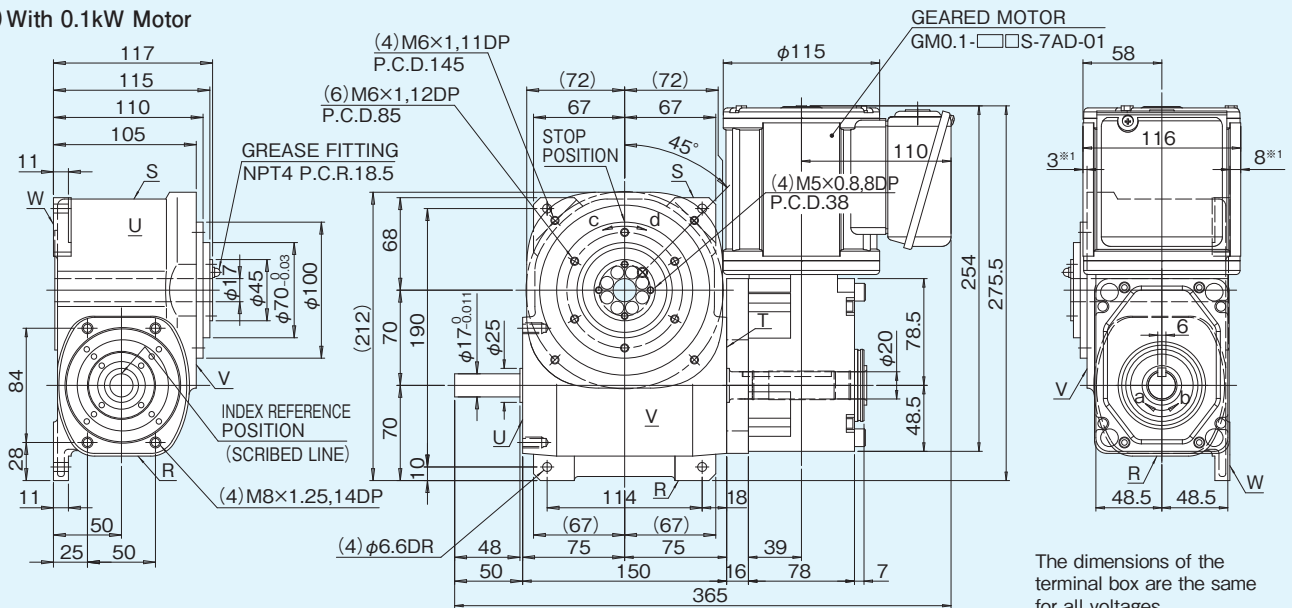


7AD Dimensions

[Unit : mm]

(a) With 0.1kW Motor

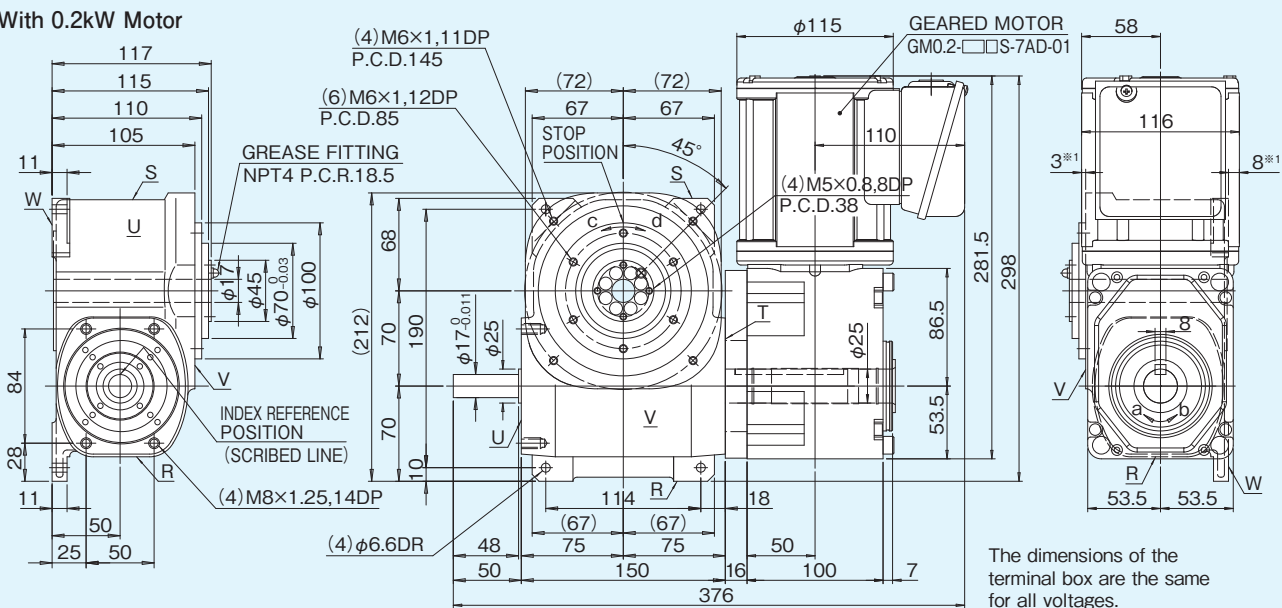


- *1 Part of the motor protrudes beyond the V and W mounting surfaces of the housing. This will interfere with any customer-mounted table or mounting base. The amount of interference will depend on the mounting accuracy of the motor. We recommend that you design customer-mounted parts with ≥ 5 mm of clearance.
- *2 The dimensions in parentheses in the figure represent the casting dimensions.

The dimensions of the terminal box are the same for all voltages.

Figure 7AD-1

(b) With 0.2kW Motor



- *1 Part of the motor protrudes beyond the face of the output flange and the V and W mounting surfaces of the housing. This will interfere with any customer-mounted table or mounting base. The amount of interference will depend on the mounting accuracy of the motor. We recommend that you design customer-mounted parts with ≥ 5 mm of clearance.
- *2 The dimensions in parentheses in the figure represent the casting dimensions.

The dimensions of the terminal box are the same for all voltages.

Figure 7AD-2

Specifications

Table 7AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	3100	Input allowable axial load	P_4	N	1860	Indexing accuracy (1 DWELL)		sec	± 30
Output allowable radial load	P_2	N	1400	Input maximum repetitious bending force	P_5	N	1600	Indexing accuracy (2 DWELL)		sec	± 60
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	93.1	Repetitive accuracy		sec	30
Output torsional rigidity	K_1	N·m/rad	1.39×10^5	Input torsional rigidity	K_2	N·m/rad	2.62×10^4	Product weight (Index body)		kg	15
Output inertia	J_o	kg·m ²	3.4×10^{-3}	Input inertia	J_c	kg·m ²	1.9×10^{-3}	Housing color		Ivory	
Output allowable bending moment	P_3	N·m	32					Geared motor paint color		Gray	

Note: Input inertia: J is calculated in dwell.

1N·m=0.102kgf·m

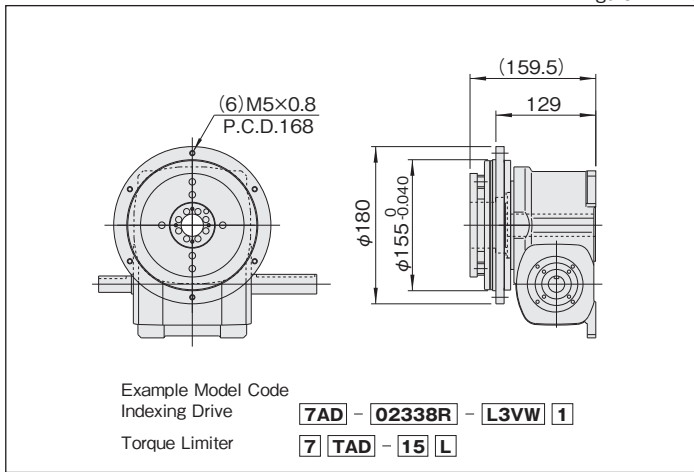
Specifications of geared motor

Table 7AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N_M (rpm)		Output Allowable Torque T_R (N·m)		Moment of inertia J_M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM0.1-20AS-7AD-01	GM0.1-20BS-7AD-01	0.1	20	75	90	11	8.6	8.0×10^{-4}	6.5
GM0.1-25AS-7AD-01	GM0.1-25BS-7AD-01		25	60	72	13	11		
GM0.1-30AS-7AD-01	GM0.1-30BS-7AD-01		30	50	60	16	13		
GM0.1-40AS-7AD-01	GM0.1-40BS-7AD-01		40	37.5	45	21	18		
GM0.1-50AS-7AD-01	GM0.1-50BS-7AD-01		50	30	36	25	22		
GM0.2-10AS-7AD-01	GM0.2-10BS-7AD-01	0.2	10	150	180	11	9.2	10.0×10^{-4}	8.5
GM0.2-15AS-7AD-01	GM0.2-15BS-7AD-01		15	100	120	17	14		
GM0.2-20AS-7AD-01	GM0.2-20BS-7AD-01		20	75	90	23	19		
GM0.2-25AS-7AD-01	GM0.2-25BS-7AD-01		25	60	72	27	24		
GM0.2-30AS-7AD-01	GM0.2-30BS-7AD-01		30	50	60	33	27		
GM0.2-40AS-7AD-01	GM0.2-40BS-7AD-01		40	37.5	45	44	37		
GM0.2-50AS-7AD-01	GM0.2-50BS-7AD-01	50	30	36	55	46			

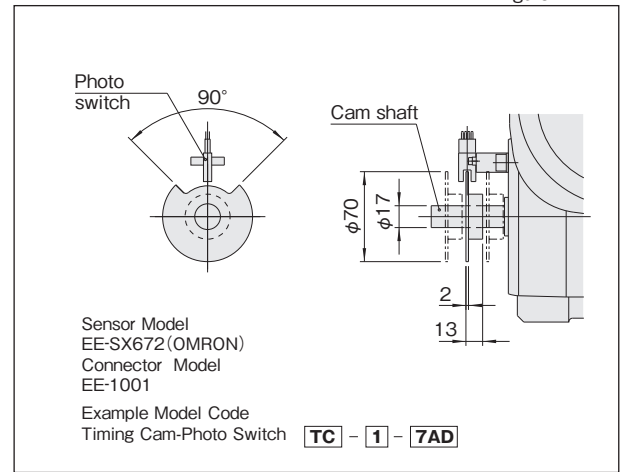
Torque limiter mounting specifications (option)

Figure 7AD-3



Timing cam-Photo switch

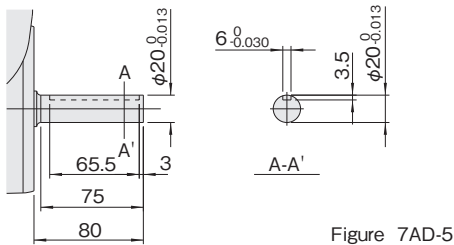
Figure 7AD-4



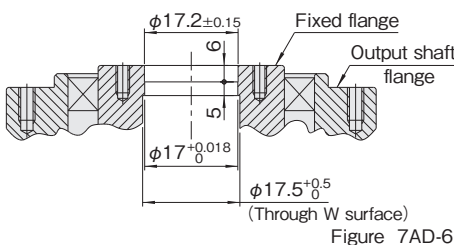
Precautions

- The dimension drawing (Figure 7AD-1, 7AD-2) shows the standard mounting position for geared motor.
- Model 7AD can be equipped with 0.1kW and 0.2kW motor. Exchange is not permitted after purchase because of different hollow size of geared motor.
- Model 7AD can be equipped with torque limiter 7TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The notch angle (90°) of timing cam is not adjustable.

Standard input shaft (T surface side)



Output fixed flange specifications



Locations of oil plug, etc., and oil capacity

Figure 7AD-7

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	0.4	0.7	0.8

Precautions

- Each point indicated in the mounting positions shown in Figure 7AD-7 represents (starting at top) the oil plug (PT1/4), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 7AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

9AD Dimensions

(Unit : mm)

(a) With 0.2kW Motor

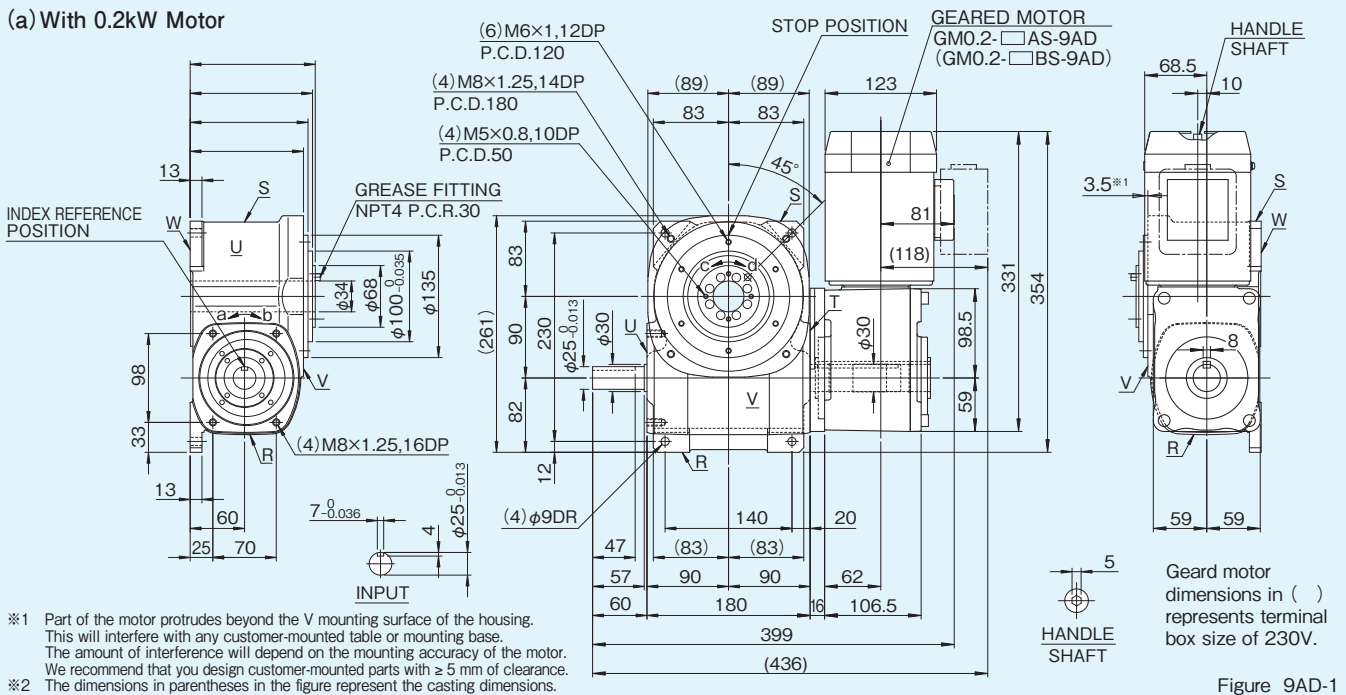


Figure 9AD-1

(b) With 0.4kW Motor

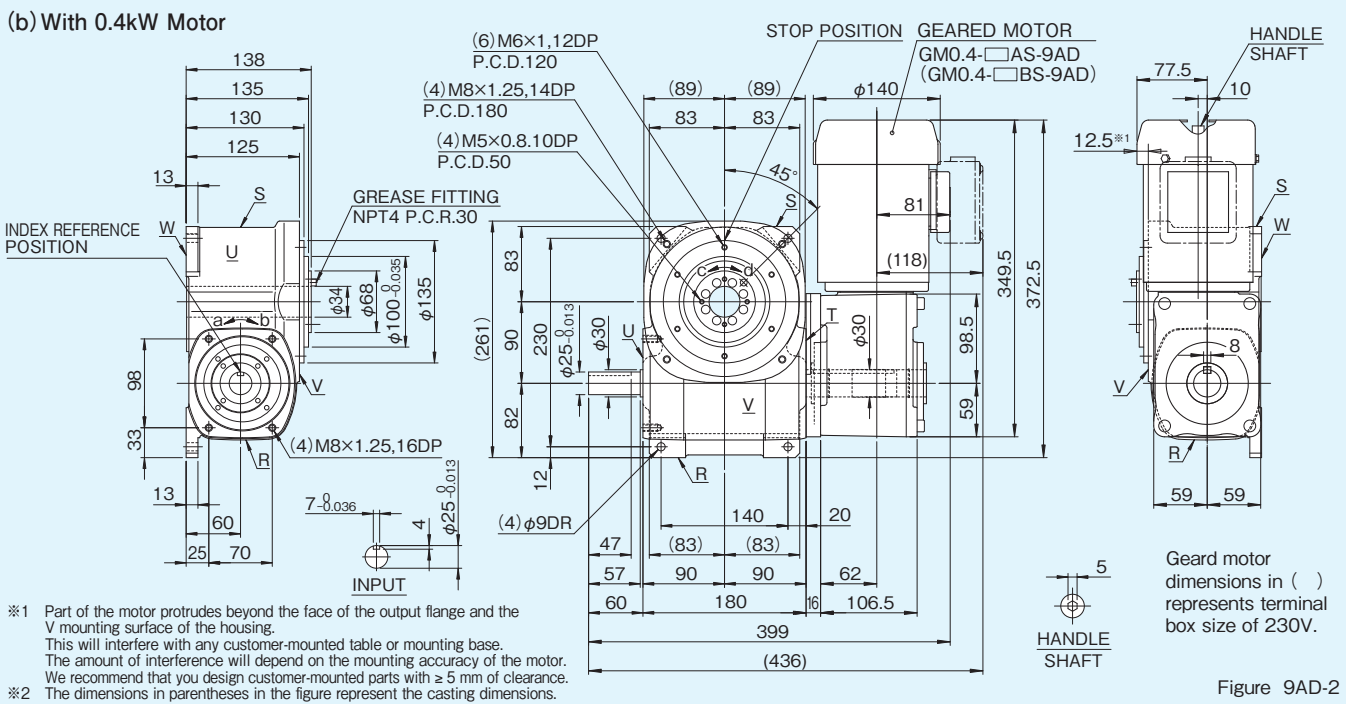


Figure 9AD-2

Specifications

Table 9AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	4900	Input allowable axial load	P ₄	N	2500	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	2100	Input maximum repetitious bending force	P ₅	N	2500	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	245	Repetitive accuracy		sec	30
Output torsional rigidity	K ₁	N·m/rad	2.64×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	3.36×10 ⁴	Product weight (Index body)		kg	24
Output inertia	J _o	kg·m ²	1.11×10 ⁻²	Input inertia	J _c	kg·m ²	2.5×10 ⁻³	Housing color		Ivory	
Output allowable bending moment	P ₃	N·m	98					Geared motor paint color		Light Silver	

Note: Input inertia: J is calculated in dwell.

1N·m=0.102kgf·m

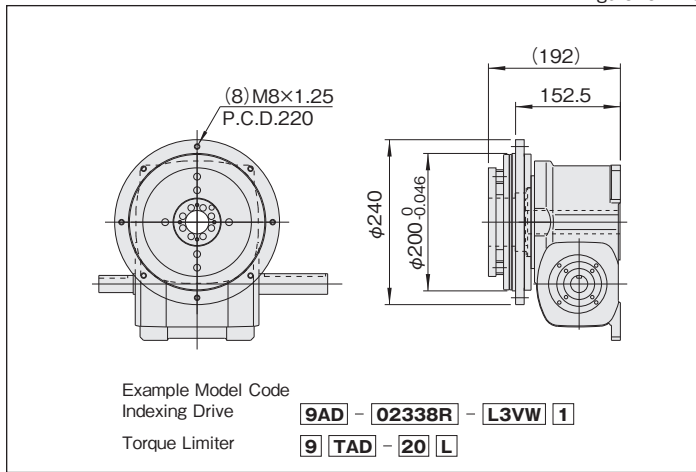
Specifications of geared motor

Table 9AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N_M (rpm)		Output Allowable Torque T_R (N·m)		Moment of inertia J_M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM0.2-20AS-9AD	GM0.2-20BS-9AD	0.2	20	75	90	22.5	18.6	0.74×10^{-3}	9.8
GM0.2-25AS-9AD	GM0.2-25BS-9AD		25	60	72	27.4	23.5		
GM0.2-30AS-9AD	GM0.2-30BS-9AD		30	50	60	33.3	27.4		
GM0.2-40AS-9AD	GM0.2-40BS-9AD		40	37.5	45	44.1	37.2		
GM0.2-50AS-9AD	GM0.2-50BS-9AD		50	30	36	55.9	46.1		
GM0.4-10AS-9AD	GM0.4-10BS-9AD	0.4	10	150	180	22.5	18.6	0.90×10^{-3}	10.5
GM0.4-15AS-9AD	GM0.4-15BS-9AD		15	100	120	33.3	27.4		
GM0.4-20AS-9AD	GM0.4-20BS-9AD		20	75	90	44.1	37.2		
GM0.4-25AS-9AD	GM0.4-25BS-9AD		25	60	72	55.9	46.1		
GM0.4-30AS-9AD	GM0.4-30BS-9AD		30	50	60	66.6	55.9		
GM0.4-40AS-9AD	GM0.4-40BS-9AD		40	37.5	45	84.3	70.6		
GM0.4-50AS-9AD	GM0.4-50BS-9AD		50	30	36	106.0	88.2		

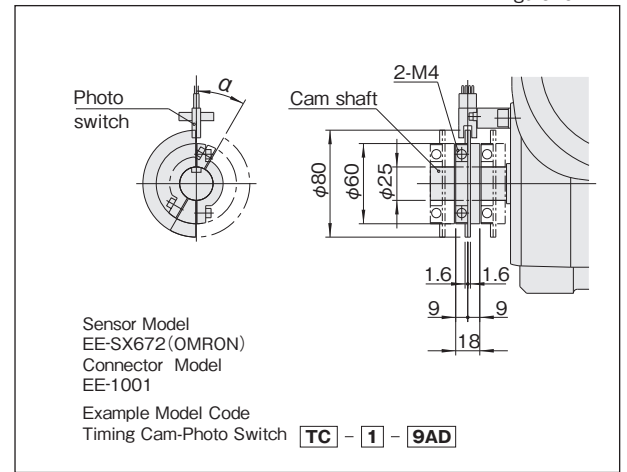
Torque limiter mounting specifications (option)

Figure 9AD-3



Timing cam-Photo switch

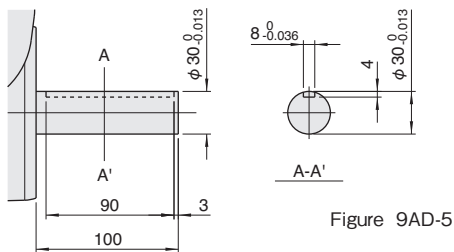
Figure 9AD-4



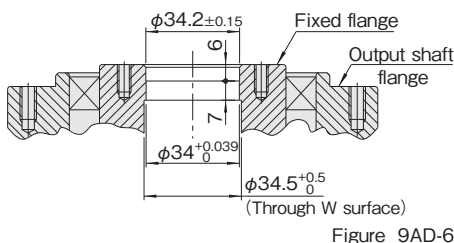
Precautions

- The dimension drawing (Figure 9AD-1, 9AD-2) shows the standard mounting position for the geared motor.
- Model 9AD can be equipped with 0.2kW and 0.4kW motor. Note, when using the 0.4kW motor, the motor will protrude beyond the indexer flange.
- Model 9AD can be equipped with torque limiter 9TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period (α) below 180°.

