

Phoenix Contact offers a full family of modular components covering virtually all of your electrical and electronic needs as well as a broad range of value-added services.

#### CLIPLINE

- DIN-rail mount Terminal blocks
- DIN-rail markers
- Tools
- Ferruls



#### TRABTECH

- Surge voltage protection
  - For Power line
  - For Data line
  - For Signal line



#### INTERFACE

- Analog signal converters
- Power supplies
- Relays
- PLC Cabling
- Rail mount breakout modules
- Intrinsic safety modules



#### COMBICON

- PCB terminal blocks
- Electronic component housing



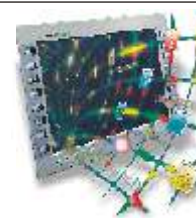
#### PLUSCON

- Industrial plug connectors
- Sensor cabling sensor boxes



#### AUTOMATIONWORX

- Solutions, products and services for DeviceNet, Profibus, Ethernet and Interbus
- Controllers and software
- Fieldbus I/O
- Ethernet infrastructure components



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SFB TECHNOLOGY

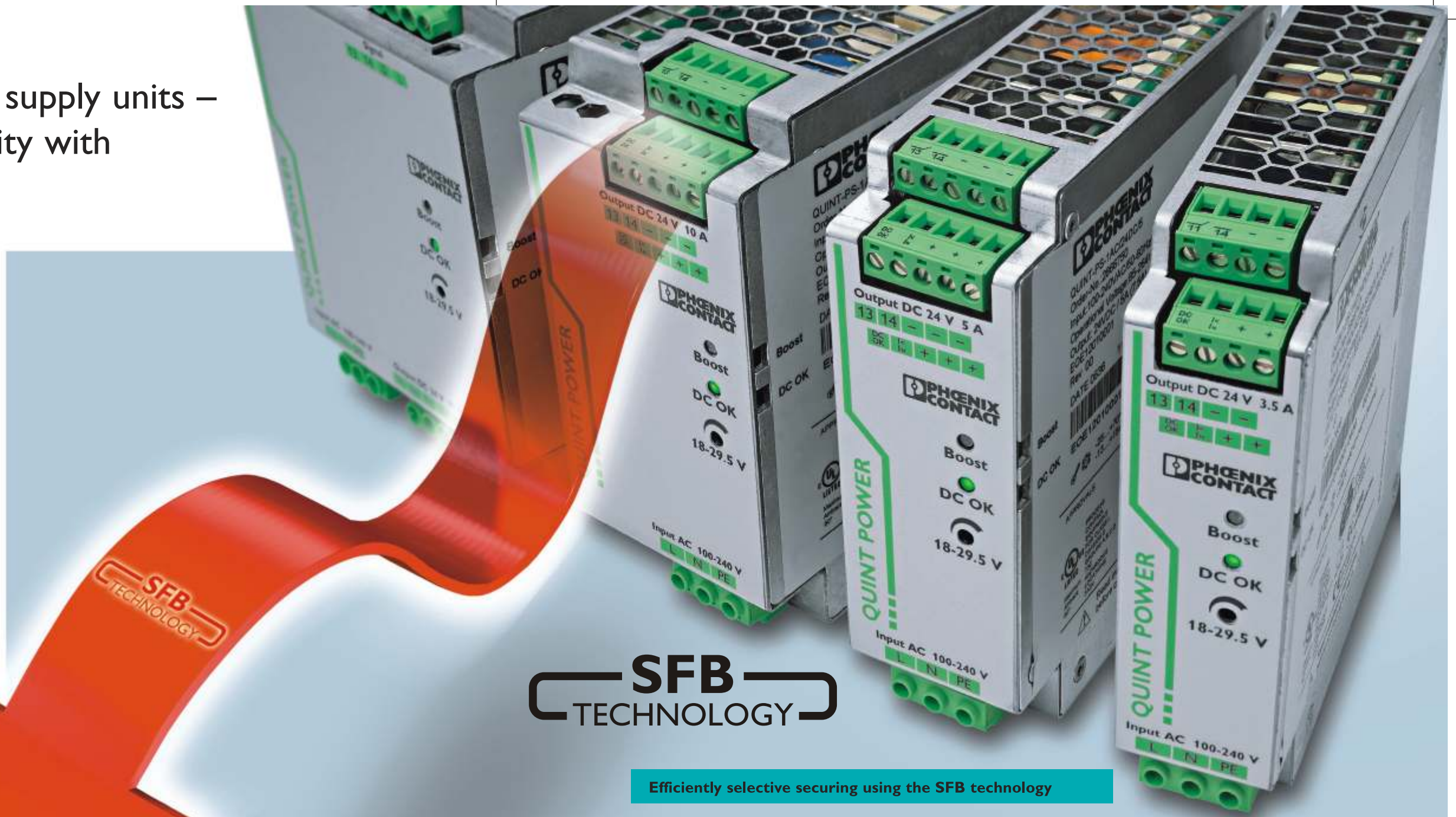
**QUINT POWER**  
Power supply units for superior system availability

