Delta Newsletter

Industrial Automation Products

Contents

DVP06PT-E2   DPM-MA3222

1   News

1.1   ftp-site link

Just to let you know (again), you can find the latest info about our products (manuals, pictures, catalogues, data sheets, application notes, presentations, software, etc.) on our ftp-site.

ftp://den-eindhoven:BuPd2175@ftp2.delta-europe.com/deltronics-eindhoven/customer-service

Name and password are included in the link.
Name: den-eindhoven
Password: BuPd2175

Delta Electronics (Netherlands) B.V., De Witbogt 20, 5652 AG Eindhoven, The Netherlands
☎ +31 (0)40 8003800   📠 +31 (0)40 8003898 and 99

Page 1 of 21

2   Product update

2.1   NEW – Delta LYTE II Series 120W and 240W

Delta's newest LYTE II series of DIN Rail Power Supply is up to 30% slimmer compared to its LYTE I version. It can help to save precious installation space. The series offers choices of 12V, 24V and 48V nominal output voltages in 120W and 240W. The overcurrent protection is designed to operate in constant current mode, which makes the LYTE II series suitable for inductive and capacitive load applications.

Certifications and approvals include IEC 60950-1, IEC/EN/UL 62368-1, IEC/EN 61010-1 & 61010-2-201, CCC, EAC and RoHS Directive. Electromagnetic radiated and conducted emissions are compliant to heavy industrial EN 61000-6-4 Class B Emission standard and EN 61000-6-2 Immunity standard.

Highlights:
Universal AC input voltage range
Built-in constant current circuit for reactive loads
Operate from -30°C to +70°C with -40°C Cold Start
Reduced no-load power consumption
Compliance with DOE VI Energy Standard
Compliance to SEMI F47 @ 200Vac

2.2   NEW – DPM-C320 Power Meter

New power meter model in panel mount type and with compact feature has been released. It can be a different option for energy management and factory automation application.

Feature

• Panel mount and LCD Display.
• Front panel size 72mm x 72mm saves space in the fields.
• Active energy accuracy level: Class 0.5S
• Supports MODBUS RTU protocol.
• Additional functions like alarm, THD and Min/Max record

2.3 NEW – DPM-MA3222 Multi-Circuit Power Meter and Accessories

Multi Circuit power meter DPM MA3222 has been released in order to be an ideal solution to simplify meters deployment and reduce cost in applications with plenty of circuits.

Delta Multi-Circuit Power Meter DPM-MA3222 & Current transformer for branch circuit DCT-MV Series

Feature

• DIN Rail mount and LCD Display.
• At most able to connect to 8 circuit s (3 phases) or 24 circuits Single phase)
• Supports MODBUS RTU protocol. Easy to be applied with SCADA and EMS
• Build in DI/RO/P O for integration around this meter.
• Advanced function for energy management such as harmonics measurement, demand, data record and so on…

Function	MA3222
Dimensions	199mm x 118mm x 77mm
Display	LCD (50mm x 28mm)
Measurement type	AC
Loop Number	Main: 2 Branch: 8 (3ph) / 24 (1ph)
Electricity Parameters	V, I, P, Q, S, F, PF, Wh, VARh, VAh
Active Energy Accuracy	0.5%
Total Harmonic Distortion	●
Individual Harmonics	Up to 31st
Current Range (Secondary side)	Main: 1A/5A Branch: 333mV
Demand	Current/Power
Data Record	●
Min./Max. Record	●
I/O	2DI/4RO/1PO
Communication	RS-485 (Modbus RTU)
Certificate of Safety	CE

2.4 NEW – DVP06PT-E2 and DVP08NTC-S

In order to enhance the system competitiveness of DVP PLC, Delta provides 6 ch PT temperature module, DVP06PT E2, for DVP ES3/ES2/EX2 CPUs and 8ch NTC temperature module, DVP08NTC S, for DVP slim series CPUs.

Features

DVP06PT-E2
- Supports 6 channels of PT temperature sensor
- Enhances the accuracy to 0.1% (at 25
- Supports more sensor types like Cu50/100, JPt100 and LG Ni1000

DVP08NTC-S
- Supports 8 channels of NTC temperature sensor
- Accuracy is 0.5% (at 25
- Supports 18 sensor types
- Built in RS 485 and could be used as a remote I/O module
- Supports user defined reference table

Specifications

DVP06PT-E2
- Conversion time : 200 ms/channel
- Resolution: 0.1℃/0.1℉
- Accuracy 0.1% (at 25℃)
- Channels 6 channels
- Sensor type Pt100/1000, Ni100/1000, JPt100, LG-Ni1000, Cu50/100, 0~300/3000Ω

DVP08NTC-S
- Conversion time : 200 ms/channel
- Resolution: 0.1℃/0.1℉
- Accuracy 0.5% (at 25℃)
- Channels 8 channel
- Sensor type:
    - RTD type: Pt1000, Ni1000,LG-Ni1000
    - NTC type: NTC 10K/20K/30K/100K
    - SHIBAURA NTC PSB series: PT-42H/43/51F/25E2/312
    - NXP KTY81series: KTY81-110/120/121/122/210/220/221/222

2.5 UPDATE – Firmware of C2000 is updated from V2.06 to V2.06.01

Modified and new functions are listed below.

Corrections:

No.	v2.06 problems	v2.06.01
1	When using the Homing position control function through the built-in PLC, changing the Pr.11-68 Homing method selection setting does not change the way the motor performs the homing.	Changing Pr.11-68 settings can does change the Homing method.
2	When using the Homing position control function, when the origin offset is set, the motor does not actually stop at the origin offset position.	When the origin offset is set, the motor can actually stop at the origin offset position.
3	When using the Homing position control function, the JOG is executed by using the control word, and the motor reacts without any reaction.	JOG function can work normally
4	CAN DS402 target frequency can not be written via SDO.	The target frequency can be written via SDO.
5	The stop method is set to coast to stop, and the drive occasionally has a over current problem when it is stopping.	The drive can stop normally when the stop method is set to coast to stop.

