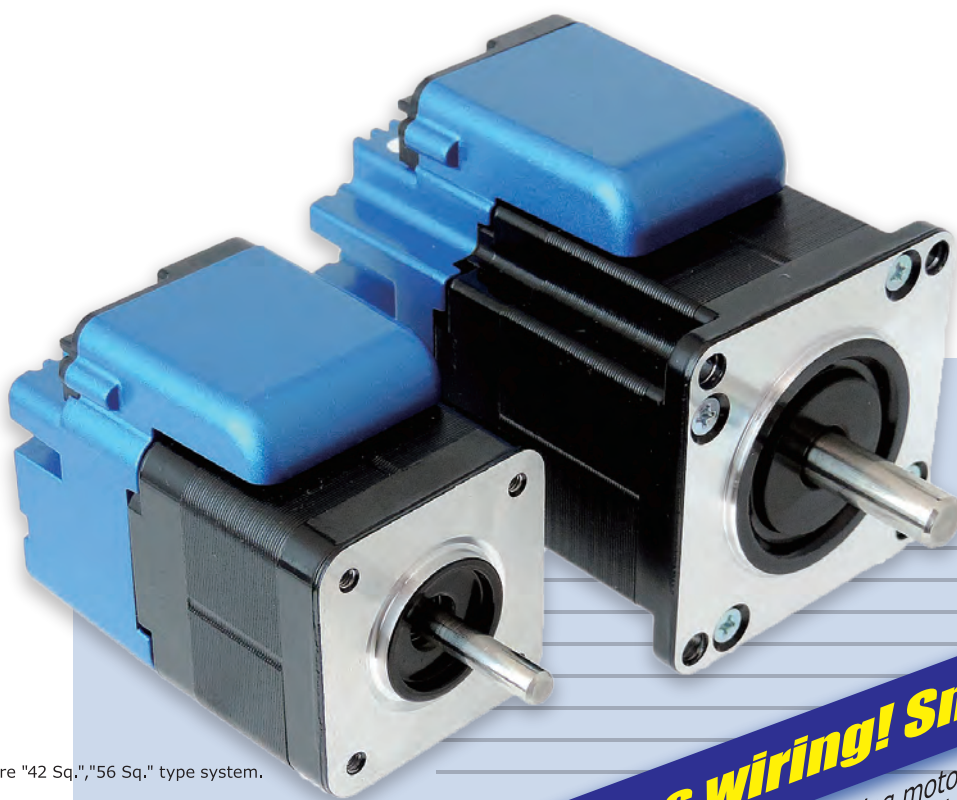


Closed-loop stepping servo system

ST-SERVO CMB



*Photos are "42 Sq.", "56 Sq." type system.



Less wiring! Small-footprint!

- All-in-one! Stepping motor + encoder + driver + controller integrated all what you need!
- RS485 serial communication interface compatible!

Various type servo control modes are selectable

- Position/speed/force/torque control can be served by an all-in-one system!

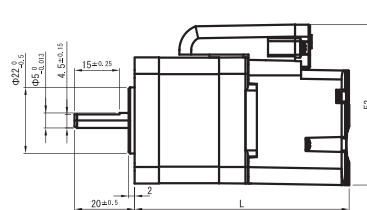
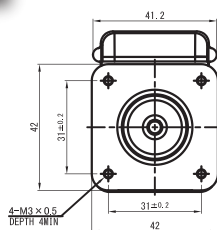
Ultra low heat generation

- Optimized current control corresponding to load-condition by our original software capability.

