

NEW

Motion Control Systems

27 mNm

V3.0, 4-Quadrant PWM
with RS232 or CANopen interface

15,1 W

2250 ... BX4 IMC RS/CO

Values at 22°C and nominal voltage	2250 S	012 BX4 IMC ...	024 BX4 IMC ...	
Power supply electronic	U_P/U_B	6 ... 30	6 ... 30	V DC
Power supply motor ¹⁾	U_{Mot}	6 ... 30	6 ... 30	V DC
Nominal voltage for motor	U_N	12	24	V
No-load speed (at U_N)	n_0	5 650	5 900	min ⁻¹
Peak torque (S2 operation for max. 70s)	M_{max}	54	54	mNm
Torque constant	k_M	19	36,9	mNm/A
PWM switching frequency	f_{PWM}	80	80	kHz
Efficiency electronic	η	95	95	%
Standby current for electronic (@ $U_P=24V$)	I_{el}	0,027	0,027	A
Speed range (up to 24V / 30V)		1 ... 10 500	1 ... 7 500	min ⁻¹
Shaft bearings	ball bearings, preloaded			
Shaft load max.:				
– with shaft diameter	3			mm
– radial at 3 000 min ⁻¹ (5 mm from mounting flange)	20			N
– axial at 3 000 min ⁻¹ (push / pull)	2			N
– axial at standstill (push / pull)	20			N
Shaft play:				
– radial	≤ 0,015			mm
– axial	= 0			mm
Operating temperature range	-40 ... +100			°C
Housing material	stainless steel			
Mass	117			g

¹⁾ Not available with option 7431 (common power supply)

Rated values for continuous operation

Rated torque	M_N	27	27	mNm
Rated current (thermal limit)	I_N	1,6	0,86	A
Rated speed	n_N	3 900	4 400	min ⁻¹

Note: Rated values are calculated with nominal voltage and at a 22°C ambient temperature. Mounted on metal flange.

Interface / range of functions

	... RS	... CO
Configuration from Motion Manager 7	RS232	CANopen
Fieldbus	RS232	CANopen
Operating modes	PP, PV, PT, CSP, CSV, CST and homing acc. to IEC 61800-7-201 or IEC 61800-7-301 as well as position-, speed- and torque control via analog setpoint or voltage controller	
Speed range	see motor diagram	
Application programs	Max. 8 application programs (BASIC), one of which is an autostart function	
Additional functions	Touch-probe input, connection of a second incremental encoder	

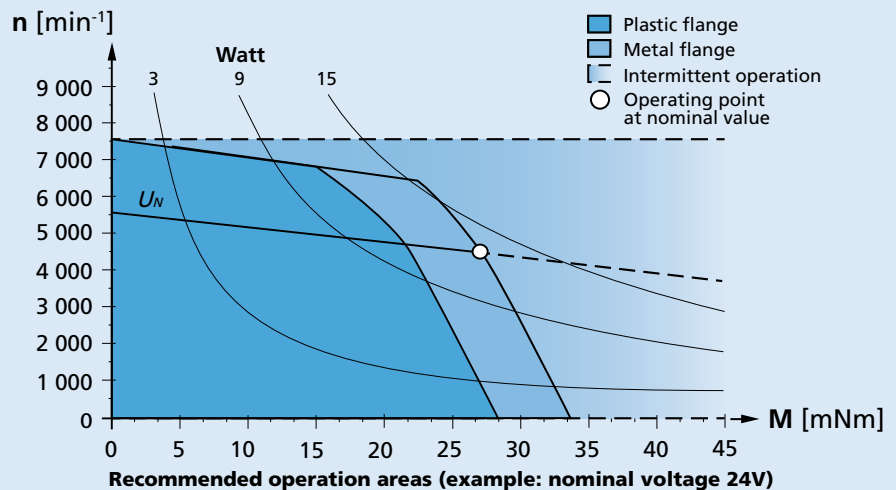
Note:

The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

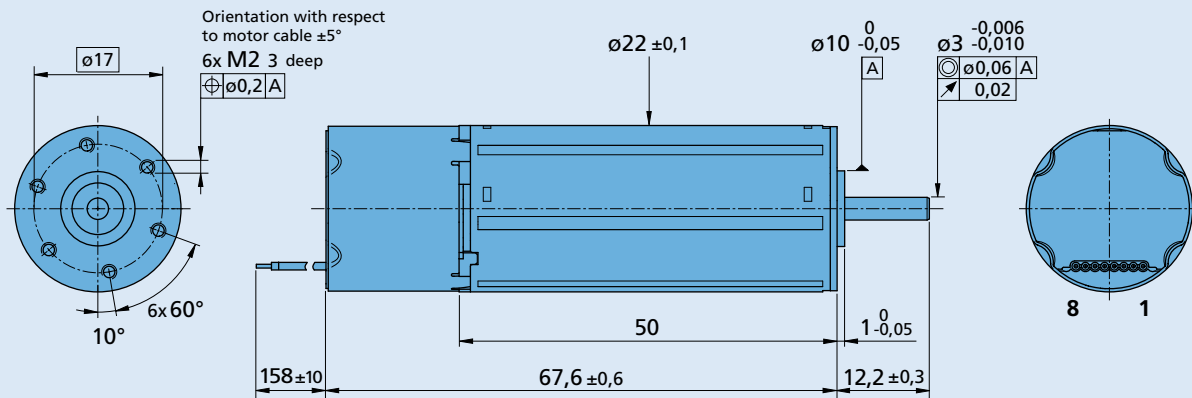
The diagram indicates the recommended speed in relation to the available torque at the output shaft.

It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

The nominal voltage linear slope describes the maximal achievable operating points at nominal voltage. Any points of operation above this linear slope will require a supply voltage $U_{Mot} > U_N$.




Dimensional drawing



2250 ... BX4 IMC RS/CO

Option, cable and connection information

Example product designation: **2250S024BX4 IMC CO 7431**

Option	Type	Description	Connection	
			Standard	Option: 7431
3830	Connector	AWG 26 / PVC ribbon cable with connector MOLEX Microfit 3.0, 43025-0800, recommended mating connector 43020-0800	No. Function	No. Function
			1 <i>U_P</i>	1 AnIn2
			2 <i>U_{Mot}</i>	2 <i>U_B</i>
			3 GND	3 GND
			4 DigIn1 / DigOut2 / AnIn1	4 DigIn1 / DigOut2 / AnIn1
			5 DigIn2 / AGND	5 DigIn2 / AGND
7431	Supply	Common voltage supply for motor and electronics	6 DigIn3 / DigOut1	6 DigIn3 / DigOut1
7630	I/O	AnIn1 ±10V (without DigOut2)	7 RS232 RXD / CAN_L	7 RS232 RXD / CAN_L
			8 RS232 TXD / CAN_H	8 RS232 TXD / CAN_H
			Standard cable PVC ribbon cable 8 x AWG 26, 1,27 mm	
			Note: For details on the connection assignment, see device manual IMC.	

Product combination

Precision Gearheads / Lead Screws	Encoders	Drive Electronics	Cables / Accessories
22GPT 22/7 26A 32GPT 22L ... ML 22L ... SB 22L ... PB 32L ... TL 32L ... ML 32L ... SB 32L ... PB		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.