3VA2 Brytare i Tia Portal.

- 1. Vilka produkter har använts i detta exempel?
- Mjukvaror: Powerconfig V3.16 Se punkt 4 i denna manual för länk till nedladdning av Powerconfig. TIA Portal V16
- Hårdvara: "3VA2110-5KP36-0AA0" Brytare 100Amp 2st V4.1 och en V3.1
 "3VA9987-0TD10" Display DSP800
 "3VA9987-0TA10" COM800 V4.3
 "7KM9300-0AE02-0AA0" V3.0 PN Adapter (fungerar även med "7KM9300-0AE00-0AA0" V2.1)
 "3VA9187-0TB10" COM060 V4.3
- Tänk på att optimala Strömätningen är mellan 20-100% av effektbrytarens märkström. Den börjar att mäta vid ca.10%. Under detta värde visas bara I=0.0 A Observera att COM 060 och COM 100/800 måste ha samma Firmwareversion! COM100 är för en brytare, COM800 för upp till 8 brytare
- Projekt:

3VA2Breaker.zap16

OBS!

Detta är ett tips/exempel på lösning som skall hjälpa användaren att komma igång och se möjligheterna att använda SIMATIC. Du måste själv anpassa detta tips/exempel till din applikation.

Siemens tar inget ansvar om material eller personal skadas i samband med användning av detta tips/exempel.

Vi kan heller inte garantera att innehållet är helt felfritt och vi förbehåller oss rätten att ändra tipset/exemplet vid behov.

1. Inkoppling av hårdvaran

OBS: Tänk på att montera det lilla kontaktdonet (2) som följer med COM060 i brytarens högra del.





Breaker V2.0

Nu ska vi tråda dessa tre brytare avseende 3VA line 3VA line är bussen från COM100/800 till 3VA brytarna.



Nu är alla tre brytare och displayen inkopplad

Notera, om man vill simultant komma åt både Modbus TCP och PROFINET skall X4 på COM100/800 anslutas och X1 P1 eller X1 P2 på PROFINETmodul anslutas.



Kommunikation och mätfunktioner Ethernet (Modbus TCP) Exempel uppkoppling för upp till 8 st 3VA brytare. 3-pol. 250A MCCB typ 3VA2225-5KP32-0AA0 i exemplet nedan

SIEMENS Ingenuity for life



1. Konfigurering i powerconfig

OBS. VIKTIGT; Erhåll korrekta IP adresser av kunden innan projekt startas.

Om COM100/800 har använts tidigare, är det enklast att i powerconfig utföra en "Factory Reset" av COM100/800, alternativt ta bort de brytarna som inte ska vara med i projektet. Se overview "Online".

OBS Anslut patchkabel mellan PC och COM100/800 på X4. Ej på PROFINET modulen.

Sök efter COM100/800:an.

Tillse att COM100/800 fysiskt är i olåst läge. Omkopplaren på fronten.



Välj ethernet interface och tryck på sök.

🐼 Search fo	r Accessible D	evices									
Ethernet	PROFIBUS	Serial	Gateway	Extended IP Search	USB Interface						
Q'	eter										
Ethernet int	erface Intel(F	() Ethernet	Connection (2) I219-LM (192.168.15	.241)						
Response de	alay Short										Normal
Result											
* 🍯	Su 🐐 🕯	1 0									
Device Nam	ie	Device Type	e 🔺 IP Addr	ress Netmask	Gateway	MAC Address	Plant Identifier	Order Number	Firmware Version	Bootloader Version	
[+	COM80	0 192.16	8.0.81 255.255.25	5.0 0.0.0.0	90-79-90-00-0		3VA9987-0TA10	V4.1.0	V4.0.0	

Ladda upp enheten till PC'n. PC och enhet måste vara i samma subnet.

🔯 Search fo	r Accessible De	vices				
Ethernet	PROFIBUS	Serial	Gateway	Extend	ed IP Search	USB
Q'						
▼ Param	eter					
Ethernet int	erface Intel(R)	Ethernet	Connection (2	2) I219-LI	M <mark>(192, 1</mark> 68, 15,	.241)
Response de	alay Short					
Result	5. % %	0				
Device Nam	ne r	Vouico Tur	o i madde	<u>~~s</u>	Netmask	
[Load sele	ected dev	vice(s) to P	.81	255.255.25	5.0
		DSP80	0 192.16	8.0. <mark>3</mark> 3	255.255.25	5.0

Om COM800/100 är ny från kartong då behöver detta inte göras, gå i stället till nästa sida med rubriken Gå "online".

Annars Utför reset. OBS. Reboot tar ca. 1 min.

