

## Control Unit Specifications

### MASTER AXIS CONTROL UNIT (MAU55)

Item	ENRZ-MAU55-20-*			ENRZ-MAU55-40-*
	A	B	C	D
Motor Type				
Operation & Display Panel	5 Characters x 1 Digit 7-segment LED Display, Function Keys (5), Indicator Lamp (OK/NG/ALM)			
Control Input (PIN)	Photocoupler Isolation (16 Points) (24VDC, Draw-in Current 6mA/Point) Both sink (-common) and source (+ common) connections can be made			
Control Output (POUT)	Photo MOS Output: 16 Points (DC24V, Max. 50 mA/Point) Both sink (-common) and source (+ common) connections can be made			
Number of Programs	99 Programs			
SS Function	Safe Stop Function (Motor power source is cut off without disconnecting power supply or motor cable.)			
External Communication Port	PC-USB	Port for Management Software Connection USB Connector (mini-B)		
	RS-232C	RS-232C x 1 Port (Switchable from 9600bps to 115.2kbps)		
	NET	RS-485 x 2 Ports (for Multi-spindle Connections)		
	ETHERNET	Ethernet Connection Port x2 Port 10/100BASE-T		
Fieldbus	Option			
Number of Data Memory Items	Tightening Result History : Maximum 20,000 (Varies Depending on Settings)			
	Torque Curve History : Maximum 50 (Varies Depending on Settings)			
	System Error History : Maximum 200			
Other	Free Assignment Function (Control I/O Signal, Tightening Result Data Item), Identifier Function, Sequence Function			
Control Power Supply Voltage	Single-phase 200~230V AC 50/60 Hz			
Main Power Supply	Three-phase 200~230V AC 50/60 Hz			
Control Power Capacity	50VA			
Main Power Capacity (During Rated Operation)	0.2kVA	0.3kVA	0.4kVA	0.7kVA
Inrush Current Value when Control Power is Turned on	Approximately 26 Ao-p (Convergence Time: 5 ms)			
Inrush Current Value when Main Power is Turned on	Approximately 6 Ao-p (Convergence Time: 400 ms)			

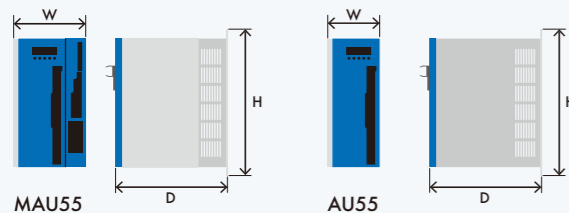
### AXIS CONTROL UNIT (AU55)

Item	ENRZ-AU55-20			ENRZ-AU55-40
	A	B	C	D
Motor Type				
Operation & Display Panel	5 Characters x 1 Digit 7-segment LED Display, Function Keys (5), Indicator Lamp (OK/NG/ALM)			
SS Function	Safe Stop Function (Motor power source is cut off without disconnecting power supply or motor cable.)			
External Communication Port	NET : RS-485 x 2 Ports (for Multi-spindle Connections)			
Control Power Supply Voltage	Single-phase 200~230V AC 50/60 Hz			
Main Power Supply	Three-phase 200~230V AC 50/60 Hz			
Control Power Capacity	50VA			
Main Power Capacity (During Rated Operation)	0.2kVA	0.3kVA	0.4kVA	0.7kVA
Inrush Current Value when Control Power is Turned on	Approximately 26 Ao-p (Convergence Time: 5 ms)			
Inrush Current Value when Main Power is Turned on	Approximately 6 Ao-p (Convergence Time: 400 ms)			

\* AU55 cannot be used alone.

### External Dimensions / Weight

Model	External Dimensions						Weight	
	W	(mm) D	H	W	(in) D	H	(kg)	(lb)
ENRZ-MAU55-20-*	90.8	170.4	222	3.57	6.71	8.74	2.7	5.95
ENRZ-MAU55-40-*	109.8	170.4	222	4.32	6.71	8.74	3.2	7.05
ENRZ-AU55-20	60.0	170.4	222	2.36	6.71	8.74	2.2	4.85
ENRZ-AU55-40	79.0	170.4	222	3.11	6.71	8.74	2.7	5.95



### Model Description

1	ENRZ - MAU55	- 00 - N	2	3
2	ENRZ - AU55	- 00		

**1** Control Unit Model  
**2** Motor Type  
 20 : A, B, C  
 40 : D  
**3** Fieldbus (Option)  
 N : None (Standard)  
 D : DeviceNet  
 P : PROFIBUS  
 C : CC-Link  
 W : EtherNet/IP  
 B : EtherCAT  
 I : CC-Link IE  
 S : PROFINET

**ESTIC**  
Fastening Solutions

# SERVO NUTRUNNER

## New Servo Nutrunner Control Unit MAU55/AU55



50%  
size  
reduction

### Miniaturized even further! Industry's smallest class

Size reduction achieved by integrating the Z50 AXIS and Master control units into a single unit. Compatible with a wide range of tools covering 5 to 400N·m.

