

Document No. : SX-DSV03109

Revision No. : 1.0

Date of Issue : Apr. 1, 2022

Classification : ☐ New ☒ Change

REFERENCE SPECIFICATIONS

Product Name : AC Servo Motor
Product Series Name : □25 Series DC24V
Product Model Number : MMA□ACF1A (20bit absolute encoder)

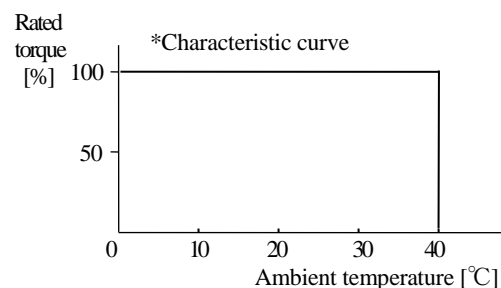
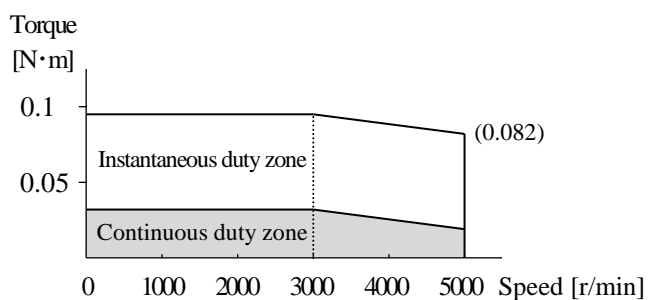
Motion Control Business Unit, Industrial Device Business Division
Panasonic Industry Co., Ltd.
7-1-1 Morofuku, Daito—City, Osaka 574-0044, Japan

If you have any questions, please contact the seller (Sales office or Distributor) of the product.

AC Servo Motor Specification

Motor model		MMMA1ACF1A (Without brake)		
Rated output	W	10		
Rating	%	100		
Rated speed	r/min	3000		
Max. speed	r/min	5000		
Rated torque	N·m	0.032		
Max. torque	N·m	0.095		
Rated current	A(rms)	(2.29)		
Rotor inertia	$\times 10^{-4} \text{ kg} \cdot \text{m}^2$	0.0019		
Momentary max. current	A(o-p)	(10.8)		
Mass	kg	(0.12)		
Structure		Totally-enclosed self-cooled type		Without oil seal
Supply voltage	V _{DC}	24		

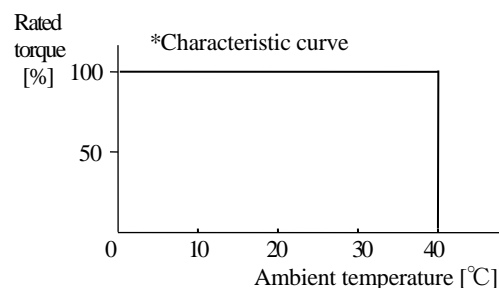
- This specification is guaranteed after combining and adjusting with the amplifier.
(Representative value at 20 °C)
- This motor is not a waterproof construction. (IP40)
- This motor does not have to acquire the safety standards (UL, CSA, CE).
- Speed - Torque characteristic (Representative value)
Amplifier power supply voltage : at DC 24 V



AC Servo Motor Specification

Motor model		MMMA2ACF1A (Without brake)		
Rated output	W	20		
Rating	%	100		
Rated speed	r/min	3000		
Max. speed	r/min	5000		
Rated torque	N·m	0.064		
Max. torque	N·m	0.140		
Rated current	A(rms)	(2.67)		
Rotor inertia	$\times 10^{-4} \text{ kg} \cdot \text{m}^2$	0.0033		
Momentary max. current	A(o-p)	(9.45)		
Mass	kg	(0.15)		
Structure		Totally-enclosed self-cooled type		Without oil seal
Supply voltage	V _{DC}	24		

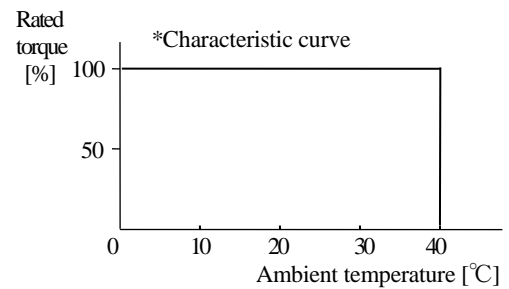
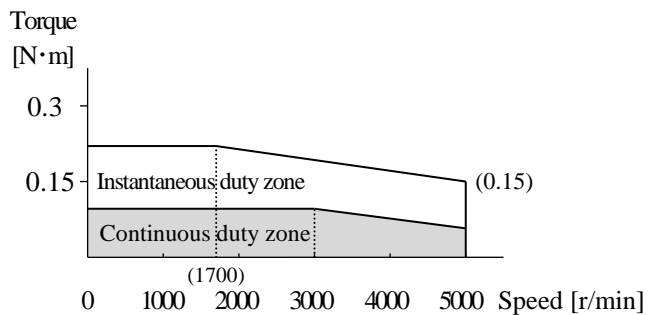
- This specification is guaranteed after combining and adjusting with the amplifier.
(Representative value at 20 °C)
- This motor is not a waterproof construction. (IP40)
- This motor does not have to acquire the safety standards (UL, CSA, CE).
- Speed - Torque characteristic (Representative value)
Amplifier power supply voltage : at DC 24 V