New Functions:

1- DS402 0x6051 function has replaced by 0x6085.
2- The V2.06 new function multi-language has completed.
3- The CANopen Supporting Index DS402 standard add new function:
6062H, 6065H, 6067H, 6068H, 607CH, 6081H, 6083H, 6084H, 6085H, 6098H, 6099-00H, 6099-01H, 6099-02H, 609AH, 60F4H

Index	Sub	Definition	Default	R/W	Size	Unit	PDO Map	Mode	Note
6007H	0	Abort connection option code	2	RW	S16		Yes		0 : No action 2 : Disable Voltage 3 : quick stop
603FH	0	Error code	0	RO	U16		Yes		
6040H	0	Control word	0	RW	U16		Yes		
6041H	0	Status word	0	RO	U16		Yes		
6042H	0	vl target velocity	0	RW	S16	rpm	Yes	vl	
6043H	0	vl velocity demand	0	RO	S16	rpm	Yes	vl	
6044H	0	vl control effort	0	RO	S16	rpm	Yes	vl	
604FH	0	vl ramp function time	10000	RW	U32	ms	Yes	vl	The Unit must be 100 ms. Also
6050H	0	vl slow down time	10000	RW	U32	ms	Yes	vl	check if there is a setting is 0.
6051H	0	vl quick stop time	1000	RW	U32	1ms	Yes	vl	
605AH	0	Quick stop option code	2	RW	S16		No		0 : disable drive function 1 : slow down on slow down ramp 2 : slow down on quick stop ramp 5 : slow down on slow down ramp and stay in QUICK STOP

Index	Sub	Definition	Default	R/W	Size	Unit	PDO Map	Mode	Note
									6 : slow down on quick stop ramp and stay in QUICK STOP
605CH	0	Disable operation option code	1	RW	S16		No		0 : Disable drive function 1 : Slow down with slow down ramp; disable of the drive function
6060H	0	Mode of operation	2	RW	S8		Yes		1 : Profile Position Mode 2 : Velocity Mode 4 : Torque Profile Mode 6 : Homing Mode
6061H	0	Mode of operation display	2	RO	S8		Yes		1 : Profile Position Mode 2 : Velocity Mode 4 : Torque Profile Mode 6 : Homing Mode
6062H	0	Position demand value	0	RO	S32	pulse	Yes		
6064H	0	Position actual value	0	RO	S32	pulse	Yes		
6065H	0	Following error window	1000	RW	U32	pulse	Yes		
6067H	0	Position window	10	RW	U32	pulse	Yes		
6068H	0	Position window time	500	RW	U16	ms	Yes		
6071H	0	Target torque	0	RW	S16	0.1%	Yes		The valid value units=1%
6072H	0	Max torque	1500	RW	U16	0.1%	Yes		The valid value units=1%
6075H	0	Motor rated current	0	RO	U32	mA	Yes		
6077H	0	Torque actual value	0	RO	S16	0.1%	Yes		
6078H	0	Current actual value	0	RO	S16	0.1%	Yes		
6079H	0	DC link circuit voltage	0	RO	U32	mV	Yes		
607AH	0	Target position	0	RW	S32	pulse	Yes		
607CH	0	Home offset	0	RW	S32	pulse	Yes		
607DH	1	Min position limit	-72000000	RW	S32	pulse	Yes		
607DH	2	Max position limit	72000000	RW	S32	pulse	Yes		
6081H	0	Profile velocity	72000	RW	U32	pulse/sec	Yes		
6083H	0	Profile acceleration	72000	RW	U32	pulse/sec²	Yes		
6084H	0	Profile deceleration	72000	RW	U32	pulse/sec²	Yes		
6085H	0	Quick stop deceleration	72000	RW	U32	pulse/sec²	Yes		
6098H	0	Homing method	35	RW	S8		Yes		
6099H	1	Homing speed during search for switch	9600	RW	U32	pulse/sec	Yes		
6099H	2	Homing speed during search for zero	2400	RW	U32	pulse/sec	Yes		
609AH	0	Homing acceleration	960	RW	U32	pulse/sec²	Yes		
60F4H	0	Following error actual value	0	RW	S16	pulse	Yes		

Release:

Firmware Version	Switching Period	
V2.06.01	Taoyuan	T2037
V2.06.01	Wujiang	W2037

2.6   UPDATE – Firmware of MS300 is updated from V1.08 to V1.09

Function correction, Function modify, new function are listed below.

Corrections:

Version 1.08 problem	Version V1.09
When external terminal is running (Pr.00-21= 1), it will run automatically when it is powered on (Pr.02-35=1) and acceleration time is too fast (Pr.01-12 = 1) ,LVA will be caused.	Modified the running program to identify the soft start relay signal mechanism.
When the running command is set to external terminal (Pr.00-21 = 1), fast start (Pr.02-00 = 4 ~ 6) and carrier 2k (Pr.00-17 = 2), drive will trigger the error code GFF by mistake / OL.	When operation command is set to be used with external terminal control (Pr.00-21 = 1) and quick start (Pr.02-00 = 4 ~ 6), the LVx of CB2 must be handled incorrectly (Pr.06-49 = 1 and Pr.07 -06 = 0), then Reset can be performed, otherwise the program will be restarted by instantaneous interruption.
Use MI to control PLC Mode (MI = 51, 52) PLC does not judge according to the MI operation cycle, and an error occurs.	Use MI to control PLC Mode (MI = 51,52). When MI performs switching control, modify and determine the PLC status mechanism.
When using three-wire control to start and stop (Pr.02-00 = 3), main frequency source will be invalid, and the F frequency command cannot be modified, power must be turned on again.	When using three-wire control to start and stop (Pr.02-00 = 3),main frequency source is normal, and the F frequency command can be modified.
Use KPMS-LE01 to read the IGBT temperature (Pr.06-36) and the number of decimal places is abnormal.	The attribute of the temperature recording parameter is a signed number, and the number of decimal places on the signed number is correct.

New Functions:

1- Quick start (Pr.02-00=4~6) optimization

2- Add parameter 11-33 = 5 Torque command source: communication card

11-33 Torque Command Source

Default: 0

Settings   0: Digital keypad
1: RS-485 communication (Pr.11-34)
2: Analog signal input (Pr.03-00)
3: CANopen
5: Communication Card

When Pr.11-33 is set to 0 or 1, you can set the torque command in Pr.11-34.

When Pr.11-33 is set to 2, 3 or 5, Pr.11-34 only displays the torque command.

3- Add parameter 00-47: Output phase sequence exchange

Parameter	Name	Settings	
00-47	Output phase order selection	0: Standard	
		1: Exchange the rotation direction	

[Note] Without changing the wiring and light indicator, you can use this parameter to change the rotation direction from forward to reverse or from reverse to forward.