Standard input shaft (T surface side)



Output fixed flange specifications



Locations of oil plug, etc., and oil capacity

Figure 9AD-7

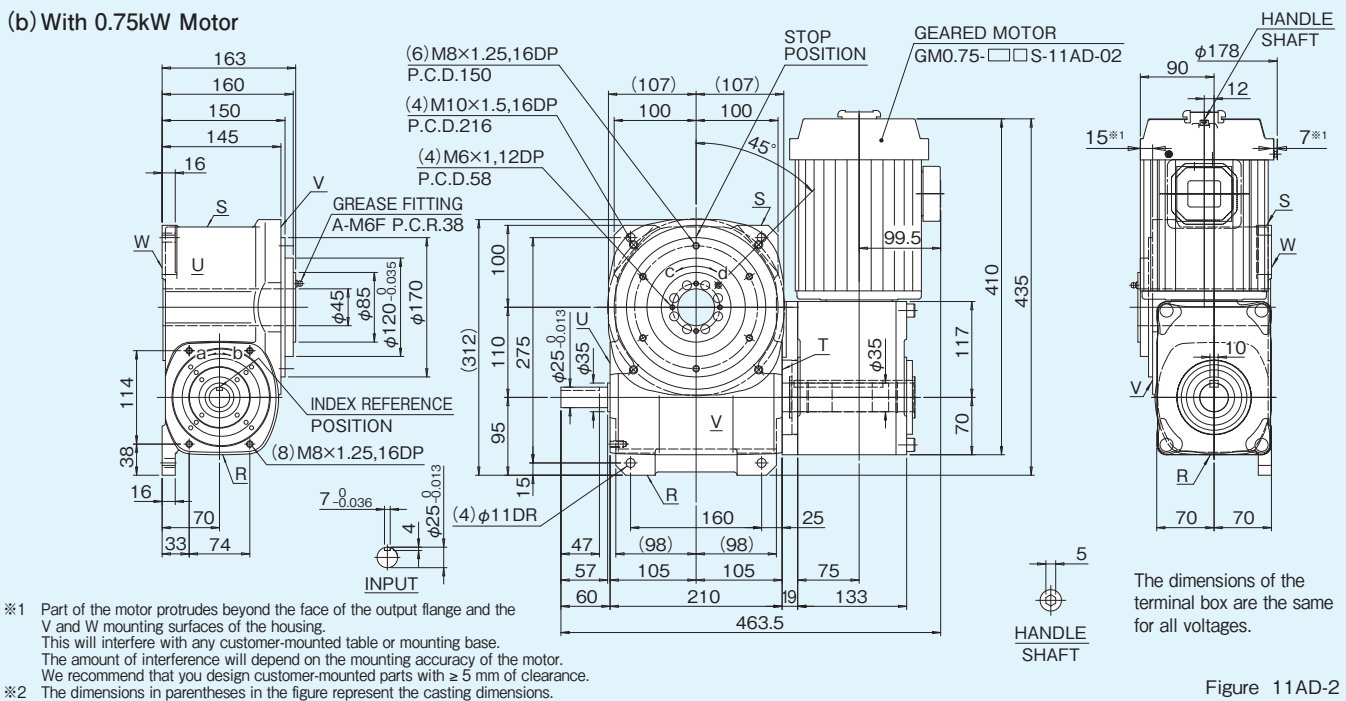
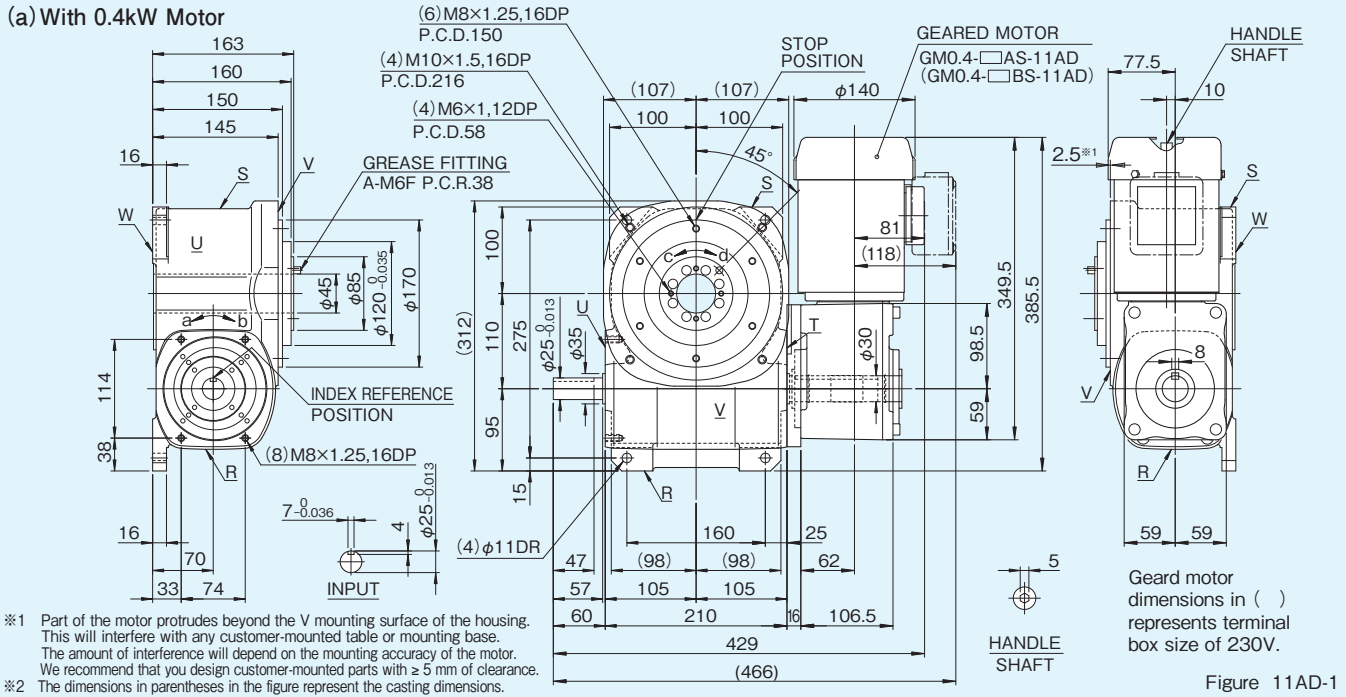
Mounting position	1	2	5
Location			
Oil capacity (ℓ)	0.5	0.9	1.0

Precautions

- Each point indicated in the mounting positions shown in Figure 9AD-7 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT3/8).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 9AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

11AD Dimensions

(Unit : mm)



Specifications

Table 11AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	6800	Input allowable axial load	P_4	N	3000	Indexing accuracy (1 DWELL)		sec	± 30
Output allowable radial load	P_2	N	3400	Input maximum repetitious bending force	P_5	N	3500	Indexing accuracy (2 DWELL)		sec	± 60
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	294	Repetitive accuracy		sec	30
Output torsional rigidity	K_1	$\frac{N \cdot m}{rad}$	4.43×10^5	Input torsional rigidity	K_2	$\frac{N \cdot m}{rad}$	3.98×10^4	Product weight (Index body)		kg	42
Output inertia	J_o	$kg \cdot m^2$	3.47×10^{-2}	Input inertia	J_c	$kg \cdot m^2$	6.0×10^{-3}	Housing color		Ivory	
Output allowable bending moment	P_3	N·m	147					Geared motor paint color		Light Silver	

Note: Input inertia: J is calculated in dwell.

1N·m=0.102kgf·m

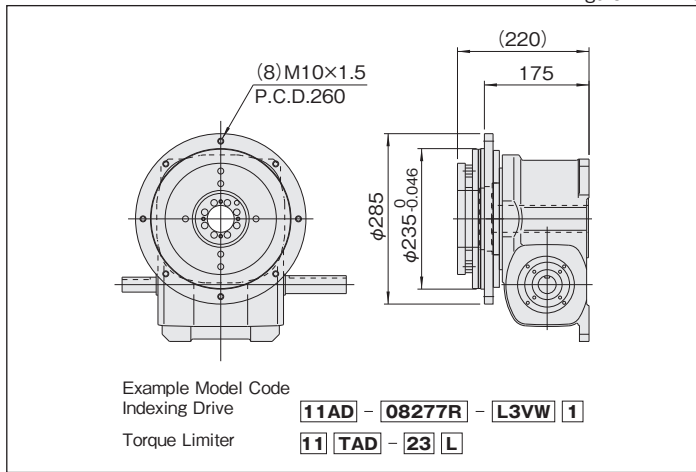
Specifications of geared motor

Table 11AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N_M (rpm)		Output Allowable Torque T_R (N·m)		Moment of inertia J_M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM0.4-20AS-11AD	GM0.4-20BS-11AD	0.4	20	75	90	44.1	37.2	0.90×10^{-3}	10.5
GM0.4-25AS-11AD	GM0.4-25BS-11AD		25	60	72	55.9	46.1		
GM0.4-30AS-11AD	GM0.4-30BS-11AD		30	50	60	66.6	55.9		
GM0.4-40AS-11AD	GM0.4-40BS-11AD		40	37.5	45	84.3	70.6		
GM0.4-50AS-11AD	GM0.4-50BS-11AD		50	30	36	106.0	88.2		
GM0.75-10AS-11AD-02	GM0.75-10BS-11AD-02	0.75	10	150	180	42.1	34.3	1.83×10^{-3}	24
GM0.75-15AS-11AD-02	GM0.75-15BS-11AD-02		15	100	120	62.7	51.9		
GM0.75-20AS-11AD-02	GM0.75-20BS-11AD-02		20	75	90	83.3	69.6		
GM0.75-25AS-11AD-02	GM0.75-25BS-11AD-02		25	60	72	104	87.2		
GM0.75-30AS-11AD-02	GM0.75-30BS-11AD-02		30	50	60	125	104		
GM0.75-40AS-11AD-02	GM0.75-40BS-11AD-02		40	37.5	45	159	132		
GM0.75-50AS-11AD-02	GM0.75-50BS-11AD-02		50	30	36	198	165		

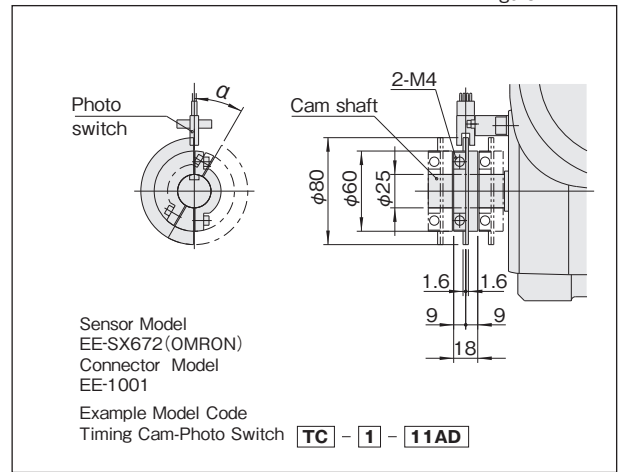
Torque limiter mounting specifications (option)

Figure 11AD-3



Timing cam-Photo switch

Figure 11AD-4



Precautions

- The dimension drawing (Figure 11AD-1, 11AD-2) shows the standard mounting position for geared motor.
- Model 11AD can be equipped with 0.4kW and 0.75kW motor. Exchange is not permitted after purchase because of different hollow size of geared motor.
- When using the 0.75kW motor, the motor will protrude beyond the indexer flange, and geared motor's bottom surface will also protrude beyond Index W surface.
- Model 11AD can be equipped with torque limiter 11TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period α below 180°.

