*315S-4,\*\*\*315S-6,\*\*\*355L-2,\*\*\*355L-4,\*\*\*355L-6,\*\*\*355LX-2,\*\*\*355LX-4,\*\*\*355LX-6,\*\*\*355LY-2,\*\*\*355LY-4,\*\*\*355LY-6,\*\*\*355M-2,\*\*\*355M-4,\*\*\*355M-6,\*\*\*355MX-6,\*\*\*355MY-6,\*\*\*400M-2,\*\*\*400M-4,\*\*\*400M-6.

\*\*\*\*143T-2,\*\*\*\*143T-4,\*\*\*\*145T-2,\*\*\*\*145T-4,\*\*\*\*145T-6,\*\*\*\*182T-2,\*\*\*\*182T-4,\*\*\*\*182T-6,\*\*\*\*184T-2,\*\*\*\*184T-4,\*\*\*\*184T-6,\*\*\*\*213T-2,\*\*\*\*213T-4,\*\*\*\*213T-6,\*\*\*\*215T-2,\*\*\*\*215T-4,\*\*\*\*215T-6,\*\*\*\*254T-2,\*\*\*\*254T-4,\*\*\*\*254T-6,\*\*\*\*256T-2,\*\*\*\*256T-4,\*\*\*\*256T-6,\*\*\*\*284T-4,\*\*\*\*284T-6,\*\*\*\*284TS-2,\*\*\*\*286T-4,\*\*\*\*286T-6,\*\*\*\*286TS-2,\*\*\*\*324T-4,\*\*\*\*324T-6,\*\*\*\*324TS-2,\*\*\*\*326T-4,\*\*\*\*326T-6,\*\*\*\*326TS-2,\*\*\*\*364T-4,\*\*\*\*364T-6,\*\*\*\*364TS-2,\*\*\*\*365T-4,\*\*\*\*365T-6,\*\*\*\*365TS-2,\*\*\*\*404T-6,\*\*\*\*405T-4,\*\*\*\*405T-6,\*\*\*\*405TS-2,\*\*\*\*444T-4,\*\*\*\*444T-6,\*\*\*\*444TS-2,\*\*\*\*445T-4,\*\*\*\*445T-6,\*\*\*\*445TS-2,\*\*\*\*447T-4,\*\*\*\*447T-6,\*\*\*\*447TS-2,\*\*\*\*449T-4,\*\*\*\*449T-6,\*\*\*\*449TS-2,\*\*\*\*504/5T-4,\*\*\*\*504/5T-6,\*\*\*\*586/7T-4,\*\*\*\*586/7T-6,FWMP 400LY-4.



Bruce Mahrenholz, Director North American Certification Program

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# FELM US Electric Motors

## General

FELM NEMA motors FT series, TEFC, is designed and manufactured according with the latest version of NEMA MG1 - 2016 construction. TEFC motor with design B meets MG1 standard 12-12.

All motors are with UL certificate, and suitable for VFD application. \*1

All motors are with service factor 1.15

F1 & F2 are interchangeable from 143T to 449T.

Frame 143T through to N6808, 3600, 1800, 1200 and 900RPM, continuous duty at 40°C, 230/460V 60HZ. 575V available on request.

## Bearings

Oversized, world top brand of life sealed with pre-lubricated ball bearing up to 280T, and re-greaseable bearings from 254T and up.

World top brand of high performance grease applied for longer operation life.

Grease pipes and relief vents with plug are provided for all open bearing construction.

## Insulation

All motors are with excellent insulation system class F, temperature rise B.

## Conduit Box

Oversized conduit box made of fabricated steel provides big space for connections.

Diagonally and rotatable in 90° positions.

Cast iron conduit box from frame N5007 and up.

**\*1 Meets NEMA MG1 part 31, CT 20:1 VT 4:1, wider range available on request (also depends on the inverter selection)**

## Cooling Fan

Increased safety external cooling fan meets non-sparking feature, and aluminium fan/steel fan available on request.

Forced ventilation unit available on request for VFD operation.

## Grounding and bearing protection

Aegis shaft grounding ring available on request.

Insulated bearing or insulated bracket (size 447 and up ) available on request.

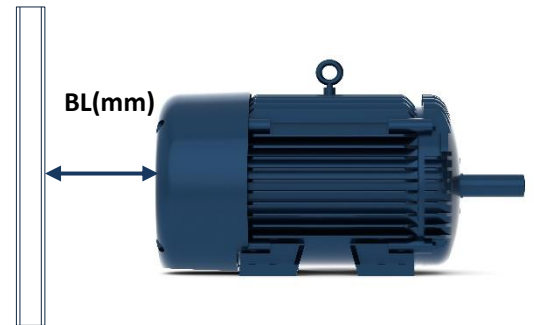
## Auxiliaries

Space heater, Wind RTDs, bearing RTDs, SPM vibration detecting available on request or specific applications.