[Note] When using this parameter with Pr.00-23 (Motor Direction Control), Pr.00-23 has priority over Pr.00-47.

4- Add New PLC instruction: WPRA

When using the WPR instruction, if it is written frequently, there is a risk that the EEPROM will be written badly, causing drive to jump cF2 error and permanently damage. Therefore, if parameters need to be written frequently, WPRA instruction must be used instead of WPR instruction.

Release:

Firmware Version	Switching Period	
V1.09	Taoyuan	TBD
V1.09	Wujiang	W2037

2.7 UPDATE – Firmware of CFP2000 is updated from V1.07 to V1.07.01

Function correction, Function modify, new function are listed below.

Corrections:

No.	V1.07 problems	V1.07.01
1	Pr02-35=1, when the inverter is powered off and restarted and the MI operation command is still ON, it cannot run.	Pr02-35=1, when the inverter is powered off and restarted and the MI operation command is still ON, it can run.
2	When the process of Start Wizard is finish to set and close it, and after executing "Write All" through the "Parameter Management" function of VFDSoft software, Start Wizard process of the inverter is still on.	When the process of Start Wizard is finish to set and close it, and after executing "Write All" through the "Parameter Management" function of VFDSoft software, Start Wizard process of the inverter is still off.
3	In PID mode, when the frequency command source is Keypad and adopts Pr00-25 & 00-26 user-defined display (such as bar). the 2102H frequency command value read through RS485 communication is abnormal.	In PID mode, when the frequency command source is Keypad and adopts Pr00-25 & 00-26 user-defined display (such as bar). the 2102H frequency command value read through RS485 communication is normal.
4	When the control mode is PMFOC, the inverter may not run according to the carrier derating curve. Long-term low frequency and high carrier operation may cause damage to the inverter.	When the control mode is PMFOC, the inverter will run according to the carrier derating curve.
5	The built-in PLC function operates abnormally. For example, Yn may not be set.	The built-in PLC function operates normally.
6	When the content value of Pr03-28 and 03-29 is greater than 1, the parameters are copied through the Keypad, and the value of Pr03-28 and 03-29 is still 0.	Keypad can perform parameter copying normally and display the correct content value.
7	The German STO error code and Polish fault code warning code information display abnormally.	The STO error code in German and the fault code warning code information in Polish are displayed normally.
8	The fan of v1.06 / v1.07 22kW model does not work.	The fan of the 22kW model operates normally.

New Functions

1. In response to the extensibility requirements of PLC functions, the internal memory locations of the PLC are rearranged.
   - The rearrangement of the internal memory position of the PLC does not affect the functions of the PLC itself. Special attention should be paid to the version of the inverter only when the Keypad is used for the "Copy PLC" function. If use the PC software to copy the PLC program, this is not the case. For details, please refer to the usage scenarios below.
   - If the PLC program of CFP v1.06(and below) is copied to v1.07(and above) through the Keypad, the PLC function operation may be abnormal. It is recommended to use PC software to copy the PLC program.
   - Different CFP firmware versions use PC software to copy PLC programs, and their PLC functions operate normally.
   - PC software means WPLSoft, ISPSoft etc..; Keypad means KPC-CC01.

Item	Usage scenarios	Result	Suggestion
1	Under the same CFP firmware version, execute the "Copy PLC" function through **Keypad**. • Copy PLC from CFP v1.06 to CFP v1.06 • Copy PLC from CFP v1.07 to CFP v1.07 • Copy PLC from CFP v1.03 to CFP v1.03	(PASS) PLC functions normally.	N/A
2	Under different CFP firmware versions, execute the "Copy PLC" function through **Keypad**. • Copy PLC from CFP v1.06 to CFP v1.07 • Copy PLC from CFP v1.07 to CFP v1.06 • Copy PLC from CFP v1.03 to CFP v1.07	(FAIL) PLC functions may be abnormal	Please use **PC software** to copy the PLC program.
3	Under different CFP firmware versions, execute the "Copy PLC" function through **Keypad**. • Copy PLC from CFP v1.03 to CFP v1.06 • Copy PLC from CFP v1.06 to CFP v1.03 • Copy PLC from CFP v1.00 to CFP v1.06	(PASS) PLC functions normally.	N/A
4	The same or different CFP firmware versions use **PC software** to copy PLC programs. • Copy PLC from CFP v1.06 to CFP v1.07 • Copy PLC from CFP v1.07 to CFP v1.06 • Copy PLC from CFP v1.03 to CFP v1.07 • Copy PLC from CFP v1.07 to CFP v1.07	(PASS) PLC functions normally.	N/A

2- Add Start Wizard function

	00-15	Start Wizard						
								Default: 1
		Settings	bit 0 : Enable or Disable					

📖 bit0=0 function disable, bit0=1 function enable

📖 The Start Wizard can also be disabled or enabled through CC01 Keypad menu item 16.

📖 The default setting of the "Start Wizard" process for new products is on. Please refer to chapter 10-2 for details.

3- Add Signal Loss Selection for the Analog Input 4–20 mA(option 4)

	03-19	Signal Loss Selection for the Analog Input 4–20 mA					
	14-10	Analog Input 4–20 mA Signal Loss Selection (AI10)					
	14-11	Analog Input 4–20 mA Signal Loss Selection (AI11)					
							Default: 0
		Settings	0: Disable				
			1: Continue operation at the last frequency				
			2: Decelerate to 0 Hz				
			3: Stop immediately and display "ACE"				
			4: Run at lower limit Frequency				

📖 When the setting is 1 or 2 or 4, the keypad displays the warning code "ANL". If the set value is 4, the inverter will run at the lower limit frequency value of Pr01-11. It keeps blinking until the ACI signal is recovered.

