

W30 Smart EC

Industrial Motors
**Commercial &
Appliance Motors**

Automation

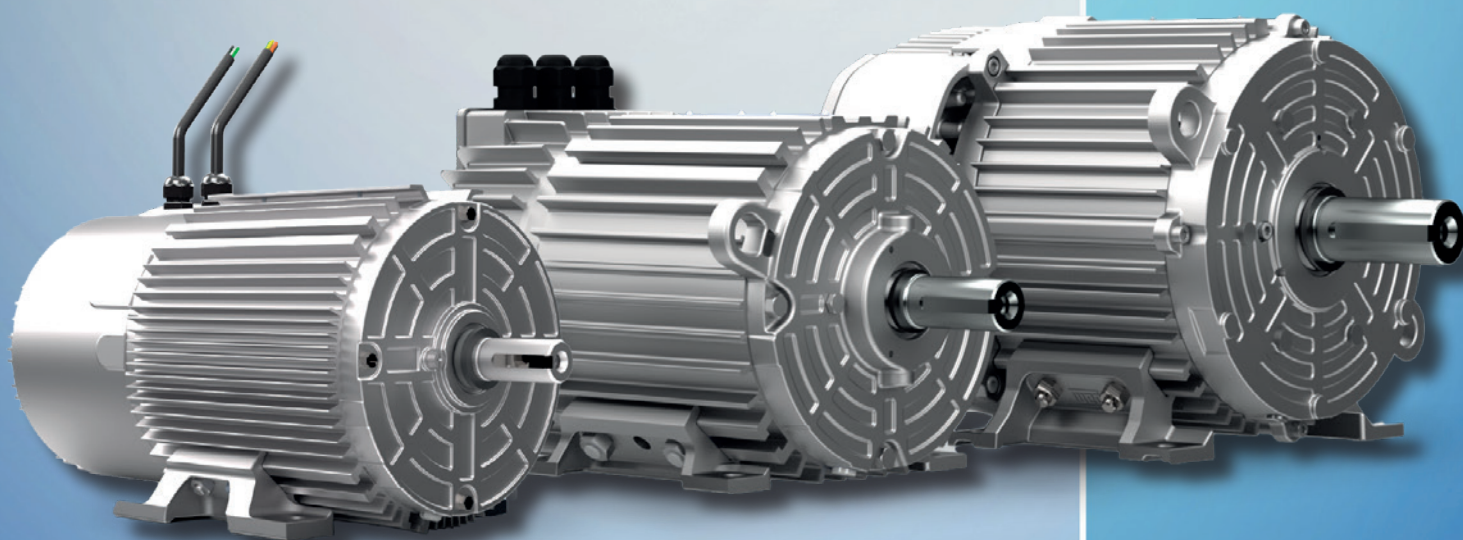
Digital &
Systems

Energy

Transmission &
Distribution

Coatings

**Moving air
with efficiency**

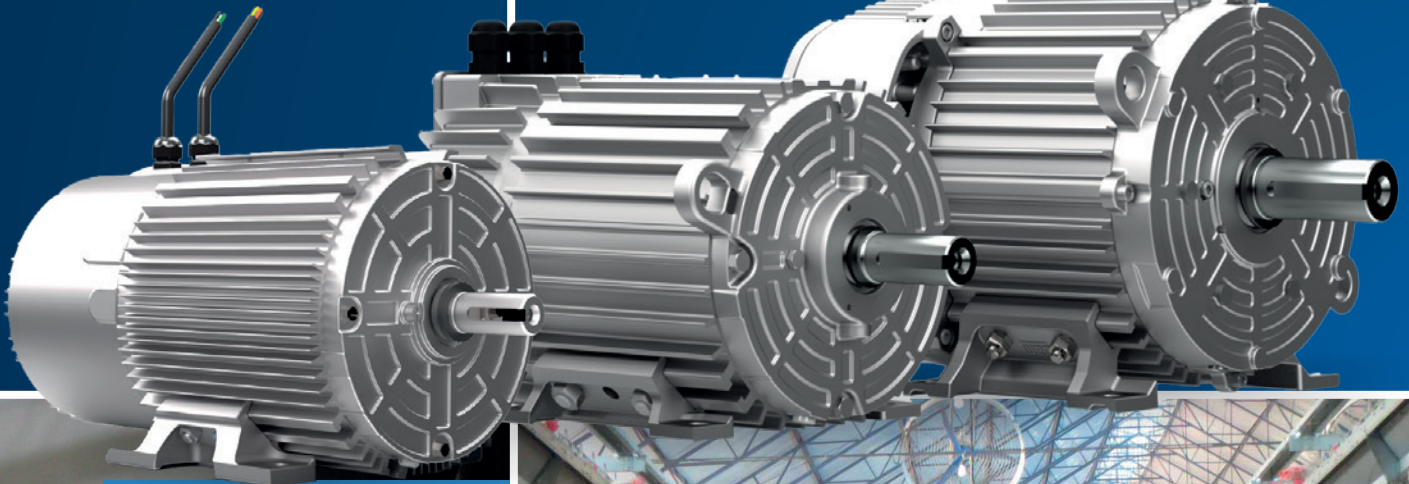


Driving efficiency and sustainability

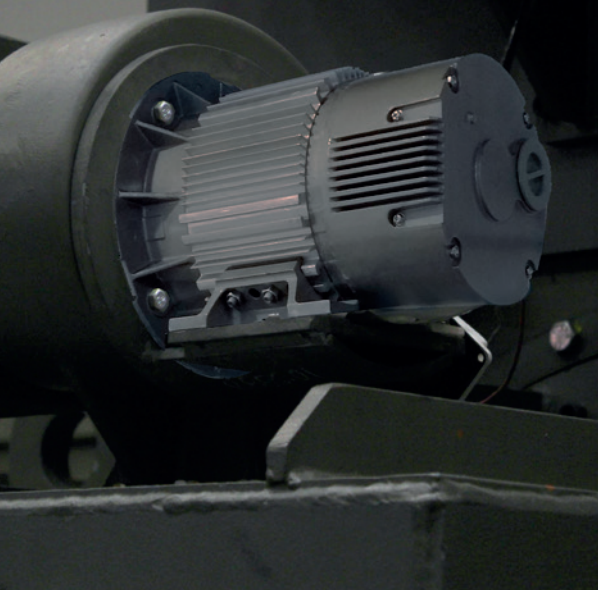


W30 Smart EC

Moving air with efficiency



Radial fans



Axial fans

Interchangeable motor with builtin drive and permanent magnets.

A complete and versatile solution for motor fan applications.

- Speed variation for airflow rate with energy savings
- IEC standard: interchangeability with induction motors.
- Automatic control of temperature and air quality levels.

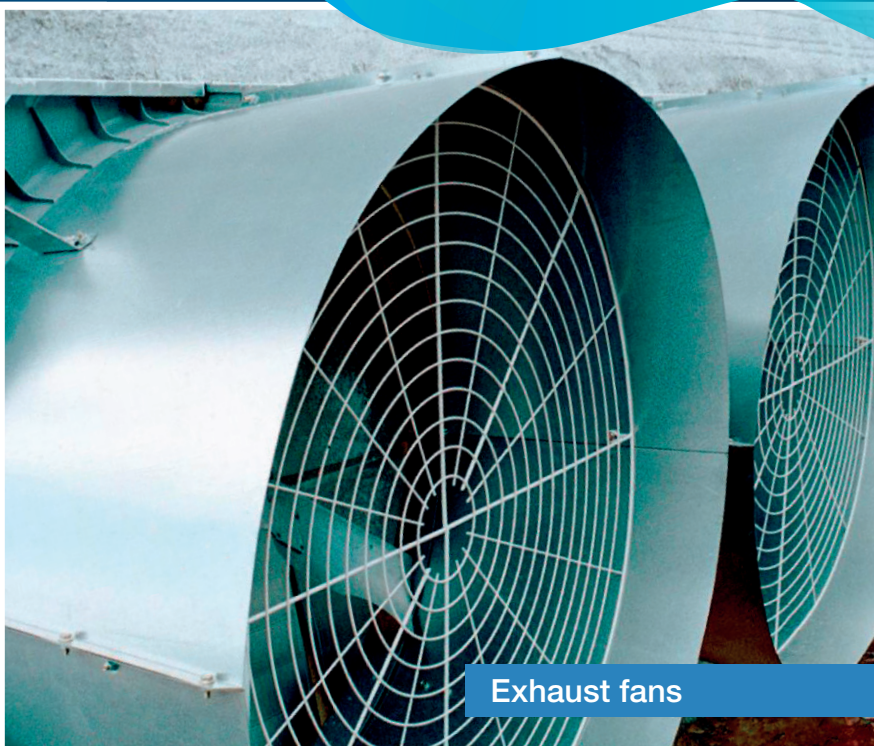
Join this movement for efficiency too.

