Power Quality Solutions

Static Var Generation PQvar Series

Series/Type:	**3P3W & 3P4W Rack/Wall/Floor Mounted / PQS*V**
Ordering code:	**B44066F*V**
Date:	August 2026
Version:	4.0

© TDK Electronics AG 2026. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without TDK Electronics' prior express consent is prohibited.

Description

- Three level topology
- Real time response to reactive power requirements
- Real time load balancing
- Continuous current monitoring
- Compensates the reactive part of the measured current

Features

- User friendly menu operation via TFT color touch screen
- Ultra-fast reactive power compensation
- Load balancing between phases
- Advanced digital control FFT
- Intelligent and instantaneous reactive power
- Ethernet system for interconnection and monitoring
- High performance and reliability
- Simple installation and commissioning

Applications

- Industrial applications with non-linear loads such as variable frequency drives, inverters, UPS, furnaces, etc.
- Renewable energy (e.g. photovoltaics and wind turbines)
- Buildings (hotels, hospitals, shopping malls)
- Data Centers, IT/ITES

Safety characteristics

- Highest safety and reliability
- Overload protection
- Short-circuit protection
- Overtemperature protection
- Overvoltage and undervoltage protection
- Inverter bridge protection
- Overcompensation protection
- DC Link protection
- Fan fault alarm

Technical data and specifications of Low Voltage PQvar series 240 V & 400 V		
Rated voltage V_R and range	240 V (176 V … 263 V)	400 V (228 V … 456 V)
Grid frequency	45 … 62.5 Hz	
Overall efficiency	> 97%	
Network configuration	3P3W / 3P4W	
Setting of CT ratio	150/5 … 10000/5	
Topology design	Three-level topological structure	
Harmonic compensation	Not supported	
Reactive compensation	Supported	
Unbalance compensation	Supported	
Single-module compensation capacity at V_R	18 kvar /30 kvar /60 kvar /120 kvar	30 kvar /50 kvar /100 kvar /200 kvar
Response time	< 15 ms	
Target power factor	Adjustable from –1 to +1	
Mounting	Rack, Wall and Floor Mounting	
Rack Module & Wall net weight (kg)	23 / 28 / 44 / 110	23 / 28 / 44 / 110
Cooling mode	18 kvar 115 L/s 30 kvar 222 L/s 60 kvar 360 L/s 120 kvar 500 L/s	30 kvar 115 L/s 50 kvar 222 L/s 100 kvar 360 L/s 200 kvar 500 L/s
Communication ports	RS485, TCP/IP	
Communication protocol	Modbus	
CT monitoring alarm	Available	
Fault alarm	Active and History of alarms available	
Display	- Rack mounted units do not include a built-in display. An additional 7 inch HMI display is necessary. - Wall mounted units include a built-in 4.3-inch HMI display - Floor mounted cabinets include a centralized 7-inch HMI display	
Noise level	<65 dB (depending on the model)	
Protective function for	Overvoltage, under voltage, short-circuit, inverter bridge reverse, over temperature and overcompensation, and DC Link.	
Operating temperature	-10 ℃ … +50 °C [1] (Unit's output will be derated if Inlet temperature of air is > 40 ℃).	
Relative humidity	5% … 95%, non-condensing	
Protection class	IP20 (other IP classes are customizable)	
Panel color	RAL7035 light grey	
Altitude	1500 m, between 1500 m to 4000 m, the power decreases by 1% for every additional 100 m.	
Certification	CE	
Compliances/ Reference Standards	LV Directive 2014/35/EU EU Directive 2011/65/EU RoHS EMC Directive 2014/30/EU	EN 62477-1:2012/A11:2014 EN 61000-6-4:2007/A1:2011 EN 61000-6-2:2005

[1] For derating details contact your TDK representative

Characteristics and ordering codes

240 V PQvar series - 3P3W systems

Type	Reactive Power kvar	Voltage (min) V	Voltage (max) V	Mounting variant	Weight (approx.) kg	Dimensions (approx.) (W x D x H) mm	Ordering Code
Rack mounted units[2]							
PQSM6018V200	18	176	263	Rack	23	500 x 515 x 180	B44066F6018V200
PQSM6030V200	30	176	263	Rack	28	500 x 546 x 190	B44066F6030V200
PQSM6060V200	60	176	263	Rack	44	500 x 605 x 269	B44066F6060V200
PQSM6120V200	120	176	263	Rack	110	500 x 722 x 370	B44066F6120V200
Wall mounted units[3]							
PQSW6018V244	18	176	263	Wall	23	500 x 180 x 540	B44066F6018V244
PQSW6030V244	30	176	263	Wall	28	500 x 190 x 585	B44066F6030V244
PQSW6060V244	60	176	263	Wall	44	500 x 273 x 638	B44066F6060V244
PQSW6120V244	120	176	263	Wall	110	500 x 370 x 722	B44066F6120V244
Floor mounted cabinets[4]							
PQSF6060V215	60	176	263	Floor	294	600 x 1000 x 2200	B44066F6060V215
PQSF6120V215	120	176	263	Floor	338	600 x 1000 x 2200	B44066F6120V215
PQSF6180V215	180	176	263	Floor	382	600 x 1000 x 2200	B44066F6180V215
PQSF6240V215	240	176	263	Floor	426	600 x 1000 x 2200	B44066F6240V215