Draiget Edit Davies View	r Ontions W	indowy Hole	
Date and Time Settings Set Blinking Mode Export Diagnostic Data Export Diagnostic Data ()	System)	Search tex Go online Search tex	t> Q → ← → - □ 4 × 🗄 COM800 192.158.0.81 4 ×
Reset		Reboot Device	🎭 Parameter 🔹
Update	۱.	Device (No Comm. Addr.)	General
PAC1600		Factory Defaults	Name Device Ture
PAC2200		Minima and Maxima	Description
PAC3100			Configuration
PAC3200			Expansion Slot
PAC4200			A Device Information
> PAC5100			Plant Identifier

När den är klar, ta först bort din COM800/100 från projektet. Gör en ny sökning och välj "unlock" för att tilldela IP adress.

🐼 Search fo	or Accessible D	evices								□ ×
Ethernet	PROFIBUS	Serial	Gateway	Extended IP Search	USB Interface					
Q'										
👻 Param	ieter									
Ethernet inte	erface Intel(F	l) Ethernet	Connection (2) I219-LM (192. 168. 15.	241)					
	-					0				
Response de	elay short					Normal				Long
Result										
🐨 🖀	🎭 🔩	5								Unlocked
Device Nam	ne	Device Tvr	na . TD Addr	eer Net	nack	Gateway	MAC Address	Plant Identifier	Order Number	aware Version
COM800 19	92.168	Load o	communicat	ion parameter chang	es to device(s)	192.168.15.100	90-79-90-00-0		3VA9987-0TA10	V4.1.0

🐼 Search fo	r Accessible De	vices						
Ethernet	PROFIBUS	Serial	Gateway	Extended IP :	Search	USB Interface	e	
ď								
👻 Param	eter							
Ethernet int	erface Intel(R)	Ethernet C	Connection (2) I219-LM (192	. 168, 15, 2	241)		
Response de	elay short							
· 🖌	* * 1	P.					-	
Device Nam	ne .	Load com	municatio	n parameter (changes	to device(s)		Gateway
			192.1	68.15.100	255.	255.255.0	Ľ	0.0.0.0
		DSP800	192.16	8.0.33	255.3	255.255.0		0.0.0.0

Ladda upp COM800/100 till projektet.

🔣 Search fo	r Accessible De	vices					
Ethernet	PROFIBUS	Serial	Gateway	Extended IP S	earch USB Inte	rface	
q							
Param	eter						
Ethernet inte	erface Intel/R	Ethernet C	onnection (2) 1219-1 M (192	168, 15, 241)		
			anneeden (
Response de	elay Short						
Result							
🔶 🏝	% 🔸 🔺	0					
Device Nam	e Load sele	ted devic	e(s) to PC	SS	Netmask	Gateway	
ſ	 *]		192.16	8.15.100	255.255.255.0	192, 168, 15, 1	00
37		DSP800	192.16	8.0.33	255.255.255.0	0.0.0.0	

Gå "online".

Project (D:\Workshops\	3VA2Breaker\PowerConfig\3VA2.splx)	- powerconfig V3.10	
Project Edit Device Views	Options Windows Help ・ Iの へい 駅 M Go online	<search text=""> Q</search>	•) • •
Library 4 ×	R Project	- + 🗆 # ×	🚊 COM800 192.168.15.100 🏾 🗮 🗙
Folder Measuring Devices PAC 1200	COM800 192, 168, 15, 100		Separameter •

Siemens Industrisupport https://support.industry.siemens.com/my/us/en/requests#createRequest



Klicka på "overview".

Project (D:\Workshops\3VA2Breaker\PowerConfig\3VA2.splx) - powerconfig V3.10	
Project Edit Device Views Options Windows Help	• • •
Library Project - + - + ×	E COM800 192.168.15.100 # ×
Folder Project Measuring Devices COM800 192.168.15.100	Parameter •

Nu ser du alla brytare som är fysiskt inkopplade.

OBS om det är fler brytare än det som är inkopplat gör en "reset to factory". Högerklicka på COM100/800 och se instruktion tidigare i denna manual.

Project* (D:\Workshops	\3VA2Breaker\PowerConfig\3VA2.splx) - powerconfig	V3.10				- 8 ×
Project Edit Device Views	Options Windows Help • ICO Car SA +1 Geo Go offline Scearch text>	Q - ← →				
iber (1) is is all is a second s	Report - + □ Set Project	 x * 1 = 1 Courses 10.23.04.5.000 i = 0 courses or	0 - (120) 100 - ((2) - (16) Decore from: Decore from: 10 full para full para t, celait 	* Cetab * Detab * Detab	• * 18 % × 6 6 年 年 • * 18 % × 6 6 年 年
		System Trace	1.00	Line on a second		# ×
		System Trace 😨 Offine Che	inte edas 🔄 Quids Search Results	(MESSQ2		

Tilldela rätt brytaradress. (default från fabrik 126) För att kopplas mot en PLC är adress lika med "slot"-nummer, 1-8.