# QUINT POWER power supply units – superior system availability with SFB technology

Compact power supply units of the new QUINT POWER generation maximize system availability.

Even standard power circuit-breakers can be triggered quickly and reliably with SFB technology (Selective Fusebreaking Technology) with six times the nominal current for 12 ms. Defective current paths are selectively disconnected, the defect is limited and the important system parts remain in operation. A comprehensive diagnosis is made by continuously monitoring the output voltage and current. This preventive function monitoring visualizes the critical operating modes and reports them to the control unit before an error occurs.

QUINT POWER guarantees superior system availability.



## SFB TECHNOLOGY

### Efficiently selective securing using the SFB technology

In order to be able to trigger standard power circuit-breakers magnetically and quickly, power supply units must be able to supply multiple nominal current for a short period. With SFB technology (Selective Fusebreaking Technology) with six times the nominal current for 12 ms, this current reserve is always available.

Worn display cable: The fuse triggers and the lower level display is dark. The control unit and the sensor and actuator systems continue to operate without any interruption and production continues.



# QUINT POWER power supply units – superior system availability thanks to ...

QUINT POWER power supply units offer functional advantages in an especially slim design. The unique SFB technology and the extended preventive function monitoring increase application availability.

## Service-friendly connection technology

COMBICON connectors

## Rugged design

Metal housing and wide temperature range from -25 to +70°C

## Worldwide use

due to wide-range input and international approvals

## Operational reliability

due to high MTBF > 500.000 h and long mains buffering times > 20 ms, high voltage resistance up to 300V AC, 1-phase

## To connect in parallel

to increase power and achieve redundancy

## SEMI F47-200

meets the requirements of the semiconductor industry as regards mains voltage dips

## Three-phase devices

proper operation even when a phase permanently fails, high surge voltage strength up to 6 kV using integrated gas arrester

## Saves up to 50% in the control cabinet

Slim design

## Preventive function monitoring

Reports critical operating states before an error occurs by continuously monitoring the output voltage and current

Remote monitoring using active switching output and floating relay contact

## Minimize the installation costs

Third minus terminal serves as grounding terminal block

# SFB TECHNOLOGY

## Quick triggering of the commercial power circuit-breakers

Dynamic power reserve SFB technology (Selective Fusebreaking Technology) with six times the nominal current for 12 ms

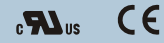
## Reliable starting of heavy loads

Static power reserve POWER BOOST continuous with up to 1.5 times the nominal current

