



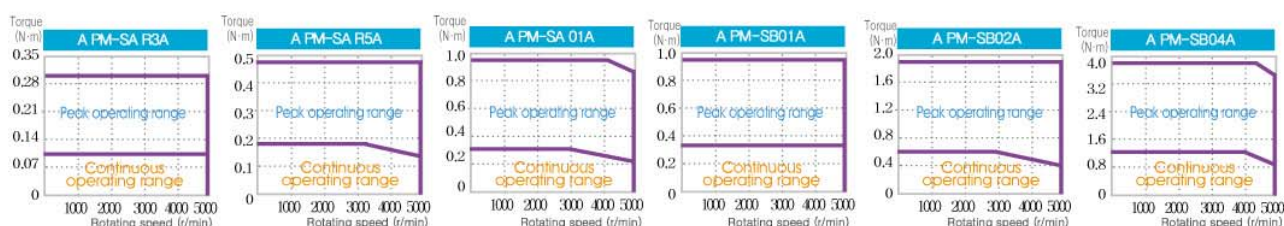
Servo Motor Characteristics



Servo Motor's Characteristics 1

Servo Motor Model (APM-□□□□□)		SAR3A	SAR5A	SA01A	SB01A	SB02A	SB04A
Applicable Drive (APD-□□□□□)		VSR5		VS01		VS02	VS04
Flange Size (□)		□40			□60		
Rated Power	[kW]	0.03	0.05	0.1	0.1	0.2	0.4
Rated Torque	[N · m]	0.095	0.159	0.318	0.318	0.637	1.274
	[kgf · cm]	0.97	1.62	3.25	3.25	6.50	13.0
Maximum Instantaneous Torque	[N · m]	0.286	0.477	0.955	0.955	1.912	3.822
	[kgf · cm]	2.92	4.87	9.74	9.74	19.5	39.0
Rated rpm	[r/min]	3,000					
Maximum rpm	[r/min]	5,000					
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	0.011	0.021	0.045	0.114	0.182	0.321
	[gf · cm · s ²]	0.0112	0.0214	0.0459	0.116	0.186	0.327
Allowable Load Inertia Ratio		30 times of motor inertia			20 times of motor inertia		
Rated Power Rate	[kW/S]	5.57	10.52	23.80	8.92	22.26	50.65
Speed, Position Transducer	Standard	Incremental 5V Line Drive 2,048P/R			2,500P/R		
	Option	Absolute, Manchester communication					
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP55(Excluding the shaft-through section and connectors.)					
	Rated Time	Continuous					
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]					
	Ambient Humidity	Lower than 90[%](avoid condensation)					
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust					
Weight	[kg]	Elevation/Vibration 49[m/s ²](5G)					
		0.3	0.4	0.52	0.84	1.11	1.63

Rotation Speed-Torque's Characteristics



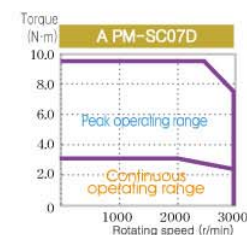
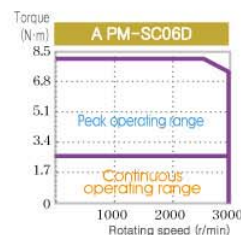
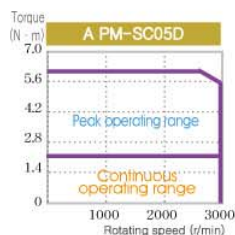
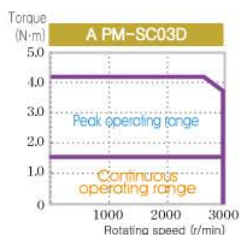
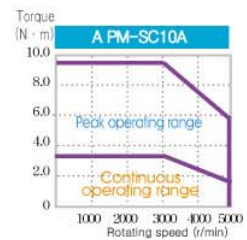
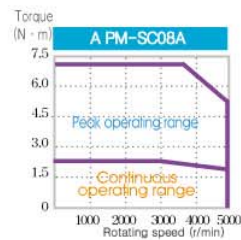
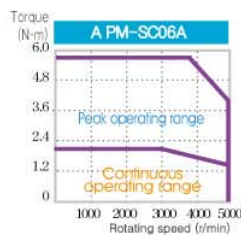
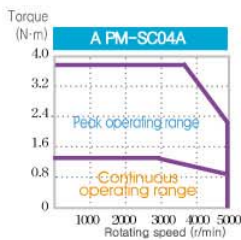


Servo Motor Characteristics

Servo Motor's Characteristics 2

Servo Motor Model (APM-□□□□□)	SC04A	SC06A	SC08A	SC10A	SC03D	SC05D	SC06D	SC07D
Applicable Drive (APD-□□□□□)	VS04		VS05	VS10	VS04		VS05	
Flange Size (□)	□80							
Rated Power [kW]	0.4	0.6	0.8	1.0	0.3	0.45	0.55	0.65
Rated Torque [N · m]	1.27	1.91	2.55	3.19	1.43	2.15	2.63	3.09
	[kgf · cm]	13.0	19.5	26.0	32.5	14.6	21.9	26.8
Maximum Instantaneous Torque [N · m]	3.82	5.34	6.88	9.56	4.29	6.44	7.88	9.29
	[kgf · cm]	39.0	54.5	70.2	97.5	43.8	65.7	80.4
Rated rpm [r/min]	3,000				2,000			
Maximum rpm [r/min]	5,000				3,000			
Moment of Inertia [kg · m ² × 10 ⁻⁴]	0.674	1.092	1.509	1.927	0.674	1.092	1.509	1.927
	[gf · cm · s ²]	0.687	1.114	1.539	1.966	0.687	1.114	1.539
Allowable Load Inertia Ratio	15 times of motor inertia				15 times of motor inertia			
Rated Power Rate [kW/S]	24.07	33.45	43.02	52.65	30.36	42.19	43.68	47.90
Speed, Position Transducer	Standard	Incremental 5V Line Drive 2,500P/R						
	Option	Absolute, Manchester communication						
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)						
	Rated Time	Continuous						
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]						
	Ambient Humidity	Lower than 90[%](avoid condensation)						
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust						
E/V	Elevation/Vibration 49[m/s2] (5G)							
Weight [kg]	1.85	2.49	3.15	3.80	1.85	2.49	3.15	3.80

Rotation Speed-Torque's Characteristics



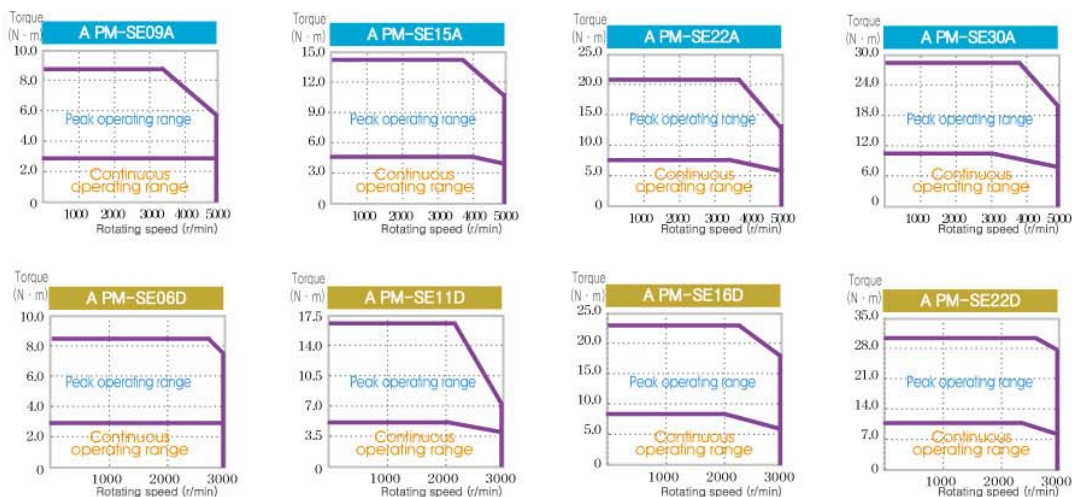


Servo Motor Characteristics

Servo Motor's Characteristics 3

Servo Motor Model (APM-□□□□□)	SE09A	SE15A	SE22A	SE30A	SE06D	SE11D	SE16D	SE22D	
Applicable Drive (APD-□□□□□)	VS10	VS15	VS20	VS35	VS05	VS10	VS15	VS20	
Flange Size (□)		□130							
Rated Power	[kW]	0.9	1.5	2.2	3.0	0.6	1.1	1.6	2.2
Rated Torque	[N · m]	2.86	4.77	7.0	9.55	2.86	5.25	7.63	10.5
	[kgf · cm]	29.2	48.7	71.4	97.4	29.2	53.6	77.9	107.1
Maximum Instantaneous Torque	[N · m]	8.59	14.32	21.01	28.65	8.59	15.75	22.92	31.51
	[kgf · cm]	87.7	146.1	214.3	292.2	87.7	160.7	233.8	321.4
Rated rpm	[r/min]	3,000				2,000			
Maximum rpm	[r/min]	5,000				3,000			
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	6.659	11.999	17.339	22.679	6.659	11.999	17.339	22.679
	[gf · cm · s ²]	6.792	12.238	17.685	23.132	6.792	12.238	17.685	23.132
Allowable Load Inertia Ratio		10 times of motor inertia				10 times of motor inertia			
Rated Power Rate	[kW/S]	12.31	18.98	28.25	40.17	12.31	22.97	33.63	48.61
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R							
	Option	Absolute, Manchester communication							
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)							
	Rated Time	Continuous							
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]							
	Ambient Humidity	Lower than 90[%](avoid condensation)							
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust							
Weight	E/V	Elevation/Vibration 49[m/s ²](5G)							
	[kg]	5.6	7.2	8.7	10.2	5.6	7.2	8.7	10.2

Rotation Speed-Torque's Characteristics



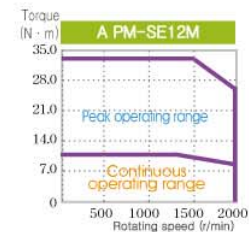
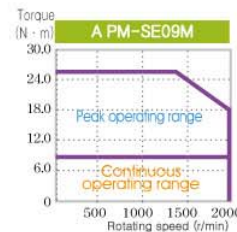
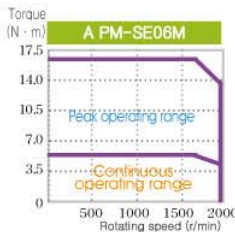
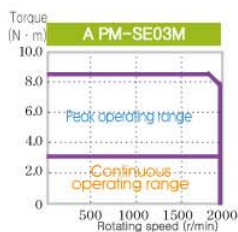
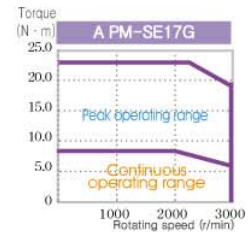
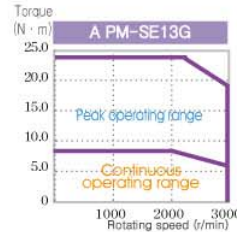
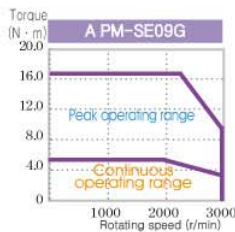
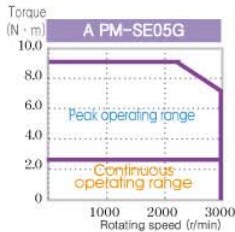


Servo Motor Characteristics

Servo Motor's Characteristics 4

Servo Motor Model (APM-□□□□□)	SE05G	SE09G	SE13G	SE17G	SE03M	SE06M	SE09M	SE12M	
Applicable Drive (APD-□□□□□)	VS05	VS10	VS15	VS20	VS04	VS05	VS10	VS15	
Flange Size (□)		□130				□130			
Rated Power	[kW]	0.45	0.85	1.3	1.7	0.3	0.6	0.9	1.2
Rated Torque	[N · m]	2.86	5.41	8.27	10.82	2.86	5.72	8.59	11.46
	[kgf · cm]	29.22	55.19	84.41	110.38	29.2	58.4	87.7	116.9
Maximum Instantaneous Torque	[N · m]	8.59	16.23	24.82	32.46	8.59	17.18	25.77	34.22
	[kgf · cm]	87.66	165.57	253.23	331.14	87.7	175.3	262.9	349.1
Rated rpm	[r/min]	1,500				1,000			
Maximum rpm	[r/min]	3,000				2,000			
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	6.659	11.999	17.339	22.679	6.659	11.999	17.339	22.679
	[gf · cm · s ²]	6.792	12.238	17.685	23.132	6.792	12.238	17.685	23.132
Allowable Load Inertia Ratio		10 times of motor inertia				10 times of motor inertia			
Rated Power Rate	[kW/S]	12.28	24.39	39.54	51.61	12.31	27.34	42.56	57.85
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R							
	Option	Absolute, Manchester communication							
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)							
	Rated Time	Continuous							
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]							
	Ambient Humidity	Lower than 90[%](avoid condensation)							
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust							
	E/V	Elevation/Vibration 49[m/s ²](5G)							
Weight	[kg]	5.6	7.2	8.7	10.2	5.6	7.2	8.7	10.2