## Cooling

Cooling air flows from the non-drive-end to the drive-end. The fan is independent of the direction of rotation of the motor. **When the motor is installed, air flow should not be impeded to enter in the motor cowl.** The following minimum dimension BL should be adopted. Cooling are flown from the NDE to the DE side. The minimum space between the cooling fan and the wall or barrier must be kept for sufficient cooling.

Frame Size	Dimension BL (mm)
140T	20
182T-215T	30
254T-286T	40
324T-400T	50
444T and up	65



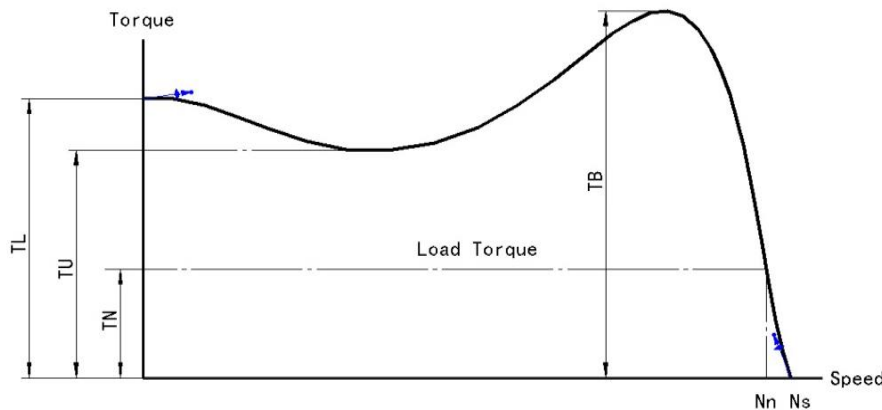
## Ambient Temperature and Altitude

The rated outputs specified in the datasheet are based on ambient temperature of 40°C (104°F) and at 1000m (3300ft) altitude. Please refer to the multiplication factors in the table, in case of different ambient temperature and/or altitude.

Ambient temperature	Temperature factor	Altitude above sea level	Ambient factor
30°	1.06	3300 ft	1
35°	1.03	4900 ft	0.98
40°	1	6600 ft	0.94
45°	0.97	8200 ft	0.91
50°	0.93	9900 ft	0.87
55°	0.88	11500 ft	0.82
60°	0.82	13000 ft	0.77

$$\text{Effective Power} = (\text{Rated Power}) * (\text{Temperature factor}) * (\text{Altitudinal factor})$$

Typical torque-speed curve is shown in the below



- TN=Full load torque**
- TL=Locked rotor torque**
- TU=Pull up torque**
- TB= Breakdown torque**
- Nn=Full load speed**
- Ns= Synchronous speed**

FELM motor with design B has the locked rotor torque (LRC) performance meets MG1 standard value or larger.

## Variable Frequency Drive application

VFD becomes popular in many applications, providing small starting current, slow starting speed, and significant energy saving. The following shall be considered with apply standard motor as VFD.

### 1. Operation

Voltage(Ampere) fed by VFD is not pure sinusoidal which could affect the motor performance on loss, vibration and noise. In additional, the changes on distribution of losses could affect the temperature balance inside the motor, and lead to higher bearing temperature.

### 2. Frequency range

The actual speed of the motor driven by inverter could be big different than the rated. Make sure do not exceed the maximum allowed speed or critical speed of the motor. Refer to us if necessary.

The followings shall be checked and considered when the inverter runs the motor at a speed higher than rated.

Maximum torque of the motor

Bearing construction

Lubrication

Critical speed

Shaft seals

Ventilation

Fan noise

The motor may lose its cooling capacity when run at low speed, which leads to higher winding temperature and bearing temperature. A forced ventilator can help to increase the cooling. The Check of lubrication performance at low speed is also necessary.

### 3. Lubrication

Usually the effectiveness of lubrication can be indicated by measuring bearing temperature. The interval of lubrication shall be reduced when the bearing temperature higher than 80°C (176°F).

If the motor continuously runs at low speed, as well as low ambient temperature, the standard grease may be not sufficient and special grease may required. Consult FELM for more information.

When the motor equipped with life sealed bearing, the lift time may be different than standard application.