Efficiency
above
standard | **E5**

Air coolers



Exhaust fans



Driving efficiency and sustainability



W30 Smart

Electronically Controlled
WEG Motor.



Single-Phase Motors

Frame 80

- Voltage: 220-277VAC
- Frequency: 50/60 Hz
- Output power: 0.12 to 1.1 kW at 1500, 1800 or 3000 rpm
- Aluminium frame / drive housing
- Protection rating: IP55
- Mounting: B3T
- Ambient temperature:
 - -20 to 40°C (TENV)¹
 - -20 to 60°C (TEAO)²
- Vibration grade: A
- Direction of rotation CW/CCW (selectable)
- Continuous speed adjustment (200 to 1500/1800 rpm and 500 to 3000 rpm) by:
 - Tact buttons (local)
 - DC voltage (remote): 2 to 10 VDC
 - DC current (remote): 4 to 20 mA DC
 - PWM (remote): 10 to 95%
- Local controls optically isolated
- With drain plug and V-ring Seal
- Sealed for life bearings
- Drive-end bearing cap
- Power and control cables 500 mm long
- Electronic protection: overload, over temperature and locked-rotor.
- Fire mode (Override & Maximum speed mode)

Notes:

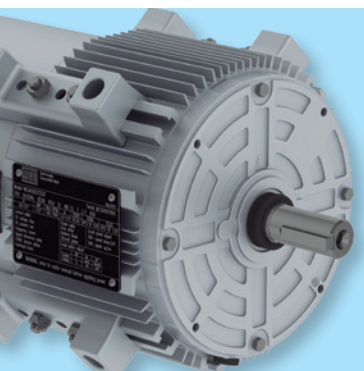
1. Non-ventilated (TENV). Consult WEG for electrical data.

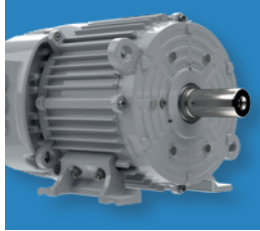
2. Air over (TEAO). Minimum air flow over the motor housing and drive cover of 5 m/s.

3. W30 Smart EC single-phase motors may require the use of an external filter to comply with the harmonic current emissions requirements of EN 61000-3-2. Refer to WEG for further details.

Optional & Special features

- IEC80: Pad mounting (4 x 90° or 3 x 120°), T-slot (4 x 90° or 3 x 120°), FF-165 and FC-120 flanges
- Slinger seal for vertical shaft-up mounting 115V input power supply (up to 0.55kW)
- Decentralized mounting (motor and drive separate)
- Custom cable lengths
- Customized shaft ends
- Double shaft ends (only with decentralised drive version)
- External controller with display to adjust maximum and instantaneous speed values.
- Blower cooling (TEBC)
- Modbus communication
- Passive PFC (Power Factor Correction)³





Three-Phase Motors

Frames 80 to 100

- Voltage: 380-480 VAC
- Frequency: 50/60 Hz
- Output power: 0.12 to 4 kW at 1500, 1800 or 3000 rpm
- Aluminium frame / drive housing
- Protection rating: IP55
- Mounting: B3T
- Ambient temperature:
 - -20 to 40 °C (TEAO)¹
 - -20 to 40 °C (TENV)² with de-rating
 - -20 to 60 °C (TEAO) with de-rating
- Vibration grade A
- Direction of rotation CW/CCW (selectable)
- Continuous speed adjustment (200 to 1500/1800 rpm and 500 to 3000 rpm) by:
 - Tact buttons (local)
 - DC voltage (remote): 2 to 10 VDC
 - DC current (remote): 4 to 20 mA DC
 - PWM (remote): 10 to 95%
 - Modbus communication
- Alarm relay (NO & NC)
- Local controls optically isolated
- With drain plug and V-ring Seal
- Sealed for life bearings
- Drive-end bearing cap
- Connection box with push-in terminals
- Electronic protection: overload, over temperature and locked-rotor.
- Fire mode (Override & Maximum speed mode)

Optional & Special features

- IEC80: Pad mounting (4 x 90° or 3 x 120°), T-slot (4 x 90° or 3 x 120°), FF-165 and FC-120 flanges
- IEC100: Pad mounting (4 x 90°), T-slot (4 x 90°), FF-215 and FC-160 flanges
- Slinger seal for vertical shaft-up mounting
- Decentralised mounting (drive and motor separate)
- Power supply cable and control cable installation
- Customized shaft ends
- Double shaft ends (only with decentralised drive version)
- External controller with display to adjust maximum and instantaneous speed values

Notes:

¹ Totally Enclosed, Air Over rated. Minimum airflow over motor frame and drive cover 5m/s.

² Totally Enclosed, Non-ventilated. Refer to WEG for electrical data.

Frame 132S

- Voltage: 380-480 VAC
- Frequency: 50/60 Hz
- Output Power: 5.5 to 10 cv at 900, 1200, 1500, 1800 or 3000 rpm
- Aluminum housing
- Protection rating: IP55
- Ambient temperature:
 - -10 to 50°C (TEAO)¹
 - -10 to 40°C (TENV)² with reduced output power
- Vibration grade: A
- Direction of rotation CW/CCW (selectable)
- Continuous speed adjustment (200 to 900/1200/1500/1800) by:
 - Buttons (located on the rear cover)
 - DC voltage (remote): 2 to 10 VDC
 - DC current (remote): 4 to 20 mA DC
 - PMW (remote): 10% to 95%.
- Alarm relay (NO & NC)
- Local controls optically isolated
- With Drain Plug and V-ring Seal
- Sealed for life bearings
- Front bearing locking ring
- Connection box with spring terminals
- Electronic Protection: overload, over temperature, and locked rotor
- Fire Mode (Override & Maximum speed mode)

Optional & Special features

- IEC132S: Pad Mounting (4 x 90 degrees), Flange FF - 265 C-200 and FC-184
- Slinger seal for vertical shaft-up mounting
- Customized shaft ends.
- External controller with display for adjusting.

Notes:

¹ Air over (TEAO). Minimum air flow over the motor frame and drive end cover of 6 m/s.

² Non-ventilated (TENV). Consult WEG for electrical data.



Electrical Data

Single-Phase Motors

Power		Model	Frame	Nominal torque (kgfm)	Inertia (kgm²)	Weight (kg)	Noise pressure level dB(A)	Service Factor	100% load		Rated current In (A)
									Efficiency	Power factor	
kW	cv										
1500RPM											
0.12	0.16	A2	80	0.08	0.0014	5.8	45	1.00	83.0	0.47	1.11
0.18	0.25	A3	80	0.12	0.0016	6.4	45	1.00	83.5	0.56	1.39
0.25	0.33	A4	80	0.16	0.0019	7.7	45	1.00	84.1	0.57	1.88
0.37	0.5	B	80	0.24	0.0028	9.2	45	1.00	85.2	0.56	2.80
0.55	0.75	D	80	0.36	0.0031	9.9	45	1.00	86.7	0.60	3.82
0.75	1	E	80	0.49	0.0040	11.7	45	1.00	88.2	0.60	5.12
1.1	1.5		80	0.71	0.0040	11.7	45	1.00	89.5	0.63	7.07
1800 RPM											
0.12	0.16	A1	80	0.06	0.0012	5.2	45	1.00	83.1	0.47	1.11
0.18	0.25	A2	80	0.10	0.0014	5.8	45	1.00	83.5	0.52	1.50
0.25	0.33	A3	80	0.14	0.0016	6.4	45	1.00	84.1	0.54	1.99
0.37	0.5	A4	80	0.20	0.0019	7.7	45	1.00	85.3	0.56	2.80
0.55	0.75	B	80	0.30	0.0028	9.2	45	1.00	86.8	0.62	3.69
0.75	1	D	80	0.41	0.0031	9.9	45	1.00	88.2	0.57	5.39
1.1	1.5	E	80	0.60	0.0040	11.7	45	1.00	89.7	0.62	7.14
3000 RPM											
0.12	0.16	A1	80	0.04	0.0012	5.2	45	1.00	73.0	0.51	1.10
0.18	0.25		80	0.06	0.0012	5.2	45	1.00	76.7	0.50	1.60
0.25	0.33		80	0.08	0.0012	5.2	45	1.00	82.3	0.50	2.19
0.37	0.5	A4	80	0.12	0.0019	7.7	45	1.00	83.3	0.57	2.81
0.55	0.75	B	80	0.18	0.0028	9.2	45	1.00	84.6	0.62	3.79
0.75	1	C	80	0.24	0.0028	9.6	45	1.00	86.3	0.62	5.06
1.1	1.5		80	0.36	0.0028	9.6	45	1.00	87.8	0.66	6.85