240 V PQvar series - 3P4W systems

Type	Reactive Power kvar	Voltage (min) V	Voltage (max) V	Mounting variant	Weight (approx.) kg	Dimensions (approx.) (W x D x H) mm	Ordering Code
Rack mounted units[2]							
PQSM8018V200	18	176	263	Rack	23	500 x 515 x 180	B44066F8018V200
PQSM8030V200	30	176	263	Rack	28	500 x 546 x 190	B44066F8030V200
PQSM8060V200	60	176	263	Rack	44	500 x 605 x 269	B44066F8060V200
PQSM8120V200	120	176	263	Rack	110	500 x 722 x 370	B44066F8120V200
Wall mounted units[3]							
PQSW8018V244	18	176	263	Wall	23	500 x 180 x 540	B44066F8018V244
PQSW8030V244	30	176	263	Wall	28	500 x 190 x 585	B44066F8030V244
PQSW8060V244	60	176	263	Wall	44	500 x 273x 638	B44066F8060V244
PQSW8120V244	120	176	263	Wall	110	500 x 370 x 722	B44066F8120V244
Floor mounted cabinets[4]							
PQSF8060V215	60	176	263	Floor	294	600 x 1000 x 2200	B44066F8060V215
PQSF8120V215	120	176	263	Floor	338	600 x 1000 x 2200	B44066F8120V215
PQSF8180V215	180	176	263	Floor	382	600 x 1000 x 2200	B44066F8180V215
PQSF8240V215	240	176	263	Floor	426	600 x 1000 x 2200	B44066F8240V215

[2] Rack mounted units do not include a built-in display. An additional 7-inch HMI display is necessary

[3] All wall mounted units include a built-in 4.3-inch HMI display

[4] All floor mounted cabinets include a 7-inch HMI display

400 V PQvar series - 3P3W systems							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[2]							
PQSM6030V300	30	228	456	Rack	23	500 x 515 x 180	B44066F6030V300
PQSM6050V300	50	228	456	Rack	28	500 x 546 x 190	B44066F6050V300
PQSM6100V300	100	228	456	Rack	44	500 x 605 x 269	B44066F6100V300
PQSM6200V300	200	228	456	Rack	110	500 x 722 x 370	B44066F6200V300
Wall mounted unit[3]**s**							
PQSW6030V344	30	228	456	Wall	23	500 x 180 x 540	B44066F6030V344
PQSW6050V344	50	228	456	Wall	28	500 x 190 x 585	B44066F6050V344
PQSW6100V344	100	228	456	Wall	44	500 x 273x 638	B44066F6100V344
PQSW6200V344	200	228	456	Wall	110	500 x 370 x 722	B44066F6200V344
Floor mounted cabinets[4]							
PQSF6100V315	100	228	456	Floor	294	600 x 1000 x 2200	B44066F6100V315
PQSF6150V315	150	228	456	Floor	322	600 x 1000 x 2200	B44066F6150V315
PQSF6200V315	200	228	456	Floor	338	600 x 1000 x 2200	B44066F6200V315
PQSF6250V315	250	228	456	Floor	366	600 x 1000 x 2200	B44066F6250V315
PQSF6300V315	300	228	456	Floor	382	600 x 1000 x 2200	B44066F6300V315
PQSF6350V315	350	228	456	Floor	410	600 x 1000 x 2200	B44066F6350V315
PQSF6400V315	400	228	456	Floor	426	600 x 1000 x 2200	B44066F6400V315

400 V PQvar series - 3P4W systems							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[2]							
PQSM8030V300	30	228	456	Rack	23	500 x 515 x 180	B44066F8030V300
PQSM8050V300	50	228	456	Rack	28	500 x 546 x 190	B44066F8050V300
PQSM8100V300	100	228	456	Rack	44	500 x 605 x 269	B44066F8100V300
PQSM8200V300	200	228	456	Rack	110	500 x 722 x 370	B44066F8200V300
Wall mounted units[3]							
PQSW8030V344	30	228	456	Wall	23	500 x 180 x 540	B44066F8030V344
PQSW8050V344	50	228	456	Wall	28	500 x 190 x 585	B44066F8050V344
PQSW8100V344	100	228	456	Wall	44	500 x 273x 638	B44066F8100V344
PQSW8200V344	200	228	456	Wall	110	500 x 722 x 690	B44066F8200V344
Floor mounted cabinets[4]							
PQSF8100V315	100	228	456	Floor	294	600 x 1000 x 2200	B44066F8100V315
PQSF8150V315	150	228	456	Floor	322	600 x 1000 x 2200	B44066F8150V315
PQSF8200V315	200	228	456	Floor	338	600 x 1000 x 2200	B44066F8200V315
PQSF8250V315	250	228	456	Floor	366	600 x 1000 x 2200	B44066F8250V315
PQSF8300V315	300	228	456	Floor	382	600 x 1000 x 2200	B44066F8300V315
PQSF8350V315	350	228	456	Floor	410	600 x 1000 x 2200	B44066F8350V315
PQSF8400V315	400	228	456	Floor	426	600 x 1000 x 2200	B44066F8400V315

