

Motion Control Systems

76 mNm

V3.0, 4-Quadrant PWM with EtherCAT interface

32 W

MCS 3242 ... BX4 ET

Values at 22°C and nominal voltage	MCS 3	242G	024BX4 ET	
Power supply electronic	UP		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 UN)	n o		4 900	min ⁻¹
Peak torque (S2 operation for max. 14s)	$M_{max.}$		150	mNm
Torque constant	к м		41,4	mNm/A
PWM switching frequency	f _{РWМ}		100	kHz
Efficiency electronic	η		95	%
Standby current for electronic (@ U_P =24V)	l ei		0,06	Α
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		≤ 0,015		mm
– axial		= 0		mm
Operating temperature range		-40 +85		°C
Housing material		aluminium, stainless steel		
Protection class, with option V ring		IP54		
Mass		356		g

Rated values for continuous operation					
Rated torque	M _N	76	mNm		
Rated current (thermal limit)	I N	1,82	Α		
Rated speed	nn	2 800	min ⁻¹		

Interface / range of functions	ET
Configuration from Motion Manager 6.0	RS232
Fieldbus	EtherCAT
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:

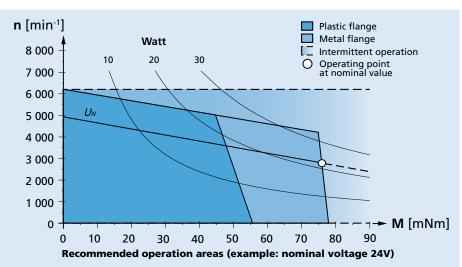
The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

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

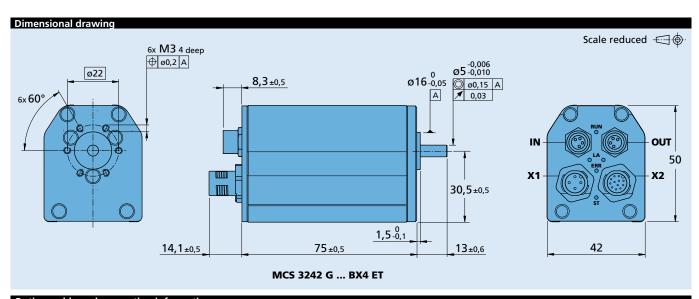
It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

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 $U_{mot} > U_{N.}$







Option, cable and connection information						
Example product designation: MCS3242G024BX4ET-5453						
Option	Туре	Description	Connection			
5452	Shaft seal	For use with oil emulsive substances	Nam	e Function	Inputs-outputs	Description
5453	Shaft seal	IP54 according to IEC 60529	X1	Motor and electronic		
5657	Motor flange seal	IP54 according to IEC 60529		power supply		
			Х2	Inputs-outputs	Digln1, Digln2, Digln3 DigOut1, DigOut2 Anln1, Anln2 Uout / GND	TTL or. PLC level max. 0,7A continuous current ± 10V against AGND 5V
			IN OUT	Fieldbus T Fieldbus		EtherCAT IN EtherCAT OUT
			Not	te: For details on the con	nection assignment, see devi	ce manual for the MCS.

Product combination					
Precision Gearheads / Lead Screws	Encoders	Drive Electronics	Cables / Accessories		
32GPT 32/3R 42GPT 32L TL 32L ML 32L SB 32L PB		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.		