Standard input shaft (T surface side)

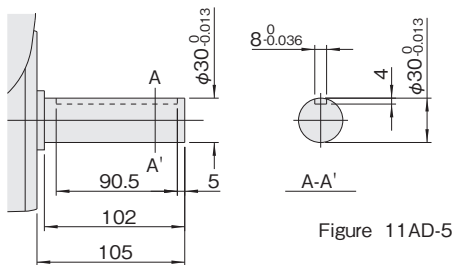


Figure 11AD-5

Output fixed flange specifications

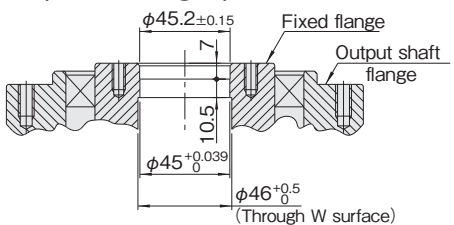


Figure 11AD-6

Locations of oil plug, etc., and oil capacity

Figure 11AD-7

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	0.8	1.4	1.6

Precautions

- Each point indicated in the mounting positions shown in Figure 11AD-7 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 11AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

15AD

15AD Dimensions

(Unit : mm)

(a) With 0.75kW Motor

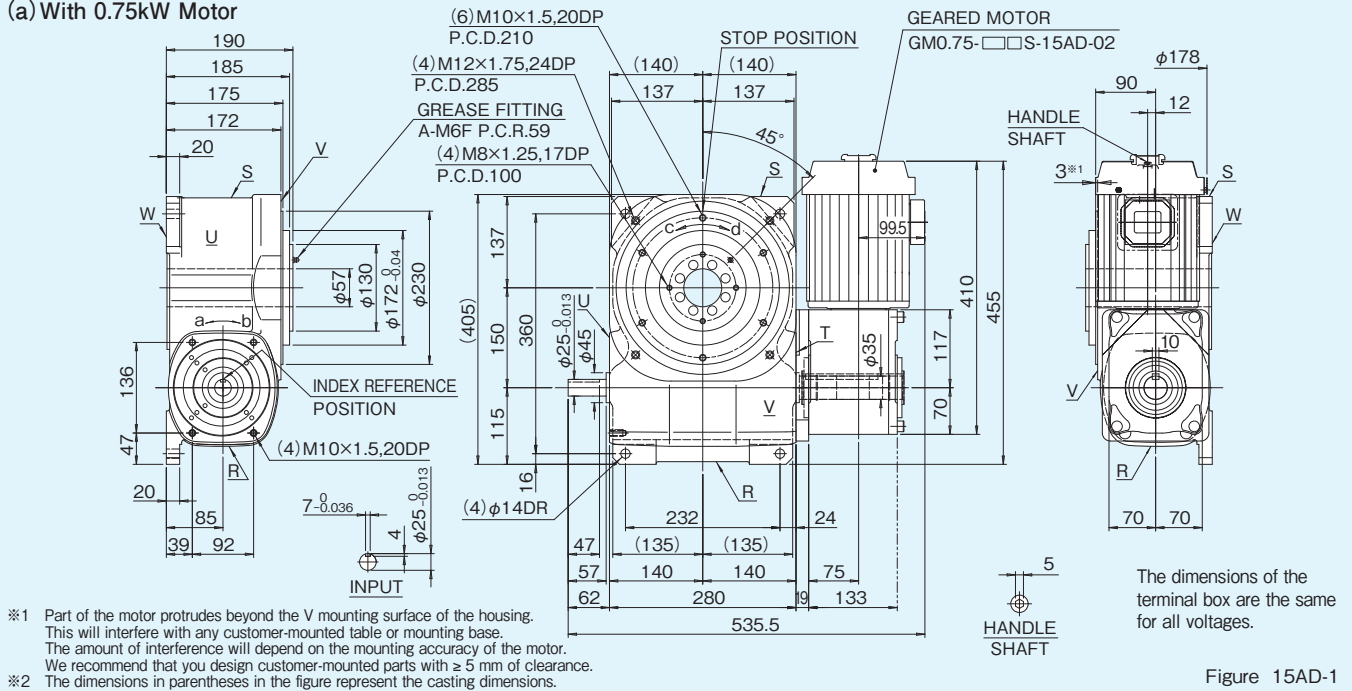


Figure 15AD-1

(b) With 1.5kW Motor

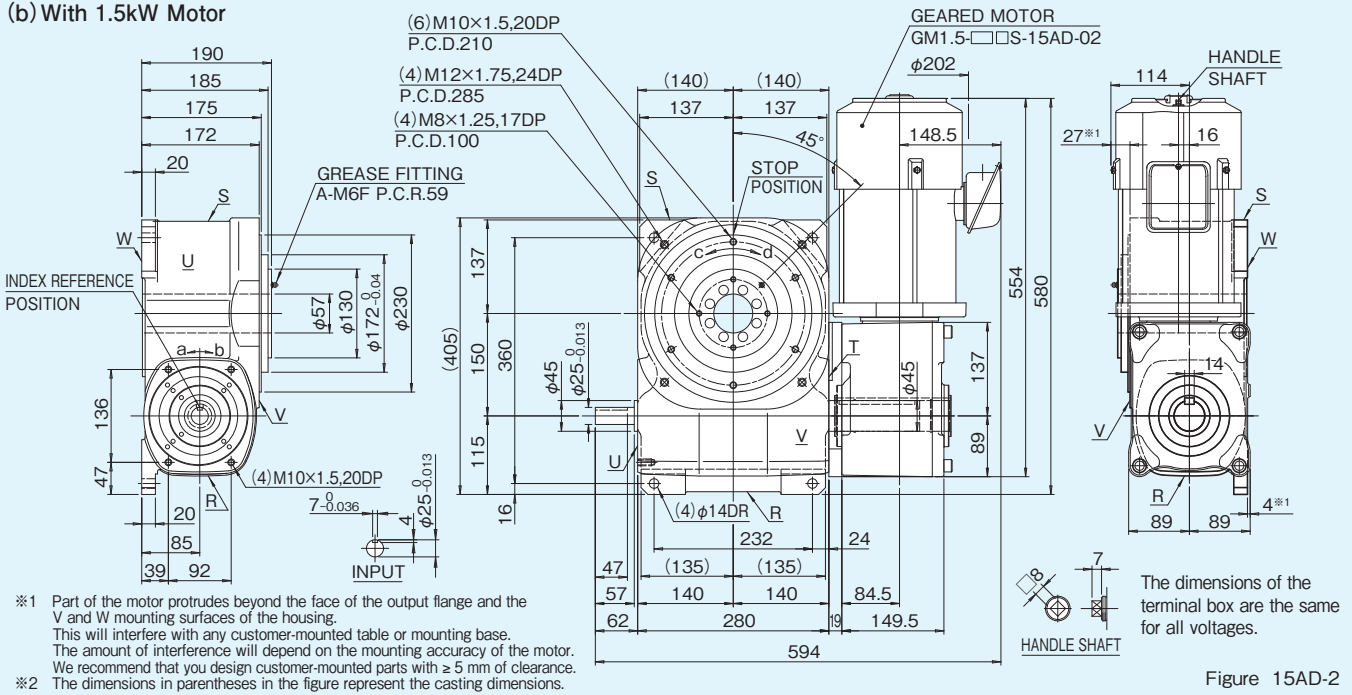


Figure 15AD-2

Specifications

Table 15AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	11000	Input allowable axial load	P ₄	N	4000	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	6800	Input maximum repetitious bending force	P ₅	N	4000	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	392	Repetitive accuracy		sec	30
Output torsional rigidity	K ₁	N·m/rad	2.37×10 ⁶	Input torsional rigidity	K ₂	N·m/rad	6.64×10 ⁴	Product weight (Index body)		kg	85
Output inertia	J _o	kg·m ²	0.162	Input inertia	J _c	kg·m ²	0.020	Housing color		Ivory	
Output allowable bending moment	P ₃	N·m	333.2					Geared motor paint color		Light Silver	

Note: Input inertia: J is calculated in dwell.

1N·m≒0.102kgf·m

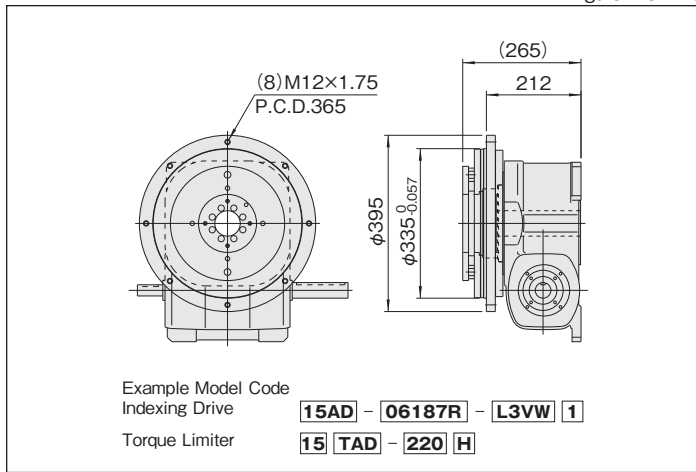
Specifications of geared motor

Table 15AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N _M (rpm)		Output Allowable Torque T _R (N·m)		Moment of inertia J _M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM0.75-20AS-15AD-02	GM0.75-20BS-15AD-02	0.75	20	75	90	83.3	69.6	1.83×10 ⁻³	24
GM0.75-25AS-15AD-02	GM0.75-25BS-15AD-02		25	60	72	104	87.2		
GM0.75-30AS-15AD-02	GM0.75-30BS-15AD-02		30	50	60	125	104		
GM0.75-40AS-15AD-02	GM0.75-40BS-15AD-02		40	37.5	45	159	132		
GM0.75-50AS-15AD-02	GM0.75-50BS-15AD-02		50	30	36	198	165		
GM1.5-10AS-15AD-02	GM1.5-10BS-15AD-02	1.5	10	150	180	83.3	69.6	6.2×10 ⁻³	41
GM1.5-15AS-15AD-02	GM1.5-15BS-15AD-02		15	100	120	124	104		
GM1.5-20AS-15AD-02	GM1.5-20BS-15AD-02		20	75	90	166	138		
GM1.5-25AS-15AD-02	GM1.5-25BS-15AD-02		25	60	72	208	173		
GM1.5-30AS-15AD-02	GM1.5-30BS-15AD-02		30	50	60	249	208		
GM1.5-40AS-15AD-02	GM1.5-40BS-15AD-02		40	37.5	45	317	264		
GM1.5-50AS-15AD-02	GM1.5-50BS-15AD-02		50	30	36	396	330		

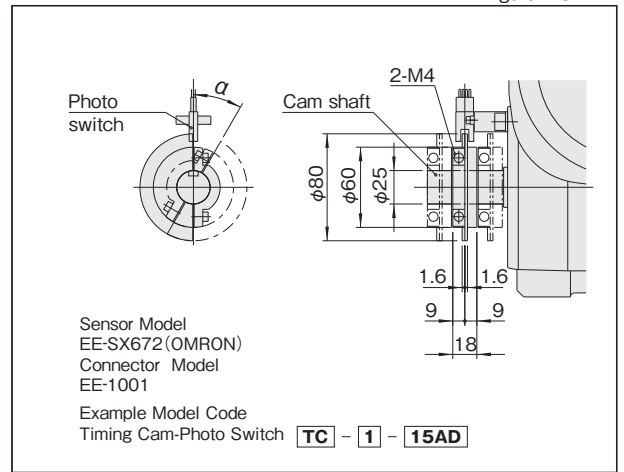
Torque limiter mounting specifications (option)

Figure 15AD-3



Timing cam-Photo switch

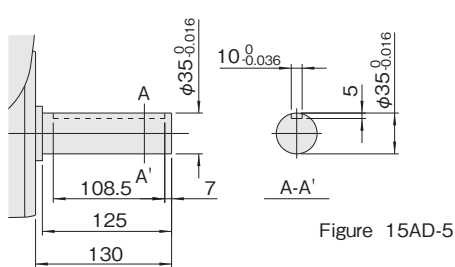
Figure 15AD-4



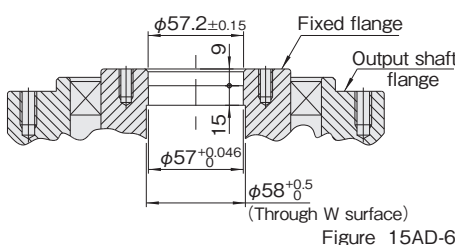
Precautions

- The dimension drawing (Figure 15AD-1, 15AD-2) shows the standard mounting position for geared motor.
- Model 15AD can be equipped with 0.75kW and 1.5kW motor. Exchange is not permitted after purchase because of different hollow size of geared motor. 2.2kW motor is also available as special instructions.
- When using the 1.5kW motor, the motor will protrude beyond the indexer flange, and geared motor's bottom surface will also protrude beyond Index W surface.
- Model 15AD can be equipped with torque limiter 15TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period (a) below 180°.

