

**Noah**<sup>®</sup>

# NEW NA-SERIES

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**EMICO**  
EUNHA MACHINERY INDUSTRIAL CO.,LTD

# NEW NA SERIES MANUAL

## 1. Performance

TYPE		NA 006	NA 009	NA 015	NA 019	NA 028	NA 038	NA 050	NA 060	NA 080	NA 100	NA 150	NA 200	NA 250	NA 300
Max Output Torque	kgm	6	9	15	19	28	38	50	60	80	100	150	200	250	300
	Nm	60	90	150	190	280	380	500	600	800	1000	1500	2000	2500	3000
Operating Time (90/sec)	DC24V	17	17	20	20	24	—	—	—	—	—	—	—	—	—
	50Hz	17	17	20	20	24	24	24	29	29	29	87	87	87	116
	60Hz	14	14	17	17	20	20	20	24	24	24	72	72	72	96
Enclosure	IP	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68	67/68
Motor	W	15	25	40	40	40	60	90	90	180	180	90	180	180	180
	Class	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Duty Cycle (CSA)	S4 (%)	50	50	50	50	50	30	25	25	25	25	25	25	25	25
Max Stem Dia(mm)	Key	22	22	22	22	32	32	32	42	42	42	75	75	75	75
	Square	20	20	20	20	26	26	26	34	34	34	65	65	65	65
Mounting Base	ISO 5211	F07	F07	F07 /F10	F07 /F10	F10 /F12	F10 /F12	F10 /F12	F12 /F14	F12 /F14	F12 /F14	F12 /F14 /F16	F12 /F14 /F16	F12 /F14 /F16	F12 /F14 /F16
Handle Turns		8.5	8.5	10	10	12.5	12.5	12.5	14.5	14.5	14.5	43.5	43.5	43.5	43.5
Weight	kg	9	9	11.5	11.5	14	14	14	24	24	24	60	60	60	60

## 2. Rated / Starting Current

TYPE		NA 006	NA 009	NA 015	NA 019	NA 028	NA 038	NA 050	NA 070	NA 080	NA 100	NA 150	NA 200	NA 250	NA 300
120V 50Hz	Rated current(A)	0.75	1.2	1.6	1.6	1.8	2.3	3.9	3.9	4.7	4.7	3.9	4.7	4.7	4.7
	starting current(A)	1.35	2.1	2.1	2.1	2.9	3.7	4.9	4.9	7.45	7.45	4.9	7.45	7.45	7.45
120V 60Hz	Rated current(A)	0.75	1.1	1.52	1.52	1.73	2.2	3.85	3.85	4.58	4.58	3.85	4.58	4.58	4.58
	starting current(A)	1.41	1.96	2.34	2.34	3.07	3.93	4.9	4.9	7.3	7.3	4.9	7.3	7.3	7.3
220V 50Hz	Rated current(A)	0.45	0.58	0.95	0.95	0.95	1.3	1.5	1.5	2.15	2.15	1.5	2.15	2.15	2.15
	starting current(A)	0.63	0.89	1.12	1.12	1.37	1.85	2.34	2.34	3.4	3.4	2.34	3.4	3.4	3.4
220V 60Hz	Rated current(A)	0.45	0.58	0.95	0.95	0.95	1.3	1.5	1.5	2.15	2.15	1.5	2.15	2.15	2.15
	starting current(A)	0.63	0.89	1.12	1.12	1.37	1.85	2.34	2.34	3.4	3.4	2.34	3.4	3.4	3.4
380V 50Hz	Rated current(A)	0.13	0.18	0.3	0.3	0.3	0.33	0.52	0.52	0.73	0.73	0.52	0.73	0.73	0.73
	starting current(A)	0.32	0.36	0.59	0.59	0.74	0.78	1.24	1.24	1.68	1.68	0.78	1.68	1.68	1.68
380V 60Hz	Rated current(A)	0.13	0.17	0.3	0.3	0.33	0.36	0.56	0.56	0.84	0.84	0.56	0.84	0.84	0.84
	starting current(A)	0.32	0.36	0.59	0.59	0.74	0.78	1.24	1.24	1.68	1.68	0.78	1.68	1.68	1.68
440V 50Hz	Rated current(A)	0.13	0.2	0.35	0.35	0.36	0.36	0.55	0.55	0.75	0.79	0.55	0.79	0.79	0.79
	starting current(A)	0.32	0.36	0.59	0.59	0.74	0.78	1.24	1.24	1.68	1.68	0.78	1.68	1.68	1.68
440V 60Hz	Rated current(A)	0.12	0.16	0.3	0.3	0.34	0.34	0.57	0.57	0.78	0.78	0.57	0.78	0.78	0.78
	starting current(A)	0.32	0.36	0.59	0.59	0.74	0.78	1.24	1.24	1.68	1.68	0.78	1.68	1.68	1.68
DC 24V	Rated current(A)	2.2	3.5	4.5	5	6.5									
	starting current(A)	4.1	4.1	6.6	9.8	13.8									