Rotation Speed-Torque's Characteristics



AC SERVO MOTOR & DRIVE

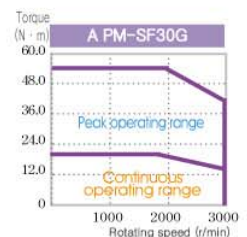
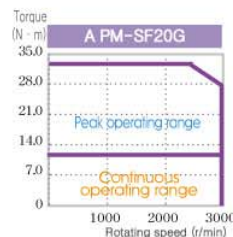
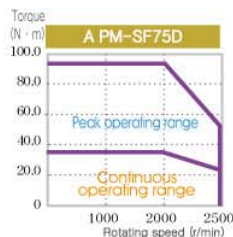
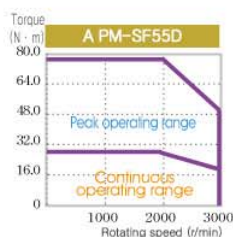
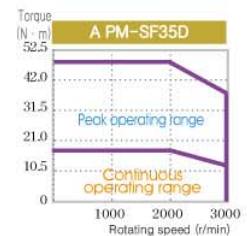
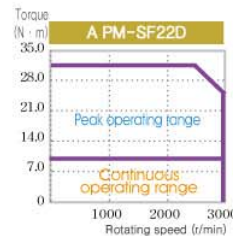
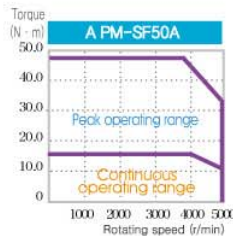


Servo Motor Characteristics

Servo Motor's Characteristics 5

Servo Motor Model (APM-□□□□□)	SF30A	SF50A	SF22D	SF35D	SF55D	SF75D	SF20G	SF30G	
Applicable Drive (APD-□□□□□)	VS35	VS50	VS20	VS35	VS50	VS75	VS20	VS35	
Flange Size (□)		□180							
Rated Power	[kW]	3.0	5.0	2.2	3.5	5.5	7.5	1.8	2.9
	[N · m]	9.55	15.91	10.5	16.7	26.25	35.81	11.45	18.46
Rated Torque	[kgf · cm]	97.4	162.3	107.1	170.4	267.8	365.41	116.88	188.3
	[N · m]	28.64	47.74	31.5	50.12	78.76	89.53	34.35	55.38
Maximum Instantaneous Torque	[kgf · cm]	292.2	487.0	321.3	511.3	803.4	913.53	350.64	564.9
	[N · m]								
Rated rpm	[r/min]	3,000		2,000			1,500		
Maximum rpm	[r/min]	5,000		3,000			2,500		
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	30.74	52.13	30.74	52.13	83.60	121.35	30.74	52.13
	[gf · cm · s ²]	31.35	53.16	31.35	53.16	85.24	123.74	31.35	53.16
Allowable Load Inertia Ratio		times of motor inertia 5		times of motor inertia 5			times of motor inertia 5		
Rated Power Rate	[kW/S]	29.66	48.56	35.88	53.56	82.56	105.75	42.70	65.36
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R							
	Option	Absolute, Manchester communication							
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)							
	Rated Time	Continuous							
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]							
	Ambient Humidity	Lower than 90[%](avoid condensation)							
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust							
	E/V	Elevation/Vibration 49[m/s ²](5G)							
Weight	[kg]	12.4	17.7	12.4	17.7	26.3	35.6	12.4	17.7

Rotation Speed-Torque's Characteristics



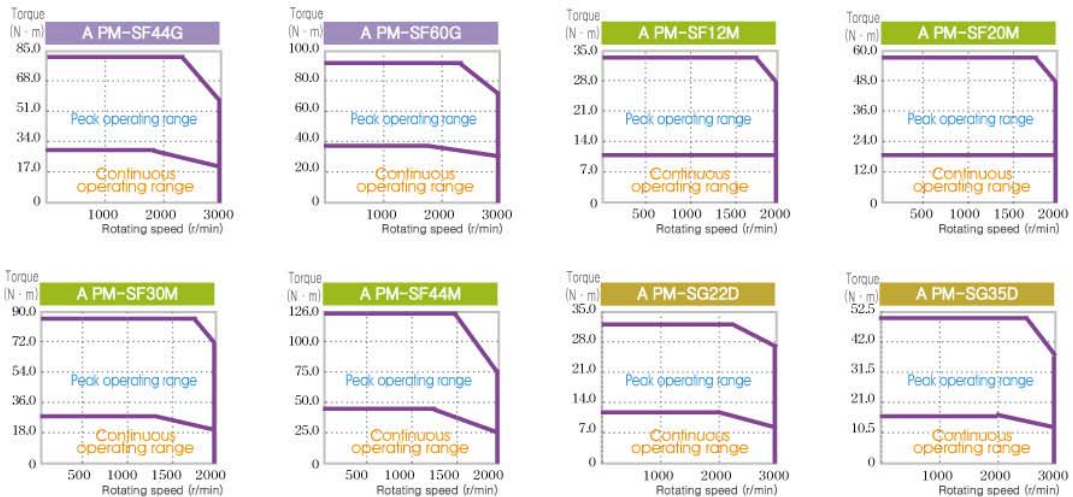


Servo Motor Characteristics

Servo Motor's Characteristics 6

Servo Motor Model (APM-□□□□□)		SF44G	SF60G	SF12M	SF20M	SF30M	SF44M	SG22D	SG35D
Applicable Drive (APD-□□□□□)		VS50	VS75	VS15	VS20	VS35	VS50	VS20	VS35
Flange Size (□)		□180						□220	
Rated Power	[kW]	4.4	6.0	1.2	2.0	3.0	4.4	2.2	3.5
	[N · m]	28.0	38.2	11.46	19.09	28.64	42.02	10.5	16.7
Rated Torque	[kgf · cm]	285.7	389.8	116.9	194.8	292.2	428.7	107.1	170
	[N · m]	84.0	95.5	34.38	57.29	85.94	126.05	31.5	50.1
Maximum Instantaneous Torque	[kgf · cm]	857.1	974.9	350.7	584.4	876.6	1286.2	321.3	511.5
	[N · m]								
Rated rpm	[r/min]	1,500		1,000				2,000	
Maximum rpm	[r/min]	3,000	2,500	2,000				3,000	
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	83.60	121.35	30.74	52.13	83.60	121.35	51.42	80.35
	[gf · cm · s ²]	85.24	123.74	31.35	53.16	85.24	123.74	52.47	81.99
Allowable Load Inertia Ratio		times of motor inertia 5		times of motor inertia 5				times of motor inertia 5	
Rated Power Rate	[kW/S]	93.84	120.32	42.70	69.96	98.16	145.55	21.45	34.75
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R							
	Option	Absolute, Manchester communication							
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)							
	Rated Time	Continuous							
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]							
	Ambient Humidity	Lower than 90[%](avoid condensation)							
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust							
E/V	Elevation/Vibration 49[m/s ²](5G)								
Weight	[kg]	26.3	35.6	12.4	17.7	26.3	35.6	16.88	21.62

Rotation Speed-Torque's Characteristics



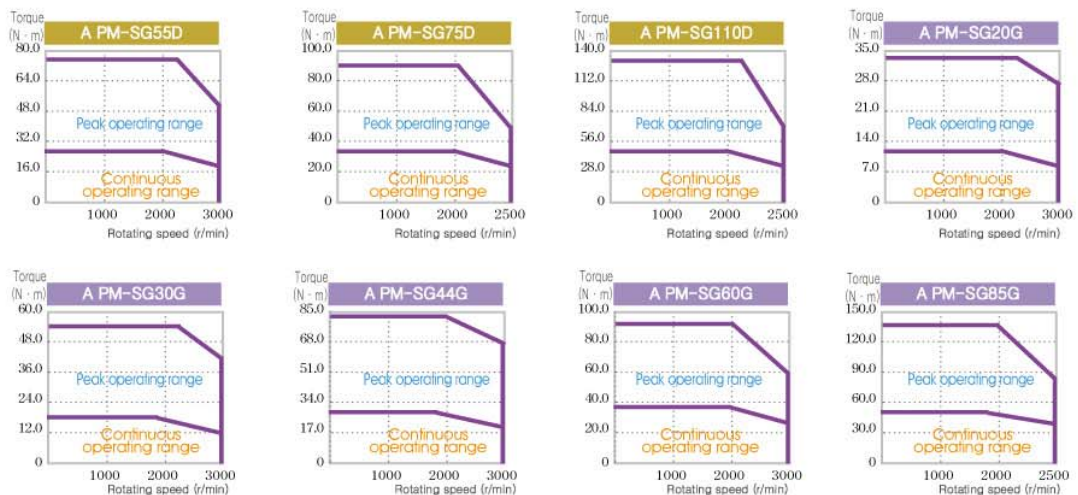


Servo Motor Characteristics

Servo Motor's Characteristics 7

Servo Motor Model (APM-□□□□□)	SG55D	SG75D	SG110D	SG20G	SG30G	SG44G	SG60G	SG85G	
Applicable Drive (APD-□□□□□)	VS50	VS75	VS110	VS20	VS35	VS50	VS75	VS110	
Flange Size (□)		□220							
Rated Power	[kW]	5.5	7.5	11.0	1.8	2.9	4.4	6.6	8.5
Rated Torque	[N · m]	26.3	35.8	52.5	11.5	18.5	28.0	38.2	54.1
	[kgf · cm]	267.9	365.4	535.9	116.9	188.4	285.8	389.7	552.1
Maximum Instantaneous Torque	[N · m]	78.8	89.5	131.3	34.4	55.4	84.0	95.5	135.3
	[kgf · cm]	803.8	913.4	1339.7	350.8	565.1	857.4	974.3	1380.3
Rated rpm	[r/min]	2,000	2,000		1,500			1,500	
Maximum rpm	[r/min]	3,000	2,500		3,000			2,500	
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	132.41	171.91	291.36	51.42	80.35	132.41	172.91	291.36
	[gf · cm · s ²]	135.11	176.44	297.31	52.47	81.99	135.11	176.44	297.31
Allowable Load Inertia Ratio		5 times of motor inertia			5 times of motor inertia				
Rated Power Rate	[kW/S]	52.07	74.15	94.65	25.53	42.41	59.25	84.36	78.23
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R							
	Option	Absolute, Manchester communication							
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)							
	Rated Time	Continuous							
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]							
	Ambient Humidity	Lower than 90[%](avoid condensation)							
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust							
	E/V	Elevation/Vibration 49[m/s ²](5G)							
Weight	[kg]	30.12	36.86	66.25	16.68	21.62	30.12	36.86	66.25

