FAULHABER

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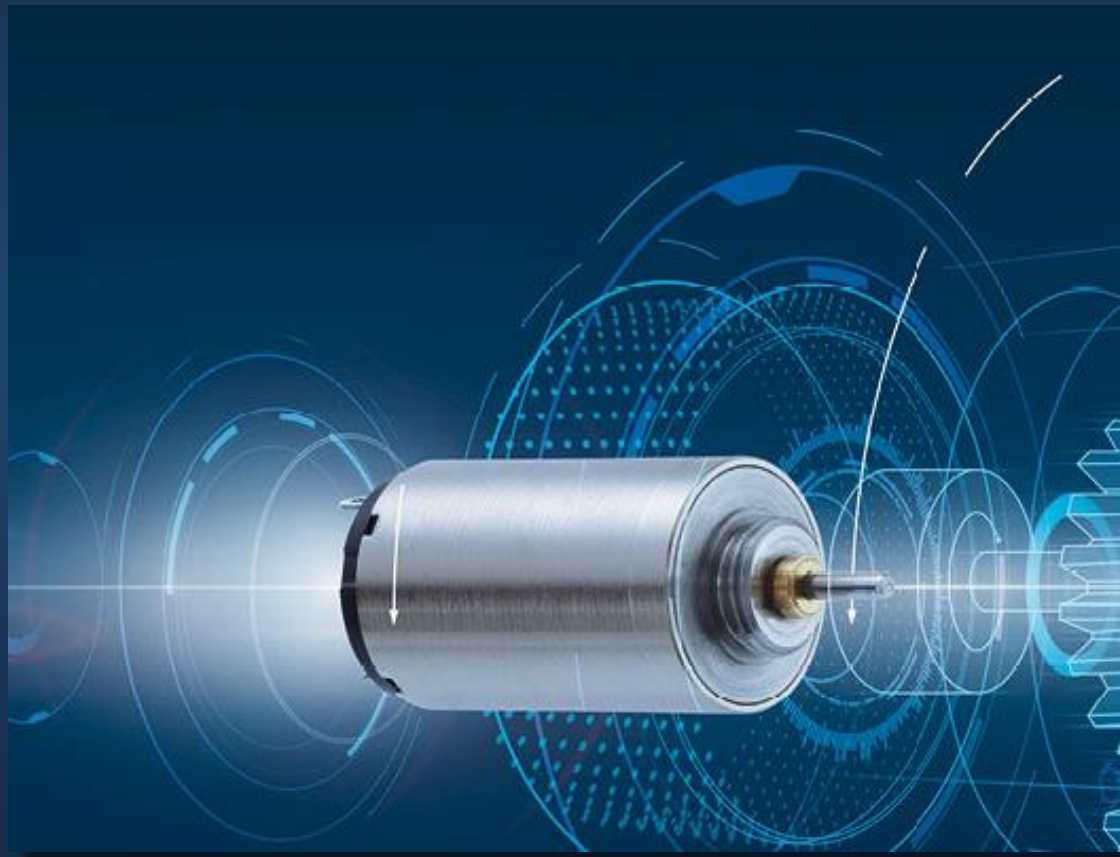
Drive Selection

Tutorial for the operation of FAULHABER Drive Selection for determining the optimum solution based on your requirements.



