Product Brief 2019

Power Quality Solutions

Active Harmonic Filters and Power Optimizers PQSine S Series

TDK has been offering a comprehensive range of key components for power factor correction (PFC) and power quality solutions (PQS) for many years.

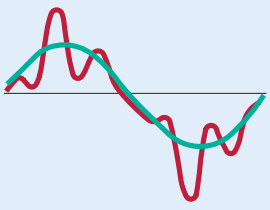
In the past, most consumer loads were linear, i.e. when they were connected to a sinusoidal voltage, the current was also sinusoidal. In the meantime, the use of power electronics has significantly increased. These devices are usually non-linear, i.e. when connected to a sinusoidal voltage they produce non-sinusoidal currents which may create problems for other devices.

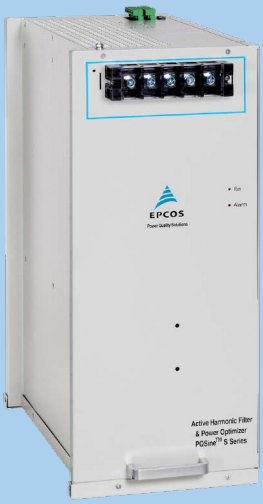
Besides passive filters, more and more active harmonic filters are now used, especially where the PF is close to 1 and harmonic disturbances change frequently.

The PQSine S Series active filter and power optimizer from TDK

- Eliminate harmonics up to the 50th order
- Offer dynamic VAR compensation
- Balance the load actively to all phases
- Offer high performance
- Have three level topology
- Ensure integrated overload, overvoltage and undervoltage protection
- Ensure low life-cycle costs thanks to a modular concept and low losses

PQS





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Active Harmonic Filters and Power Optimizers PQSine S Series

The cleaner your grid, the higher your benefit

EPCOS active harmonic filters and power optimizers help to eliminate harmonic pollution from the grid, reduce power quality problems and use energy more efficiently and reliably.
Harmonic pollution is a growing problem with the increasing use of power electronics and non-linear loads (such as variable speed drives, UPS, computers, servers, TV sets, etc.).
The presence of harmonics increases the RMS current in power networks. The circulation of harmonic currents through the system impedance creates voltage harmonics which produce voltage distortions and thus deteriorate the quality of the supply voltage. This leads to higher operating and energy costs, production/ process downtimes, over-heating and malfunction of equipment.

The active harmonic filters PQSine S Series from TDK are based on the latest state of the art in power electronics technology. They are installed in parallel to the polluting loads. The active filter analyzes the line current and its associated harmonics and generates a compensation current which neutralizes the harmonic currents and creates an almost sinusoidal waveform (see **Figure 1)**.
Figure 2 shows the total current harmonic distortion without AHF PQSine S Series. **Figure 3** shows the result with activated AHF PQSine S Series, namely a cleaner grid. In addition to eliminating the harmonics, the AHF PQSine S Series active filter and power optimizer also actively balances the loads to all three phases, performs dynamic VAR compensation and even some transient compensation. These features avoid line resonance and ensure high performance and reliability.

Active harmonic filter

Figure 1 Principle of active filter

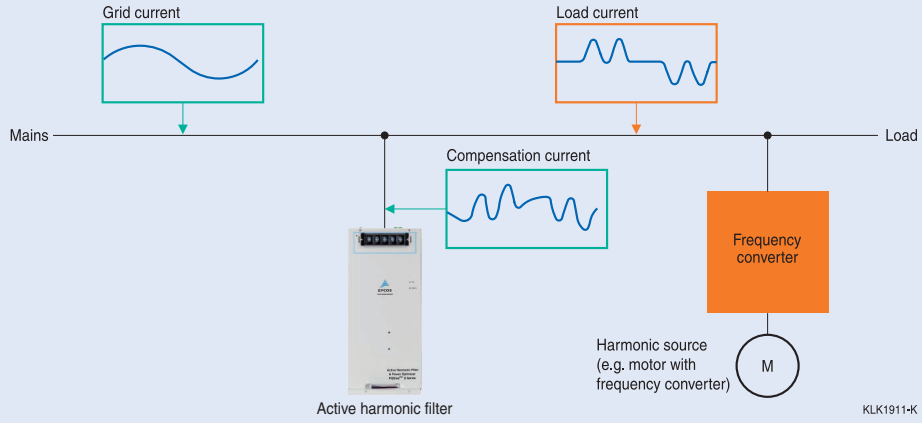


Figure 2 Total harmonic current distortion without active filter

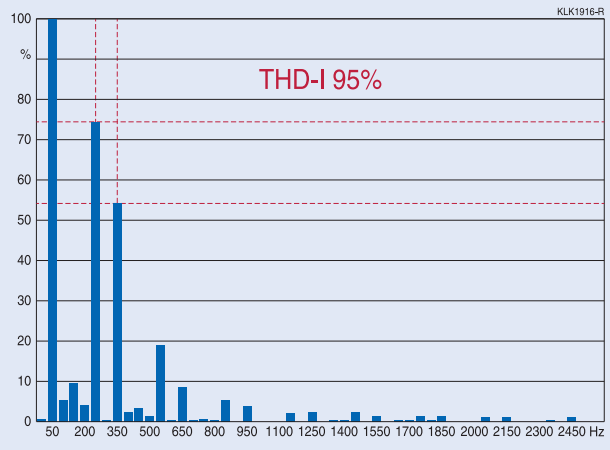
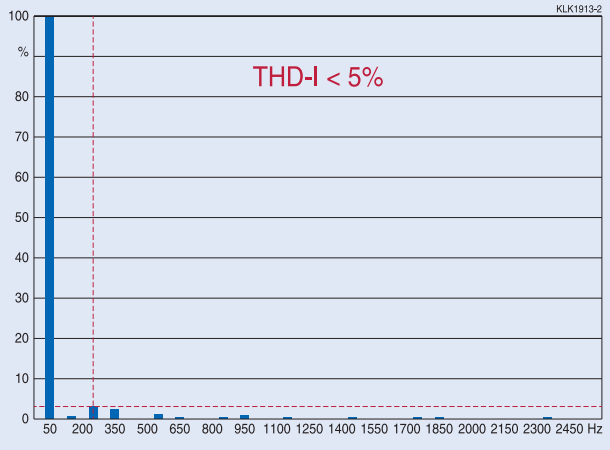