Rotation Speed-Torque's Characteristics



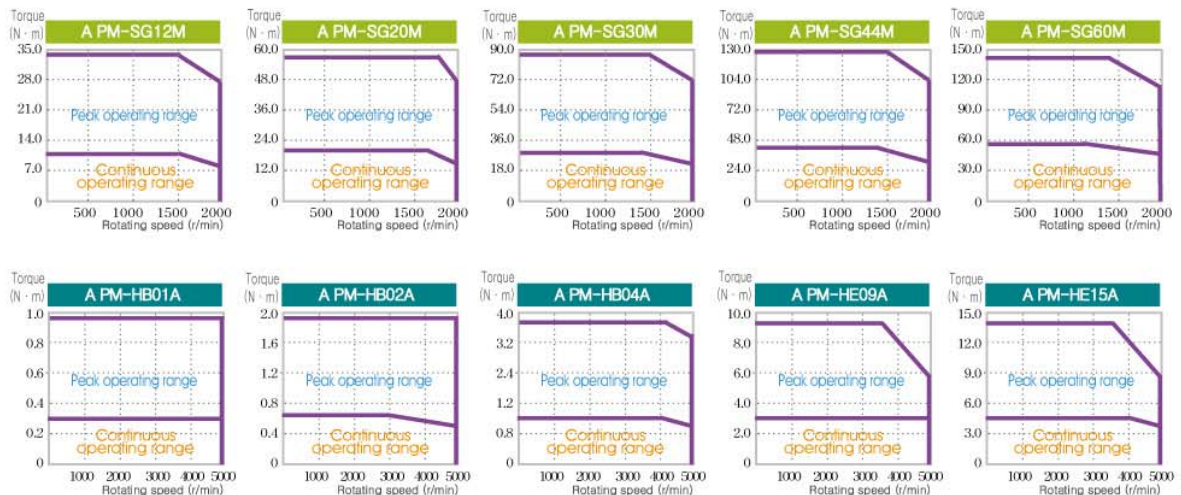


Servo Motor Characteristics

Servo Motor's Characteristics 8

Servo Motor Model (APM-□□□□□)	SG12M	SG20M	SG30M	SG44M	SG60M	HB01A	HB02A	HB04A	HE09A	HE15A	
Applicable Drive (APD-□□□□□)	VS15	VS20	VS35	VS50	VS75	VS01	VS02	VS04	VS10	VS15	
Flange Size (□)	□220					□60			□130		
Rated Power [kW]	1.2	2.0	3.0	4.4	6.0	0.1	0.2	0.4	0.9	1.5	
Rated Torque	[N · m]	11.5	19.1	28.6	42.0	57.3	0.318	0.637	1.274	2.86	4.77
	[kgf · cm]	116.9	194.9	292.3	428.7	584.6	3.25	6.50	13.0	29.2	48.7
Maximum Instantaneous Torque	[N · m]	34.4	57.3	85.9	126.0	171.9	0.955	1.912	3.822	8.59	14.32
	[kgf · cm]	350.8	584.6	876.9	1286.1	1753.8	9.74	19.5	39.0	87.7	146.1
Rated rpm [r/min]	1,000					3,000			3,000		
Maximum rpm [r/min]	2,000					5,000			5,000		
Moment of Inertia	[kg · m ² × 10 ⁻⁴]	51.42	80.35	132.41	171.91	291.36	0.269	0.333	0.461	19.558	22.268
	[gf · cm · s ²]	52.47	81.99	135.11	176.44	297.31	0.274	0.339	0.470	19.943	22.707
Allowable Load Inertia Ratio	5 times of motor inertia					10 times of motor inertia			5 times of motor inertia		
Rated Power Rate [kW/S]	25.53	45.39	61.97	102.08	112.64	3.34	11.98	34.47	4.10	10.01	
Speed, Position Transducer	Standard	Incremental 5V Line Drive 3,000P/R				Incremental 1,024P/R			Incremental 2,048P/R		
	Option	Absolute, Manchester communication									
Specification & Features	Protective Method	Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)					Totally enclosed, Non ventilated IP65(Excluding the shaft-through section and connectors.)				
	Rated Time	Continuous									
	Ambient Temp.	Operating Temp : 0~50[°C] · Storage Temp : -20~80[°C]									
	Ambient Humidity	Lower than 90[%](avoid condensation)									
	Atmosphere	Avoid direct sunlight, no corrosive gas, inflammable gas, oil mist, or dust									
	E/V	Elevation/Vibration 49[m/s2](5G)									
Weight [kg]	16.68	21.62	30.12	36.86	66.25	0.89	1.16	1.69	5.82	7.44	

Rotation Speed-Torque's Characteristics





Electronic Brake's Specifications

Servo Motor



Brake-attached Type Servo Motor

Brake's Specifications

Applicable Motor Series	APM-SA	APM-SB	APM-SC	APM-SE	APM-SF	APM-SG
Use	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
Power Supply [V]	DC 24V	DC 24V	DC 24V	DC 90V	DC 90V	DC 90V
Rated Friction Torque [N · m]	0.32	1.47	3.23	9.2	40.2	74
Capacity [W]	6	6.5	9	7	33	25
Coil Resistance [Ω]	96	89	64	1150	245	327
Rated Current [A]	0.25	0.27	0.38	0.08	0.37	0.28
Braking Type	Spring brake	Spring brake	Spring brake	Spring brake	Spring brake	Spring brake
Insulation Class	F - class	F - class	F - class	F - class	F - class	F - class

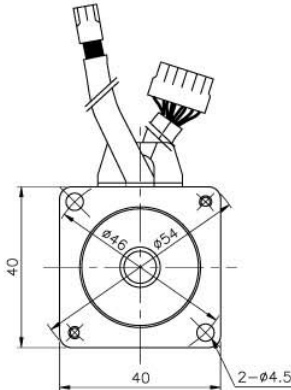


Note) 1. For the Electronic Brake that is attached to our Servo Motor, the same specifications are to be applied as per the series.
 2. Never use it for braking purpose because the electronic brake is only for maintenance of stopped condition.
 3. The characteristic of electronic brake is measured at 20°C.



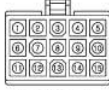
Servo Motor's Outline Drawing

Standard Type **APM-SAR3A, APM-SAR5A, APM-SA01A**



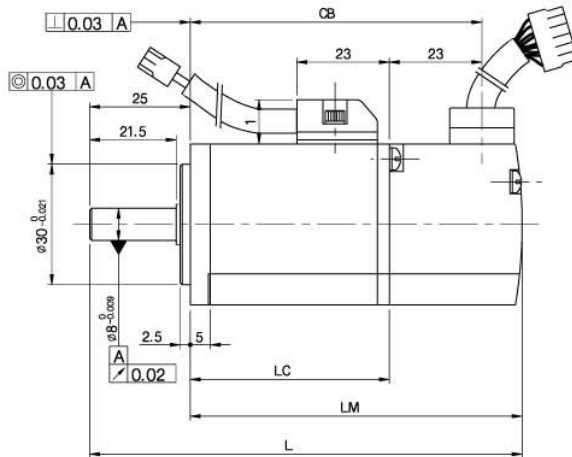
Pin No	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

<Connector Pin for Power Supply>



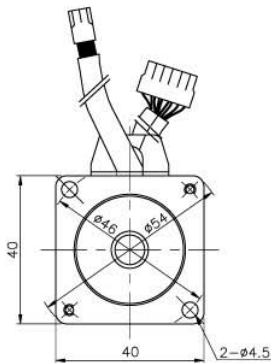
Pin No	Phase	Pin No	Phase
1	A	9	V
2	X	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

<Encoder Connector Pin>



Model	External Dimension				Weight(kg)
	L	LM	LC	CB	
SAR3A	100.5	77.5	42.5	65.5	0.3
SAR5A	107.5	82.5	49.5	72.5	0.4
SA01A	124.5	99.5	66.5	89.5	0.52

Brake-attached Type **APM-SAR3A, APM-SAR5A, APM-SAR01A**



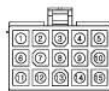
Pin No	Color	Phase
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2	White	-

<Brake Connector Pin>



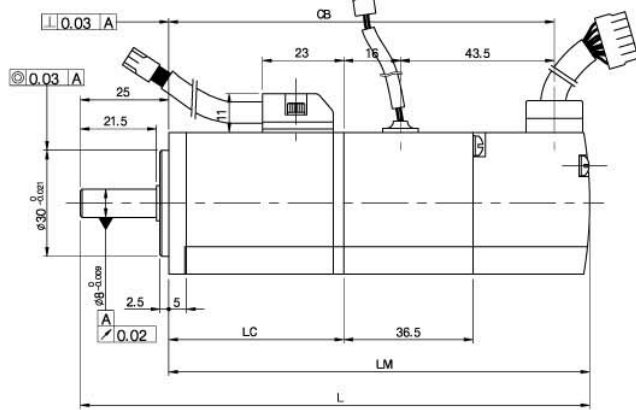
Pin No	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

<Connector Pin for Power Supply>



Pin No	Phase	Pin No	Phase
1	A	9	V
2	X	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

<Encoder Connector Pin>



Model	External Dimension				Weight (kg)
	L	LM	LC	CB	
SAR3A	137	112	42.5	102	0.65
SAR5A	144	119	49.5	109	0.75
SA01A	161	136	66.5	126	0.87

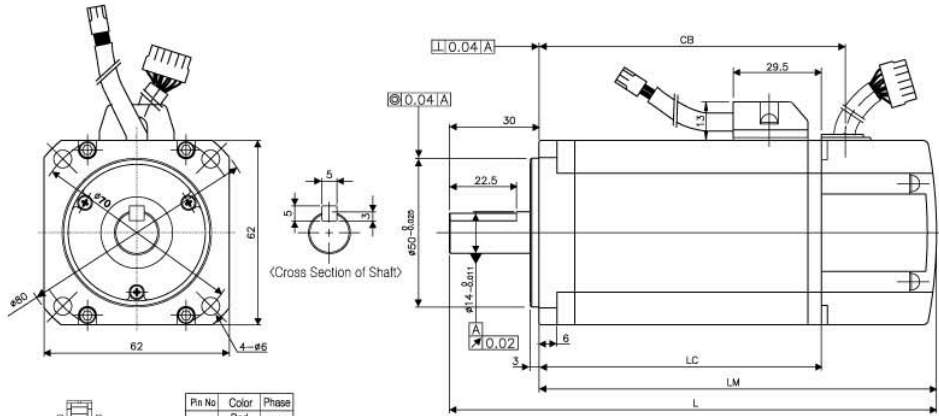


Note1) Use DC 24V for brake input power supply.



Servo Motor's Outline Drawing

Standard Type APM-SB01A, APM-SB02A, APM-SB04A



Pin No	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

(Connector Pin for Power Supply)

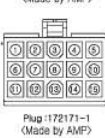
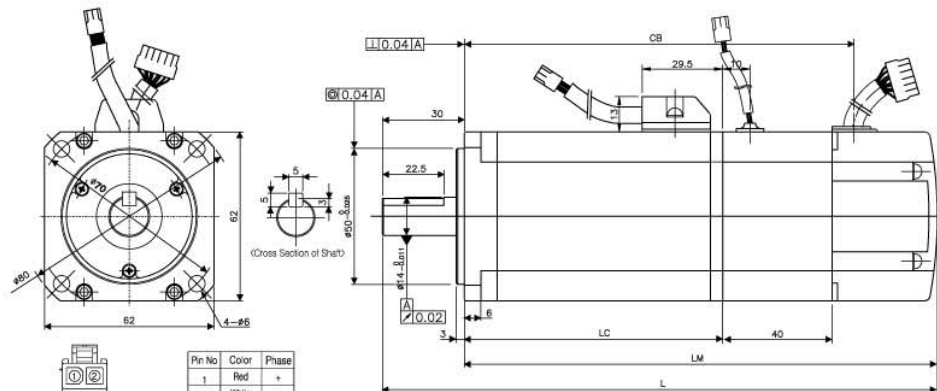
Pin No	Phase	Pin No	Phase
1	A	9	V
2	A	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

(Encoder Connector Pin)

Model	External Dimension				Weight (kg)
	L	LM	LC	CB	
SB01A	120.5	90.5	52.5	60.5	0.84
SB02A	134.5	104.5	66.5	74.5	1.11
SB04A	162.5	132.5	94.5	102.5	1.64

⚠ Note1) Use DC 24V for brake input power supply.
 Note2) In case that Abs.2048 P/R Encoder is attached, it becomes longer by 10mm.

Brake-attached Type APM-SB01A, APM-SB02A, APM-SB04A



Pin No	Color	Phase
1	Red	+
2	White	-

(Brake Connector Pin)

Pin No	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

(Connector Pin for Power Supply)

Pin No	Phase	Pin No	Phase
1	A	9	V
2	A	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

(Encoder Connector Pin)

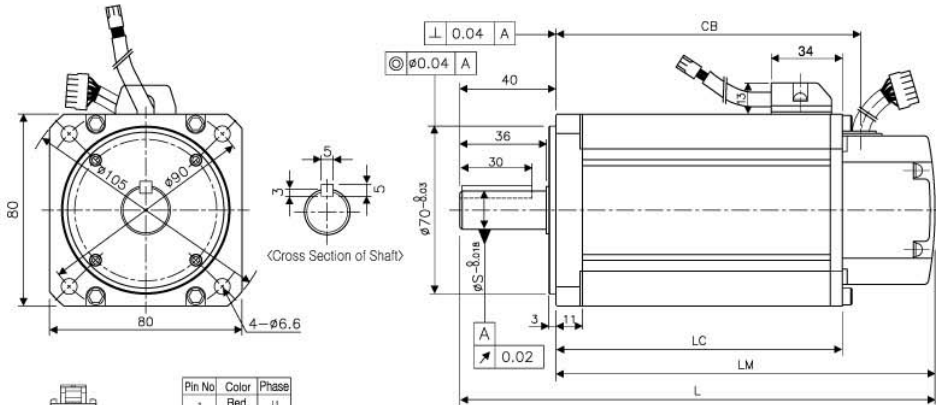
Model	External Dimension				Weight (kg)
	L	LM	LC	CB	
SB01A	160.5	130.5	52.5	100.5	1.21
SB02A	174.5	144.5	66.5	114.5	1.49
SB04A	202.5	172.5	94.5	142.5	2.05

⚠ Note1) Use DC 24V for brake input power supply.
 Note2) In case that Abs.2048 P/R Encoder is attached, it becomes longer by 10mm.



