

FAULHABER Drive Selection

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

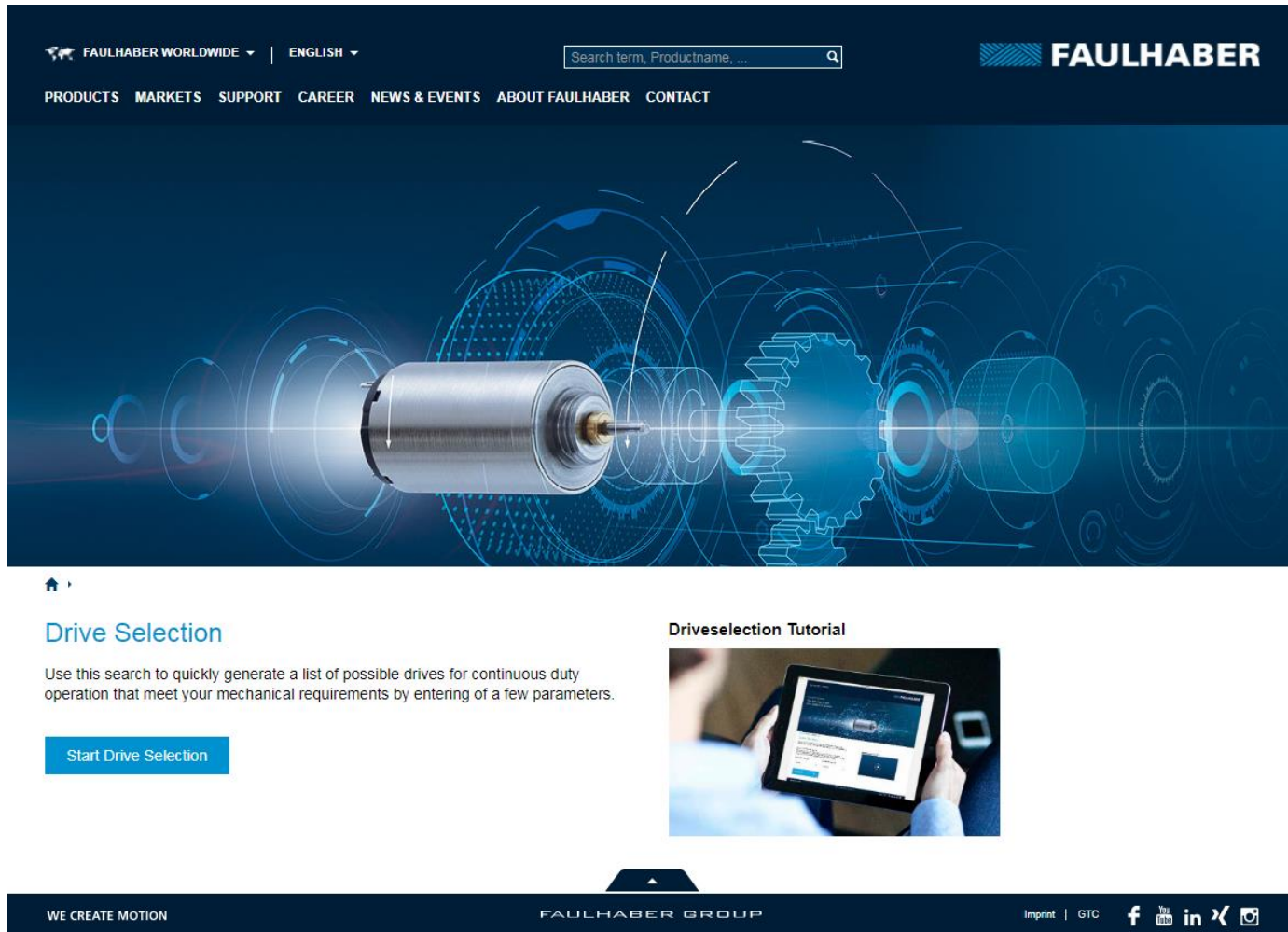


FAULHABER Drive Selection

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



The screenshot shows the top navigation bar with 'FAULHABER WORLDWIDE' and 'ENGLISH' dropdowns, a search bar, and a main menu with links for PRODUCTS, MARKETS, SUPPORT, CAREER, NEWS & EVENTS, ABOUT FAULHABER, and CONTACT. The main content area features a large image of a motor with overlaid technical diagrams. Below this, there is a home icon, a 'Drive Selection' section with a descriptive paragraph and a 'Start Drive Selection' button, and a 'Driveselection Tutorial' section with a video thumbnail showing a person using a tablet.

FAULHABER WORLDWIDE | ENGLISH

Search term, Productname, ...

FAULHABER

PRODUCTS MARKETS SUPPORT CAREER NEWS & EVENTS ABOUT FAULHABER CONTACT

Drive Selection

Use this search to quickly generate a list of possible drives for continuous duty operation that meet your mechanical requirements by entering of a few parameters.

