

MOTOR CONTROL

REGAL

MD100P Series, Fan & Pump Variable Frequency Drive

Sub-E Option Manual



marathon[™]
Drives

A Regal Brand

REGAL

www.regalaustralia.com.au

- Read this manual carefully before using the SUB-E Card and follow the instructions exactly.
- After reading this manual, keep it at handy for future reference.

Marathon Drives – Regal Australia

Before using the product

Thank you for purchasing MD SUB-E CARD.
This user manual describes handling and precaution for using SUB-E CARD. As wrong handling could result in the product damage and reduction in product life, before using the product, handle it correctly after thoroughly reading this user manual.

Caution

- Do not connect or disconnect SUB-E CARD while the power is on. There is a possibility that both SUB-E CARD and the main frame of inverter might be damaged. (Connect or disconnect it after the capacitor voltage is discharged completely.)
- As there is a possibility of damage in CMOS devices of SUB-E CARD due to ESD (Electrostatic Discharge), be careful in handling.
- Do not connect differently the current output terminal while the power is on.
- Be careful that the main frame of inverter and SUB-E CARD connector is connected coincidentally.
- Handle the inverter as an industrial waste when disposing of it.
- This product can be used with general functions for MDLV-100P .

1) Specifications

- Serial D/A MAX518 (8Bit, 2Ch, 5V)
- Insulation Type (Photocoupler Insulation)
- Channel : Current Output 2Ch
- 0(4) - 20mA Output
- Allowable Impedance : 250 - 500(Ω)
- Level of precision : less than 0.5% (Full Scale)

2) Terminals

CO1	CO2	GND	GND
-----	-----	-----	-----

Classification	Terminal Symbol	Terminal Name	Terminal Description
Current Output	CO1	Current Output Ch 1	Select one of output frequency, output current, output voltage, DC link voltage and external PID output, and output it. Output frequency is set to factory default.
	CO2	Current Output Ch 2	Select one of output frequency, output current, output voltage, DC link voltage and external PID output, and output it. DC link voltage is set to factory default.
	GND	Common Terminal	Common terminals of current output Ch1, Ch2.

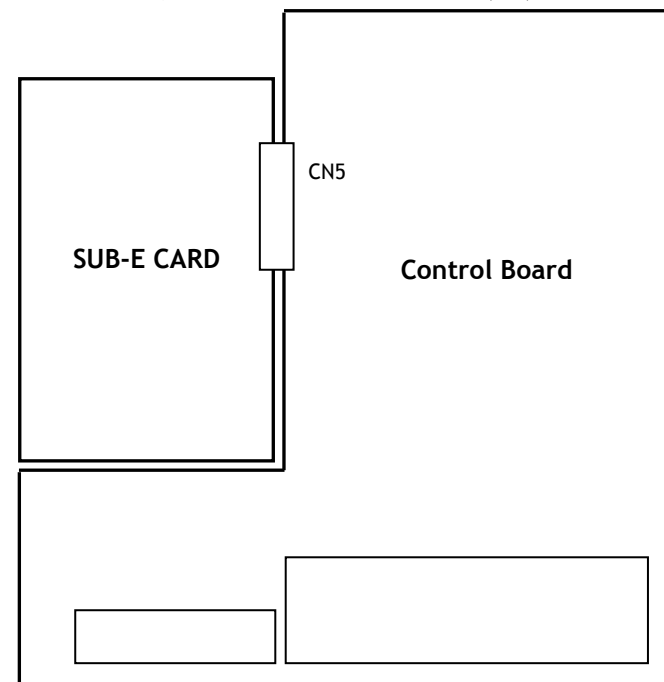
This product specification may be changed without any prior notice for the purpose of improving its quality, so please make an inquiry when purchasing

3) Use Parameter

CODE	Function Name	LCD Display	Min/Max Range	Factory defaults	Adj. During run
EXT-01	SUB board type	Sub-E	Sub-E	-	-
EXT-40	CO1 Terminal selection	AM1 Mode	0 (Frequency) 1 (Current) 2 (Voltage) 3 (DC link Vtg) 4 (EXT. PID Out)	0	0
EXT-41	CO1 Gain adjustment	AM1 Adjust	10 - 200 [%]	100[%]	0
EXT-42	CO1 Offset adjustment	AM1 Offset	0 - 100 [%]	0 [%]	0
EXT-43	CO2 Terminal selection	AM2 Mode	0 (Frequency) 1 (Current) 2 (Voltage) 3 (DC link Vtg) 4 (EXT. PID Out)	3	0
EXT-44	CO2 Gain adjustment	AM2 Adjust	10 - 200 [%]	100 [%]	0
EXT-45	CO2 Offset adjustment	AM2 Offset	0 - 100 [%]	0 [%]	0

4) Installation

As the below, connect a connector of control board(CN5) To SUB-E CARD.