Standard input shaft (T surface side)



Output fixed flange specifications



Locations of oil plug, etc., and oil capacity

Figure 15AD-7

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	2.2	3	3.3

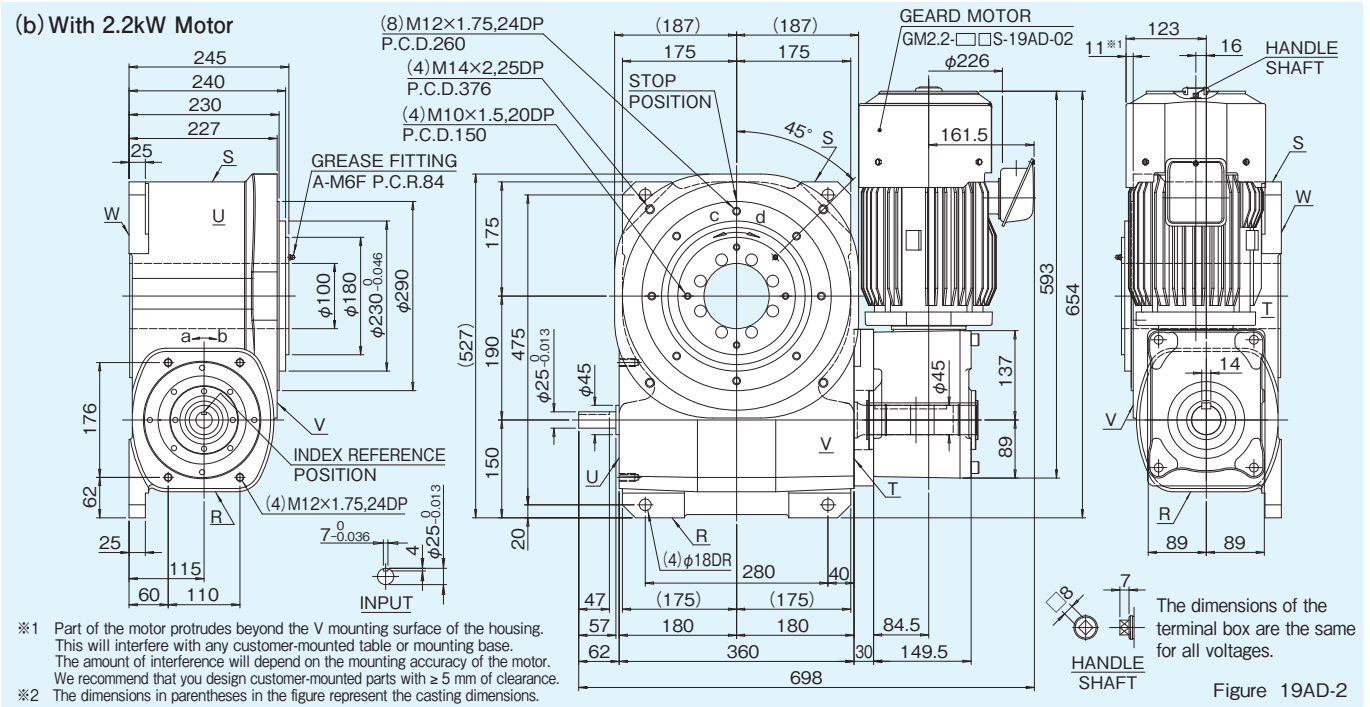
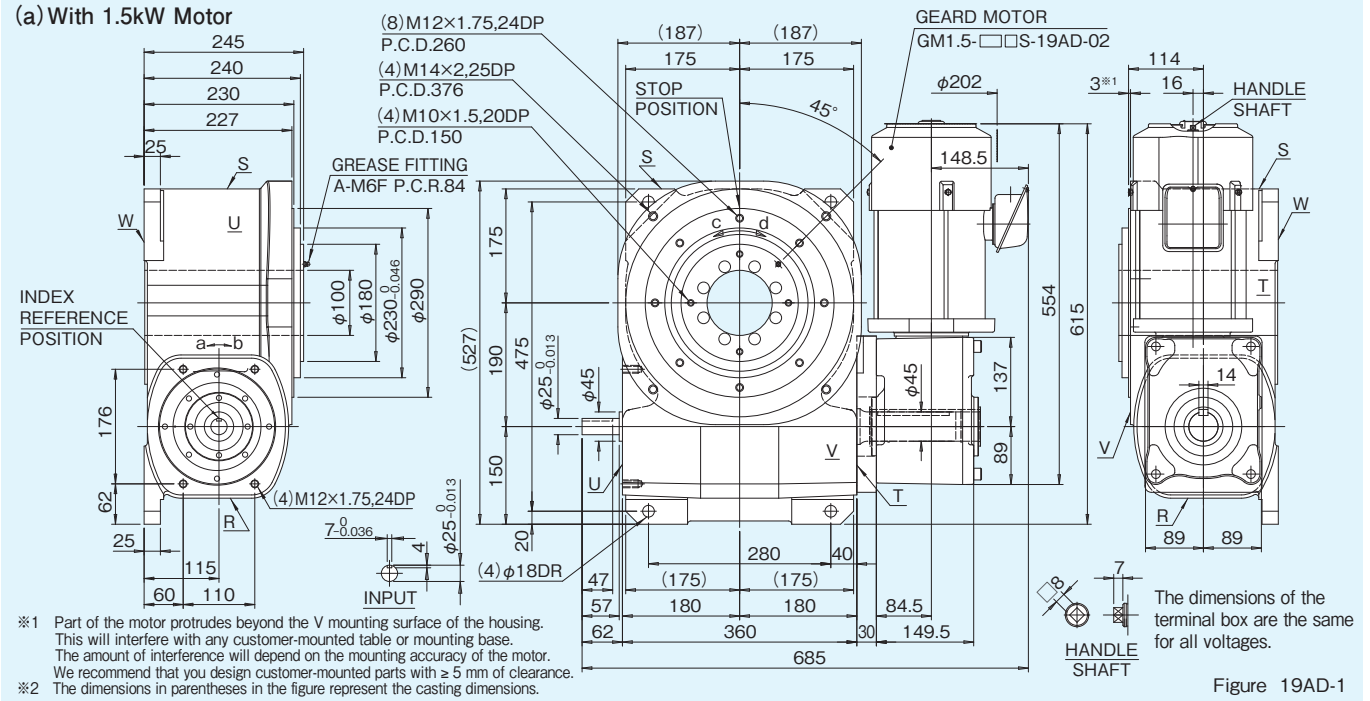
Precautions

- Each point indicated in the mounting positions shown in Figure 15AD-7 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 15AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

19AD

19AD Dimensions

(Unit : mm)



Specifications

Table 19AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	18000	Input allowable axial load	P ₄	N	5000	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	9000	Input maximum repetitious bending force	P ₅	N	5000	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	600	Repetitive accuracy		sec	30
Output torsional rigidity	K ₁	N·m/rad	3.5×10 ⁶	Input torsional rigidity	K ₂	N·m/rad	8.4×10 ⁴	Product weight (Index body)		kg	180
Output inertia	J _o	kg·m ²	0.549	Input inertia	J _c	kg·m ²	0.105	Housing color		Ivory	
Output allowable bending moment	P ₃	N·m	600					Geared motor paint color		Light Silver	

Note: Input inertia: J is calculated in dwell.

1N·m≐0.102kgf·m

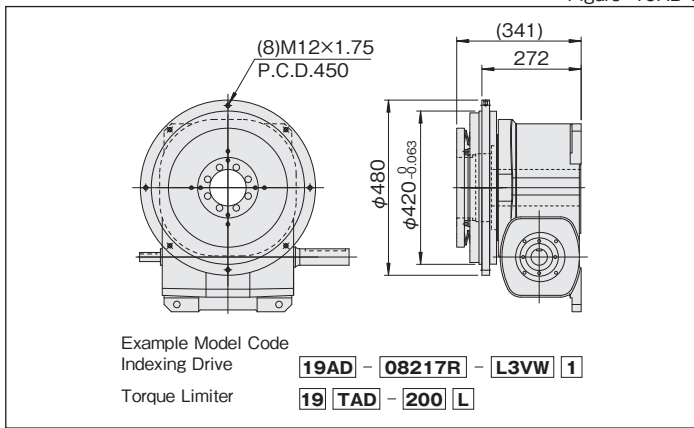
Specifications of geared motor

Table 19AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N _M (rpm)		Output Allowable Torque T _R (N·m)		Moment of inertia J _M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM1.5-20AS-19AD-02	GM1.5-20BS-19AD-02	1.5	20	75	90	166	138	6.2×10 ⁻³	41
GM1.5-25AS-19AD-02	GM1.5-25BS-19AD-02		25	60	72	208	173		
GM1.5-30AS-19AD-02	GM1.5-30BS-19AD-02		30	50	60	249	208		
GM1.5-40AS-19AD-02	GM1.5-40BS-19AD-02		40	37.5	45	317	264		
GM1.5-50AS-19AD-02	GM1.5-50BS-19AD-02		50	30	36	396	330		
GM2.2-25AS-19AD-02	GM2.2-10BS-19AD-02	2.2	10	150	180	122	102	8.8×10 ⁻³	48
GM2.2-15AS-19AD-02	GM2.2-15BS-19AD-02		15	100	120	182	152		
GM2.2-20AS-19AD-02	GM2.2-20BS-19AD-02		20	75	90	244	203		
GM2.2-25AS-19AD-02	GM2.2-25BS-19AD-02		25	60	72	290	242		
GM2.2-30AS-19AD-02	GM2.2-30BS-19AD-02		30	50	60	349	290		
GM2.2-40AS-19AD-02	GM2.2-40BS-19AD-02		40	37.5	45	465	387		
GM2.2-50AS-19AD-02	GM2.2-50BS-19AD-02	50	30	36	581	484			

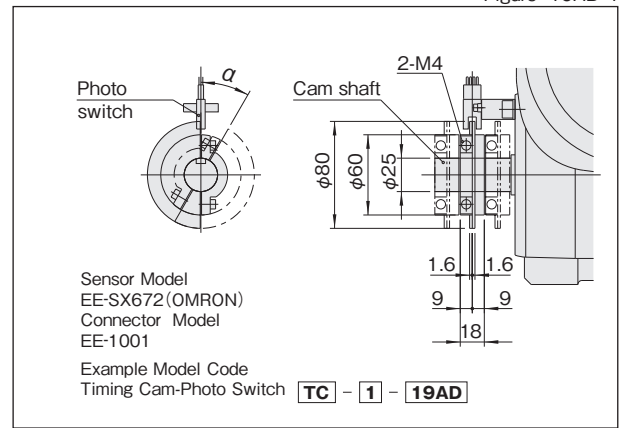
Torque limiter mounting specifications (option)

Figure 19AD-3



Timing cam-Photo switch

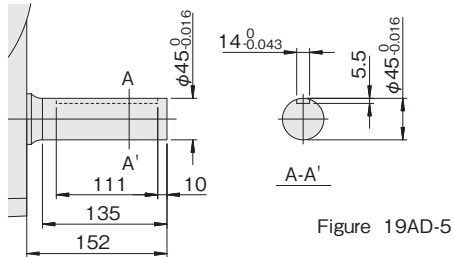
Figure 19AD-4



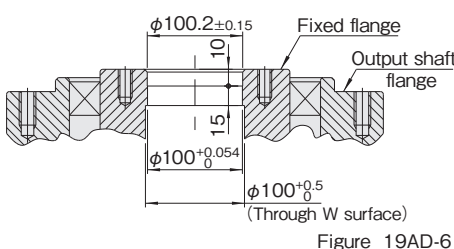
Precautions

- The dimension drawing (Figure 19AD-1, 19AD-2) shows the standard mounting position for geared motor.
- Model 19AD can be equipped with 1.5kW and 2.2kW motor. When using the 1.5kW and 2.2kW motor, the motor will protrude beyond the indexer flange, and geared motor's bottom surface will also protrude beyond Index W surface.
- Model 19AD can be equipped with torque limiter 19TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period (α) below 180°.