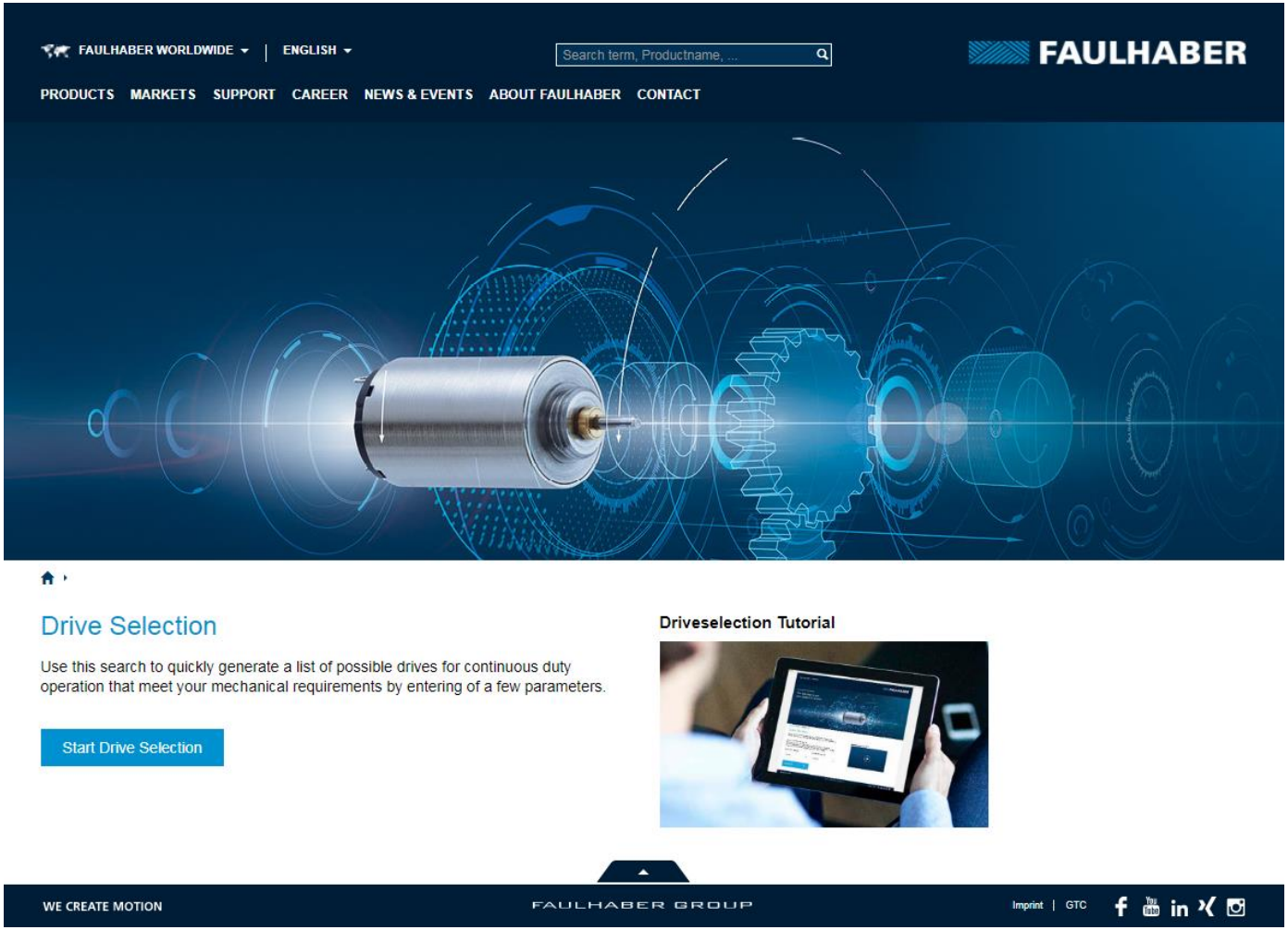
WE CREATE MOTION

FAULHABER Drive Selection

With FAULHABER Drive Selection, you can quickly identify a suitable drive system for continuous operation which is best suited to your requirements by entering a few parameters.

You will find detailed information and valuable information for using FAULHABER Drive Selection on the following pages.

