

Motor Series DRN.. Modular AC Motors and Brakemotors

The lower inertia design of the DRN.. squirrel-cage IEC motors and brakemotors from SEW-EURODRIVE provides outstanding system stability along with 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, their electrically-released brake automatically engages during a power failure and delivers extremely fast stopping and starting with minimal drift. Moreover, their low-noise operation and quiet braking make them perfectly suited for theater applications.

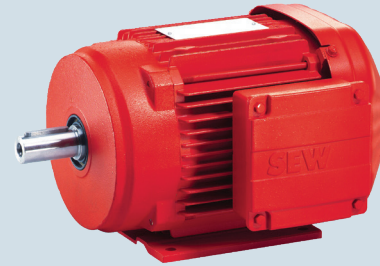
Every motor is available with multiple brake sizes and torques to optimize cost. Select a larger brake for stopping or a smaller brake for holding the load with a VFD. With their many connector options, DRN.. motors are especially suitable for automotive manufacturers.

Standard Features

- 0.16 to 300 HP
- 208-230/460V wide-range voltage (DRN63M4 - DRN132ML4)
- 2-year warranty
- Continuous duty, TEFC, 1.15 SF @ constant speed
- Efficiency per NEMA Premium 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**
- Lower rotor inertia, higher cycling, and tighter control than equivalent NEMA motor with same HP
- Connection terminals (not pigtail)
- Double sealed or shielded bearings lubed for life
- Stainless steel nameplate

Mounting Styles

- Integral - for SEW gear units
- IEC flange
- IEC foot mount
- NEMA C-Face flange (size 48C - 256TC) - 4 pole



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 (see also back)

- 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 internal protection
- OS2, OS4 external protection
- Encapsulated stator (<10 HP) without brake
- Food Industry Option Package (IO1) + 2 year warranty
- Forced cooling fan for low frequency operation
- Low noise fan cover
- Thermostats, thermistors, KTY temperature sensors
- MOVIMOT® integrated frequency inverter (0.5 - 5.0 HP)
- Plug connectors for quick disconnect
- Cast iron high-inertia fan or aluminum fan
- Canopy on fanguard to prevent water/ice entry (M4 mtg)
- FKM seals on motor shaft
- Class H insulation (not available with UR rating)
- Hazardous Location 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.



PRODUCT FOCUS



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Nomenclature / Options

| | |
|------------------------------|---------------------------------------|
| DRN.. | IE3 efficiency |
| EDRN | IE3 + HazLoc-NA® for hazardous duty |
| /AC../AS../AM../AD../AB../IS | Plug Connectors |
| /AK8Y or /AV8Y | Sin/Cos + SSI absolute encoder |
| /AK8W or /AV8W | Sin/Cos + RS-485 absolute encoder |
| /AK8H or /AV8H | Hiperface absolute encoder |
| /AL | Aluminum fan (cold environment) |
| /BE | Electrically-released brake |
| /C | Canopy on fan guard (M4 mtg) |
| /DH | Condensation drain hole |
| /EI8_ | Built-in encoder |
| /EK8C or /EV8C | Mounted HTL inc encoder |
| /EK8R or /EV8R | Mounted TTL (RS-422) inc encoder |
| /EK8S or /EV8S | Mounted Sin/Cos inc encoder |
| /FC | NEMA C-Face flange |
| /FF | IEC Flange with through holes (B5) |
| /FG | Flange for integral gearmotor |
| /FI | IEC foot-mounted |
| /FL | Alternate IEC flange (B5) |
| /FT | IEC flange with threaded holes (B14) |
| HF | Brake Screw Release |
| HR | Brake Hand Release |
| -I01 | Industry Option Package for Food |
| /LF | Air filter |
| /LN | Low noise fan guard |
| /MM..D | MOVIMOT® inverter |
| /RS | Backstop on motor |
| /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) |
| /2W | Extended shaft @ end of motor |

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 |

About SEW-Eurodrive...

Our product is motion. Our focus is solutions. As a worldwide supplier of innovative gearing, motor, and electronic drive technology, we have been solving problems in large and small applications within virtually every industry since 1931.

We also specialize in reducing the total cost of ownership with our customer-specific energy saving solutions.

Globally, we have assembly centers in 48 countries, along with 15 manufacturing plants. Therefore, we are able to provide uniform quality standards and international application experience.

Locally, we provide final assembly and custom modifications plus assistance with project planning, startup, and training. All products are backed by our industry-leading 24/7 support program.

SEW-Eurodrive ... Driving the World