

QUINT-PS/3AC/24DC/40 - Power supply unit



2866802

<https://www.phoenixcontact.com/pt/produtos/2866802>

Note que os dados aqui indicados foram obtidos a partir do catálogo online. Para informações e dados completos, consulte a documentação do utilizador. Aplicam-se as condições gerais de utilização para downloads da Internet



Primary-switched power supply unit QUINT POWER, Screw connection, DIN rail mounting, SFB Technology (Selective Fuse Breaking), input: 3-phase, output: 24 V DC / 40 A

Descrição do produto

QUINT POWER power supplies with maximum functionality

QUINT POWER circuit breakers magnetically and therefore quickly trip at six times the nominal current, for selective and therefore cost-effective system protection. The high level of system availability is additionally ensured, thanks to preventive function monitoring, as it reports critical operating states before errors occur.

Reliable starting of heavy loads takes place via the static power reserve POWER BOOST. Thanks to the adjustable voltage, all ranges between 5 V DC ... 56 V DC are covered.

Vantagens

- Reliable starting of difficult loads
- High level of system availability even in the event of permanent phase failure
- Preventive function monitoring

Dados comerciais

N.º de artigo	2866802
Pcs./Emb	1 Unidade
Quantidade mínima de pedido	1 Unidade
Chave comercial	CMP
Chave de produto	CMPQ33
Página de catálogo	Página 211 (C-4-2017)
GTIN	4046356152877
Peso por unidade (inclusive embalagem)	3 005 g
Peso por unidade (excluindo embalagem)	2 954 g
Número do imposto alfandegário	85044095
País de origem	TH

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Dados técnicos

Input data

AC operation

Nominal input voltage range	3x 400 V AC ... 500 V AC
Input voltage range	3x 400 V AC ... 500 V AC -20 % ... +15 %
Voltage type of supply voltage	AC/DC
Inrush current	< 15 A (at 25 °C)
Inrush current integral (I^2t)	< 1 A ² s
Inrush current limitation	15 A
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Mains buffering time	> 25 ms (400 V AC) > 35 ms (500 V AC)
Current consumption	3x 2.1 A (400 V AC) 3x 1.5 A (500 V AC)
Nominal power consumption	1342 VA
Protective circuit	Transient surge protection; Varistor, gas-filled surge arrester
Power factor (cos phi)	0.76
Typical response time	< 0.5 s
Permissible backup fuse	B6 B10 B16 AC:
Permissible DC backup fuse	DC: Connect a suitable fuse upstream
Recommended breaker for input protection	6 A ... 20 A (Characteristic B, C, D, K or comparable)
Discharge current to PE	< 3.5 mA

DC operation

Nominal input voltage range	± 500 V DC ... 600 V DC
Input voltage range	500 V DC ... 600 V DC -10 % ... +34 % (mid-point earthed)
Current consumption	2.2 A (500 V DC) 1.9 A (600 V DC)
Recommended breaker for input protection	1x 6 A ≥ 1000 V DC (10 x 38 mm, 30 kA L/R = 2 ms)

Output data

Efficiency	typ. 94 % (400 V AC)
Output characteristic	U/I
Nominal output voltage	24 V DC ±1 %
Setting range of the output voltage (U_{Set})	18 V DC ... 29.5 V DC (> 24 V DC, constant capacity restricted)
Nominal output current (I_N)	40 A
POWER BOOST (I_{Boost})	45 A (-25 °C ... 40 °C permanent, U_{OUT} = 24 V DC)
Static Boost ($I_{Stat.Boost}$)	45 A
Selective Fuse Breaking (I_{SFB})	215 A (12 ms)
Magnetic circuit breaker tripping	B2 / B4 / B6 / B10 / B16 / B25 / C2 / C4 / C6 / C13
Derating	60 °C ... 70 °C (2.5 %/K)

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Feedback voltage resistance	$\leq 35 \text{ V DC}$
Protection against overvoltage at the output (OVP)	$\leq 35 \text{ V DC}$
Control deviation	$< 1 \%$ (change in load, static 10 % ... 90 %)
	$< 3 \%$ (change in load, dynamic 10 % ... 90 %)
	$< 0.1 \%$ (change in input voltage $\pm 10 \%$)
Residual ripple	$< 40 \text{ mV}_{PP}$ (with nominal values)
Short-circuit-proof	yes
Output power	960 W
	1080 W
Peak switching voltages nominal load	$< 5 \text{ mV}_{PP}$ (at nominal values, 20 MHz)
Maximum no-load power dissipation	18 W
Power loss nominal load max.	63 W
Rise time	$< 0.15 \text{ s}$ (U_{OUT} (10 % ... 90 %))
Connection in parallel	yes, for redundancy and increased capacity
Connection in series	yes