## 3. On/Off Type Standard Specification

Enclosure	Watertight Ingress Protection 67 Nema 4 and 6 Option : IP68
Ambient Temperature	NA006~NA070, NA150 : -20°C to +70°C 150°C / 1hr NA080, NA100, NA200~NA300 : -20°C to +55°C 150°C / 1hr
Ambient Humidity	90% RH Max (Non Condensing)
Power Supply	110 / 230V AC 50/60Hz 380 / 440V AC 50/60Hz Option : AC24V, DC24V
Torque Switches	Open / Close Torque Switch (Except NA006 , NA009)
Limit Switches	Open / Close Limit Switch
Stall Protection	Thermal Protection ( Open 150°C)
Travel Angel	90±5°C
Indicator	Continuous Position Indicator
Manual Override	Hand / Auto Dedutching Mechanism
Self Locking	Provided by Means of Worm Gearing
Mechanical Stops	External Adjustable Screws
Space Heater	20W
Conduit Entries	Two PF 3/4" Option : Two M20 Pitch 1.5 , Two NPT 3/4"
Lubrication	Shell Gadus S2 V220 2
Materials	Aluminium
Surface Treatment	Anodizing
External Coating	Polyester (Powder)
Dielectric Strength	AC1800V / 1min
Insulation	DC500V more Than 100M Ohm
Anti Vibration	X, Y, Z log, 10Hz~57Hz 0.15mm 30min

## 4. On/Off Type Optional Specification

IP68	Watertight Enclosure IP68 1 bar 72h
ALS	Auxiliary Open, Close Limit Switches
ATS	Auxiliary Open, Close Over Torque Switches
EXT	Travel Angle (120°, 135°, 180°, 270°)
PIU	Potentiometer 1K Ohm
CPT	Current Position Transmitter Output : DC 4-20mA
PCU	Proportional Control Unit Input DC 4-20mA, DC1~5V, DC2~10V Output : DC 4-20mA
LCU 1	Local Control Unit Material : Plastic (IP66)
LCU 2	Local Control Unit Material : Aluminium (IP67~68)
IMS	Integral Motor Starter
NAC	Continuous Modulating (Duty 100%) with Speed Controls
RBP	Rechargeble Battery Pack (NA006~NA028)
DCM	Power Supply DC24V (NA006~NA028)