Three-Phase Motors - IE5

Power		Model	Frame	Nominal torque (kgfm)	Inertia (kgm²)	Weight (kg)	Noise pressure level dB(A)	Service Factor	100% load		Rated current In (A)
									Efficiency	Power factor	
kW	cv										
900RPM											
4	5.5	132S-A	132S	4.33	0.0230	38.0	65	1.00	89.4	0.90	7.55
5.5	7.5	132S-B	132S	5.95	0.0340	47.0	65	1.00	90.4	0.92	10.00
7.5	10	132S-C	132S	8.12	0.0460	56.0	65	1.00	90.6	0.94	13.40
1200RPM											
4	5.5	132S-A	132S	3.25	0.0230	38.0	65	1.00	90.6	0.90	7.45
5.5	7.5	132S-B	132S	4.46	0.0340	47.0	65	1.00	91.2	0.92	9.96
7.5	10		132S	6.09	0.0460	56.0	65	1.00	91.4	0.94	13.30
1500 RPM											
0.12	0.16	IEC80-A	80	0.08	0.0020	11.3	45	1.00	79.5	0.89	0.40
0.18	0.25		80	0.12	0.0020	10.8	45	1.00	81.1	0.90	0.57
0.25	0.33	IEC80-B	80	0.16	0.0014	6.5	45	1.00	83.3	0.90	0.51
0.37	0.5	IEC80-C	80	0.24	0.0019	8.0	45	1.00	83.6	0.90	0.75
0.55	0.75	IEC80-D	80	0.36	0.0023	8.5	45	1.00	84.1	0.90	1.10
0.75	1		80	0.49	0.0023	8.5	45	1.00	84.6	0.90	1.49
1.1	1.5	IEC80-E	80	0.71	0.0031	10.0	45	1.00	85.6	0.90	2.16
1.5	2	IEC80-F	80	0.97	0.0040	11.5	45	1.00	86.7	0.90	2.91
2.2	3	IEC100-C	100L	1.43	0.0014	21.0	50	1.00	88.1	0.90	4.20
3	4	IEC100-D	100L	1.95	0.0017	22.5	50	1.00	89.1	0.90	5.66
3.7	5	IEC100-E	100L	2.40	0.0021	26.0	50	1.00	89.7	0.90	6.96
4	5.5		100L	2.60	0.0021	26.0	50	1.00	89.9	0.90	7.48
4	5.5	132S-A	132S	2.60	0.0230	38.0	65	1.00	90.6	0.90	7.45
5.5	7.5		132S	3.57	0.0340	47.0	65	1.00	91.0	0.92	9.98
7.5	10	132S-B	132S	4.87	0.0340	47.0	65	1.00	91.4	0.94	13.30
1800 RPM											
0.12	0.16	IEC80-A	80	0.07	0.0020	11.1	45	1.00	79.8	0.89	0.34
0.18	0.25		80	0.10	0.0020	11.3	45	1.00	82.1	0.90	0.48
0.25	0.33		80	0.14	0.0020	12.2	45	1.00	82.9	0.90	0.64
0.37	0.5	IEC80-B	80	0.20	0.0014	6.5	45	1.00	83.6	0.90	0.75
0.55	0.75	IEC80-C	80	0.30	0.0019	8.0	45	1.00	84.1	0.90	1.10
0.75	1	IEC80-D	80	0.41	0.0023	8.5	45	1.00	84.6	0.90	1.49
1.1	1.5		80	0.60	0.0023	8.5	45	1.00	85.6	0.90	2.16
1.5	2	IEC80-E	80	0.81	0.0031	10.0	45	1.00	86.7	0.90	2.91
2.2	3	IEC100-B	100L	1.19	0.0011	19.5	50	1.00	88.1	0.90	4.20
3	4	IEC100-C	100L	1.62	0.0014	21.0	50	1.00	89.1	0.90	5.68
3.7	5	IEC100-D	100L	2.00	0.0017	22.5	50	1.00	89.7	0.90	6.94
4	5.5		100L	2.16	0.0017	22.5	50	1.00	89.9	0.90	7.48
4	5.5	132S-A	132S	2.16	0.0230	38.0	65	1.00	90.0	0.90	7.50
5.5	7.5		132S	2.98	0.0230	38.0	65	1.00	90.4	0.92	10.00
7.5	10	132S-B	132S	4.06	0.0340	47.0	65	1.00	91.0	0.94	13.30
3000 RPM											
0.12	0.16	IEC80-A	80	0.04	0.0012	6.0	45	1.00	70.0	0.60	0.33
0.18	0.25		80	0.06	0.0012	6.0	45	1.00	72.0	0.61	0.55
0.25	0.33		80	0.08	0.0012	6.0	45	1.00	75.0	0.56	0.65
0.37	0.5		80	0.12	0.0012	6.0	45	1.00	79.2	0.90	0.79
0.55	0.75	IEC80-B	80	0.18	0.0014	6.5	45	1.00	80.3	0.90	1.15
0.75	1		80	0.24	0.0014	6.5	45	1.00	81.5	0.90	1.55
1.1	1.5	IEC80-C	80	0.36	0.0023	8.0	45	1.00	86.6	0.90	3.25
1.5	2		80	0.49	0.0023	8.0	45	1.00	86.6	0.90	4.42
2.2	3	IEC100-A	100L	0.71	0.0083	17.5	50	1.00	86.4	0.90	4.28
3	4		100L	0.97	0.0083	17.5	50	1.00	87.7	0.90	5.75
3.7	5	IEC100-B	100L	1.20	0.0110	19.5	50	1.00	88.4	0.90	7.04
4	5.5		100L	1.30	0.0110	19.5	50	1.00	88.7	0.90	7.58

Mechanical Data

External dimensions of single-phase motors (in mm)

Model	Weight (kg) ⁶	LC	LD ⁵	L ^{1,2,3}	L ⁴
A1	5.2	90	95	245	258
A2	5.8				
A3	6.4				
A4	7.7				
B	9.2	110		265	278
C	9.6			285	298
D	9.9	115		290	303
E	11.7	135		310	323

1. Foot mounting;

2. Pad mounting (4x90°);

3. Pad mounting (3x120°);

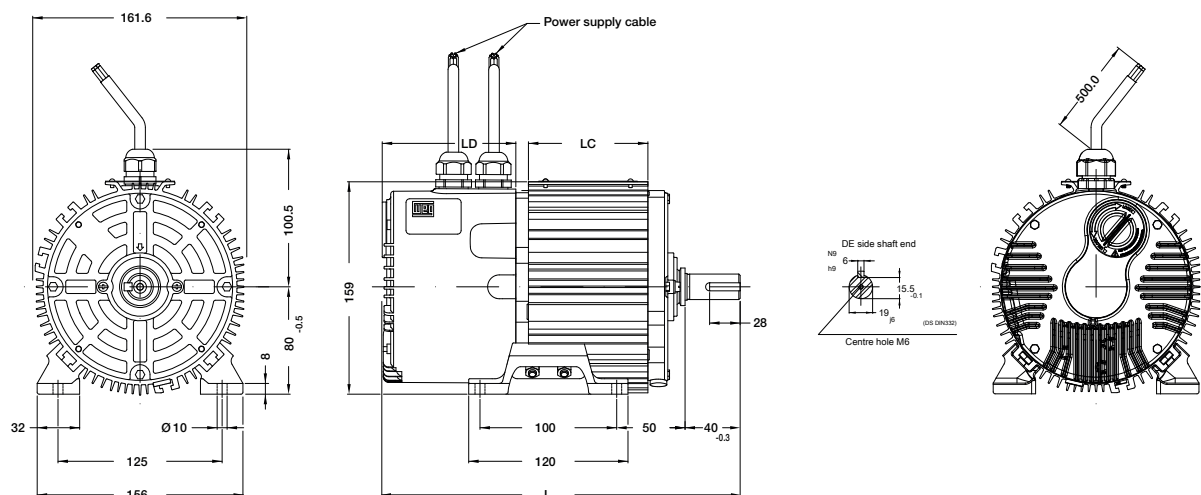
4. Flange mounting FF-165.