Figure 3 Total harmonic current distortion with active filter

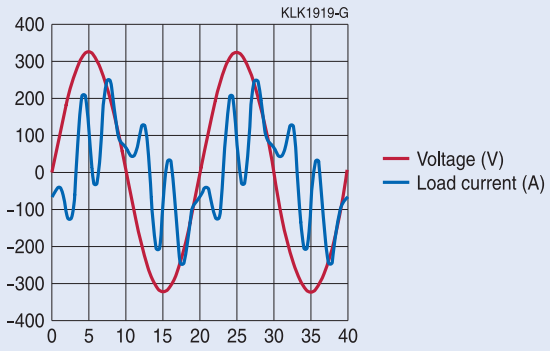


Active Harmonic Filters and Power Optimizers PQSine S Series

Active harmonic filter

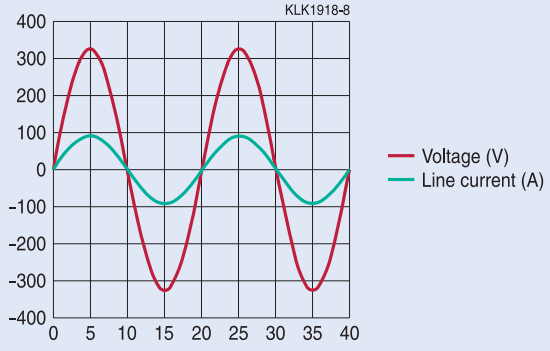
Without AHF PQSine S Series

Harmonic disturbances caused by e.g. actively non-linear loads



With AHF PQSine S Series

Reactive power harmonic oscillations are compensated



General information

The PQSine S Series is an active harmonic filter system designed to eliminate harmonic oscillations and consequently reduce costs. AHF PQSine S Series monitors the current signal and compensates the unwanted elements of the measured current. Thus, the filter ensures harmonic suppression independently of the number of loads. It also corrects the power factor, improving the system efficiency while reducing harmonic pollution.

Features

- Harmonic compensation up to 50th harmonic (individually selectable)
- Ultra-fast reactive power compensation (inductive and capacitive)
- Load balancing between phases and unloaded neutral wire
- Compact design, 3 level topology
- Modular system extendable
- Grid resonance detection
- Digital Control of FFT algorithm, intelligent FFT algorithm, instantaneous reactive algorithm
- Ethernet and Ethercat system for interconnection
- User-friendly menu operation
- High performance and reliability
- Insensitive to network conditions

Typical applications

Fast current harmonics and reactive power suppression e.g. for:

- Data centers
- UPS systems
- Green power generation (e.g. photovoltaics and wind turbines)
- Sensitive equipment manufacturing (e.g. silicon wafer production, semiconductor production)
- Industrial production machines
- Electrical welding systems
- Plastic industry machinery (extruders, injection molders)
- Office buildings and shopping centers (3rd and triple harmonic cancellation and neutral conductor unloading)

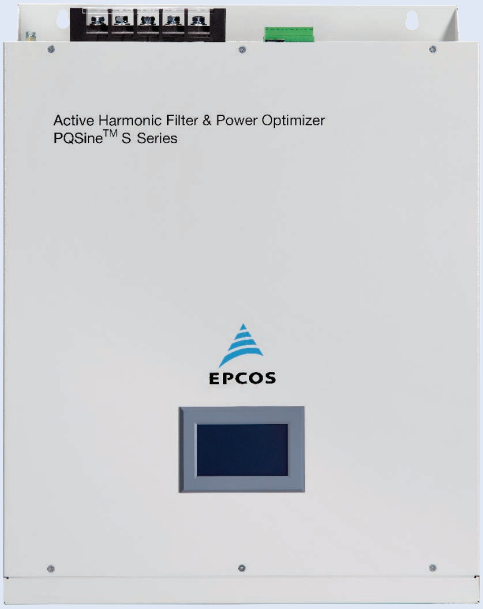
Safety features

- Highest safety and reliability
- Overload protection
- Internal short-circuit protection
- Overheating protection
- Overvoltage and undervoltage protection
- Inverter bridge protection
- Resonance protection
- Fan fault alarm

Active Harmonic Filters and Power Optimizers PQSine S Series

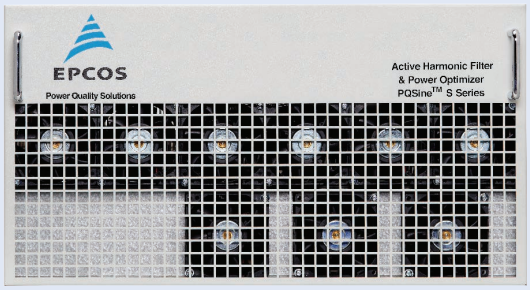
Depending on your needs, TDK offers either complete panels, wall mounted cabinets or modules. The state of the art modular design of PQSine S Series offering the advantage that in case of service, the downtime keeps at a minimum.

Wall-mounted panel

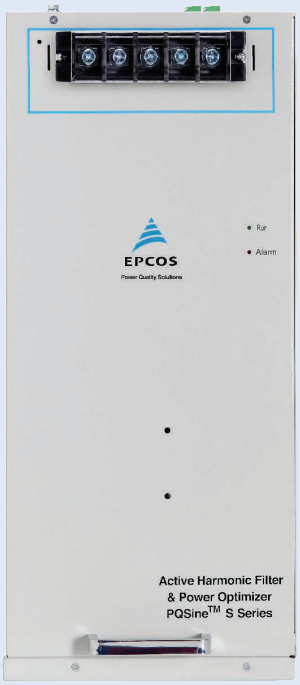


Floor-mounted panel

Horizontal module



Vertical module



Active Harmonic Filters and Power Optimizers PQSine S Series

Advantages of AHF PQSine S Series three-level NPC topology

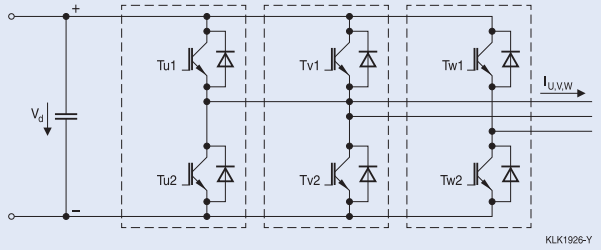
The AHF PQSine S Series range operates on the basis of a three-level Neutral-Point-Clamped (NPC) topology circuit. As can be seen from the diagrams below, the conventional two-level circuit configuration consists of 6 IGBTs (two IGBT power devices in each phase leg and current path).

In case of a three-level topology, the circuit configuration consists of 12 IGBTs (four IGBT power devices in each phase leg and current path).