Servo Motor's Outline Drawing

Standard Type APM-SC04A, SC03D, APM-SC06A, APM-SC05D
 APM-SC08A, SC06D, APM-SC10A, APM-SC07D



Plug:172167-1
(Made by AMP)

Pin No.	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

(Connector Pin for Power Supply)



Plug:172171-1
(Made by AMP)

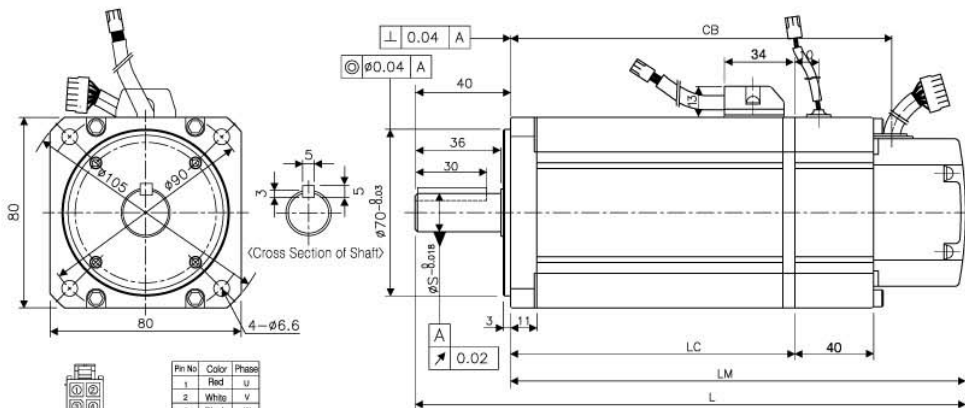
Pin No.	Phase	Pin No.	Phase
1	A	9	V
2	X	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

(Encoder Connector Pin)

Model	External Dimension					Weight (kg)
	L	LM	LC	CB	S	
SC04A, SC03D	158	118	79	86.5	14	1.85
SC06A, SC05D	178	138	99	106.5	16	2.49
SC08A, SC06D	198	158	119	126.5	16	3.15
SC10A, SC07D	218	178	139	146.5	16	3.80

⚠ Note1) Use DC 24V for brake input power supply.
 Note2) In case that Abs.2048 P/R Encoder is attached, it becomes longer by 10mm.

Brake-attached Type APM-SC04A, SC03D, APM-SC06A, APM-SC05D
 APM-SC08A, SC06D, APM-SC10A, APM-SC07D



Plug:172167-1
(Made by AMP)

Pin No.	Color	Phase
1	Red	U
2	White	V
3	Black	W
4	Green	Ground

(Connector Pin for Power Supply)



Plug:172165-1
(Made by AMP)

Pin No.	Color	Phase
1	Red	+
2	White	-

(Brake Connector Pin)

Pin No.	Phase	Pin No.	Phase
1	A	9	V
2	X	10	V
3	B	11	W
4	B	12	W
5	Z	13	DC +5V
6	Z	14	0V
7	U	15	SHIELD
8	U		

(Encoder Connector Pin)

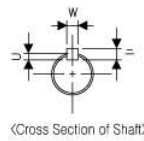
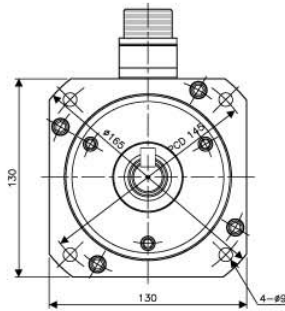
Model	External Dimension					Weight (kg)
	L	LM	LC	CB	S	
SC04A, SC03D	198	158	79	127	14	2.45
SC06A, SC05D	218	178	99	147	16	3.09
SC08A, SC06D	238	198	119	167	16	3.75
SC10A, SC07D	258	218	139	187	16	4.40

⚠ Note1) Use DC 24V for brake input power supply.
 Note2) In case that Abs.2048 P/R Encoder is attached, it becomes longer by 10mm.

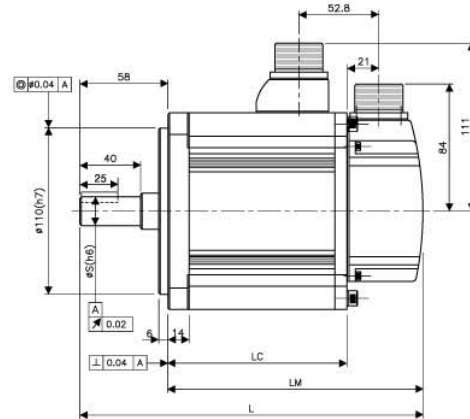


Servo Motor's Outline Drawing

Standard Type APM-SE09A, SE06D, SE05G, SE03M, APM-SE15A, SE11D, SE09G, SE06M
 APM-SE22A, SE16D, SE13G, SE09M, APM-SE30A, SE22D, SE17G, SE12M



<Cross Section of Shaft>



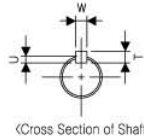
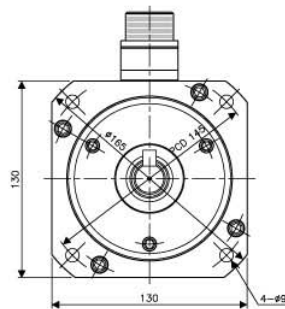
Pin No	Phase
A	U
B	V
C	W
D	Ground



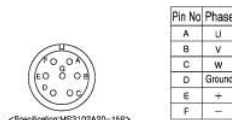
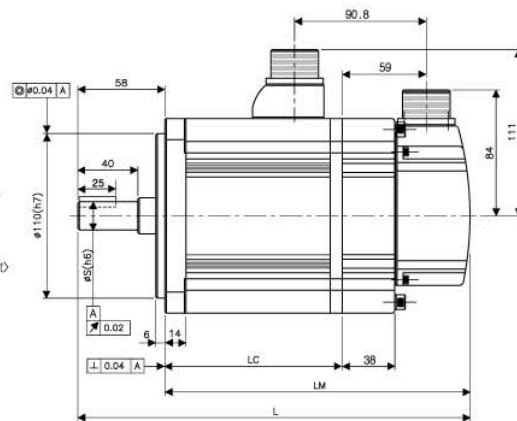
Pin No	Phase	Pin No	Phase
A	A	M	V
B	X	N	V
C	B	P	W
D	B	R	W
E	Z	H	+5V
F	Z	G	0V
K	U	J	SHIELD
L	U		

Model	External Dimension				Key			Weight (kg)
	L	LM	LC	S	T	W	U	
SE09A, SE06D, SE05G, SE03M	202	144	94	19	5	5	3	5.6
SE15A, SE11D, SE09G, SE06M	226	168	118	19	5	5	3	7.2
SE22A, SE16D, SE13G, SE09M	250	192	142	22	6	6	3.5	8.7
SE30A, SE22D, SE17G, SE12M	274	216	166	22	6	6	3.5	10.2

Brake-attached Type APM-SE09A, SE06D, SE05G, SE03M, APM-SE15A, SE11D, SE09G, SE06M
 APM-SE22A, SE16D, SE13G, SE09M, APM-SE30A, SE22D, SE17G, SE12M



<Cross Section of Shaft>



Pin No	Phase
A	U
B	V
C	W
D	Ground
E	+
F	-



Pin No	Phase	Pin No	Phase
A	A	M	V
B	A	N	V
C	B	P	W
D	B	R	W
E	Z	H	-5V
F	Z	G	0V
K	U	J	SHIELD
L	U		

Model	External Dimension				Key			Weight(kg)
	L	LM	LC	S	T	W	U	
SE09A, SE06D, SE05G, SE03M	240	182	94	19	5	5	3	7.4
SE15A, SE11D, SE09G, SE06M	264	206	118	19	5	5	3	9.0
SE22A, SE16D, SE13G, SE09M	288	230	142	22	6	6	3.5	10.5
SE30A, SE22D, SE17G, SE12M	312	254	166	22	6	6	3.5	12.0

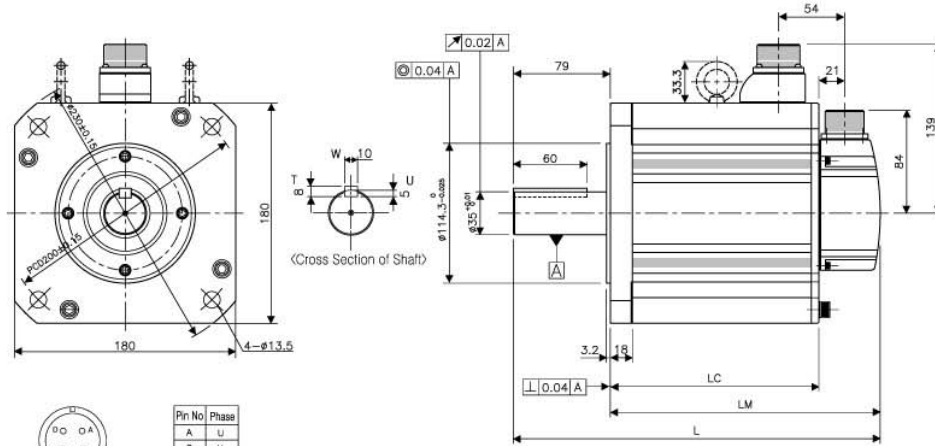


Note1) Use DC 90V for brake input power supply.



Servo Motor's Outline Drawing

Standard Type APM-SF30A, SF22D, SF20G, SF12M, APM-SF50A, SF35D, SF30G, SF20M
 APM-SF55D, SF44G, SF30M, APM-SF75D, SF60G, SF44M



Pin No.	Phase
A	U
B	V
C	W
D	Ground

<Specification-MS3102A22-22P>



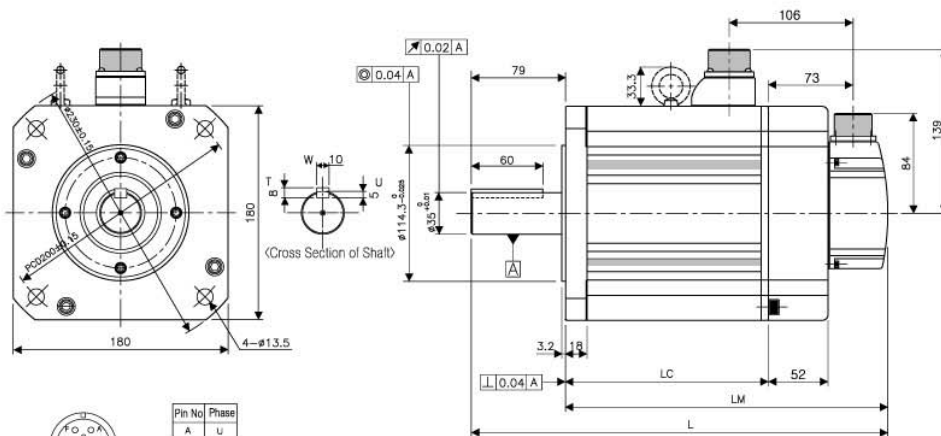
Pin No.	Phase	Pin No.	Phase
A	U	M	V
B	V	N	W
C	W	P	+V
D	Ground	R	0V
E	+V	H	SHIELD
F	0V		
G	SHIELD		
H			

<Specification-MS3102A20-20P>

Model	External Dimension			Weight (kg)
	L	LM	LC	
SF30A, SF22D, SF20G, SF12M	261.8	182.8	132.8	12.4
SF50A, SF35D, SF30G, SF20M	294.8	215.8	165.8	17.7
SF55D, SF44G, SF30M	344.8	265.8	215.8	26.3
SF75D, SF60G, SF44M	404.8	325.8	275.8	35.6

⚠ Note) I-Bolt is to be used for the models that are SF55D, SF44G, SF30M and higher than those models.

