

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

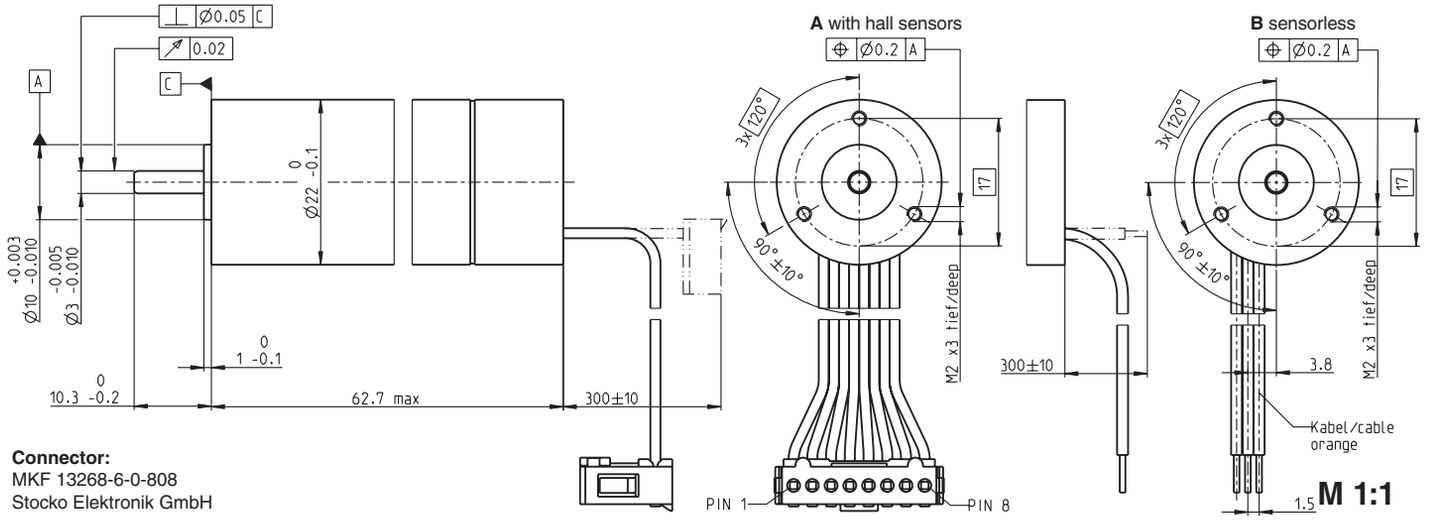
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

EC 22 ∅22 mm, brushless, 50 Watt

NRND See page 13
Not recommended for New Design



Connector:
MKF 13268-6-0-808
Stocko Elektronik GmbH

Stock program
Standard program
Special program (on request)

	Part Numbers	
A with hall sensors	167130	167129
B sensorless	201049	201048

Motor Data (provisional)

	Values at nominal voltage			
1	Nominal voltage	V	32	32
2	No load speed	rpm	38700	22400
3	No load current	mA	327	128
4	Nominal speed	rpm	36600	20200
5	Nominal torque (max. continuous torque)	mNm	30.6	37.2
6	Nominal current (max. continuous current)	A	4.16	2.82
7	Stall torque	mNm	692	437
8	Starting current	A	88.2	32.1
9	Max. efficiency	%	88	88
	Characteristics			
10	Terminal resistance phase to phase	Ω	0.363	0.997
11	Terminal inductance phase to phase	mH	0.0490	0.147
12	Torque constant	mNm/A	7.85	13.6
13	Speed constant	rpm/V	1220	702
14	Speed/torque gradient	rpm/mNm	56.2	51.4
15	Mechanical time constant	ms	2.47	2.26
16	Rotor inertia	gcm²	4.20	4.20

Specifications

Thermal data

17	Thermal resistance housing-ambient	7.0 K/W
18	Thermal resistance winding-housing	1.0 K/W
19	Thermal time constant winding	5.06 s
20	Thermal time constant motor	355 s
21	Ambient temperature	-20…+100°C
22	Max. permissible winding temperature	+125°C

Mechanical data (preloaded ball bearings)

23	Max. permissible speed[1]		50000 rpm
24	Axial play at axial load	< 4.5 N	0 mm
		> 4.5 N	max. 0.14 mm
25	Radial play		preloaded
26	Max. axial load (dynamic)		4 N
27	Max. force for press fits (static)		45 N
	(static, shaft supported)		250 N
28	Max. radial loading, 5 mm from flange		16 N

1) in combination with encoder MR n_{max} = 37500 rpm

Other specifications

29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	130 g

Values listed in the table are nominal.

Connection A

brown	Motor winding 1	Pin 1
red	Motor winding 2	Pin 2
orange	Motor winding 3	Pin 3
yellow	V_{Hall} 4.5 ... 24 VDC	Pin 4
green	GND	Pin 5
blue	Hall sensor 1*	Pin 6
violet	Hall sensor 2*	Pin 7
grey	Hall sensor 3*	Pin 8

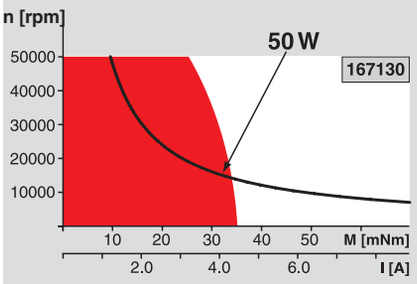
*Internal pull-up (7…13 kΩ) on pin 4

Connection B (Cable AWG 24)

brown	Motor winding 1
red	Motor winding 2
orange	Motor winding 3

Wiring diagram for Hall sensors see p. 35

Operating Range



Comments

Continuous operation
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

Short term operation
The motor may be briefly overloaded (recurring).

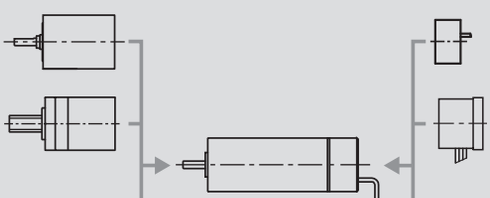
Assigned power rating

maxon Modular System

Overview on page 20 - 25

Planetary Gearhead
∅22 mm
0.5 - 3.4 Nm
Page 252/253

Spindle Drive
∅22 mm
Page 284/285



for type A:
Encoder MR
128/256/512 CPT.,
Page 301

for type B:
Resolver
on request

Recommended Electronics:

ESCON 50/5	Page 321
DECS 50/5	324
EPOS2 24/2, Module 36/2	330
EPOS2 24/5	331
EPOS2 50/5	331
EPOS2 P 24/5	334
Notes	**24**

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP