

D.C. Gear Motors

Motors with Worm Gears SG

A special feature of the worm gears is the smooth running.

The zinc die-cast is designed for foot and flange mounting. The worm shaft has bearings on both sides.

The gearing is made out of steel and bronze parts. The lubricating crease guarantees a high lifetime at the rated torques stated.

Worm gears, series SG 62

At the standard type gear the output shaft runs in a self-lubricating sintered bearing bush and is brought out one-sided on the left. Ball bearings are possible as special design.

Worm gears, series SG 80

At the standard type gear the output shaft runs in a self-lubricating sintered bearing bush and is brought out one-sided on the left. Ball bearings are possible as special design.

Worm gears, series SG 120

At the standard gear the output shaft runs in ball bearings and is brought out one-sided on the left.

Position of gear output shaft at worm gears

The standard gear output shaft for series production is, in top view, unidirectionally left (WL1). Special versions are possible.



WL1 Standard version
Shaft left



WL2 Special version
Shaft right



WL3 Special version
Shaft on both sides



Gear unit types

Worm gears SG 62

for continuous torques
up to 150 Ncm, at shorttime up to 300 Ncm

Shaft load capacity axial 40 N max.

Shaft load capacity radial 40 N max.
applied in center of standard gear shaft

| Ratio : 1 | Efficiency | Continuous torques max. Ncm |
|--------------|------------|-----------------------------------|
| 8 | 0,60 | 100 |
| 15 | 0,55 | 100 |
| 23 | 0,50 | 150 |
| 35 | 0,45 | 150 |
| 46 | 0,40 | 150 |
| 72 | 0,30 | 150 |

Combination
worm gear SG 62 and
planetary gear PLG 52.0
on request.

Worm gears SG 80 and SG 80 H*

for continuous torques
up to 400 Ncm, at shorttime up to 800 Ncm

Shaft load capacity axial 50 N max.

Shaft load capacity radial 60 N max.
applied in center point of Woodruff key

| Ratio : 1 | Efficiency | Continuous torques max. Ncm |
|--------------|------------|-----------------------------------|
| 5 | 0,70 | 200 |
| 10 | 0,65 | 250 |
| 15 | 0,55 | 300 |
| 24 | 0,50 | 350 |
| 38 | 0,40 | 350 |
| 50 | 0,35 | 400 |
| 75 | 0,25 | 400 |

* H = hollow shaft

Worm gears SG 120 and SG 120 H*

for continuous torques
up to 1500 Ncm

Shaft load capacity axial 300 N max.

Shaft load capacity radial 500 N max.
bei Mitte Paßfeder

| Ratio : 1 | Efficiency | Continuous torques max. Ncm |
|--------------|------------|-----------------------------------|
| 8 | 0,70 | 800 |
| 10 | 0,70 | 1000 |
| 15 | 0,65 | 1000 |
| 20 | 0,55 | 1500 |
| 30 | 0,50 | 1500 |
| 40 | 0,40 | 1500 |
| 50 | 0,35 | 1500 |
| 60 | 0,30 | 1500 |
| 70 | 0,28 | 1500 |
| 80 | 0,25 | 1500 |

Combination
worm gear SG 120 and
planetary gear PLG 70
on request.

* H = hollow shaft on request

**Worm gear SG 80 with
Planetary gear PLG 52.0**

PLG for continuous torques

1 stage up to 700 Ncm

2 stages up to 800 Ncm

3 stages up to 2 400 Ncm

PLG-Shaft load capacity axial 300 N max.

PLG-Shaft load capacity radial 500 N max.
applied in center point of parallel key

| Total Ratio | SG 80 Ratio : 1 | PLG 52.0 Ratio : 1 |
|----------------|-----------------------|--------------------------|
| 22 | 5 | 4.5 |
| 31 | 5 | 6.25 |
| 45 | 10 | 4.5 |
| 62 | 10 | 6.25 |
| 101 | 5 | 20.25 |
| 180 | 5 | 36 |
| 250 | 5 | 50 |
| 360 | 10 | 36 |
| 500 | 10 | 50 |
| 750 | 15 | 50 |
| 1 200 | 24 | 50 |
| 1 900 | 38 | 50 |
| 2 500 | 50 | 50 |
| 4 000 | 10 | 400 |
| 6 000 | 15 | 400 |
| 9 600 | 24 | 400 |
| 15 200 | 38 | 400 |
| 20 000 | 50 | 400 |
| 30 000 | 75 | 400 |