#### 4. Insulation protection

Most of inverter has the IGBT unit, with fast switching, steep voltage pules and cable reflections. This will provide large stress to winding insulation of the motor. The protection solution shall be considered as per table below.

Voltage	Motor nominal Pn or frame size		
	Pn<100HP	Pn ≥ 100Hp or ≥ 449T	Pn ≥ 400Hp or > 5800T
Un ≤ 500V	Standard motor	Standard motor	Standard motor
		+ Insuleted N-bearing	+ Insuleted N-bearing
			+ Common mode filter
Un ≤ 600V	Standard Motor	Standard motor	Standard motor
	+ du/dt filter	+ Insuleted N-bearing	+ Insuleted N-bearing
	OR	+ du/dt filter	+ du/dt filter
	Reinforced insulation	OR	Light Common mode filter
		Reinforced insulation	OR
		+ Insuleted N-bearing	Reinforced insulation
			+ Insuleted N-bearing
Un ≤ 690V	Reinforced insulation	Reinforced insulation	Reinforced insulation
	+ du/dt filter	+ Insuleted N-bearing	+ Insuleted N-bearing
		+ du/dt filter	+ du/dt filter
			Light Common mode filter

#### 5. Shaft current protection

The motor shall avoid to have shaft voltage larger than 300mv, otherwise the risk of bearing damaging is rising. Aegis grounding ring or similar device, insulated bearing or insulated bracket are available on request, to protect the bearing.

#### 6. Cable, grounding and EMC

The motor shall be connected to inverter by shielded cable and EMC gland.

## TEFC Design B Premium efficiency Standard Motor 230/460/575V. 60Hz. – FT Series

Hp	kW	RPM	Frame	Full Load Amps		Full Load Torque Lb.Ft.	Efficiency %	Power Factor	Torque(%)		Sound Power Level dB(A)
				230/460V or 460V	575V				Locked Rotor	Break - down	
1	0.75	3460	143T	2.92/1.46	1.16	1.5	77	0.84	310	350	70
1	0.75	1760	143T	2.98/1.49	1.19	3	85.5	0.74	275	300	65
1	0.75	1160	145T	3.16/1.58	1.27	4.6	82.5	0.72	170	265	64
1.5	1.1	3490	143T	3.92/1.96	1.57	2.2	84	0.85	200	270	70
1.5	1.1	1755	145T	4.2/2.1	1.68	4.4	86.5	0.78	275	300	66
1.5	1.1	1180	182T	4.38/2.19	1.75	6.6	87.5	0.73	180	280	67
2	1.5	3490	145T	5.12/2.56	2.05	3.0	85.5	0.86	200	260	70
2	1.5	1755	145T	5.58/2.79	2.23	6.0	86.5	0.78	250	300	66
2	1.5	1180	184T	5.74/2.87	2.3	9.0	88.5	0.73	180	280	67
3	2.2	3500	182T	7.34/3.67	2.94	4.4	86.5	0.89	200	280	75
3	2.2	1760	182T	7.44/3.72	2.97	8.8	89.5	0.84	215	250	68
3	2.2	1185	213T	8.8/4.4	3.53	13.1	89.5	0.72	155	230	67
5	3.7	3500	184T	11.8/5.9	4.7	7.5	88.5	0.90	140	250	75
5	3.7	1755	184T	12.2/6.1	4.88	14.9	89.5	0.86	215	250	68
5	3.7	1180	215T	14.4/7.2	5.77	22.2	89.5	0.73	155	230	67
7.5	5.5	3520	213T	17.2/8.6	6.86	11.0	89.5	0.90	140	250	77
7.5	5.5	1770	213T	18.6/9.3	7.44	22.0	91.7	0.82	180	250	70
7.5	5.5	1185	254T	20.8/10.4	8.3	32.8	91	0.73	160	230	70
10	7.5	3520	215T	23.2/11.6	9.28	15.1	90.2	0.90	150	250	77
10	7.5	1770	215T	24.8/12.4	9.9	29.9	91.7	0.83	180	250	70
10	7.5	1185	256T	28.4/14.2	11.3	44.7	91	0.73	160	220	70
15	11	3550	254T	34.4/17.2	13.8	21.9	91	0.89	170	240	87
15	11	1780	254T	36.4/18.2	14.6	43.7	92.4	0.83	160	220	75
15	11	1185	284T	37.6/18.8	15.1	65.6	91.7	0.82	150	230	80
20	15	3545	256T	46.4/23.2	18.6	29.9	91	0.89	150	210	88
20	15	1780	256T	48.2/24.1	19.3	59.6	93	0.84	160	220	75
20	15	1185	286T	50/25	20	89.5	91.7	0.82	140	220	80
25	18.5	3555	284TS	57.6/28.8	23	36.8	91.7	0.89	140	220	88
25	18.5	1775	284T	58.4/29.2	23.3	73.7	93.6	0.85	150	220	85
25	18.5	1190	324T	67.4/33.7	27	109.9	93	0.75	150	230	81