5. LD is the dimension of the drive for decentralized motors;

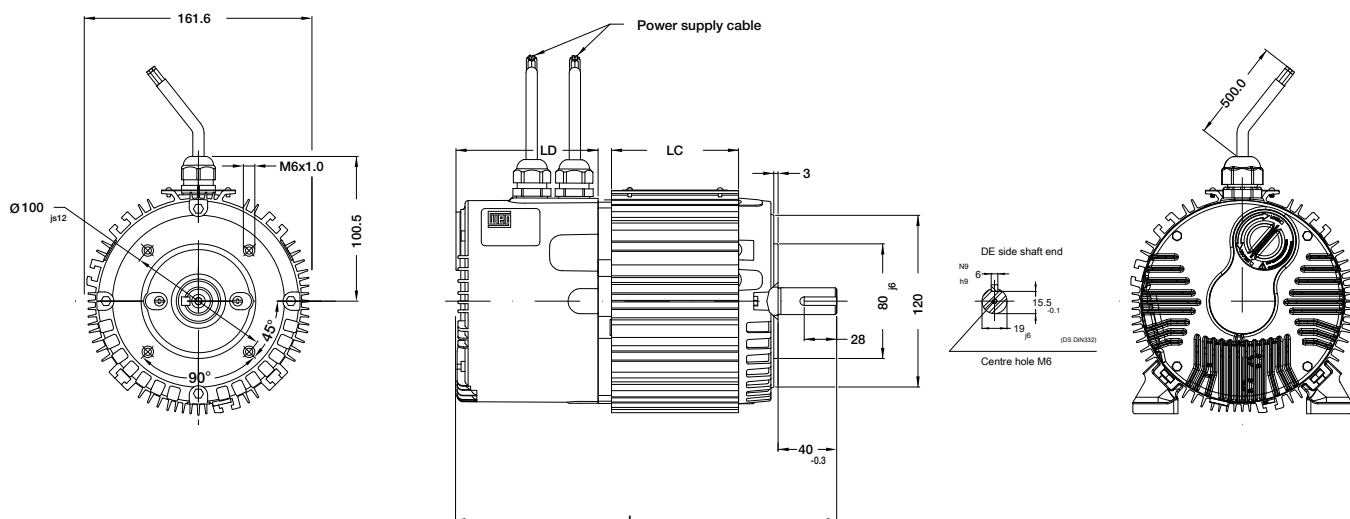
6. Approximate mass, subject to change without prior notice.

7. Dimensions for decentralized motors and forced ventilation (TEBC) can be provided upon request to WEG.

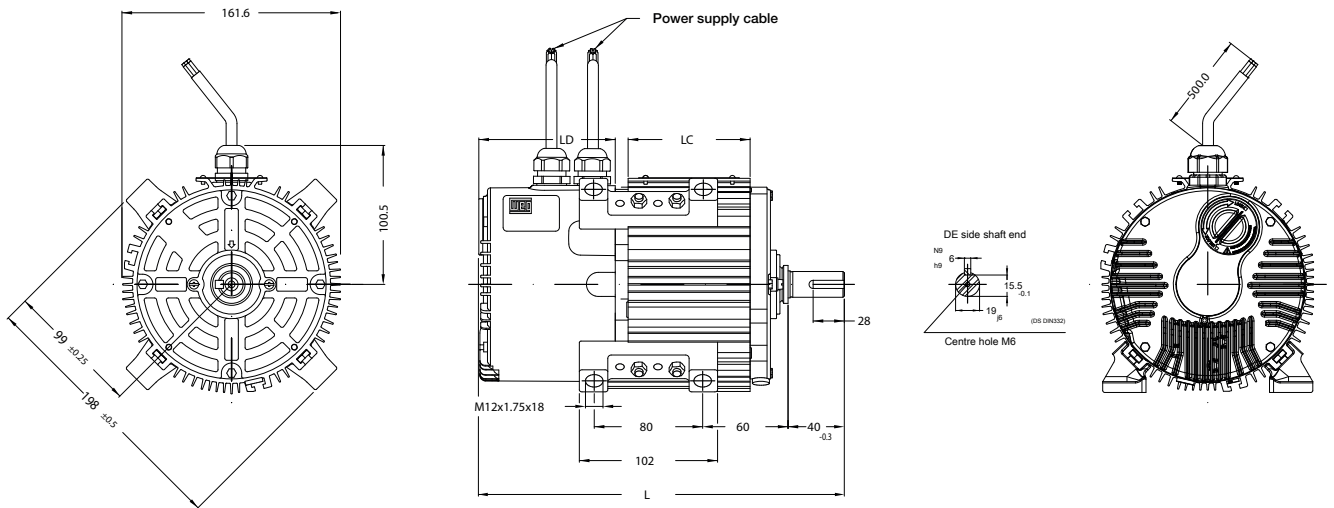
Motos B3T



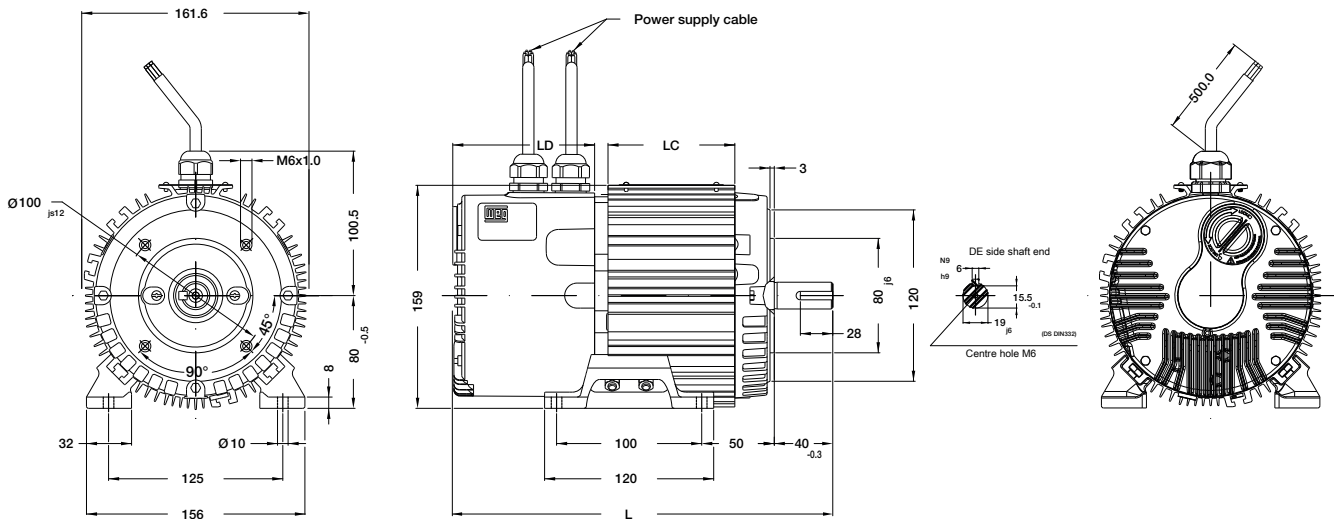
Motors B14T (FC-120)