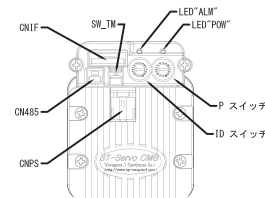
Rated specification table

Item		CMB42C/CMB56C
Input power supply voltage		DC24V $\pm$ 10%
Control mode		Position/Speed/Torque/Force
Rated output		2.0 Apeak
Peak output current		3.0 Apeak
Encoder pulse count		16,000ppr
General input signal		2
General output signal		3
Mechanical input signal		3 ($\pm$ LM, -LM, ORG) *Can be used as general input.
Control command method	Pulse-train(1/2/AB)	N/A
	Parameter	✓
	Embedded Program	✓(64 steps)
	USB	N/A
	RS485	✓
Analog signal		N/A
USB communication		N/A
RS485 communication		MODBUS ASCII/RTU
LED display		Power Supply (Green) Alarm (Red)
Alarm type		Loop error Full count Over speed Gain adjustment abnormality Over voltage Initialization abnormality EEPROM error
Operating temperature/humidity		0 to 50C, less than 85% RH (No condensation)
Storage temperature/humidity		-20 to 85C, less than 85% RH (No condensation)
Dimension (mm)		CMB42C100:W42xD72xH54 / CMB42C101:W42xD83xH54 / CMB56C: W56xD84.5xH69
Weight		CMB42C100=350g / CMB42C101=450g / CMB56C=700g

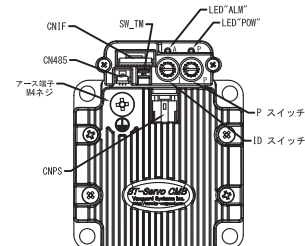
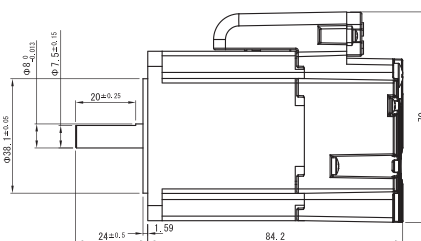
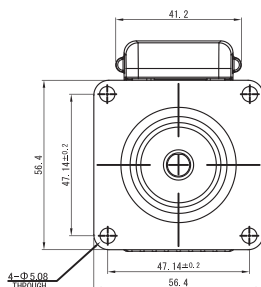
Dimension



Model	L(mm)
CMB42C100	72
CMB42C101	83



CMB42C



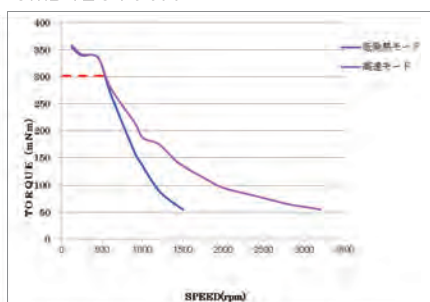
CMB56C

Motor torque characteristics

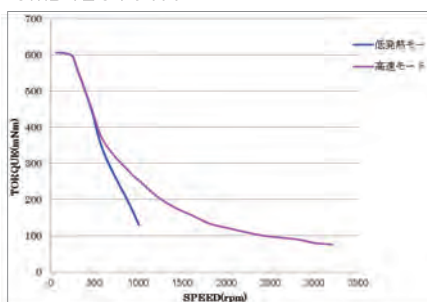
--- Constant rated torque

Low heat generation mode: Blue line
High speed mode: Red line

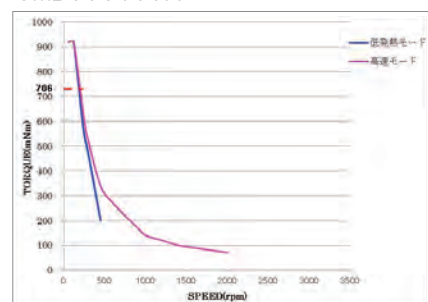
CMB42C100A



CMB42C101A



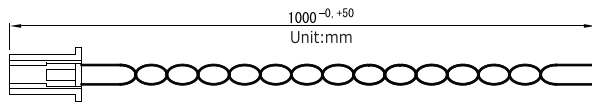
CMB56C100A



Note) A torque beyond the constant rating is an instantaneous torque.
The maximum torque of torque/force control is the constant rated torque.

