

Your application

M_{pk} or M_{aDym}^{**} $\geq M_{max}$ Max. output torque from application in torque duty cycle [Nm]

n_{output} Max. allowable output speed [rpm]

$M_{S1 (motor)}$ $\geq M_{eff}^*$ Motor RMS torque [Nm]

n_{eff}^* average motor speed ≤ 3000 rpm

$M_{max_output}^{***}$ Max. M_{Output} with motor/gearmotor [Nm]

F_{Ra_max} $\geq F_{R_max}$ Radial load [N] @ n_{output}

$M_{a_emergStop}$ $\geq M_{emergStop}$ from application [Nm]

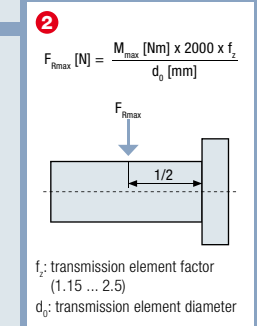
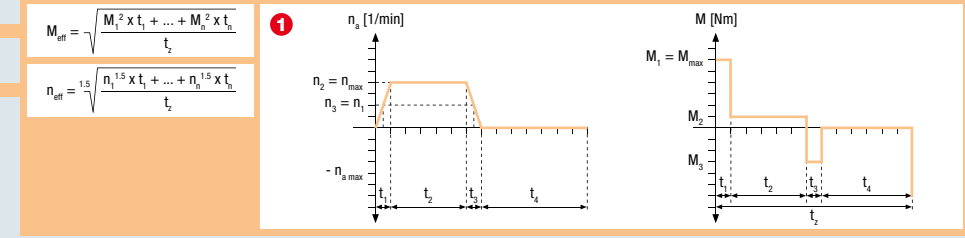
* If no values matching all your application parameters are found, check documentation for further options.

** Peak output torque available @ 3000 rpm, for a short time only (- 2 s).

*** Maximum possible output torque with motor/gearmotor combination, check documentation for utilization.

Recommendation: $J_{mot}/J_{gear} <= 15$; where J_{mot} is reflected at the motor shaft

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$M_{accel-gm} [Nm] = \frac{(J_{mot} [kgm^2] + J_{gear} [kgm^2]) \times \Delta n [rpm]}{9.55 \times \Delta t [s]}$

Motor	J_{mot} [x 10 ⁻⁴ kgm ²]	J_{motor} (with brake) [x 10 ⁻⁴ kgm ²]	M_{S1} [Nm]	Gear	Ratio [i]	J_{gear} [x 10 ⁻⁴ kgm ²]
CMP40M	0.15	0.18	0.95	PSC221ECHO2	5	0.26
CMP50S	0.42	0.48	3.1		7	0.23
CMP50M	0.67	0.73	4.3		10	0.22
CMP50L	0.92	0.98	4.3	PSC321ECHO3	5	0.92
CMP63S	1.15	1.49	7		7	0.85
CMP63M	1.92	2.26	9.3		10	0.81
CMP63L	2.69	3.03	9.3	PSC521ECHO5	5	3.0
					7	2.7
				10	2.5	

Our solution

- CMP** Your SEW CMP servo motor
- PSC** Your SEW PSC planetary gear unit
- ECH** PSC adapter size
- i** Gear reducer ratio
- MC** Your SEW drive LTP-B-00

Length [m]	Motor cable 4 x 1.5 mm ²		Length [m]	Brake motor cable 4 x 1.5 mm ² + 2 x 1 mm ²		Length [m]	Feedback cable 6 x 2 x 0.25 mm ²	
	Fixed installation	Flexible installation		Fixed installation	Flexible installation		Fixed installation	Flexible installation
5	0590 4544-05	0590 6245-05	5	1335 4345-05	1335 4388-05	5	1332 4535-05	1332 4551-05
10	0590 4544-10	0590 6245-10	10	1335 4345-10	1335 4388-10	10	1332 4535-10	1332 4551-10
15	0590 4544-15	0590 6245-15	15	1335 4345-15	1335 4388-15	15	1332 4535-15	1332 4551-15
20	0590 4544-20	0590 6245-20	20	1335 4345-20	1335 4388-20	20	1332 4535-20	1332 4551-20
25	0590 4544-25	0590 6245-25	25	1335 4345-25	1335 4388-25	25	1332 4535-25	1332 4551-25



- 3)** Recommended brake resistor
- 4)** Recommended line filter
- 5)** Recommended line choke

No.	3) Brake resistor			4) Line filter		
	Horizontal travel			Vertical travel		
Type	Part No.	Design	Type	Part No.	Design	Class C2 (A) + C3: not required Class C1 (B): not specified yet – consult SEW
1	BW LT 100002	1820 8770	Flat pack*	BW LT 100002	1820 8770	Flat pack*
2	BW047-003	0826 2659	Flat pack	BW047-005	0826 2683	Flat pack
3	BW047-005	0826 2683	Flat pack	BW147-T	1820 1342	Wire round
4	BW047-005	0826 2683	Flat pack	BW047-005	0826 2683	Flat pack
5	BW147-T	1820 1342	Wire round	BW147-T	1820 1342	Wire round

* Can be mounted into the drive ** optional

No.	5) Line choke**	Phase	Part No.
6	ND LT 006 613 63 -55	3	1821 7702
7	ND LT 010 386 63 -55	3	1821 7710
8	ND LT 020 183 63 -55	3	1821 7729
9	ND020-013	3	0826 0125
10	ND045-013	3	0826 0133



Smart Servo Ruler

The Smart Servo Ruler from SEW-EURODRIVE

With the Smart Servo Ruler from SEW-EURODRIVE you can quickly make a selection estimate of a servo drive package based on basic application parameters. For further information go to www.smart-servo-package.com

Your application:

- 1) Calculate the n_{eff} and M_{eff} required at the output of the servo motor or servo gearmotor. See fig. ❶
- 2) Calculate the radial force F_{Rmax} applied at the mid-point of the drive output shaft. See fig. ❷
- 3) Pull out the slider step by step until the displayed values match or exceed your calculated application parameters in all the windows.

Our solution:

- 4) A corresponding drive package is shown on the reverse side.
Possible solutions may include a CMP motor alone or a gearmotor with ratios 5, 7 or 10.
- 5) Re-calculate M_{eff} and confirm available dynamic torque at the output taking into account the motor or gearmotor's own inertia. See fig. ❸

Important note:

The Smart Servo Ruler proposes a limited number of package selection estimates. Alternative and optimized solutions may be possible. For a final drive package selection please follow our project planning guidelines in our catalogues or go to www.smart-servo-package.com. No responsibility is taken for the correctness of the information provided in this Smart Servo Ruler.