Technical data and specifications of Low Voltage PQvar series 480 V (based on 400 V design) only available in 3P3W)		
Rated voltage, V_R and range	480 V (383 V … 526 V)	
Grid frequency	45 Hz … 62.5 Hz)	
Overall efficiency	>97%	
Network configuration	3P3W	
Setting of CT ratio	150/5 … 10000/5	
Topology design	Three-level topological structure	
Harmonic compensation	Not supported	
Reactive compensation	Supported	
Unbalance compensation	Supported	
Single-module compensation capacity at V_R	40 kvar / 60 kvar / 120 kvar / 250 kvar	
Response time	< 15 ms	
Target power factor	Adjustable from -1 to +1	
Mounting	Rack, Wall and Floor Mounting	
Rack Module & Wall net weight (kg)	23 / 28 / 44 / 110	
Cooling mode	40 kvar 115 L/s 60 kvar 222 L/s 120 kvar 360 L/s 250 kvar 500 L/s	
Communication ports	RS485 , TCP/IP	
Communication protocols	Modbus	
CT monitoring alarm	Available	
Fault alarm	Active and History of alarms available	
Display	1) Rack mounted units do not include a built-in display. An additional 7 inch HMI display is necessary 2) Wall mounted units include a built-in 4.3 inch HMI display 3) Floor mounted cabinets include a centralized 7 inch HMI display	
Noise level	< 65 dB (depending on the model)	
Protection function for	Overvoltage, under voltage, short-circuit, inverter bridge reverse, over temperature and overcompensation, and DC Link.	
Operating temperature	– 10 ℃ … + 50 °C[5] Unit´s output will be derated if inlet temperature of air is > 40 °C	
Relative humidity	5% … 95%, non-condensing	
Protection class	IP20 (other IP classes are customizable)	
Panel color	RAL7035 light grey	
Altitude	1500 m, between 1500 m to 4000 m, the power decreases by 1% for every additional 100 m	
Certifications,	CE	
Compliances / Reference Standards	LV Directive 2014/35/EU EU Directive 2011/65/EU RoHS EMC Directive 2014/30/EU	EN 62477-1:2012/A11:2014 EN 61000-6-4:2007/A1:2011 EN 61000-6-2:2005

[5] For derating details contact your TDK representative

480 V PQvar series - 3P3W systems (based on 400 V design)							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units							
PQSM9040V400[6]	40	372	526	Rack	23	500 x 515 x 180	B44066F9040V400
PQSM9060V400	60	372	526	Rack	28	500 x 546 x 190	B44066F9060V400
PQSM9120V400	120	372	526	Rack	44	500 x 605 x 269	B44066F9120V400
PQSM9250V400	250	372	526	Rack	110	500 x 722 x 370	B44066F9250V400
Wall mounted units[7]							
PQSW9040V444	40	372	526	Wall	23	500 x 180 x 540	B44066F9040V444
PQSW9060V444	60	372	526	Wall	28	500 x 190 x 585	B44066F9060V444
PQSW9120V444	120	372	526	Wall	44	500 x 273x 638	B44066F9120V444
PQSW9250V444	250	372	526	Wall	110	500 x 722 x 690	B44066F9250V444
Floor mounted cabinets[8]							
PQSF9120V415	120	372	526	Floor	294	600 x 1000 x 2200	B44066F9120V415
PQSF9180V415	180	372	526	Floor	322	600 x 1000 x 2200	B44066F9180V415
PQSF9240V415	240	372	526	Floor	338	600 x 1000 x 2200	B44066F9240V415
PQSF9300V415	300	372	526	Floor	366	600 x 1000 x 2200	B44066F9300V415
PQSF9360V415	360	372	526	Floor	382	600 x 1000 x 2200	B44066F9360V415
PQSF9420V415	420	372	526	Floor	410	600 x 1000 x 2200	B44066F9420V415
PQSF9480V415	480	372	526	Floor	426	600 x 1000 x 2200	B44066F9480V415

[6] Rack mounted units do not include a built-in display. An additional 7-inch HMI display is necessary