## Compensation of voltage dips

Output voltage can be set on the front side





Semi F47-200



Semi F47-200



| 1-phase  | QUINT-PS-1AC/24DC/3.5   | QUINT-PS-1AC/24DC/5   | QUINT-PS-1AC/24DC/10  | QUINT-PS-1AC/24DC/20  |
|--|---|---|---|---|
|  | Order No. 2866747   | Order No. 2866750   | Order No. 2866763   | Order No. 2866776   |
| Nominal input voltage (Wide-range input)                       | 100 – 240 V AC  | 100 – 240 V AC  | 100 – 240 V AC  | 100 – 240 V AC  |
| Input voltage range  | 85 – 264 V AC (45–65 Hz)<br>300 V AC short-term<br>90 – 350 V DC (0 Hz) | 85 – 264 V AC (45–65 Hz)<br>300 V AC short-term<br>90 – 350 V DC (0 Hz) | 85 – 264 V AC (45–65 Hz)<br>300 V AC short-term<br>90 – 350 V DC (0 Hz) | 85 – 264 V AC (45–65 Hz)<br>300 V AC short-term<br>90 – 350 V DC (0 Hz) |
| Current consumption (nominal load)                             | approx. 1,35 A (120 V AC),<br>0,82 A (230 V AC)                         | approx. 1,2 A (120 V AC),<br>0,6 A (230 V AC)                           | approx. 2,77 A (120 V AC),<br>1,24 A (230 V AC)                         | approx. 5,1 A (120 V AC)/<br>2,3 A (230 V AC)                           |
| Inrush current limitation/<br>$I^2t$ (+25°C typ.)              | < 20 A / < 2 A <sup>2</sup> s   | < 15 A / < 1 A <sup>2</sup> s   | < 15 A / < 1,5 A <sup>2</sup> s   | < 20 A / < 3,2 A <sup>2</sup> s   |
| Mains buffering at nominal load (typ.)                         | > 20 ms (120 V AC)<br>> 80 ms (230 V AC)                                | > 30 ms (120 V AC)<br>> 30 ms (230 V AC)                                | > 40 ms (120 V AC)<br>> 40 ms (230 V AC)                                | > 20 ms (120 V AC)<br>> 20 ms (230 V AC)                                |
| Input fuse/<br>recommended backup fuse (power circuit-breaker) | internal 5 AT /<br>B6 A, B10 A, B16 A                                   | internal 5 AT /<br>B6 A, B10 A, B16 A                                   | internal 6,3 AT /<br>B10 A, B16 A                                       | internal 12 AT /<br>B10 A, B16 A  |
| Nominal output voltage $U_N$                                   | 24 V DC   | 24 V DC   | 24 V DC   | 24 V DC   |
| Setting range of the output voltage                            | 18 – 29,5 V DC  | 18 – 29,5 V DC  | 18 – 29,5 V DC  | 18 – 29,5 V DC  |
| Output current with convection cooling                         |   |   |   |   |
| Nominal output current   | 3,5 A   | 5 A   | 10 A  | 20 A  |
| POWER BOOST  | 4 A   | 7,5 A   | 15 A  | 26 A  |
| SFB technology   | 15 A / 12 ms  | 30 A / 12 ms  | 60 A / 12 ms  | 120 A / 12 ms   |
| Can be connected in parallel and series                        | ✓   | ✓   | ✓   | ✓   |
| Maximum power dissipation (idling/nominal load)                | approx. 3,5 W / 12 W  | approx. 3 W / 14 W  | approx. 8 W / 24 W  | approx. 10 W / 46 W   |
| Efficiency (230 V AC, nominal load)                            | > 88 %  | > 90 %  | > 92,5 %  | > 93 %  |
| Ripple   | < 50 mVpp   | < 40 mVpp   | < 50 mVpp   | < 80 mVpp   |
| Signaling  | active signal output,<br>floating relay contact,<br>LED                 | active signal output,<br>floating relay contact,<br>LED                 | active signal output,<br>floating relay contact,<br>LED                 | active signal output,<br>floating relay contact,<br>LED                 |
| MTBF as per IEC 61709 (40°C, nominal load)                     | > 500 000 h   | > 500 000 h   | > 500 000 h   | > 500 000 h   |
| Dimensions (W/H/D)   | 32/130/125 mm   | 40/130/125 mm   | 60/130/125 mm   | 90/130/125 mm   |
| Ambient temperature  | -25 °C ... + 70 °C  | -25 °C ... + 70 °C  | -25 °C ... + 70 °C  | -25 °C ... + 70 °C  |