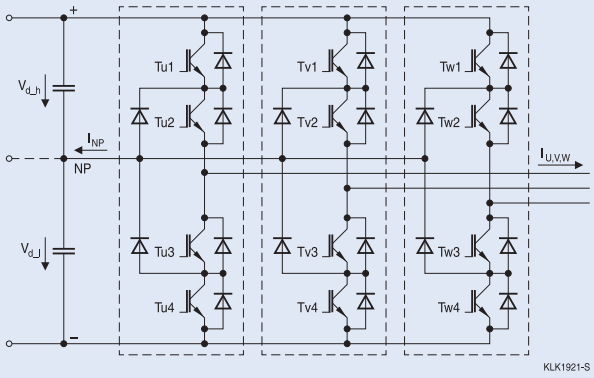
The three-level NPC circuit can produce three voltage levels at the output: the DC bus plus voltage, zero voltage and DC bus negative voltage. The two-level topology can only connect the output to either the plus bus or the negative bus.

It also ensures higher quality and better harmonics of the line-to-line output voltage, thus reducing the output filter requirement and the associated costs.

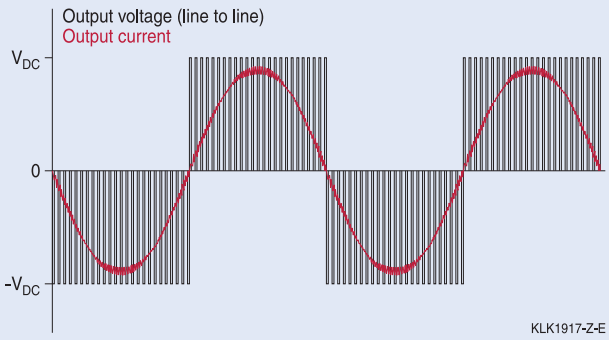
Two-level topology circuit



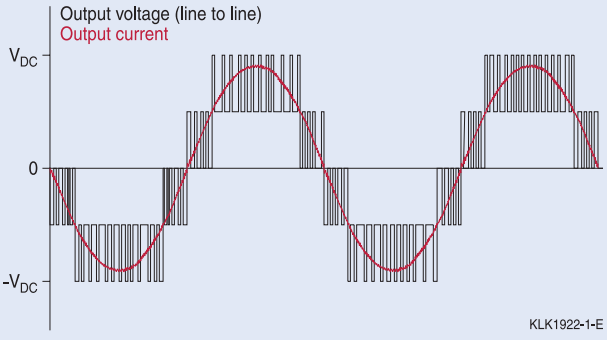
Three-level NPC topology circuit



Current and switched output voltage for a two-level topology



Current and switched output voltage for a three-level NPC topology



Main advantages of the three-level NPC topology

- Lower losses: only half of the voltage has to be switched, thus reducing the switching losses in the transistor. Three-level solutions are characterized by reduced circuit losses and higher efficiency, thus supporting energy-saving concepts.
- Smaller output current ripple: the NPC three-level topology has a lower ripple in the output current and half of the output voltage transient thanks to a higher quality output voltage. This improves performance and reduces the internal filter requirement.

Active Harmonic Filters and Power Optimizers PQSine S Series

Technical data and specifications			
Rated voltage	380 V (228 … 456 V)	480 V (384 … 552 V)	690 V (483 … 793 V)
Mains frequency	50/60 Hz (range: 45 … 62 Hz)		
Filter current	25, 35, 50, 60, 100, 150 A	75, 90 A	75, 90 A
Neutral filtering capability	3 times the rated filter current (in case of 4 wire device)		
Harmonic current compensation range	2^{nd} to 50^{th} harmonic order, or specified harmonics 0 to 110%		
Rate of harmonic reduction	> 97%[1)]		
Typical power losses	< 3% (depending of the load)		
Target power factor	Adjustable from –1 to 1		
Switching/control frequency	20 kHz/20 kHz		
Reaction time	Approx. 20 µs		
Overall response time	< 5 ms		
Harmonic compensation	Available		
Reactive power compensation	Available		
Unbalance compensation	Available		
Display	All systems include a 7" TFT color control / display unit (touch screen)		
Communication ports	RS485 and network port (RJ45)		
Communication protocols	Modbus (RTU), TCP/IP (Ethernet)		
Fault alarm	Available, max. 500 alarm records		
Noise level	< 56 dB up to 100 A, < 65 dB for 150 A	< 65 dB (depending on the model)	
Protection functions	Overvoltage, undervoltage, short-circuit, inverter bridge inverse, overcompensation		
Operating temperature	–10 to +40 °C without derating		
Relative humidity	5 to 95%, non-condensation		
Cooling	75, 151, 300, 405 L/sec (25-35, 50-60, 75-100, 150 A)	359 L/sec	
Protection class	IP 20 according to IEC 529 (customizable)		
Panel color	RAL7035 light grey		
Altitude	1500. Between 1500 to 4000 m the power decreases by 1% for every additional 100 m, according to GB/T3859.2		
Qualifications	CE, IEEE 61000	CE, ETL (UL 508 and CSA C22.2 # 2014), IEEE 61000	
Compliance with standards	IEEE 519, ER G5/4		

[1)] For typical harmonic order distortions

Active Harmonic Filters and Power Optimizers
PQSine S Series

EPCOS

400 V PQSine S Series – 3P4W modules

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Vertical rack modules							
PQSM4025S303	25	228	456	Rack modules	18	190 × 490 × 543	B44066F4025S303
PQSM4035S303	35	228	456	Rack modules	18	190 × 490 × 543	B44066F4035S303
PQSM4050S303	50	228	456	Rack modules	35	190 × 490 × 543	B44066F4050S303
PQSM4060S303	60	228	456	Rack modules	35	190 × 490 × 543	B44066F4060S303
PQSM4100S303	100	228	456	Rack modules	48	255 × 508 × 588	B44066F4100S303
PQSM4150S303	150	228	456	Rack modules	62	302 × 579 × 575	B44066F4150S303
Horizontal rack modules							
PQSM4025S300	25	228	456	Rack modules	18	484 × 470 × 150	B44066F4025S300
PQSM4035S300	35	228	456	Rack modules	18	484 × 470 × 150	B44066F4035S300
PQSM4050S300	50	228	456	Rack modules	35	484 × 590 × 190	B44066F4050S300
PQSM4060S300	60	228	456	Rack modules	35	484 × 590 × 190	B44066F4060S300
PQSM4100S300	100	228	456	Rack modules	48	484 × 600 × 230	B44066F4100S300
PQSM4150S300	150	228	456	Rack modules	62	530 × 520 × 269	B44066F4150S300

