

- Low-cost drive solutions
- Simple commissioning
- Coordinated motor/controller combinations

# Stepper motors MTRE-ST

Key features and type codes

## Key features

Motors MTRE-ST

→ 3

- System product for positioning technology
- Stepper motor with integrated controller
- With/without brake
- Controlled operation
- Step-accurate positioning through pre-specified number of control pulses



## Motor flange MTR-FL

→ 5

- The right motor flange for every motor/axis combination



## Motor cable KMTRE-ST

→ 5

- Screened cable
- Can be used at -40 ... +125 °C
- Suitable for use with energy chains
- Protection class IP67



## Type codes

		MTRE	-	ST	-	42	-	48S	-	AB
<b>Type</b>										
MTRE	Motor with integrated controller									
<b>Type of motor</b>										
ST	Stepper motor									
<b>Flange dimensions</b>										
42	42 mm									
<b>Nominal voltage/connection type</b>										
48	24 ... 48 V DC									
S	Plug connection									
<b>Additional function</b>										
A	No additional function									
B	Brake									

# Stepper motors MTRE-ST

Technical data

FESTO

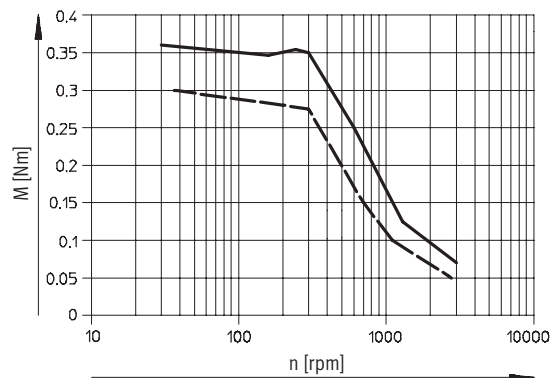


General technical data		MTRE-ST-42-48S-AA	MTRE-ST-42-48S-AB
Nominal voltage	[V]	48	
Nominal motor current	[A]	1.2	
Motor holding torque	[Nm]	0.34	
Stepper angle (full step)	[°]	1.8 ±5%	
Drive mass moment of inertia	[kg cm <sup>2</sup> ]	0.068	0.07
Brake voltage	[V]	–	24
Brake power	[W]	–	6
Brake holding torque	[Nm]	–	0.4
Radial shaft load	[N]	18	18
Axial shaft load	[N]	7	7
Product weight	[kg]	0.45	0.55

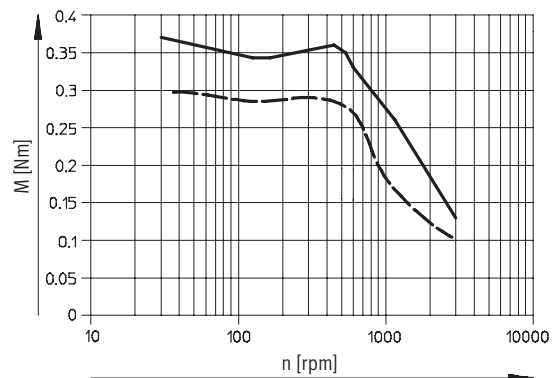
Operating and environmental conditions	
Insulation protection class to VDE 60034	B
Protection class with/without gear unit	IP54
Ambient temperature	[°C] 0 ... +50
CE mark (see declaration of conformity)	To EU EMC Directive
Storage temperature	[°C] –25 ... +60
Relative air humidity (non-condensing)	[%] 45 ... 80

## Torque M as a function of rotational speed n

at nominal voltage 24 V



at nominal voltage 48 V



— Full step  
- - - Half step

# Stepper motors MTRE-ST

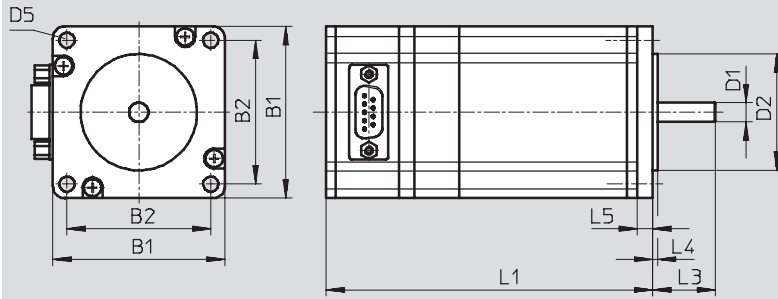
Technical data

FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

### Motor

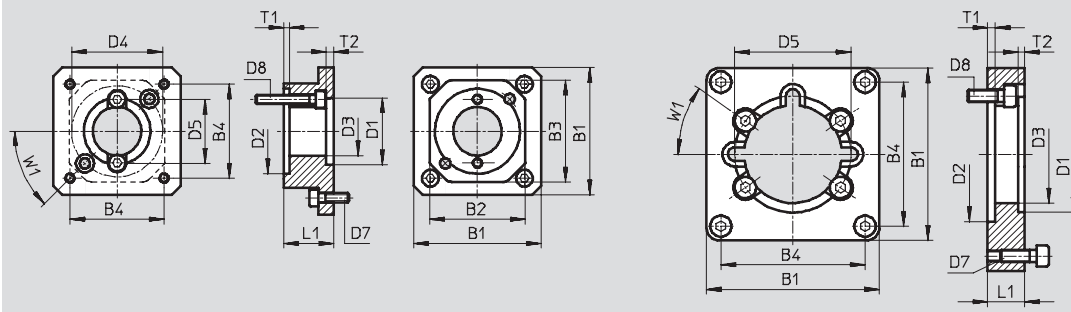


Type	B1	B2	D1 ∅	D2 ∅	D5	L1	L3	L4	L5
MTRE-ST-42-48S-AA	42	31	5	22	M3	111	24	2	-
MTRE-ST-42-48S-AA						136			

### Motor flange

EAMF-A-28A-42A

EAMF-A-30A-42A



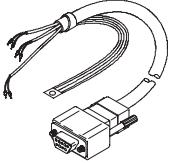
Type	B1	B2	B3	B4	D1 ∅	D2 ∅	D3 ∅	D4 ∅	D5 ∅	D7	D8	L1	T1	T2	W1
EAMF-A-28A-42A	42	31.5	33.5	31	22	28	16	30	21	M3	M3	16.5	1.8	2.5	45°
EAMF-A-30A-42A	42	-	-	31	22	30	16	-	26.2	M3	M3	18	4.6	2.5	30°


### Ordering data

	Part No.	Type
	530 059	MTRE-ST-42-48S-AA
	530 060	MTRE-ST-42-48S-AB

# Stepper motors MTRE-ST

Accessories

Ordering data for cable KMTRE-ST...						
	Protection class of motor plug	Ambient temperature	Suitable for energy chains	Cable length	Part No.	Type
	IP67	-40 ... +125 °C	Yes	5 m	<b>530 074</b>	<b>KMTRE-ST42-5</b>
				10 m	<b>530 075</b>	<b>KMTRE-ST42-10</b>
				X length (max. 25 m)	<b>530 076</b>	<b>KMTRE-ST42-X</b>

Ordering data for motor flange MTR-FL...			
	Brief description	Part No.	Type
	For connection to a toothed belt axis DGE-8-...-ZR	<b>530 080</b>	<b>EAMF-A-28A-42A</b>
	For connection to a spindle axis DGE-18-...-SP		
	For connection to a toothed belt axis DGE-12-...-ZR	<b>530 079</b>	<b>EAMF-A-30A-42A</b>