Aktivera "blink funktion" för att sätta rätt adress på rätt brytare.

COM800 192.168.15.100 + ×		
Overview +		🗉 🖬 Breaker address 🔹 🍢 🌠 🍢 🔧 🍁 🖨
		25
2 (126) Device Name:	(2) (126)	(2) (126) Device Name: *
Iteaser Address: 1,20 IL123 max Ir	Please click on the Start Binking/Stop Binking button to start/stop blinking for device "SVA".	ILI23 max
	C Stop Birking Cancel	─ ♥ Details Order Number: Serial Number:
Plant Identifier: Location Identifier:	Location Toertuner:	Plant Identifier: Location Identifier:

I detta exempel blir det så här.

COM800 192.168.15.100 # ×		•
🖲 Overview -		🖬 🖬 Breaker address 💿 🐨 🗑 🍢 😹 🍬 🚇 🔍
 (1) Device Name: • 	(2) (2) Device Name: ▼	∡ (2) (3) Device Name: *
Breaker Address: 1 🌲	Breaker Address: 2	Breaker Address: 3 🗘
× I _{L123 max} 0 A I _r 53 A	× I _{L123 max} 0 A I _r 40 A	× I _{L123 max} 0 A I _r 40 A
✓ Detais		- Details
Order Number: 3/A2110-5/P36-0AA0 Serial Number: 0E /170306000294 Plant Identifier: Location Identifier:	Order Number: 3VA2110-96736-0AA0 Serial Number: OE /17100-0000493 Plant Identifier: Location Identifier:	Order Number: 3VA2110-96795-0AA0 Serial Number: OE /17100-90092 Plant Lidentifier: Location Identifier:

Markera brytarna och ladda upp till projektet.

CH4800 192.166.35.100 • ×							
Overview +		🖬 🖬 Breaker address 🛛 👻 🐩 🌠 📉 💥 🌲 🚇 🔍					
		Load selected breakers to PC					
()	19) - (2)	2 – (3)					
Device Name: * Breaker Address: 1 *	Device Name: * Breaker Address: 2 *	Device Name: * Breaker Address: 3 *					
V IL123 max 0 A Ir 53 A	LL23 max 0 A I _r 40 A	× I _{L123 max} 0.A I _r 40 A					
		→ Details Order Number: 3VA2110-54736-0AA0 Serial Number: 0E /171004000492 Plant Lidentifier: Location Identifier:					
		,					

Efter uppladdning kommer bocken framför resp. brytare att visas att allt är konfirmerat.



OBS. Kontrollera firmware på COM800/100 och COM060 (I alla brytare). Dessa måste ha samma version.

oject Edit Device View	ws Options Windows Help				
		constraint tourth 0			
	E (3 (3 (3) is a do onine	<search q<="" texts="" th=""><th></th><th></th><th></th></search>			
Pary #	× Project	- + 🗆 # ×	≅ COM800 192.168.15.100 ₽ ×		
Folder	🔺 🕍 Project		St. Davameter -		
Measuring Devices	AO COM800 192.168.15.100		W Parameter		
PAC1200	S 3VA_0E /171004000493		4 General		CON020 102 102 10 100
PAC 1600	3VA_0E /171004000492		Name Device Trace		COM800 192.168.15.100
PAC2200			Description		COMBOO
PAC3100			/ Configuration		
PAC3200			Expansion Slot		Switched Ethernet PROFI
PAC4200			✓ Device Information		
PAC5100			Plant Identifier		
PAC5200			Location Identifier		
SEM3			Installation Date		
3WL			Comment		
3WL 10			 Mit manufacturer data 		
Molded Case Circuit			Manufacturer ID		42 (SIEMENS AG)
3VA			Order Number		3VA9987-0TA10
Dataserver			Serial Number		NHP/150304000009
🛱 COM100			Hardware Revision		5
🛱 COM800			Firmware Revision		V4.1.0
Test Devices			Revision Counter		0
Display Devices	Gateway Hierarchy	- + ? □ # ×	Profile Identifier		0
DSP800	0 COM800 192,168,15,100		Profile-Specific Type		6
Transfer Controllers	nsfer Controllers & 3VA_OE /171004000493 ATC5300 & 3VA_OE /171004000492		Supported 18M Data		1.1 1F (TM1 TM2 TM3 TM4)
ATC5300	ATC5300 e 3VA_0E / 171004004492 ATC5300 e 3VA_0E / 170306000294 ways Modbus Gateway		Ethernet Interface		1 = (0 + 1) = (c) = (0) = (1)
Gateways			Host address		192.168.15.100
S Modbus Gateway			Subnet mask		255.255.255.0
			Gateway address		192.168.15.100
oject	- + 🗆 # ×	3VA_OE /17100400	0493 a ×		
Project		Parameter -			
0 COM800 192.10	68.15.100	Lasstian Identific			
3VA_0E /17	1004000493	Testallation Date			
3VA OF /17	0306000294	Gaugash			
		Signature			
		/ ISM data moldor	I men element hermiter 200		
		Manufacturer	r TD	42 (STEME)	US AC)
		Order Numbe		3/42110-5	2036-0440
		Serial Numbe	r	OF /17100	4000.493
		Hardware Re	vicion	6	1000 100
		Firmware Rev	vision	V4.1.0	
		Revision Cou	nter	0	
		Profile Identil	fier	9E31	
		Profile-Specif	ir Tyne	400	
		I&M Revision		1.1	
		Supported IR	M Data		
		# I8M data COM04	50		
		Manufacture	r ID	42 (SIEME)	NS AG)
		Order Numbe	er -	3VA9187-0	TB10
		Serial Numbe	r	LON/17091	3000264
		Hardware Re	vision	5	2000.00.0000
iteway Hierarchy	- + ? 🗆 # ×	Firmware Rev	vision	V4.1.0	
COM800 192.168.1	15.100	Revision Cou	nter	0	
SVA_OE /1710	04000493	Profile Identil	fier	5E31	
SVA_OE /1710	04000493 04000492	Profile Identil Profile-Specif	fier ic Type	400	
3VA_OE /1710 3VA_OE /1710 3VA_OE /1710 3VA_OE /1703	04000493 04000492 06000294	Profile Identil Profile-Specif 18M Revision	rier ic Type	9531 400 1,1	
3VA_OE /17100 3VA_OE /17100 3VA_OE /17100 3VA_OE /17030	04000493 04000492 06000294	Profile Identil Profile-Specif 1&M Revision Supported 18	fier ic Type M Data	5631 400 1.1 1E (IM1, IM	12, IM3, IM4)

