

Table E-3 Trochoid Pump Type

Cyclo Drive			Trochoid Pump					
Type	Frame Size	Reduction Ratio	Pump Type	Pump Motor	50 Hz Zone		60 Hz Zone	
					Discharge ℓ /min	Max. Pressure kg/cm ²	Discharge ℓ /min	Max. Pressure kg/cm ²
Vertical shaft	6275	29,43,59,87	TOP216HA-VB3	0.75 kW 4P	24.0	8	28.8	5.0
	6275DA	All reduction ratios	TOP204HA-VB3	0.4 kW 4P	6.0	16	7.2	11.5

Note : 1. Trochoid pump manufactured by Nippon Oil Pump Mfg. Ltd. used as the standard pump.
 2. A relief valve(Pressure set at 3 kgf/cm²) is a standard attachment in the trochoid pump.

LUBRICANTS

1. Grease Lubricated Models

The grease lubricated models shown in Table E-4 are packed with grease prior to shipment; they may be used without replenishment.

(i) Maintenance-Free Series.

The models in the shaded □ column of Tables E-1 and E-2 are sealed with long-life grease(Alvania Grease RA), replenishment is practically unnecessary, but replacement approximately every 20,000 hours of operation or 4 ~ 5 years, will provide longer service life.

(ii) Grease lubricated models, other than as specified in (i) above.

Please replenish or replace, as specified in the Instruction Manual.

Table E-4 Standard Grease

Ambient Temperature	Cyclo Drive			Sumitomo Manufactured Motor		
	(i)Maintenance-Free Series	(ii) Other than (i) models		Sealed Bearings	Open Bearings	
					E,B Type insulation	F Type insulation
Shell Oil	Shell Oil	Cosmo Oil	Kyodo Yushi	Shell Oil	Shell Oil	
-10 } 50	SHELL ALVANIA GREASE RA	SHELL ALVANIA GREASE 2	COSMO GREASE DYNAMAX SH No.2	MULTEMP SRL	SHELL ALVANIA GREASE 2	DARINA GREASE 2

Note): 1. Avoid the use of grease other than shown in Table E-4
 2. Drives shown in column (ii) of Table 32 are packed with COSMO GREASE DYNAMAX SH No.2, at the time of shipment.
 3. The mixture of the two types of grease shown in column (ii) is permissible.
 4. For consistent use in ambient temperatures other than 0 ~ 40 , please consult us.

2. Oil Lubricated Models

The oil lubricated models are not filled with oil prior to shipping. Before operating, please be sure to fill the unit with oil up to the red line on the oil gauge.

Table E-5 Mild EP Oil Brand Recommended (Equivalent to SP Type Industrial High-Pressure Gear Oil or JIS K2219 No.2 Industrial Gear Oil)

Ambient temp.	Gulf Oil	Esso Oil	Mobil Oil	Shell Oil	Caltex Oil	BP Oil
-10 to 5	EP Lubricant HD 68	Spartan EP 68	Mobil gear 626 (ISO VG 68)	Omala Oil 68		Energol GR-XP 68
0 to 35	EP Lubricant HD 100 HD 150	Spartan EP 100 EP 150	Mobil gear 627 629 (ISO VG 100, 150)	Omala Oil 100 150	Meropa 100 150	Energol GR-XP 100 GR-XP 150
30 to 50	EP Lubricant HD 220 HD 320 HD 460	Spartan EP 220 EP 320 EP 460	Mobil gear 630 632 633 634 (ISO VG 220 ~ 460)	Omala Oil 220 320 460	Meropa 220 320 460	Energol GR-XP 220 GR-XP 320 GR-XP 460

Notes : 1. For use in winter or relatively low ambient temperature, use the lower viscosity oil specified for each ambient temperature range.

2. For consistent use in ambient temperatures other than 0 ~ 40 , please consult us.

VOLUME OF OIL FILLING

Table E-6 Volume of Oil Filling, litres (Approximate)

Single Reduction	Frame Size	6130 6135	6140 6145 614H	6160 6165 616H	6170 6175	6180 6185	6190 6195	6205	6215	6225	6235	6245	6255	6265	6275
	Horizontal	0.7	0.7	1.4	1.9	2.5	4.0	5.5	8.5	10	15	16	21	29	56
	Vertical	1.1	1.1	1.0	1.9	2.0	2.7	5.7	7.5	10	12	15	42	51	(60)