400 V PQSine S Series – 3P3W modules

Type	Rated filter current A	System voltage min./max. V		Connection variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Vertical rack modules							
PQSM3025S303	25	228	456	Rack modules	18	190 × 490 × 543	B44066F3025S303
PQSM3035S303	35	228	456	Rack modules	18	190 × 490 × 543	B44066F3035S303
PQSM3050S303	50	228	456	Rack modules	35	190 × 490 × 543	B44066F3050S303
PQSM3060S303	60	228	456	Rack modules	35	190 × 490 × 543	B44066F3060S303
PQSM3100S303	100	228	456	Rack modules	48	255 × 508 × 588	B44066F3100S303
PQSM3150S303	150	228	456	Rack modules	62	302 × 579 × 575	B44066F3150S303
Horizontal rack modules							
PQSM3025S300	25	228	456	Rack modules	18	484 × 470 × 150	B44066F3025S300
PQSM3035S300	35	228	456	Rack modules	18	484 × 470 × 150	B44066F3035S300
PQSM3050S300	50	228	456	Rack modules	35	484 × 590 × 190	B44066F3050S300
PQSM3060S300	60	228	456	Rack modules	35	484 × 590 × 190	B44066F3060S300
PQSM3100S300	100	228	456	Rack modules	48	484 × 600 × 230	B44066F3100S300
PQSM3150S300	150	228	456	Rack modules	62	530 × 520 × 269	B44066F3150S300

Accessories ordering codes

Product description	Ordering code
7” TFT HMI color control/display unit, touch screen	B44066F9999S230
Optional internet/dry contact I/O unit	B44066F8900S230

Active Harmonic Filters and Power Optimizers PQSine S Series

EPCOS

400 V PQSine S Series – 3P4W systems							
Type	**Rated filter current A**	**System voltage min./max. V**		**Mounting variant**	**Approx. weight kg**	**Approx. dimensions (W × D × H) mm**	**Ordering code**
Wall mounted units[1]							
PQSW4025S344	25	228	456	Wall-mounted	18	440 × 150 × 490	B44066F4025S344
PQSW4035S344	35	228	456	Wall-mounted	18	440 × 150 × 490	B44066F4035S344
PQSW4050S344	50	228	456	Wall-mounted	35	440 × 192 × 610	B44066F4050S344
PQSW4060S344	60	228	456	Wall-mounted	35	440 × 192 × 610	B44066F4060S344
PQSW4100S344	100	228	456	Wall-mounted	48	440 × 232 × 625	B44066F4100S344
PQSW4150S344	150	228	456	Wall-mounted	62	505 × 286 × 565	B44066F4150S344
Cabinet with vertical rack modules[2]							
PQSF4100S310	100	228	456	Floor-mounted	308	1000 × 600 × 2200	B44066F4100S310
PQSF4150S310	150	228	456	Floor-mounted	322	1000 × 600 × 2200	B44066F4150S310
PQSF4200S310	200	228	456	Floor-mounted	356	1000 × 600 × 2200	B44066F4200S310
PQSF4250S310	250	228	456	Floor-mounted	370	1000 × 600 × 2200	B44066F4250S310
PQSF4300S310	300	228	456	Floor-mounted	384	1000 × 600 × 2200	B44066F4300S310
Cabinet with horizontal rack modules[2]							
PQSF4100S315	100	228	456	Floor-mounted	283	600 × 1000 × 2200	B44066F4100S315
PQSF4150S315	150	228	456	Floor-mounted	297	600 × 1000 × 2200	B44066F4150S315
PQSF4200S315	200	228	456	Floor-mounted	331	600 × 1000 × 2200	B44066F4200S315
PQSF4250S315	250	228	456	Floor-mounted	345	600 × 1000 × 2200	B44066F4250S315
PQSF4300S315	300	228	456	Floor-mounted	359	600 × 1000 × 2200	B44066F4300S315
PQSF4350S315	350	228	456	Floor-mounted	394	600 × 1000 × 2200	B44066F4350S315
PQSF4400S315	400	228	456	Floor-mounted	407	600 × 1000 × 2200	B44066F4400S315
PQSF4450S315	450	228	456	Floor-mounted	421	600 × 1000 × 2200	B44066F4450S315
PQSF4500S315	500	228	456	Floor-mounted	456	600 × 1000 × 2200	B44066F4500S315
PQSF4550S315	550	228	456	Floor-mounted	469	600 × 1000 × 2200	B44066F4550S315
PQSF4600S315	600	228	456	Floor-mounted	483	600 × 1000 × 2200	B44066F4600S315

[1] All systems include a 4.3" TFT color control/display unit (touch screen).

[2] All systems include a 7" TFT color control/display unit (touch screen).

External current transformers are not included.

Active Harmonic Filters and Power Optimizers
PQSine S Series

EPCOS

400 V PQSine S Series – 3P3W systems							
Type	**Rated filter current A**	**System voltage min./max. V**		**Mounting variant**	**Approx. weight kg**	**Approx. dimensions (W × D × H) mm**	**Ordering code**
Wall mounted units[1]							
PQSW3025S344	25	228	456	Wall-mounted	18	440 × 150 × 490	B44066F3025S344
PQSW3035S344	35	228	456	Wall-mounted	18	440 × 150 × 490	B44066F3035S344
PQSW3050S344	50	228	456	Wall-mounted	35	440 × 192 × 610	B44066F3050S344
PQSW3060S344	60	228	456	Wall-mounted	35	440 × 192 × 610	B44066F3060S344
PQSW3100S344	100	228	456	Wall-mounted	48	440 × 232 × 625	B44066F3100S344
PQSW3150S344	150	228	456	Wall-mounted	62	505 × 286 × 565	B44066F3150S344
Cabinet with vertical rack modules[2]							
PQSF3100S310	100	228	456	Floor-mounted	308	1000 × 600 × 2200	B44066F3100S310
PQSF3150S310	150	228	456	Floor-mounted	322	1000 × 600 × 2200	B44066F3150S310
PQSF3200S310	200	228	456	Floor-mounted	356	1000 × 600 × 2200	B44066F3200S310
PQSF3250S310	250	228	456	Floor-mounted	370	1000 × 600 × 2200	B44066F3250S310
PQSF3300S310	300	228	456	Floor-mounted	384	1000 × 600 × 2200	B44066F3300S310
Cabinet with horizontal rack modules[2]							
PQSF3100S315	100	228	456	Floor-mounted	283	600 × 1000 × 2200	B44066F3100S315
PQSF3150S315	150	228	456	Floor-mounted	297	600 × 1000 × 2200	B44066F3150S315
PQSF3200S315	200	228	456	Floor-mounted	331	600 × 1000 × 2200	B44066F3200S315
PQSF3250S315	250	228	456	Floor-mounted	345	600 × 1000 × 2200	B44066F3250S315
PQSF3300S315	300	228	456	Floor-mounted	359	600 × 1000 × 2200	B44066F3300S315
PQSF3350S315	350	228	456	Floor-mounted	394	600 × 1000 × 2200	B44066F3350S315
PQSF3400S315	400	228	456	Floor-mounted	407	600 × 1000 × 2200	B44066F3400S315
PQSF3450S315	450	228	456	Floor-mounted	421	600 × 1000 × 2200	B44066F3450S315
PQSF3500S315	500	228	456	Floor-mounted	456	600 × 1000 × 2200	B44066F3500S315
PQSF3550S315	550	228	456	Floor-mounted	469	600 × 1000 × 2200	B44066F3550S315
PQSF3600S315	600	228	456	Floor- mounted	483	600 × 1000 × 2200	B44066F3600S315

[1] All systems include a 4.3” TFT color control/display unit (touch screen).