Här har vi v4.1 på både COM800/100 och brytarna (COM060) och dessa måste vara samma i Tia Portalen.

För att uppgradera firmware på COM800/100 (samma fil).

Project* (D:\Workshops\3VA2Breaker\PowerConfig\3VA2.splx) - powerconfig V3.10



För att uppgradera firmware på brytare (COM060).

Project* (D:\Workshops\3VA2Breaker\PowerConfig\3VA2.splx) - powerconfig V3.10



Koppla in PROFINET modulen på COM800/100:an Firmware hämtas på Siemens hemsida "SIOS" Firmware-Update V4.3 for 3VA2 (only communication module COM060) https://support.industry.siemens.com/cs/us/en/view/109476863

Firmware-Update V4.3 for 3VA2 breaker data server COM800/COM100 https://support.industry.siemens.com/cs/us/en/view/109765343

2. Konfiguering i Tia Portal.

Skapa ett projekt med en PLC och lägg till COM100/800 (PROFINET modul för brytare) i "Network View".

Dessa hämtas i "hardware catalog - Power supply & distribution - Power distribution & measurement"

- Data server



OBS. COM800/100 måste ha samma version som COM060 som sitter i brytaren.



Öppna COM800 i "Device View".





Lägg till PROFINET module och anslut mot PLC'n som IO device.



SIEVIENS CO								
Mo	dule		Rack	Slot	l address	Q address	Туре	Article no.
-	Dataserver 1		0	0			COM800	3VA9987-0TA10
	PROFINET in	nterface_1	0	01				7KM9300-0AE01-0AA0
			0	1				
			0	2				
			0	з				
			0	4				
			0	5				
PROFINET in General	iterface_1 [S	System	toFINET constant	Interfa ts	ce] Fexts			
 General Ethernet ad 	dresses	O	perating	mode				
 Advanced o Interface 	Advanced options					💽 IO de	evice	
 Real time 	Media redundancy Real time settings				IO controlle	r: PLC_1.F	ROFINET interfac	:e_1
Port [X1 F Port [X1 F	°1 R] °2 R]	, Me	easurem	ent <mark>d</mark> ata	<u></u>			
 Operating m Measurer 	node ment data			Sele	ected breake	r:		

Lägg till dina brytare, kontrollera artikelnummer.