## 5. Integral Type Standard Specification

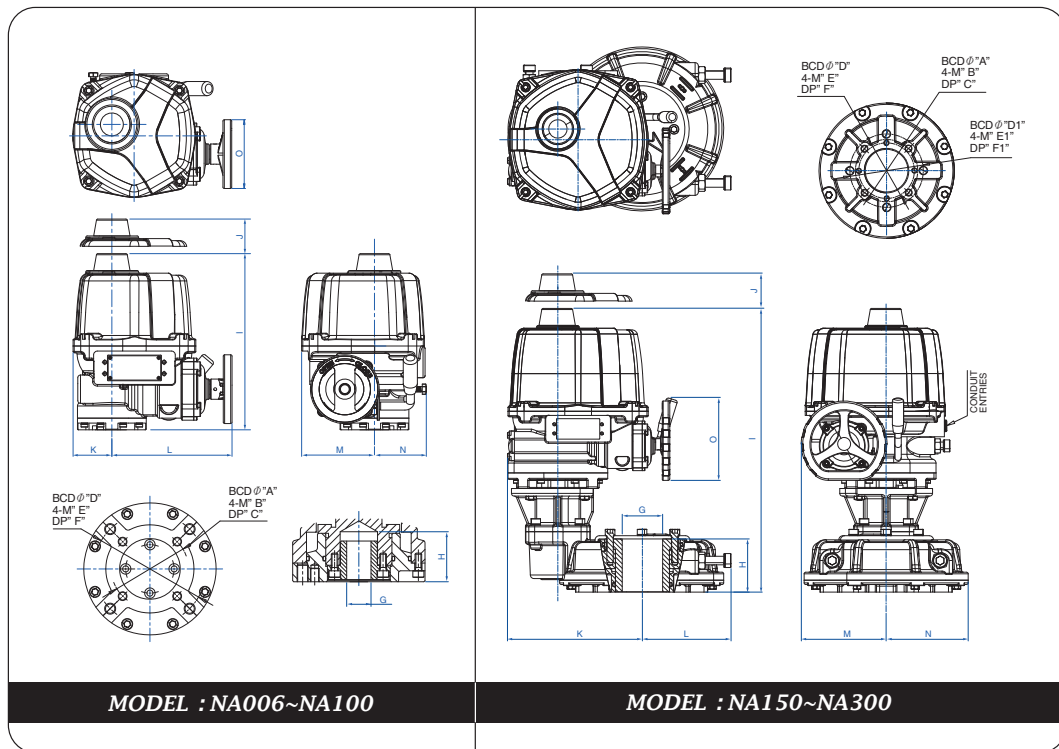
Enclosure	Weather proof enclosure IP67 ( Nema 4 and 6 )
Main Power	1PH AC110 / 220V 50 / 60HZ 3PH AC380 / 440V 50 / 60HZ
Internal Control Power	DC 24V C
External Control Power	AC 110V
Limit Switches	Open / Close Limit Switch Dry Contact Open / Close Limit Switch (Max 250VAC 15A)
Torque Switches	Open / Close Torque Switch Relay Dry Contact Open / Close Torque Switch (Max 250VAC 15A)
Control Unit	1. Non Intrusive Push Buttons [ Open/ Stop / Close ] 2. Non Intrusive Selector Switch [ Remote / OFF / Local ] 3. Reversing Contactor 4. Phase Discriminator
Position Indicator	Digital Display (0~100%)
LED Lamp	Remote / Local / Fault LED Lamp Open / Close LED Lamp
Remote Dry Contact ( Max 250VAC 5A)	Full Open / Close Opening / Closing Over Torque Open / Close Monitor ( Remote / Local )
Cable Entry	PF 3/4" X 2 NPT 3/4" X 2 M20 Pitch 1.5 X 2 PF 1" X 1 NPT 1" X 1 M25 Pitch 1.5 X 1
Potentiometer	0 ~ 1 kΩ

## 6. IntegralType Optional Specification

EXP	Flameproof Enclosure Ex d IIB T4
IP68	Watertight Enclosure IP68 1 bar 72h
EXT	Travel Angle ( 120° , 135° , 180° , 270° )
CPT	Current Position Transmitter Output : 4 – 20mA DC
PCU	Proportional Contact Unit ( Modulation ) Input : 4~20mA 1~ 5VDC, 2~10VDC Output : 4~20mA DC
RBP	Rechargeble Battery Pack (NA006~NA028) Main Power : 1PH 110/220V AC 50/60HZ DC 24V