[2] All systems include a 7” TFT color control/display unit (touch screen).

External current transformers are not included.

Active Harmonic Filters and Power Optimizers
PQSine S Series

EPCOS

480 V PQSine S Series – 3P4W systems

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM4075S408	75	384	552	Rack module	66	544 × 640 × 250	B44066F4075S408
PQSM4090S408	90	384	552	Rack module	66	544 × 640 × 250	B44066F4090S408
Wall-mounted variant[1)]							
PQSW4075S448	75	384	552	Wall-mounted	66	504 × 253 × 725	B44066F4075S448
PQSW4090S448	90	384	552	Wall-mounted	66	504 × 253 × 725	B44066F4090S448
Cabinet with horizontal rack modules[2)]							
PQSF4150S415	150	384	552	Floor-mounted	367	600 × 1000 × 2200	B44066F4150S415
PQSF4180S415	180	384	552	Floor-mounted	367	600 × 1000 × 2200	B44066F4180S415
PQSF4225S415	225	384	552	Floor-mounted	433	600 × 1000 × 2200	B44066F4225S415
PQSF4270S415	270	384	552	Floor-mounted	433	600 × 1000 × 2200	B44066F4270S415
PQSF4300S415	300	384	552	Floor-mounted	499	600 × 1000 × 2200	B44066F4300S415
PQSF4360S415	360	384	552	Floor-mounted	499	600 × 1000 × 2200	B44066F4360S415

480 V PQSine S Series – 3P3W systems

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM3075S408	75	384	552	Rack module	66	544 × 640 × 250	B44066F3075S408
PQSM3090S408	90	384	552	Rack module	66	544 × 640 × 250	B44066F3090S408
Wall-mounted variant[1)]							
PQSW3075S448	75	384	552	Wall-mounted	66	504 × 253 × 725	B44066F3075S448
PQSW3090S448	90	384	552	Wall-mounted	66	504 × 253 × 725	B44066F3090S448
Cabinet with horizontal rack modules[2)]							
PQSF3150S415	150	384	552	Floor-mounted	367	600 × 1000 × 2200	B44066F3150S415
PQSF3180S415	180	384	552	Floor-mounted	367	600 × 1000 × 2200	B44066F3180S415
PQSF3225S415	225	384	552	Floor-mounted	433	600 × 1000 × 2200	B44066F3225S415
PQSF3270S415	270	384	552	Floor-mounted	433	600 × 1000 × 2200	B44066F3270S415
PQSF3300S415	300	384	552	Floor-mounted	499	600 × 1000 × 2200	B44066F3300S415
PQSF3360S415	360	384	552	Floor-mounted	499	600 × 1000 × 2200	B44066F3360S415

[1)] The products have been tested by ETL according to UL 508 and CSA C22.2 # 2014.

[2)] All systems include a 7" TFT color control/display unit (touch screen).

External current transformers are not included.

Active Harmonic Filters and Power Optimizers
PQSine S Series

EPCOS

600 V PQSine S Series – 3P4W systems

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM4075S608	75	420	690	Rack module	66	544 × 640 × 250	B44066F4075S608
PQSM4090S608	90	420	690	Rack module	66	544 × 640 × 250	B44066F4090S608
Wall-mounted variant[1)]							
PQSW4075S648	75	420	690	Wall-mounted	66	504 × 253 × 725	B44066F4075S648
PQSW4090S648	90	420	690	Wall-mounted	66	504 × 253 × 725	B44066F4090S648
Cabinet with horizontal rack modules[2)]							
PQSF4150S615	150	420	690	Floor-mounted	367	600 × 1000 × 2200	B44066F4150S615
PQSF4180S615	180	420	690	Floor-mounted	367	600 × 1000 × 2200	B44066F4180S615
PQSF4225S615	225	420	690	Floor-mounted	433	600 × 1000 × 2200	B44066F4225S615
PQSF4270S615	270	420	690	Floor-mounted	433	600 × 1000 × 2200	B44066F4270S615
PQSF4300S615	300	420	690	Floor-mounted	499	600 × 1000 × 2200	B44066F4300S615
PQSF4360S615	360	420	690	Floor-mounted	499	600 × 1000 × 2200	B44066F4360S615

600 V PQSine S Series – 3P3W systems

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM3075S608	75	420	690	Rack module	66	544 × 640 × 250	B44066F3075S608
PQSM3090S608	90	420	690	Rack module	66	544 × 640 × 250	B44066F3090S608
Wall-mounted variant[1)]							
PQSW3075S648	75	420	690	Wall-mounted	66	504 × 253 × 725	B44066F3075S648
PQSW3090S648	90	420	690	Wall-mounted	66	504 × 253 × 725	B44066F3090S648
Cabinet with horizontal rack modules[2)]							
PQSF3150S615	150	420	690	Floor-mounted	367	600 × 1000 × 2200	B44066F3150S615
PQSF3180S615	180	420	690	Floor-mounted	367	600 × 1000 × 2200	B44066F3180S615
PQSF3225S615	225	420	690	Floor-mounted	433	600 × 1000 × 2200	B44066F3225S615
PQSF3270S615	270	420	690	Floor-mounted	433	600 × 1000 × 2200	B44066F3270S615
PQSF3300S615	300	420	690	Floor-mounted	499	600 × 1000 × 2200	B44066F3300S615
PQSF3360S615	360	420	690	Floor-mounted	499	600 × 1000 × 2200	B44066F3360S615

[1)] The products have been tested by ETL according to UL 508 and CSA C22.2 # 2014.

[2)] All systems include a 7" TFT color control/display unit (touch screen).

External current transformers are not included.