3VA2Breaker ► Dataserver_1 [SENTRON COM800]	I ■ X Hardware catalog II >
ar Topology view 🛛 🙀 Network view 🖉 Device vie	ew Options
👉 [Dataserver_1 [COM800] 🔽 🔛 🕎 🕰 🛓	3
	△ V Catalog
	= Search>
	Filter Profile: <all></all>
	▼ 🗽 Power distribution & measurement
	Molded case circuit breakers
	▼ III 3VA2
	ETU560
	- Cm ETU850
	3VA2 OxerxKP3x-socox
	SVA2 DOWN AVAILABLE =
	3VA2 1xexKP4xx000x
	3VA2 2xerxKP3x-soox
	3VA2 2XHXP4X-0000
	3VA2 3xxxxKP4xxxxxx
	JVA2 4xerxKP3xxxxxx
114000 5%	3VA2 4xerxKP4x-socor
	ETU860
	5 🖳 🕨 🕞 ETU860M
Device overview	→ in 3VA6
Y Module Rack Slot Laddress Q address Type Anticle no. Firmware Comment	✓ Information
	Device:
Properties 3 Diagnostics	
General	
No 'properties' available.	3VA2 ETU850
No 'properties' can be shown at the moment. There is either no object selected or the selected object does not have any displayable properties.	Article no 3VA2 1wwKP3www
	Version: V4.1
	Description:
	MCCB 3VA2 breaker, 160A, ETU850, 3-pole
3VA2Breaker > Dataserver 1 [SENTRON COM800]	
STAZDICARCI / Dataservei_1[SEATHON CONDUC]	
Dataserver_1 [COM800]	
bin and the second s	
X1 va	
X2 X3 A4	
COMBO	
	and the second se
In the test of tes	
200 C C C C C C C C C C C C C C C C C C	

Konfiguera brytarna och lägg till telegram (Basic type 1-6).

3VA2Breaker ► Dataserver_1 [5	SENTRON	COM800]								_ # = ×		
								Topology view	A Network view	Device view		
At Dataserver 1 (COM800)		2 89 (•									
mi [perserie_] [compet]			- ~ 1	_	1		_			_		
	1											
x1 x2 x3 x4												
	-											
	-0	0 0	0	0 0	-0 0 0							
		360	Beach.									
and the second se												
		82		80 a	10 L							
			-									
	10	2 2	2	- P - P	9 9 9							
2 II					1	- 11		> 10	0%			
								2	0.0	□Y 🖼		
Device overview												
Module	Rack	Slot	I address	Q address	Туре	Article no.	Firmware	Comment				
	0	24								^		
	0	2 5										
	0	26										
	0	27										
	0	28										
 Breaker_3 	0	3			3VA2 ETU850	3VA2 1xxexKP3xexxxx	V4.1			=		
COM060_1	0	30			COMUSU	3VA9 187_01810	V4.2					
Control bytes	0	32	13 14	5.6	3VA cyclic	5772 200_20100	V4.1					
Basic type 3	0	33	7198	5	3VA cyclic							
	0	34										
	0	3 5								~		
Breaker_3 [SENTRON 3VA2]								Properties 1	🔒 Info 🔒 🖪 Diagn	ostics		
General IO tags Syste	em constar	nts T	exts									
▼ General			П							*		
Catalog information			C	onfigurati	on							
Identification & Maintenance												
Configuration					Article number:							
Commands					Product range:	IEC						
Address					Frame size:	160 A						
Dirplay					Rated current:	-						
► COM060				Cut	itching capacity class:	(- ()						
▶ ETU850				511	itening capacity class:	-						
Measurement data					E IU:	850						
 Distributed submodules 					Number of poles:	3						
Breaker 1 [SENTRON 3VA2]	1								O Properties	1 Info (1) 2 D	iagnostics	1 1 1
	10										ingriostics	
General IO tags	System c	onstant	s T	exts								
Identification & Mainten	^		15. 1992									
Configuration	Me	asureme	ent data									
Commands												
Address			Salar	cted break	Presker in clo	+ 1						
▼ Limits			Selet	cted break	Dieakei III sic							
▼ Unhalance			V	leasurem	ent Control bytes							^
Current					Basic type 1							1.1
Voltaos					Basic type 2							=
Disalau					Enderword S							
Display					Basic type 4							1
COM060	-				pasic type 5							~
✓ General					Add measur	ement						
Catalog information						S.						
• ETU850												
Measurement data												
Distributed submodules												
	~											

I detta exempel har vi konfigurerat tre brytare med telegram 3.

