

Specificaties

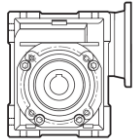
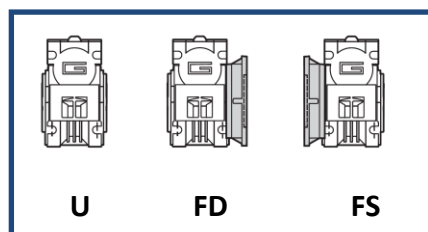
De belangrijkste kenmerken:

- Voeding 24VDC
- Borstelloze gelijkstroommotor BLDC080-2 incl. Hall sensoren & 2 kanaals 1000 ppo optische encoder.
- Voorzien van houdrem (2 varianten mogelijk; power on & power off)
- Gegoten aluminium behuizing (vertraging)
- Wormwielvertraging word permanent gesmeerd met synthetische olie, hierdoor is montage in iedere positie mogelijk.

| Motor | | | | | | | | |
|------------------------|-----------|----|---------|--------|---------|------------|------------------------|----------------|
| Motor type | Artikel # | sf | U [VDC] | In [A] | Mn [Nm] | n1 [min-1] | Rem type | Remkoppel [Nm] |
| BLDC080-2-24-BRON-ENC | 6002316 | S1 | 24 | 25 | 1.3 | 3000 | ON (spanning = remmen) | 2 |
| BLDC080-2-24-BROFF-ENC | 6003007 | | | | | | OFF (spanning = vrij) | 2,5 |

Selectie

| Wormwielvertraging | | | |
|--------------------|------------|------------------------|------------------------------------|
| ZW | 050 | i | U |
| Type | Maat | Overzet- verhouding | Versie |
| ZW | 040 | zie tabel | U FD FS |

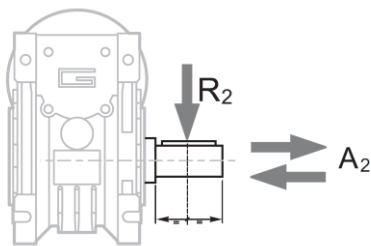



| Motorcombinatie artikelsleutel | | | | |
|--------------------------------|-----------------------------------|-------------------|---------|---|
| ZWBL080-2 | 40U | i | VDC | BRON / BROFF |
| Type | Vertraging maat + flens versie | overzetverhouding | Voltage | Rem |
| BLDC080-2 | 40.. | .. | 24VDC | BRON: power on (spanning = remmen) |
| BLDC080-2 | 40.. | .. | 24VDC | BROFF: power off (spanning = rem vrij) |

Definities

| | | | | |
|----------------------|----------------------|------------------------|----------------------|-------------------|
| V | (VDC) | Voltage | | |
| I_n | (A) | Nominale stroom | i | Overzetverhouding |
| A₂ | (N) | Max. axiale belasting | R_d | Rendement |
| R₂ | (N) | Max. radiale belasting | IP | Dichtheidsklasse |
| P_n | (W) | Nominale vermogen | IC | Isolatieklasse |
| M_n | (Nm) | Nominaal koppel | Kg | Gewicht |
| M₂ | (Nm) | Uitgaand koppel | sf | Service factor |
| n₁ | (min ⁻¹) | Motor toerental | | |
| n₂ | (min ⁻¹) | Uitgaand toerental | | |

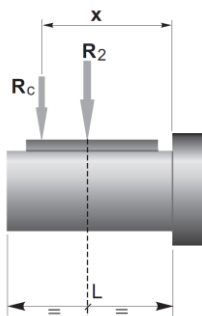
Asbelasting



A₂ = R₂ x 0.2

| R ₂ (N) |
|--------------------|
| ZW 050 |
| 1264 |
| 1392 |
| 1596 |
| 1754 |
| 1890 |
| 2004 |
| 2210 |
| 2381 |
| 2542 |
| 2759 |
| 3000 |

Wanneer de radiale asbelasting niet wordt toegepast in het midden van de as, kunt u de effectieve belasting berekenen met de volgende formule:



$$R_e = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_e$$

a, b waarden volgens de tabel

| | ZW |
|--------------------------|------------|
| | 040 |
| a | 84 |
| b | 64 |
| R₂ max | 3000 |

