

**NEW**

**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 for electronic	$U_p$	12 ... 50	V DC
Power supply for 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 <sup>-1</sup>
Peak torque (S2 operation for max. 1s)	$M_{max.}$	150	mNm
Torque constant	$k_m$	41,4	mNm/A
PWM switching frequency	$f_{PWM}$	100	kHz
Efficiency electronic	$\eta$	95	%
Standby current for electronic (at 24V)	$I_{el}$	0,06	A
Shaft bearings	ball bearings, preloaded		
Shaft load max.:			
– with shaft diameter	5		mm
– radial at 3 000 min <sup>-1</sup> (5 mm from mounting flange)	50		N
– axial at 3 000 min <sup>-1</sup> (push / pull)	5		N
– axial at standstill (push / pull)	50		N
Shaft play:			
– radial	≤ 0,015		mm
– axial	= 0		mm
Operating temperature range	-40 ... +100 °C		
Speed range (up to 30V)	1 ... 6 200 min <sup>-1</sup>		
Housing material	aluminium, stainless steel		
Protection class, with option V ring	IP 54		
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 <sup>-1</sup>

**Note:** Rated values are calculated with nominal voltage and at a 22°C ambient temperature.

Interface	... RS	... CO
Configuration from MotionManager 6.0	RS232	CANopen
Fieldbus	RS232	CANopen

Range of functions	MCS
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:**

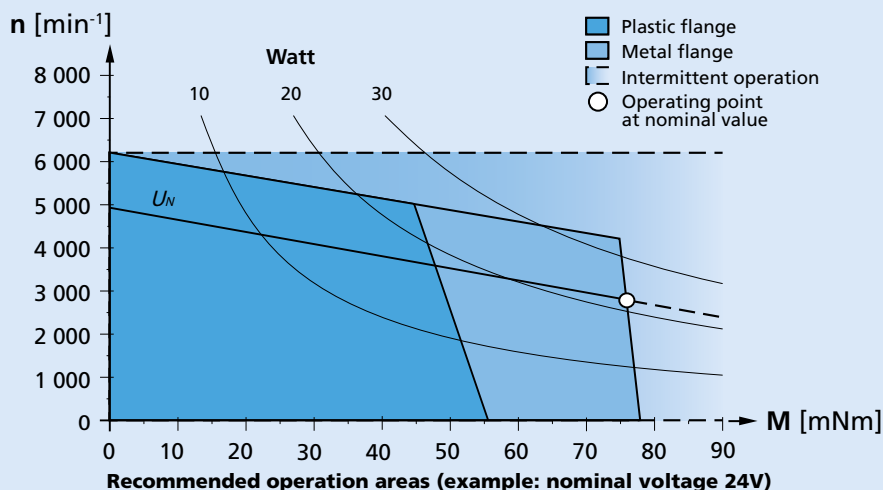
The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

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).

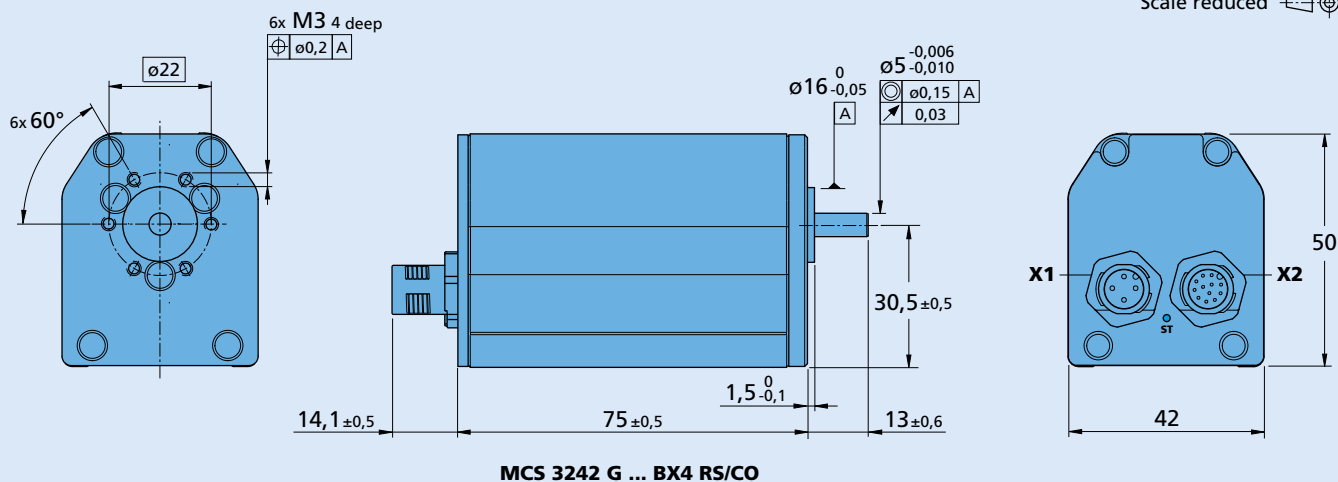
The nominal voltage linear slope describes the maximal achievable operating points at nominal voltage.

Any points of operation above this linear slope will require a supply voltage  $U_{mot} > U_N$ .



### Dimensional drawing

Scale reduced



### Option, cable and connection information

Example product designation: **MCS3242G024BX4RS-5453**

Option	Type	Description	Connection	
5452	Shaft seal	For use with oil emulsive substances	<b>Name</b>	<b>Function</b>
5453	Shaft seal	Splash water protected (IP54)	<b>X1</b>	Motor and electronic power supply
			<b>X2</b>	Inputs / outputs
				DigIn1, DigIn2, DigIn3 DigOut1, DigOut2 AnIn1, AnIn2 U <sub>out</sub> / GND
				TTL or. PLC level max. 0,7A continuous current $\pm 10V$ against AGND 5V

**Note:** For details on the connection assignment, see device manual for the MCS.

### Product Combination

Precision Gearheads / Lead Screws	Encoder	Drive Electronics	Cables / Accessories
32A 32/3 32/3S 38A BS32-2.0		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.