

**NEW**

**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 3274G024BP4 ..	
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 $U_N$ )	$n_0$	7 400	min <sup>-1</sup>
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	$\eta$	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 only)	5		N
– axial at standstill (push only)	50		N
Shaft play:			
– radial	≤ 0,015		mm
– axial	= 0		mm
Operating temperature range	– 40 ... + 85		°C
Speed range (up to 36V)	1 ... 11 600		min <sup>-1</sup>
Housing material	aluminium, stainless steel		
Protection class, with option V ring	IP 54		
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 <sup>-1</sup>

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

Interface	... ET
Configuration from MotionManager 6.0	RS232
Fieldbus	EtherCAT

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  $U_{mot} > U_N$ .