Vertanding

| | Wormwiel Data | Overzetverhouding | | | | | | | | | | | | |
|--------|---------------|-------------------|---------|---------|---------|---------|--------|--------|--------|--------|-------|--------|--------|---|
| | | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 | |
| ZW 040 | Z | 6 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | β | 34° 19' | 24° 28' | 18° 50' | 12° 49' | 10° 23' | 8° 43' | 6° 29' | 5° 14' | 4° 23' | 3 46' | 2° 57' | 2° 25' | |

Rendement

| | n_1 (min ⁻¹) | Rendement | Overzetverhouding | | | | | | | | | | | |
|--------|-------------------------------|-----------|-------------------|-----|----|----|----|----|----|----|----|----|----|-----|
| | | | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 |
| ZW 040 | 2800 | Rd | 90 | 89 | 87 | 84 | 83 | 80 | 77 | 73 | 69 | 66 | 60 | 56 |
| | 1400 | | 88 | 86 | 84 | 81 | 78 | 74 | 70 | 65 | 60 | 58 | 52 | 46 |
| | 900 | | 86 | 84 | 82 | 77 | 74 | 70 | 66 | 60 | 57 | 53 | 46 | 41 |
| | | Rs | 74 | 71 | 67 | 60 | 55 | 51 | 45 | 40 | 36 | 32 | 28 | 24 |

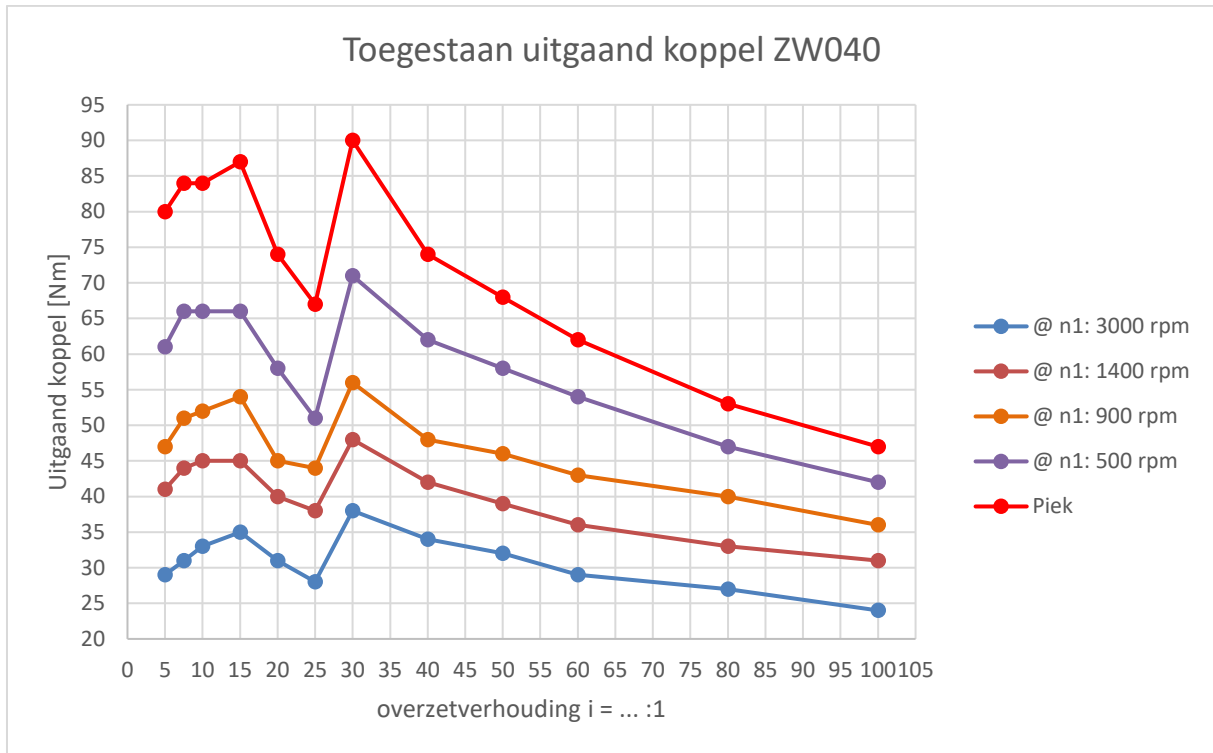
Opmerking: Theoretische waarde bij 1^e maal gebruik