A2Breaker → Dataserver_1 [SEI	NTRON C	OM800]								
							5	Topology view	Network view	Device view
Dataserver_1 [COM800]		600	∭ €, ±							
, i i i i i i i i i i i i i i i i i i i										
X1 X4										
X2 X3										
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		(46I)				
		-								
	1	SE.		32.	100					
		_						>	100%	·
						r•1 r•1			Les anticasta	
evice overview										
祝 Module	Rack	Slot	I address	Q address	Туре	Article no.	Firmware	Comment		
 Dataserver_1 	0	0			COM800	3VA9987-0TA10	V4.2			
PROFINET interface_1	0	01				7KM9300-0AE01-0AA0	V2.1			
 Breaker_1 	0	1			3VA2 ETU850	3VA2 110-5KP3x-x00x	V4.1			
COM060_1	0	10			COM060	3VA9 187_0TB10	V4.2			
ETU_1	0	11			ETU850	3VA2 xxx_xKPxx	V4.1			
Control bytes	0	12	910	12	3VA cyclic					
Basic type 3	0	13	1542		3VA cyclic					
	0	14								
	0	15								
	0	16								
	0	17								
	0	18								
 Breaker_2 	0	2			3VA2 ETU850	3VA2 1xx-xKP3x-xxxx	V4.1			
COM060_1	0	20			COM060	3VA9 187_0TB10	V4.2			
ETU_1	0	21			ETU850	3VA2 xxx_xKPxx	V4.1			
Control bytes	0	22	1112	34	3VA cyclic					
Basic type 3	0	23	4370		3VA cyclic					
	0	24								
	0	2 5								
	0	26								
	0	27								
	0	28								
 Breaker_3 	0	3			3VA2 ETU850	3VA2 1:00-xKP3x-3000x	V4.1			
COM060_1	0	30			COM060	3VA9 187_0TB10	V4.2			
ETU_1	0	31			ETU850	3VA2 xxxExx	V4.1			
	0	32	1314	56	3VA cyclic					
Control bytes										
Control bytes Basic type 3	0	33	7198		3VA cyclic					
Control bytes Basic type 3	0	33 34	7198		3VA cyclic					

Ladda ner hårdvarukonfigurationen.

2. Tilldela "Device name".

Öppna "network view" i Tia Portal, markera PROFINET "snöret" och "assign device name".

Network Connections HM connection Relations Assig	
PLC_1 Dataserver_1	11 💷 🔍 ±
PLC_1 Dataserver_1 COM800	n device name
Comoo	
PLC_1	

		indine.					
			Configured PRO	FINET dev	ice		
			PROFINET devic	e name:	dataserver_1		
			Dev	/ice type:	COM800		VS
			Online access				
			Type of the PG/PC i	nterface:	PN/IE		-
			PG/PC i	nterface:	Intel(R) Ethernet C	onnection (2) I219-LM	
			Device filter				
			🔽 Only show	devices of th	ne same type		
			Only show	devices with	ı bad parameter settir	ngs	
				devices with	out names	7	
			only show	devices with	loutinentes		
		Accessible devir	ces in the network:				
		IP address	MAC address	Device	PROFINET device nar	ne Status	
	-	192.168.15.1	00-0E-8C-94-0D-7C	SENTRON	dataserver_1	💙 ок	
		<		1		1. 1.	>
						Undate list	Assign name
						opuace list	Assign home
						13°	4
Onlir	ne status information	t					
Onlir	ne status information Search completed	: . 1 of 2 devices we	re found.				
Onlir 1	ne status information Search completed Search completed	: . 1 of 2 devices we . 1 of 2 devices we	re found. re found.				
Onlin 1) 1)	ne status information Search completed Search completed Search completed	: . 1 of 2 devices we . 1 of 2 devices we . 1 of 2 devices we	re found. re found. re found.				
Onlin O O	ne status information Search completed Search completed Search completed	: . 1 of 2 devices we . 1 of 2 devices we . 1 of 2 devices we	re found. re found. re found.				
Onlin C C C	ne status information Search completed Search completed Search completed	: . 1 of 2 devices we . 1 of 2 devices we . 1 of 2 devices we	re found. re found. re found.	1111			
Onlin 1 1 1 1 1 1	ne status information Search completed Search completed Search completed	: . 1 of 2 devices we . 1 of 2 devices we . 1 of 2 devices we	re found. re found. re found.				

Kontrollera brytarna med hjälp av "Check breakers" Tänk på att brytarna måste ha adress 1-8

								Q. Pro	operties
General IO tags Sys	tem constants Tex	5							
General Catalog information Identification & Maintenance	Breaker initialization								
Breaker initialization	Check breakers	Assign now	Elash mode	-					
Commands	CHECK DICOKCIS	- Assign now	masimilioue						
 Advanced 	Name	Article number	Address	Assign	Serial number	Article number	Address St	ate 🧶 Flash	
▼ Events	Breaker_1	3VA2 110-5KP3x-xxxx	1						
System	Breaker_2	3VA2 110-5KP3x-xxxx	2						
Operation									
Manual operation									
Switched Ethernet PROFINET									
Dataserver_1 [Module]							Ropert	ties 🚺 Info	😵 Dia
General IO tags System	constants Texts								
General Catalog information Identification & Maintenance	Breaker initialization								
Breaker initialization	Check breakers	ssign now Flash m	ode						
Commands	Name	ticle number Address	Assign	Serial nu	mber 🥚 Article nu	mber 🧧 Address 🧕	State 😑 Flash		
▼ Advanced	Breaker_1 3	/A2 110-5KP3x-xxxx	1	OE /170306	000293 3VA2110-5KP	36-0AA0 1			
▼ Events	Breaker_2 31	/A2 110-5KP3x-xxxx	2	OE /171004	000492 3VA2110-5KP	36-0AA0 2			
System									
Manual operation									
Switched Ethernet PROFINET									

