

Motion Control Systems

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

76 mNm

32 W

MCS 3242 ... BX4 RS/CO

Values at 22°C and nominal voltage	MCS 3242G	024BX4 RS/CO	
Power supply electronic	U_p	12 ... 50	V DC
Power supply motor	U_{mot}	0 ... 50	V DC
Nominal voltage for motor	U_N	24	V
No-load speed (at U_N)	n_0	4 900	min ⁻¹
Peak torque (S2 operation for max. 14s)	$M_{max.}$	150	mNm
Torque constant	k_M	41,4	mNm/A
PWM switching frequency	f_{PWM}	100	kHz
Efficiency electronic	η	95	%
Standby current for electronic (at $U_p=24V$)	I_{el}	0,06	A
Speed range (up to 30V)		1 ... 6 200	min ⁻¹
Shaft bearings		ball bearings, preloaded	
Shaft load max.:			
- with shaft diameter	5		mm
- radial at 3 000 min ⁻¹ (5 mm from mounting flange)	50		N
- axial at 3 000 min ⁻¹ (push / pull)	5		N
- axial at standstill (push / pull)	50		N
Shaft play:			
- radial	$\leq 0,015$		mm
- axial	$= 0$		mm
Operating temperature range		-40 ... +100	°C
Housing material		aluminium, stainless steel	
Protection class, with option V ring		IP54	
Mass		340	g

Rated values for continuous operation

Rated torque	M_N	76	mNm
Rated current (thermal limit)	I_N	1,82	A
Rated speed	n_N	2 800	min ⁻¹

Interface / range of functions	... RS	... CO
Configuration from Motion Manager 6.0	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, control of a holding brake
Indicator		LEDs for displaying the operating state Trace as recorder (scope function) or logger

Note:

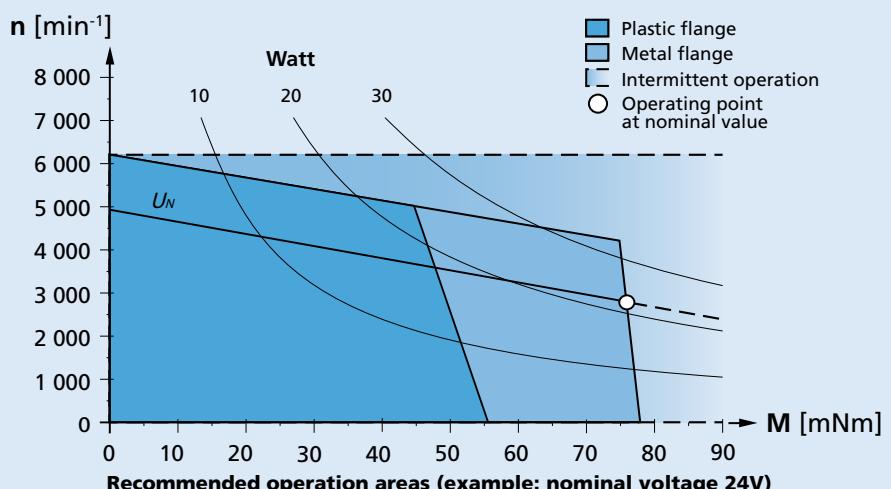
The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

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

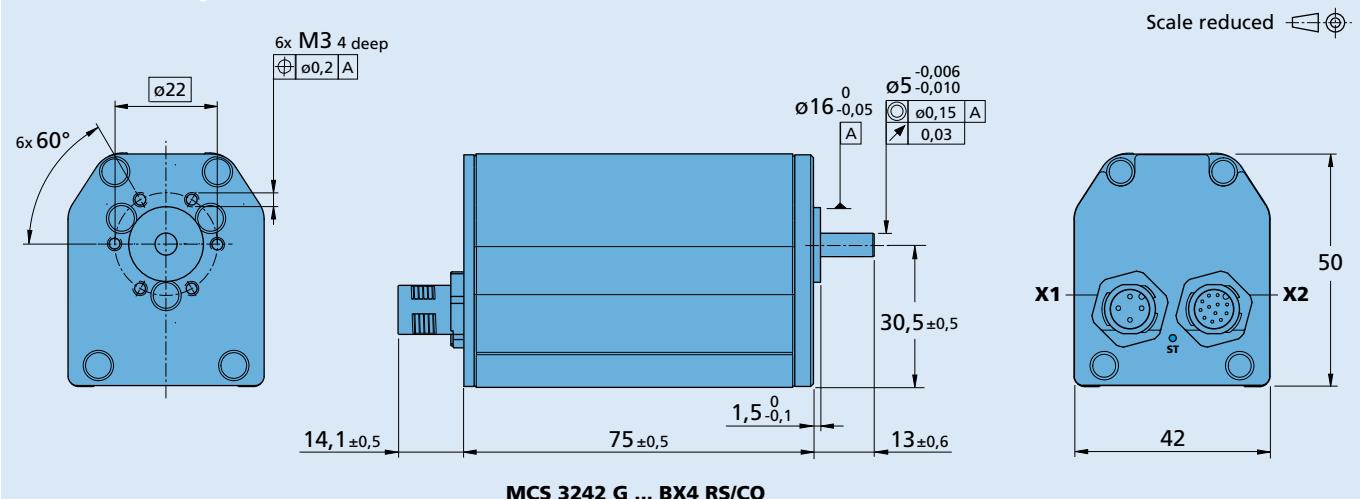
It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

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



Option, cable and connection information

Example product designation: **MCS3242G024BX4RS-5453**

Product combination

Product combination			
Precision Gearheads / Lead Screws	Encoders	Drive Electronics	Cables / Accessories
32A 32/3 32/3R 38A		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.