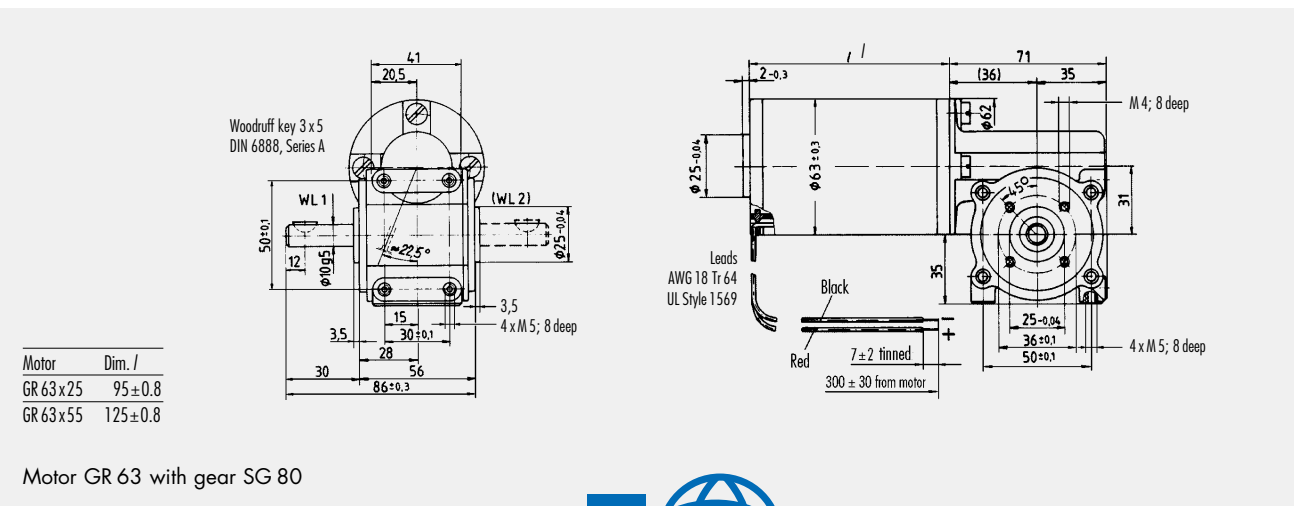
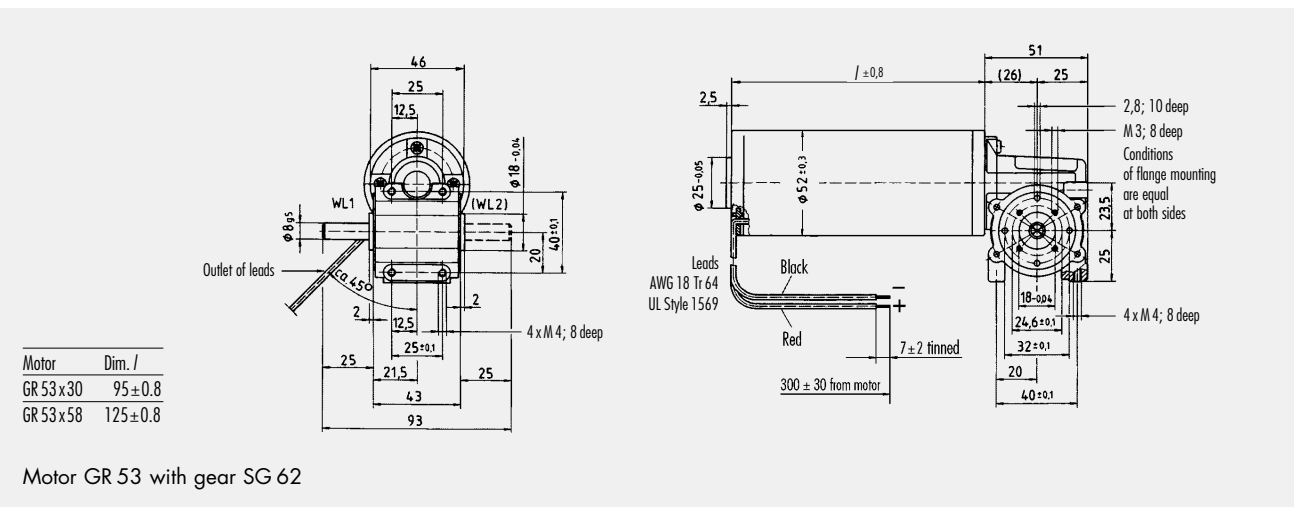
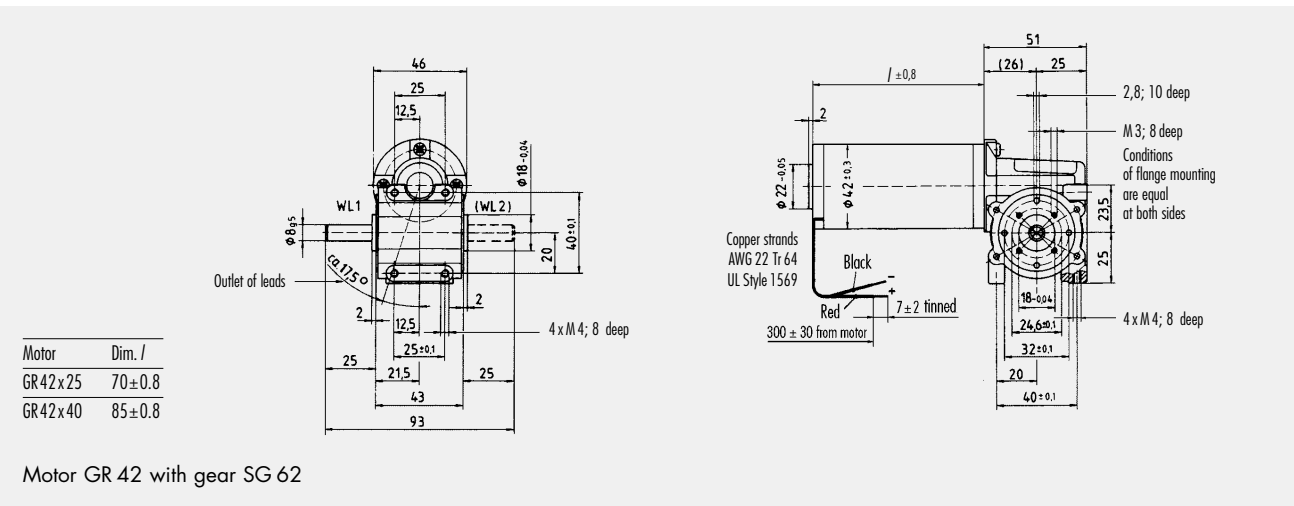
Further ratio combinations
on request.

