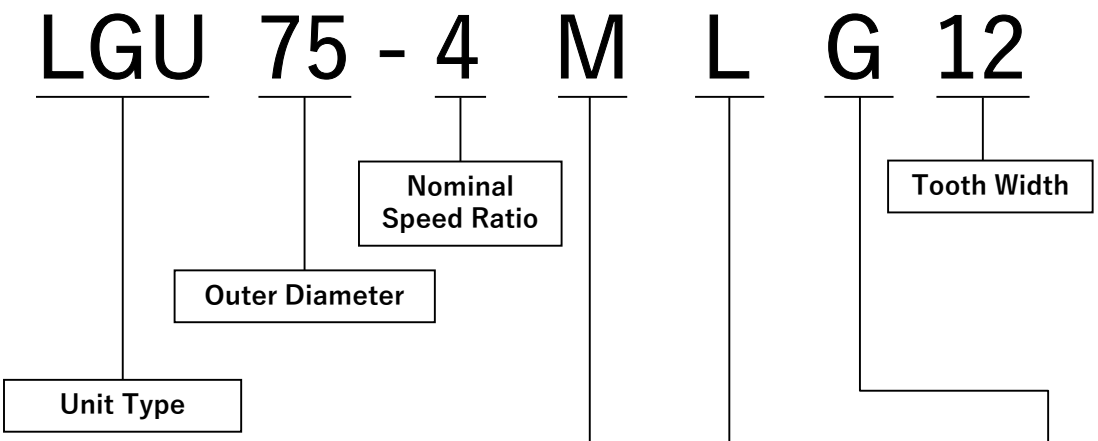
UNIT TYPE NAMING RULE・GENERAL SPECIFICATIONS

■ MODEL NAMING RULE



Material of Gear	
M	Metal
S	Sintered Metal
C	Sintered Metal +Plastic
P	Plastic

Input Shape	
Mark	Shape
A, N, R	D Cut Hole
D, J	Serration Hole
E, F, H, I, N, T	Spline Hole
Y	Spur Gear Shaft
L, G	Serration Shaft
B	Hole with Key

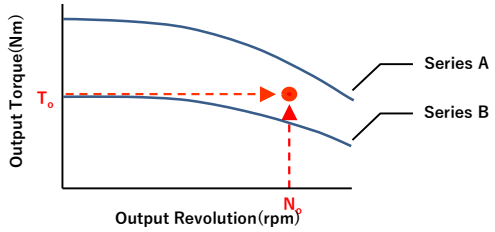
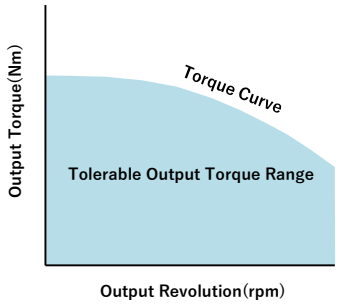
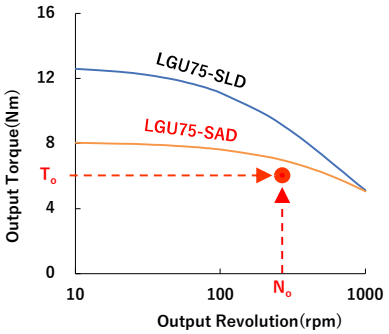
Output Shape	
Mark	Shape
D, G	Serration Hole
E, H, I, N, F, Z	Spline Hole
S	Spur Gear Hole

■ GENERAL SPECIFICATONS

REDUCER TYPE	Planetary Gear
STRUCTURE	Open type (not sealed by case)
OUTPUT DIRECTION	Same Direction of Input Rotation (Sun Gear Input & Carrier Output)
EFFICIENCY	90 % or more (One stage reducer, Continuous Drive)
NOISE LEVEL	Less than 70dB (A Range) 1.0m ※Reference with no lubrication
LUBRICATION	Grease or Oil lubrication ※See the full catalog for more details
TEMPERATURE	0～40℃ ※Please consult us if ambient temperature is out of the range.
SETTING ANGLE	Horizontal setting of input & output shaft is recommended.