Active Harmonic Filters and Power Optimizers
PQSine S Series

EPCOS

690 V PQSine S Series – 3P4W systems

Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM4075S708	75	483	793	Rack module	66	544 × 640 × 250	B44066F4075S708
PQSM4090S708	90	483	793	Rack module	66	544 × 640 × 250	B44066F4090S408
Wall-mounted variant[1)]							
PQSW4075S748	75	483	793	Wall-mounted	66	504 × 253 × 725	B44066F4075S748
PQSW4090S748	90	483	793	Wall-mounted	66	504 × 253 × 725	B44066F4090S748
Cabinet with horizontal rack modules[2)]							
PQSF4150S715	150	483	793	Floor-mounted	367	600 × 1000 × 2200	B44066F4150S715
PQSF4180S715	180	483	793	Floor-mounted	367	600 × 1000 × 2200	B44066F4180S715
PQSF4225S715	225	483	793	Floor-mounted	433	600 × 1000 × 2200	B44066F4225S715
PQSF4270S715	270	483	793	Floor-mounted	433	600 × 1000 × 2200	B44066F4270S715
PQSF4300S715	300	483	793	Floor-mounted	499	600 × 1000 × 2200	B44066F4300S715
PQSF4360S715	360	483	793	Floor-mounted	499	600 × 1000 × 2200	B44066F4360S715

690 V PQSine S Series – 3P3W systems

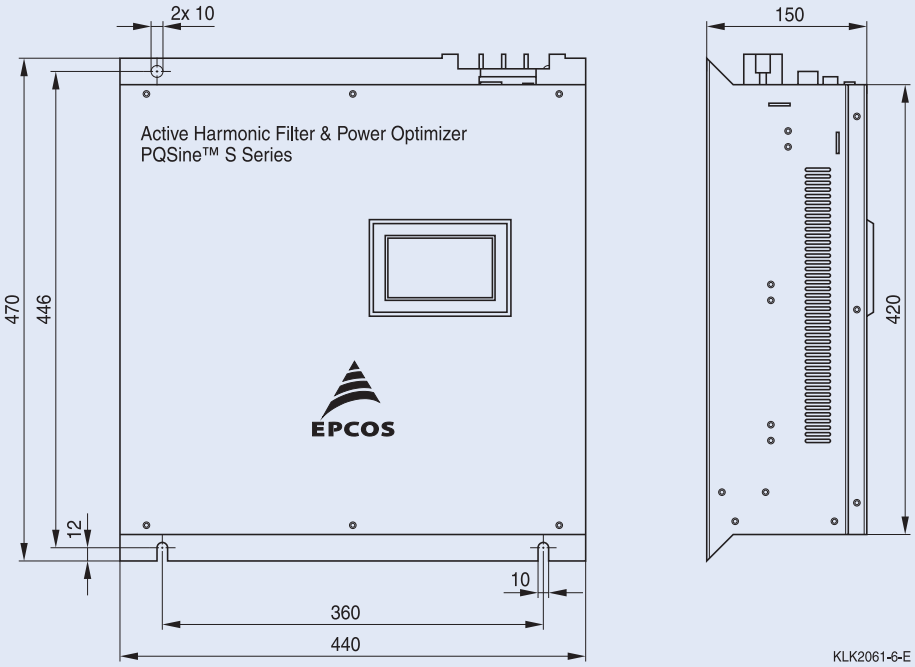
Type	Rated filter current A	System voltage min./max. V		Mounting variant	Approx. weight kg	Approx. dimensions (W × D × H) mm	Ordering code
Horizontal rack modules[1)]							
PQSM3075S708	75	483	793	Rack module	66	544 × 640 × 250	B44066F3075S708
PQSM3090S708	90	483	793	Rack module	66	544 × 640 × 250	B44066F3090S708
Wall-mounted variant[1)]							
PQSW3075S748	75	483	793	Wall-mounted	66	504 × 253 × 725	B44066F3075S748
PQSW3090S748	90	483	793	Wall-mounted	66	504 × 253 × 725	B44066F3090S748
Cabinet with horizontal rack modules[2)]							
PQSF3150S715	150	483	793	Floor-mounted	367	600 × 1000 × 2200	B44066F3150S715
PQSF3180S715	180	483	793	Floor-mounted	367	600 × 1000 × 2200	B44066F3180S715
PQSF3225S715	225	483	793	Floor-mounted	433	600 × 1000 × 2200	B44066F3225S715
PQSF3270S715	270	483	793	Floor-mounted	433	600 × 1000 × 2200	B44066F3270S715
PQSF3300S715	300	483	793	Floor-mounted	499	600 × 1000 × 2200	B44066F3300S715
PQSF3360S715	360	483	793	Floor-mounted	499	600 × 1000 × 2200	B44066F3360S715

[1)] The products have been tested by ETL according to UL 508 and CSA C22.2 # 2014.

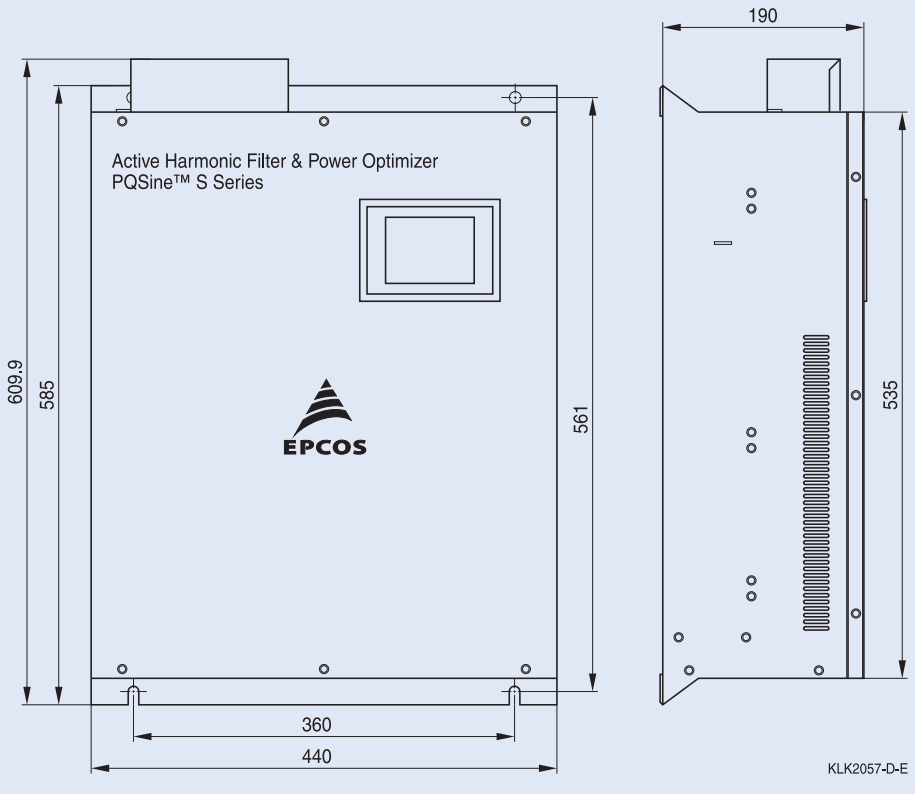
[2)] All systems include a 7" TFT color control / display unit (touch screen).
External current transformers are not included.