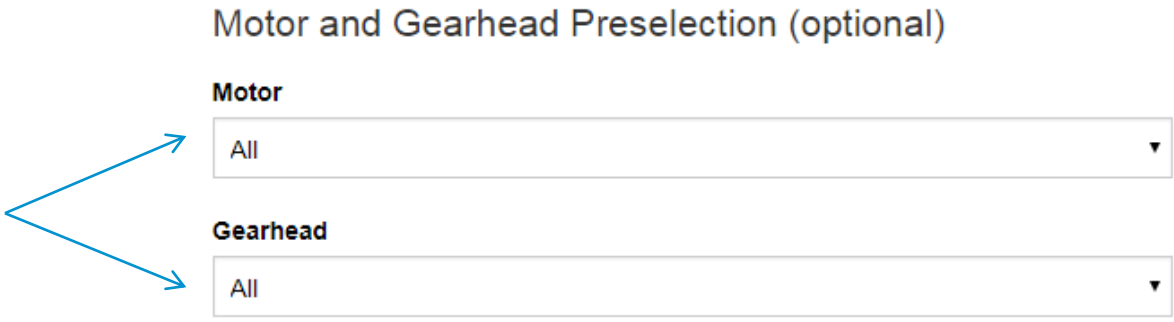
FAULHABER Drive Selection



Your preselection

Optional preselection:
Do you already know which motor series or gearhead series should be the basis of your calculations?

You can either choose a motor series, a gearhead series or a combination of both here.



Your requirements

Direct drive is preselected. Please choose from other drive types here.

Load transmission *

Direct rotational

Required load speed *

1000 (1 - 100.000) 1/min

Required load torque *

10 (0,01 - 20.000) mNm

Mandatory fields! Please fill this in and pay attention to the limits which are displayed inside the field.

These limits depend on a possible preselection of a motor and/or gearhead series.

Calculate

*) Required field

Global values

Ambient temperature *

22 | -10 - 60 | °C

Available diameter *

100 | 1 - 100 | mm

Available length *

400 | 1 - 400 | mm

Available supply voltage *

24 | 0,5 - 75 | V

Efficiency, min. *

10 | 10 - 90 | %

These are global values which have been preset in the system.

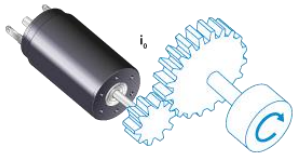
You can change these within the specified limit values.

Drive types

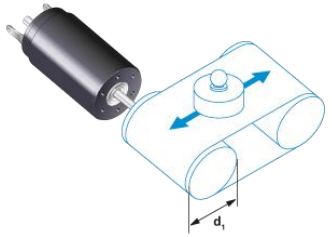
You can choose from the following drive types:

Direct drive

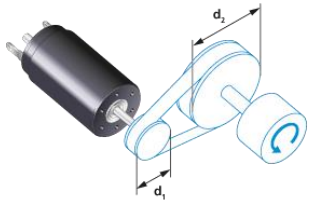
Gearhead reduction



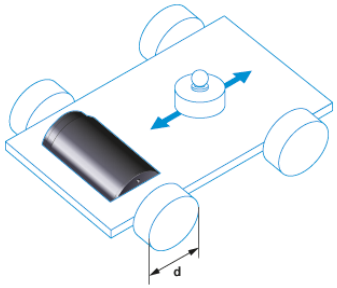
Conveyor



Belt drive



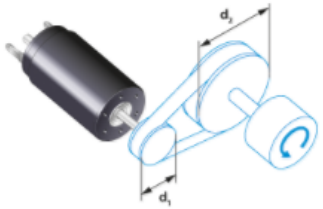
Wheel drive



Belt drive

Load transmission *

Timing belt



Required load speed *

2000 1/min

Please enter your values into the mandatory fields and then start the calculation.

Required load torque *

50 mNm

Diameter motor pulley *

30 mm

Diameter load pulley *

40 mm

Specify the efficiency of your belt drive here.

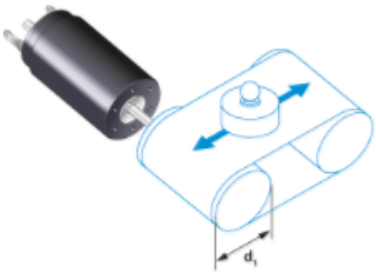
Efficiency, max. *

60 0,1 - 100 %

Conveyor

Load transmission *

Conveyor



Required belt velocity *

200 mm/s

Required load force *

10000 mN

Diameter motor pulley *

20 mm

Efficiency, max. *

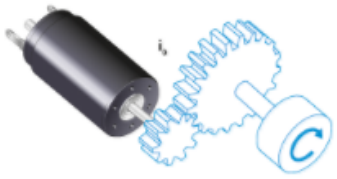
80 0,1 - 100 %

Please enter your values into the mandatory fields and then start the calculation.

