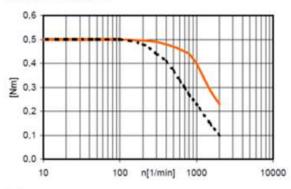
## drylin® step motor NEMA17

igus® stepper motors complement drylin® linear axes well. They distinguish themselves by their cost-efficiency, precision and simple control. They work reliably under varied environmental conditions (depending on the selected protection class IP). Due to the standardized power connection the igus® step motors can be connected to the most popular motor controls.

#### Characteristics



dashed: 24 V DC orange: 48 V DC

characteristic based on quarter step mode



### part no

MOT - MOT = motor

AN - AN = design

S - S = stepper motor

M-

060 - 060 = 60 V DC

005 - 005 = 0,5 Nm Holding torque

042 - 042 = flange dimension 42 mm

L = stranded wire (optional)

L stranged tine (optional)

M = metric plug

A - A = without

C = incremental encoder

D = incremental encoder and brake

AAAA AAAA = standard

AAAC = encoder

AAAD = encoder and brake

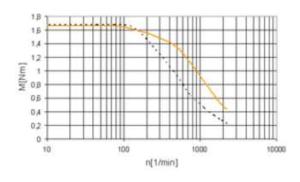
### Technical data

recillical data		
Distance over hubs		42mm (NEMA17)
Motor		
Maximum voltage	[VDC]	60
Nominal voltage	[VDC]	24-48
Nominal current	[A]	1.8
Holding torque	[Nm]	0.5
Detent torque	[Nm]	0.022
Step angle	۰	1.8
Resistance / phase	[Ω]	1.75±10%
Inductance / phase	[mH]	3.30±20%
Moment of inertia / rotor	[kgcm] <sup>2</sup> ]	0.08
Max load axial	[N]	7
Max load radial	[N]	20
Encoder		
Operating voltage	[VDC]	5
Impulse / turn	[1/min]	500
Zero impulse / index		Yes
Line-driver		RS422 protocol
brake		
Operating voltage	[VDC]	24±10%
Wattage	[W]	8
Holding torque	[Nm]	0.4
Moment of inertia	[kgcm] <sup>2</sup> ]	0.01
Weight		
Product weight	[kg]	0.32
With encoder	[kg]	0.34
With encoder and brake	[kg]	0.58
Operating data		
Ambient temperature	[°C]	-10+50
Max temperature rise	[°C]	80
insulation class		В
humidity (not condensing)	%	85
protection class engine case		IP65 (shaft seal IP52)
CE		EMV guideline

# drylin® step motor NEMA23

igus® stepper motors complement drylin® linear axes well. They distinguish themselves by their cost-efficiency, precision and simple control. They work reliably under varied environmental conditions (depending on the selected protection class IP). Due to the standardized power connection the igus® step motors can be connected to the most popular motor controls.

### Characteristics



dashed: 24 V DC orange: 48 V DC

characteristic based on quarter step mode



#### part no

MOT -							MOT = motor
AN	-						AN = design
	S-						S = stepper motor
	06	0 -					060 = 60 V DC
		020 -					020 = 2 Nm Holding torque
			056 -				056 = flange dimension 56 mm
				M -			M = metric plug
							L = stranded wire (optional)
					Α-		A = without
							C = incremental encoder
							D = incremental encoder and brake
						AAAA	AAAA = standard
							AAAC = encoder
							AAAD = encoder and brake

### technical data

technical data		
Distance over hubs		56mm (NEMA23)
Motor		
Maximum voltage	[VDC]	60
Nominal voltage	[VDC]	24-48
Nominal current	[A]	4.2
Holding torque	[Nm]	2
Detent torque	[Nm]	0.068
Step angle	٠	1.8
Resistance / phase	[Ω]	0.5±10%
Inductance / phase	[mH]	1.90±20%
Moment of inertia / rotor	[kgcm] <sup>2</sup> ]	0.48
Max load axial	[N]	15
Max load radial	[N]	52
Encoder		
operating voltage	[VDC]	5
Impulse / turn	[1/min]	500
Zero impulse / index		Yes
Line-driver		RS422 protocol
Line-driver Brake		RS422 protocol
	[VDC]	RS422 protocol 24±10%
Brake	[VDC]	
Brake Operating voltage		24±10%
Brake Operating voltage Wattage	[W]	24±10% 10
Brake Operating voltage Wattage Holding torque	[W] [Nm]	24±10% 10 1
Brake Operating voltage Wattage Holding torque Moment of inertia	[W] [Nm]	24±10% 10 1
Brake Operating voltage Wattage Holding torque Moment of inertia Weight	[W] [Nm] [kgcm] <sup>2</sup> ]	24±10% 10 1 0.02
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight	[W] [Nm] [kgcm] <sup>2</sup> ]	24±10% 10 1 0.02
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder	[W] [Nm] [kgcm] <sup>2</sup> ] [kg]	24±10% 10 1 0.02
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder With encoder and brake	[W] [Nm] [kgcm] <sup>2</sup> ] [kg]	24±10% 10 1 0.02
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder With encoder and brake Operating data	[W] [Nm] [kgcm] <sup>2</sup> ]  [kg] [kg]	24±10% 10 1 0.02 1.12 1.14 1.36
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder With encoder Word encoder and brake Operating data Ambient temperature	[W] [Nm] [kgcm] <sup>2</sup> ]  [kg] [kg] [kg]	24±10% 10 1 0.02  1.12 1.14 1.36
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder With encoder With encoder and brake Operating data Ambient temperature Max temperature rise	[W] [Nm] [kgcm] <sup>2</sup> ]  [kg] [kg] [kg]	24±10% 10 1 0.02  1.12 1.14 1.36  -10+50 80
Brake Operating voltage Wattage Holding torque Moment of inertia Weight Product weight With encoder With encoder and brake Operating data Ambient temperature Max temperature rise Insulation class	[W] [Nm] [kgcm] <sup>2</sup> ]  [kg] [kg] [kg] [*c]	24±10% 10 1 0.02  1.12 1.14 1.36  -10+50 80 B
Brake Operating voltage Wattage Holding torque Moment of inertia  Weight Product weight With encoder With encoder and brake  Operating data Ambient temperature Max temperature rise Insulation class Humidity (not condensing)	[W] [Nm] [kgcm] <sup>2</sup> ]  [kg] [kg] [kg] [*c]	24±10% 10 1 0.02  1.12 1.14 1.36  -10+50 80 B 85