

Motion Control Systems

V3.0, 4-Quadrant PWM
with EtherCAT interface

160 mNm

140 W

MCS 3274 ... BP4 ET

Values at 22°C and nominal voltage	MCS 3274G	024BP4 ET	
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	7 400	min ⁻¹
Peak torque (S2 operation for max. 1s)	$M_{max.}$	320	mNm
Torque constant	k_M	28,4	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 36V)		1 ... 11 600	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 ... +85		
Housing material	aluminium, stainless steel		
Protection class, with option V ring	IP54		
Mass	540		g

Rated values for continuous operation

Rated torque	M_N	160	mNm
Rated current (thermal limit)	I_N	5,6	A
Rated speed	n_N	6 350	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:

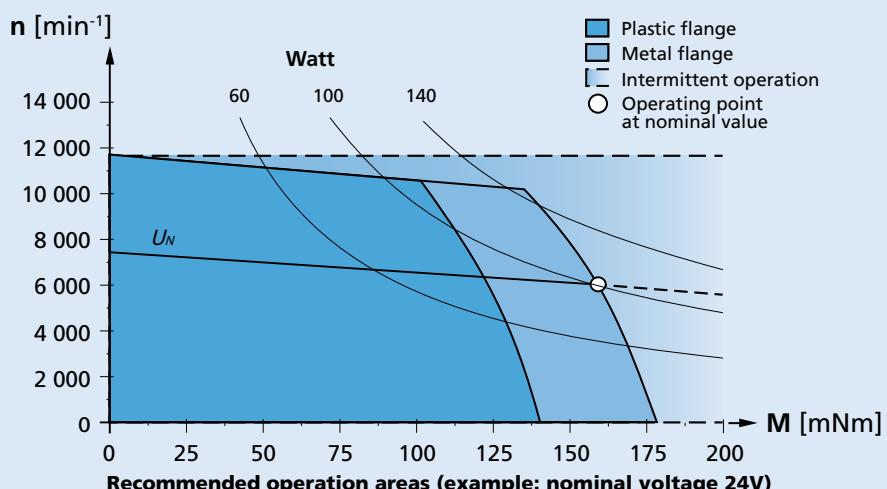
The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

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

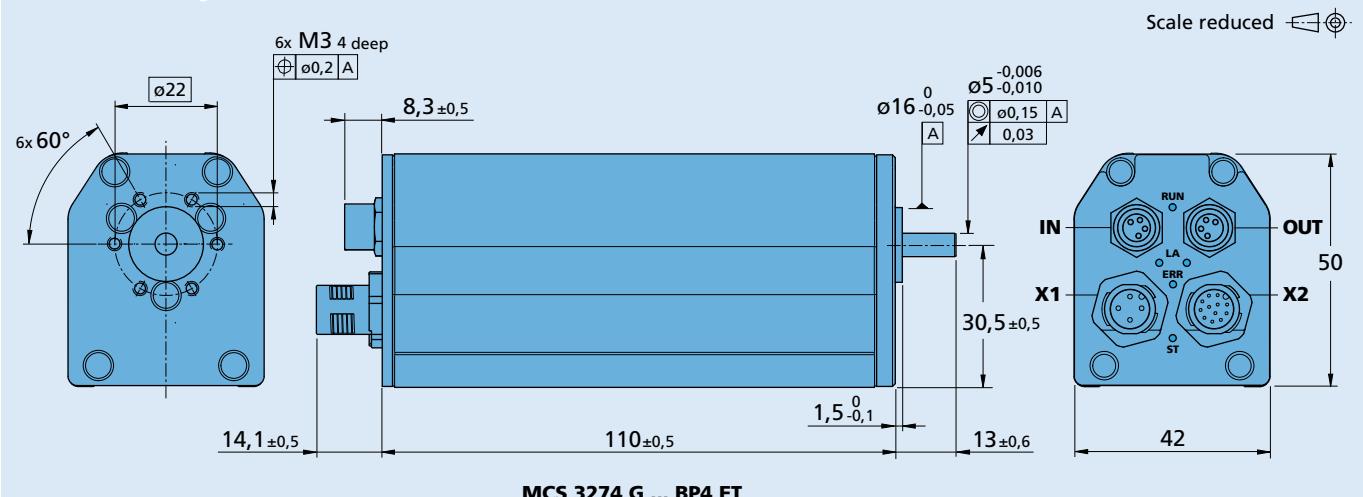
It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

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 $U_{mot} > U_N$.



Dimensional drawing



Option, cable and connection information

Example product designation: **MCS3274G024BP4ET-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.