4- Add 220V and 600V models

600V	MODEL	LD current
A	VFD015FP5EA-52	3
	VFD022FP5EA-52	4.3
	VFD037FP5EA-52	6.7
	VFD055FP5EA-52	9.9
	VFD075FP5EA-52	12.1
B	VFD110FP5EA-52	18.7
	VFD150FP5EA-52	24.2
	VFD185FP5EA-52	30
C	VFD220FP5EA-52	36
	VFD300FP5EA-52	45
	VFD370FP5EA-52	54
D0	VFD450FP5EA-52	67
	VFD550FP5EA-52	86
D	VFD750FP5EA-52	104
	VFD900FP5EA-52	125

220V	MODEL	LD current
A	VFD007FP2EA-52	5
	VFD015FP2EA-52	7.5
	VFD022FP2EA-52	10
	VFD037FP2EA-52	15
	VFD055FP2EA-52	21
B	VFD075FP2EA-52	31
	VFD110FP2EA-52	46
C	VFD150FP2EA-52	61
	VFD185FP2EA-52	75
D0	VFD220FP2EA-52	90
	VFD300FP2EA-52	105
D	VFD370FP2EA-52	146
	VFD450FP2EA-52	180

2.8 UPDATE – Firmware of DVP-SS2 is updated from V3.60 to V3.61

Solve the problem of not being able to run immediately after power-on shown on a quite small number of the DVP-SS2 series (V3.60) manufactured in the following affected area.

Series	Models	Firmware Version	Affected Manufacturing Periods
DVP Series	DVP12SS211S	V3.60	2019.11.12 ~ 2020.06.02 (W1946 ~ W2023) (T1946 ~ T2023)
	DVP14SS211T/R		
	DVP26SS211T/R		

All the issues below can be fixed by upgrading firmware to V.3.61 or later (no tools are required). Contact the company or the technicians from the agents for a firmware upgrade.

A. Possible Issues

1. **Possible Issue:** It takes longer than 30 seconds for the DVP-SS2 Series to run after power-on.

2. **Affected Manufacturing Period:** Between 12th November 2019 and 2nd June 2020 (W1946-W2023).

3. **Possible Cause:** A quite small number of DVP-SS2 Series (V3.60) manufactured in the affected manufacturing period appears to have a non-initial value and that may cause the above-mentioned problem, one-in-a-thousand chances that PLC cannot run immediately after power-on.

2.9   UPDATE – Firmware of DVP-ES2-C is updated from V3.64 to V3.66

This firmware has been released to fix possible issues shown below.

A.   Possible issues and solutions:

No.	Functions / Instructions	Descriptions
1	CANOpen DS 301 Communication	When the communication mode is a CAN master, if the slave ID is set to 2, it is possible that wrong communication data will be sent.
		When the communication mode is a CAN master, chances are that the detection on the slave heartbeat will be incorrect.

All the issues above can be fixed by upgrading firmware to V3.65 or above (no tools are required.).

Series	Models	Firmware Version	Release Date
DVP ES2-C Series	DVP32ES200TC	V3.64→ V3.66	2020.11.18 (W2047)
	DVP32ES200RC		

2.10 UPDATE – Firmware of DVP-ES2-E is updated from V1.42 to V1.44

Devices with firmware V1.40~V1.42 are manufactured between week 31 and 46. All the issues below can be fixed by upgrading firmware to V1.43 or above (no tools are required.)

A.   Possible issues and solutions:

No.	Functions / Instructions	Descriptions
1	Online editing	When editing in online mode, it may fail to save the PLC program in the latched area. If you turn the power off and on again, the PLC program cannot be executed properly.
		Solutions: (choose either one) 1. After editing online, stop the PLC first and then run a complete download to store the PLC program to the PLC. 2. Upgrade the firmware to V1.43 or later versions.

2.11 UPDATE – ISPSoft V3.12 is released

The modified and new functions are described below.

1. New HWCONFIG UI for AH/AH Motion Series PLC

Now new HWCONFIG is also available for AH/AH Motion Series PLC. With optimized, more convenient and updated features, you can easily set up hardware configurations for AH/AH Motion Series PLC.
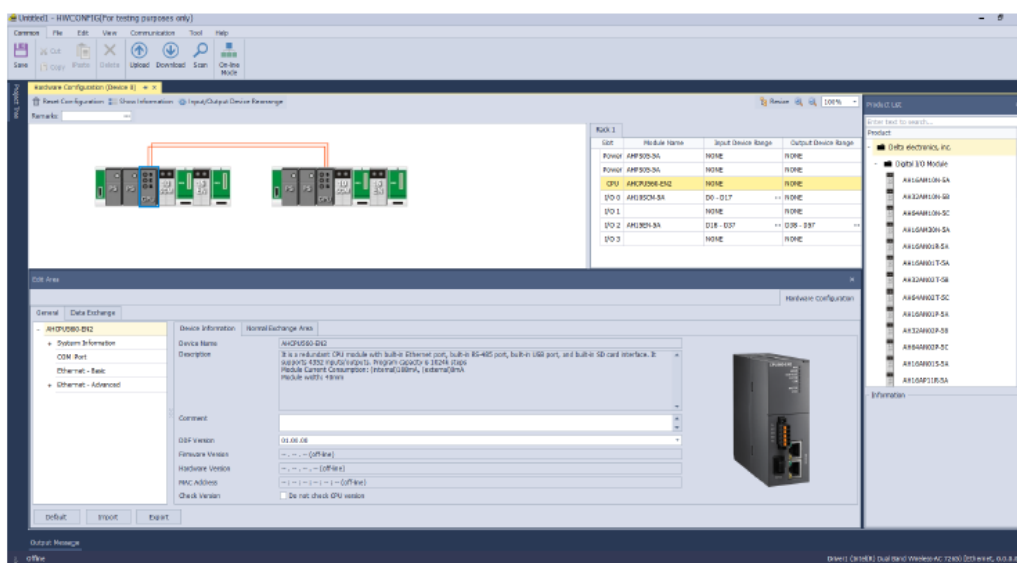
2. HWCONFIG now supports AS04SIL-A. (as IO-Link Master)

(only available for AS300 and AS200 FW V1.08.50 or later versions)

3. HWCONFIG now supports AS-FOPC02 function card.

(only available for AS300 FW V1.08.50 or later versions)