Double Reduction	Frame Size	6160 DC 6165 DC	6170 DC 6175 DC	6180 DB 6185 DB	6190 DA 6195 DA	6190 DB 6195 DB	6205 DA	6205 DB	6215 DA	6215 DB	6225 DA	6225 DB	6235 DA	6235 DB	6245 DA	6245 DB	6255 DA	6255 DB	6265 DA	6275 DA
	Horizontal	1.5	2.4	3.5	5.8	6.0	6.0	6.0	10	10	11	11	17	17	18	18	23	23	32	60
	Vertical	1.0	1.9	2.0	2.7	2.7	11	11	14	14	18	18	23	23	29	29	42	42	51	(60)

() with trochoid pump.

How to refer to the rating plate

There are two types of rating plates, Type I and Type II. Examples of typical plates are shown below, refer to the proper one.

1. Gearmotor

(1) Rating plate type I : Gearmotor

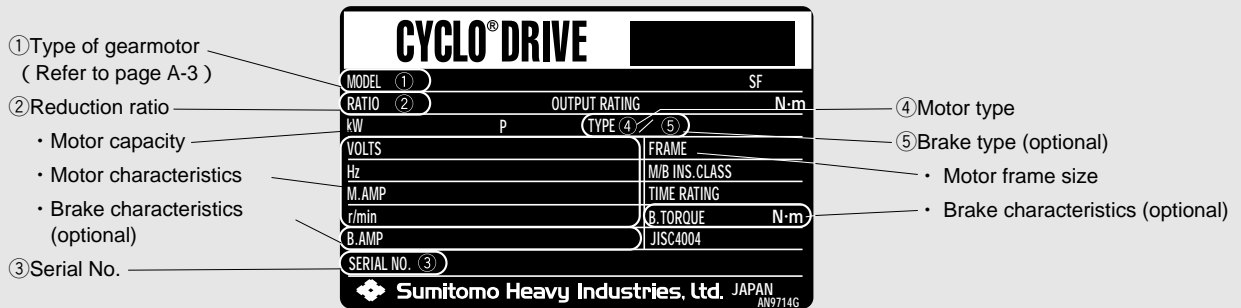


Fig.E-1 Rating plate of gearmotor (Type I)

(2) Rating plate type II : Reducer with motor

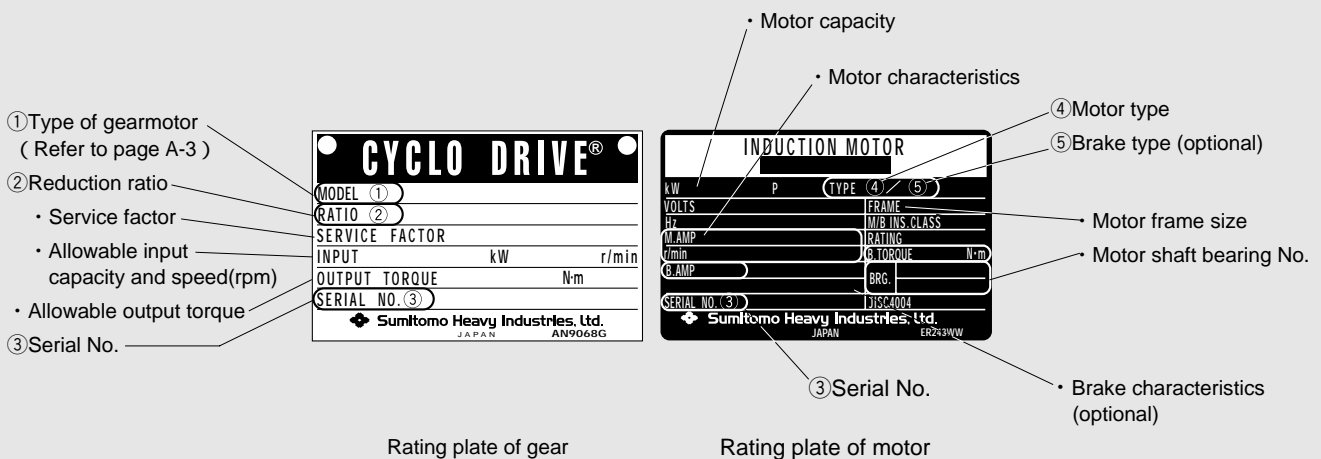


Fig.E-2 Rating plates of reducer with motor (Type II)

Technical

Reducer

Motor

Common