Active Harmonic Filters and Power Optimizers PQSine S Series

Wall-mounted panel 25 to 35 A

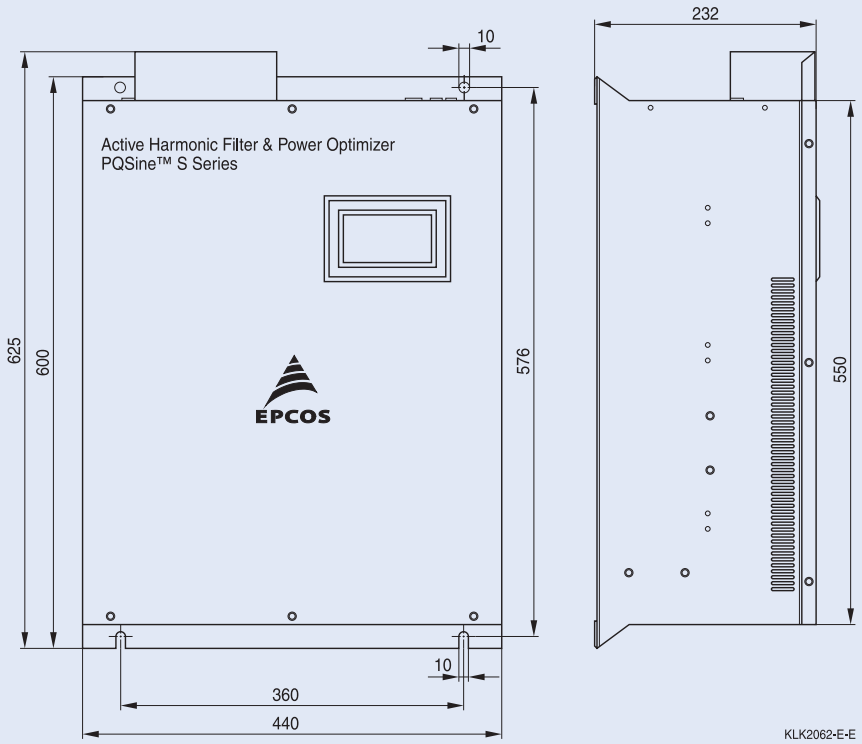


Wall-mounted panel 50 to 60 A

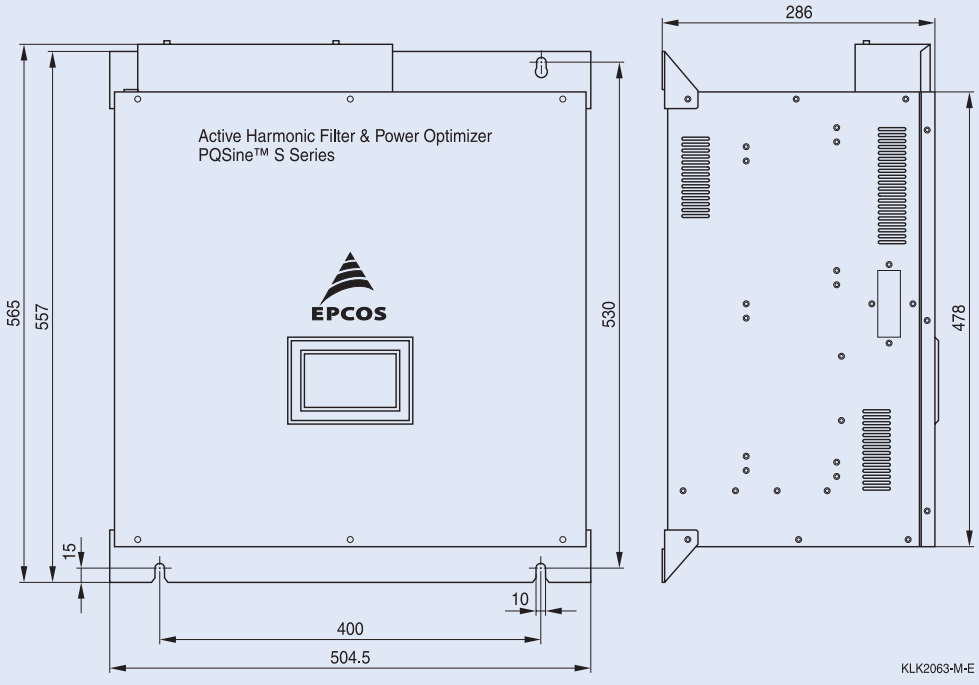


Active Harmonic Filters and Power Optimizers PQSine S Series

Wall-mounted panel 100 A

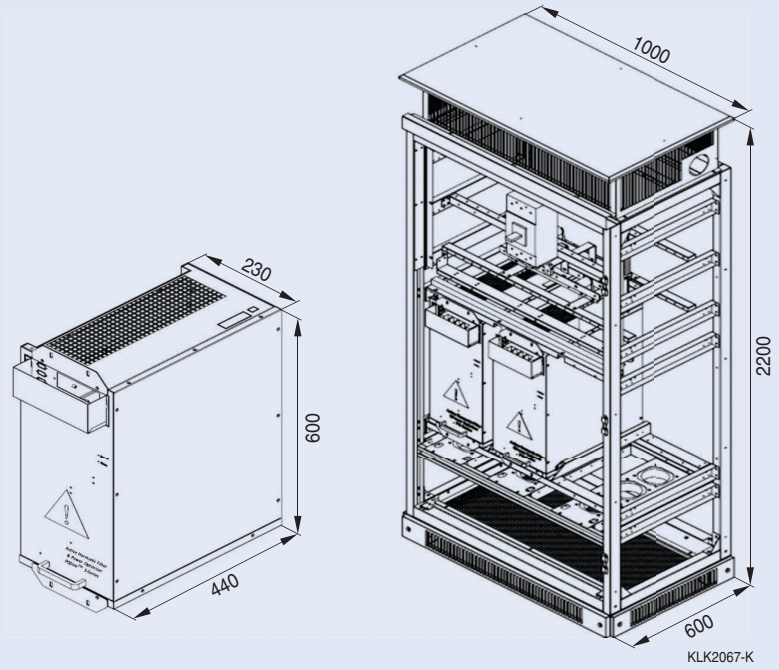


Wall-mounted panel 150 A

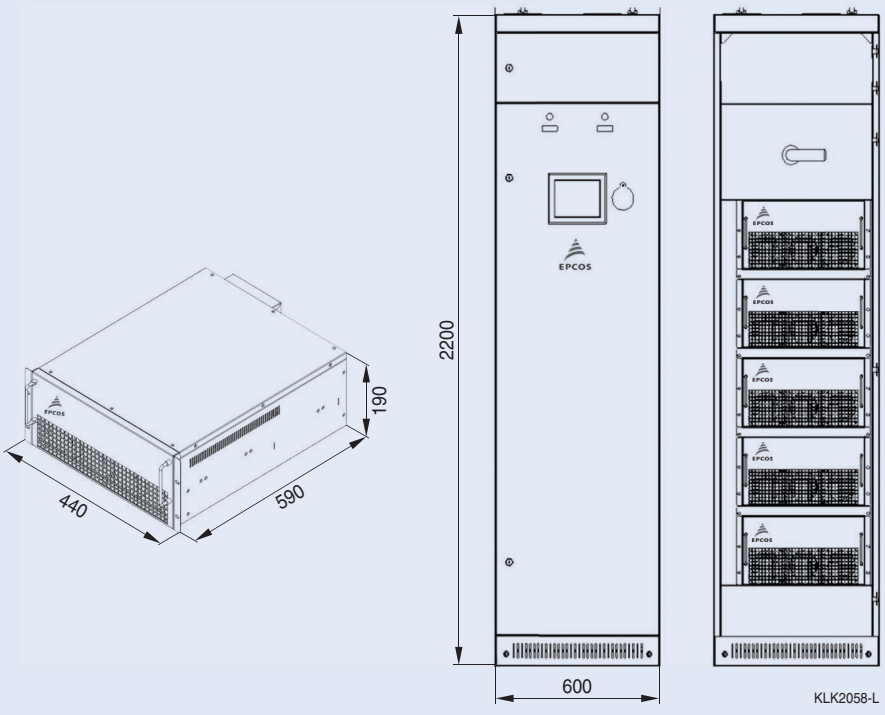


Active Harmonic Filters and Power Optimizers PQSine S Series

Drawings vertical mounting variant (module 100 A/floor-mounted panel 200 A)



Drawings horizontal mounting variant (module 60 A/floor-mounted panel 300 A)



Active Harmonic Filters and Power Optimizers PQSine S Series

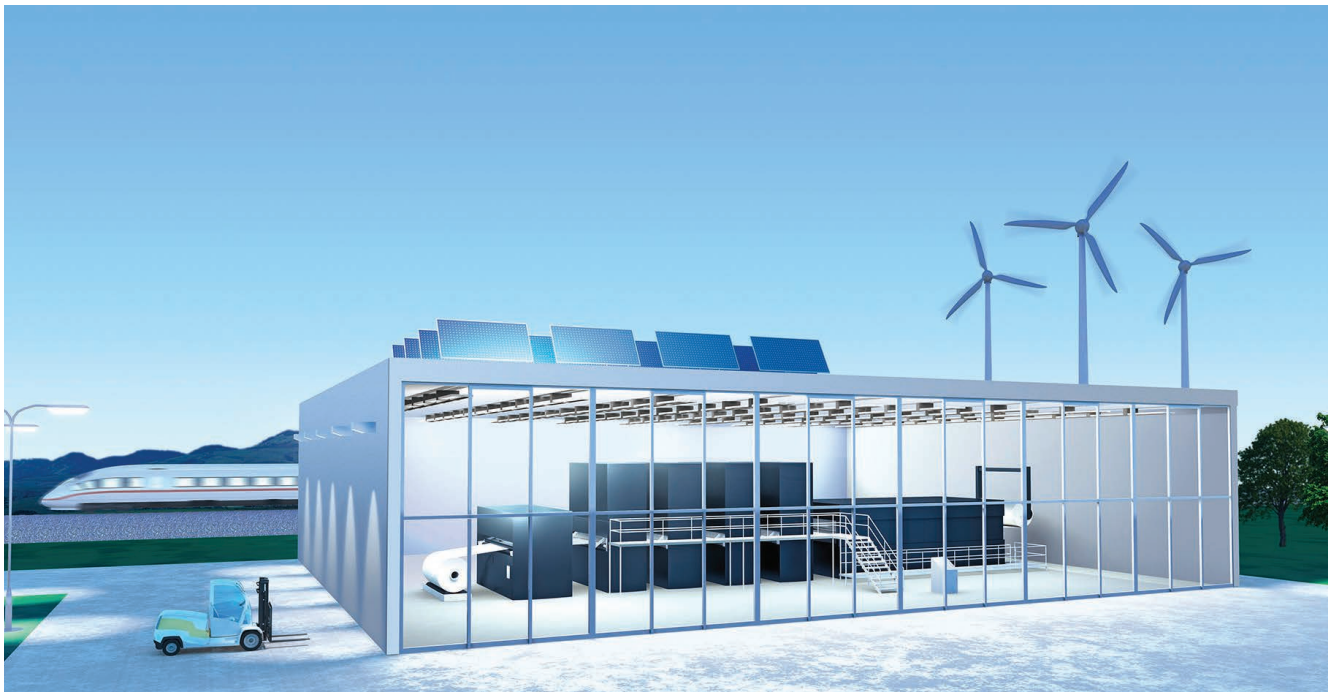
Ordering code nomenclature

E.g. B44066F3050S300

- Code for PQSine S Series active harmonic filter and power optimizer
- Connection: 3 for 3-wire (3P3W) / 4 for 4-wire (3P4W)
- Module: 25 A / 35 A / 50 A / 60 A / 100 A / 150 A
- Version number
- 0 for module only/ 4 for 520 mm panel widh/ 5 for 570 mm panel width/ ...
- 0 for module/ 1 for panel/ 4 for wall mounted/ ...
- Rated voltage: e.g. 3 for 380 V/ 4 for 480 V/ 6 for 690 V

Display of ordering codes for TDK Electronics products

The ordering code for one and the same product can be represented differently in data sheets, data books, other publications and the website of TDK Electronics, or in order-related documents such as shipping notes, order confirmations and product labels. The varying representations of the ordering codes are due to different processes employed and do not affect the specifications of the respective products. Detailed information can be found on the Internet under www.tdk-electronics.tdk.com/orderingcodes.



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