4. Now EIP Builder is included in the integrated HWCONFIG for AS Series

(when acting as an EtherNet/IP Scanner)
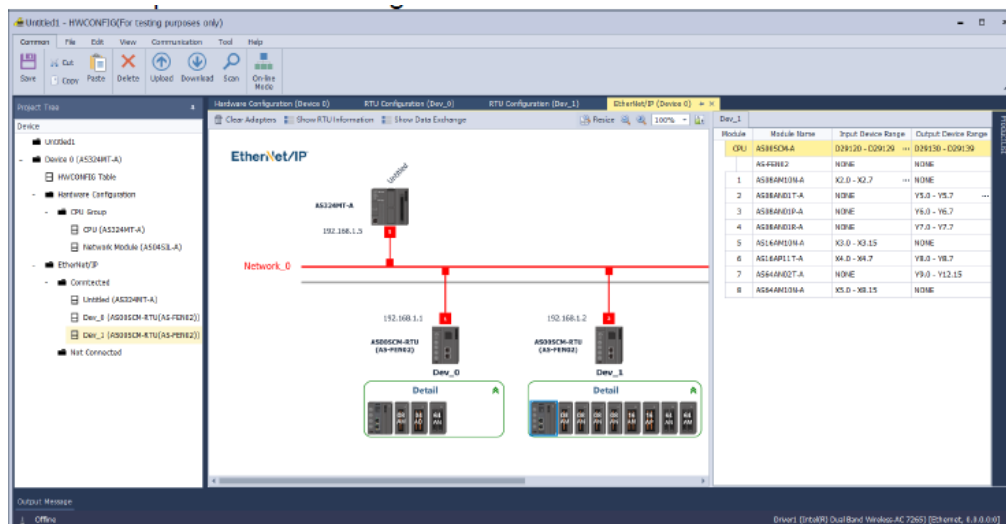
5. The option "**I/O allocation setting when Power ON: Manual + Flag (I/O module of CPU & Remote module)**" is now available for AS300 / AS200 and their right-side modules.
(only available for AS300 and AS200 FW V1.08.30 or later versions)

6. Device description files with the project file
When the option "**Attach device description files in the project save file**" is selected in the Environment Settings, the imported device description files including EDS and IODD files can be saved in the project file. Since the device description file is included in the project, you do NOT need to import the device description file again if you are using the same project on other computers.

7. A new Device Range column is added in HWCONFIG Table for you to check the corresponding devices that are occupied by the symbols.


8. The shortcut to set up CAN Communication Port is available for AS200 Series now; simply right-click on the image of AS200 Series PLC and you can see the option "**Set CAN Port Working Mode**".
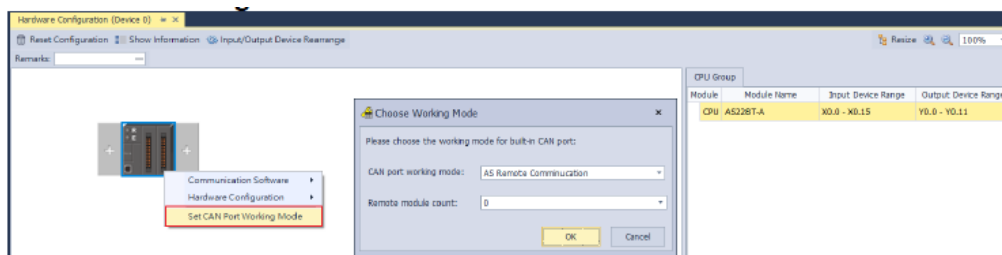

9. You can choose to pin the ribbons and keep them expanded. Select the setting item to see the differences between pin and unpin the ribbons.
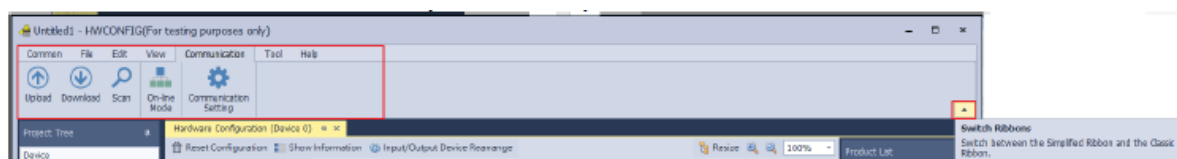
10. Programming languages Ladder Diagram (LD) and Continuous Function Charts (CFC) now support array index to be used as symbols.

| Array indexes used as symbols in the LD | Array indexes used as symbols in CFC |
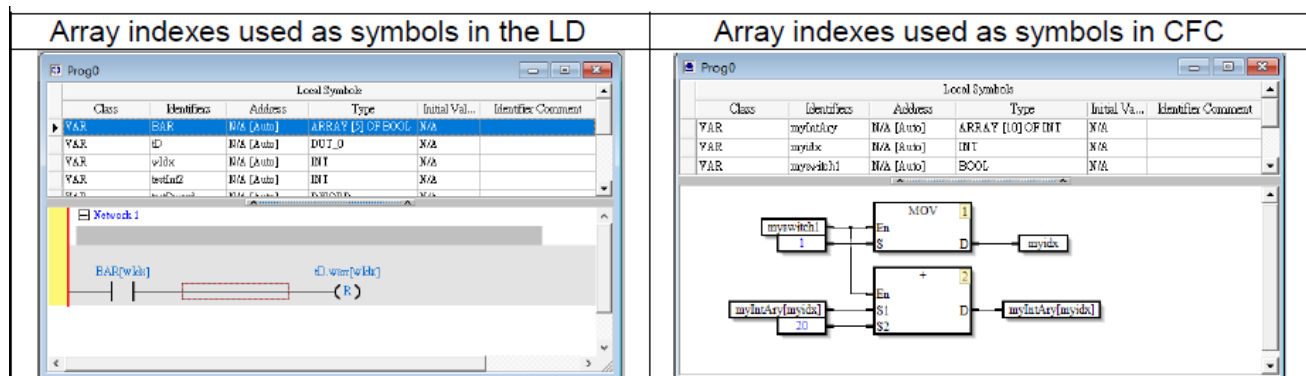
11. To add new folders for POUs or function blocks, simply right-click the setting item "**Programs**" or "**Function Blocks**" on the project tree and double-click "**New Folder**" on the contextual menu and then you can define a name for a new folder. You can create a folder within another folder to create a sub folder and to organize the file hierarchy by dragging and rearranging the sub folders to different main folders.
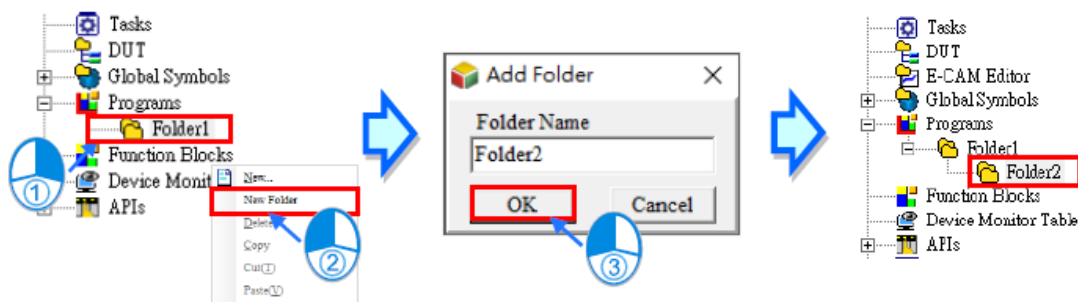
12. Add new OPC UA table under Global Symbols
AS300 Series supports OPC UA table. You can use it the same way as you use EIP symbols. You need to assign the device addresses (device M and device D) the way as you do with WORD. For more details, refer to Chapter 10 from AS Series Module Manual.