Standard input shaft (T surface side)



Output fixed flange specifications



Locations of oil plug, etc., and oil capacity

Figure 19AD-7

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	5	6	6.5

Precautions

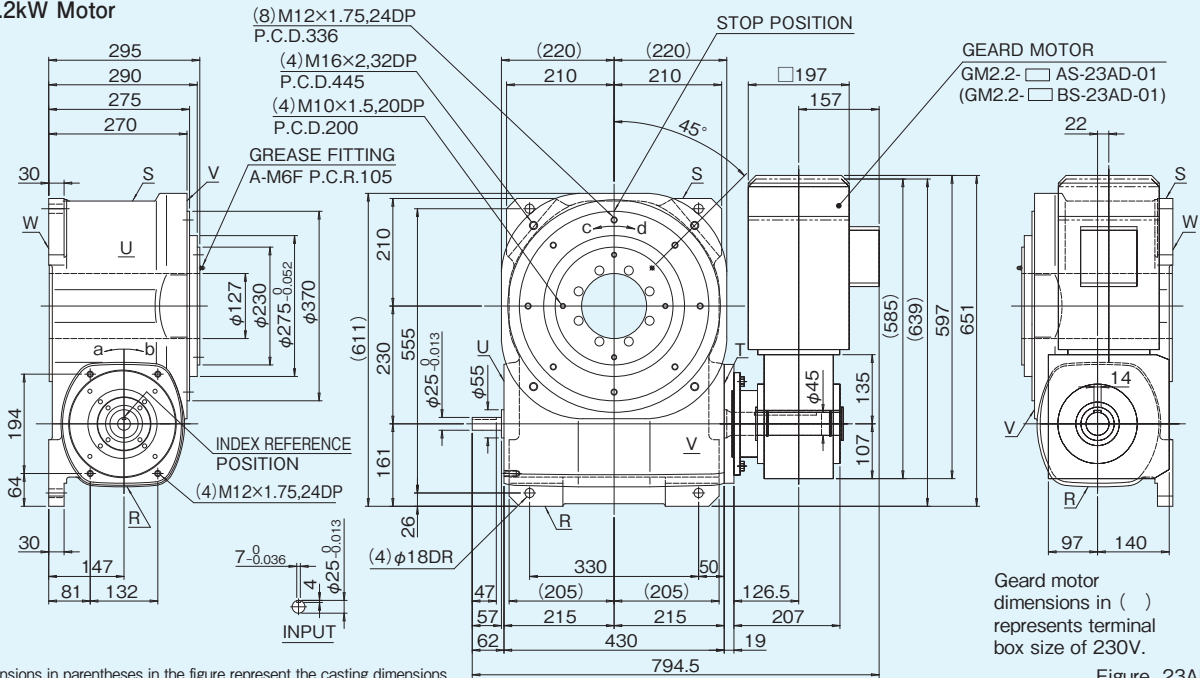
- Each point indicated in the mounting positions shown in Figure 19AD-7 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 19AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

23AD

23AD Dimensions

(Unit : mm)

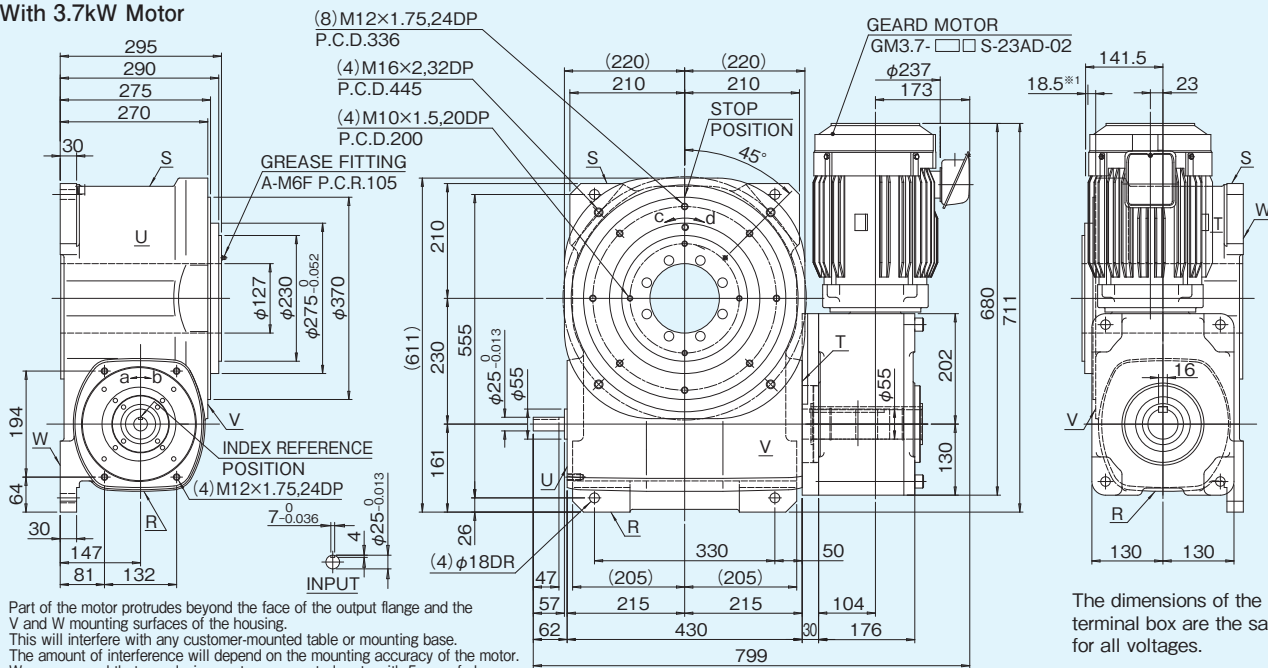
(a) With 2.2kW Motor



※1 The dimensions in parentheses in the figure represent the casting dimensions.

Figure 23AD-1

(b) With 3.7kW Motor



※1 Part of the motor protrudes beyond the face of the output flange and the V and W mounting surfaces of the housing. This will interfere with any customer-mounted table or mounting base. The amount of interference will depend on the mounting accuracy of the motor. We recommend that you design customer-mounted parts with 5 mm of clearance.

※2 The dimensions in parentheses in the figure represent the casting dimensions.

The dimensions of the terminal box are the same for all voltages.

Figure 23AD-2

Specifications

Table 23AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	27000	Input allowable axial load	P ₄	N	6000	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	12000	Input maximum repetitious bending force	P ₅	N	6000	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	784	Repetitive accuracy		sec	30
Output torsional rigidity	K ₁	N·m/rad	6.2×10 ⁶	Input torsional rigidity	K ₂	N·m/rad	1.14×10 ⁵	Product weight (Index body)		kg	285
Output inertia	J _o	kg·m ²	1.685	Input inertia	J _c	kg·m ²	0.136	Housing color		Ivory	
Output allowable bending moment	P ₃	N·m	980					Geared motor paint color		2.2kW···Ivory 3.7kW···Light Silver	

Note: Input inertia: J is calculated in dwell.

1N·m≈0.102kgf·m

Specifications of geared motor

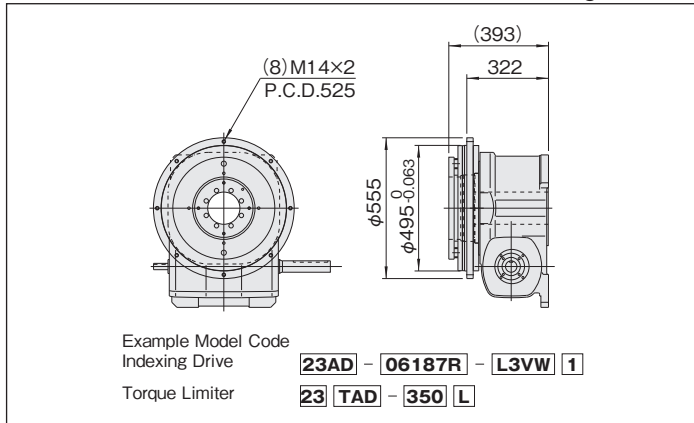
Table 23AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N _M (rpm)		Output Allowable Torque T _R (N·m)		Moment of inertia J _M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM2.2-20.37AS-23AD-01	GM2.2-20.37BS-23AD-01	2.2	20.37	69	82	275	230	11.2×10 ⁻³	60
GM2.2-23.33AS-23AD-01	GM2.2-23.33BS-23AD-01		23.33	60	72	295	250		
GM2.2-26.93AS-23AD-01	GM2.2-26.93BS-23AD-01		26.93	52	62	340	285		
GM2.2-29.63AS-23AD-01	GM2.2-29.63BS-23AD-01		29.63	47	57	375	315		
GM2.2-34.80AS-23AD-01	GM2.2-34.80BS-23AD-01		34.80	40	48	435	365		
GM2.2-36.85AS-23AD-01	GM2.2-36.85BS-23AD-01		36.85	38	46	460	385		
GM2.2-41.89AS-23AD-01	GM2.2-41.89BS-23AD-01		41.89	34	40	520	440		
GM2.2-46.40AS-23AD-01	GM2.2-46.40BS-23AD-01		46.40	30	36	570	485		
GM3.7-10AS-23AD-02	GM3.7-10BS-23AD-02	3.7	10	150	180	205	171	16.7×10 ⁻³	80
GM3.7-15AS-23AD-02	GM3.7-15BS-23AD-02		15	100	120	308	256		
GM3.7-20AS-23AD-02	GM3.7-20BS-23AD-02		20	75	90	410	341		
GM3.7-25AS-23AD-02	GM3.7-25BS-23AD-02		25	60	72	489	407		
GM3.7-30AS-23AD-02	GM3.7-30BS-23AD-02		30	50	60	586	489		
GM3.7-40AS-23AD-02	GM3.7-40BS-23AD-02		40	37.5	45	782	652		
GM3.7-50AS-23AD-02	GM3.7-50BS-23AD-02		50	30	36	977	814		

※2.2-kW 230-VAC motor (GM2.2-□BS-23AD-01) is only available for 60 Hz.

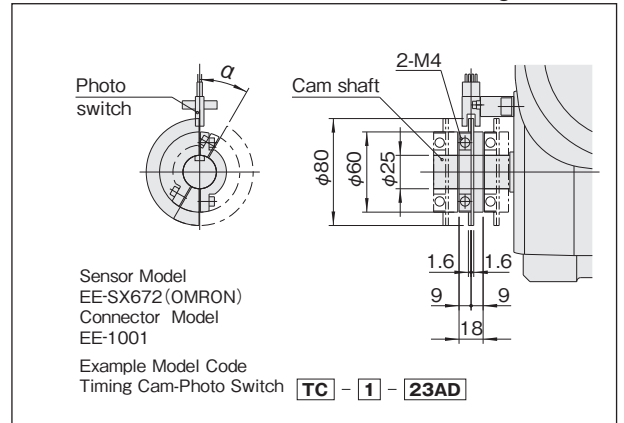
Torque limiter mounting specifications(option)

Figure 23AD-3



Timing cam-Photo switch

Figure 23AD-4



Precautions

- The dimension drawing (Figure 23AD-1, 23AD-2) shows the standard mounting position for geared motor.
- Model 23AD can be equipped with 2.2kW and 3.7kW motor. Exchange is not permitted after purchase because of different hollow size of geared motor. 5.5kW motor is also available as special instructions.
- When using the 3.7kW motor, reducer box will protrude beyond the indexer flange.
- Model 23AD can be equipped with torque limiter 23TAD.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period(α) below 180°.