Brake-attached Type APM-SF30A, SF22D, SF20G, SF12M, APM-SF50A, SF35D, SF30G, SF20M
 APM-SF55D, SF44G, SF30M, APM-SF75D, SF60G, SF44M



Pin No.	Phase
A	U
B	V
C	W
D	Ground

<Specification-MS3102A20-15P>



Pin No.	Phase	Pin No.	Phase
A	U	M	V
B	V	N	W
C	W	P	+V
D	Ground	R	0V
E	+V	H	SHIELD
F	0V		
G	SHIELD		
H			

<Specification-MS3102A20-20P>

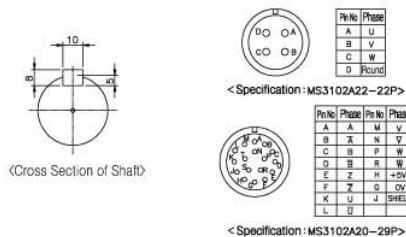
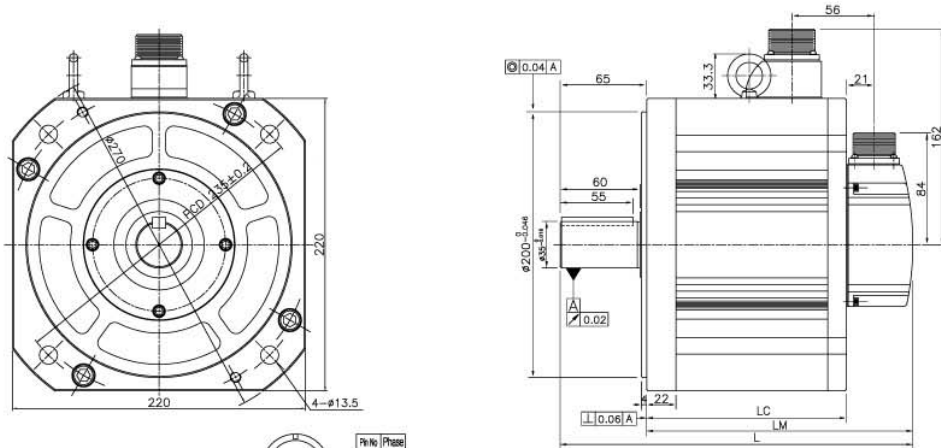
Model	External Dimension			Weight (kg)
	L	LM	LC	
SF30A, SF22D, SF20G, SF12M	313.8	234.8	132.8	17.6
SF50A, SF35D, SF30G, SF20M	346.8	267.8	165.8	24.9
SF55D, SF44G, SF30M	396.8	317.8	215.8	33.5
SF75D, SF60G, SF44M	456.8	377.8	275.8	42.8

⚠ Note1) Use DC 90V for brake input power supply.
 Note2) I-Bolt is to be used for the models that are SF55D, SF44G, SF30M and higher than those models.



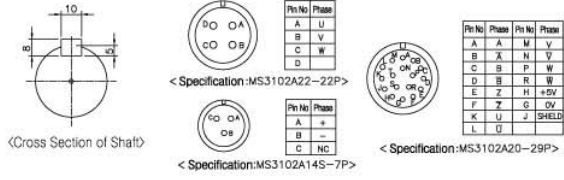
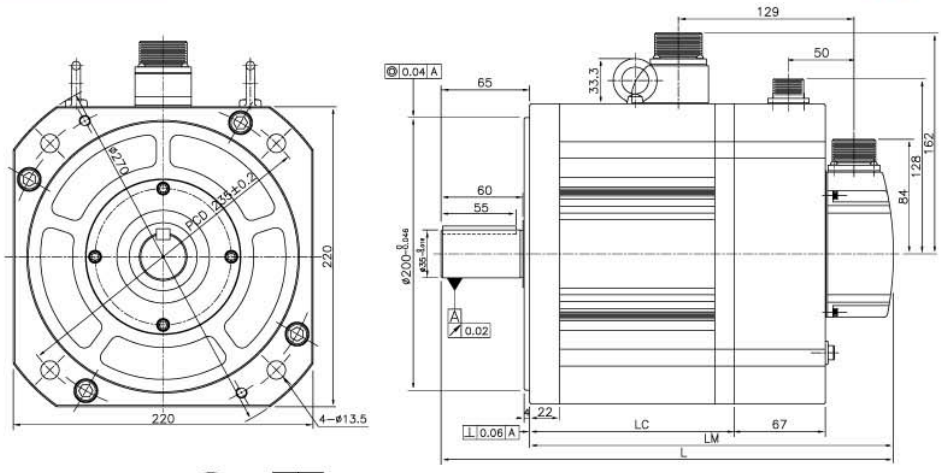
Servo Motor's Outline Drawing

Standard Type APM-SG22D, SG20G, SG12M, APM-SG35D, SG30G, SG20M
 APM-SG55D, SG44G, SG30M, APM-SG75D, SG60G, SG44M



Model	External Dimension			Weight (kg)
	L	LM	LC	
SG22D, SG20G, SG12M	237	172	122	16.68
SG35D, SG30G, SG20M	257	192	142	21.62
SG55D, SG44G, SG30M	293	228	178	30.12
SG75D, SG60G, SG44M	321	256	206	36.86

Brake-attached Type APM-SG22D, SG20G, SG12M, APM-SG35D, SG30G, SG20M
 APM-SG55D, SG44G, SG30M, APM-SG75D, SG60G, SG44M



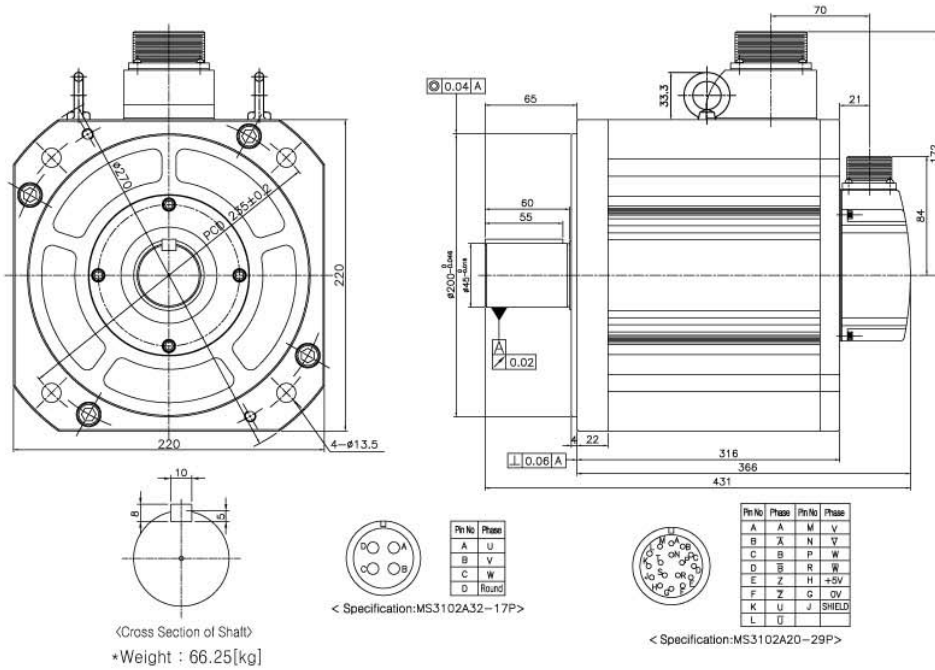
Model	External Dimension			Weight (kg)
	L	LM	LC	
SG22D, SG20G, SG12M	303	238	121	30.76
SG35D, SG30G, SG20M	323	258	141	35.70
SG55D, SG44G, SG30M	359	294	177	44.94
SG75D, SG60G, SG44M	387	322	205	50.94

⚠ Note1) Use DC 90V for brake input power supply.

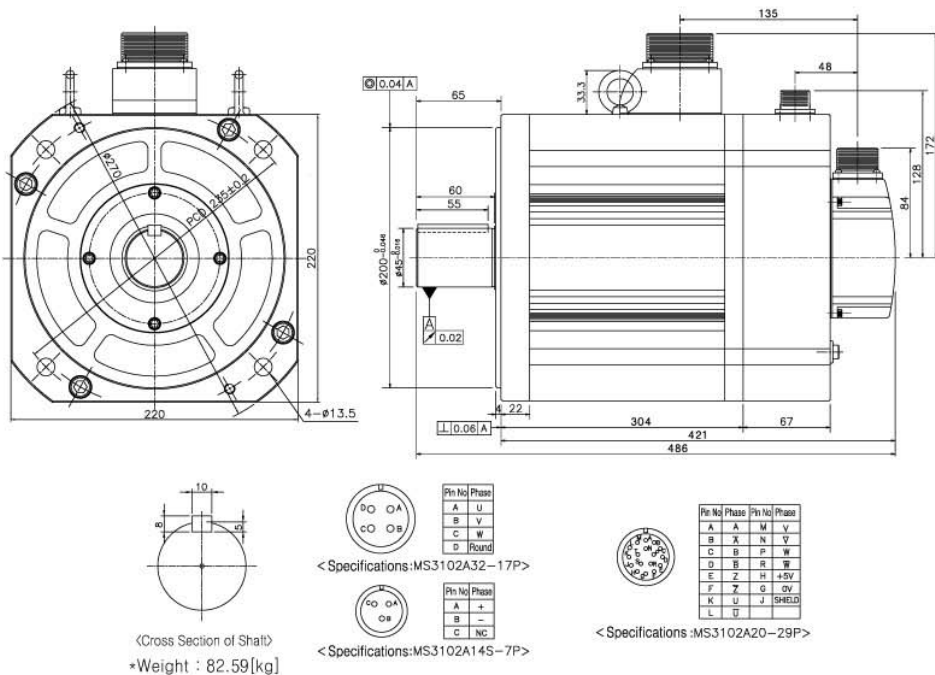


Servo Motor's Outline Drawing

Standard Type APM-SG110D, SG85G, SG60M



Brake-attached Type APM-SG110D, SG85G, SG60M



Note1) Use DC 90V for brake input power supply.



Options (Cable)

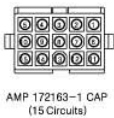
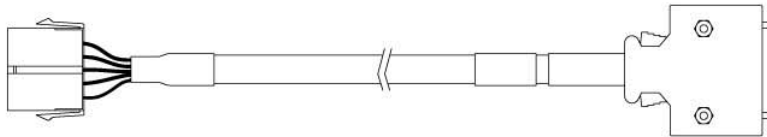
Incremental Encoder Cable

Model (★Note1) : **APC-E□□□AS**

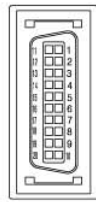
Applicable Motor : All models of APM-SA Series, APM-SB Series, APM-SC Series, APM-HB Series

Motor side connector

Drive side connector (CN2)



PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
1	A		9	V	
2	A		10	V	
3	B		11	W	
4	B		12	W	
5	Z		13	+5V	
6	Z		14	0V	
7	U		15	SHIELD	
8	U				



3M 10320-52A0-008 (15 Circuits)

PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
1	W		11	Z	
2	W		12	SHIELD	
3	V		13	B	
4	V		14	Z	
5	U		15	A	
6	U		16	B	
7	-		17	-	
8	-		18	A	
9	0V		19	+5V	
10	-		20	-	

1. Motor side connector

- 1) CAP (15 Position): 172163-1 (Made by AMP)
- 2) SOCKET : 170361-1 (Made by AMP)

2. Drive side connector (CN2)

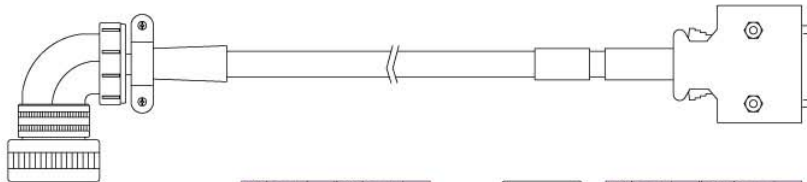
- 1) CASE : 10320-52A0-008 (Made by 3M)
- 2) CONNECTOR : 10120-3000VE (Made by 3M)
3. Cable : 7Px0.2SQ (AWG24)

Model (★Note1) : **APC-E□□□BS**

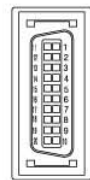
Applicable Moto : All models of APM-SE Series, APM-SF Series, APM-SG Series, APM-HE Series

Motor side connector

Drive side connector (CN2)



PIN No.	Encoder signal	Color	PIN No.	Encoder signal	Color
A	A		M	V	
B	A		N	V	
C	B		P	W	
D	B		R	W	
E	Z		H	+5V	
F	Z		G	0V	
K	U		J	SHIELD	
L	U				



3M 10320-52A0-008 (15 Circuits)

PIN No.	Encoder signal	Color	PIN No.	Encoder signal	Color
1	W		11	Z	
2	W		12	SHIELD	
3	V		13	B	
4	V		14	Z	
5	U		15	A	
6	U		16	B	
7	-		17	-	
8	-		18	A	
9	0V		19	+5V	
10	-		20	-	

