COMPLETE PRODUCT INFORMATION / EXACT-MODEL DASHBOARD

Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646

Power Supply

Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 is a three-phase, primary-switched DIN-rail power supply that converts a 400–500 V AC nominal input to an adjustable 24 V DC output rated at 40 A.

01	02	03	04
Three-phase 400–500 V AC nominal input	Adjustable 22.5–28.5 V DC output	40 A nominal current and 45 A POWER BOOST	DC OK LED, active output, and relay contact

System position

Three-phase AC source	Input protection and isolation	QUINT primary-switched conversion	24 V DC control-system loads

Verified technical matrix

Nominal input	3 × 400–500 V AC
AC input range	3 × 320–575 V AC, all three phases
DC input range	450–800 V DC
Frequency range	45–65 Hz
Nominal output	24 V DC ±1%, 40 A
Output adjustment	22.5–28.5 V DC
POWER BOOST	45 A continuously from –25 °C to +40 °C

Output power	960 W
Efficiency	>91%
Parallel operation	Permitted for redundancy and increased capacity
Mounting	Horizontal NS 35 DIN rail
Protection	IP20
Dimensions	122 × 130 × 243 mm
Operating temperature	–25 °C to +70 °C, with derating above +60 °C

Controlled engineering use

Control-cabinet supply

Feeds 24 V DC PLC, I/O, relay, and instrumentation loads from a three-phase industrial source.

Redundant DC architecture

Supports parallel connection where a documented redundancy design is required.

Capacity expansion

Allows parallel operation when the engineered load exceeds one unit’s nominal capacity.

Condition monitoring

Provides DC OK indications for local and control-system supervision.

Interface architecture

AC input

Three-phase L1/L2/L3 and PE connection within the documented input range

DC output

Regulated 24 V DC output adjustable from 22.5 V to 28.5 V

Diagnostics

DC OK LED, active switching output, and floating relay contact

Mechanical

NS 35 DIN-rail mounting with specified orientation and clearance

INSTALLATION DECISION POINTS

1

Confirm the complete Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 identity before installation.

2

Isolate and verify the absence of hazardous voltage on all three input phases and the DC output before wiring.

3

Use only the documented 3 × 320–575 V AC or 450–800 V DC input range and maintain protective earth continuity.

4

Observe the specified conductor cross-sections and terminal torque for the installed wiring method.

System and configuration boundary

Identity

Retain Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 in purchasing, drawings, and labels.

Installed state

Archive position, wiring, settings, and the as-found condition.

Test boundary

Use the approved site procedure and documented test points.

Compatibility

Verify the exact article identity before substitution.

FAQ and model-specific acceptance

Engineering decision matrix

Engineering decision	Controlled response
What input supply does Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 accept?	Its nominal AC input is 3 × 400–500 V, with a documented three-phase range of 3 × 320–575 V AC; it also accepts 450–800 V DC.
What is the nominal output of Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646?	The nominal output is 24 V DC at 40 A, providing 960 W.
Can the output of Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 be adjusted?	Yes. The documented adjustment range is 22.5–28.5 V DC.
What POWER BOOST current is available from Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646?	The unit provides 45 A continuously from –25 °C to +40 °C under the documented POWER BOOST condition.

Release precautions

5	6	7	8
Mount the unit on a horizontal NS 35 rail and maintain the documented clearances and airflow.	Set the output only within 22.5–28.5 V DC and verify the load’s permitted voltage before energization.	Engineer parallel units for the intended redundancy or capacity mode and verify current sharing before release.	Commission the DC OK LED, active signal, floating relay contact, and loaded output voltage before service.

Configuration-control record

As found	Comparison	As left	Release
Record model, installed position, wiring, settings, and condition.	Match each populated technical value to the controlled replacement record.	Archive configuration, measured values, diagnostics, and test results.	Identify the approver, date, work order, and affected system boundary.

Remaining decisions and acceptance evidence

Engineering decision matrix

Engineering decision	Controlled response
Can Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 be connected in parallel?	Yes. Parallel operation is documented for redundancy and increased capacity.
Which status outputs are available on Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646?	It provides a DC OK LED, an active switching output, and a floating relay contact.
How is Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 mounted?	It mounts on a horizontal NS 35 DIN rail and requires the documented installation orientation and clearance.
What should be checked before commissioning Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646?	Verify phase wiring, protective earth, terminal torque, output setting, loaded voltage, DC OK signaling, and any engineered parallel-current sharing.

Evidence applicability

Evidence record	Applicable scope
Phoenix Contact product data for item 2938646	Supports only the exact-model or explicitly applicable family facts used in this document.
Phoenix Contact generated technical data sheet for QUINT-PS-3X400-500AC/24DC/40	Supports only the exact-model or explicitly applicable family facts used in this document.

Acceptance evidence to retain

Identity	Connections	Configuration	Function
Photograph and record the exact Phoenix QUINT-PS-3x400-500AC/24 DC/40-2938646 nameplate.	Archive terminal, cable, shield, polarity, and connector checks.	Retain the approved parameters, settings, and as-left project record.	Record loaded operation, diagnostics, and the affected control-path test.

Commissioning handover record

Controlled return to service

Confirm isolation release	Apply power under observation	Verify diagnostics and signals	Complete functional acceptance

Related Apter Power references

Related Apter Power references	Scope note
Phoenix REL-IR-BL/L-24DC/4×21 1032527	Portfolio reference only; verify compatibility independently.
Phoenix QUINT-PS-100-240AC/24DC/10 2938604	Portfolio reference only; verify compatibility independently.
Phoenix QUINT-PS/1AC/24DC/10 2866763	Portfolio reference only; verify compatibility independently.

	Apter Power technical support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com	Model record Phoenix QUINT-PS-3x400-500AC/24DC/40-2938646 Power Supply Verify the complete nameplate before installation.