

# Compact Actuator AF series

AF017N/042N/080N/125N/380N/500N/050C/120C/200C/320C

● Motor series: MINAS A6

Item	Model	Solid type						
		AF017N	AF042N	AF080N	AF125N	AF500N		
<b>Actuator</b>								
Motor model		MHMF042	MDMF102	MDMF102	MDMF152	MDMF202	MHMF302	MDMF402
Motor rated capacity	kW	0.4	1.0	1.0	1.5	2.0	3.0	4.0
Speed ratio		81	126	126	126	129	102.18 (1737/17)	252.33 (757/3)
Rated torque	Nm	82 <sup>*2</sup>	415	481	722	986	1169	3856
Momentary max. torque	Nm	289	415	1029	1029	1960	3062	11567
Rated output speed	min <sup>-1</sup>	37.0	15.9	15.9	15.9	15.5	19.6	7.9
Momentary max. speed	min <sup>-1</sup>	80.2	31.7	31.7	31.7	31.0	39.1	15.1
Allowable load inertia moment	kgm <sup>2</sup>	11	117	117	164	221	473	3311
Backlash	arc.min.	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Motor brake		With / Without	With	With	With	With	With	With
Allowable moment	Nm	784	784	1660	1660	2150	3430	11000
mass	kg	7.2/6.8	15	16	17	26	39.7	91.1
Motor torque limit <sup>*1</sup>	%	350	86	214	142	198	261	300
<b>Compatible servo driver</b>								
A6SE : Basic type		MBDLN25SE***	MDDL45SE***	MDDL45SE***	MDDL55SE***	MEDLN83SE***	MFDLNA3SE***	MFDLNB3SE***
A6SG: RS485 communication type		MBDLN25SG***	MDDL45SG***	MDDL45SG***	MDDL55SG***	MEDLN83SG***	MFDLNA3SG***	MFDLNB3SG***
A6SF : Multifunction type		MBDLT25SF***	MDDL45SF***	MDDL45SF***	MDDL55SF***	MEDLT83SF***	MFDLTA3SF***	MFDLTB3SF***
A6NE: RTEX network standard type		MBDLN25NE***	MDDL45NE***	MDDL45NE***	MDDL55NE***	MEDLN83NE***	MFDLNA3NE***	MFDLNB3NE***
A6NF: RTEX network multi function		MBDLT25NF***	MDDL45NF***	MDDL45NF***	MDDL55NF***	MEDLT83NF***	MFDLTA3NF***	MFDLTB3NF***
A6BE: EtherCAT network standard type		MBDLN25BE***	MDDL45BE***	MDDL45BE***	MDDL55BE***	MEDLN83BE***	MFDLNA3BE***	MFDLNB3BE***
A6BF: EtherCAT network multi function		MBDLT25BF***	MDDL45BF***	MDDL45BF***	MDDL55BF***	MEDLT83BF***	MFDLTA3BF***	MFDLTB3BF***

\*1 Set the torque limit of the servo amplifier so that the torques does not exceed the momentary maximum torque of the compact actuator.

\*2 Value calculated from the rated torque of the motor where the ambient temperature is 20 °C.

When the ambient temperature is 40 °C, the torque will be 75 % of the rated torque.

● Motor series: MINAS A6

Item	Model	Hollow shaft type		
		AF050C	AF120C	AF320C
<b>Actuator</b>				
Motor model		MDMF102	MDMF202	MHMF502
Motor rated capacity	kW	1.0	2.0	5.0
Speed ratio		120.47(2289/19)	120	157
Rated torque	Nm	460	917	3002
Momentary max. torque	Nm	1225	2746	7840
Rated output speed	min <sup>-1</sup>	16.6	16.7	12.7
Momentary max. speed	min <sup>-1</sup>	33.2	33.3	22.3
Allowable load inertia moment	kgm <sup>2</sup>	84	158	1763
Backlash	arc.min.	≤ 1	≤ 1	≤ 1
Motor brake		Without	Without	With
Allowable moment	Nm	1764	3920	20580
mass	kg	32	43	164
Motor torque limit <sup>*1</sup>	%	266	299	261
<b>Compatible servo driver</b>				
A6SE : Basic type		MDDL45SE***	MEDLN83SE***	MFDLNB3SE***
A6SG: RS485 communication type		MDDL45SG***	MEDLN83SG***	MFDLNB3SG***
A6SF : Multifunction type		MDDL45SF***	MEDLT83SF***	MFDLTB3SF***
A6NE: RTEX network standard type		MDDL45NE***	MEDLN83NE***	MFDLNB3NE***
A6NF: RTEX network multi function		MDDL45NF***	MEDLT83NF***	MFDLTB3NF***
A6BE: EtherCAT network standard type		MDDL45BE***	MEDLN83BE***	MFDLNB3BE***
A6BF: EtherCAT network multi function		MDDL45BF***	MEDLT83BF***	MFDLTB3BF***

\*1 Set the torque limit of the servo amplifier so that the torques does not exceed the momentary maximum torque of the compact actuator.