[7] All wall mounted units include a built-in 4.3-inch HMI display

[8] All floor mounted cabinets include a 7-inch HMI display

Technical data and specifications of Low Voltage PQvar series 480 V, 600 V, 690 V (Based on UL design[9])			
Rated voltage V_R and range	480 V (384 V … 552 V)	600 V (420 V … 690 V)	690 V (483 V … 793 V)
Grid frequency	45 Hz ... 62.5 Hz		
Overall efficiency	> 97%		
Network configuration	3P3W / 3P4W		
Setting of CT ratio	150/5 … 10000/5		
Topology design	Three-level topological structure		
Harmonic compensation	Not supported		
Reactive compensation	Supported		
Unbalance compensation	Supported		
Single-module compensation capacity at rated voltage V_R	40 kvar / 80 kvar	50 kvar / 100 kvar	60 kvar / 120 kvar
Response time	< 15 ms		
Target power factor	Adjustable from -1 to 1		
Mounting	Rack, Wall and Floor Mounting		
Rack Module & Wall net weight (kg)	40/70	40/70	40/70
Cooling mode	342 L/s for 40 kvar 359 L/s for 80 kvar	342 L/s for 50 kvar 359 L/s for 100 kvar	342 L/s for 60 kvar 359 L/s for 120 kvar
Communication ports	RS485, TCP/IP		
Communication protocols	Modbus		
CT monitoring alarm	Yes		
Fault alarm	Active and History of alarms available		
Display	1) Rack mounted units do not include a built-in display. An additional 7 inch HMI display is necessary 2) Wall mounted units include a built-in 4.3 inch HMI display 3) Floor mounted cabinets include a centralized 7 inch HMI display		
Noise level	< 65 dB (depending on the model)		
Protection functions	Overvoltage, under voltage, short-circuit, inverter bridge reverse, over temperature and overcompensation, and DC Link		
Operating temperature	-10℃ …+50℃[10] (Unit's output will be derated if Inlet temperature of air is >40℃).		
Relative humidity	5% … 95%, non-condensing		
Protection class	IP20 (other IP classes are customizable)		
Panel color	RAL7035 light grey		
Altitude	1500 m, between 1500 m to 4000 m, the power decreases by 1% for every additional 100 m		
Certifications,	CE		
	LV Directive 2014/35/EU EU Directive 2011/65/EU RoHS EMC Directive 2014/30/EU	EN 62477-1:2012/A11:2014 EN 61000-6-4:2007/A1:2011 EN 61000-6-2:2005	

[9] UL approval pending
[10] For derating details contact your TDK representative

480 V PQvar series - 3P3W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[11]							
PQSM6040V400	40	384	552	Rack	40	500 x 540 x 180	B44066F6040V400
PQSM6080V400	80	384	552	Rack	70	500 x 675 x 250	B44066F6080V400
Wall mounted units[12]							
PQSW6040V444	40	384	552	Wall	40	500 x 184 x 627	B44066F6040V444
PQSW6080V444	80	384	552	Wall	70	500 x 250 x 723	B44066F6080V444
Floor mounted cabinets[13]							
PQSF6080V435	80	384	552	Floor	320	800 x 1000 x 2200	B44066F6080V435
PQSF6120V435	120	384	552	Floor	360	800 x 1000 x 2200	B44066F6120V435
PQSF6160V435	160	384	552	Floor	390	800 x 1000 x 2200	B44066F6160V435
PQSF6200V435	200	384	552	Floor	430	800 x 1000 x 2200	B44066F6200V435
PQSF6240V435	240	384	552	Floor	460	800 x 1000 x 2200	B44066F6240V435
PQSF6280V435	280	384	552	Floor	500	800 x 1000 x 2200	B44066F6280V435
PQSF6320V435	320	384	552	Floor	530	800 x 1000 x 2200	B44066F6320V435

480 V PQvar Series 3P4W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[11]							
PQSM8040V400	40	384	552	Rack	40	500 x 540 x 180	B44066F8040V400
PQSM8080V400	80	384	552	Rack	70	500 x 675 x 250	B44066F8080V400
Wall mounted units[12]							
PQSW8040V444	40	384	552	Wall	40	500 x 184 x 627	B44066F8040V444
PQSW8080V444	80	384	552	Wall	70	500 x 250 x 723	B44066F8080V444
Floor mounted cabinets[13]							
PQSF8080V435	80	384	552	Floor	320	800 x 1000 x 2200	B44066F8080V435
PQSF8120V435	120	384	552	Floor	360	800 x 1000 x 2200	B44066F8120V435
PQSF8160V435	160	384	552	Floor	390	800 x 1000 x 2200	B44066F8160V435
PQSF8200V435	200	384	552	Floor	430	800 x 1000 x 2200	B44066F8200V435
PQSF8240V435	240	384	552	Floor	460	800 x 1000 x 2200	B44066F8240V435
PQSF8280V435	280	384	552	Floor	500	800 x 1000 x 2200	B44066F8280V435
PQSF8320V435	320	384	552	Floor	530	800 x 1000 x 2200	B44066F8320V435