Attached cable

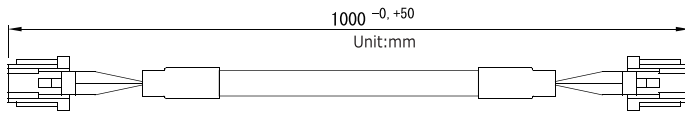
■ Power supply cable (mode: C002056-1)



Pin #	Cable color	Signal name
1	UL1007 AWG22 Red	+24V
2	UL1007 AWG22 Black	0V

Wire rod: ORP-SL0.1SQx2P (Oki Electric Cable Co., Ltd) or equivalents.

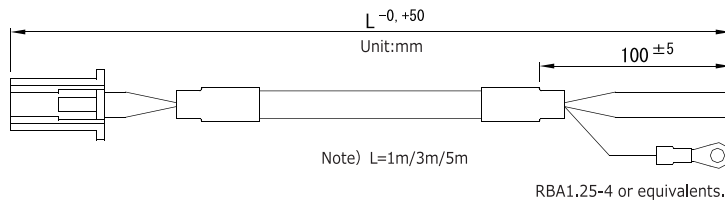
■ Communication cable (model: C003039-1)



Pin #	Cable color	Signal name
1	Blue	Sig-A
2	White	Sig-B
3	Yellow	SG
-	Brown	N.C

Option cable

■ Power supply cable for robot with shield (model: C002057)



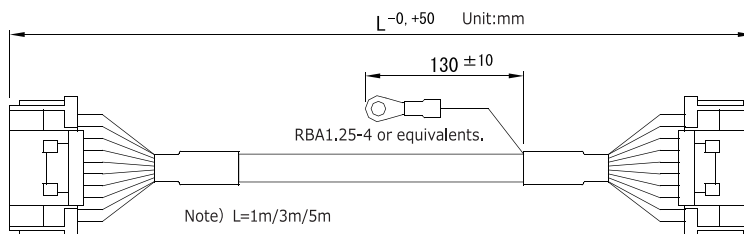
Wire rod: ORP-SL0.3SQx1P(SB)(2464)
(Oki Electric Cable Co., Ltd) or equivalents.

Pin #	Cable color	Signal name
1	Blue	+24V
2	White	0V

Option model number

Model number	Cable length
C002057-1	1m
C002057-3	3m
C002057-5	5m

■ IO cable for robot with shield (model: C010055)



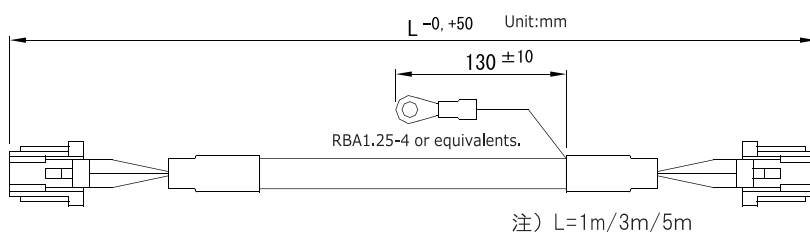
Wire rod: ORP-SL0.1SQx10P(SB)(2464)
(Oki Electric Cable Co., Ltd) or equivalents.

Pin #	Cable color	Signal name
1	Black	COM+
2	White	IN1/+LM
3	Red	IN2/-LM
4	Green	IN3/ORG
5	Yellow	IN4
6	Brown	IN5
7	Blue	OUT1
8	Gray	OUT2
9	Orange	OUT3
10	Purple	COM-

Option model number

Model number	Cable length
C010055-1	1m
C010055-3	3m
C010055-5	5m

■ RS485 communication cable for robot with shield (model: C003043)



Wire rod: ORP-SL0.1SQx2P(SB)(2464)
(Oki Electric Cable Co., Ltd) or equivalents.