OBS Efter detta måsta man även ladda ner till COM100/800

loject dee	Sentron → Dataserv	er_1 [SENTRON (OM800]					
Devices Plant objects								
a 🛛 🗍 🖬 🖬 📩	tended download to	device	New York The Co					
me		Configured access	nodes of "Dataserver_1					
Sentron 7		Device	Device type	Slot	Interface type	Address	Subnet	
Add new device		Dataserver_1	COMBOD	01	PN/IE	192.168.0.81	PN/IE_1	1
A Devices & networks								
• [] PLC_1 [CPU 1212C DC/DC/DC]								
Dataserver_1 [SENTRON COM800]								
Grouped devices								
Security settings			Time of the PGIPC int	arface	Ph//E			
Cross-device functions			ippe of the Function	endee.	- market		10	
Gommon data			PG/PC int	erface:	Intel(R) Ethe	net Connection (7) I	219-LM	
C Documentation settings		c	connection to interface/s	ubnet:	PN/IE_1			
Longuages & resources			1st ga	teway:			*	
Online access								
II >		Select target devic	:e:			Show all compatib	le devices	-
Details view		Device	Device type	Interf	ace type A	Idress	Tarnet devis	-
Module	and the second se	-	-	PN/IE	A	cess address	-	
	i							
Name								
Device configuration	Second and the second							
Online & diagnostics								
	Flash LED							
							Start	searc
	Online status information					Display only erro	ir messages	

3. Ladda ner brytarinställnigar till COM800/100.

VA	Siemens - D:\TIA Projekt\TIA V15\3VA2Breaker\3VA2B	Ireaker		
Pr	roject Edit View Insert Online Options Tools 🗄 🎦 🔚 Save project 昌 🐰 🧾 🗊 🗙 🏹 🛨 (주 🛨	Window Help	믠	🛐 💋 Go
	Project tree	Dov	vnloa	a\/A 28
	Devices			
				de Data
vorks		4		
etv	Name	Version		
Ē	PLC supervisions & alarms		^	
80	PLC alarm text lists			
ce	🕨 🫅 Local modules			
)evi	Distributed I/O			
	Dataserver_1 [SENTRON COM800]			
	Device configuration			
	😼 Online & diagnostics			

Om inga fel tryck nu på Load

tatus	1	Target	Message	Action
10	•	Dataserver_1	Ready for loading.	Load 'Dataserver_1'
			IIII	

Om man får error eller konstiga felkoder, börja om med en brytare i taget

För att kontrollera att kommunikationen fungerar kan man göra en VAT tabell Där man tittar på brytarstatus, man kan även gå Online på "Dataserver_1"

									a Te	opology	view	Network	view 📑 De	vice view	
9 9	11.2 M	1. 9. 9. 2	000 000 1		_		1			Device	view				
i	Name	Address	Display format	Monitor value	Modi 🔗	Comment	Device	overview							
// Br	ytare 1	e 10 2	Real	TTO:IE		0=0.0#=1		Module	Rack	Slot	I address	O address	Type	Articl	
// Re	dara 7	/019.2	5001	INOC		011-0 011-1		 Dataserver 1 	0	0			COM800	3VA9	~
11 01	yeare z	%111.7	Bool	TRUE		On=0.0ff=1		PROFINET interface_1	0	01				7KM9	
// Br	vtare 3	10111.2	5001	inoc		011-0 011-1		▼ Breaker_1	0	1			3VA2 ETU850	3VA2	
	,	%132	Bool	TRUE		On=0 Off=1		COM060_1	0	10			COM060	3VA9	
		<add new=""></add>			ă		~	ETU_1	0	11			ETU850	3VA2	Ĵ
							~	Control bytes	0	12	910	910	3VA cyclic		
								Basic type 3	0	13	1542		3VA cyclic		-
									0	14					
									0	15					
									0	16					
									0	17					
									0	18					
								▼ Breaker_2	0	2			3VA2 ETU850	3VA2	
								COM060_1	0	20			COM060	3VA9	1
								ETU_1	0	21			ETU850	3VA2	
								Control bytes	0	22	1112	1112	3VA cyclic		
							~	Basic type 3	0	23	4370		3VA cyclic		
									0	24					
									0	2 5					
									0	26					
									0	27					
									0	28					
								 Breaker_3 	0	3			3VA2 ETU850	3VA2	
								COM060_1	0	30			COM060	3VA9	
								ETU_1	0	31			ETU850	3VA2	
								Control bytes	0	32	1314	1314	3VA cyclic		~
<							<			Ш				>	