[11] Rack mounted units do not include a built-in display. An additional 7 inch HMI display is necessary

[12] All wall mounted units include a built-in 4.3-inch HMI display

[13] All floor mounted cabinets include a 7-inch HMI display

600 V PQvar series - 3P3W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[14]							
PQSM6050V600	50	420	690	Rack	40	500 x 540 x 180	B44066F6050V600
PQSM6100V600	100	420	690	Rack	70	500 x 675 x 250	B44066F6100V600
Wall mounted units[15]							
PQSW6050V644	50	420	690	Wall	40	500 x 184 x 627	B44066F6050V644
PQSW6100V644	100	420	690	Wall	70	500 x 250 x 723	B44066F6100V644
Floor mounted cabinets[16]							
PQSF6100V635	100	420	690	Floor	320	800 x 1000 x 2200	B44066F6100V635
PQSF6150V635	150	420	690	Floor	360	800 x 1000 x 2200	B44066F6150V635
PQSF6200V635	200	420	690	Floor	390	800 x 1000 x 2200	B44066F6200V635
PQSF6250V635	250	420	690	Floor	430	800 x 1000 x 2200	B44066F6250V635
PQSF6300V635	300	420	690	Floor	460	800 x 1000 x 2200	B44066F6300V635
PQSF6350V635	350	420	690	Floor	500	800 x 1000 x 2200	B44066F6350V635
PQSF6400V635	400	420	690	Floor	530	800 x 1000 x 2200	B44066F6400V635

600 V PQvar series - 3P4W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[14]							
PQSM8050V600	50	420	690	Rack	40	500 x 540 x 180	B44066F8050V600
PQSM8100V600	100	420	690	Rack	70	500 x 675 x 250	B44066F8100V600
Wall mounted units[15]							
PQSW8050V644	50	420	690	Wall	40	500 x 184 x 627	B44066F8050V644
PQSW8100V644	100	420	690	Wall	70	500 x 250 x 723	B44066F8100V644
Floor mounted cabinets[16]							
PQSF8100V635	100	420	690	Floor	320	800 x 1000 x 2200	B44066F8100V635
PQSF8150V635	150	420	690	Floor	360	800 x 1000 x 2200	B44066F8150V635
PQSF8200V635	200	420	690	Floor	390	800 x 1000 x 2200	B44066F8200V635
PQSF8250V635	250	420	690	Floor	430	800 x 1000 x 2200	B44066F8250V635
PQSF8300V635	300	420	690	Floor	460	800 x 1000 x 2200	B44066F8300V635
PQSF8350V635	350	420	690	Floor	500	800 x 1000 x 2200	B44066F8350V635
PQSF8400V635	400	420	690	Floor	530	800 x 1000 x 2200	B44066F8400V635

[14] Rack mounted units do not include a built-in display. An additional 7-inch HMI display is necessary.

[15] All wall mounted units include a built-in 4.3-inch HMI display.

[16] All floor mounted cabinets include a 7-inch HMI display.

690 V PQvar series 3P3W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[17]							
PQSM6060V700	60	483	793	Rack	40	500 x 540 x 180	B44066F6060V700
PQSM6120V700	120	483	793	Rack	70	500 x 675 x 250	B44066F6120V700
Wall mounted units[18]							
PQSW6060V744	60	483	793	Wall	40	500 x 184 x 627	B44066F6060V744
PQSW6120V744	120	483	793	Wall	70	500 x 250 x 723	B44066F6120V744
Floor mounted cabinets[19]							
PQSF6120V735	120	483	793	Floor	320	800 x 1000 x 2200	B44066F6120V735
PQSF6180V735	180	483	793	Floor	360	800 x 1000 x 2200	B44066F6180V735
PQSF6240V735	240	483	793	Floor	390	800 x 1000 x 2200	B44066F6240V735
PQSF6300V735	300	483	793	Floor	430	800 x 1000 x 2200	B44066F6300V735
PQSF6360V735	360	483	793	Floor	460	800 x 1000 x 2200	B44066F6360V735
PQSF6420V735	420	483	793	Floor	500	800 x 1000 x 2200	B44066F6420V735
PQSF6480V735	480	483	793	Floor	530	800 x 1000 x 2200	B44066F6480V735