Technische specificaties

| P_n (W) | n_2 (min ⁻¹) | M_2 (Nm) | i | sf | Motorcombinatie |
|-----------------------------------|-------------------------------|---------------|-----|------|-----------------------------|
| 410 | | | | | BLDC080-2 + ZW040 |
| (3000 min ⁻¹ @ 24V) | 600 | 6 | 5 | 5.0 | |
| | 400 | 9 | 7,5 | 3.6 | |
| | 300 | 11 | 10 | 2.9 | |
| | 200 | 16 | 15 | 2.1 | |
| | 150 | 22 | 20 | 1.4 | |
| | 120 | 26 | 25 | 1.1 | |
| | 100 | 30 | 30 | 1.3 | |
| | 75 | 38 | 40 | 0.9 | Max. belasting, zie grafiek |
| | 60 | 45 | 50 | 0.7 | Max. belasting, zie grafiek |
| | 50 | 51 | 60 | 0.6 | Max. belasting, zie grafiek |
| | 38 | 62 | 80 | 0.4 | Max. belasting, zie grafiek |
| | 30 | 73 | 100 | 0.3 | Max. belasting, zie grafiek |

Opmerkingen: (1) Ingaand toerental vertraging (n_1) max. \pm 3000 min⁻¹
 (2) Max. belasting, zie de belastinggrafiek vertraging

Belastinggrafiek vertraging

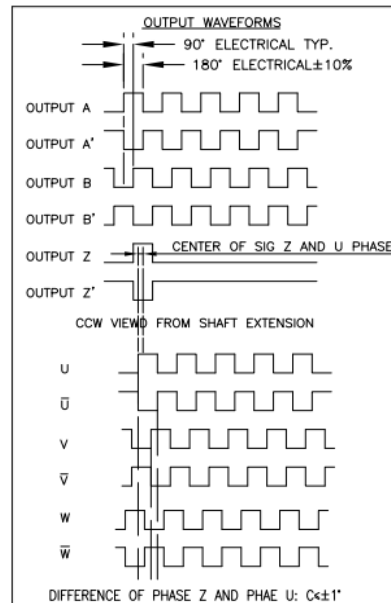


Grafiek op basis van sf = 1

Aansluitingen

| Connector | PIN | Functie |
|---------------------------|-----|----------|
| Motor | 1 | - |
| | 2 | Fase R |
| | 3 | Fase S |
| | 4 | Fase T |
| Encoder / Sensoren | 1 | A |
| | 2 | ~A |
| | 3 | B |
| | 4 | ~B |
| | 5 | Z |
| | 6 | ~Z |
| | 7 | U (Hall) |
| | 8 | ~U |
| | 9 | V (Hall) |
| | 10 | ~V |
| | 11 | W (Hall) |
| | 12 | ~W |
| | 13 | +5VDC(*) |
| | 14 | GND |
| Rem | 1 | +24VDC |
| | 2 | GND |

Encoder:

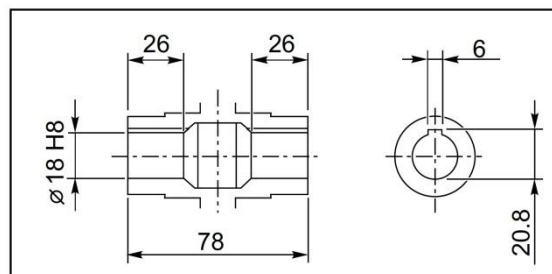


(*) De 5V voeding van de encoder en hall sensoren is intern gecombineerd, de stroom is daardoor >165mA. Niet alle controllers leveren deze stroom. In dat geval de 5V (pin 13) aansluiten via een externe 5V voeding. Bijvoorbeeld d.m.v. een DC-DC converter.

Afmetingen

2D & 3D tekeningen van deze combinaties staan op onze website.

*Holle uitgaande as**



* Massieve as adapterstukken optioneel leverbaar