13. More monitoring value display options for Ladder Diagram Programming
You can choose to show the monitoring value display below or beside the symbols.

14. Card Utility now supports DVP Series PLC.
Now you can select the DVP Series PLC and the following models can be selected, ES, EX, SS, EC, SA, SX, SC, EH, EH2, SV, EH2-L, ES2, EX2, SX2, SA2, MC, EH3, EH3L, SV2, SE, ES2-E and SS2.

### 15. The following issues are fixed and functions are modified:
(1) Fixed an issue that after switching from one AS Series to another AS Series model in a project, the configured data exchange table in HWCONFIG may not be found.
(2) Fixed an issue that for a second scan round or later ones on the AS200 PLC CPU project, only its right-side modules can be scanned.
(3) Fixed an issue that when monitoring the bit devices (e.g. X0.0) in ST programming, and if the display is zoomed out at its maximum, the value may shown incorrectly.
(4) Fixed an issue that after compiling, if you hit the **Delete** button on the keyboard during the execution of FB Instance in ST programming, an error will occur.
(5) Fixed an issue that after editing SFC sequences in online mode, sometimes an error may occur if you exit from online mode.

(6) Fixed an issue that while editing in online mode, you may not be able to select the structure-type (STRUCT) elements.

(7) Optimized the editing display area for Ladder Diagram Programming: more sequences can be displayed on the screen.

(8) If you have not enabled the Data Exchange Function, but you need to open the external software **EN Configuration** via AH10EN-5A / AH15EN-5A in HWCONFIG, the system will pop up a reminder *"To set up data exchange for this module, be sure to check the "Data Exchange Function Startup" option together, otherwise the data exchange function will not work. Do you want to continue?"*

(9) If the protocol selected is **UD LINK** for the function card on the AS00SCM-A module in an AS Series PLC project, you can open the external software **SCMSoft** by right-clicking the module to select "**SCM**" from the contextual menu.

(10) When an external software is opened, a sign "**Ext. Software Opened**" appears in HWCONFIG to remind you that you need to close the external software before editing again in HWCONFIG.

2.12 UPDATE – EIPBuilder V1.08 is released

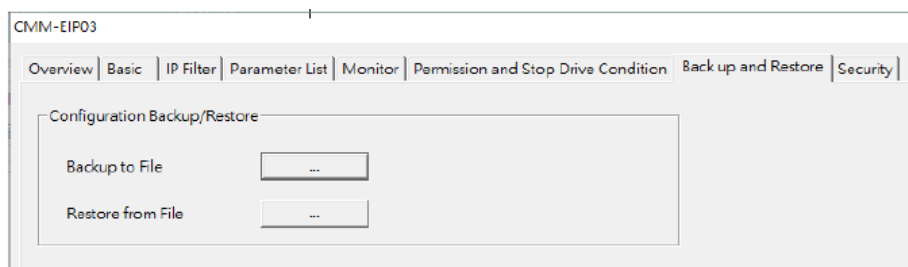**1.** DVP-ES3 now can work as EtherNet/IP Communication Scanners.
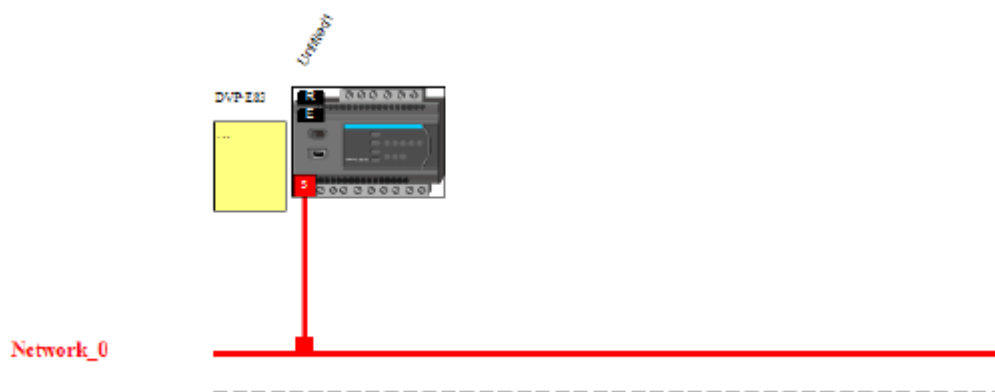
2. CMC-EIP02 and CMM-EIP03 now can work as EtherNet/IP Communication Adapters.
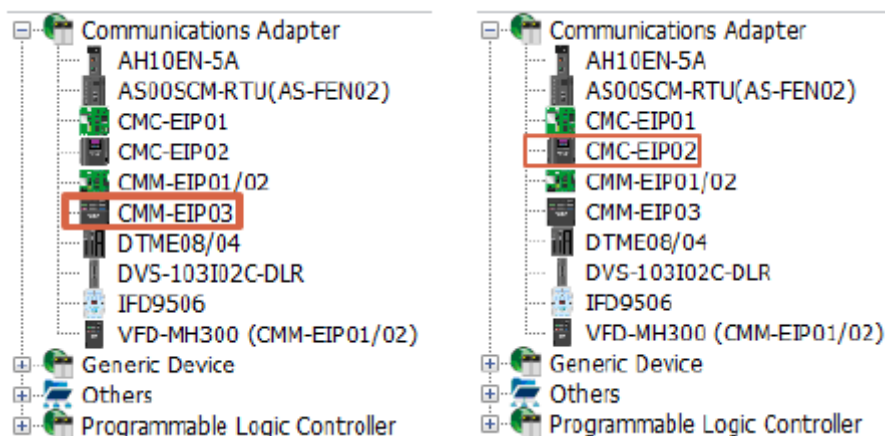
2.13 UPDATE – DCISoft V1.23 is released

1. DCISoft now support the communication cards, CMC-EIP02 and CMM-EIP03
2. Added new functions Backup to File and Restore from File for CMC and CMM series communication cards.