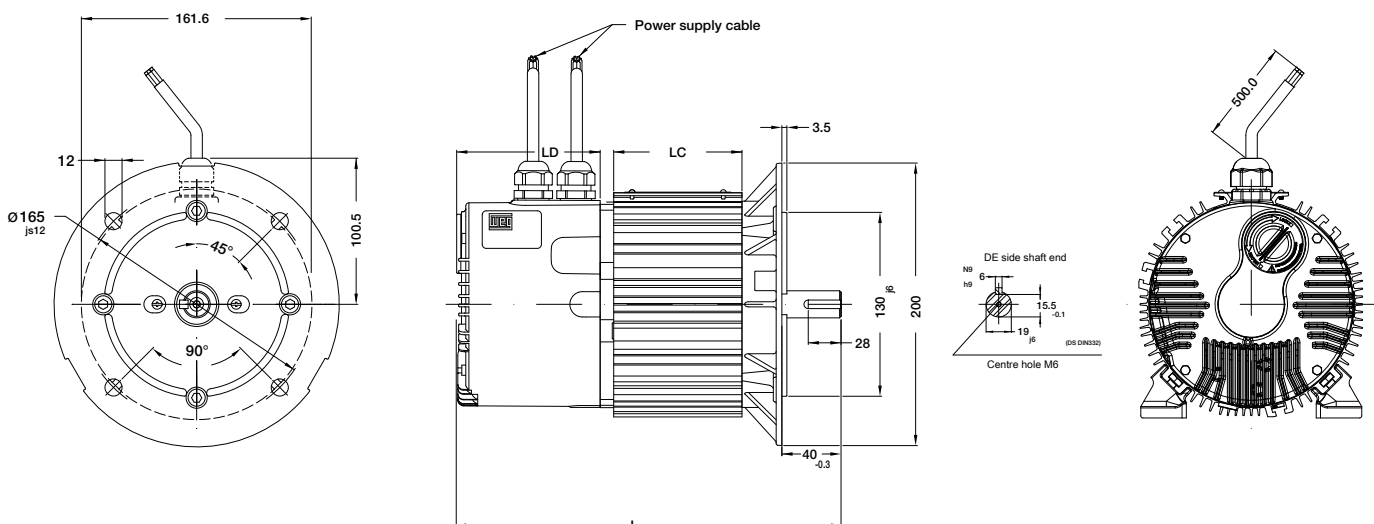
Motors B30T



Motors B34T (FC-120)



Motors B5T (FF-165)



External dimensions of three-phase motors (in mm)

Model	Weight (kg) ²	LC	LD ¹	L		
				B3/B30	B14	B5
IEC80-A	5.8	90	85.8	251.8		264.8
IEC80-B	6.4					
IEC80-C	8.1					
IEC80-D	8.5	100		261.8		274.8
IEC80-E	9.9	115		276.8		289.8
IEC80-F	11.7	135		296.8		309.8
IEC100-A	17.5	105	95.3	315.8		
IEC100-B	19.5	120		330.8		
IEC100-C	21.0	135		345.8		
IEC100-D	22.5	150		360.8		
IEC100-E	26.0	175		385.8		
132S-A	38.0	140	105	361.5		
132S-B	47.5	170		391.5		
132S-C	56.0	200		421.5		

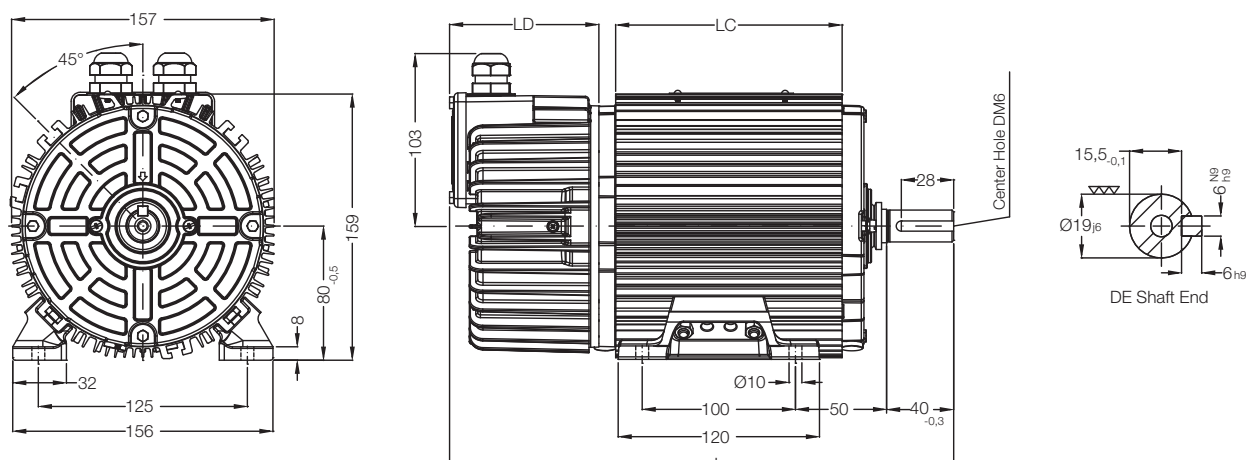
1) LD is the dimension of the drive for decentralized motors.

2) Approximate mass, subject to change without prior notice.

3) Dimensions for decentralized motors can be provided upon request to WEG.

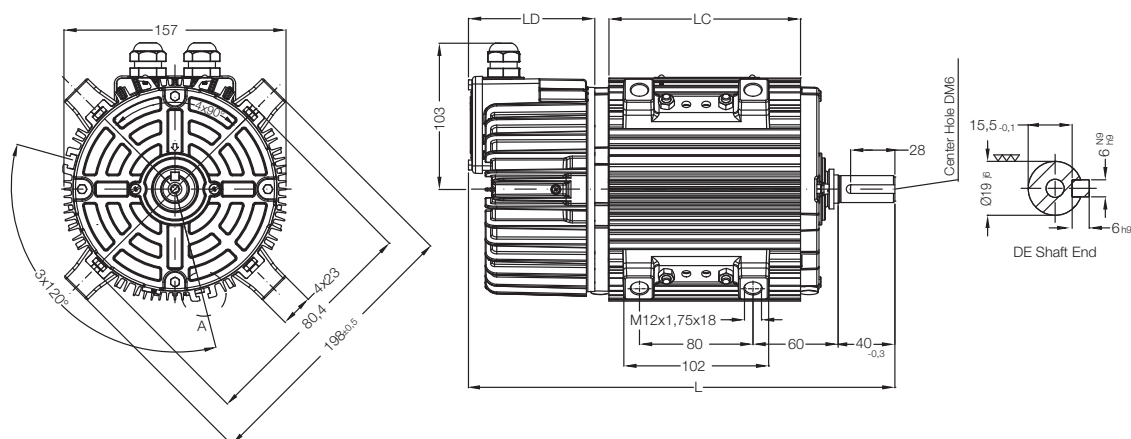
Motors B3T

Frame 80

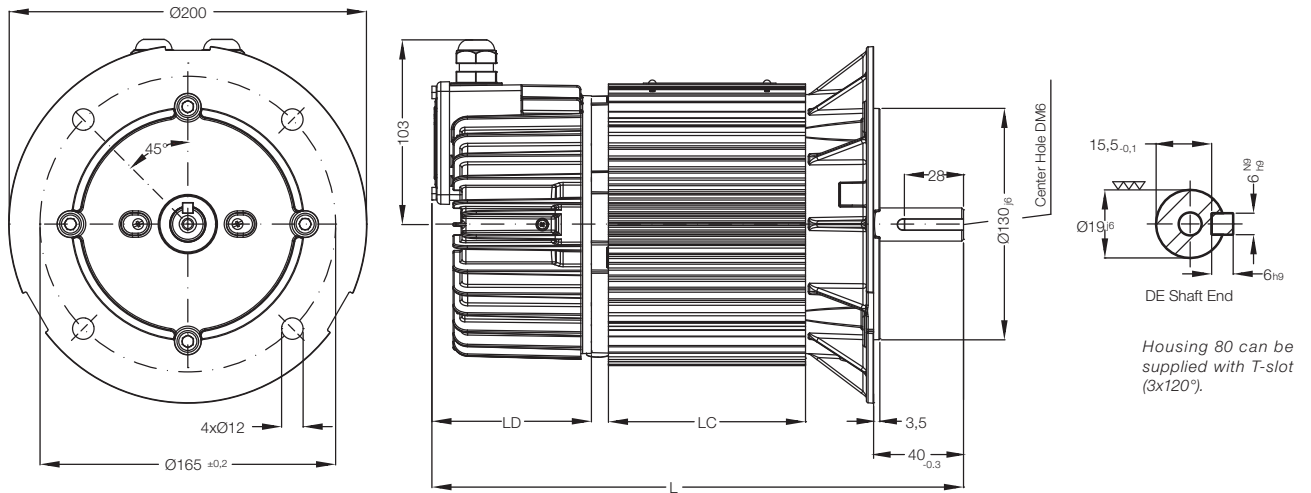


Motors B30T (4 x 90°)

