

Motor drive MDR3

Motor drive for overhead line switches



Description

The motor drive MDR3 is usually installed at the lower mast part and provides a safe and reliable motorisation for any overhead line (OHL) switchgear through a rigid rod assembly or the flexible transmission system “Flexball®”.

The basic versions are designed for remote control operation and include an emergency crank handle. More elaborate versions add a local electrical operation module, internal heating and other functions. In addition to the basic versions the electrical part can easily be adapted in order to allow further customer specific functions (more contacts, signalisation, mechanical or electrical interlocking, etc.).

Main Features

- Compliant - motor drive according to IEC 62505-2 and IEC 62271-1
- Weatherproof - IP54 according to EN60529: 1991
- Reliable - motor with overheat protection
- Durable - corrosion category C4 according to DIN EN ISO 12944-2
- Robust - high impact resistance IK 10 (up to 20 joules) according to IEC 62262: 2002 / IEC 62271: 2007
- Application oriented - cable entry holes (M25x1.5)
- Ease of installation - fixing by four screws
- Permanent operational - emergency crank handle in case of power failure

Technical data

Electrical data		
Operational voltage (tolerance: -30% ... +10%)	230 AC 110 DC	V
Frequency range	50	Hz
Power input	300	W
Nominal current input during switching operation	3-6	A
Max. initial current	11	A
Safety limit switch for hand operation		✓
Voltage auxiliary contact	48 DC	V
Potential-free contacts (NO/NC)		6x
Impulse signal		✓

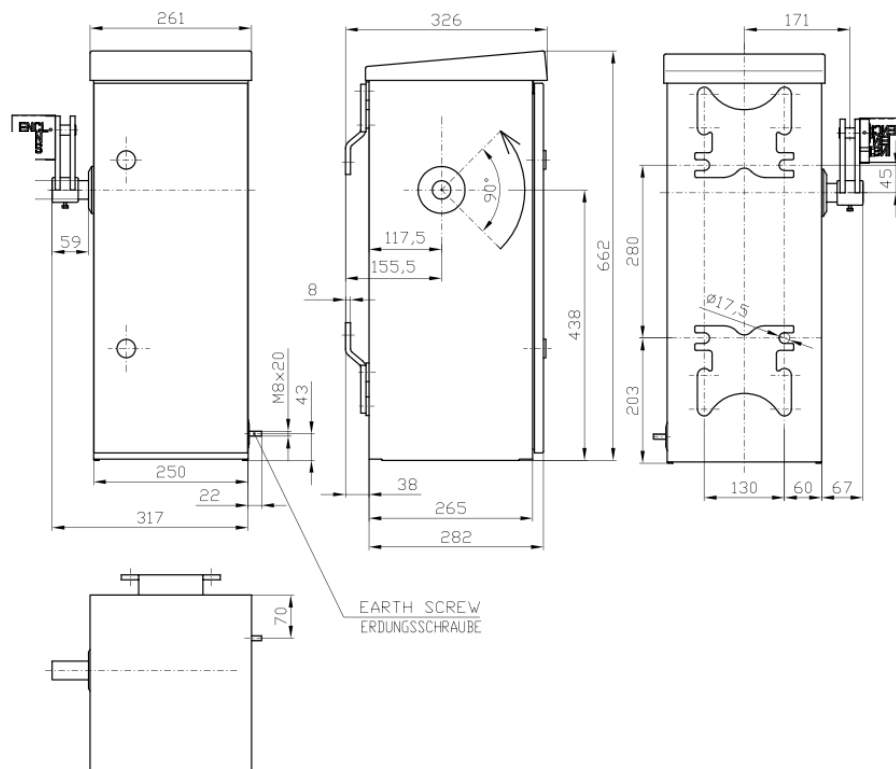
Mechanical data		
Dimensions	See drawing	
Outside lever rotation angle (from open to close)	90	°
Stroke	125/148/190	mm
Torque output	400	Nm
Mechanical life	>10000	cycles
Operating time (depending on mechanical load and voltage tolerance)	3-7	s

Construction characteristics		
Protection grade	IP 54	
Degree of protection against mechanical damage	IK 10	
Emergency crank handle	✓	
No sharp edges	✓	
No damage in case of defect limit switches	✓	
Ambient temperature	-30 ... +50	°C
Connection area to clamps	≥ 20	mm
Maintenance	free	
Weight	33	Kg

Basic versions

	Type 1 MDR3 230A – 110D-61-V00	Type 2 MDR3 110D – 110D-61-V00
Operational voltage	230 V AC	110 V DC
Control voltage	110 V DC	110 V DC
<ul style="list-style-type: none"> • Remote control and emergency crank handle • 1 door lock + key (square 8x8 mm) • 2 connecting plates • Cable gland 1 x M25 • 2 DIN-rails • Motor protection switch 		

Dimensions



Options

Description	
Operational voltages:	
<ul style="list-style-type: none"> 230 V DC Customized versions 	On request
Control voltages:	
<ul style="list-style-type: none"> 24 V DC 48 V DC 60 V DC 220 V DC 230 V AC 	On request
Local electrical operation	
<ul style="list-style-type: none"> Main switch Customized control panel 	On request
Heating	
<ul style="list-style-type: none"> With thermostat With thermo-hygrostat Continuous heating (remote control ON/OFF) 	On request
Mechanical counter of switching cycles	On request
Door switch (signal transmitter)	On request
Customized stroke: 120 bis 200mm	On request
Permanent signal	On request

The information given in this document is subject to change without notice

Ordering information

Type	Description	Article-No.
MDR3 230A – 110D-61-V00 Basic version type 1	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 230 V AC, control voltage of 110 V DC	22381
MDR3 230A – 110D-61-V10	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 230 V AC, control voltage of 110 V DC, heating with thermostat	22382
MDR3 230A – 110D-61-V11	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 230 V AC, control voltage of 110 V DC, heating with thermostat local electrical operation without locking	22383
MDR3 110D – 110D-61-V00 Basic version type 2	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 110 V DC, control voltage of 110 V DC	22384
MDR3 110D – 110D-61-V10	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 110 V DC, control voltage of 110 V DC, heating with thermostat	22385
MDR3 110D – 110D-61-V11	Motor drive MDR3 with remote control and local operation, Multihub, operational voltage of 110 V DC, control voltage of 110 V DC, heating with thermostat local electrical operation without locking	22386

Code of type designation

Example MDR3 230A – 110D-61-V11 (Article-No. 22383)							
MDR3	230A	110D	6	1	V	1	1
Type Motor	Operational voltage A = AC / D = DC	Control voltage A = AC / D = DC	Number of potential-free contacts	Multihub	Housing width 250 mm	Heating with thermostat	Local electrical operation without locking