

## 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
<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

GEARBOXES FOR DCmind BRUSHLESS RANGE

4 to 120 Nm

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

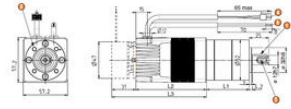


Part numbers

Reference	Reference 01.01	Reference 01.02	Reference 01.03	Reference
Type	210485	210496	210497	210410
80145 Tn21	801485 Tn21	801496 Tn21	801497 Tn21	801410 Tn21
80145 Tn21	801485 Tn21	801496 Tn21	801497 Tn21	801410 Tn21
80145 SAA21	801485 SAA21	801496 SAA21	801497 SAA21	801410 SAA21
80145 Tn21	801485 Tn21	801496 Tn21	801497 Tn21	801410 Tn21

**80145 planetary gearbox:** Metal gears on all stages. IP65 apart from the output shaft.  
**801485 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 metal gears turn on needle bearings. IP65 apart from the output shaft.  
**801496 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. Curves and flanges 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 aluminum 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).

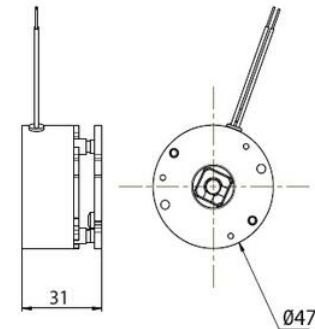
801495 - Tn21 + P22 with or without brake



- L1 1 stage: 10.3 ±0.5
- L1 2 stages: 68.3 ±0.5
- L1 3 stages: 83.1 ±0.5
- L2: 80142: 82 max.
- L3: 80142: 123 max.
- Parallel key 4 x 4 x 16 DIN 6885 A
- M4 x 10
- 1 x M8 at 90°, depth: 10 over Ø 40
- Command cable 8 x AWG24 / 500 mm
- Power cable 2 x AWG16 / 500 mm

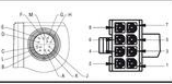
Options

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



Connections

Connector	Cable
Power ground	AWG16 Blue
Power supply +12 to +24 V DC	AWG16 Brown
Logic ground	AWG24 Black (1)
Input 1 On/Off	AWG24 Green (2)
Input 2 Direction	AWG24 Yellow (2)
Input 3 Speed	AWG24 Orange (2)
Output 1 Technometer	AWG24 Brown (2)
Output 2 Free direction	AWG24 Red (3)
Input 4 Torque	AWG24 Blue (3)
Output 3 Torque at max	AWG24 Purple (3)



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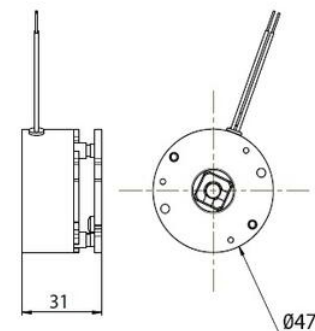
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