Technical Terms
of
Micro-Drives Gearboxes
as
Published on the Datasheet

All values at 22°C.

All ratings and data are for nominal values, except where specifically noted.

1 **Housing material**

The material used in the construction of the gearbox housing.

2 **Geartrain material**

The material used in the fabrication of the gears.

3 **Recommended max. input speed – continuous operation** [rpm]

The maximum input speed recommended for continuous operation in order to have a life of 500 hours minimum, assuming the Maximum Recommended Output Torque is not exceeded.

4 **Backlash, at no-load** [degrees]

The number of angular degrees, once the gear train is fully wound up in a clockwise output shaft rotational direction, that the input shaft divided by the gear ratio must rotate in the opposite direction to effect rotation of the output shaft in a counterclockwise direction.

4 **Bearings on output shaft**

The bearings used for the output shaft of the gearbox.
.

6 **Shaft load, max. – radial** [N]

The shaft load at a specified distance from the mounting surface.

Micro-Drives
14881 Evergreen Ave Clearwater, FL 33762-3008
Tel: (727) 572-0131 ❙ Toll Free: (800) 807-9166 ❙ Fax: (727) 573-2190 ❙ Toll Free Fax: (800) 477-1133
e-mail: info@micro-drives.com Web: www.micro-drives.com

The ratings indicates that a lifetime of 500 hours for other components in the gearbox will not be affected by this shaft load.

7 **Shaft press fit force** [N]

The maximum press fitting force recommended to avoid damage to the gearbox.

8 **Shaft play (on bearing output) – radial** [mm]

The shaft play on the bearings, measured at the bearing exit.

9 **Shaft play (on bearing output) – axial** [mm]

The shaft play on the bearings, measured at the bearing exit.

10 **Operating temperature range** [°C]

Indicates the min and max gearbox operating temperature recommended.

11 **Weight** [g]

The average weight of the basic gearbox type and ratio.

12 **Reduction Ratio**

The number of revolutions of the input stage to effect 1 complete revolution of the out put shaft.

13 **efficiency** [%]

The ratio of a change in output power for a change in input power to the gearbox.

Note that efficiency does not address input friction torque.

This efficiency is a calculated value typically assuming a 10% loss per gear stage.

14 **Direction of Rotation**

Micro-Drives
14881 Evergreen Ave Clearwater, FL 33762-3008
Tel: (727) 572-0131 ❙ Toll Free: (800) 807-9166 ❙ Fax: (727) 573-2190 ❙ Toll Free Fax: (800) 477-1133
e-mail: info@micro-drives.com Web: www.micro-drives.com

The direction of rotation of the output shaft in relation to the direction of rotation of the input stage.

= means that the input and output stage rotate in the same direction.

≠ means that the output stage rotates in a direction opposite the input stage direction.

Gearboxes can be run in either direction.

George A. Beauchemin, April 24, 2006

Micro-Drives
14881 Evergreen Ave Clearwater, FL 33762-3008
Tel: (727) 572-0131 ❙ Toll Free: (800) 807-9166 ❙ Fax: (727) 573-2190 ❙ Toll Free Fax: (800) 477-1133
e-mail: info@micro-drives.com Web: www.micro-drives.com