Start Drive Selection

Driveselection Tutorial

WE CREATE MOTION

FAULHABER GROUP

Imprint | GTC

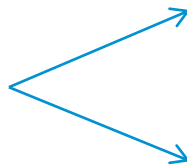
f YouTube in X Instagram

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.



Motor and Gearhead Preselection (optional)

Motor

Gearhead

Your requirements

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

Load transmission *

Direct rotational



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

Required load speed *

1000

1 - 100.000

1/min

Required load torque *

10

0,01 - 20.000

mNm

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

Calculate

*) Required field

Global values

Ambient temperature *

 -10 - 60 °C ▼

Available diameter *

 1 - 100 mm ▼

Available length *

 1 - 400 mm ▼

Available supply voltage *

 0,5 - 75 V ▼

Efficiency, min. *

 10 - 90 %

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

You can change these within the specified limit values.

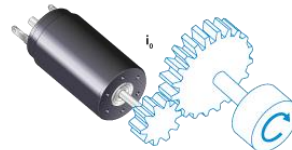
Drive types

You can choose from the following drive types:

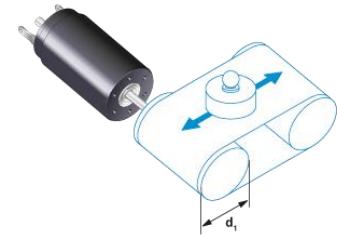
Direct drive



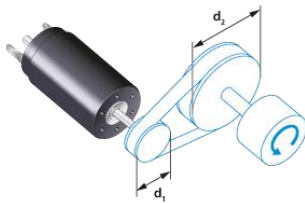
Gearhead reduction



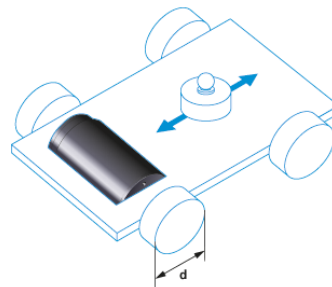
Conveyor



Belt drive



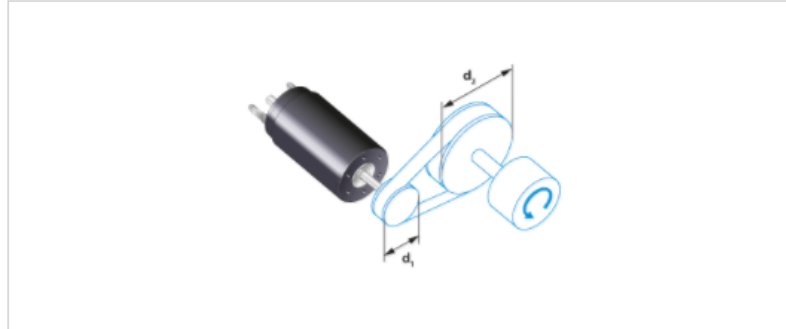
Wheel drive



Belt drive

Load transmission *

Timing belt ▼



Required load speed *

2000 1/min

Required load torque *

50 mNm ▼

Diameter motor pulley *

30 mm ▼

Diameter load pulley *

40 mm ▼

Efficiency, max. *

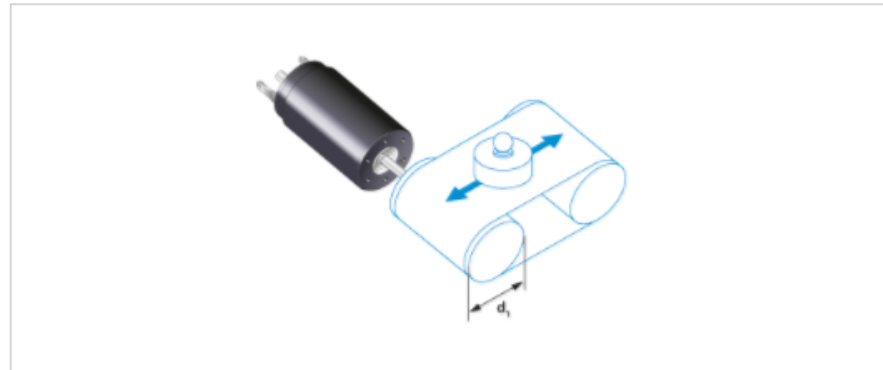
60 0,1 - 100 %

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

Specify the efficiency of your belt drive here.

