Reducer

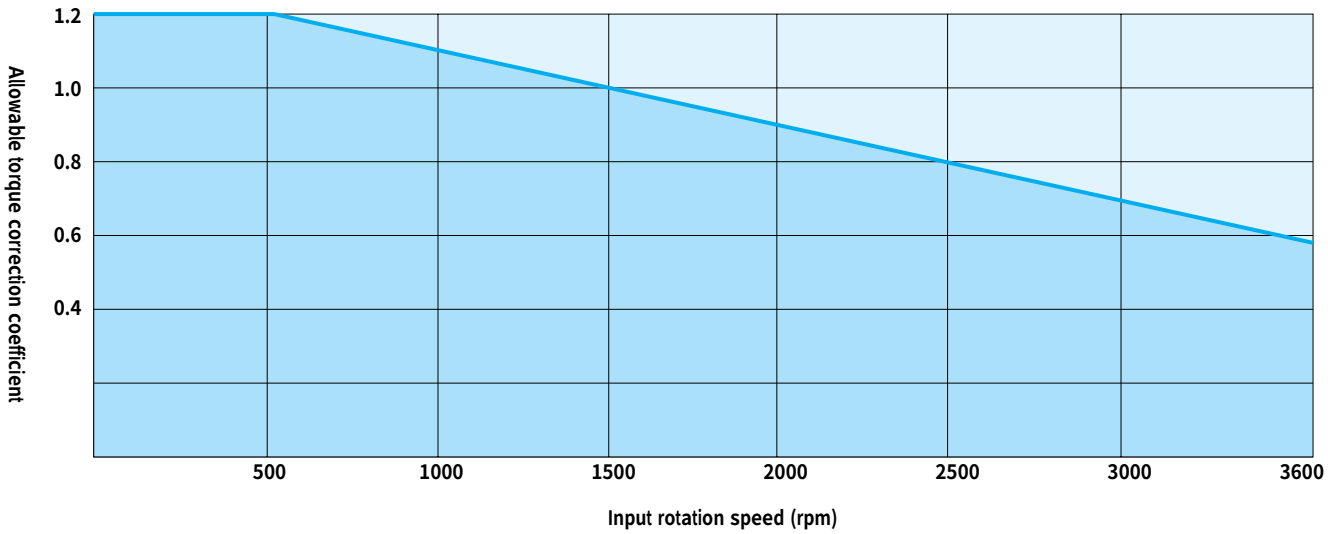
Independent Reducer consists of the reducer part of GTR gearmotors. Use this reducer in the following cases:

1. When required reducer unit only.
2. In case of driving reducer with special motor or with motors other than electric motor.
3. In case input rotation speeds of reducer and motor are different.

Relation between the Input Rotation Speed and the Output Shaft Allowable Torque

The values of output shaft allowable torque in the performance table are the values when the input rotation speed is 1500rpm. In case of using the motor with the different rotation speed, the output allowable torque can be obtained by multiplying the torque correction coefficient in the diagram below

Allowable Torque Coefficient by Reducer Input Rotation speed



1) The allowable O.H.L. can also be obtained by the correction coefficient shown above.
2) As for the allowable inertia moment I {allowable GD^2}, in case of using with the input rotation speed of over 1800rpm, it can be obtained by multiplying (1800/input•rpm)_ to the allowable inertia moment in the Table-2 on page E4.

Example

In case of using the model H2L-32L-40-075 with the input rotation speed of 2500rpm, the output shaft allowable torque, input/output shaft allowable O.H.L., and output shaft allowable inertia moment {GD^2} can be obtained as follows.
From the above table, the correction coefficient at the input rotation speed of 2500rpm is 0.8, therefore values can be obtained as follows:

Output shaft allowable torque =172×0.8=138N•m
{17.5×0.8=14kgf•m}
Input shaft allowable O.H.L. =392×0.8=314N
{40×0.8=32kgf}
Output shaft allowable O.H.L. =3430×0.8=2744N
{350×0.8=280kgf}

Also, the output shaft allowable inertia moment I{GD^2} can be obtained by
$0.003\times(1800/2500)^2\times40^2$ 2.5kg•m²
{$0.012\times(1800/2500)^2\times40^2$ 10.0kgf•m²}