Pin #	Cable color	Signal name
1	Blue	Sig-A
2	White	Sig-B
3	Yellow	SG
-	Brown	N.C

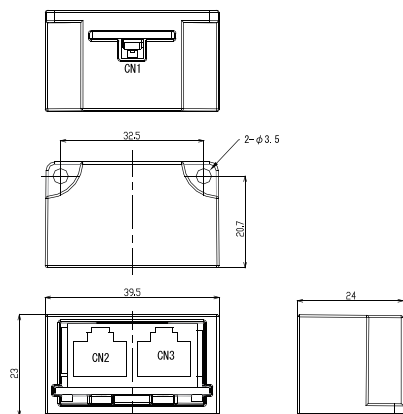
Option model number

Model number	Cable length
C003043-1	1m
C003043-3	3m
C003043-5	5m

Option adaptors (sold separately)

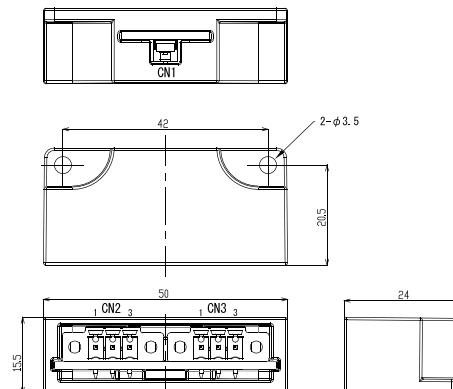
■ T-branching unit: A type (Model: ST-RSA)

Use application: Convert a RS485 communications cable (C003039-1) to a RJ45 -type cable.
Two LAN cables can be connected.



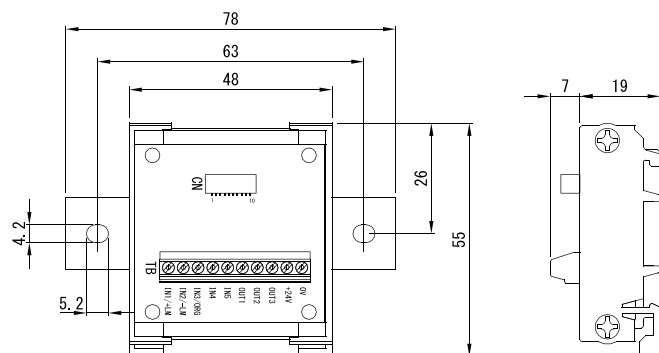
■ T-branching unit: B type (Model: ST-RSB)

Use application: Convert a RS485 communications cable (C003039-1) to a cabletyre cable.
Two cables can be connected.



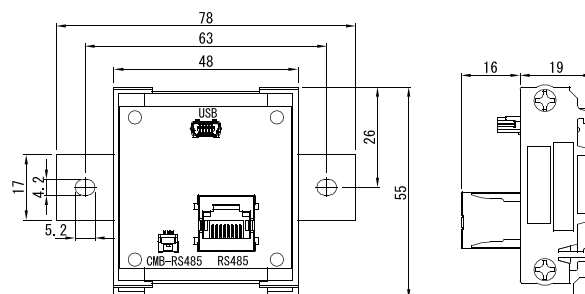
■ Terminal block exchanging unit (Model: ST-TB5I3o)

Use application: Convert an interface cable (C010054-1) to a terminal block.



■ USB – RS458 converter unit (Model: ST-USBR4585)

Use application: This is a USB-RS458 converter unit. You can easily connect a cable between a Windows® PC USB (COM port) and a ST-ServoCMB (w/ RS485 communication cable [model: C003039-1]) or a ST-ServoNTL (w/ LAN cable).



Vanguard Systems Inc.

ME Division

1-27-23 Higashi-Tokorozawa, Tokorozawa-City,
Saitama, 359-0021 JAPAN

TEL +81-4-2951-5381

FAX +81-4-2951-5383

<https://www.hp-vanguard.com/>

Agent / Distributor

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