Signal: DC OK active

Output description	$U_{OUT} > 0.9 \times U_N$: High signal
Switching voltage range	18 V DC ... 24 V DC
Output voltage	+ 24 V DC
Maximum inrush current	$\leq 20 \text{ mA}$ (short-circuit-proof)
Continuous load current	$\leq 20 \text{ mA}$

Signal: DC OK floating

Output description	Relay contact, $U_{OUT} > 0.9 \times U_N$: Contact closed
Maximum switching voltage	30 V AC/DC
	24 V DC
Maximum inrush current	0.5 A
	1 A
Continuous load current	$\leq 1 \text{ A}$

Signal: POWER BOOST, active

Output description	$I_{OUT} < I_N$: High signal
Switching voltage range	18 V DC ... 24 V DC
Output voltage	+ 24 V DC
Maximum inrush current	$\leq 20 \text{ mA}$ (short-circuit-proof)
Continuous load current	$\leq 20 \text{ mA}$

Connection data

Input

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid max.	6 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	4 mm ²

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Conductor cross section AWG min.	18
Conductor cross section AWG max.	10
Stripping length	7 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Output

Connection method	Screw connection
Conductor cross section, rigid min.	0.5 mm ²
Conductor cross section, rigid max.	16 mm ²
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	16 mm ²
Conductor cross section AWG min.	8
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4
Tightening torque, min	1.2 Nm
Tightening torque max	1.5 Nm

Signal

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid max.	6 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	4 mm ²
Conductor cross section AWG min.	18
Conductor cross section AWG max.	10
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Signaling

Types of signaling	LED
	Active switching output
	Relay contact
Operating voltage display	Green LED

Signal output: DC OK active

Status display	$U_{OUT} > 0.9 \times U_N$: "DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$: Flashing "DC OK" LED

Signal output: DC OK floating

Status display	$U_{OUT} > 0.9 \times U_N$: "DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$: Flashing "DC OK" LED

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Signal output: POWER BOOST, active

Status display	$I_{OUT} > I_N$: LED "BOOST" yellow
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Electrical properties

Number of phases	3.00
Insulation voltage input/output	4 kV AC (type test)
	2 kV AC (routine test)
Insulation voltage output / PE	500 V DC (routine test)
Insulation voltage input / PE	3.5 kV AC (type test)
	2 kV AC (routine test)

Product properties

Product type	Power supply
Product family	QUINT POWER
MTBF (IEC 61709, SN 29500)	> 880000 h (25 °C)
	> 500000 h (40 °C)
	> 216000 h (60 °C)

Insulation characteristics

Protection class	I
Degree of pollution	2

Dimensions

Width	96 mm
Height	130 mm
Depth	176 mm

Installation dimensions

Installation distance right/left	5 mm / 5 mm
Installation distance top/bottom	50 mm / 50 mm

Alternative assembly

Width	176 mm
Height	130 mm
Depth	99 mm

Mounting

Mounting type	DIN rail mounting
Assembly note	alignable: $P_N \geq 50\%$, 5 mm horizontally, 15 mm next to active components, 50 mm vertically alignable: $P_N < 50\%$, 0 mm horizontally, 40 mm vertically top, 20 mm vertically bottom
Mounting position	horizontal DIN rail NS 35, EN 60715
With protective coating	No

Material specifications

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Housing material	Metal
Hood version	Galvanized sheet steel, free from chrome (VI)
Side element version	Aluminum

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (start-up type tested)	-40 °C
Maximum altitude	5000 m
Climatic class	3K3 (in acc. with EN 60721)
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	5 Hz ... 100 Hz resonance search 0.7g, 90 min., resonance frequency 0.7g, 90 min. (in accordance with DNV GL Class A)

Standards and regulations

Rail applications	EN 50121-4
	EN 50121-3-2
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Electrical safety	IEC 61010-2-201 (SELV)
Standard - Equipment safety	GS (tested safety)
Standard – Safety extra-low voltage	IEC 61010-1 (SELV)
	IEC 61010-2-201 (PELV)
Standard - Safe isolation	IEC 61010-2-201
Standard - safety for equipment for measurement, control, and laboratory use	IEC 61010-1
Standard - surge resistance	VDE 0160 (curve W2)

