

The MOVIMOT® advanced drive unit



Drive unit consisting of asynchronous motor and integrated inverter

MOVIMOT® advanced is a true all-rounder that can be used for all conceivable applications – from intelligent conveyor axes and simple lifting axes to positioning axes. It combines an asynchronous motor and frequency inverter in a decentralized drive unit and can be flexibly combined with any standard gear unit from SEW-EURODRIVE. What's more, MOVIMOT® advanced is compatible with all standard Ethernet-based infrastructures.

| Motor size | Star connection | | | Delta connection | | |
|-----------------|------------------------------|----------------|---------------|------------------------------|----------------|---------------|
| | Standard inverter assignment | Nominal torque | Nominal power | Standard inverter assignment | Nominal torque | Nominal power |
| DRN71M | 2 A (0020) | 2.5 Nm | 0.37 kW | 2 A (0020) | 1.8 Nm | 0.55 kW |
| DRN80MK | 2 A (0020) | 3.7 Nm | 0.55 kW | 2.5 A (0025) | 2.5 Nm | 0.75 kW |
| DRN80M | 2.5 A (0025) | 5.1 Nm | 0.75 kW | 3.2 A (0032) | 3.6 Nm | 1.1 kW |
| DRN90S | 3.2 A (0032) | 7.5 Nm | 1.1 kW | 4.0 A (0040) | 4.9 Nm | 1.5 kW |
| DRN90L | 4.0 A (0040) | 10.2 Nm | 1.5 kW | 5.5 A (0055) | 7.2 Nm | 2.2 kW |
| DRN100LS | 5.5 A (0055) | 15 Nm | 2.2 kW | – | – | – |

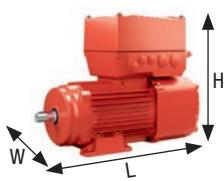
| | |
|--|---|
| Gear unit variant | Suitable for combination with all series 7 and 9 standard gear units |
| Brake variant | <ul style="list-style-type: none"> – Available with all standard brakes of the DRN.. (230 V, 400 V) series – With optional manual brake release (lockable or re-engaging) – Capable of absorbing regenerative energy and thus replacing internal braking resistors |
| MOVILINK® DDI | <ul style="list-style-type: none"> – Contains an electronic nameplate with all the drive unit details – No startup necessary |
| Speed setting range | <ul style="list-style-type: none"> – Star connection: 1:10 (without encoder) 1:1400 (with encoder) – Delta connection: 1:20 (without encoder) 1:2900 (with encoder) |
| Encoder option | <ul style="list-style-type: none"> – Single-turn encoder /EI8Z for positioning and extended speed setting range In preparation: <ul style="list-style-type: none"> – /AK8Z (MOVILINK® DDI multi-turn encoder) – /EI7C-FS (reliable single-turn encoder) |
| Overload capacity | <ul style="list-style-type: none"> – Up to 210% – Prevents oversizing in static operation – Reduces installed size of necessary supply infrastructure – Integrated overload protection device |
| Communication/installation variants | <ul style="list-style-type: none"> – DFC – Direct Fieldbus Communication (PROFINET, EtherNet/IP™, Modbus TCP, POWERLINK CiA 402) – DBC – Direct Binary Communication – DAC – Direct AS-Interface Communication – DSI – Direct system bus installation (EtherCAT® / SBus^{PLUS}, EtherCAT® / CiA402) |

| | |
|--|--|
| Digital and analog inputs/outputs | <ul style="list-style-type: none"> – DFC / DSI: Up to 4 digital inputs and up to 2 digital inputs or outputs – DBC: 4 digital inputs / 1 relay output and 1 analog input (0 – 10 V, 0 – 20 mA, 4 – 20 mA) – DAC: 4 digital inputs / 1 relay output |
| Optional plug connectors | <ul style="list-style-type: none"> – AC 400 V – Supply with M15 or M23 plug connectors – Safe Torque Off (STO) with M12 plug connectors (A coded, 5-pin) – DC 24 V – Backup voltage with M12 plug connectors (L coded, 5-pin) – M23 plug connectors for hybrid installation All plug connectors can be used for further looping. |
| More options | <ul style="list-style-type: none"> – Optionally available as a brakemotor (incl. manual brake release) – Optionally available with integrated maintenance switch including feedback contact |
| Functional safety | <ul style="list-style-type: none"> – Integrated STO (Safe Torque Off) safety function to IEC 61800-5-2 – Safety Integrity Level 3 to EN 61800-5-2: 2017, EN 61508: 2010 – PL e to EN ISO 13849-1: 2015 – PROFIsafe and FSoE optional In preparation: CIP Safety |
| Certifications/conformity | CE (Europe) / CMIM (Morocco) / RCM (Australia) / UA.TR (Ukraine) / UL-approved (USA and Canada) In preparation: EAC (Russia, Belarus and Kazakhstan) |
| Connection voltage | 380 V – 500 V at 50/60 Hz (also available as IT system variant) |

Energy-saving potential

| | |
|---|---|
| Motor efficiency to IEC 60034 | Corresponds with energy efficiency class IE3 to IEC TS 60034-30-2 |
| Drive system efficiency class to EN 50598-2 (Power Drive System) | Meets the highest defined energy efficiency class IES2 to IEC 61800-9-2 for the system comprising motor and electronics |

Dimensions and weight¹⁾ (standard assignment in star connection)

| | | | | | | |
|---|----------------------------------|---------------------|--------------------|--------------------|--------------------|----------------------|
|  | DRN71M4/D.. | DRN80MK4/D.. | DRN80M4/D.. | DRN90S4/D.. | DRN90L4/D.. | DRN100LS4/D.. |
| | Dimensions (L × W × H) mm | 306 × 145 × 283 | 329 × 148 × 302.5 | 375 × 148 × 302.5 | 372 × 172 × 326 | 404 × 172 × 326 |
| Weight | | | | | | |
| Without brake | 12.7 kg | 15.0 kg | 19.7 kg | 24.4 kg | 27.6 kg | 33.5 kg |
| With brake | 15.1 kg | 18.7 kg | 23.4 kg | 29.0 kg | 32.2 kg | 39.4 kg |

¹⁾ The values specified apply to standard assignments in star connection.

| | |
|-----------------------------|---|
| Surface protection | Optionally available with surface protection OS1, OS2, OS3 or OS4 |
| Degree of protection | Standard: IP54 to EN 60529 |
| Ambient temperature | -25 °C to 40 °C, up to 60 °C with derating |