Gearhead reduction

Load transmission *

Gear reduction



Required load speed *

200 1/min

Please enter your values into the mandatory fields and then start the calculation.

Required load torque *

100 mNm

Reduction ratio *

20 :1

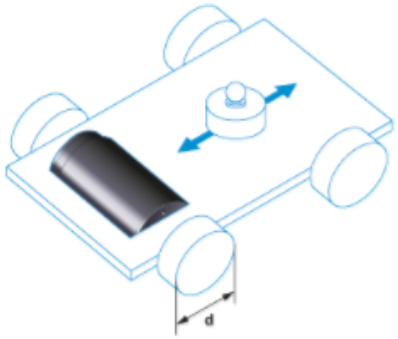
Efficiency, max. *

70 0,1 - 100 %

Wheel drive

Load transmission *

Wheel drive



Required load speed *

2000 mm/s

Required load force *

35 mN

Wheel diameter *

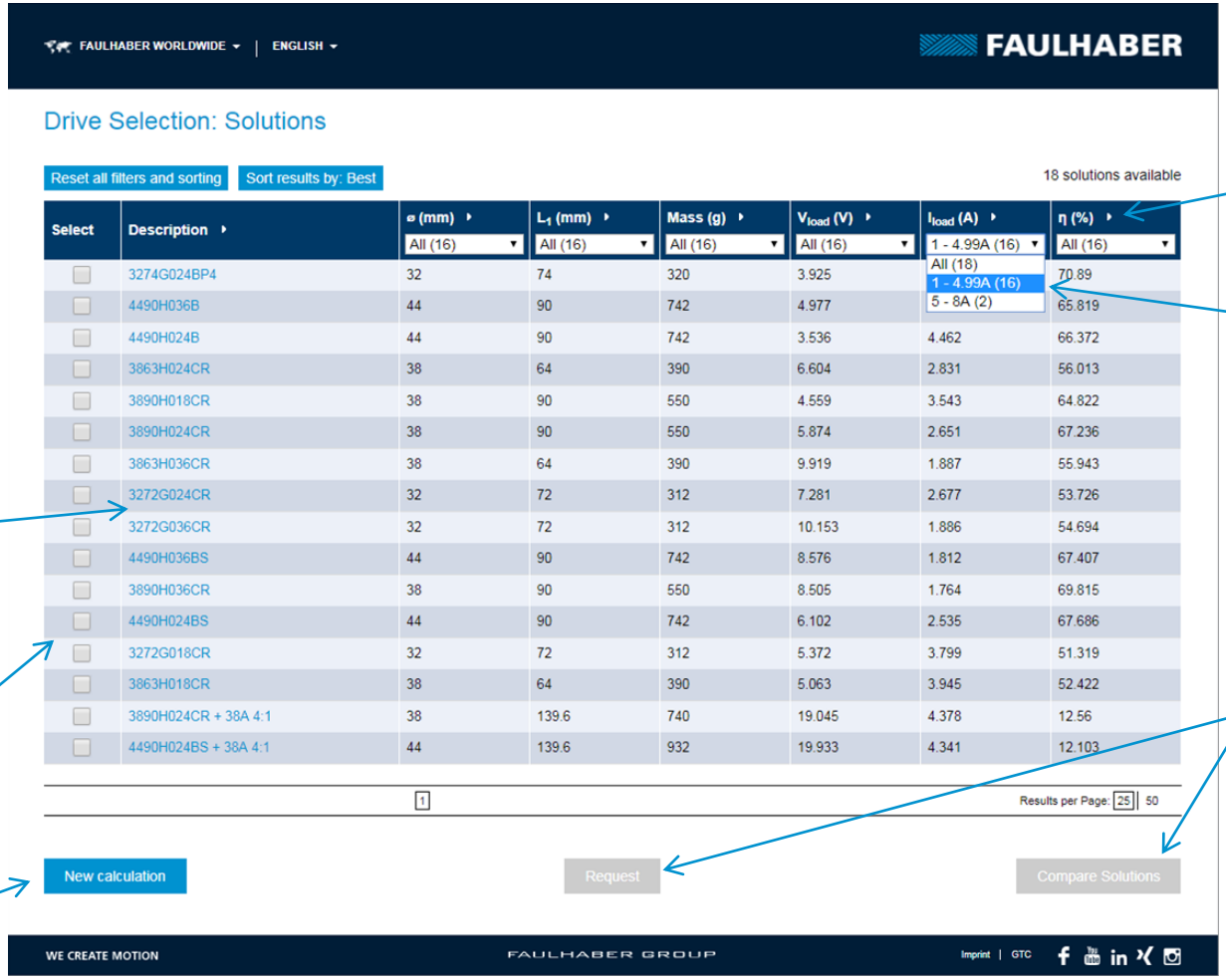
20 mm

Efficiency, max. *

80 0,1 - 100 %

Please enter your values into the mandatory fields and then start the calculation.