1. Motor side connector (MS: Military Standard)

- 1) PLUG : MS3108B (MS3106B) 20-29S

2. Drive side connector (CN2)

- 1) CASE : 10320-52A0-008 (Made by 3M)
- 2) CONNECTOR : 10120-3000VE (Made by 3M)
3. Cable : 7Px0.2SQ (AWG24)



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

Standard Cable Length (m)	3	5	10	20
Robotic Cable	F03	F05	F10	F20
General Cable	N03	N05	N10	N20



Options (Cable)

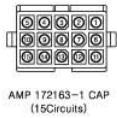
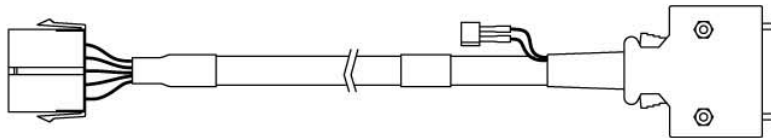
Absolute Encoder Cable

Model (★Note1) : APC - E□□□AA

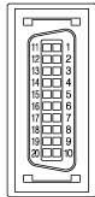
Applicable Motor : All models of APM-SA Series, APM-SB Series, APM-SC Series, APM-HB Series

Motor side connector

Drive side connector (CN2)



PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
1	A		9	BATTERY	
2	\bar{A}		10	BATTERY \bar{W}	
3	B		11	RX	
4	\bar{B}		12	RX	
5	Z		13	Vcc	
6	\bar{Z}		14	OV	
7	CLR		15	SHLD	
8	FG				



3M 10320-52F0-008 (15Circuits)

PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
1	RX		11	Z	
2	RX		12	SHLD \bar{FG}	
3	-		13	B	
4	-		14	Z	
5	-		15	\bar{A}	
6	-		16	B	
7	-		17	-	
8	-		18	A	
9	OV		19	Vcc	
10	-		20	CLR	

1. Motor side connector

- 1) CAP (15 Position) : 172163-1 (Made by AMP)
- 2) SOCKET : 170361-1 (Made by AMP)

2. Drive side connector (CN2)

- 1) CASE : 10320-52F0-008 (Made by 3M)
- 2) CONNECTOR : 10120-3000VE (Made by 3M)

3. Cable : 7Px0.2SQ (AWG24)

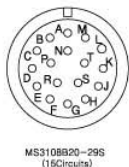
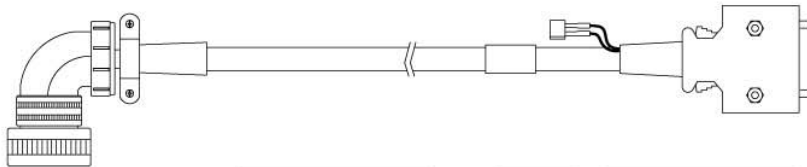
4. BATTERY CONNECTOR : 5267-02A (Made by MOLEX)

Model (★Note1) : APC-E□□□BA

Applicable Motor : All models of APM-SE Series, APM-SF Series, APM-SG Series, APM-HE Series

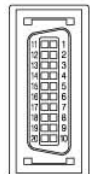
Motor side connector

Drive side connector (CN2)



MS3108B20-29S (15Circuits)

PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
A	A		M	CLR	
B	\bar{A}		N	FG	
C	B		P	RX	
D	\bar{B}		R	RX	
E	Z		H	Vcc	
F	\bar{Z}		G	OV	
K	BATTERY		J	SHLD	
L	BATTERY \bar{W}				



3M 10320-52F0-008 (15Circuits)

PIN NO.	Encoder signal	Color	PIN NO.	Encoder signal	Color
1	RX		11	Z	
2	RX		12	SHLD \bar{FG}	
3	-		13	B	
4	-		14	Z	
5	-		15	\bar{A}	
6	-		16	B	
7	-		17	-	
8	-		18	A	
9	OV		19	Vcc	
10	-		20	CLR	

1. Motor side connector (MS : Military Standard)

- 1) PLUG : MS3108B(3106B)20-29S

2. Drive side connector (CN2)

- 1) CASE : 10320-52F0-008 (Made by 3M)
- 2) CONNECTOR : 10120-3000VE (Made by 3M)

3. Cable : 7Px0.2SQ (AWG24)

4. BATTERY CONNECTOR : 5267-02A (Made by MOLEX)



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

Standard Cable Length (m)	3	5	10	20
Robotic Cable	F03	F05	F10	F20
General Cable	N03	N05	N10	N20

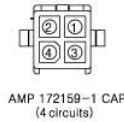
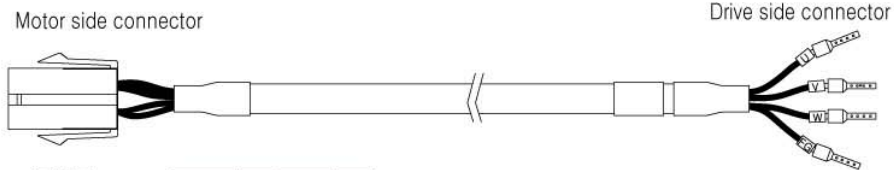


Options (Cable)

Power Cable

Model (★Note1) : **A PC-P□□□CS**

Applicable Motor : All models of APM-SA, APM-SB, APM-HB Series / APM-SC04A, SC06A, SC03D, SC05D

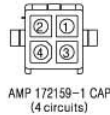
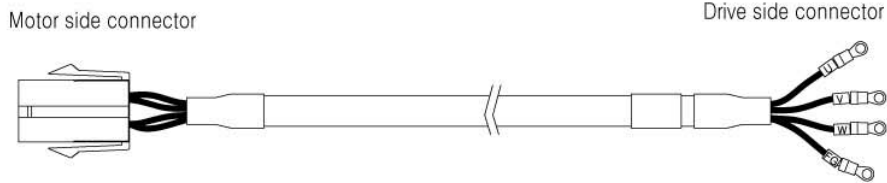


Contents	Signal	PIN No.	Color
LEAD WIRE	U	1	Red
	V	2	White
	W	3	Black
Ground	Ground	4	Green

- Motor side connector
 - CAP (4 Position) : 172159-1((Made by AMP)
 - SOCKET: 170362-1((Made by AMP)
- Drive side connector (U,V,W,FG)
 - PIN : UA-F1512(Made by Suh-il Electronic)
 - Compressor : UA-510A(Made by Suh-il Electronic)
- Cable : 4Cx0.75SQ(AWG20)
(For APM-SAR3A, SAR5A, SA01A, 0.5SQ is to be used)

Model (★Note1) : **A PC-P□□□DS**

Applicable Motor : APM-SC08A, SC10A, SC06D, SC07D

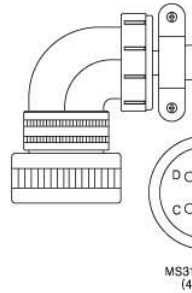
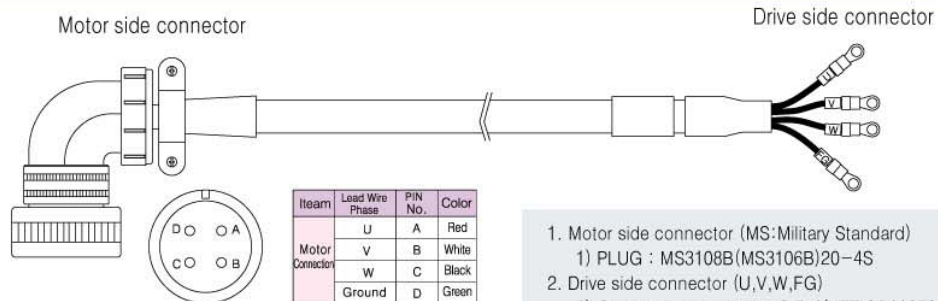


Contents	Signal	PIN No.	Color
LEAD WIRE	U	1	Red
	V	2	White
	W	3	Black
Ground	Ground	4	Green

- Motor side connector
 - CAP (4 Position) : 172159-1((Made by AMP)
 - SOCKET: 170362-1((Made by AMP)
- Drive side connector (U,V,W,FG)
 - Connection terminals : 1.25×3(KET GP110012)
- Cable : 4C×0.75SQ(AWG18)

Model (★Note1) : **A PC-P□□□ES**

Applicable Motor : All models of APM-SE Series, APM-HE Series



Item	Lead Wire Phase	PIN No.	Color
Motor Connector	U	A	Red
	V	B	White
	W	C	Black
	Ground	D	Green

- Motor side connector (MS: Military Standard)
 - PLUG : MS3108B(MS3106B)20-4S
 - Drive side connector (U,V,W,FG)
 - Connection terminals : 2.5x4(KET GP110721)
 - Cable : 4Cx2.0SQ(AWG14)
- ⚠ Note) For drive side connector of APM-SE03M Series cable, UA-F1512 pin is to be applied.



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

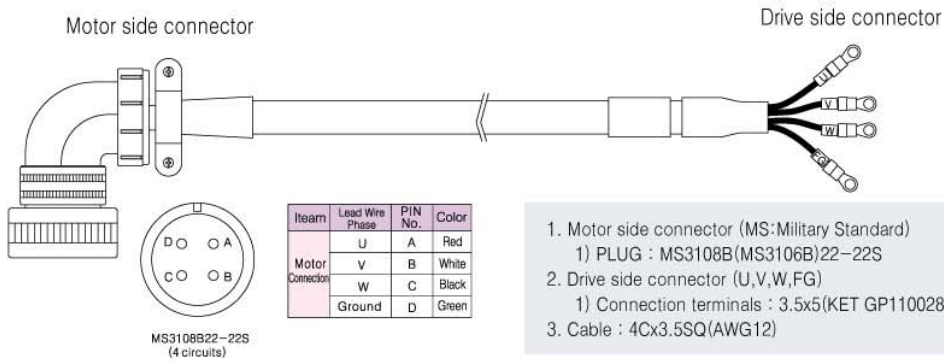
Standard Cable Length (m)	3	5	10	20
Robotic Cable	F03	F05	F10	F20
General Cable	N03	N05	N10	N20



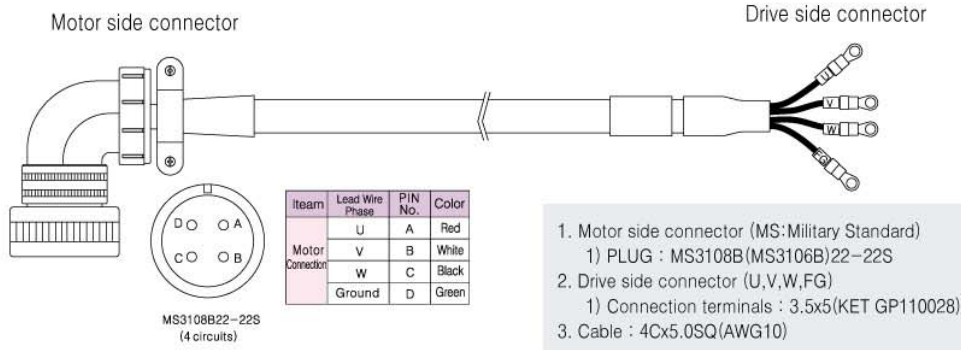
Options (Cable)

Power Cable

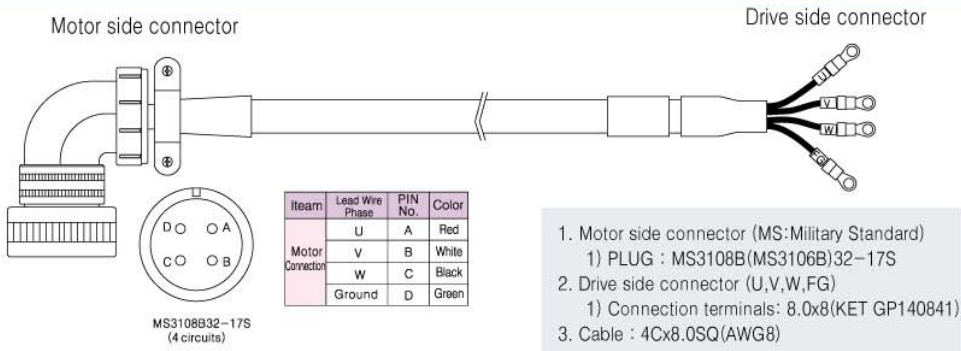
- Model (★Note1) : **APC-P□□□FS**
- Applicable Motor : APM-SF30A, SF22D, SF35D, SF20G, SF30G, SF12M, SF20M, SF30M, SG22D, SG35D, SG20G, SG30G, SG12M, SG20M, SG30M