690 V PQvar series 3P4W systems (based on UL design[9])							
Type	**Reactive Power kvar**	**Voltage (min) V**	**Voltage (max) V**	**Mounting variant**	**Weight (approx.) kg**	**Dimensions (approx.) (W x D x H) mm**	**Ordering Code**
Rack mounted units[17]							
PQSM8060V700	60	483	793	Rack	40	500 x 540 x 180	B44066F8060V700
PQSM8120V700	120	483	793	Rack	70	500 x 675 x 250	B44066F8120V700
Wall mounted units[18]							
PQSW8060V744	60	483	793	Wall	40	500 x 184 x 627	B44066F8060V744
PQSW8120V744	120	483	793	Wall	70	500 x 250 x 723	B44066F8120V744
Floor mounted cabinets[19]							
PQSF8120V735	120	483	793	Floor	320	800 x 1000 x 2200	B44066F8120V735
PQSF8180V735	180	483	793	Floor	360	800 x 1000 x 2200	B44066F8180V735
PQSF8240V735	240	483	793	Floor	390	800 x 1000 x 2200	B44066F8240V735
PQSF8300V735	300	483	793	Floor	430	800 x 1000 x 2200	B44066F8300V735
PQSF8360V735	360	483	793	Floor	460	800 x 1000 x 2200	B44066F8360V735
PQSF8420V735	420	483	793	Floor	500	800 x 1000 x 2200	B44066F8420V735
PQSF8480V735	480	483	793	Floor	530	800 x 1000 x 2200	B44066F8480V735

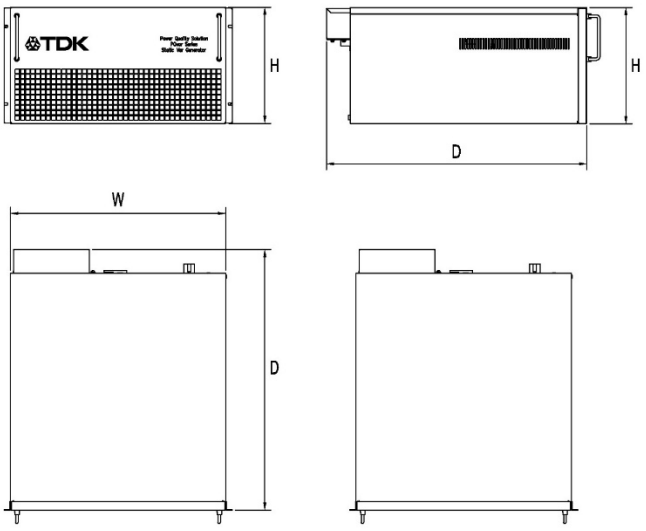
[17] Rack mounted units do not include a built-in display. An additional 7-inch HMI display is necessary.

[18] All wall mounted units include a built-in 4.3-inch HMI display.

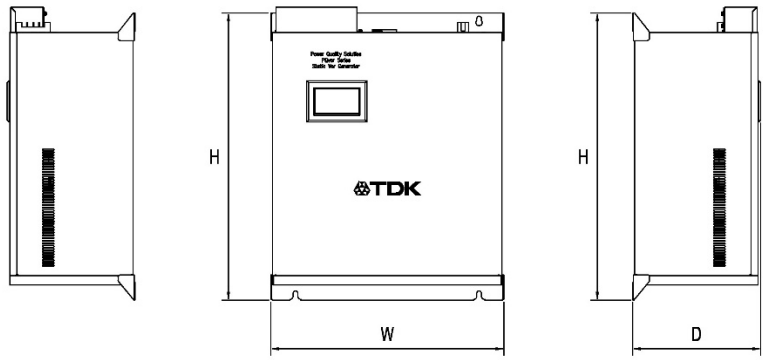
[19] All floor mounted cabinets include a 7-inch HMI display.

