

# VIPA 300S, for ex. 315-4NE12 (Ethernet)

## **HMI Setting:**

Parameters	Recommended	Options	Notes
PLC type	VIPA 300S, for ex.	315-4NE12 (Ethernet)	
PLC I/F	Ethernet		
Port no.	102		
PLC sta. no.	1	0-31	

### **Device Address:**

Bit/Word	Device type	Format	Range	Memo
В	I	DDDDo	0 ~ 99997	Input (I)
В	Q	DDDDo	0 ~ 99997	Output (O)
В	М	DDDDo	0 ~ 99997	Bit Memory
В	DBnBit	FFFFFDDDDo	0 ~ 6553599997	Data Register Bit
В	DBxBit	FFFFFDDDDDo	0 ~ 10700655327	
В	DB0Bit-DB99Bit	DDDDDo	0 ~ 655357	Data Register Bit
W	IW	DDDD	0 ~ 9999	Input (I)
W	QW	DDDD	0 ~ 9999	Output (O)
W	MW	DDDD	0 ~ 9999	Bit Memory
DW	MD	DDDD	0 ~ 9998	Bit Memory Double
DW	MD_Anyaddr	DDDD	0 ~ 9998	Bit Memory Double Word
\\/	DPn		0 40060000	Data Register
vv	ומט	FFFFDDDD	0~40909999	(must be even)
	DBDp		0 655350000	Data Register
			0~00009999	Double Word
W	DBn_String	FFFFFDDDD	0 ~ 655359999	
DW	DBDn_String	FFFFFDDDD	0 ~ 655359999	DW
\\/		חחחח	0 65525	Data Register
vv	DD0 ~ DD99		0~00000	(must be even)
Byte	MB	DDDD	0 ~ 9999	Bit Memory Byte
Byte	DBBn	FFFFFDDDD	0 ~ 655359999	Data Register Byte
Byte	DBBx	FFFFFDDDDD	0 ~ 1070065535	
W	DBx	FFFFFDDDDD	0 ~ 1070065535	
DW	DBDx	FFFFFDDDDD	0 ~ 1070065535	

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DW	DBDn_Anyaddr	FFFFFDDDD	0 ~ 655359999	Data Register Double
W	DBx_String	FFFFFDDDDD	0 ~ 1070065535	
W	DBn_String1	FFFFFDDDD	0 ~ 655359999	
W	DBx_String1	FFFFFDDDDD	0 ~ 1070065535	
DW	DBDx_String	FFFFFDDDDD	0 ~ 1070065535	

• Double word and floating point value must use DBDn device type.

### How to Import Tag:

SIEMENS STEP 7 program allows building files of user-defined tag (\*.dif file and \*.AWL file), and import these files in EasyBuilder8000/EasyBuilderPro -> System Parameter Settings. The following describes how to build and import these two types of files.

### 1. Building \*.dif File

a • In "Symbols" create user-defined tag.



b · Click Export to export the edited file and click Save.



Ċ,	Symbol Editor - [S7 Program(3) (Symbols) 312\M3\C	PU 312C]	
8	Symbol Table Edit Insert View Options Window Help		Export ? 🗙
	Open Close	Ctrl+O Ctrl+F4	Save in: 🞯 Desktop 💽 🔶 💼 📸
$\frac{1}{2}$	Save	Ctrl+S	My Documents  My Computer  New Folder
3	Properties		Sector Se
4	Import		Carey706 Dew Folder (4)
5	Export		EBpro_v450_500 🔁 tony1
6 7	Print	Ctrl+P	
8	Print Preview		
9	Page Setup		File name: PLC Tag diff and Save
10	1 312\M3\CPU 312C\\Symbols		
11	2 CPU315_2DP_PN\SIMATIC 300\CPU 315-2 PN/DP\\Symbols		Save as type: Data Interchange Format (*.DIF) 🗾 Cancel
12	3 CPU315_2DP_PN\SIMATIC 300(3)\CPU 315-2 PN/DP\\Symbols	5	
13	4 CPU315_2DP_PN\SIMATIC 300(2)\CPU 315-2 PN/DP\\Symbols	5	
14	Exit	Alt+F4	

#### 2. Building \*.AWF File

a > In **Blocks** create items as shown below:

🖃 🚑 312	System data	🕞 OB1	🖽 DB1	🖽 DB2	🖪 DB3
<u>—</u> МЗ	DB4	🕞 DB5	🖽 DB6	🕞 DB7	🖽 DB8
📥 🔣 CPU 312C	🕞 DB10	🕞 DB11	🕞 DB14	🕞 DB16	🖽 DB19
🖻 🗊 S7 Program(3)	🖽 DB20	🖽 DB30	🕞 DB32	🖽 DB40	🖽 DB41
Bources	🗗 DB42	🖽 DB43	🖽 DB44	🖽 DB45	🗊 DB50
Blocks	🖽 DB51	🖽 DB52	🕞 DB53	🕞 DB55	🗊 DB60
	🖽 DB64	🖽 DB70	🖽 DB80	🗊 DB85	🗊 DB90
	🗊 DB98	🖽 DB99	🖽 DB100	🕞 DB101	🖽 DB110
	🔁 DB111	📪 DB120			

b Open LAD/STL, FBD – Programming S7 Blocks, click File -> Generate Source.

	_		
💼 STEP 7	•	🛅 NCM 57 🛛 🕨	驟 I AD/STI /EBD : Program blocks
m STEP 7-MicroWIN V4.0.6.35	•	Configure SIMATIC Workspace	File View Options Help
🛅 TD Keypad Designer V1.0.6.35	•	57 Converting S5 Files	New Ctrl+N
im WinCC flexible 2008	•	🔣 LAD, STL, FBD - Programming S7 Blocks	Open Ctrl+O
🎝 SIMATIC Manager		Memory Card Parameter Assignment	Generate Source Ctrl+T
m S7-1200 Documentation	•	🞇 NetPro - Configuring Networks	1.312/M3/CPU 312C1 //B2-Off
🛅 Fatek PLC		🔀 PID Control Parameter Assignment	2 312\M3\CPU 312C\\block
m BrowserPlus			3 312\M3\CPU 312C\\test
📺 ENI Utility		Setting the PG-PC Interface	4 312\M3\CPU 312C\\DB11-Off
— m WinPcap		III 405-S7 Converting TI Files	Exit Alt+F4
🗖 Wireshark		TI 505-S7 Converting TI Files	

### c Select **Sources** as storage path, specify the file name then click **OK**.

New			X
Entry point: Project	View: Component vie	w <b>•</b>	O Online 💿 Offline
Name: 312	Storage path: C:\Program File	s\Siemens\Step7\s7prc	Browse
	Object name:	Object_Tag	
N	Object type:	STL Source	<b>_</b>
СК			Cancel Help

d  $\, \cdot \,$  Select the objects to be exported then click OK

Generate source Object_Tag	
Note: Automatic generation of single sources Menu 'Options' > 'Customize' in the 'Sou	per block: urces' tab
Path:       312\M3\CPU 312C\S7 Program(3)\Source         Blocks Not Selected:         DB1         DB3         DB4         DB5         DB7         DB8         DB10         DB16         DB19         C+         DB32         DB40	es Blocks Selected: DB2 DB6 DB11 DB20
Name/Family: Include reference blocks Sort according to program structure Source contains checksum of the blocks	Addresses Absolute Symbolic
ОК	Cancel Help



e • Under **Sources** there will be names of the saved files, select **Export Source** to build **\*.AWL** file.



The generated \*.dif and \*.AWL files can be imported in EasyBuilder8000/EasyBuilderPro **System Parameter Settings**, by clicking **Import Tag**.

Font		Extended M	iemory	Printer/Back	up Server		
Device	Model	Ge	eneral Syste	m Setting	Security		
evice list :							
NO.	Name	Location	Device type	Interface		mport Address Ta	1g
ocal HMI	Local HMI	Local	MT6070iH/MT8070.	Disable			
ocal PLC 4	SIEMENS S7-300/	Local	SIEMENS S7-300/	Ethernet (IP=1	92.168.1.169, Po:		Import DIF file
							Import AWI file
						File name :	C:\Documents and Settings\rd\桌面(1\Object_Tag.A) Browse
							OK Cancel

Tag information successfully imported.





### Wiring Diagram:

#### **Ethernet cable:**