- Model (★Note1) : **APC-P□□□GS**
- Applicable Motor : APM-SF50A, SF55D, SF75D, SF44G, SF60G, SF44M, SG55D, SG75D, SG44G, SG60G, SG44M



- Model (★Note1) : **APC-P□□□RS**
- Applicable Motor : APM-SG110D, SG85G, SG60M



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

Standard Cable Length (m)	3	5	10	20
Robotic Cable	F03	F05	F10	F20
General Cable	N03	N05	N10	N20



Options (Cable)

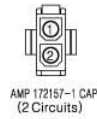
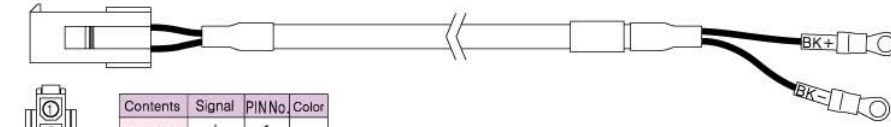
Brake Cable

Model (★Note1) : **APC-P□□□KB**

Applicable Motor : All models of APM-SA Series, APM-SB Series, APM-SC Series

Motor side connector

Drive side connector



Contents	Signal	PIN No.	Color
BRAKE WIRE	+	1	
	-	2	

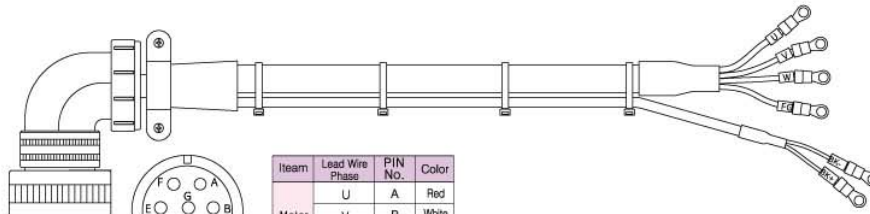
- Motor side connector
 - CAP (2 Position) : 172157-1((Made by AMP)
 - SOCKET : 170362-1((Made by AMP)
- For brake power supply
 - Connection terminals : 1.25×3(KET GP110012)
 - Cable : 2C×0.75SQ(AWG18)

Model (★Note1) : **APC-P□□□MB**

Applicable Motor : All models of APM-SE Series

Motor side connector

Drive side connector



Item	Lead Wire Phase	PIN No.	Color
Motor Connection	U	A	Red
	V	B	White
	W	C	Black
	Ground	D	Green
Brake Connection	+	E	-
	-	F	-

MS3108B20-15S (6 circuits)

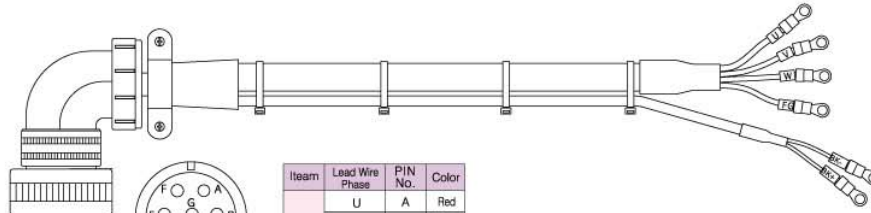
- Motor side connector (MS: Military Standard)
 - PLUG : MS3108B(MS3106B)20-15S
 - Drive side connector (U,V,W,FG,+,-)
 - Connection terminals : 2.5x4(KET GP110721)
 - Cable : 6Cx2.0SQ(AWG14)
- ⚠️ (Note) For Drive side connector of APM-SE03M Series cable, UA-F1512 pin is to be applied.

Model (★Note1) : **APC-P□□□NB**

Applicable Motor : APM-SF30A, SF22D, SF35D, SF20G, SF30G ,SF12M, SF20M, SF30M

Motor side connector

Drive side connector



Item	Lead Wire Phase	PIN No.	Color
Motor Connection	U	A	Red
	V	B	White
	W	C	Black
	Ground	D	Green
Brake Connection	+	E	-
	-	F	-

MS3108B24-10S (6 circuits)

- Motor side connector (MS: Military Standard)
 - PLUG : MS3108B(MS3106B)24-10S
- Drive side connector (U,V,W,FG,+,-)
 - Connection terminals : 3.5x5(KET GP110028)
 - Cable : 6Cx3.5SQ(AWG12)



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

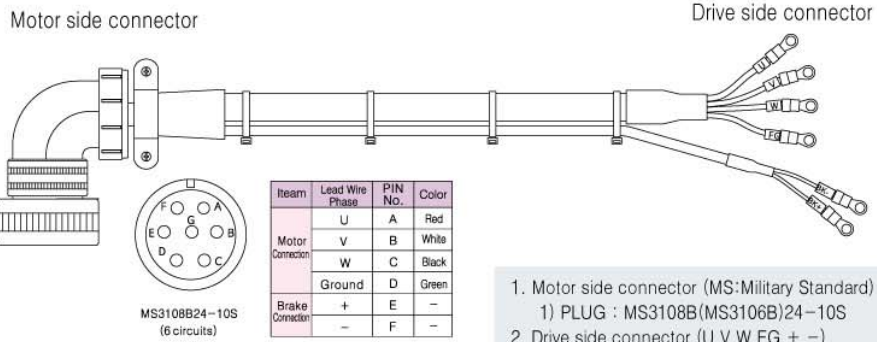
Standard	Cable length (m)	3	5	10	20
Robotic Cable		F03	F05	F10	F20
General Cable		N03	N05	N10	N20



Options (Cable)

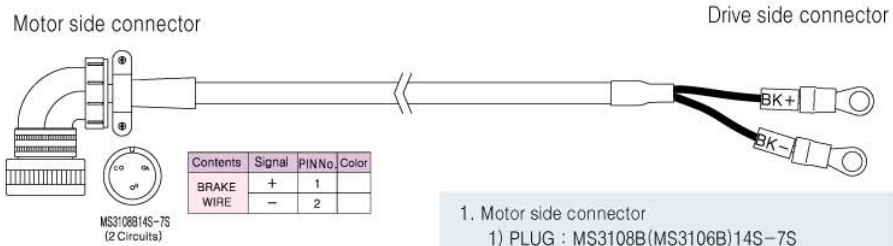
Brake Cable

- Model (★Note1) : APC-P□□□PB
- Applicable Motor : APM-SF50A, SF55D, SF75D, SF44G, SF60G, SF44M



- Motor side connector (MS: Military Standard)
 - PLUG : MS3108B(MS3106B)24-10S
- Drive side connector (U, V, W, FG, +, -)
 - Connection terminals: 3.5x5(KET GP110028)
 - Cable : 6Cx5.0SQ(AWG10)

- Model (★Note1) : APC-P□□□SB
- Applicable Motor : All models of APM-SG Series



- Motor side connector
 - PLUG : MS3108B(MS3106B)14S-7S
- Power side connector (+, -)
 - Connection terminals : 1.25x3(KET GP110012)
- Cable : 2Cx0.75SQ(AWG18)



Note1) □□□ of model indicates the kind and length of cable, and the notation is as below

Standard Cable length (m)	3	5	10	20
Robotic Cable	F03	F05	F10	F20
General Cable	N03	N05	N10	N20



Options (Cable)

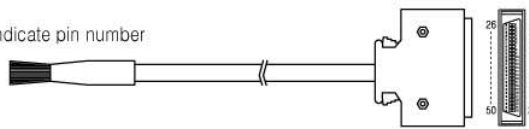
For CN1 Cable

- Model (★Note1) : A PC-CN1 □□A
- Applicable Drive : All models of APD-VS/VP Series

[Upper Controller]

[Servo Drive CN1] <Pin No.>

Indicate pin number

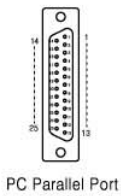


CN1	Color	CN1	Color	CN1	Color	CN1	Color	CN1	Color
1	Red	11	White/1point	21	Gray/2point	31	Light Blue/4point	41	Orange/Twist
2	Yellow	12	Pink/1point	22	Red/3point	32	White/4point	42	Gray/Twist
3	Light Blue	13	Orange/1point	23	Yellow/3point	33	Pink/4point	43	Red/1Line
4	White	14	Gray/1point	24	Light Blue/3point	34	Orange/4point	44	Yellow/1Line
5	Pink	15	Red/2point	25	White/3point	35	Gray/4point	45	Light Blue/1Line
6	Orange	16	Yellow/2point	26	Pink/3point	36	Red/Twist	46	White/1Line
7	Gray	17	Light Blue/2point	27	Orange/3point	37	Yellow/Twist	47	Pink/1Line
8	Red/1point	18	White/2point	28	Gray/3point	38	Light Blue/Twist	48	Orange/1Line
9	Yellow/1point	19	Pink/2point	29	Red/4point	39	White/Twist	49	Gray/1Line
10	Light Blue/1point	20	Orange/2point	30	Yellow/4point	40	Pink/Twist	50	Green

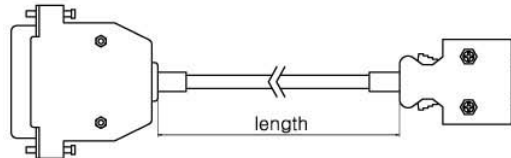
1. Drive Side Connector(CN1)
- Case : 10350-52F0-008(Made by 3M)
 - Connector : 10150-3000VE(Made by 3M)
- 1) Cable : UL20276 25Pair(AWG 28)

Software Download Cable

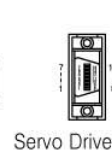
- Model : A PC-CN302S
- Applicable Drive : All models of APD-VS/VP Series



PC Parallel Port



Standard Cable length : 2[m]



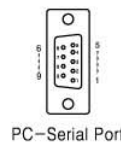
Servo Drive CN3

PC Parallel Port	Servo Drive CN3
15 (Error)	1 (DX0)
8 (Data6)	2 (FSRX)
7 (Data5)	3 (CLKRX)
9 (Data7)	4 (CLK)
16 (init)	8 (RESET)
18-25 (GND)	9 (INT2/3)
6 (Data4)	10 (DR0)
18-25 (GND)	11 (GND)
	Case (Shield)

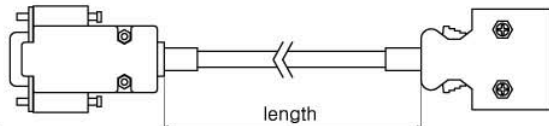
<Connection mode>

RS232 Communication Cable

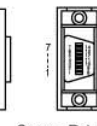
- Model : A PC-CN302R
- Applicable Drive : All models of APD-VS/VP Series



PC-Serial Port



Standard Cable length : 2[m]



Servo Drive CN3

PC-Serial Port	Servo Drive CN3
2 (RXD)	6 (TXD)
3 (TXD)	5 (RXD)
5 (GND)	11or12 (GND)
	Case (Shield)

<Connection mode>



Note1) □□ of model indicates the length of cable, and notation is as below

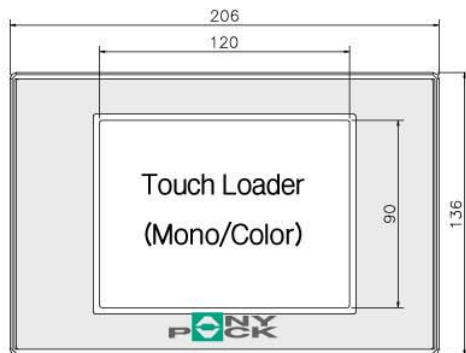
Standard Cable Length (m)	1	2	3	5
Marking	01	02	03	05



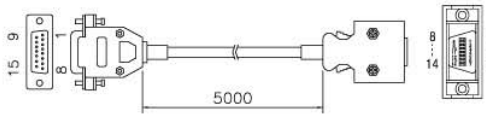
Options (Touch Loader)

Standard Type Mono Touch Loader Standard Type Color Touch Loader

- Model (★Note1) : - Mono Touch Loader : **A PC-VSTS3M**
- Color Touch Loader : **A PC-VSTS3T**
- Applicable Drive : All models of APD-VS Series



1. Touch Loader Input Voltage : DC 24[V]
2. Standard Cable Length for COM2 : 5[m]
3. Option Cable (Separate Purchasing Item)
 - 1) Communication cable for RS232 COM1
- Item : APC-CN305T2(Length 5[m])
 - 2) Touch Loader
- Cable for OS Download
- Item : APC-CN3TSC(Length 5[m])