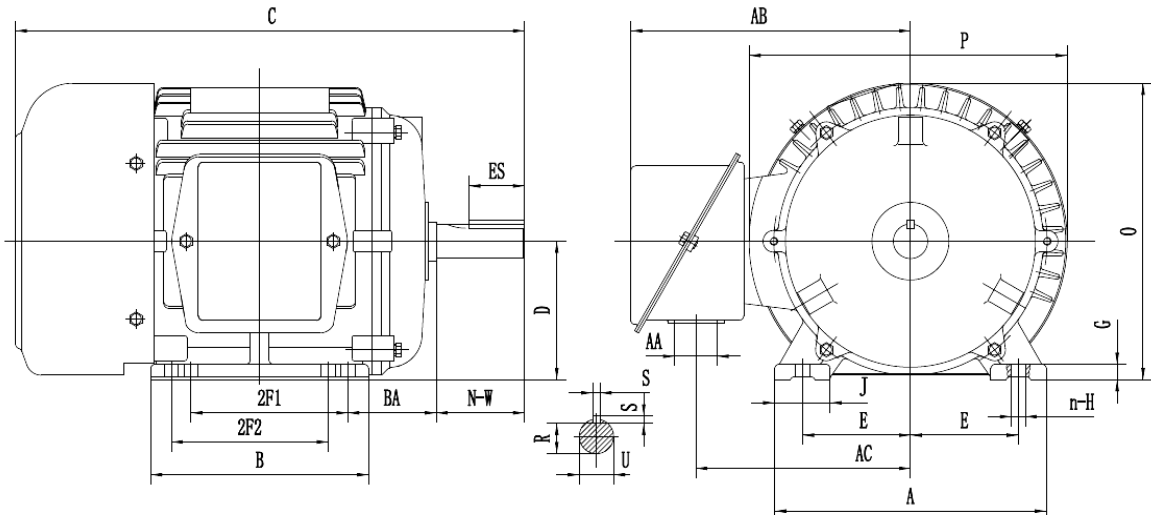
## TEFC Design B Premium efficiency Standard Motor 230/460/575V 60Hz – FT series

Hp	kW	RPM	Frame	Full Load Amps		Full Load Torque Lb.Ft.	Efficiency %	Power Factor	Torque(%)		Sound Power Level dB(A)
				230/460V or 460V	575V				Locked Rotor	Break -down	
30	22	3555	286TS	68.4/34.2	27.4	43.7	91.7	0.89	140	220	88
30	22	1775	286T	69.4/34.7	27.8	87.6	93.6	0.86	150	220	85
30	22	1185	326T	77.2/38.6	30.8	131.2	93	0.78	140	210	81
40	30	3555	324TS	92.6/46.3	37	59.6	92.4	0.88	150	230	89
40	30	1780	324T	93.0/46.5	37.2	119.1	94.1	0.86	160	230	85
40	30	1190	364T	101.4/50.7	40.5	178.2	94.1	0.79	140	230	82
50	37	3555	326TS	113.4/56.7	45.4	73.6	93	0.89	150	230	90
50	37	1780	326T	114.2/57.1	45.7	146.9	94.5	0.87	160	240	85
50	37	1190	365T	125/62.5	50	219.7	94.1	0.80	145	230	83
60	45	3570	364TS	137.2/68.6	54.9	89.1	93.6	0.88	150	210	89
60	45	1785	364T	138/69	55.3	178.2	95	0.86	140	200	88
60	45	1190	404T	140/70	56.2	267.2	94.5	0.85	145	220	85
75	55	3570	365TS	167.6/83.8	67	108.9	93.6	0.90	140	210	89
75	55	1780	365T	168/84	67.3	218.4	95.4	0.87	150	220	88
75	55	1190	405T	172/86	68.7	326.6	94.5	0.86	145	220	85
100	75	3575	405TS	224/112	89.6	148.3	94.1	0.89	150	250	*
100	75	1790	405T	226/113	90.4	296.1	95.4	0.87	150	230	*
100	75	1190	444T	232/116	96.7	445.4	95	0.85	135	220	*
125	90	3585	444TS	264/132	106	177.4	95	0.91	130	230	*
125	90	1790	444T	276/138	110	355.3	95.4	0.87	130	220	*
125	90	1190	445T	290/145	116	534.5	95	0.85	135	220	*
150	110	3585	445TS	322/161	129	216.8	95	0.91	140	230	*
150	110	1790	445T	336/168	134	434.3	95.8	0.87	130	220	*
150	110	1190	447T	344/172	141	653.3	95.8	0.85	140	240	*
200	150	3585	447TS	434/217	173	295.7	95.4	0.91	150	230	*
200	150	1790	447T	456/228	182	592.2	96.2	0.86	120	220	*
200	150	1190	449T	460/230	187	890.8	95.8	0.85	120	210	*
250	185	3585	449TS	268	216	364.7	95.8	0.91	200	250	*
250	185	1790	449T	282	227	730.4	96.2	0.86	200	250	*
250	185	1190	449T	288	241	1098.7	95.8	0.85	175	250	*
300	220	3585	449TS	320	257	443.5	95.8	0.91	200	250	*
300	220	1790	449T	332	266	888.3	96.2	0.87	200	250	*