Standard input shaft(T surface side)

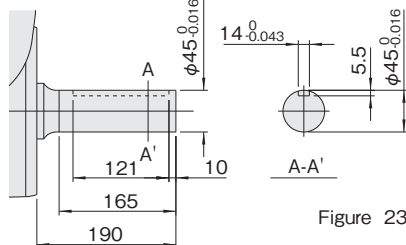


Figure 23AD-5

Output fixed flange specifications

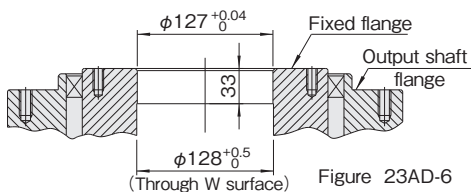


Figure 23AD-6

Locations of oil plug, etc., and oil capacity

Figure 23AD-7

Mounting position	1	2	5
Location			
Oil capacity(ℓ)	10	12	13

Precautions

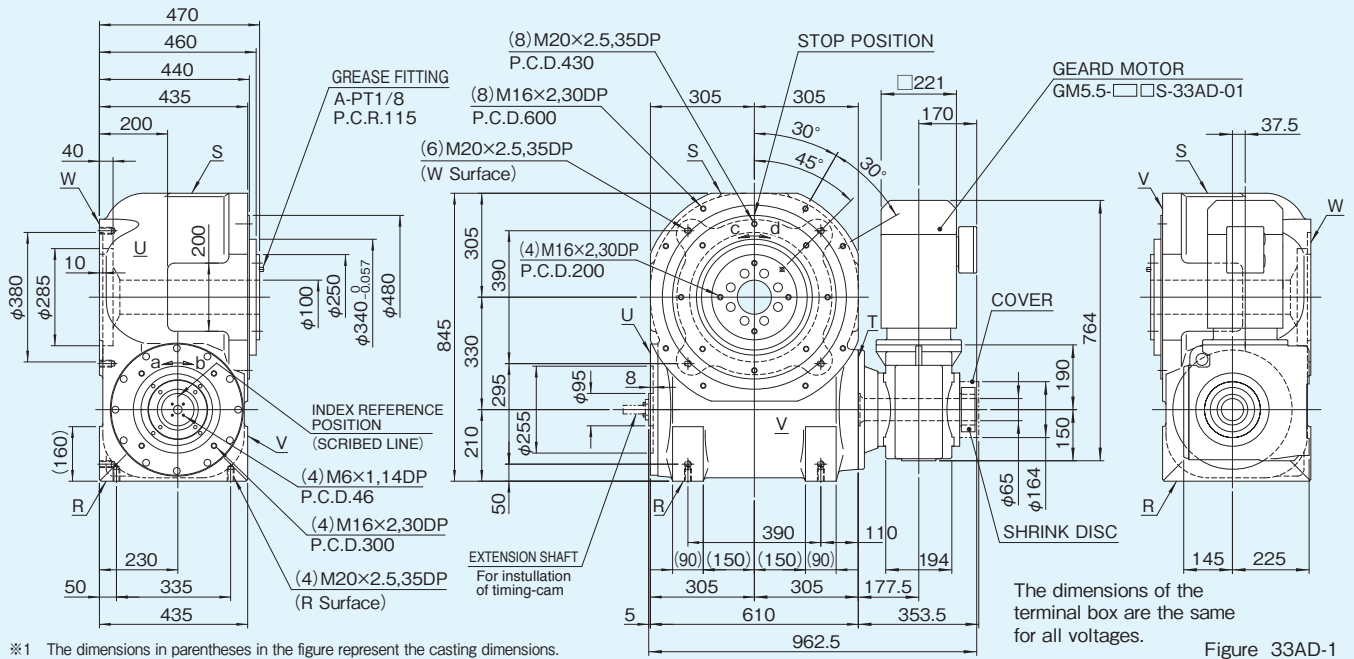
- Each point indicated in the mounting positions shown in Figure 23AD-7 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 23AD-7 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

33AD

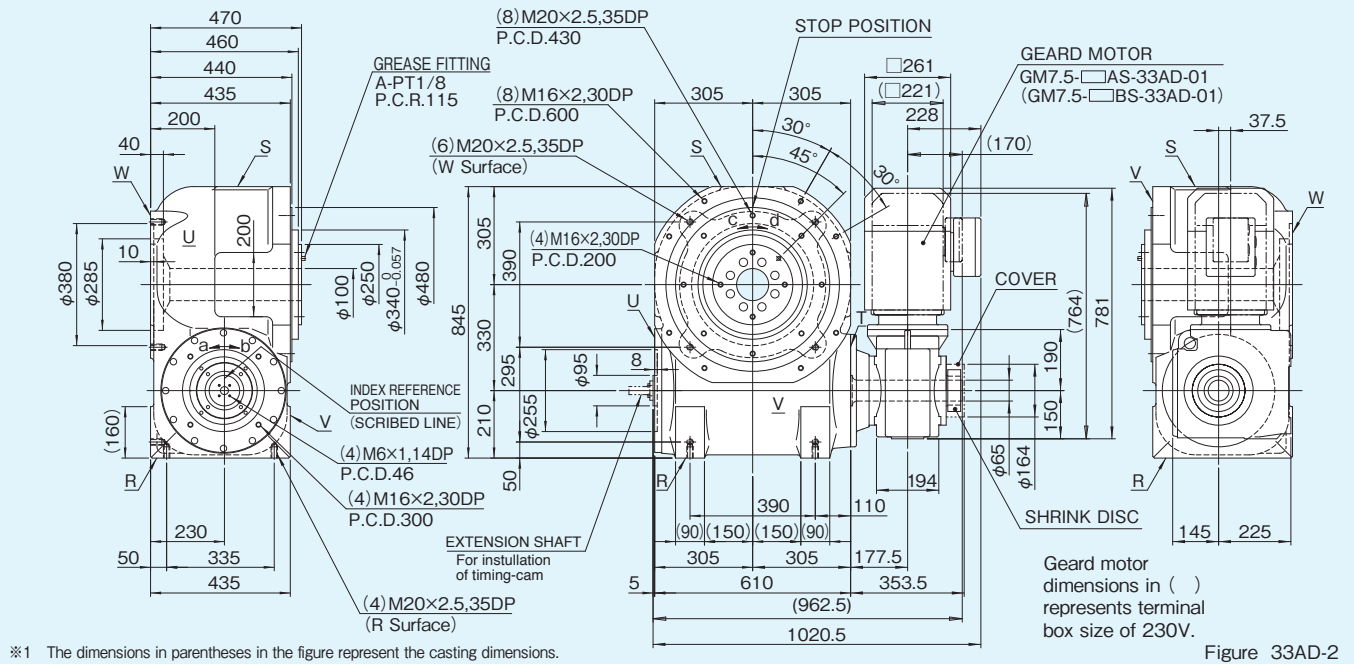
33AD Dimensions

[Unit : mm]

(a) With 5.5kW Motor



(b) With 7.5kW Motor



Specifications

Table 33AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	34890	Input allowable axial load	P_4	N	18440	Indexing accuracy (1 DWELL)		sec	± 20
Output allowable radial load	P_2	N	33570	Input maximum repetitive bending force	P_5	N	20900	Indexing accuracy (2 DWELL)		sec	± 40
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P_6	N·m	6400	Repetitive accuracy		sec	20
Output torsional rigidity	K_1	$\frac{N \cdot m}{rad}$	1.68×10^7	Input torsional rigidity	K_2	$\frac{N \cdot m}{rad}$	4.19×10^5	Product weight (Index body)		kg	1000
Output inertia	J_o	$kg \cdot m^2$	8.29	Input inertia	J_c	$kg \cdot m^2$	1.71	Housing color		Ivory	
Output allowable bending moment	P_3	N·m	2030					Geared motor paint color		Ivory	

Note: Input inertia: J is calculated in dwell.

1N·m \approx 0.102kgf·m

Specifications of geared motor

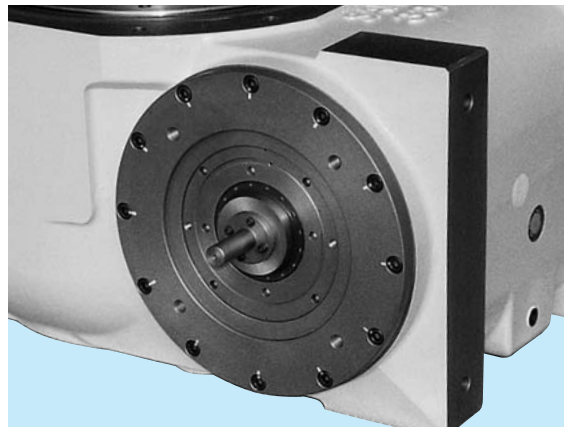
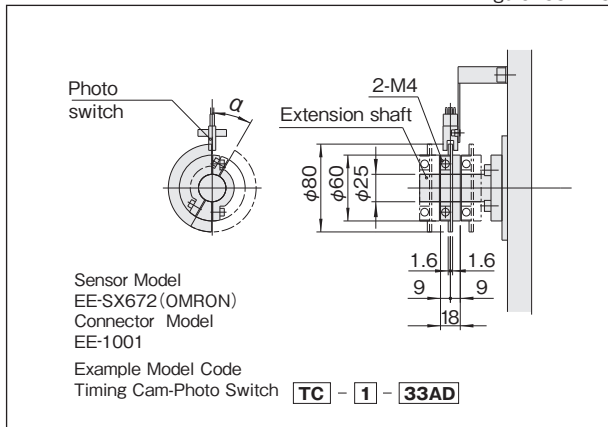
Table 33AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N _M (rpm)		Output Allowable Torque T _R (N·m)		Moment of inertia J _M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM5.5-19.70AS-33AD-01	GM5.5-19.70BS-33AD-01	5.5	19.70	73	87	670	565	25.8×10 ⁻³	152
GM5.5-25.50AS-33AD-01	GM5.5-25.50BS-33AD-01		25.50	56	67	860	725		
GM5.5-31.43AS-33AD-01	GM5.5-31.43BS-33AD-01		31.43	46	55	1040	870		
GM5.5-34.96AS-33AD-01	GM5.5-34.96BS-33AD-01		34.96	41	49	1150	970		
GM5.5-39.10AS-33AD-01	GM5.5-39.10BS-33AD-01		39.10	37	44	1280	1080		
GM5.5-44.03AS-33AD-01	GM5.5-44.03BS-33AD-01		44.03	33	39	1440	1210		
GM5.5-47.91AS-33AD-01	GM5.5-47.91BS-33AD-01		47.91	30	36	1560	1310		
GM5.5-57.00AS-33AD-01	GM5.5-57.00BS-33AD-01		57.00	25	30	1840	1550		
GM7.5-10.93AS-33AD-01	GM7.5-10.93BS-33AD-01	7.5	10.93	133	159	510	425	38.1×10 ⁻³	166
GM7.5-15.64AS-33AD-01	GM7.5-15.64BS-33AD-01		15.64	93	111	720	605		
GM7.5-19.70AS-33AD-01	GM7.5-19.70BS-33AD-01		19.70	74	88	910	760		
GM7.5-25.50AS-33AD-01	GM7.5-25.50BS-33AD-01		25.50	57	68	1170	980		
GM7.5-31.43AS-33AD-01	GM7.5-31.43BS-33AD-01		31.43	46	55	1400	1170		
GM7.5-34.96AS-33AD-01	GM7.5-34.96BS-33AD-01		34.96	41	50	1550	1300		
GM7.5-39.10AS-33AD-01	GM7.5-39.10BS-33AD-01		39.10	37	45	1730	1450		
GM7.5-44.03AS-33AD-01	GM7.5-44.03BS-33AD-01		44.03	33	40	1940	1630		

※230 VAC is only available for 60 Hz.

Torque limiter mounting specifications (option)

Figure 33AD-3



Mounting extended shaft

Precautions

- The dimension drawing (Figure 33AD-1, 33AD-2) shows the standard mounting position for geared motor.
- Model 33AD can be equipped with 5.5kW and 7.5kW motor. 11kW motor is also available as special instructions.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period (α) below 180°.

