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DR Motor

Modular AC Motors and Brakemotors

The low-inertia rotor design of SEW's squirrel-cage DR motor and brakemotor provides outstanding system stability, tight control, and high-cycling capacity. In many cases, its high performance allows it to replace a servo motor.

With a patented dual coil design and specialized rectifiers, its fail-safe brake delivers extremely fast stopping and starting times with minimal drift. Moreover, its low-noise operation and quiet braking make it perfectly suited for theater applications.

Every DR motor frame is available with multiple brake sizes to optimize cost. Select higher torque for a stopping brake or lower torque for a VFD holding brake. Its various connector options make the DR motor especially suitable for automotive manufacturers.

Standard Features

- 0.25 to 300 HP
- Inverter duty; meets or exceeds NEMA MG1, part 30/31
- Speed range: 10-60Hz (6:1), constant torque with standard cooling fan, 1.0 SF, 4-pole, 40°C max
- Continuous duty, TEFC
- 1.15 Service Factor @ constant speed
- Low rotor inertia high cycling, tight control
- IE1 (<1.0 HP), IE2 (High), or IE3 (Premium) efficiency
- Connection terminals
- Double sealed or shielded bearings lubed for life
- Stainless steel nameplate
- UR, NEMA Premium verified, CSA Energy Efficient verified, CE









Mounting Styles

- Integral for SEW gear units
- IEC flange
- IEC foot mount
- NEMA C-Face flange (size 56C 184TC) 4 pole



Insulation System

- Phase insulators prevents phase-to-phase shorts
- Class H varnish; dipped, baked, and cured
- Slot liners prevents winding-to-ground shorts
- Wire sleeves
- Voltage spike resistant per NEMA MG1-31.4.4.2, which states 1600 V peak at .1µs or larger rise time

Optional Features

- 50Hz, 60Hz, or 50/60Hz global motor
- High cycling, fail-safe brake
- Two or more brake sizes per motor
- Backstop
- Encoder built-in or externally mounted
- IP55, IP65, IP56, and IP66 ingress protection
- OS1, OS2/3, OS4 external protection (see back)
- Encapsulated stator (< 10 HP)
- Food Industry Option Package (IO1) + 2 year warranty
- Forced cooling fan for low frequency operation
- Thermostats, thermistors, KTY temperature sensors
- Low noise fan cover
- Movimot® integrated frequency inverter
- Plug connectors for quick disconnect
- Cast iron high inertia fan or aluminum fan
- Hazardous Location certified to CSA LR94634: Class I Div 2 Grps A-D, Class II Div 2 Grps F&G

[®] NEMA Premium is a certification mark of the National Electrical Manufacturers Association.

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Nomenclature				
DRE	IE2 efficiency; NEMA MG1, Table 12-11			
DRP	IE3 efficiency; NEMA MG1, Table 12-11			
/AC/AS/AM /AD/AB/IS	Connectors			
A_7Y or A_7W	SSI or RS-485 absolute encoder			
AL	Aluminum fan (cold environment)			
BE	Brake			
С	Canopy on fan guard			
DH	Condensation drain hole			
E_7C	HTL encoder			
E_7R	TTL (RS-422) encoder			
E_7S	Sin/cos encoder			
HF	Brake Screw Release			
HR	Brake Hand Release			
LF	Air filter			
LN	Low noise fan guard			
MMD	MOVIMOT® inverter			
RS	Backstop			
TF	Thermistor (PTC) thermal protection			
TH	Thermostat thermal protection			
U	Non-ventilated (no fan)			
V	Separately wired cooling fan			
Z	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	
0S1	Dip Primer Acrylic Primer Acrylic Top Coat	Outdoors - low pollution Indoors - unheated with humidity, condensation Ex: sports halls, agitators, mixers	
0\$2/3	Dip Primer Epoxy Primer Epoxy Top Coat	Outdoors - high pollution or salinity Indoors - permanent condensation, high humidity, pressure spray, aggressive atmospheres, or salinity Ex: breweries, food processing, chemical plants, dairies, outdoor coastal areas	
0S4	Dip Primer Epoxy Primer Epoxy Top Coat Acrylic Clear Coat	Same as OS3, but with increased UV resistance Ex: Outdoors fully exposed	

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 for over 80 years.

We also specialize in reducing the total cost of ownership with our customer-specific energy saving solutions. Globally, we have assembly centers in 44 countries, along with 15 production 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