3. Fixed an issue that DCISOFT crashed, if an incorrect file format is read.

2.14 UPDATE – WPLSoft V2.50 is released

1. More APIs are added for MH300, C2000, and CP2000, including RS, LRC and CRC instructions.
2. More APIs are added for C2000, CP2000, MS300 and MH300, including OVRW(P) instructions.
3. WPLSoft V2.50 now supports inverter LTC and MP Series models.
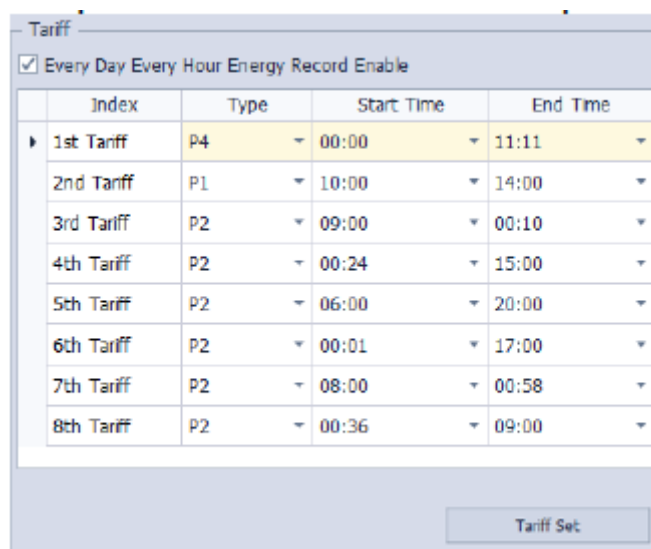4. Now you can select a specific Ethernet Card for the Communication Setting.
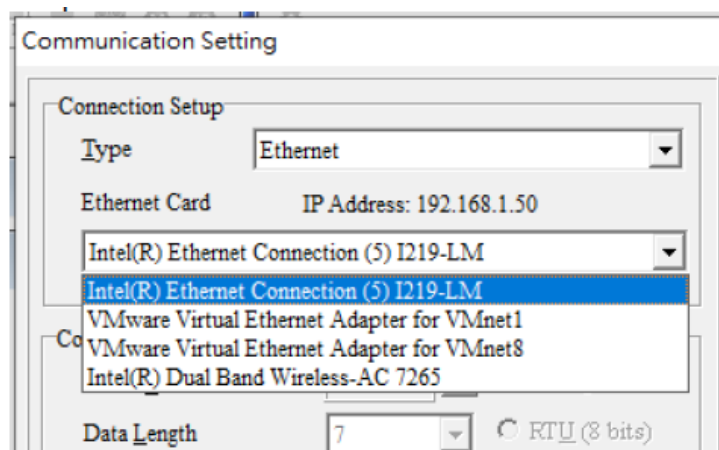
5. AIO wizard now supports 06PT-E2.
6. PLC Link wizard now supports ES2-E.
7. Fixed an issue that the current value located at the bottom of the window cannot be updated if the monitored window is resized.
8. In order to enhance the protection on *.dvp files, the previous versions of WPLSoft cannot open files created by WPLSoft V2.50. But files created by previous versions of WPLSoft can be opened by WPLSoft V2.50.

2.15 DPMSoft V2.01 is released.

1. **DPMSoft** now supports DPM-C530E.
2. **DPMSoft** now supports DPM-DA530 and DPM-DA510.
3. **DPMSoft** now adds a Tick on the language setting ribbon to show which language is selected as the UI language.
4. Display of Numerical Values in the Meter
   (Available for DPM-C530A, DPM-C530, DPM-C530E)

Models Parameters	DPM-C530A	DPM-C530	DPM-C530E
Voltage Type in Home Page	N/A	N/A	V1.00 or later
Value Type	N/A	V1.0410 or later	V1.00 or later
Power Value Decimal Point	V1.2030 or later	V1.0406 or later	V1.00 or later

5. New UI for **tariff**

3   Application

3.1   NEW – Capture Function for PR Mode

The application note for the built-in CAPTURE function has been shared on the FTP side;
Folder: \Customer-Service\Industrial Automation Products\ASDA Servo drives & motors\ASDA-A2\ASDA-A2 Application notes

3.2   NEW – AS Series Data logging function on the SD Card

The application note for data logging on the SD Card has been released for AS series.
Folder: \Customer-Service\Industrial Automation Products\PLC Programmable Logic Controllers\AS300\Application Notes

3.3   NEW – More technical videos are available on YouTube Channel

There are technical videos about the below topics on YouTube Channel

https://www.youtube.com/c/DeltaIndustrialAutomationEMEA

Subscribe and enable notification in order to get notifications on all our new videos.

1. **DRAStudio - Toolframe Calibration**
   How to calibrate a new Toolframe in Delta robot controller for TCP (Tool Center Point)
   https://youtu.be/C81Y4GvCeCw

2. **VFD C2000 in position synchronization**
   This video shows how to configure two C2000 drives in a Master Follower configuration
   https://youtu.be/z8noaaiYWqs

3. **Servo Motor - Basic Function Validation**
   This video shows how to conduct a point-to-point movement via ASDA-Soft, and use the built-in scope to check the signal for validating Delta servo motors,
   https://youtu.be/HIhJCg1L7Vc

4. **CODESYS - Simulation and Debug**
   Simulation and debug in CODESYS
   https://youtu.be/dF0qVwAUai0

5. **DOP-100, DRS/DRV - Robot Modbus TCP communication**
   How to setup the communication between DOP-100 and DRV/DRS robot through Modbus TCP
   https://youtu.be/3KPVCX8PGvY