Standard input shaft (T surface side)

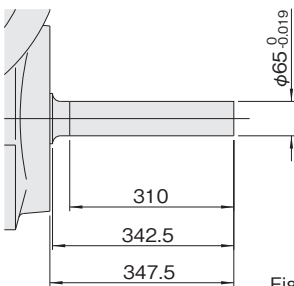


Figure 33AD-4

Output fixed flange specifications

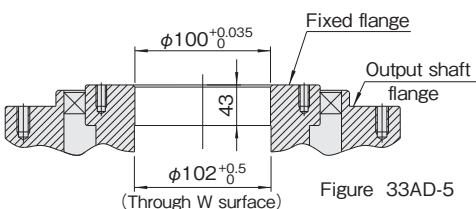


Figure 33AD-5

Locations of oil plug, etc., and oil capacity

Figure 33AD-6

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	60	55	60

Precautions

- Each point indicated in the mounting positions shown in Figure 33AD-6 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 33AD-6 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

45AD

45AD Dimensions

[Unit : mm]

(a) With 11kW Motor

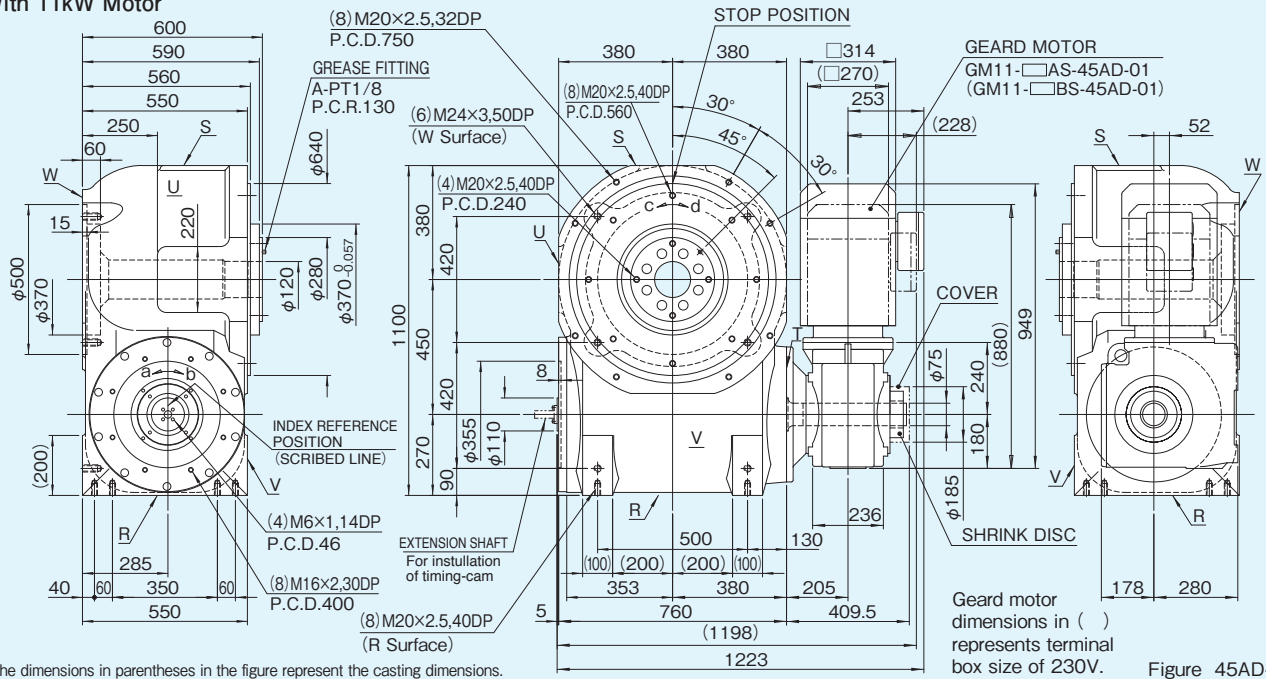


Figure 45AD-1

(b) With 15kW Motor

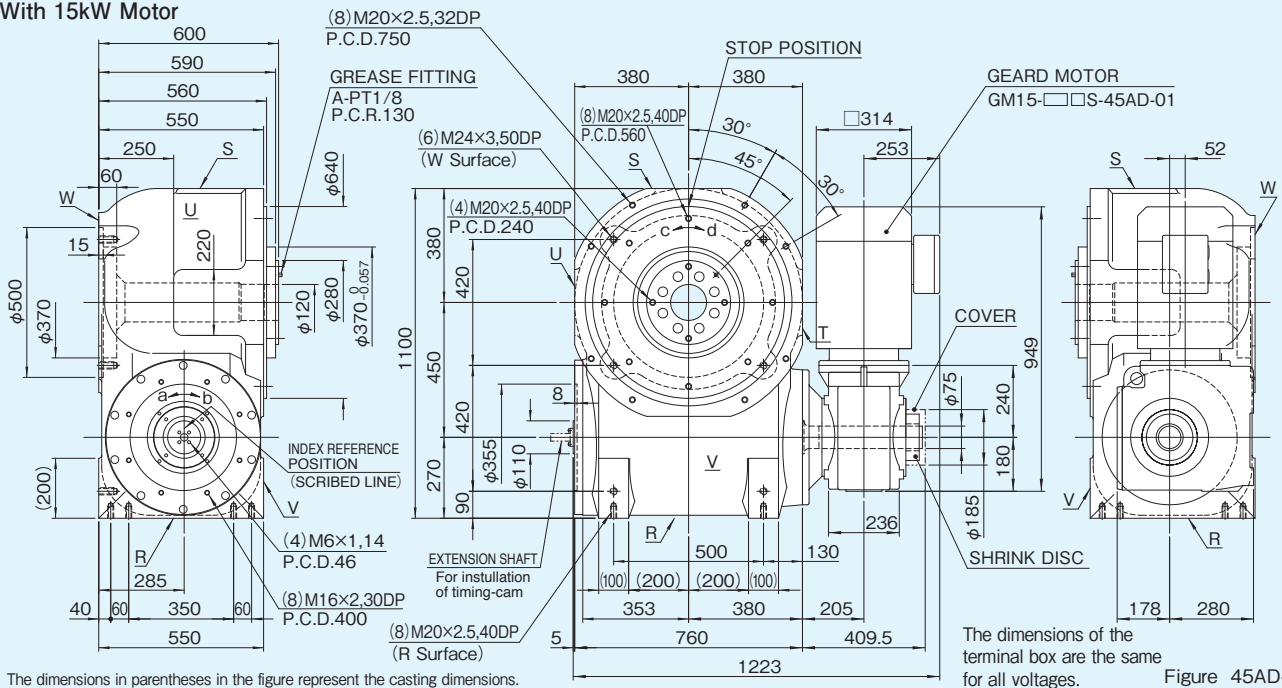


Figure 45AD-2

Specifications

Table 45AD-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	47460	Input allowable axial load	P_4	N	25100	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P_2	N	40750	Input maximum repetitious bending force	P_5	N	27000	Indexing accuracy (2 DWELL)		sec	±40
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	8400	Repetitive accuracy		sec	20
Output torsional rigidity	K_1	$\frac{N \cdot m}{rad}$	3.18×10^7	Input torsional rigidity	K_2	$\frac{N \cdot m}{rad}$	6.44×10^5	Product weight (Index body)		kg	About 1600
Output inertia	J_o	$kg \cdot m^2$	25.78	Input inertia	J_c	$kg \cdot m^2$	7.90	Housing color		Ivory	
Output allowable bending moment	P_3	N·m	3070					Geared motor paint color		Ivory	

Note: Input inertia: J is calculated in dwell.

1N·m=0.102kgf·m

Specifications of geared motor

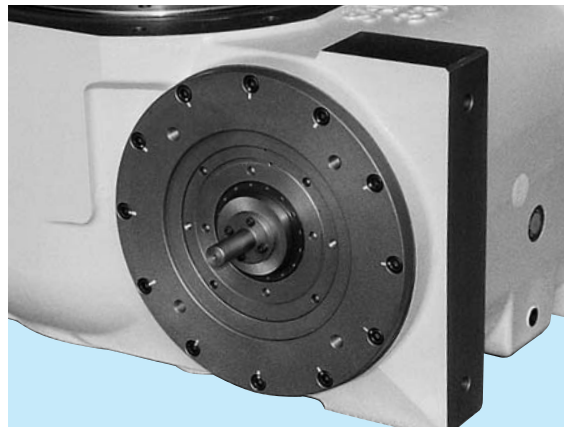
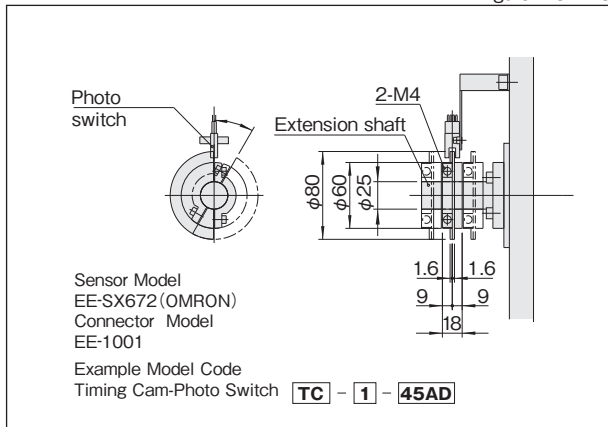
Table 45AD-3

Code		Motor Power (kW)	Actual Gear Ratio (i)	Output Shaft Speed N _M (rpm)		Output Allowable Torque T _R (N·m)		Moment of inertia J _M (kg·m ²)	Weight (kg)
200/220V	230V			50Hz	60Hz	50Hz	60Hz		
GM11-19.23AS-45AD-01	GM11-19.23BS-45AD-01	11	19.23	75	90	1320	1110	81.7×10 ⁻³	271
GM11-23.59AS-45AD-01	GM11-23.59BS-45AD-01		23.59	61	73	1610	1350		
GM11-26.39AS-45AD-01	GM11-26.39BS-45AD-01		26.39	55	66	1800	1510		
GM11-32.60AS-45AD-01	GM11-32.60BS-45AD-01		32.60	44	53	2160	1820		
GM11-36.05AS-45AD-01	GM11-36.05BS-45AD-01		36.05	40	48	2380	2000		
GM11-40.65AS-45AD-01	GM11-40.65BS-45AD-01		40.65	36	43	2680	2250		
GM11-44.89AS-45AD-01	GM11-44.89BS-45AD-01		44.89	32	39	2950	2480		
GM11-49.87AS-45AD-01	GM11-49.87BS-45AD-01		49.87	29	35	3270	2750		
GM15-9.55AS-45AD-01	GM15-9.55BS-45AD-01	15	9.55	153	183	890	745	113.0×10 ⁻³	321
GM15-15.42AS-45AD-01	GM15-15.42BS-45AD-01		15.42	95	114	1430	1200		
GM15-21.23AS-45AD-01	GM15-21.23BS-45AD-01		21.23	69	82	1970	1640		
GM15-26.39AS-45AD-01	GM15-26.39BS-45AD-01		26.39	55	66	2430	2040		
GM15-32.60AS-45AD-01	GM15-32.60BS-45AD-01		32.60	45	54	2920	2450		
GM15-36.05AS-45AD-01	GM15-36.05BS-45AD-01		36.05	41	49	3230	2700		
GM15-40.65AS-45AD-01	GM15-40.65BS-45AD-01		40.65	36	43	3630	3040		
GM15-44.89AS-45AD-01	GM15-44.89BS-45AD-01		44.89	33	39	4000	3350		

※230 VAC is only available for 60 Hz.

Torque limiter mounting specifications (option)

Figure 45AD-3



Mounting extended shaft

Precautions

- The dimension drawing (Figure 45AD-1, 45AD-2) shows the standard mounting position for geared motor.
- Model 45AD can be equipped with 11kW and 15kW motor. 18.5kW motor is also available as special instructions.
- Up to 3 sets of timing cams and photo switches can be added as necessary. The timing cam can be freely adjusted to any period (α) below 180°.

Standard input shaft (T surface side)

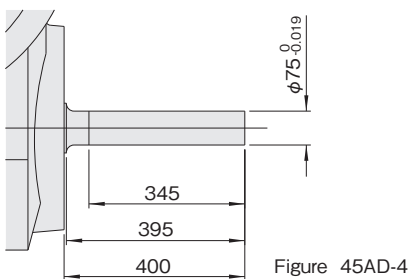


Figure 45AD-4

Output fixed flange specifications

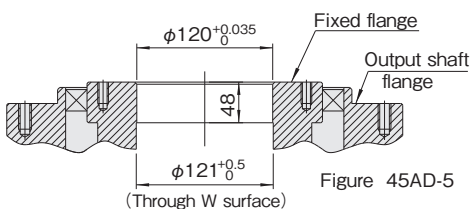


Figure 45AD-5

Locations of oil plug, etc., and oil capacity

Figure 45AD-6

Mounting position	1	2	5
Location			
Oil capacity (ℓ)	115	105	115

Precautions

- Each point indicated in the mounting positions shown in Figure 45AD-6 represents (starting at top) the oil plug (PT1), oil level (VB), and drain (PT1).
- The mounting positions correspond to code i for the indexing drives.
- The oil capacities indicated in Figure 45AD-6 are given in general figures and will differ according to the profile of the cam and the number of cam followers.