

C-Face Motors/Brakemotors

The lower inertia design of the C-Face squirrel-cage IEC motors and brakemotors from SEW-EURODRIVE provides outstanding system stability, tighter control and higher cycling capacity than an equivalent NEMA motor. In many cases, their performance enables them to replace a servo motor.

With a patented dual-coil design and specialized rectifiers, the SEW high-performance brake delivers extremely fast starting and fast stopping with minimal drift. Being electrically-released, the brake automatically engages during a power failure. Being integrally attached to the rotor shaft, it eliminates the headaches typically found on C-Face brakes. Quiet brake engagement and low-noise motor operation make SEW brakemotors perfectly designed for theater applications.

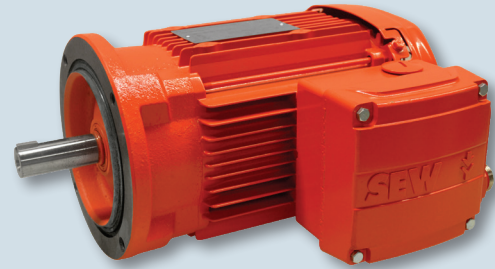
Every motor is available with multiple brake sizes and torques to optimize cost. Select a larger brake for stopping, or a smaller brake for holding the load with a VFD. In addition, a large variety of connector options are available, especially for the automotive industry.

An encapsulated stator and OS4 surface protection are perfect for washdown applications, or a complete package (I01) specially designed for the food industry.

The SEW motor has it all - NEMA C-Face mounting interchangeability, IEC high motor performance, and industry-specific options.

Standard Features

- 0.25 to 20 HP
- 2-year warranty
- 208-230/460V wide-range voltage (DRN63M4 - DRN132ML4)
- Continuous duty, TEFC, 1.15 SF @ constant speed
- NEMA standard C-Face flange (size 48C - 256TC) - 4 pole
- Efficiency per NEMA MG1 Table 12-12, IEC 60034-30-1 and CSA 390-10; IE3 \geq 1.0 HP, IE1 <1.0 HP
- Speed range: 10-60Hz (1:6), constant torque w/std fan, 1.0 SF, 4-pole, 40°C max. Motor wired 230V@60Hz or 460V@60Hz*
- Speed range: 10-120Hz (1:12), constant torque w/std fan, 1.0 SF, 4-pole, 40°C max. Motor wired 230V@60Hz & 460V@120Hz**
- Connection terminals (not pigtail)
- Stainless steel nameplate
- Double sealed or shielded bearings lubed for life



Insulation System

- Phase insulators - prevents phase-to-phase shorts
- Slot liners and top stick - prevents winding-to-ground shorts
- Wire sleeves - protect wires entering conduit box
- Inverter duty - voltage spike resistant per NEMA MG1-31.4.4.2 that states 1600 V peak at .1 μ s or larger rise time

Optional Features

- 50Hz, 60Hz, or 50/60Hz global motor
- High cycling, electrically-released brake
- Two or more brake sizes per motor
- Backstop
- Encoder - built-in or externally mounted
- IP55, IP65, IP56, and IP66 ingress protection
- OS2, OS4 external protection (see back)
- Encapsulated stator (<10 HP) without brake
- I01 Food Industry Option Pkg (<10 HP)
- Forced cooling fan for low frequency operation
- Thermostats, thermistors, KTY temperature sensors
- Low noise fan cover
- MOVIMOT® integrated frequency inverter (0.5 - 5.0 HP)
- Plug connectors for quick disconnect
- Cast iron high-inertia fan or aluminum fan
- Class H insulation (not available with UR rating)
- Hazardous Location (HazLOC-NA®) certified per CSA 45341 for Class I Div 2 Grps A-D, Class II Div 2 Grps F&G - with or without inverter duty.

* Speed range = 20-60Hz for DRN100L4.

** When used with appropriately-sized VFD. Speed range = 20-120Hz for DRN100L4. Above 60Hz, consider thermal limitations of an attached gear unit.