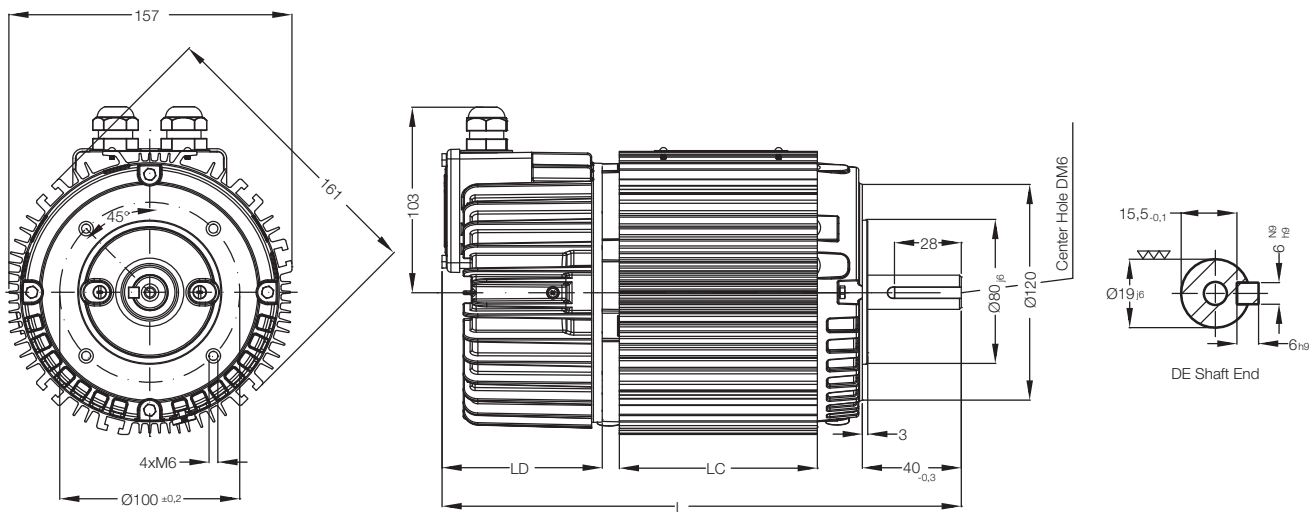
Frame 80



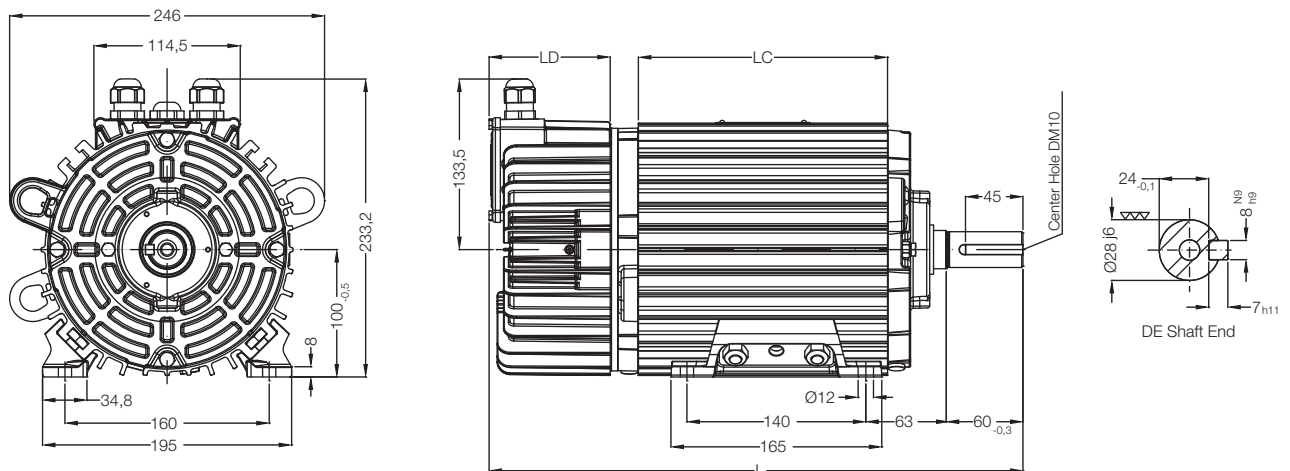
Frame 80 (FF-165)



Frame 80 (FC-120)