Dimensional drawings

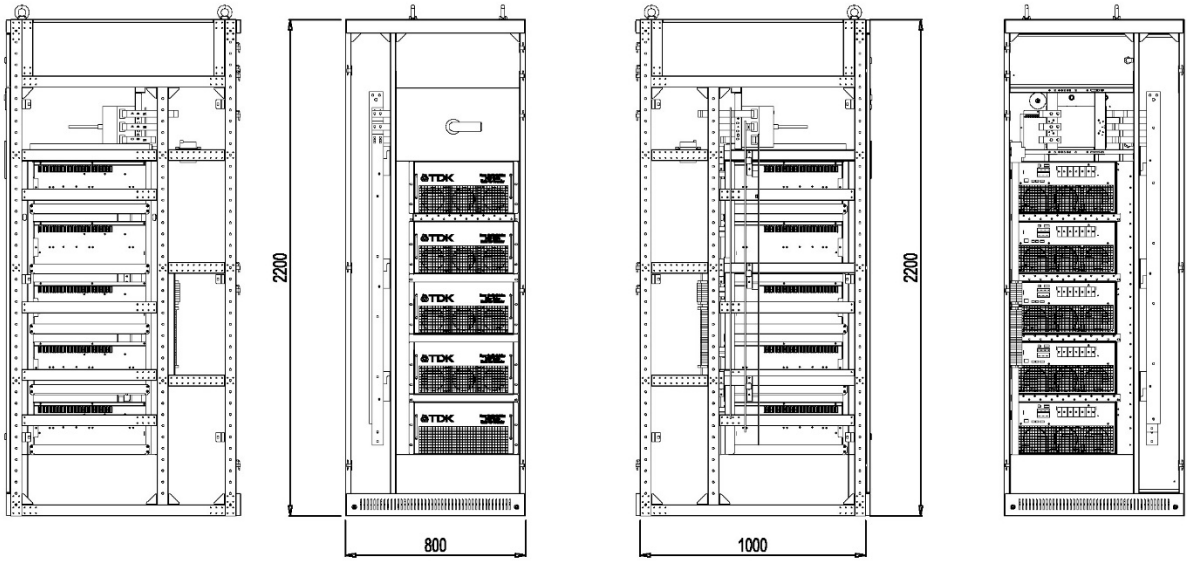
Rack module



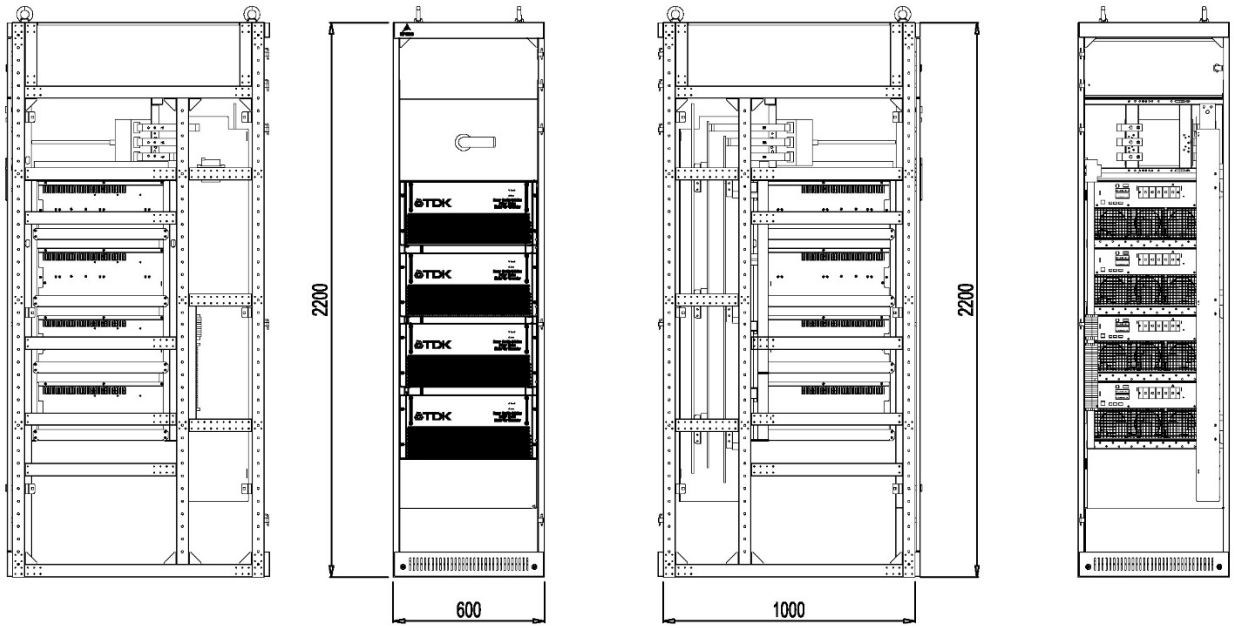
Wall module



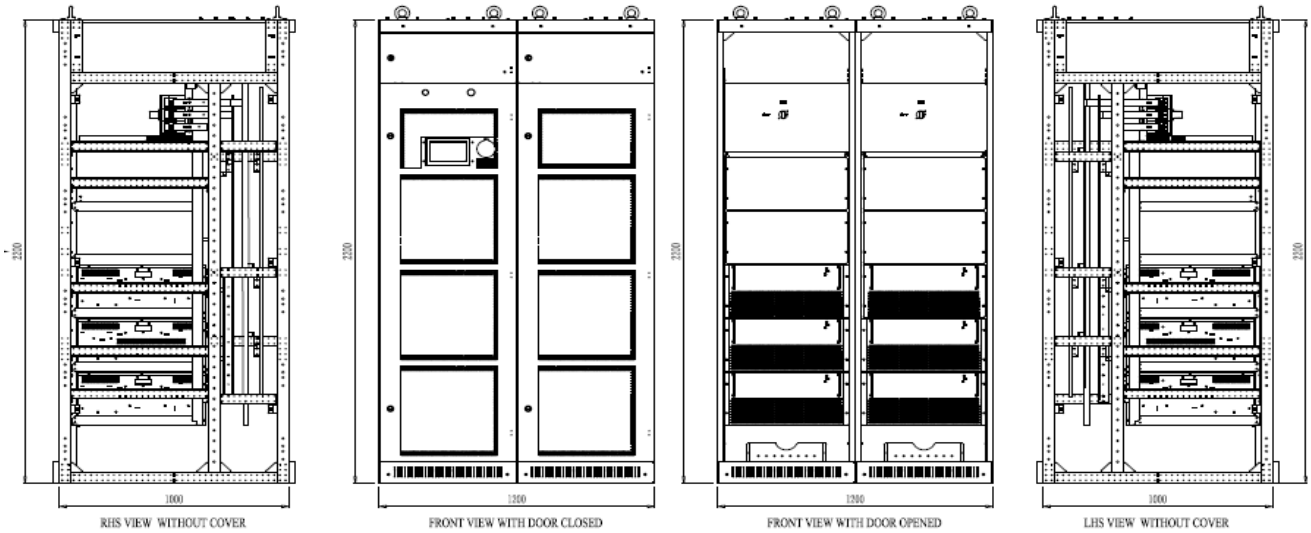
Cabinet 800mm width



Cabinet with 600mm width



Multicabinet *



**Available in both 1200mm and 1600mm width*
For all the cabinets the default cable entry is from top, however bottom cable entry can also be possible on special request
The standard cabinet installation should have a minimum clearance of 600mm at front and rear side in order to ensure uninterrupted air flow and proper ventilation. The module arrangement in all the cabinet pictures above is a sample representation of how the rack modules are arranged inside. The actual design depends on the number of module inside each respective cabinets.

Selection of cable and accessories

Rated current	25 A 35 A	50 A 60 A	75 A 90 A 100 A	150 A	200 A 250 A	300 A 350 A	400 A	450 A	500 A	550 A	600 A
Power terminal screw	M6	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8