Overvoltage category

EN 61010-1	II (≤ 5000 m)
EN 62477-1	III (≤ 2000 m)
EN 61558-2-16	II (≤ 4000 m)

Approvals

CSA	CAN/CSA-C22.2 No. 60950-1-07
	CSA-C22.2 No. 107.1-01
Shipbuilding approval	DNV GL (EMC A), ABS, LR, RINA, NK, BV
UL approvals	UL Listed UL 508
	UL/C-UL Recognized UL 60950-1 (3-wire + PE, star net)
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)

EMC data

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Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Contact discharge	8 kV (Test Level 4)
Discharge in air	15 kV (Test Level 4)
Comments	Criterion A

Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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Electromagnetic HF field

Frequency range	80 MHz ... 1 GHz
Test field strength	20 V/m (Test Level 3)
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4
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Fast transients (burst)

Input	4 kV (Test Level 4 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Signal	2 kV (Test Level 4 - asymmetrical)
Comments	Criterion A

Surge voltage load (surge)

Standards/regulations	EN 61000-4-5
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Surge voltage load (surge)

Input	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Output	0.5 kV (Test Level 1 - symmetrical)
	0.5 kV (Test Level 1 - asymmetrical)
Signal	1 kV (Test Level 2 - asymmetrical)
Comments	Criterion B

Conducted interference

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Standards/regulations	EN 61000-4-6
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Conducted interference

I/O/S	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V (Test Level 3)

Emitted interference

Standards/regulations	EN 61000-6-3
Radio interference voltage in acc. with EN 55011	EN 55011 (EN 55022) Class B, area of application: Industry and residential
Emitted radio interference in acc. with EN 55011	EN 55011 (EN 55022) Class B, area of application: Industry and residential

Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

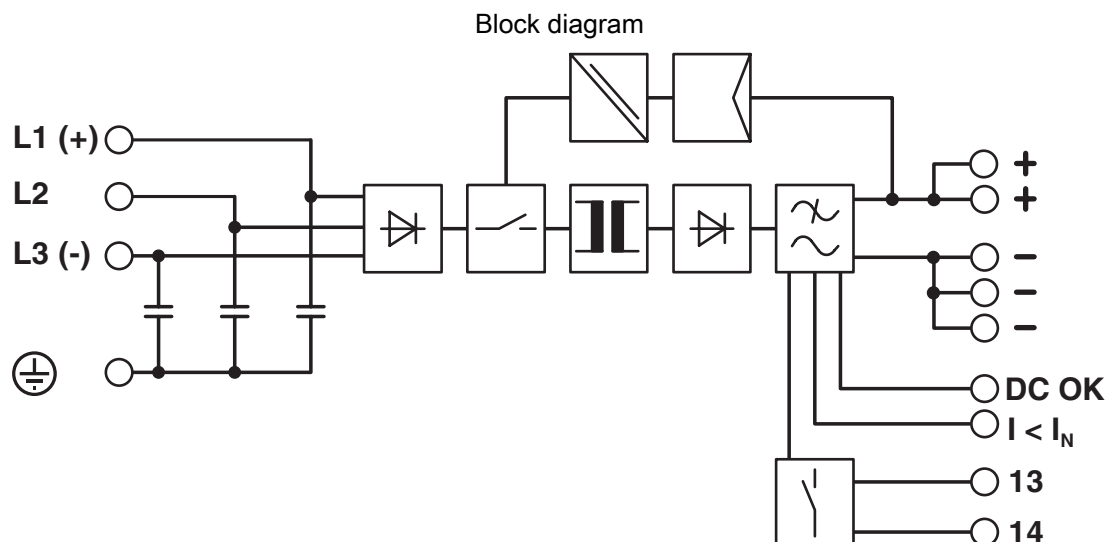
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Desenhos



