Further information on the products introduced here and on the world of solutions from Phoenix Contact can be found at

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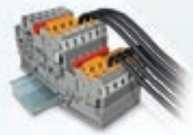
Or contact us directly.



Industrial Connection Systems, Marking and Mounting Material

CLIPLINE

Industrial Plug Connectors

PLUSCON

PCB Connection Systems and Electronic Housings

COMBICON

Surge Protection

TRABTECH

Signal Converters, Switching Devices and Power Supplies

INTERFACE

Components and Systems

AUTOMATION

Printed in Germany

MNR 52002754/15.11.2007-03

QUINT POWER

Power supply units for superior system availability

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INSPIRING INNOVATIONS

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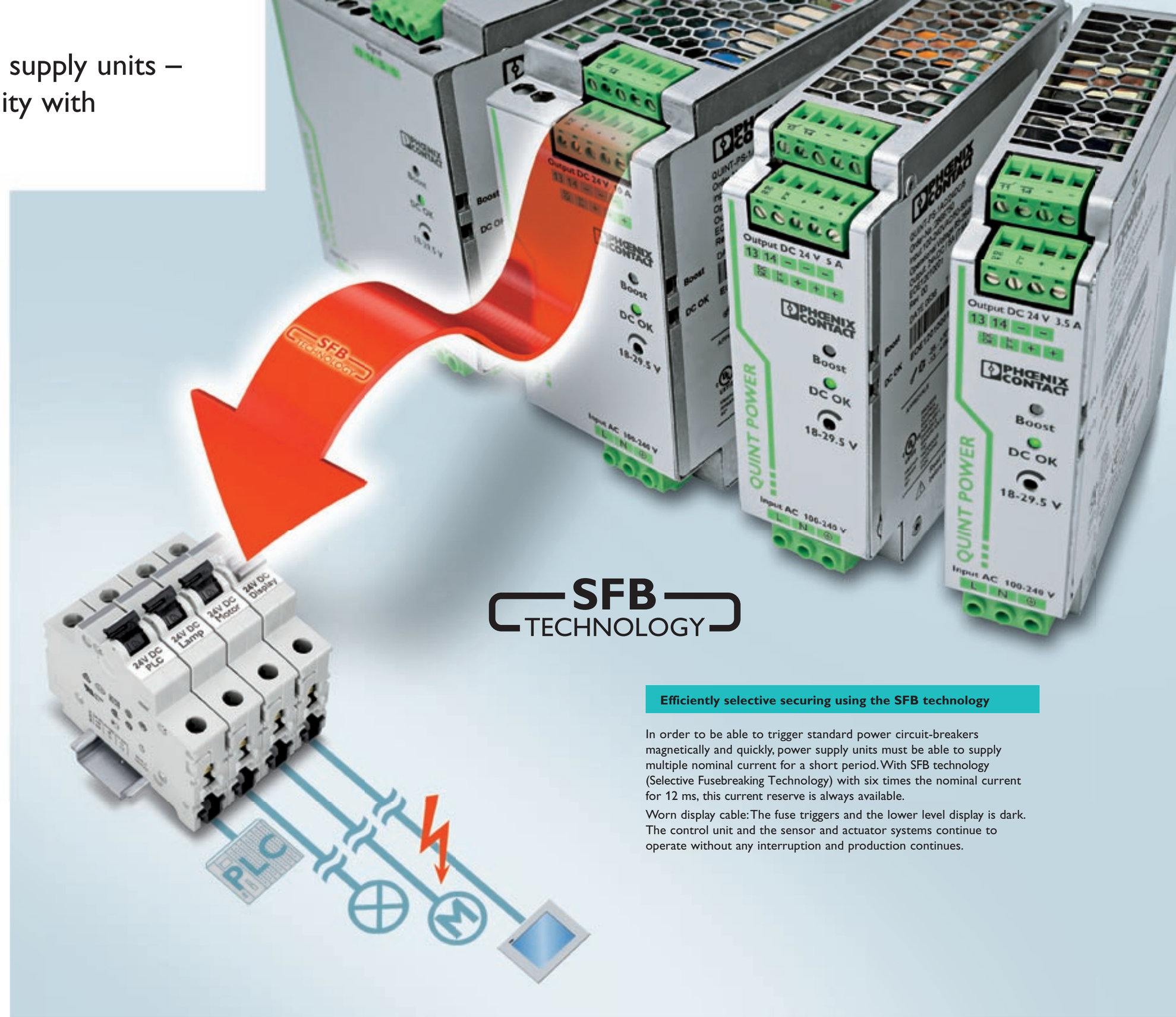
QUINT POWER power supply units – superior system availability with SFB technology