GEAR SELECTION PROCEDURE for UNIT TYPE

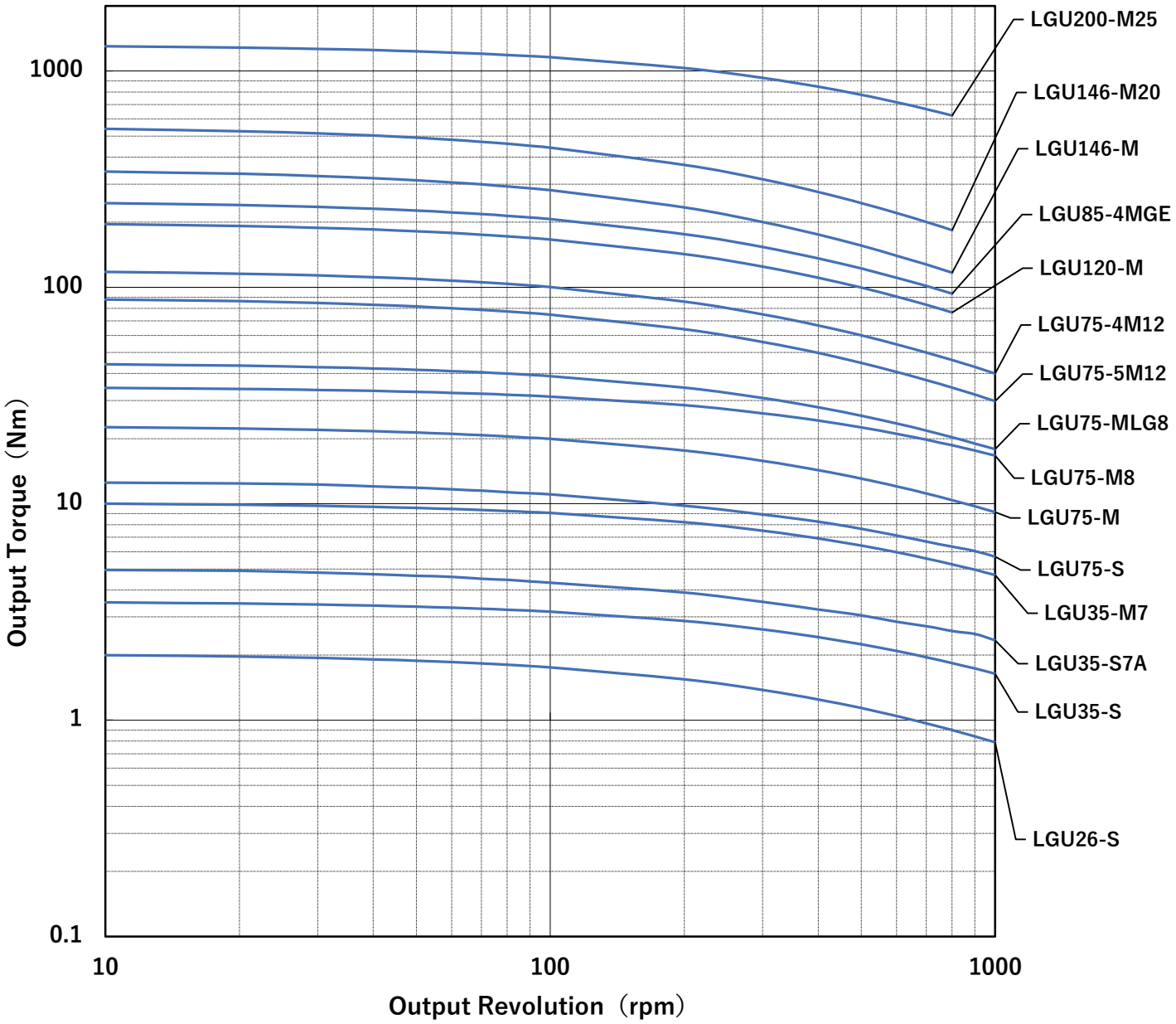
■ GEAR SELECTION PROCEDURE

Procedure	Notes・Calculation	Example
Step1 Usage Conditions	・Application ・Type of drive unit and Acceleration/Deceleration ・Load Torque　T ・Output Revolution　n_o ・Input Revolution　n_i ・Drive Pattern　Driving hours/day, Stop and Go	・Application：Conveyor(Unstable Load) ・3Phase Induction Motor(300W・4P) ・Load Torque T：4.5Nm ・Output Revolution　n_o：350rpm ・Input Revolution　n_i：1750rpm ・Drive Pattern：9hours/day,　Continuous
Step2 Calculation of Fundamental Parameters and Service Factor	・Calculation of Speed Ratio R $R=n_i\div n_o$ ・Choice of Service Factor(SF) Choose appropriate Service Factor(SF) to your application from the table of SF. ・Calculation of Output Torque T_o $T_o=T\times SF$	・Calculation of Speed Ratio R $R=n_i\div n_o=1750\div 350=5$ ・Choice of Service Factor(SF) Drive Characteristic：Moderate Shock Load（M） From the table, SF＝1.25 ・Calculation of Output Torque T_o $T_o=T\times SF=4.5\times 1.25\fallingdotseq 5.63$Nm
Step3 Selection of Series	・Selection of Series Choose the appropriate series with a torque curve of P.6 which has a torque more than the above calculated output Torque T_o, and Revolution n_o. Series A would be chosen under the below case.  	・Selection of Series From the above calculations, the given important parameters are Output Torque　T_o：5.63Nm Output Revolution　n_o：350rpm The series which has a torque curve more than the above calculated output Torque T_o and Revolution n_o is Selected Series：LGU75-S Series
Step4 Selection of Model	・Selection of Model Using Torque Curve graph, choose the appropriate model with which the above calculated values are within the tolerable output torque range.  ※In case the speed ratio of the selected model is not enough, please consider the multi-stage usage. If you can't find a good setting, please consider the good combination of gears in reference to connection examples of each page, or please consult us. Choose the model from the final stage(output side) to the first stage(input side) in order.	・Selection of Model The model which has a torque curve which satisfies the above parameters is, Selected Model：LGU75-5SAD 
Step5 Actual Speed Ratio	・Confirm the Actual Speed Ratio R_A ・Re-Calculation of Input/Output Torque and Revolution Using the actual speed ratio R_A, Please re-confirm the actual input/output torque and revolution. ※Re-confirm that the actual input/output torque and revolution are within the tolerable output torque range.	・Confirm the Actual Speed Ratio R_A The actual speed ratio of the LGU75-5SAD is R_A=4.8 ・Re-Calculation of Input/Output Torque and Revolution In this example, it is assumed that the output torque and the input are fixed. Input Torque＝$5.63\div 4.8\fallingdotseq 1.17$Nm Output Revolution＝$1750\div 4.8\fallingdotseq 364.6$rpm ・・・The output torque 5.63Nm at the actual output revolution is within the tolerable output torque range.
Step6 Input/Output Shape	・Confirm the input/output shape of the model. ・Confirm other parameters like size, weight, etc.	・Input Shape　D Cut Hole　$\phi 8\times 7$ ・Output Shape　Serration Hole　$12\times 11\times 1$
Selection Complete		

Notes　Efficiency is ignored to simplify the explanation. If the power of the drive unit is not enough for the power of the load, then Efficiency should be considered in the Step 5 "Actual Torque Calculation".

GEAR SELECTION PROCEDURE for UNIT TYPE

TORQUE CURVEs of REPRESENTATIVE MODELs of EACH SERIES



SERVICE FACTOR (SF)

Drive Condition	Characteristic of Load Pattern			
	Uniform Load(U)	Moderate Shock Load(M)	Moderate Heavy Shock Load(MH)	Heavy Shock Load(H)
3Hours or less/Day	1.0	1.0	1.25	1.5
3～10Hours/Day	1.0	1.25	1.50	1.75
10～24Hours/Day	1.25	1.50	1.75	2.00