Result list of the recommended drive systems



Sort the results according to the specified parameters

Filter the result list in accordance with your requirements.

Clicking on the product description opens the detailed view for this solution.

Here you can select up to three drive systems for a comparison.

These buttons become active if 2 or 3 solutions have been selected.

You can compare up to three solutions or sent an enquiry to the FAULHABER sales team.

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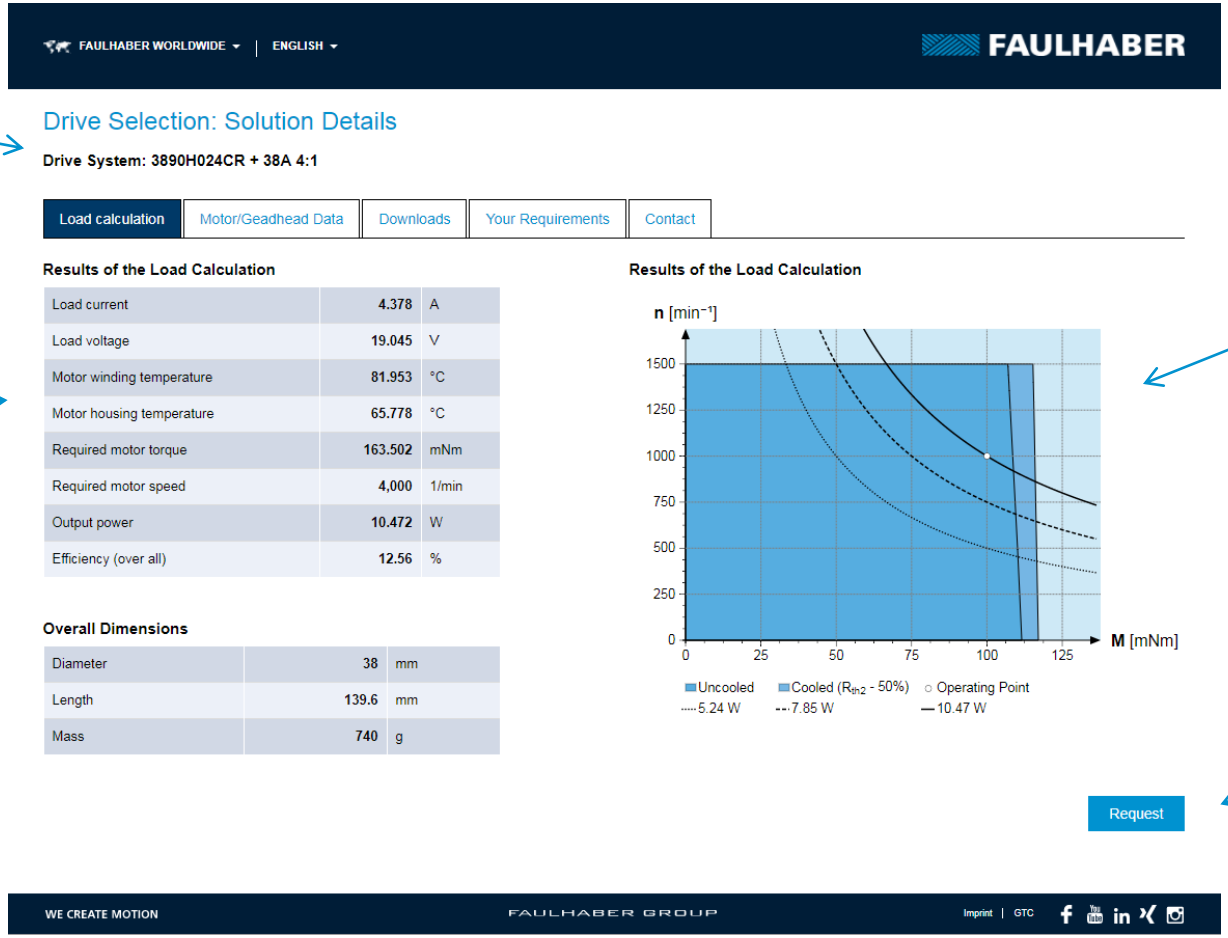
Details of the selected solution