AC Servo Motor Specification

Motor model		MMMA3ACF1A (Without brake)		
Rated output	W	30		
Rating	%	100		
Rated speed	r/min	3000		
Max. speed	r/min	5000		
Rated torque	N·m	0.095		
Max. torque	N·m	0.220		
Rated current	A(rms)	(2.83)		
Rotor inertia	$\times 10^{-4} \text{ kg} \cdot \text{m}^2$	0.0047		
Momentary max. current	A(o-p)	(10)		
Mass	kg	(0.18)		
Structure		Totally-enclosed self-cooled type		Without oil seal
Supply voltage	V _{DC}	24		

- This specification is guaranteed after combining and adjusting with the amplifier.
(Representative value at 20 °C)
- This motor is not a waterproof construction. (IP40)
- This motor does not have to acquire the safety standards (UL, CSA, CE).
- Speed - Torque characteristic (Representative value)
Amplifier power supply voltage : at DC 24 V



Opponent connector (No belongings)

Motor connector (AMP)
Cap :172159-1
Socket:170362-1
or 170366-1

Detector connector (AMP)
Cap :172161-1
Socket:170361-1
or 170365-1

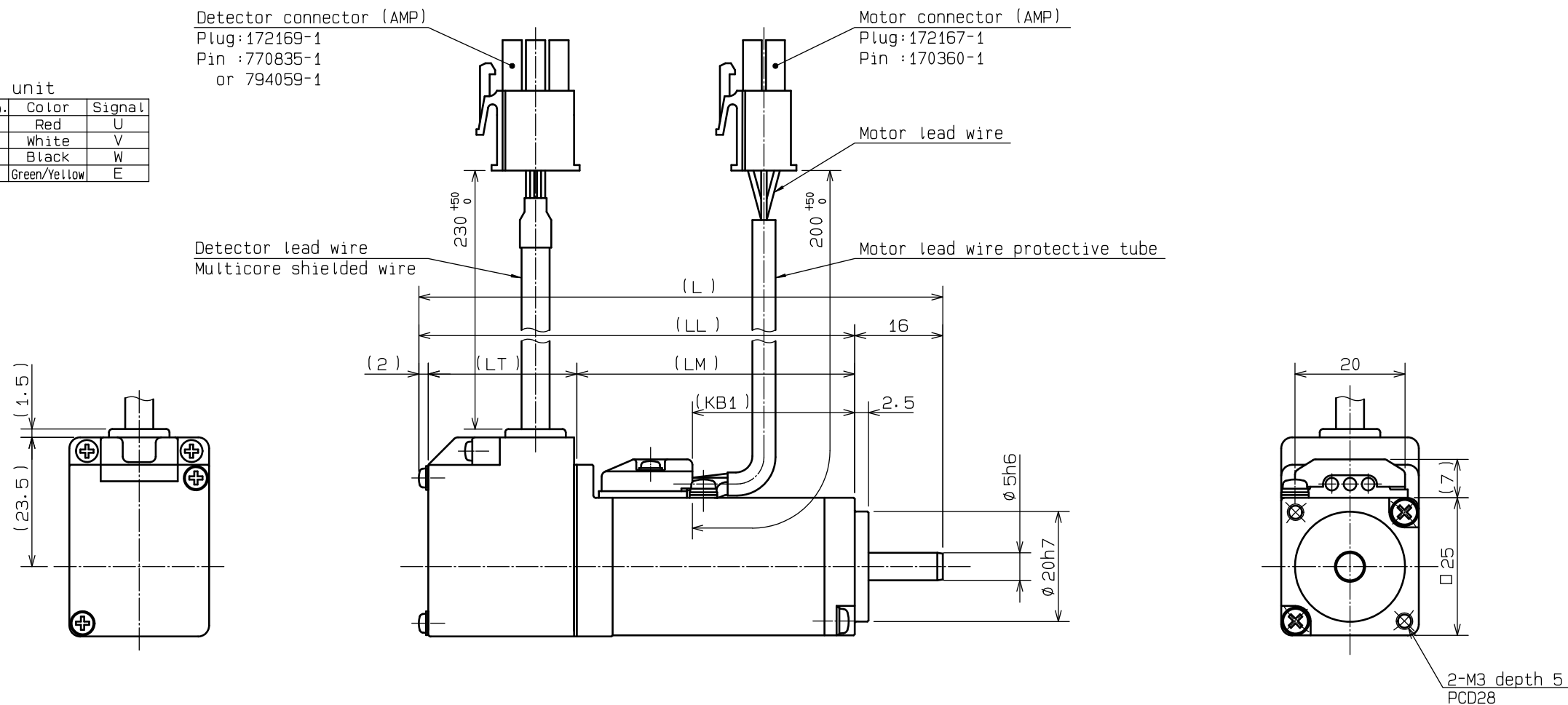
Rotary encoder unit

PIN No.	Color	Signal
1	Red	BAT +
2	Pink	BAT -
3	Shield	FG
4	Sky blue	PS (SD)
5	Violet	PS (SD)
6	—	NC
7	White	E5 V
8	Black	E0 V
9	—	NC

※Absolute encoder
20 bit

Motor unit

PIN No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E



Model	Output (W)	L	LL	LM	LT	KB1
MMA1ACF1A	10	76	60	31	27	10
MMA2ACF1A	20	86	70	41	27	20
MMA3ACF1A	30	96	80	51	27	30

Panasonic Industry Co., Ltd.
3rd Angle System Unit:mm

Model MMA1ACF1A
Name OUTLINE DRAWING
No. SX-DSV0310901