Nu kan vi lägga till Displayen "DSP800"

Den ska inte ligga på PROFINET modulen utan på Interfacet för COM800/100 X4 Ställ in IP adress för displayen och IP adressen som din COM100/800 har



I vårat exempel har Displayen IP adress 192.168.15.11 COM800:n har 192.168.15.100

Control Ord

The following control bytes are available for each 3VA molded case circuit breaker:

Bit	Value	Activated function of the 3VA molded case circuit breaker		
0,1	0 3	Switch the 3VA molded case circuit breaker		
	0	Not defined (no action)		
	1	Switch off *)		
	2	Switch on *)		
	3	Not defined (no action)		
2	1	Reset: Last trip reason		
3	1	Reserved		
4	1	Reserved		
5	1	Reserved		
6	1	Reserved		
7	1	Reserved		
0,1	0	Reserved		
	1	Reserved		
	2	Reserved		
	3	Reserved		
2	1	Delete tripping and event recording		
3	1	Reset minimum / maximum values		
4	1	Reserved		
5	1	Reserved		
6	1	Acknowledge maintenance information		
7	1	Reserved		
	Bit 0,1 2 3 4 5 6 7 0,1 2 0,1 2 3 4 5 6 7	Bit Value 03 0 0.1 1 2 3 2 3 1 4 1 5 1 6 1 7 1 0 1 0 1 2 1 2 1 2 1 2 1 2 1 2 3 1 2 3 1 3 1 3 1 3 1 5 1 6 1 7 1		

*) depending on use of SEO (Stored Energy Operator)

Status ord

Status bytes

Byte	Bit	Value	Information about 3VA molded case circuit breaker	ETU 8-series	ETU 5-series	DO ¹	SEO
0	0, 1	0	Disconnected position				-
		1	Connected position			~	
		2	Test position				
		3	Not available				
	2, 3	0	Not ready		•	•	•
		1	Off				
		2	On				
		3	Has tripped				
	4	1	Reserved				
	5	1	Reserved	-	-	-	-
	6	1	Spring energy store is compressed				~
	7	1	Overload alarm present	~	~	-	-
	0	1	Reserved				
	1	1	Reserved				
	2	1	Write protection activated			-	-
	3	1	Reserved			14	-
	4, 5, 6	0 7	Reason for last trip				
		0	No tripping operation or last tripping operation acknowledged				
		1	Overload tripping (L)				
1		2	Instantaneous short circuit (I)				
		3	Short-time delayed short circuit (sd)	~	~		
		4	Ground fault (G)				
		5	Tripping operation as a result of extended protection function				
		6	Overload in neutral conductor (N)				
		7	Reserved				
	7	1	Load shedding alarm	1	~	-	

The following status bytes are available for each 3VA molded case circuit breaker:

¹ Draw-out unit

✓ Relevant for

Available

- Not applicable

Basic type 3

Basic type 3 (LVSG format 3)

Byte	Data content	Format	Unit	ETU 8-series	ETU 5-series
0 1	Current in phase L,	U16	A	1	1
2 3	Current in phase L ₂	U16	A	~	~
<mark>4</mark> 5	Current in phase L ₃	U16	A	*	1
6 7	Maximum current in phase under highest load	U16	A	1	~
8 9	Current in neutral conductor	U16	A	~	1
10 11	Voltage L ₁ -L ₂	U16	V	~	-
12 13	Voltage L ₂ -L ₃	U16	V	~	-
14 15	Voltage L ₃ -L ₁	U16	V	~	1.77
16 17	Voltage L ₁ -N	U16	V	√	-
18 19	Voltage L ₂ -N	U16	v	1	-
20 21	Voltage L ₃ -N	U16	V	~	14
22 23	Average power factor in 3 phases	U16	Factor 1000 of the actual value	~	-
24 25	Active energy import in 3 phases	U16	MWh	~	-
26 27	Apparent power Σ in 3 phases	U16	kVA	~	22

✓ Relevant for

- Not applicable

4. Bra länkar.

Powerconfig V3.16 https://support.industry.siemens.com/cs/se/en/view/63452759

Firmware-Update V4.3 for 3VA2 (breaker data server COM800/COM100, communication module COM060) https://support.industry.siemens.com/cs/us/en/view/109765343

Hårdvaruinkoppling Breaker data server, COM800 / COM100 https://support.industry.siemens.com/cs/se/en/view/80601362

System Manual - 3VA Communication https://support.industry.siemens.com/cs/se/en/view/98746267

Om man använder Energy Suite

SIMATIC Energy Suite - Getting Started https://support.industry.siemens.com/cs/se/en/view/109739102

SIMATIC Energy Suite – Visualization Examples https://support.industry.siemens.com/cs/se/en/view/109739775