Product designations of the drive solution

Calculated values

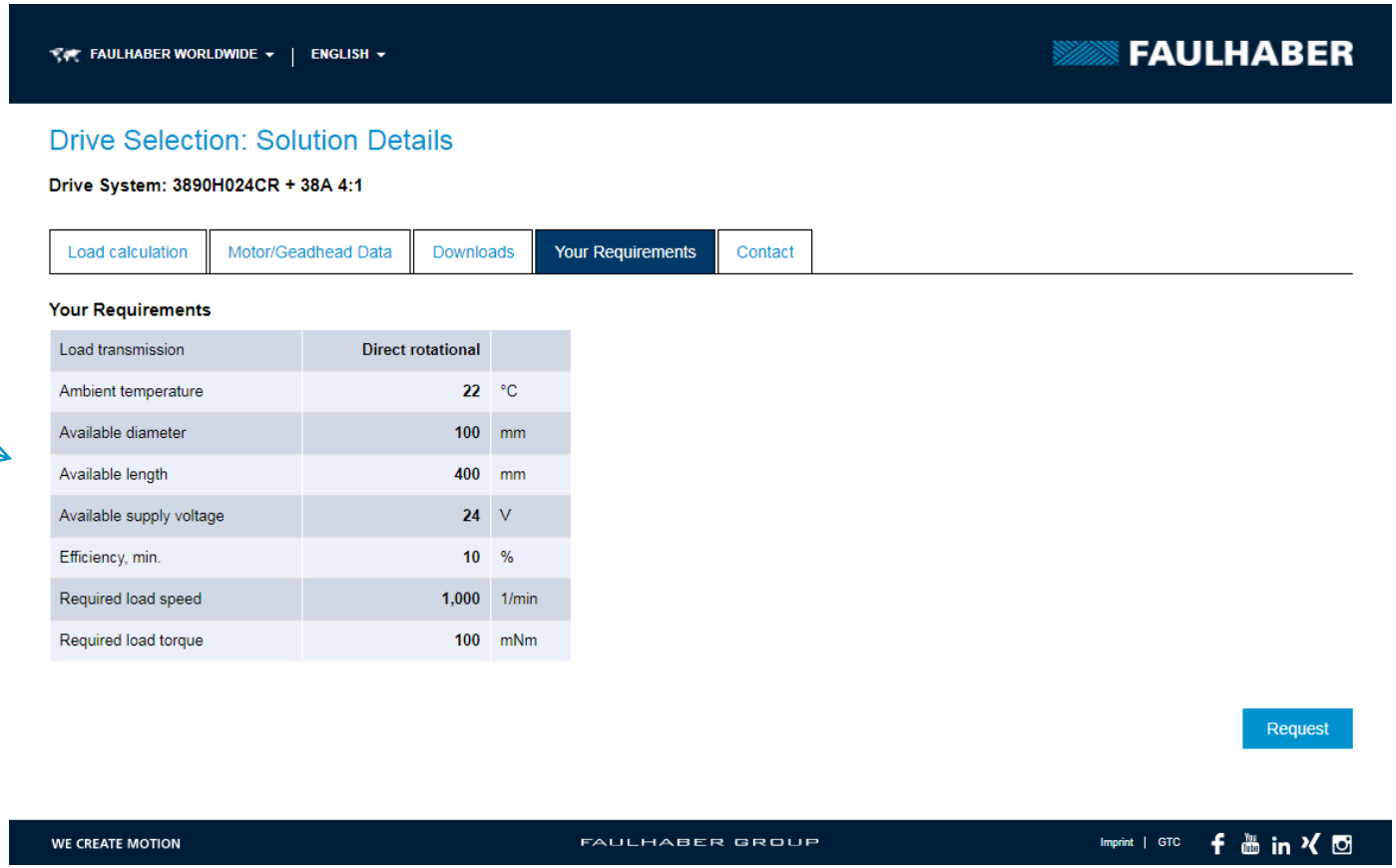
Diagram of the drive solution with the operating point marked (red square)