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Certificações

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pt/produtos/2866802>



cUL Recognized

ID de certificação: FILE E 211944



UL Recognized

ID de certificação: FILE E 211944



IECEE CB Scheme

ID de certificação: SI-2973



EAC

ID de certificação: EAC-Zulassung



LR

ID de certificação: LR22301698TA-02



NK

ID de certificação: TA24091M



BV

ID de certificação: 21004/C1 BV



EAC

ID de certificação: RU S-DE.BL08.W.00764



UL Listed

ID de certificação: FILE E 123528



cUL Listed

ID de certificação: FILE E 123528



RINA

ID de certificação: ELE333522XG

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ABS

ID de certificação: 23-2355407-PDA



Type approved

ID de certificação: SI-SIQ BG 005/009

SEMI F47

ID de certificação: SEMI F47



EAC

ID de certificação: RU S-DE.BL08.W.00764



IECEE CB Scheme

ID de certificação: SI-11173



NK

ID de certificação: TA22564M

DNV

ID de certificação: TAA000030X



cCSAus

ID de certificação: 2164434



cUL Listed

ID de certificação: FILE E 199827



UL Listed

ID de certificação: FILE E 199827

cULus Recognized

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Classificações

ECLASS

ECLASS-11.0	27040701
ECLASS-12.0	27040701
ECLASS-13.0	27040701

ETIM

ETIM 9.0	EC002540
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS

Cumpra os requisitos de substância segundo a Diretiva RoHS	Sim
isenções tanto quanto conhecido	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	Uma lista de declaração de acordo com a RoHS da China relativa a artigos encontra-se na área de transferências do respetivo artigo, em "Declaração do fabricante". Para todos os artigos com EFUP-E não é emitida nem necessária uma tabela de declaração de acordo com a RoHS da China.

EU REACH SVHC

Nota sobre as substâncias candidatas ao REACH (n.º CAS)	Lead(n.º CAS: 7439-92-1)
SCIP	981c8c1b-5ae7-4fa3-a960-31711c622f2b

EF3.0 Climate Change

CO2e kg	98,635 kg CO2e
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Acessórios

UTA 107 - DIN rail adapter

2853983

<https://www.phoenixcontact.com/pt/produtos/2853983>

Universal DIN rail adapter, for screwing on switchgear



UWA 182/52 - Mounting adapter

2938235

<https://www.phoenixcontact.com/pt/produtos/2938235>

Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on the top/bottom.



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QUINT-DIODE/12-24DC/2X20/1X40 - Redundancy module

2320157

<https://www.phoenixcontact.com/pt/produtos/2320157>



DIN rail diode module 12-24 V DC/2x20 A or 1x40 A. Uniform redundancy up to the consumer.

QUINT-ORING/24DC/2X20/1X40 - Redundancy module, with protective coating

2320186

<https://www.phoenixcontact.com/pt/produtos/2320186>



Active QUINT redundancy module for DIN rail mounting with ACB (Auto Current Balancing) Technology and monitoring functions, input: 24 V DC/2x 20 A, output: 24 V DC/1 x 40 A, including mounted UTA 107/30 universal DIN rail adapter

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CB TM1 1A SFB P - Thermomagnetic device circuit breaker

2800836

<https://www.phoenixcontact.com/pt/produtos/2800836>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB TM1 2A SFB P - Thermomagnetic device circuit breaker

2800837

<https://www.phoenixcontact.com/pt/produtos/2800837>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

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CB TM1 3A SFB P - Thermomagnetic device circuit breaker

2800838

<https://www.phoenixcontact.com/pt/produtos/2800838>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB TM1 4A SFB P - Thermomagnetic device circuit breaker

2800839

<https://www.phoenixcontact.com/pt/produtos/2800839>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

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CB TM1 5A SFB P - Thermomagnetic device circuit breaker

2800840

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Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB TM1 6A SFB P - Thermomagnetic device circuit breaker

2800841

<https://www.phoenixcontact.com/pt/produtos/2800841>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

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CB TM1 8A SFB P - Thermomagnetic device circuit breaker

2800842

<https://www.phoenixcontact.com/pt/produtos/2800842>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB TM1 10A SFB P - Thermomagnetic device circuit breaker

2800843

<https://www.phoenixcontact.com/pt/produtos/2800843>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

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CB TM1 12A SFB P - Thermomagnetic device circuit breaker

2800844

<https://www.phoenixcontact.com/pt/produtos/2800844>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB TM1 16A SFB P - Thermomagnetic device circuit breaker

2800845

<https://www.phoenixcontact.com/pt/produtos/2800845>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

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PLT-SEC-T3-3S-230-FM - Type 3 surge protection device

2905230

<https://www.phoenixcontact.com/pt/produtos/2905230>



Plug-in device protection, according to type 3/class III, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with integrated surge-proof fuse and remote indication contact.

PLT-SEC-T3-24-FM-UT - Type 3 surge protection device

2907916

<https://www.phoenixcontact.com/pt/produtos/2907916>



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage: 24 V AC/DC

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E/AL-NS 35 - End bracket

1201662

<https://www.phoenixcontact.com/pt/produtos/1201662>



End clamp, for end support of UKH 50 to UKH 240, is pushed onto DIN rail NS 35 and fixed with 2 screws, width: 10 mm, color: aluminum

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