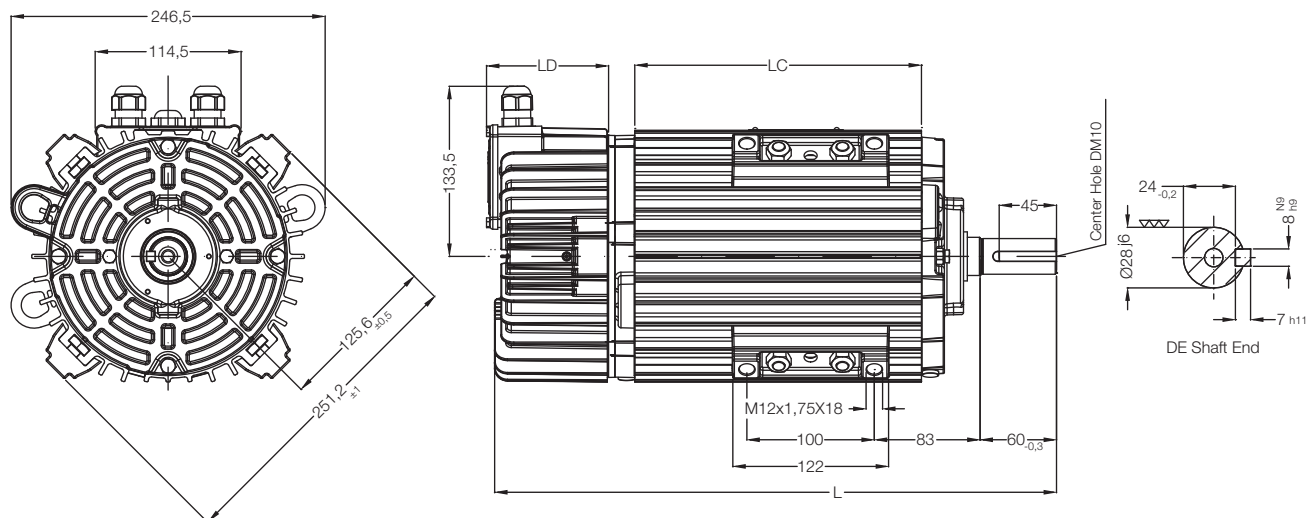


Frame 100



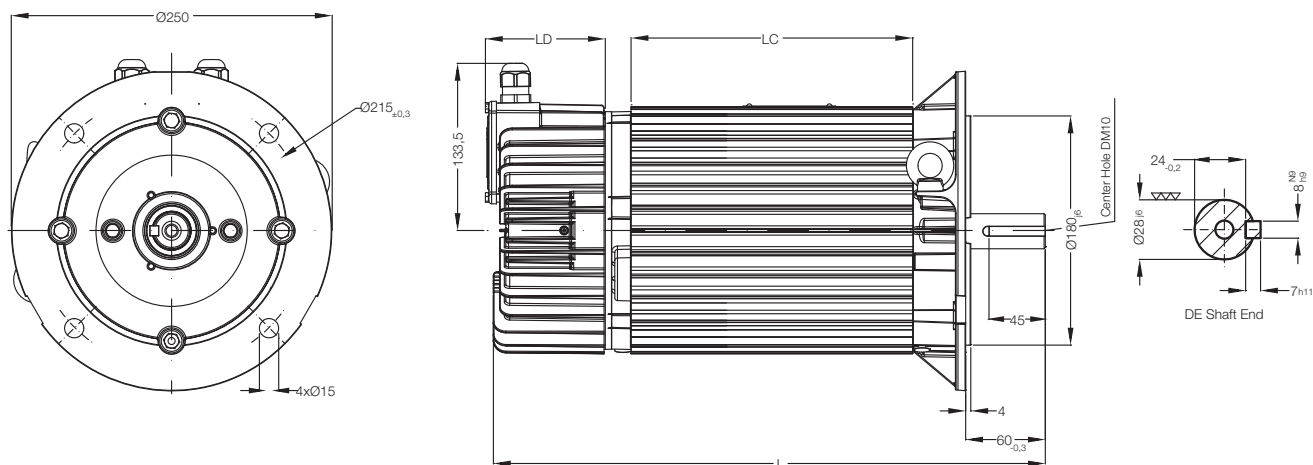
Motors B30T (4 x 90°)

Frame 100



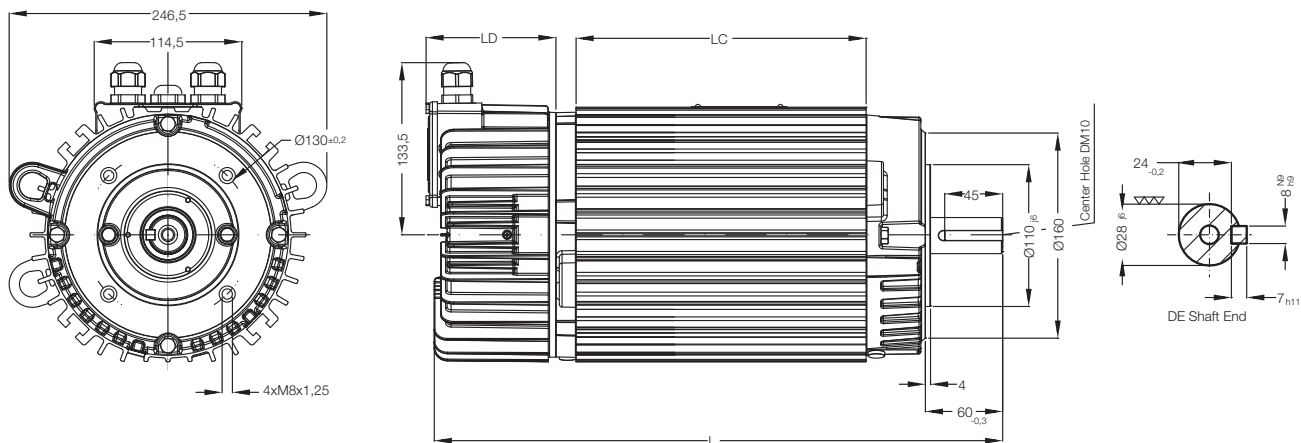
Motors B5T

Frame 100 (FF-215)

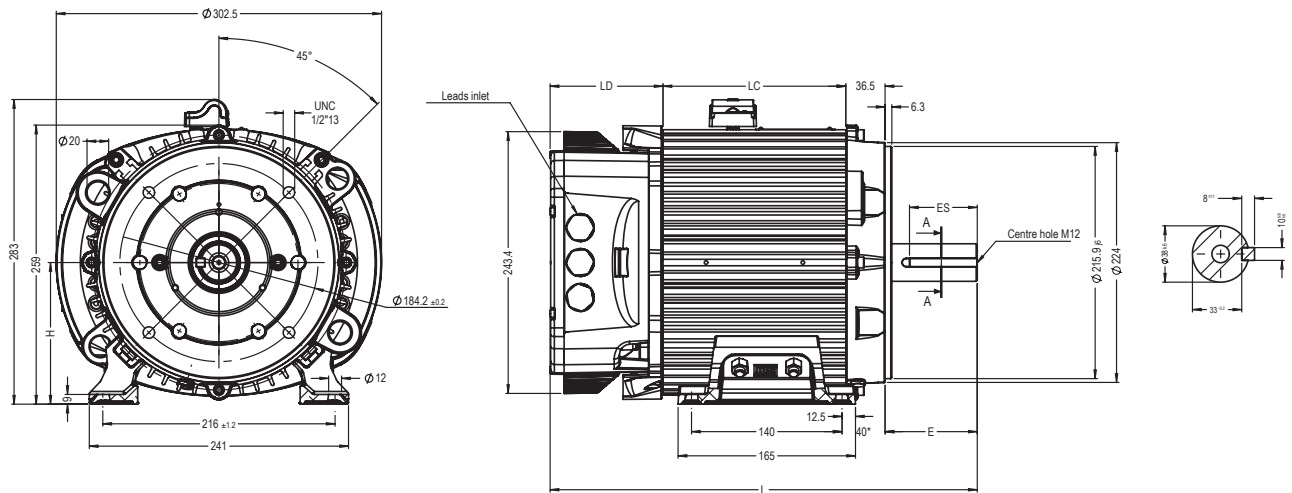


Motors B14T

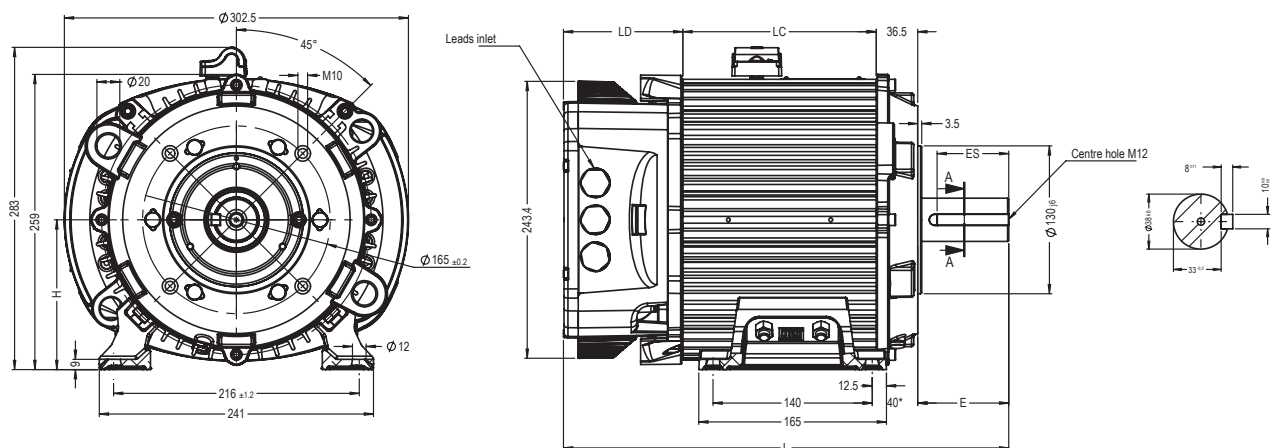
Frame 100 (FC-160)