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.



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.

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

Service-friendly connection technology

COMBICON connectors

Rugged design

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

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

Compensation of voltage dips

Output voltage can be set on the front side

Minimize the installation costs

Third minus terminal serves as grounding terminal block

SFB TECHNOLOGY

Quick triggering of the commerical 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

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) 300 V AC short-term 90 – 350 V DC (0 Hz)	85 – 264 V AC (45–65 Hz) 300 V AC short-term 90 – 350 V DC (0 Hz)	85 – 264 V AC (45–65 Hz) 300 V AC short-term 90 – 350 V DC (0 Hz)	85 – 264 V AC (45–65 Hz) 300 V AC short-term 90 – 350 V DC (0 Hz)
Current consumption (nominal load)	approx. 1,35 A (120 V AC), 0,82 A (230 V AC)	approx. 1,2 A (120 V AC), 0,6 A (230 V AC)	approx. 2,77 A (120 V AC), 1,24 A (230 V AC)	approx. 5,1 A (120 V AC)/ 2,3 A (230 V AC)
Inrush current limitation/ I^2t (+25°C typ.)	< 20 A / < 2 A^2s	< 15 A / < 1 A^2s	< 15 A / < 1,5 A^2s	< 20 A / < 3,2 A^2s
Mains buffering at nominal load (typ.)	> 20 ms (120 V AC) > 80 ms (230 V AC)	> 30 ms (120 V AC) > 30 ms (230 V AC)	> 40 ms (120 V AC) > 40 ms (230 V AC)	> 20 ms (120 V AC) > 20 ms (230 V AC)
Input fuse/ recommended backup fuse (power curcuit-breaker)	internal 5 AT / B6 A, B10 A, B16 A	internal 5 AT / B6 A, B10 A, B16 A	internal 6,3 AT / B10 A, B16 A	internal 12 AT / 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, floating relay contact, LED	active signal output, floating relay contact, LED	active signal output, floating relay contact, LED	active signal output, floating relay contact, 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

Semi F47-200

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) 2x360 – 575 V AC (45–65 Hz) 450 – 800 V DC (0 Hz)	3x320 – 575 V AC (45–65 Hz) 2x360 – 575 V AC (45–65 Hz) 450 – 800 V DC (0 Hz)	3x320 – 575 V AC (45–65 Hz) 450 – 800 V DC (0 Hz)
Current consumption (nominal load)	approx. 3x 0,8 A (400 V AC)/ 0,7 A (500 V AC)	approx. 3x 1,2 A (400 V AC)/ 1 A (500 V AC)	approx. 3x 1,6 A (400 V AC)/ 1,3 A (500 V AC)
Inrush current limitation/ I^2t (+25°C typ.)	< 15 A / < 1 A^2s	< 15 A / < 1,5 A^2s	< 20 A / < 3,2 A^2s
Mains buffering at nominal load (typ.)	> 20 ms (400 V AC) > 30 ms (500 V AC)	> 20 ms (400 V AC) > 30 ms (500 V AC)	> 20 ms (400 V AC) > 30 ms (500 V AC)
Input fuse/ recommended backup fuse (power curcuit-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, floating relay contact, LED	active signal output, floating relay contact, LED	active signal output, floating relay contact, 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