This button opens the contact form for sending an enquiry about this solution to the FAULHABER sales team.



Your entries

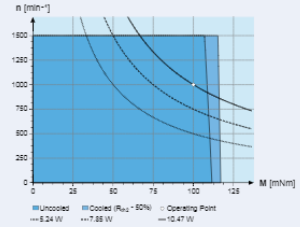
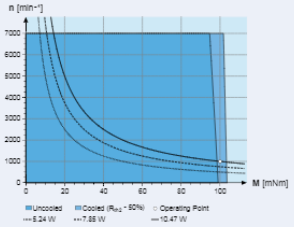
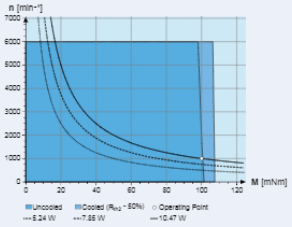
Here you can see the entries that you have made. You can also see the global values which have been changed.



Value comparison of solutions

Clicking on the "X" closes this window

You will see the selected solutions next to each other in order to compare the individual values.

Compare Solutions:	3890H024CR + 38A 4:1		3863H018CR		3272G018CR	
						
	Solution Details ›		Solution Details ›		Solution Details ›	
Results of the Load Calculation						
Load current	4.378	A	3.945	A	3.799	A
Load voltage	19.045	V	5.063	V	5.372	V
Motor winding temperature	81.953	°C	79.045	°C	88.214	°C
Motor housing temperature	65.778	°C	61.918	°C	70.674	°C
Required motor torque	163.502	mNm	100	mNm	100	mNm
Required motor speed	4,000	1/min	1,000	1/min	1,000	1/min
Output power	68.488	W	10.472	W	10.472	W
Efficiency (over all)	12.56	%	52.422	%	51.319	%
Overall Dimensions						
Diameter	38	mm	38	mm	32	mm
Length	139.6	mm	64	mm	72	mm
Mass	740	g	390	g	312	g
Motor Characteristic Data						
Nominal voltage	24	V	18	V	18	V
Terminal resistance	0.36	Ω	0.36	Ω	0.42	Ω

Send an enquiry to the FAULHABER sales team

Clicking on the "X" closes this window

These are the selected solutions for your enquiry.

Simply fill in this form and send the enquiry to the FAULHABER sales team.

Submit an inquiry for the following systems

Description	⌀ (mm)	L_1 (mm)	Mass (g)	V_{load} (V)	I_{load} (A)	η (%)
3890H024CR + 38A 4:1	38	139.6	740	19.045	4.378	12.56
3863H018CR	38	64	390	5.063	3.945	52.422
3272G018CR	32	72	312	5.372	3.799	51.319

Please fill out the form so we can promptly send you the requested information. The address data provided by you will be treated confidentially by FAULHABER.

Subject

Message

Catalogue — Please choose

Company*

Department

Titel/Position

Salutation* — Please choose

First name*

Surname*

Phone*

E-Mail*

Contact

If you would like further information or would like to inform us of an error or simply give us feedback, we will be glad to hear from you.

https://www.faulhaber.com/contact