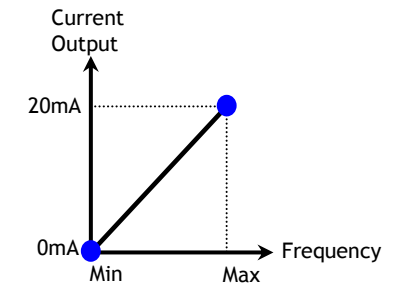


5) Example for Current Output “adjust and offset” (When set to output frequency)

When current output is valid, set “Offset” first and “Adjust”.

a) When setting current output for 0 - 20mA

Adjust “Offset” first in order to 0mA output from Min frequency and confirm 4mA output. And then set Max frequency once more and adjust “adjust” in order to 20mA output.

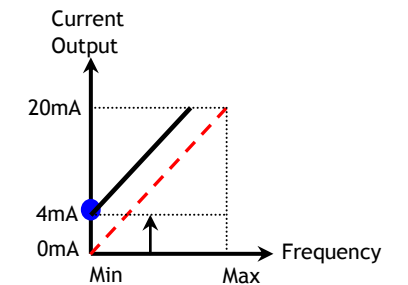


b) When setting current output for 4 - 20mA

Adjust “Offset” first in order to 4mA output from Min frequency and confirm 4mA output. And then set Max frequency once more and adjust “adjust” in order to 20mA output.

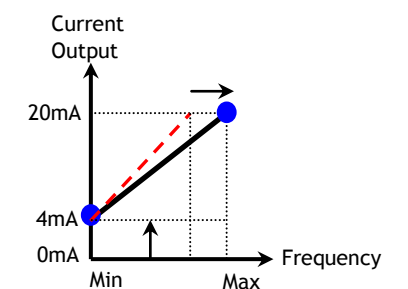
(Step 1) Adjust “Offset”(approximately 20%) in order to 4mA output from

Min Freq.



(Step 2) Set Max freq. and adjust “adjust”(approximately 80%) in order to

20mA output.



HEAD OFFICE

19 Corporate Ave / PO Box 2340
Rowville VIC 3178 AUSTRALIA

Tel: +61 (0)3 9237 4000
Fax: +61 (0)3 9237 4010

AUSTRALIA

National Sales
1300 888 853
Drives Technical Support
1800 724 149
www.regalaustralia.com.au
www.regalbeloit.com

REGAL BELOIT AUSTRALIA Pty Ltd
ABN 61 122 303 084

VICTORIA

MELBOURNE
19 Corporate Avenue
Rowville VIC 3178
Tel: +61 (0)3 9237 4040
Fax: +61 (0)3 9237 4050

NEW SOUTH WALES

SYDNEY
6-7 Bushells Place
Wetherill Park NSW 2164
Tel: +61 (0)2 8781 3100
Fax: +61 (0)2 8781 3131

TASMANIA

DEVONPORT
115 Don Road
Devonport TAS 7310
Tel: +61 (0)3 6424 8574
Fax: +61 (0)3 6424 9393

NEW ZEALAND

CMG Electric Motors (NZ) Ltd
18 Jomac Place
Avondale Auckland
NEW ZEALAND
Tel: +64 9820 3550
Fax: +64 9820 8504

SINGAPORE

CMG Electric Motors
(Asia Pacific) Pte Ltd
12 Tuas Loop 637346
SINGAPORE
Tel: +65 6863 3473
Fax: +65 6863 3476

QUEENSLAND

BRISBANE
7 Mahogany Court
Willawong QLD 4110
Tel: +61 (0)7 3246 3246
Fax: +61 (0)7 3246 3210

CAIRNS ("Service - Repairs - Sales")

2/159-161 Newell Street
Bungalow QLD 4870
Tel: +61 (0)7 4033 1109
Fax: +61 (0)7 4033 5553

MACKAY

Paget Mackay QLD 4740
Tel: +61 (0)7 4952 6244
Fax: +61 (0)7 4952 6277

THAILAND

FASCO Motors (Thailand) Limited
29/7-8 Bangkruay-Sainoi Road
Bangkrang, Muang Nonthaburi
District Nonthaburi 11000 THAILAND
Tel: +66 2447 3300
Fax: +66 2447 3500

MALAYSIA

Torin Industries SND BHD
(MALAYSIA)
No. 6536A Jalan Bukit Kemuning
Batu 6 Seksyen 34
40470 Shah Alam Selangor
Tel: +60 3 51246157
Fax: +60 3 51211467

SOUTH AUSTRALIA

ADELAIDE
47 Research Road
Pooraka SA 5095
Tel: +61 (0)8 8359 1321
Fax: +61 (0)8 8359 5675

WESTERN AUSTRALIA

PERTH
21 Colin Jamieson Drive
Welshpool WA 6106
Tel: +61 (0)8 6253 3700
Fax: +61 (0)8 6253 3710