

VDC motor.

VDC-49.15-K4



- 3-phase external rotor motor with EC technology
- High-poled motor structure for optimum power density.
- Drive with completely integrated K4 operation and control electronics
- Integrated speed, torque and position control
- Selection of operating modes and parameter setting via RS485
- Interface with analog and digital control inputs
- Integrated brake chopper
- Robust mechanical design in IP 54 for industrial applications
- Electrical connection via cable with free wire ends

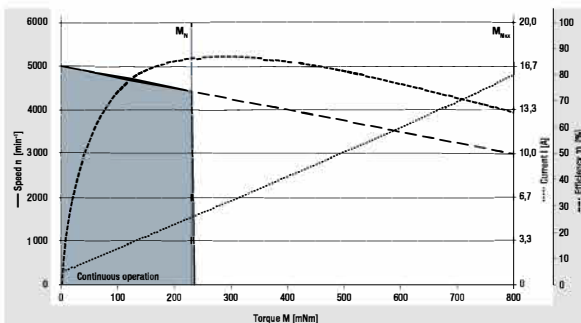
Nominal data		VDC-49.15-K4-B00	VDC-49.15-K4-D00
Type			
Nominal voltage (U_N)	V DC	24	48
Nominal speed (n_N)*	min ⁻¹	4 000	
Nominal torque (M_N)*	mNm	235	300
Nominal current (I_N)*	A	5.20	3.20
Nominal output power (P_N)*	W	99	126
Starting torque (M_{max})	mNm	705	900
Permissible peak current (I_{max})**	A	15.6	9.60
Speed at no-load operation (n_l)	min ⁻¹	5 000	
No-load current (I_l)	A	0.40	0.25
Recommended speed control range	min ⁻¹	0 ... 4 000	
Rotor moment of inertia (J_R)	kgm ² x10 ⁻⁶	108	
Overload protection		integrated	
Permissible ambient temperature range (T_U)	°C	0 ... +40	
Weight	kg	0.59	
Order no. (cable type)***	IP 54	937 4915 400	937 4915 402

Subject to alterations

* At T_U max. 40°C
 ** Permissible time for peak current: max. 1 sec. – to be repeated only after complete cool down
 *** Classification of protection class refers to installed state with sealing on the flange side

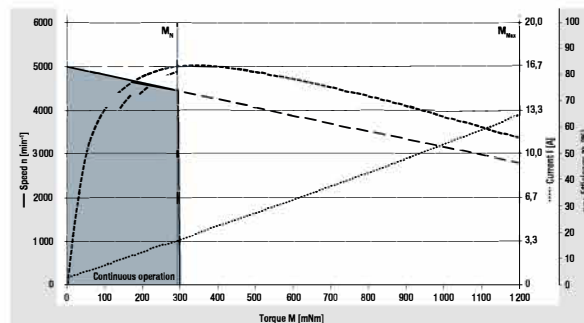
Characteristic curve

VDC-49.15-K4-B00 (at 25°C)

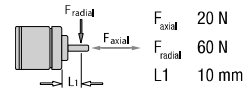
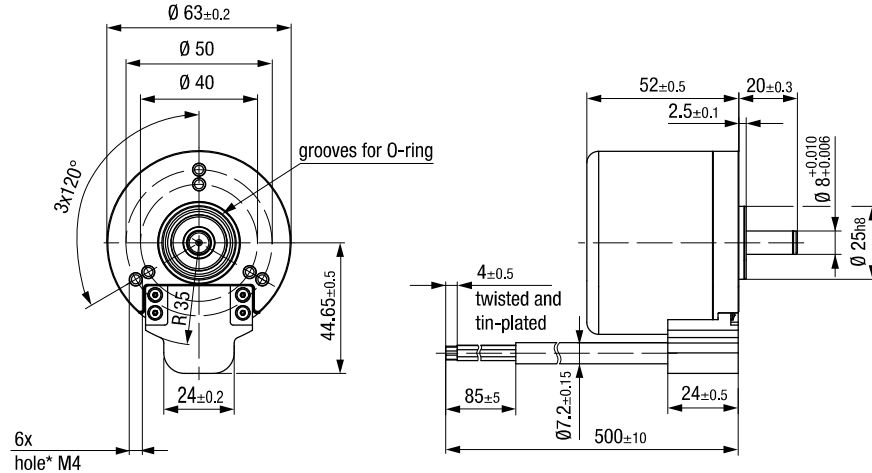


¹⁾ Nominal data, see table

VDC-49.15-K4-D00 (at 25°C)



¹⁾ Nominal data, see table



Permissible shaft load at nominal speed and life expectancy L_{10} (nominal operation) of 20 000 h (at T_u max. 40°C)

F_{radial}	20 N
F_{axial}	60 N
$L1$	10 mm

* For thread-rolling screws according to DIN 7500

Electrical connection / cable with open wires

	Wire color	Configuration	Function	Recommended AWG
Signal	white	D-IN-A	NPN 24 V	24
	brown	D-IN-B	NPN 24 V	
	green	D-IN-1	NPN 24 V	
	yellow	D-IN-2	NPN 24 V / analog 0 ... 10 V / brake	
	gray	D-OUT-1	PNP 24 V	
	pink	D-OUT-2	PNP 24 V	
	blue	—	Must not be used	
	red	A-IN-1	0 ... 10 V (differential)	
	black	A-GND	GND for analog IN 1 (differential)	
	violet	RS485 A (+)	Progr. bus	
	gray / pink	RS485 B (-)	Progr. bus	
Power	red / blue	U_{Logic}	Logic power supply (24 V)	16
	gray	Ballast	Ballast resistor	
	brown	U_{ZK}	Power supply	
	black	GND	Power / signal GND	

Modular construction kit

