

## CROUZET - BLDC PLANETARY GEARED MOTOR WITH INTEGRATED TNi21 DRIVE

801495XX TNi21  
Planetary 52mm gearmotor 77W 12→32Vdc  
13→593rpm 25Nm 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

<b>Diameter</b>	52 mm
<b>Integrated control</b>	TNi21
<b>IP class</b>	IP65
<b>Life span</b>	20,000h
<b>Max. torque</b>	25 Nm
<b>Number of pulses per revolution</b>	12
<b>Positioning feedback</b>	Yes
<b>Power</b>	77 W
<b>Ratio</b>	i=6,75→308:1
<b>Shaft diameter</b>	12 mm

Speed options

13rpm→593rpm

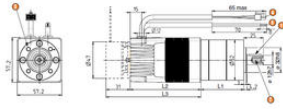
Supply voltage

12 V DC, 24 V DC

Type of gearbox

Planetary 1→3 stages

801495 - TNe21 - P52 with or without brake



- L1 1 stage: 50.3 ±0.5
- L1 2 stages: 88.5 ±0.5
- L1 3 stages: 123 ±0.5
- L2 80140: 62 max.
- L3 80140: 123 max.

- ⊙ Parallel key 4 x 4 x 16 DN 9885 A
- ⊙ M4 x 10
- ⊙ A 1.60 ±0.05 depth 10 over Ø 40
- ⊙ Command cable 8 x AWG24 / 500 mm
- ⊙ Power cable 2 x AWG16 / 500 mm

GEARBOXES FOR DCmind BRUSHLESS RANGE

4 to 120 Nm

- Planetary and worm gearboxes
- Shafts with bearings
- Long service life
- IP65



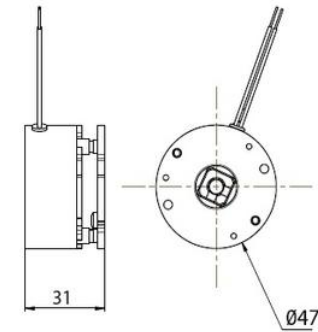
Part numbers

Part number	Planetary 0.5 Nm	Planetary 0.6 Nm	Planetary 0.8 Nm	Planetary 1 Nm
Type	E10495	E10496	E10497	E10498
80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21
80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21
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80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21	80140 TNe21

**Planetary gearboxes:** Metal gears on all stages. IP65 apart from the output shaft.  
**Worm gearboxes:** On the first stage, the planet gears are made of composite materials which improve efficiency and service life. On the other stages, the motor gears turn on needle bearings. IP65 apart from the output shaft.  
**Worm gearboxes:** 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 gearboxes:** The gearbox contains 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. Springs and spacers 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 bearing is made of aluminum to maximize heat exchanges with the surrounding 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).

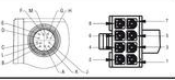
Options

Holding brake 0.5 Nm - 24 V $\overline{\text{DC}}$



Connections

	Connector MSB	Cable color
Power ground	Grp	AWG12 Blue
Power supply +12V cable V DC	Grp	AWG14 Brown
Logic ground	B	AWG24 Black (3)
Input 1: On/Off	C	AWG24 Green (3)
Input 2: Direction	B	AWG24 Yellow (2)
Input 3: Stop	F	AWG24 Orange (2)
Output 1: Feedback	A	AWG24 Brown (3)
Output 2: Hall direction	L	AWG24 Red (3)
Input 4: Stop	D	AWG24 Blue (3)
Output 3: Torque at max	K	AWG24 Purple (3)



1) 10 pins, used for 80140 motor