\*= data on request

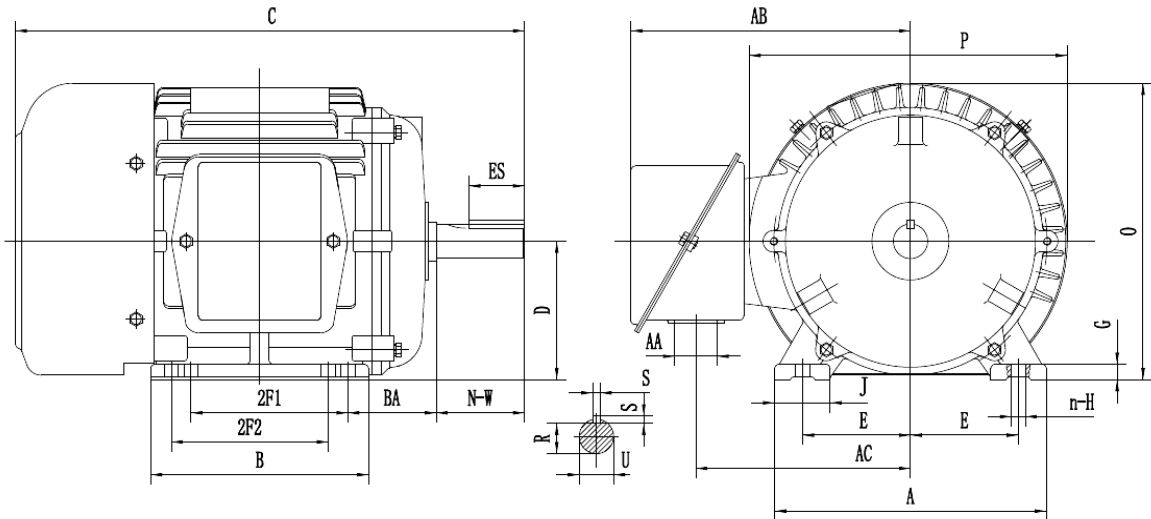
## Dimensions FT series

FELM NEMA TEFC Design B premium efficiency motors, foot mount, F1



Size	Dimensions (Inches)																				
	A	B	C	D	E	n-H	2F1	2F2	G	J	N-W	BA	P	R	S	U	ES	AA	AB	AC	O
143T	6.93	5.55	13	3.5	2.75	8-0.34	4	4	0.4	1.42	2.25	2.25	8	0.77	0.188	0.875	1.41	1	7.2	5.5	7.5
145T	6.93	6.55	14	3.5	2.75	8-0.34	5	5	0.4	1.42	2.25	2.25	8	0.77	0.188	0.875	1.41	1	7.2	5.5	7.5