Conveyor

Load transmission *



Required belt velocity *

 mm/s

Required load force *

 mN

Diameter motor pulley *

 mm

Efficiency, max. *

 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

Required load torque *

100

mNm ▼

Reduction ratio *

20

:1

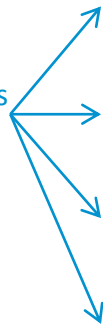
Efficiency, max. *

70

0,1 - 100

%

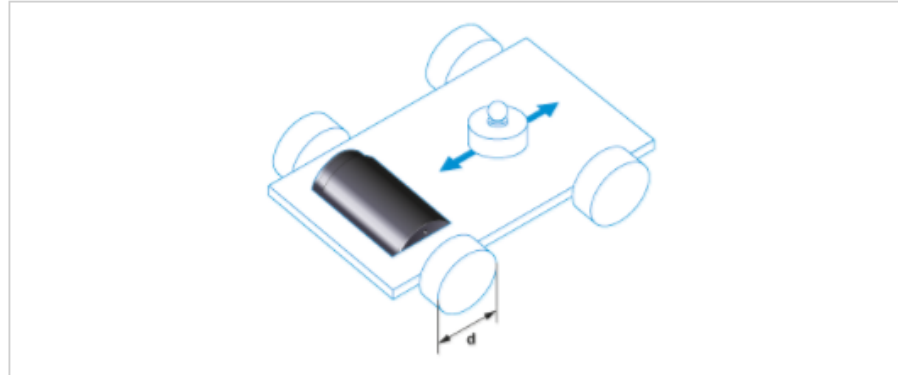
Please enter your values into the mandatory fields and then start the calculation.



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

FAULHABER WORLDWIDE | ENGLISH

Drive Selection: Solutions

Reset all filters and sorting | Sort results by: Best

18 solutions available

Select	Description	α (mm)	L_1 (mm)	Mass (g)	V_{load} (V)	I_{load} (A)	η (%)
<input type="checkbox"/>	3274G024BP4	All (16)	All (16)	All (16)	All (16)	1 - 4.99A (16)	All (16)
<input type="checkbox"/>	4490H036B	44	90	742	4.977	All (18)	70.89
<input type="checkbox"/>	4490H024B	44	90	742	3.536	1 - 4.99A (16)	65.819
<input type="checkbox"/>	3863H024CR	38	64	390	6.604	5 - 8A (2)	66.372
<input type="checkbox"/>	3890H018CR	38	90	550	4.559		56.013
<input type="checkbox"/>	3890H024CR	38	90	550	5.874		64.822
<input type="checkbox"/>	3863H036CR	38	64	390	9.919		67.236
<input type="checkbox"/>	3272G024CR	32	72	312	7.281		55.943
<input type="checkbox"/>	3272G036CR	32	72	312	10.153		53.726
<input type="checkbox"/>	4490H036BS	44	90	742	8.576		54.694
<input type="checkbox"/>	3890H036CR	38	90	550	8.505		67.407
<input type="checkbox"/>	4490H024BS	44	90	742	6.102		69.815
<input type="checkbox"/>	3272G018CR	32	72	312	5.372		67.686
<input type="checkbox"/>	3863H018CR	38	64	390	5.063		51.319
<input type="checkbox"/>	3890H024CR + 38A 4:1	38	139.6	740	19.045		52.422
<input type="checkbox"/>	4490H024BS + 38A 4:1	44	139.6	932	19.933		12.56
							12.103

Results per Page: 25 | 50

New calculation | Request | Compare Solutions

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

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

Back to previous page

Sort the results according to the specified parameters

Filter the result list in accordance with your requirements.

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.

Details of the selected solution



Drive Selection: Solution Details

Drive System: 3890H024CR + 38A 4:1

- Load calculation
- Motor/Gearhead Data
- Downloads
- Your Requirements
- Contact

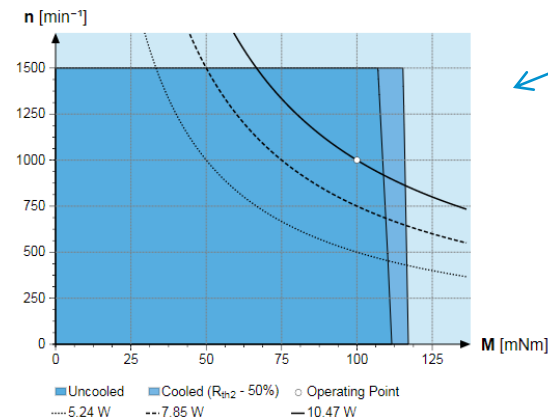
Results of the Load Calculation

Load current	4.378	A
Load voltage	19.045	V
Motor winding temperature	81.953	°C
Motor housing temperature	65.778	°C
Required motor torque	163.502	mNm
Required motor speed	4,000	1/min
Output power	10.472	W
Efficiency (over all)	12.56	%

Overall Dimensions

Diameter	38	mm
Length	139.6	mm
Mass	740	g

Results of the Load Calculation



Request

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

Drive Selection: Solution Details

Drive System: 3890H024CR + 38A 4:1

- Load calculation
- Motor/Gearhead Data
- Downloads
- Your Requirements
- Contact

Your Requirements

Load transmission	Direct rotational	
Ambient temperature	22	°C
Available diameter	100	mm
Available length	400	mm
Available supply voltage	24	V
Efficiency, min.	10	%
Required load speed	1,000	1/min
Required load torque	100	mNm

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

Request

Value comparison of solutions

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



Clicking on the "X" closes this window



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

Submit an inquiry for the following systems

Description	ϕ (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

These are the selected solutions for your enquiry.



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

Company*

Department

Titel/Position

Salutation*

First name*

Surname*

Phone*

E-Mail*

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



Clicking on the "X" closes this window



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>