\*1 Comparison of the volume of MAU55/AU55 with other ESTIC control units.

up to  
33%  
cycle time  
reduction

### Cycle time is reduced even further! Industry's fastest class

The processing speed of the control unit has been increased from the Z50 series. Screw tightening process cycle time has been shortened, greatly contributing to productivity improvements.

\*2 These are the results of measurements performed in our own environment. Results may differ depending on tightening conditions and settings.

**ESTIC CORPORATION**  
1-2-16 Togodori, Moriguchi-city,  
Osaka, 570-0041 Japan



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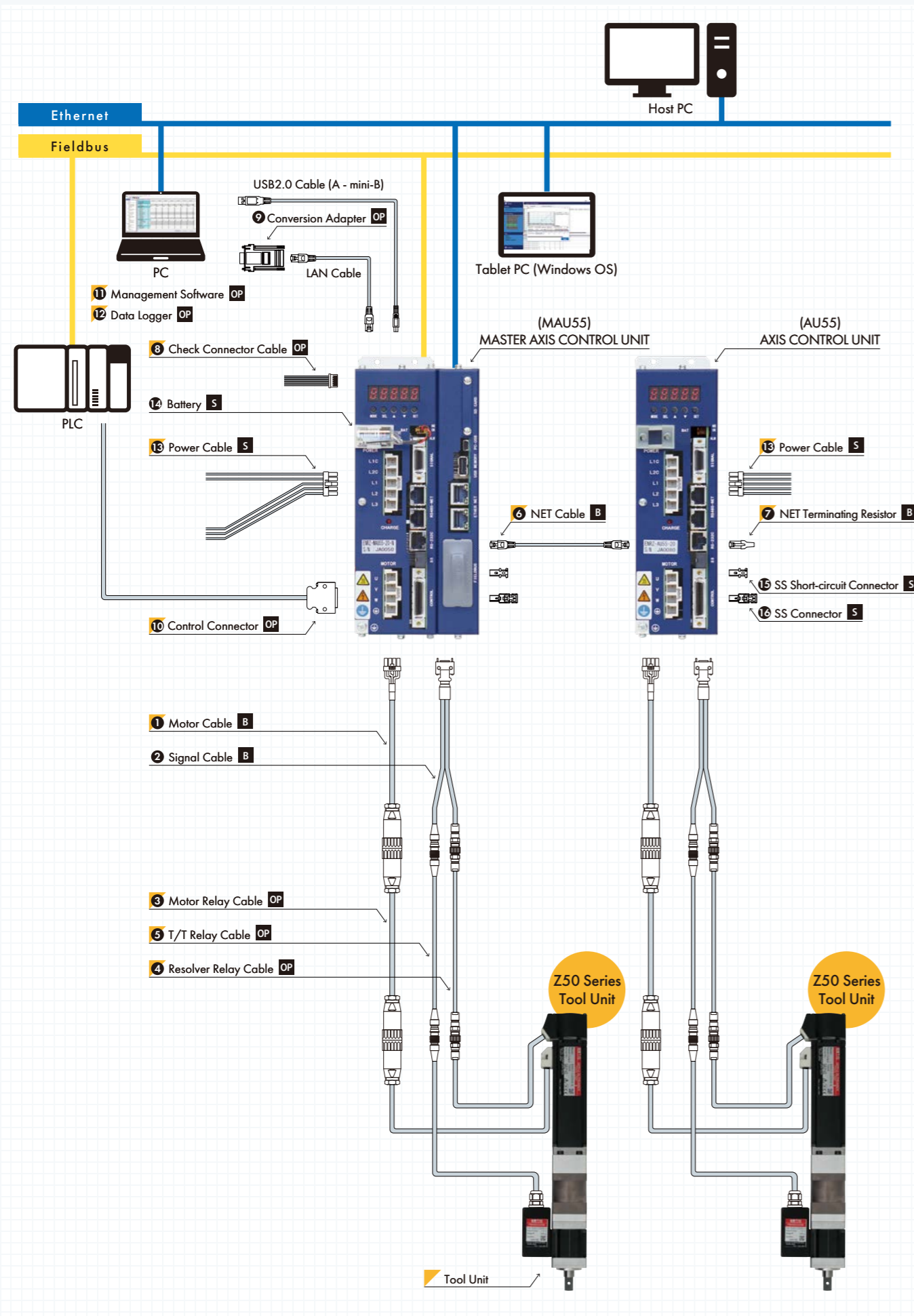
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# System Layout

Compatible with Z50 Series



\* If you want multi-axis connection, please contact our sales representative.

