

TESLA 4000-SV Power System Recorder

Order Template

Now with IEC 61850-9-2 LE & 61869-9 Sampled Values support!

SECTION A:

In order to specify and order an ERLPhase TESLA 4000 properly configured for the application, a part number must be constructed as indicated below:

TESLA 4000 Sa - bb - c - d - e - ff - g - h - i - j - k

Sa: Input Channels:

•S2: Model 4000-SV, 36 sampled value analog inputs (IEC 61850), 256 virtual inputs (IEC 61850), 64 digital inputs, 8 digital outputs

bb: Flash Memory:

- 64: 64G flash memory
- 1TB: 1TB flash memory

c: Internal Modem:

- 0: No internal modem

d: LAN Redundancy Selection

Network port redundancy on rear Ethernet ports 401, 402 and 410 is available as an option. If single port redundancy is required then select between option 1 and 2 for RSTP and PRP respectively. If multiple port redundancy is required then select option 4. Option 4 offers PRP or Non-redundancy modes, each of which are independently selectable through software by the user.

- 0: No redundancy (PTP/IEEE 1588 not available if selected)
- 1: RSTP Redundancy on Ethernet ports 410/412
- 2: PRP Redundancy on Ethernet ports 410/412
- 4: Redundancy* on Ethernet Ports 401A/B, 402A/B and 410A/B
*PRP is supported

e: LAN Media Selection

Selection 0, 1 and 2 are available if "no redundancy" option 0 is selected in "d".

- 0: port 401 = 100BASE-T (RJ45)
port 402 = 1000BASE-T (RJ45)
port 410 = 100BASE-T (RJ45)
port 411 = 100BASE-FX (multimode, 1300 nm, ST)
- 1: port 401 = 100BASE-T (RJ45)
port 402 = 1000BASE-T (RJ45)
port 410 = 100BASE-FX (multimode, 1300 nm, ST)
port 411 = 100BASE-FX (multimode, 1300 nm, ST)
- 2: port 401 = 100BASE-T (RJ45)
port 402 = 1000BASE-T (RJ45)
port 410 = 100BASE-T (RJ45)
port 411 = 100BASE-T (RJ45)

Selections 3 and 4 are available if redundancy option 1 or 2 is selected in "d".

- 3: port 401 = 100BASE-T (RJ45)
port 402 = 1000BASE-T (RJ45)
port 410/412 (redundant) = 100BASE-T (RJ45)
port 411 = 100BASE-FX (multimode, 1300 nm, LC)



- 4: port 401 = 100BASE-T (RJ45)
port 402 = 1000BASE-T (RJ45)
port 410/412 (redundant) = 100BASE-FX (multimode, 1300 nm, LC)
port 411 = 100BASE-FX (multimode, 1300 nm, LC)

Selection 5 is available if LAN redundancy option 4 is selected in "d".

- 5: port 401A/401B (redundant) = SFP*
port 402A/402B (redundant) = SFP*
port 410A/410B (redundant) = SFP*
port 411 = 100BASE-T (RJ45)

*Please refer to SECTION B for the available types of SFPs and indicate the required type needed for each port.

ff: Operating Frequency:

- 50: 50 Hertz
- 60: 60 Hertz

g: CE and UKCA Compliance:

CE and UKCA compliance is standard for TESLA 4000 products. This value is kept in the configuration ID for backwards compatibility reasons.

- 0: CE/UKCA marked
- 1: CE/UKCA marked

h: Conformal Coating:

Conformal coating is available with 1TB memory option only.

- 0: Not conformal coated (default)
- 1: Conformal coated

i: Custom Firmware Request:

- 0: Latest version (default)
- 1: Custom version (please specify firmware version number)

j: Custom Hardware Request:

- 0: No special build instructions (default)
- 1: Special build instructions (please specify special instructions)

k: Configuration ID Version:

- A: Internal Use

SECTION B: SFP Kit

TESLA 4000-SV provides three redundant network ports in Small Form-factor Pluggable (SFP) arrangement.

SFPs for all Ports (401, 402, 410) can be selected as 100 or 1000 Mbps fiber or 100/1000 Mbps Cu port, which have to be defined by the user while ordering.

Port 402 is the Process Buss port.

Port 410 speed is rated internally for 100 Mbps.

6 SFPs are needed if all the network ports are used. Please refer to the User Manual section 4, for the available services on each communication network port, to select the appropriate port type required.

It is recommended that ERL-supplied SFPs always be used for proper TESLA operation.

Port 401A, 401B, 402A and 402B are 100/1000Mbps
Port 410A and 410B are 100 Mbps



401A	401B	402A	402B	410A	410B
C	C	A	A	C	C

SFP Type Selection Options for each port:

SFPs are non-conformal coated

- 0 - No SFP is installed
- A - 1000 BASE-LX (MM, 1310 nm, LC) SFP
- B - 100 BASE-FX (MM, 1310 nm, LC) SFP
- C - 100/1000 BASE-T (RJ45) SFP

Example: SECTION A

TESLA 4000 (S2-1T-0-4-5-60-0-1-0-0-A)

SECTION B

C: C: A: A: C: C

This part number specifies a TESLA 4000 SV recorder with 36 SV inputs, 256 GOOSE inputs, 64 digital input, 8 digital outputs, 1TB of internal flash memory, no internal modem, redundancy on ports 401, 402 and 410, with PTP, suitable for operation in a 60 Hertz system, with CE/UKCA marks, with conformal coating, and two type A SFPs and four type C SFPs.

Manuals:

The latest version of the manuals can also be downloaded from our website https://www.erlphase.com/downloads/manuals/TESLA_4000_SV_manual.pdf. If you wish to purchase a hard copy manual, you may order that using the part number 117243.

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The specifications and product information contained in this document are subject to change without notice. In case of inconsistencies between documents, the version at www.erlphase.com will be considered correct. (D04977R02)