Combination
worm gear SG 80 and
planetary gear PLG 52.0
see page 29.

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Motors with Worm Gears SG

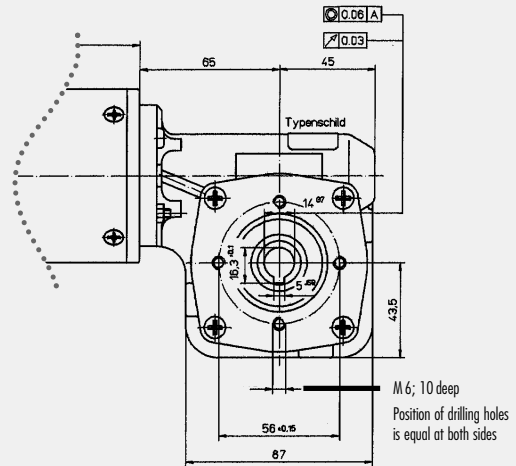
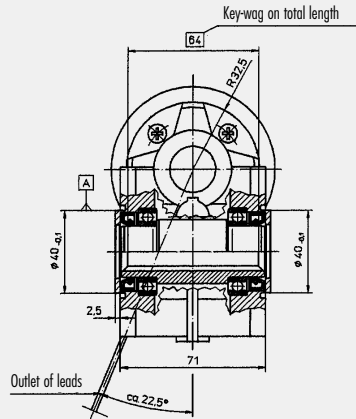
Dimensional drawings · Dimensions in mm