6. **DVP/AH - PLC SNMP Communication**
   In this video you can see how to reach Delta PLC registers with DVPEN01 and AH10EN network modules and how simple to use it.
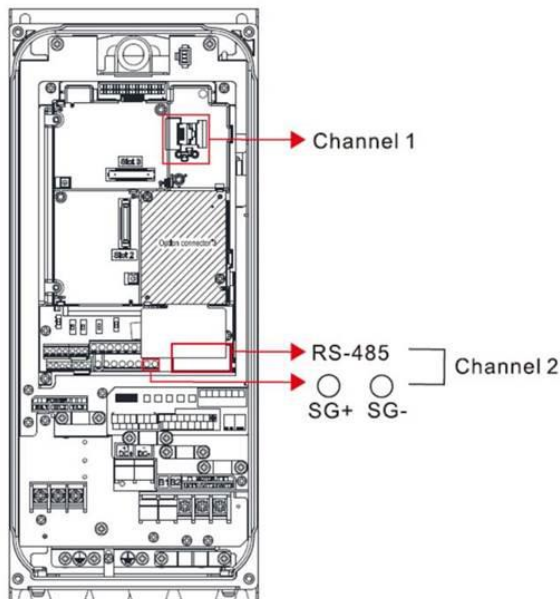   https://youtu.be/DLVCmz9eKbw

4   FAQ

4.1   VFD Series AC Motor Drives

<u>C family</u>
Q   Is there any way to connect two keypads to one drive?
A   *You can do it on the C family of drives, as long as you have a 10V supply available.*

The C family of drives come with two Modbus channels.

Channel 1 *is occupied by the keypad and has a fixed communication protocol of 19.2kbps and 8N2 RTU*

Channel 2 *is free, can be accessed either via the RJ45 ports or the SG+/SG- terminals. The protocol of this channel can be set from parameters 09-01 and 09-04.*

There is no power supply on the RJ45 ports of Channel 2 which means that connecting a keypad directly will not work.
However, the drive does come with a 10V terminal. If this terminal is not used for some other functions then it can be used to power the keypad.
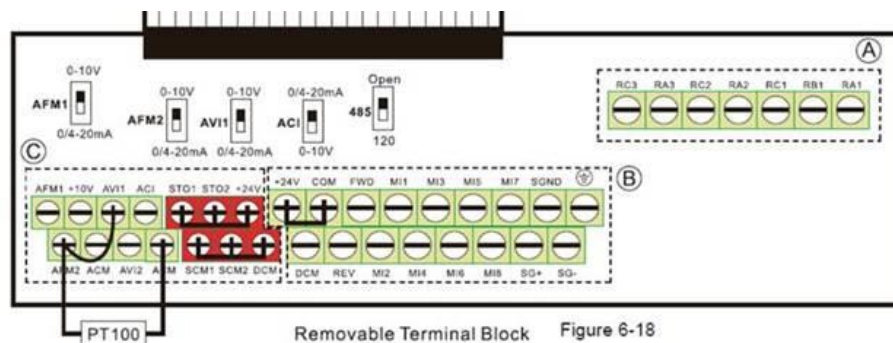
The wiring would be as follows:

C2000: 10V --> Pin 8 KPC-CC01
C2000: ACM --> Pin 3 KPC-CC01
C2000: SG+ --> Pin 5 KPC-CC01
C2000: SG- --> Pin 4 KPC-CC01

Figure 6-18

<u>MS300</u>
Q   How do I set up parameters to connect the Compact Drive MS300 with the digital keypad KPC-CC01?
A   *The communication protocol for the Compact Drive MS300 is ASCII 9600, 7, N, 2 by default.*
For the digital keypad KPC-CC01, it is RTU 19200, 8, N, 2 by default.
Please set the parameters as follows to connect the MS300 with the KPC-CC01.

Pr.09.00 = 1, 09.01 = 19.2, 09.04 = 13

4.2   Servo Systems

<u>**ASDA family**</u>

Q **How do I enable the gantry function and configure the gantry motion when using the AC Servo Drive & Motor ASDA-M Series?**

A *There are three kinds of gantry motion with different coupling strengths between two axes.*

1. Position control with two axes: weak coupling
2. Position control with the main axis, and speed control with the secondary axis: medium coupling
3. Position control with the main axis, and torque control with the secondary axis: strong coupling

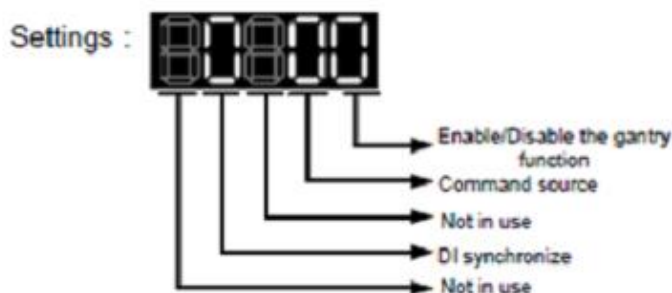*Example 1: A one-piece linear module or carriage for the Y-axis;*
Example 2: Two motors drive a screw, i.e., the two axes drive a single device.

Gantry motion settings:
1. Use the parameter P1-01 Control Mode to configure the tracking mode for the secondary axis.
2. Use the parameter P2-58 to enable the gantry function and commands.

P2-58	GTRY	Gantry Function		Address: 0274H 0275H
	Parameter Attribute :	Parameter for individual axis		Related Section: -
	Operational Interface :	Panel / Software	Communication	
	Default :	X Axis: 0000h Y Axis: 0010h Z Axis: 0020h		
	Control Mode :	ALL		
	Unit :	-		
	Range :	0000h ~ 0x1021		
	Data Size :	16bit		
	Format :	HEX		

Settings :

- Enable/Disable the gantry function
- Command source
- Not in use
- DI synchronize
- Not in use

(Firmware, V1.005 sub00 will be provided soon)

- The switch of gantry function

  0: Gantry function is not used

  Disable the gantry function including command source selection and gantry compensation. Excessive synchronous deviation disables the function.

  1: Gantry function is used

  Enable the gantry function including command source selection and gantry compensation. Excessive synchronous deviation enables the function.

- Command source

  0: comes from X axis

  When it is in position mode, the position command comes from the position command of X axis.

  When it is in speed mode, the speed command comes from the speed command of X axis.

  When it is in torque mode, the torque command comes from the torque command of X axis.

  1: comes from Y axis

  When it is in position mode, the position command comes from the position command of Y axis.

  When it is in speed mode, the speed command comes from the speed command of Y axis.

  When it is in torque mode, the torque command comes from the torque command of Y axis.

  2: comes from Z axis

  When it is in position mode, the position command comes from the position command of Z axis.

  When it is in speed mode, the speed command comes from the speed command of Z axis.

  When it is in torque mode, the torque command comes from the torque command of Z axis.