

CROUZET - BLDC PLANETARY GEARED MOTOR WITH INTEGRATED TNi21 DRIVE

801896XX TNi21
Planetary 62mm gearmotor 100W 12→32Vdc 11?
649rpm 50Nm max

- 12→32 V dc, 52→81 mmØ, 25→120 Nm, 11→775 rpm
- Speed & torque control. Easy use
- Reduce control panel space & cabling
- Long life (>20,000 hours)
- IP65 as standard



PRODUCT DESCRIPTION

The TNi21 integrated drive is ideal for applications where speed and torque control is required.

The long lifetime of the brushless motor (>20,000 hours with rated load) means it is ideal for continuous or long duty applications.

Having the drive integrated into the motor can also save control panel space, reduce cabling and save set-up time.

3 motor sizes available with the same diameter (57mm x 57mm), with increasing motor lengths for more power/torque.

Planetary & worm gearbox options available for reducing the speed & increasing the output torque.

Pre-set I/O mean that the motor can be used immediately without any complex preliminary set-up. It can be controlled via basic switches or by external PLC.

Motor power and logic connections are via cable output or connector options.

The motors are rated to IP65 dust/water protection class as standard.

Options for adaptation to the standard motor include adding an encoder, holding brake, special output shaft, special connectors, upgraded IP protection & special firmware developed according to your specific application requirements.

* Product datasheets & 3D drawing for 0-10Vdc, cable version attached as an example. Further information for PWM version, brake options & connector version available upon request.

Full documentation & user manuals also available upon request.

TECHNICAL DATA

Diameter	62 mm
Integrated control	TNi21
IP class	IP65
Life span	20,000h
Max. torque	50
Number of pulses per revolution	12
Positioning feedback	Yes
Power	100 W
Ratio	i=5,16→308:1
Shaft diameter	14 mm

Speed options

11rpm→649rpm

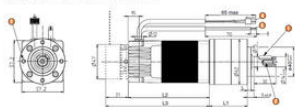
Supply voltage

12 V DC, 24 V DC

Type of gearbox

Planetary 1→3 stages

801496 - 801596 - TNe21 + PNe2 with or without brake



- L1 1 stage: 52.1 v0.7
- L1 2 stages: 81.8 v0.7
- L1 3 stages: 83.8 v0.7
- L2 801496: 62 max.
- L2 801596: 112 max.
- L3 801496: 123 max.
- L3 801596: 143 max.
- Hand key 5 x 5 x 16 DIN 6881 A
- Max 10
- 1 x M5 at 90°, depth 10 over Ø 52
- Command cable 8 x AWG24 / 100 mm
- Power cable 2 x AWG18 / 100 mm

GEARBOXES FOR DcMind BRUSHLESS RANGE

4 to 120 Nm

- Planetary and worm gearboxes
- Shafts on ball bearings
- Long service life
- IP65



Part numbers

Designation	Planetary 0.52	Planetary 0.81	Planetary 0.81	Planetary 0.81
Type	801496	801596	801697	801698
801496 TNe21	801496 TNe21	801496 TNe21	801496 TNe21	801496 TNe21
801596 TNe21	801596 TNe21	801596 TNe21	801596 TNe21	801596 TNe21
801697 TNe21	801697 TNe21	801697 TNe21	801697 TNe21	801697 TNe21
801698 TNe21	801698 TNe21	801698 TNe21	801698 TNe21	801698 TNe21
801496 SNe21	801496 SNe21	801496 SNe21	801496 SNe21	801496 SNe21
801596 SNe21	801596 SNe21	801596 SNe21	801596 SNe21	801596 SNe21
801697 SNe21	801697 SNe21	801697 SNe21	801697 SNe21	801697 SNe21
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801496 PNe21	801496 PNe21	801496 PNe21	801496 PNe21	801496 PNe21
801596 PNe21	801596 PNe21	801596 PNe21	801596 PNe21	801596 PNe21
801697 PNe21	801697 PNe21	801697 PNe21	801697 PNe21	801697 PNe21
801698 PNe21	801698 PNe21	801698 PNe21	801698 PNe21	801698 PNe21

Other values possible

0.52 planetary gearbox: Metal gears on all stages. IP65 apart from the output shaft.

0.81 planetary gearbox: On the first stage, the planet gears are made of composite materials which improve efficiency and service life. On the other stages, the main gears turn on needle bearings. IP65 apart from the output shaft.

81 planetary gearbox: All gears are metal and turn on needle bearings, resulting in excellent robustness and a very long service life. IP65 apart from the output shaft.

Worm gearbox: This gearbox combines a hardened steel worm and a hard bronze helical gear wheel, thus ensuring a long service life. The wheel is coated with grease, ensuring an excellent slip coefficient and good heat dissipation. Gears and bearings are used in combination with a compression spring to create a tight seal at the gearbox output shaft and the motor input shaft. IP65 gearbox.

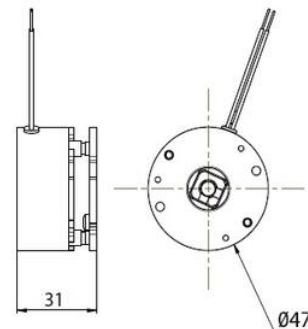
The casing is made of aluminium to maximize heat exchange with its supporting surface on the machine.

However, due to the high power that can be transmitted by this gearbox and the low efficiency inherent in large worm gearbox reduction ratios, make sure that the gearbox casing temperature does not exceed 70°C during operation.

The output shaft can be placed on the right or left, or can be a double shaft (shaft output on both sides).

Options

Holding brake 0.5 Nm - 24 VDC



Connections

Connector	Cable
Power ground	0.5mm²
Power supply +12 to +48 V DC	AWG16 Blue
Light ground	0.5mm²
Input 1 On/Off	AWG24 Green (1)
Input 2 On/Off	AWG24 Green (2)
Input 3 On/Off	AWG24 Yellow (1)
Input 4 On/Off	AWG24 Yellow (2)
Output 1 Technician	AWG24 Orange (1)
Output 2 Feed direction	AWG24 Red (1)
Input 5 Torque	AWG24 Blue (1)
Output 6 Torque at max	AWG24 Purple (1)

1: 10 pins, and 24 for 801698 motor

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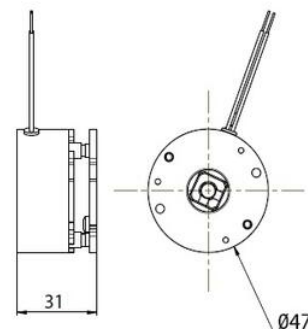
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