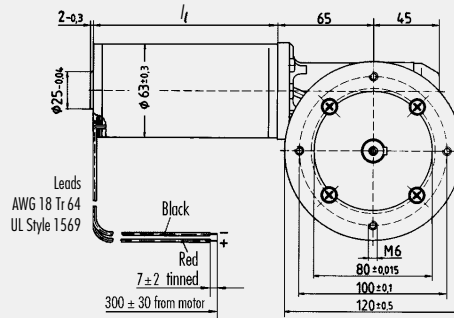
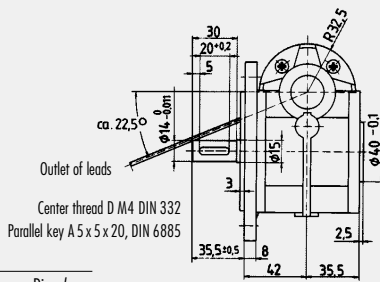
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Dimensional drawings · Dimensions in mm

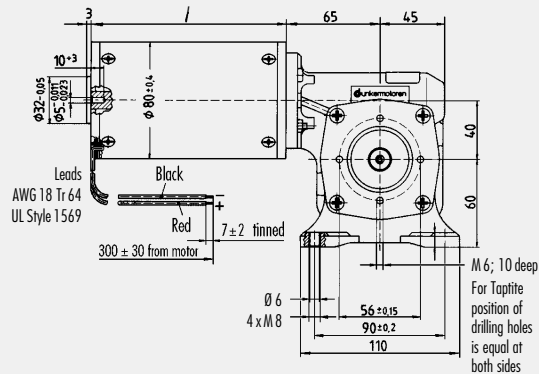
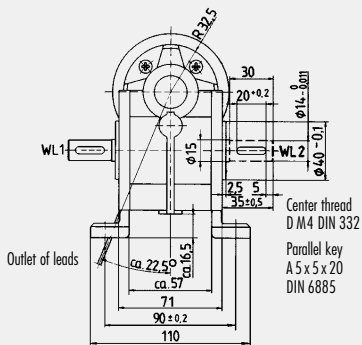


Worm gear SG 120 H



| Motor | Dim. / |
|----------|-----------|
| GR 63x25 | 95 ± 0.8 |
| GR 63x55 | 125 ± 0.8 |

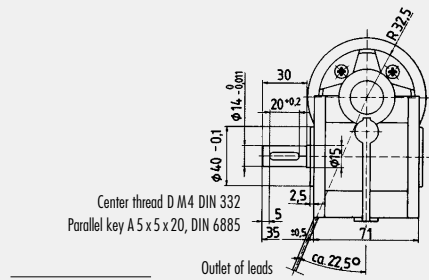
Motor GR 63 with gear SGF120-B5 in flange version B5



| Motor | Dim. / |
|----------|---------|
| GR 80x40 | 135 ± 1 |
| GR 80x40 | 175 ± 1 |

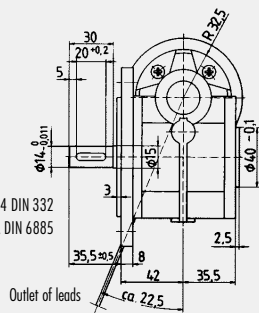
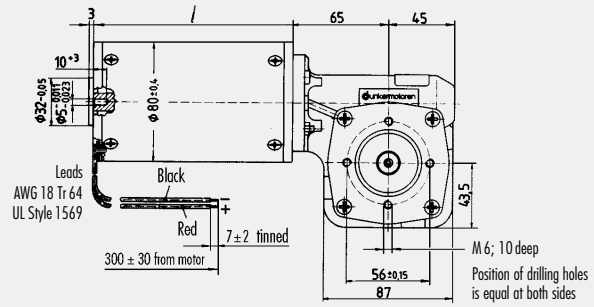
Motor GR 80 with gear SG 120 in foot version B3

Dimensional drawings · Dimensions in mm



| Motor | Dim. / |
|------------|---------|
| GR 80 x 40 | 135 ± 1 |
| GR 80 x 40 | 175 ± 1 |

Motor GR 80 with gear SGF120-B14
in flange version B14



| Motor | Dim. / |
|------------|---------|
| GR 80 x 40 | 135 ± 1 |
| GR 80 x 40 | 175 ± 1 |

Motor GR 80 with gear SGF120-B5
in flange version B5