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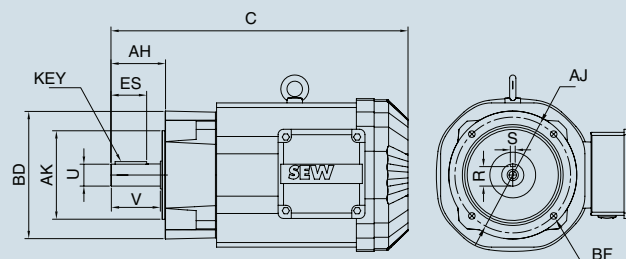
www.seweurodrive.com

Nomenclature

DRN..	IE3 efficiency
EDRN..	IE3 HazLoc-NA® for hazardous duty
/AC../AS../AM../AD../AB../IS	Plug Connectors
/AK8W or /AV8W	Sin/Cos + RS-485 absolute encoder
/AK8Y or /AV8Y	Sin/Cos + SSI absolute encoder
/AL	Aluminum fan (cold environment)
/BE	Electrically-released brake
/C	Canopy on fan guard
/DH	Condensation drain hole
/EI8_	Built-in encoder
/EK8C or /EV8C	Mounted HTL encoder
/EK8R or /EV8R	Mounted TTL (RS-422) encoder
/EK8S or /EV8S	Mounted Sin/cos encoder
/FC	C-Face flange
HF	Brake Screw Release
HR	Brake Hand Release
/LF	Air filter
/LN	Low-noise fan guard
/MM..D	MOVIMOT® inverter (@ conduit box)
/RS	Backstop
/TF	Thermistor (PTC) thermal protection
/TH	Thermostat thermal protection
/U	Non-ventilated (no fan)
/V	Separately wired cooling fan
/Z	High inertia flywheel fan (cast iron)

OS Surface Protection

OSG	Dip Primer Acrylic Primer	Not a finish coat. User should apply additional coating
STD	Dip Primer Acrylic Top Coat	Indoors - clean atmosphere, heated buildings Ex: automobile industry, shops, airports
OS2	Dip Primer Acrylic Primer Acrylic Top Coat +UV	Outdoors - low pollution, rain Indoors - unheated with humidity, condensation, splashing water Ex: water treatment facility, amusement parks
OS4	Dip Primer Epoxy Primer Polyurethane Top Coat Polyurethane Clear Coat +UV	Outdoors - high pollution or salinity Indoors - pressure spray, chemical wash, brine Ex: breweries, food processing, chemical plants, dairies, outdoor coastal areas



All dimension are shown in inches

NEMA Frame	Motor	HP (4-pole)	AJ	BD	AK -0.003	U -0.0005	V	C	AH	BF thread	S	R	Key	ES*
48C	DRN63M	0.25	3-3/4	5	3	1/2	1-1/2	9.34	1-11/16	1/4-20	-	0.453	-	-
	DRN71MS	0.33	3-3/4	5-5/8	3	1/2	1-1/2	9.40	1-11/16	1/4-20	-	0.453	-	-
56C	DRN71M	0.50	5-7/8	6-1/2	4.50	5/8	1-7/8	10.57	2-1/16	3/8-16	3/16	0.517	3/16x3/16x9/16	1.53
	DRN80MK	0.75	5-7/8	6-1/2	4.50	5/8	1-7/8	11.67	2-1/16	3/8-16	3/16	0.517	3/16x3/16x9/16	1.53
	DRN80M	1.0	5-7/8	6-1/2	4.50	5/8	1-7/8	13.55	2-1/8	3/8-16	3/16	0.517	3/16x3/16x9/16	1.50
143TC	DRN80M	1.0	5-7/8	6-1/2	4.50	7/8	2.25	13.55	2-1/8	3/8-16	3/16	0.771	3/16x3/16x1-1/2	1.41
145TC	DRN90S	1.5	5-7/8	6-1/2	4.50	7/8	2.25	13.31	2-1/8	3/8-16	3/16	0.771	3/16x3/16x2	1.41
	DRN90L	2.0	5-7/8	6-1/2	4.50	7/8	2.25	14.57	2-1/8	3/8-16	3/16	0.771	3/16x3/16x2	1.41
182TC	DRN100L	3.0	7-1/4	9	8.50	1-1/8	2.75	16.91	2-5/8	1/2-13	1/4	0.986	1/4x1/4x2-1/2	1.78
184TC	DRN100L	5.0	7-1/4	9	8.50	1-1/8	2.75	16.91	2-5/8	1/2-13	1/4	0.986	1/4x1/4x2-1/2	1.78
213TC	DRN132S	7.5	7-1/4	9	8.50	1-3/8	3.375	19.99	3-1/8	1/2-13	5/16	1.201	5/16x5/16x3-1/8	2.41
215TC	DRN132M	10	7-1/4	9	8.50	1-3/8	3.375	20.71	3-1/8	1/2-13	5/16	1.201	5/16x5/16x3-1/8	2.41
254TC	DRN160M	15	7-1/4	10	8.50	1-5/8	4.0	24.94	3-3/4	1/2-13	3/8	1.416	3/8x3/8x3-3/4	2.91
256TC	DRN160L	20	7-1/4	10	8.50	1-5/8	4.0	24.94	3-3/4	1/2-13	3/8	1.416	3/8x3/8x3-3/4	2.91

*Keyway extends to the end of shaft.