## Frame 182T 184T



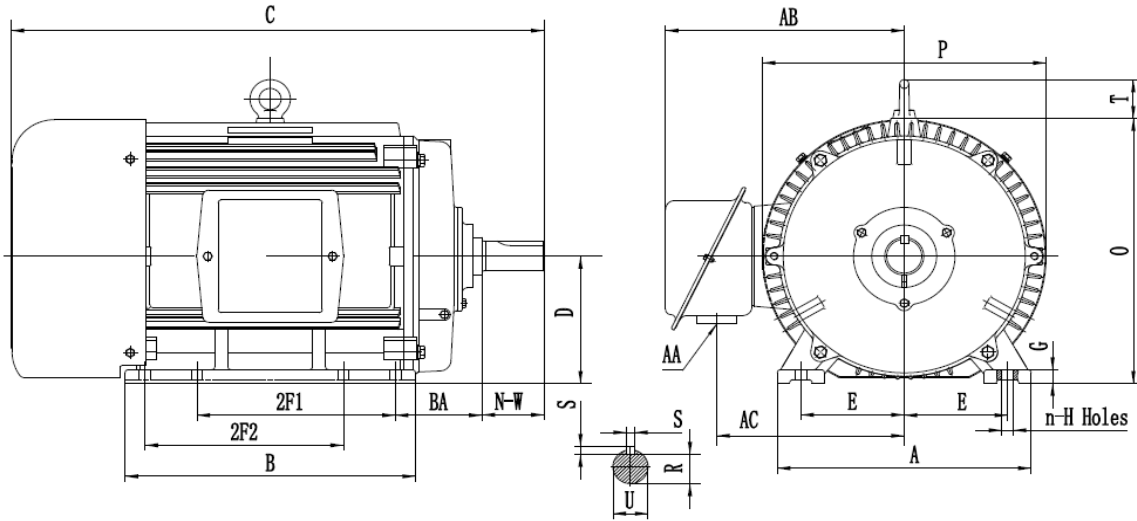
Size	Dimensions (Inches)																					
	A	B	C	D	E	n-H	2F1	2F2	G	J	N-W	BA	P	R	S	U	ES	AA	AB	AC	O	T
182T	9	5.6	15	4.5	3.75	4-0.41	4.5	NA	0.45	1.6	2.75	2.75	9.87	0.98 6	0.25	1.12 5	1.78	1	8.2	6.5	9.27	1.73
184T	9	6.6	16	4.5	3.75	8-0.41	4.5	5.5	0.45	1.6	2.75	2.75	9.87	0.98 6	0.25	1.12 5	1.78	1	8.2	6.5	9.27	1.73

Note:

Dimensions subject to change, please ask for dimensional drawing when ordering.

## Dimensions FT series

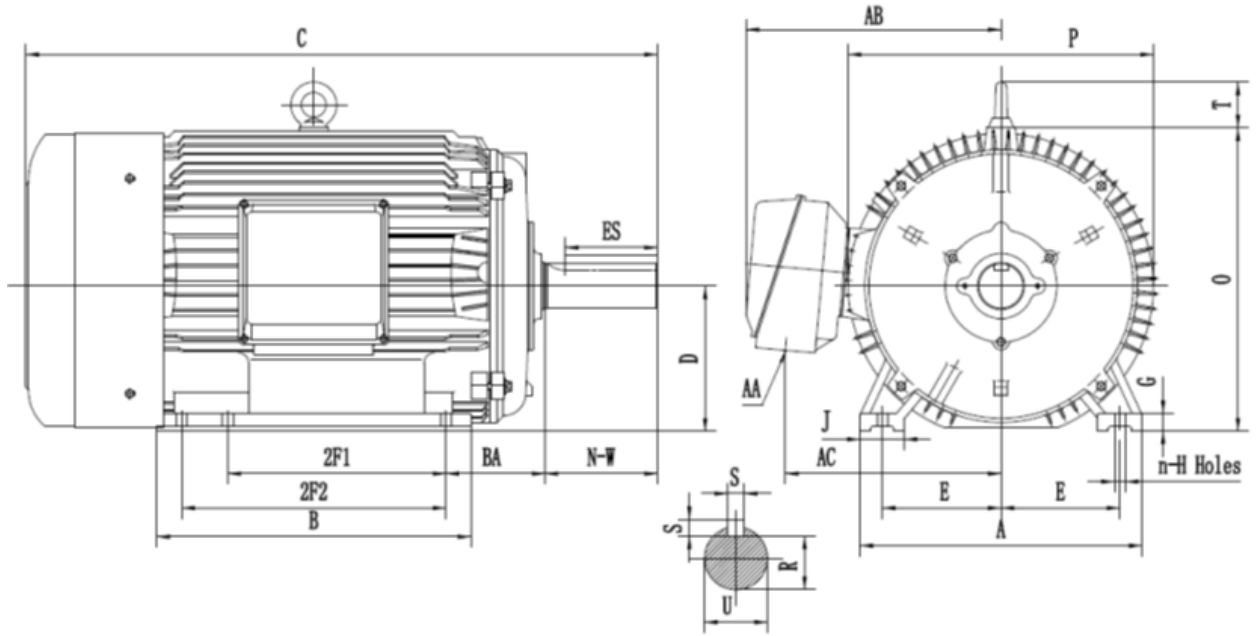
FELM NEMA design B premium efficiency motors, foot mount, F1