# NEW NA SERIES MANUAL

## 7. On / Off Type Dimension



MODEL : NA006~NA100

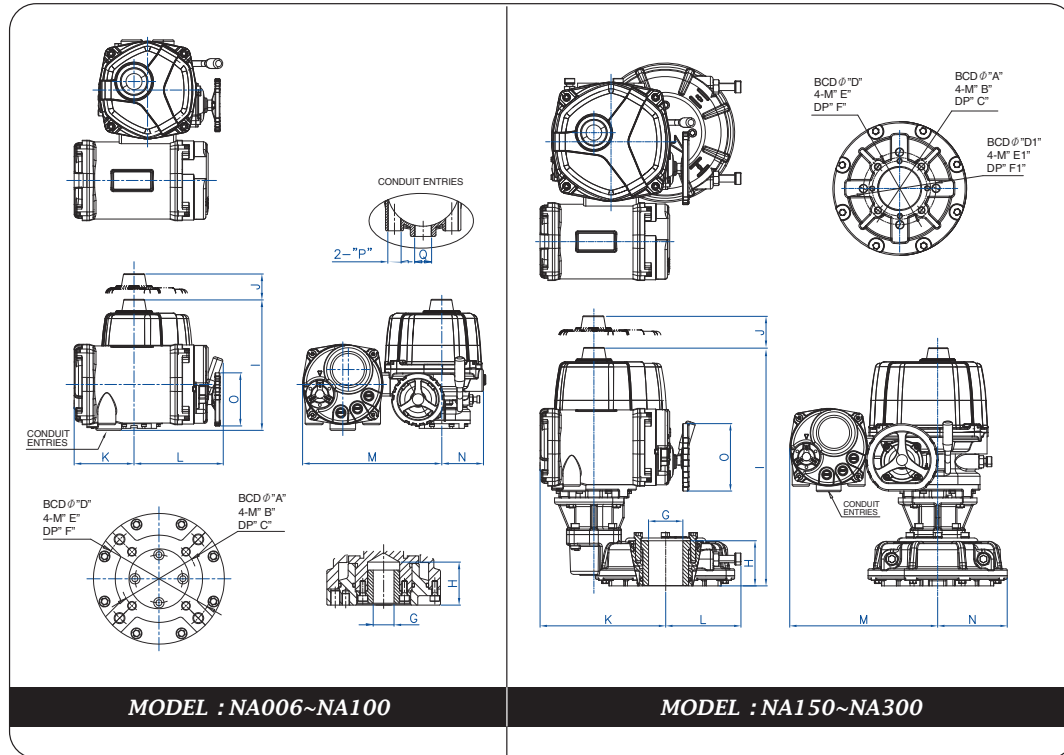
MODEL : NA150~NA300

### ON/OFF TYPE

TYPE	NA006 NA009	NA015 NA019	NA028 NA038 NA050	NA070 NA080 NA100	NA150, NA200 NA250, NA300	
A	BCD70	BCD70	BCD102	BCD125	BCD125	
B	4-M8	4-M8	4-M10	4-M12	4-M12	
C	12	12	18	22	22	
Flange ISO5211	F07	F07	F10	F12	F12	
D	D1	BCD102	BCD125	BCD140	BCD140	BCD165
E	E1	4-M10	4-M12	4-M16	4-M16	4-M20
F	F1	15	18	22	22	25
Flange ISO5211	-	F10	F12	F14	F14	F16
OPTION	BCD82	BCD82	-	BCD102(F10)	-	
G(MAX)	Key	22	22	32	42	75
	Square	20	20	26	34	65
H	43	43	52	59	98	
I	259	271	302	324	516	
J	135	147	168	182	182	
K	58	75	78.5	93	250	
L	172	181	189	207	164	
M	108	121	139	157	157	
N	76	88	88	118	152	
O	102	102	125	170	170	
CONDUIT ENTRIES	2-PF3/4	2-PF3/4	2-PF3/4	2-PF3/4	2-PF3/4	
	2-M20x1.5	2-M20x1.5	2-M20x1.5	2-M20x1.5	2-M20x1.5	
	2-NPT3/4	2-NPT3/4	2-NPT3/4	2-NPT3/4	2-NPT3/4	



## 8. Integral Type Dimension


**MODEL : NA006~NA100**
**MODEL : NA150~NA300**

INTEGRAL TYPE							
TYPE		NA006 NA009	NA015 NA019	NA028 NA038 NA050	NA070 NA080 NA100	NA150, NA200 NA250, NA300	
A		BCD70	BCD70	BCD102	BCD125	BCD125	
B		4-M8	4-M8	4-M10	4-M12	4-M12	
C		12	12	18	22	22	
Flange ISO5211		F07	F07	F10	F12	F12	
D	D1	-	BCD102	BCD125	BCD140	BCD140	BCD165
E	E1	-	4-M10	4-M12	4-M16	4-M16	4-M20
F	F1	-	15	18	22	22	25
Flange ISO5211		-	F10	F12	F14	F14	F16
OPTION		BCD82	BCD82	-	BCD102(F10)	-	
G(MAX)	Key	22	22	32	42	75	
	Square	20	20	26	34	65	
H		43	43	52	59	98	
I		259	271	302	324	516	
J		135	147	168	182	182	
K		126.5	126.5	126.5	126.5	274	
L		172	181	189	207	164	
M		281	294	312	330	330	
N		76	88	88	118	152	
O		102	102	125	170	170	
CONDUIT ENTRIES	2-\"P\" , Q	1. 3/4\"PF×2 , 1\"PF 2. M20 PITCH1.5 × 2 , M25 PITCH1.5 3. 3/4\"NPT × 2 , 1\"NPT					