# Tool Unit

Compatible with Z50 Series

## Straight Tools

Model	Rated Torque (N·m)	Rated Torque (ft·lb)	Applicable Tightening Range (N·m)	Max. Speed (rpm)	Motor Type	Applicable Control Unit
ENRZ-TU0R5R-S	5	3.7	0.5-4.5	3940	A	ENRZ-MAU55-20-* ENRZ-AU55-20-*
ENRZ-TU001R-S	10	7.4	1-9	1714	B	
ENRZ-TC002R-S	20	14.8	2-18	1960	B	
ENRZ-TU003R-S	30	22.1	3-27	656	A	
ENRZ-TC004R-S	40	29.5	4-36	1120	B	
ENRZ-TU004R-S	40	29.5	4-36	2050	B	
ENRZ-TU008R-S	80	59.0	8-72	1000	C	
ENRZ-TU013R-S	130	95.9	13-117	700	C	
ENRZ-TU020R-S	200	147.5	20-180	408	D	
ENRZ-TU040R-S	400	295.0	40-360	208	D	
ENRZ-TU060R-S	600	442.5	60-540	159	D	ENRZ-MAU55-40-* ENRZ-AU55-40-*
ENRZ-TU080R-S	800	590.1	80-720	117	D	

- 500N·m / 1,200N·m / 1,500N·m / 3,000N·m tool units in Z50 series lineups are not supported.  
 - Bent type tools are also available for when installation height is low. For more information, please contact your ESTIC authorized dealer.  
 - Please refer to Z50 series catalog for detailed tool unit specifications.

## Offset Tools

Model	Rated Torque (N·m)	Rated Torque (ft·lb)	Applicable Tightening Range (N·m)	Max. Speed (rpm)	Motor Type	Applicable Control Unit
ENRZ-TU001R-O	10	7.4	1-9	1714	A	ENRZ-MAU55-20-* ENRZ-AU55-20-*
ENRZ-TC002R-O	20	14.8	2-18	1960	B	
ENRZ-TU003R-O	30	22.1	3-27	656	A	
ENRZ-TC004R-O	40	29.5	4-36	1120	B	
ENRZ-TU008R-O	80	59.0	8-72	1000	C	
ENRZ-TU013R-O	130	95.9	13-117	700	C	
ENRZ-TU020R-O	200	147.5	20-180	408	D	
ENRZ-TU040R-O	400	295.0	40-360	208	D	

CAD data can be downloaded from our website.

<https://www.estic-global.com/member/login>



# Cables / Accessories

## B Basic Selection

Product Name	Model	Length (m)
1 Motor Cable	ENRZ-CVMN2-050	5
	ENRZ-CVMN2-100	10
	ENRZ-CVMN2-150	15
	ENRZ-CVMN2-200	20
2 Signal Cable	ENRZ-CVTR-050	5
	ENRZ-CVTR-100	10
	ENRZ-CVTR-150	15
	ENRZ-CVTR-200	20

## B Basic Selection (Only for Multi-spindle Connections)

Product Name	Model	Length (m)
6 NET Cable	ENRZ-CVKN2A-002	0.2
	ENRZ-CVKN2A-010	1
	ENRZ-CVKN2A-020	2

Product Name	Model
7 NET Terminating Resistor *	ENRZ-CVST3

\* Two pieces required.

## OP Optional Accessories (Relay Cable)

Product Name	Model	Length (m)
3 Motor Relay Cable	ENRZ-CVMP-030	3
	ENRZ-CVMP-060	6
	ENRZ-CVMP-100	10
	ENRZ-CVMP-150	15
4 Resolver Relay Cable	ENRZ-CVRP-030	3
	ENRZ-CVRP-060	6
	ENRZ-CVRP-100	10
	ENRZ-CVRP-150	15
5 T/T Relay Cable	ENRZ-CVTN-030	3
	ENRZ-CVTN-060	6
	ENRZ-CVTN-100	10
ENRZ-CVTN-150	15	

## S Standard Accessories

Product Name	Model	Length (m)
13 Power Cable	ENRZ-CVDC2-030	3
14 Battery	ENRZ-BATT2	
15 SS Short-circuit Connector	ENRZ-STO01	
16 SS Connector	ENRZ-STO02	

## OP Optional Accessories (Other)

Product Name	Model	Length (m)
8 Check Connector Cable	ENRZ-CVCK-030	3
9 Conversion Adapter	ENRZ-RIS	
10 Control Connector	ENRZ-CNAU	
11 Management Software	ENRZ-PC50	
12 Data Logger	ESV-DL	