Size	Dimensions (Inches)																					
	A	B	C	D	E	n-H	2F1	2F2	G	J	N-W	BA	P	R	S	U	ES	AA	AB	AC	O	T
213T	1.4	7	18	5.2 5	4.25	4-0.41	5.5	NA	0.6	1.8	3.38	3.5	11.9	1.20 1	0.31 2	1.37 5	2.4 1	1	9.6	7.9	10.9	1.7 3
215T	14	8.5	19.5	5.2 5	4.25	4-0.41	7	NA	0.6	1.8	3.38	3.5	11.9	1.20 1	0.31 2	0.37 5	2.4 1	1	9.6	7.9	10.9	1.7 3
254T	12.2	12.8	26.7	6.2 5	5	8-0.53	8.25	8.25	0.5 3	2.56	4	4.2 5	14.2	1.41 6	0.37 5	1.62 5	2.9 1	1.25	12.7	9.5	13.3 5	2.0 5
256T	12.2	13.9 8	27.8	6.2 5	5	8-0.53	10	10	0.5 3	2.56	4	4.2 5	14.2	1.41 6	0.37 5	1.62 5	2.9 1	1.25	12.7	9.5	13.3 5	2.0 5
284TS	13.8	15.7 5	28.9	7	5.5	8-0.53	9.5	9.5	0.5 5	2.76	3.25	4.7 5	15.4	1.41 6	0.37 5	1.62 5	1.9 1	1.5	13.5	10.2	14.8 5	2.0 5
284T	13.8	15.7 5	30.2	7	5.5	8-0.53	9.5	9.5	0.5 5	2.76	4.62	4.7 5	15.4	1.59 1	0.5	1.87 5	3.2 8	1.5	13.5	10.2	14.8 5	2.0 5
286TS	13.8	16.9 3	30	7	5.5	8-0.53	11	11	0.5 5	2.76	3.25	4.7 5	15.4	1.41 6	0.37 5	1.62 5	1.9 1	1.5	13.5	10.2	14.8 5	2.0 5
286T	13.8	16.9 3	31.3	7	5.5	8-0.53	11	11	0.5 5	2.76	4.62	4.7 5	15.4	1.59 1	0.5	1.87 5	3.2 8	1.5	13.5	10.2	14.8 5	2.0 5
324TS	14.2	16.3 8	31.1	8	6.25	8-0.66	10.5	10.5	0.8 6	2.85	3.75	5.2 5	17.2	1.59 1	0.5	1.87 5	2.0 3	2	14.2	11.3 4	16.6 6	2.4 4
324T	14.2	16.3 8	32.6	8	6.25	8-0.66	10.5	10.5	0.8 6	2.85	5.25	5.2 5	17.2	1.84 5	0.5	2.12 5	3.9 1	2	14.2	11.3 4	16.6 6	2.4 4
326TS	14.2	17.5 6	32.3	8	6.25	8-0.66	12	12	0.8 6	2.85	3.75	5.2 5	17.2	1.84 5	0.5	1.87 5	2.0 3	2	14.2	11.3 4	16.6 6	2.4 4
326T	14.2	17.5 6	33.7	8	6.25	8-0.66	12	12	0.8 6	2.85	5.25	5.2 5	17.2	1.59 1	0.5	2.12 5	3.9 1	2	14.2	11.3 4	16.6 6	2.4 4
364TS	17	18.2	34.1	9	7	8-0.66	11.2 5	11.2 5	1.1 7	3	3.75	5.8 8	19.4	1.59 1	0.5	1.87 5	2.0 3	3	16.3	12.3	18.7 7	2.8 3
364T	17	18.2	36.2 3	9	7	8-0.66	11.2 5	11.2 5	1.1 7	3	5.88	5.8 8	19.4	2.02 1	0.62 5	2.37 5	4.2 8	3	16.3	12.3	18.7 7	2.8 3
365TS	17	20	35.9	9	7	8-0.66	12.2 5	12.2 5	1.1 7	3	3.75	5.8 8	19.4	1.59 1	0.5	1.87 5	2.0 3	3	16.3	12.3	18.7 7	2.8 3
365T	17	20	38.0 3	9	7	8-0.66	12.2 5	12.2 5	1.1 7	3	5.88	5.8 8	19.4	2.02 1	0.62 5	2.37 5	4.2 8	3	16.3	12.3	18.7 7	2.8 3
404T	19.1 3	14.9 6	36.4	10	8	4-0.81	12.2 5	NA	1.1 8	3.15	7.25	6.6 2	21.5	2.45	0.75	2.87 5	6.1	3	18.1 1	15.6 8	21.0 2	2.8 3
405TS	19.1 3	16.5 3	34.8	10	8	4-0.81	13.7 5	NA	1.1 8	3.15	4.25	6.6 2	21.5	1.84 5	0.5	2.12 5	2.7 8	3	18.1 1	15.6 8	21.0 2	2.8 3
405T	19.1 3	16.5 3	37.8	10	8	4-0.81	13.7 5	NA	1.1 8	3.15	7.25	6.6 2	21.5	2.45	0.75	2.87 5	6.1	3	18.1 1	15.6 8	21.0 2	2.8 3