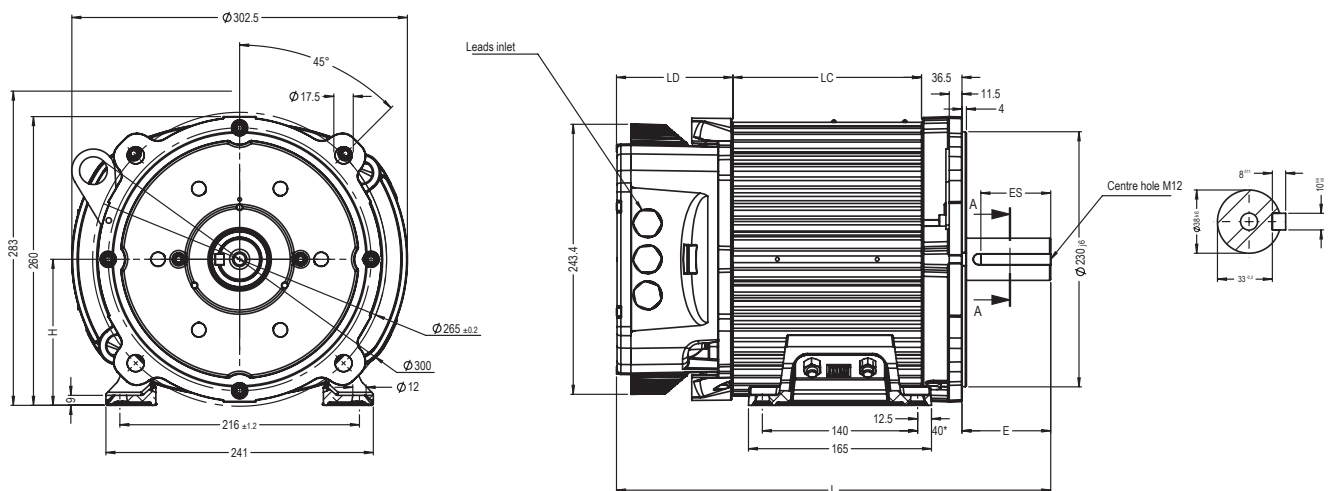
Frame 132S (Flange FC-184)



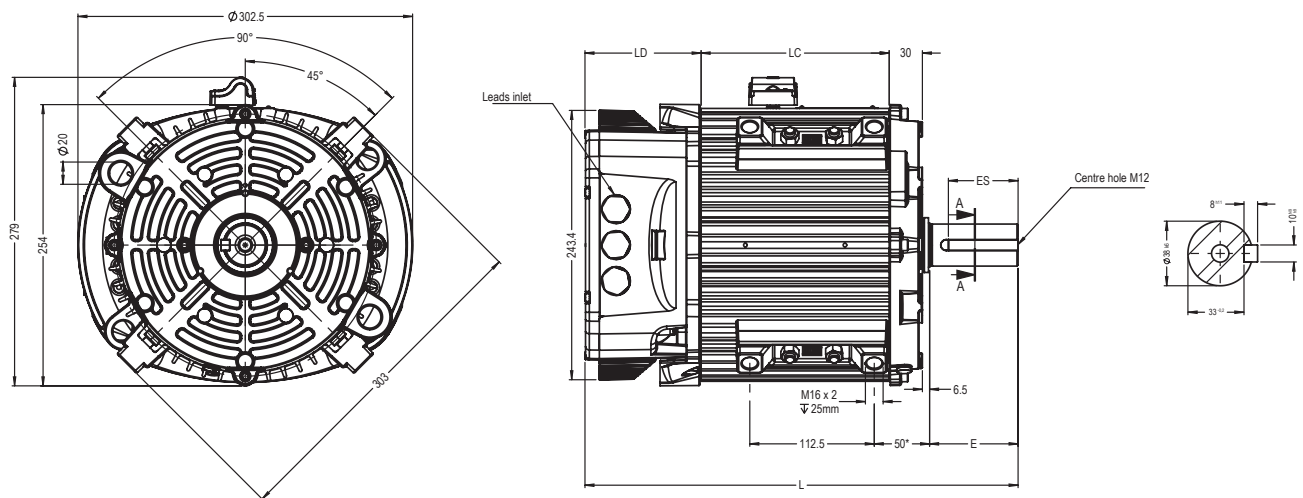
Frame 132S (Flange C-200)



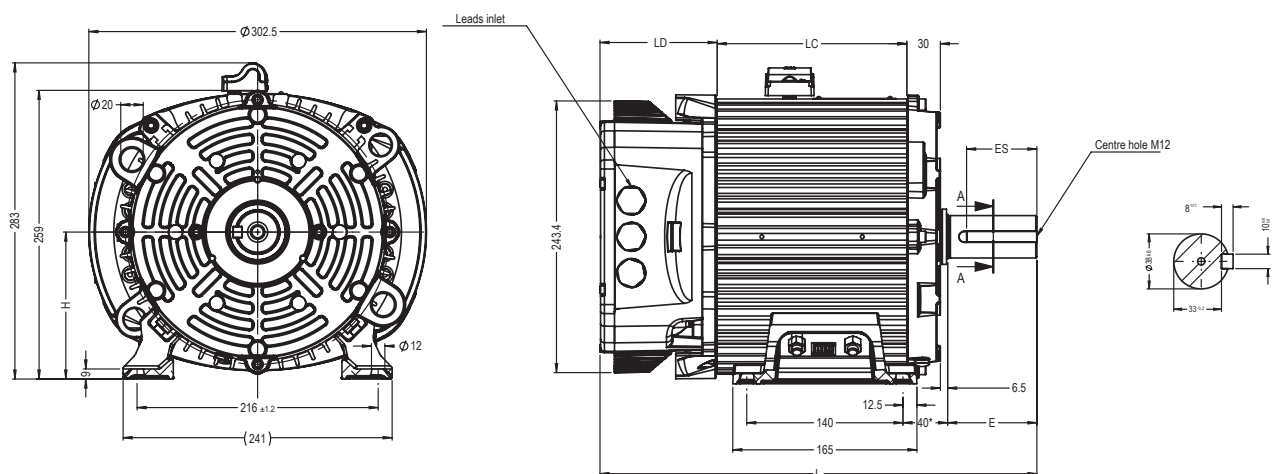
Frame 132S (Flange FF-265)



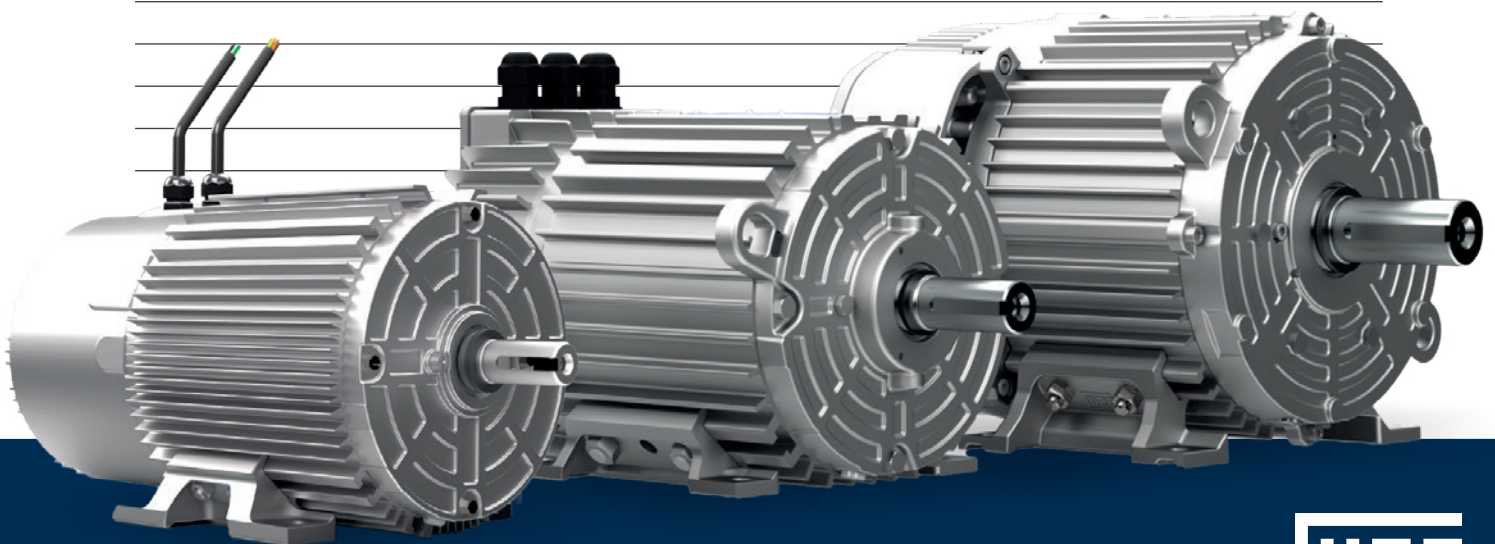
Frame 132S (PAD)



Frame 132S (Cover)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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**Explore WEG's
global operations.**



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 +55 47 3276.4000

 motores@weg.net

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