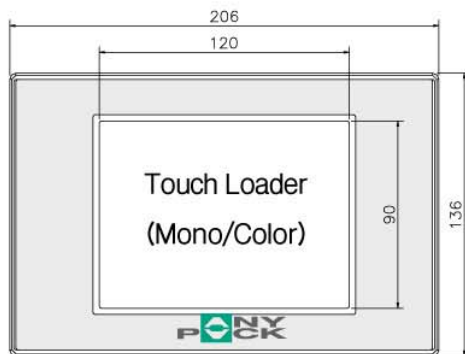


[Touch Loader]

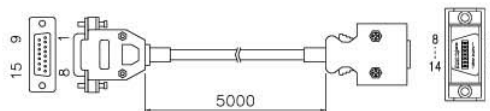
[Servo Drive CN3]

Controller-embedded Type Mono Touch Loader Controller-embedded Type Color Touch Loader

- Model (★Note1) : - Mono Touch Loader : **A PC-VPTS3M**
- Color Touch Loader : **A PC-VPTS3T**
- Applicable Drive : All models of APD-VP Series



1. Touch Loader Input Voltage : DC 24[V]
2. Standard Cable Length : 5[m]
3. Option Cable (Separate Purchasing Item)
 - 1) Communication cable for RS232 COM1
- Item : APC-CN305T2(Length 5[m])
 - 2) Touch Loader
- Cable for OS Download
- Item : APC-CN3TSC(Length 3[m])



[Touch Loader]
COM2

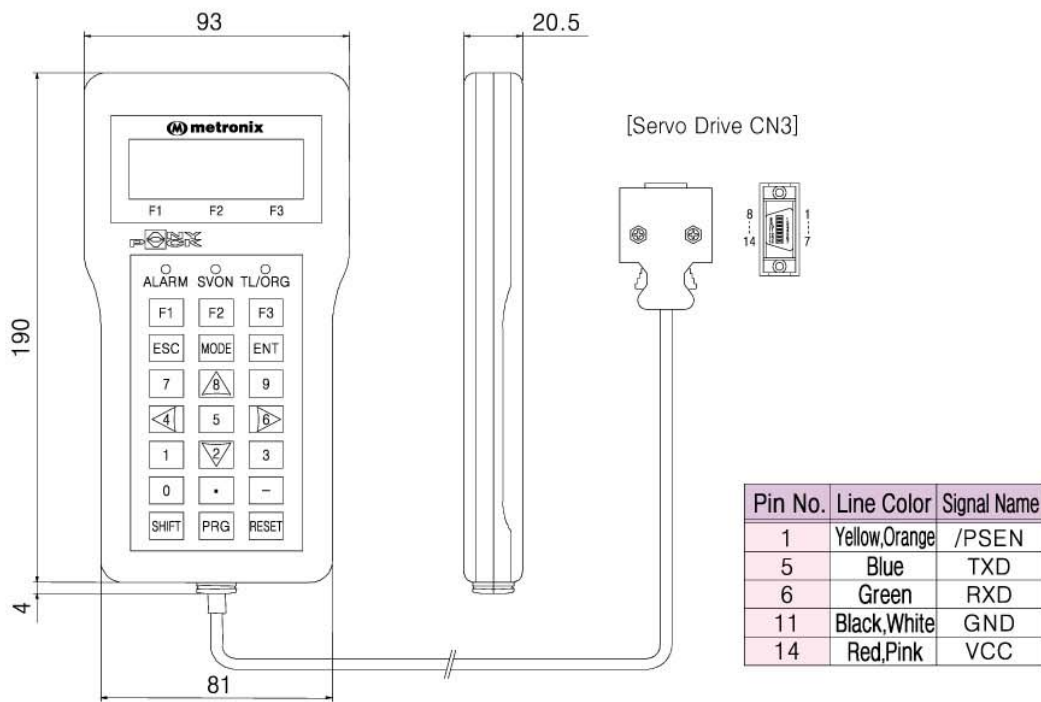
[Servo Drive CN3]



Options (Handy Loader)

Handy Loader

- Model (★Note1) : – Handy Loader : A PC-HD1□□A
- Applicable Drive : All models of APC-VS/VP Series



- Handy Loader Input Voltage : DC 5[V]
- The Length of standard Cable : 2[m]
The length can be adjusted upon request.



Note1) □□ of model indicates the length of cable, and the notation is as below

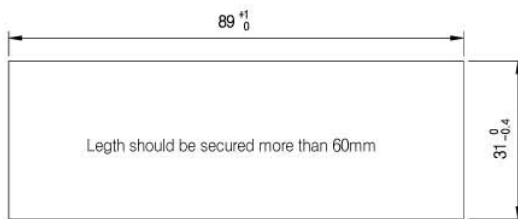
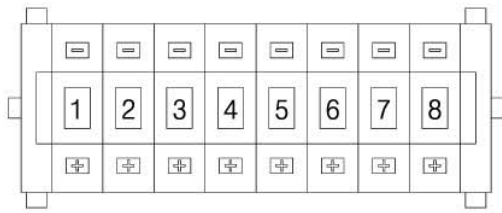
Standard Cable Length (m)	2	3	4	5
Marking	20	30	40	50



Options (Setting machine, Indicator)

Digital Switch

- Model : **APC-VPDS08**
- Applicable Drive : All models of APD-VP Series

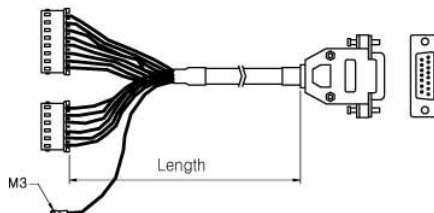
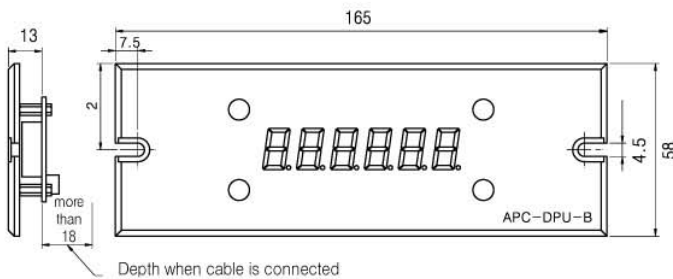


Processing dimensions

1. For Position/Speed setting of Controller-embedded Type(APD-VP)
2. Refer to the Manual of Controller-embedded Type(APD-VP) for wiring.
3. The Specification of Digital Switch can be changed (Standard 8 terminals)

Remote Display

- Model (★Note1) : **APC-DPU□□B**
- Applicable Drive : All models of APD-VS/VP Series



1. Cable length can be adjusted upon request
2. Place an order with Servo Drive (Remote Type)



Note1) □□ of model indicates the length of cable, and the notation is as below

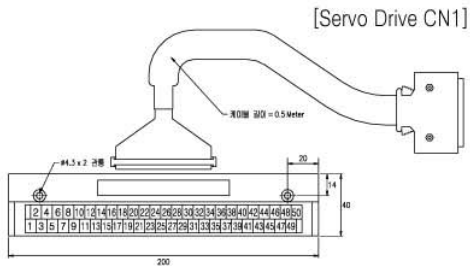
Standard Cable Length (m)	1	2	3	5
Marking	01	02	03	05



Options (Connector)

For CN1 T/B

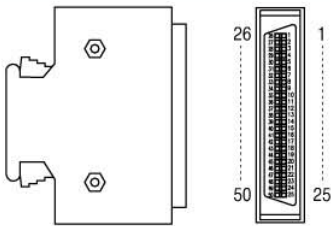
- Model : APC-VSCN1T, APC-VPCN1T
- Applicable Drive : All models of APD-VS/VP Series



1. APC-VSCN1T : CN1 T/B of APD-VS
2. APC-VPCN1T : CN1 T/B of APD-VP
3. Cable length can be adjusted upon request
4. Standard Cable length : 0.5[m]

CN1 Connector

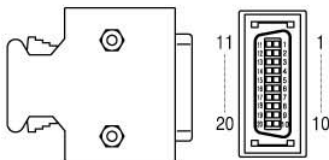
- Model : APC-CN1NNA
- Applicable Drive : All models of APD-VS/VP Series



1. Case : 10350-52A0-008(Made by 3M)
2. Connector : 10150-3000VE (Made by 3M)

CN2 Connector

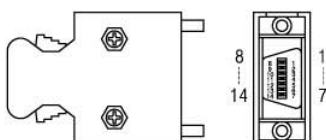
- Model : APC-CN2NNA
- Applicable Drive : All models of APD-VS/VP Series



1. Case : 10320-52A0-008(Made by 3M)
2. Connector : 10120-3000VE (Made by 3M)

CN3 Connector

- Model : APC-CN3NNA
- Applicable Drive : All models of APD-VS/VP Series



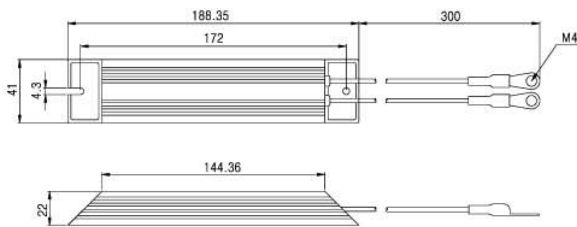
1. Case : 10314-52A0-008(Made by 3M)
2. Connector : 10114-3000VE (Made by 3M)



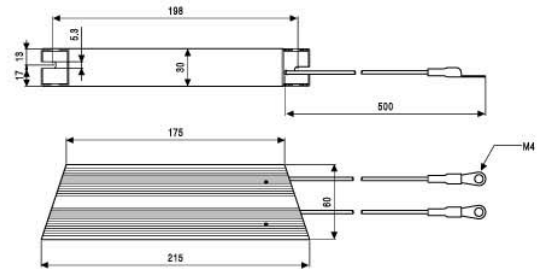
Options (Braking Resistance)

Braking Resistance

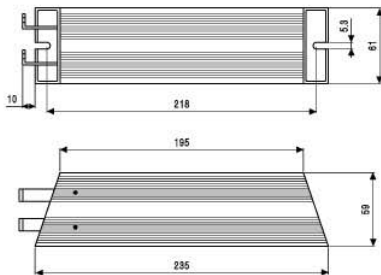
- Model : APC-140R40
- Applicable Drive : APD-VS/VP02, APD-VS/VP04



- Model : APC-300R23
- Applicable Drive : APD-VS/VP05, VS/VP10



- Model : APC-600R30
- Applicable Drive : APD-VS/VP15(2P), VS/VP20(2P), VS/VP35(3P), VS/VP50(3P), VS/VP75(3P), VS/VP110(4P)



! Note) Standard Braking Resistance for each drive capacity is provided as below table

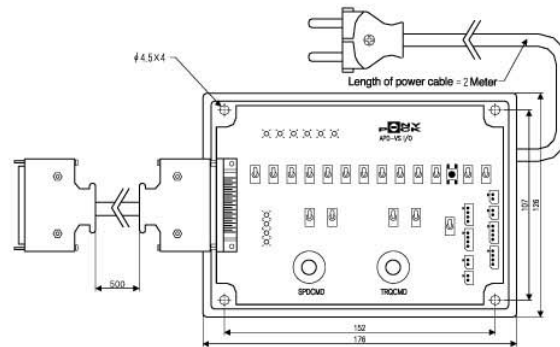
Model (APD-VS/VP□□N)	R5	01	02	04	05	10	15	20	35	50	75	110
Braking Resistance (basically provided)	-		embedded 50[Ω] (50[W])		40[Ω] (140[W])		23[Ω] (300[W])			11.5[Ω] (300[W] × 2P)		Option



Options (I/O Jig)

Standard Type I/O Jig

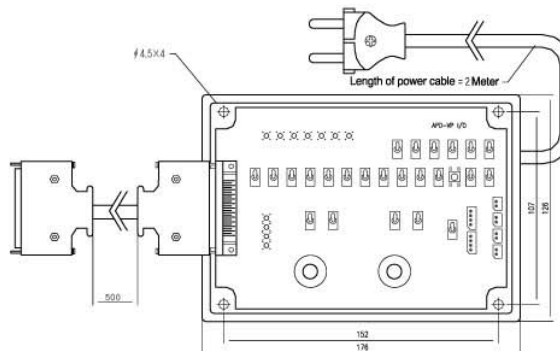
Model : A PC-VS10NA



1. Input power supply : Single phase AC220[V]
2. I/O function of standard Type(APD-VS) Servo Drive
3. Cable length can be adjusted upon request

Controller-embedded Type I/O Jig

Model : A PC-VP10NA



1. Input power supply : Single phase AC220[V]
2. I/O function of controller-embedded Type (APD-VP) Servo Drive
3. Cable length can be adjusted upon request