**Dimensions FT series**

FELM NEMA design B premium efficiency motors, foot mount, F1



Size	Dimensions (Inches)																					
	A	B	C	D	E	n-H	2F1	2F2	G	J	N-W	BA	P	R	S	U	ES	AA	AB	AC	O	T
444TS	22	25.5 9	47.0 5	11	9	4- 0.81	14. 5	NA	1.3 8	3.35	475	7.5	23.1	2.02 1	0.62 5	2.37 5	3.0 3	2X 3	19. 5	16.3	23	3.5
444T	22	25.5 9	50.7 9	11	9	4- 0.81	14. 5	NA	1.3 8	3.35	8.5	7.5	23.1	2.88	0.87 5	3.37 5	6.9 1	1X 3	19. 5	16.3	23	3.5
445TS	22	25.5 9	47.0 5	11	9	6- 0.81	14. 5	16. 5	1.3 8	3.35	4.75	7.5	23.1	2.02 1	0.62 5	2.37 5	3.0 3	2X 3	19. 5	16.3	23	3.5
445T	22	25.5 9	50.7 9	11	9	6- 0.81	14. 5	16. 5	1.3 8	3.35	8.5	7.5	23.1	2.88	0.87 5	3.37 5	6.9 1	2X 3	19. 5	16.3	23	3.5
447TS	22	30.7 1	52.1 7	11	9	6- 0.81	16. 5	20	1.3 8	3.35	4.75	7.5	23.1	2.02 1	0.62 5	2.37 5	3.0 3	2X 3	19. 5	16.3	23	3.5
447T	22	30.7 1	55.9 1	11	9	6- 0.81	16. 5	20	1.3 8	3.35	8.5	7.5	23.1	2.88	0.87 5	3.37 5	6.9 1	2X 3	19. 5	16.3	23	3.5
449TS	22	30.7 1	52.1 7	11	9	6- 0.81	20	25	1.3 8	3.35	4.75	7.5	23.1	2.02 1	0.62 5	2.37 5	3.0 3	2X 3	19. 5	16.3	23	3.5
449T	22	30.7 1	55.9 1	11	9	6- 0.81	20	25	1.3 8	3.35	8.5	7.5	23.1	2.88	0.87 5	3.37 5	6.9 1	2X 3	19. 5	16.3	23	3.5

Note:

Dimensions subject to change, please ask for dimensional drawing when ordering.

# NAMEPLATE FT SERIE

**FELM** *srl* www.felm.it Premium Efficiency Motor

MODEL	OMN 182T-2	SER.	
CAT#	FT 182T		
FRAME	182T	POLES	2
PH	3	DES.	B
MTG	V18	ENCL	TEFC
Hz	60	IC	411
HP	3	VOLTS	460
kW	2.2	F.L.AMPS	3.67
NOM.EFF.	86.5	RPM	3500
SHAFT END BRG	6206 2ZC3	S.F.	1.15
Heater: 120V 30W		WT LBS/kg	
		AMB °C	45
		RISE	80°C
		ALTITUDE	1500M
		MTH/YR MFG	
		VOLTS	380
		F.L.AMPS	3.1
		RPM	2920
		S.F.	1.15
		NOM.EFF.	84.2
		PF	0.87
		OPP. END BRG	6205 2ZC3

Terminal Diagram: Y L1—(T1)—(T6), L2—(T2)—(T4), L3—(T3)—(T5)

Annotations: Red box around FELM logo; Red box around UL logo; Red box around CE mark; Red handwritten '2' near UL logo; Red handwritten '3' near UL logo; Red handwritten '367' on the right edge.

All data (technical, dimensions, etc..) listed in the tables are indicative and not binding. The guaranteed values are upon request. Felm srl reserves the right to change the project, the technical characteristics and dimensions at any time without previous notice.





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