| 3-phase  | QUINT-PS-3AC/24DC/5   | QUINT-PS-3AC/24DC/10  | QUINT-PS-3AC/24DC/20                                    |
|--|---|---|---|
|  | Order No. 2866734   | Order No. 2866705   | Order No. 2866792                                       |
| Nominal input voltage (Wide-range input)                       | 2/3x400 – 500 V AC  | 2/3x400 – 500 V AC  | 3x400 – 500 V AC  |
| Input voltage range  | 3x320 – 575 V AC (45–65 Hz)<br>2x360 – 575 V AC (45–65 Hz)<br>450 – 800 V DC (0 Hz) | 3x320 – 575 V AC (45–65 Hz)<br>2x360 – 575 V AC (45–65 Hz)<br>450 – 800 V DC (0 Hz) | 3x320 – 575 V AC (45–65 Hz)<br>450 – 800 V DC (0 Hz)    |
| Current consumption (nominal load)                             | approx. 3x 0,8 A (400 V AC)/<br>0,7 A (500 V AC)                                    | approx. 3x 1,2 A (400 V AC)/<br>1 A (500 V AC)                                      | approx. 3x 1,6 A (400 V AC)/<br>1,3 A (500 V AC)        |
| Inrush current limitation/<br>$I^2t$ (+25°C typ.)              | < 15 A / < 1 A <sup>2</sup> s   | < 15 A / < 1,5 A <sup>2</sup> s   | < 20 A / < 3,2 A <sup>2</sup> s                         |
| Mains buffering at nominal load (typ.)                         | > 20 ms (400 V AC)<br>> 30 ms (500 V AC)  | > 20 ms (400 V AC)<br>> 30 ms (500 V AC)  | > 20 ms (400 V AC)<br>> 30 ms (500 V AC)                |
| Input fuse/<br>recommended backup fuse (power circuit-breaker) | B6 A, B10 A, B16 A  | B6 A, B10 A, B16 A  | B6 A, B10 A, B16 A                                      |
| Nominal output voltage $U_N$                                   | 24 V DC   | 24 V DC   | 24 V DC   |
| Setting range of the output voltage                            | 18 – 29,5 V DC  | 18 – 29,5 V DC  | 18 – 29,5 V DC  |
| Output current with convection cooling                         |   |   |   |
| Nominal output current   | 5 A   | 10 A  | 20 A  |
| POWER BOOST  | 7,5 A   | 15 A  | 26 A  |
| SFB technology   | 30 A / 12 ms  | 60 A / 12 ms  | 120 A / 12 ms   |
| Can be connected in parallel and series                        | ✓   | ✓   | ✓   |
| Maximum power dissipation (idling/nominal load)                | approx. 4 W / 16 W  | approx. 8 W / 25 W  | approx. 6 W / 42 W                                      |
| Efficiency (230 V AC, nominal load)                            | > 89 %  | > 93 %  | > 93 %  |
| Ripple   | < 20 mVpp   | < 20 mVpp   | < 40 mVpp   |
| Signaling  | active signal output,<br>floating relay contact,<br>LED                             | active signal output,<br>floating relay contact,<br>LED                             | active signal output,<br>floating relay contact,<br>LED |
| MTBF as per IEC 61709 (40°C, nominal load)                     | > 500 000 h   | > 500 000 h   | > 500 000 h   |
| Dimensions (W/H/D)   | 40/130/125 mm   | 60/130/125 mm   | 69/130/125 mm   |
| Ambient temperature  | -25 °C ... + 70 °C  | -25 °C ... + 70 °C  | -25 °C ... + 70 °C                                      |