PE terminal screw	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6
Rated current of Breaker	50 A	80 A	120 A	200 A	300 A	400 A	630 A	630 A	630 A	630 A	800 A
CT cable	Below 15 m: RVVSP 2 * 2.5 mm^2; 15 … 30 m: RVVSP 2 * 4 mm^2; above 30 m: contact TDK Recommended twisted pair cable, do not install in parallel with power cable in order to avoid										
Range of CT ratio	150/5 … 10000/5										
CT Accuracy Class	0.5 or better (open loop/load side) and 0.2 or better (closed loop/grid side)										
CT Output Power	Minimum 5 VA										
Quantity of CTs	2 CT units for 3P3W and 3 CT units for 3P4W										

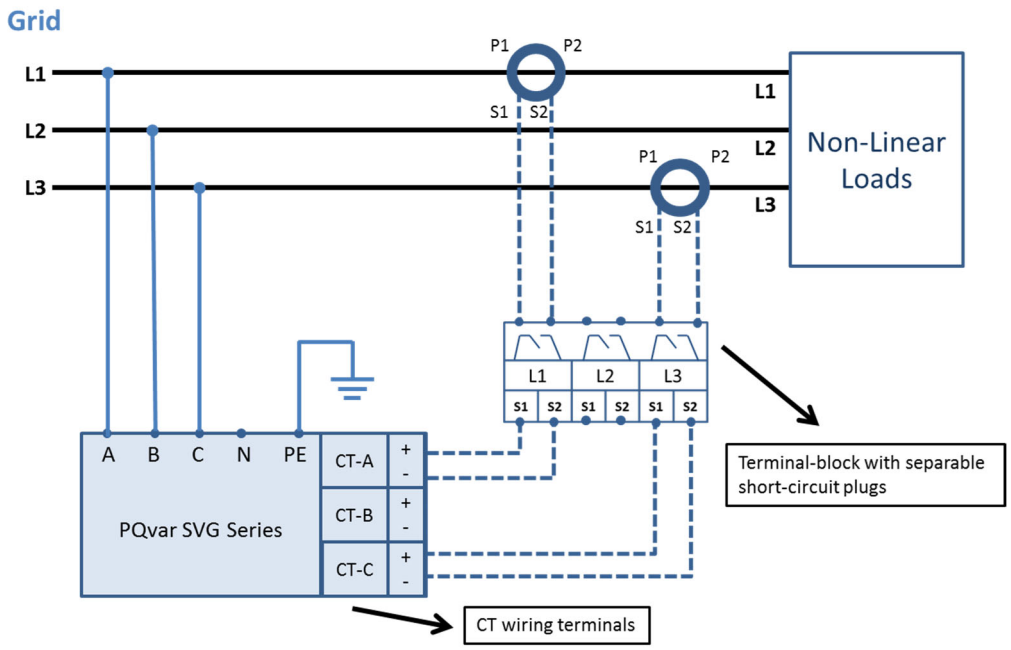
1 The SVG kvar should be converted to its equivalent current taking into consideration the voltage to which it has been connected. The rated current of the SVG can be calculated using the below formula

$$SVG\ rated\ current = \frac{SVG\ rating\ in\ VAR}{\sqrt{3} * Rated\ volatge\ of\ the\ SVG}$$

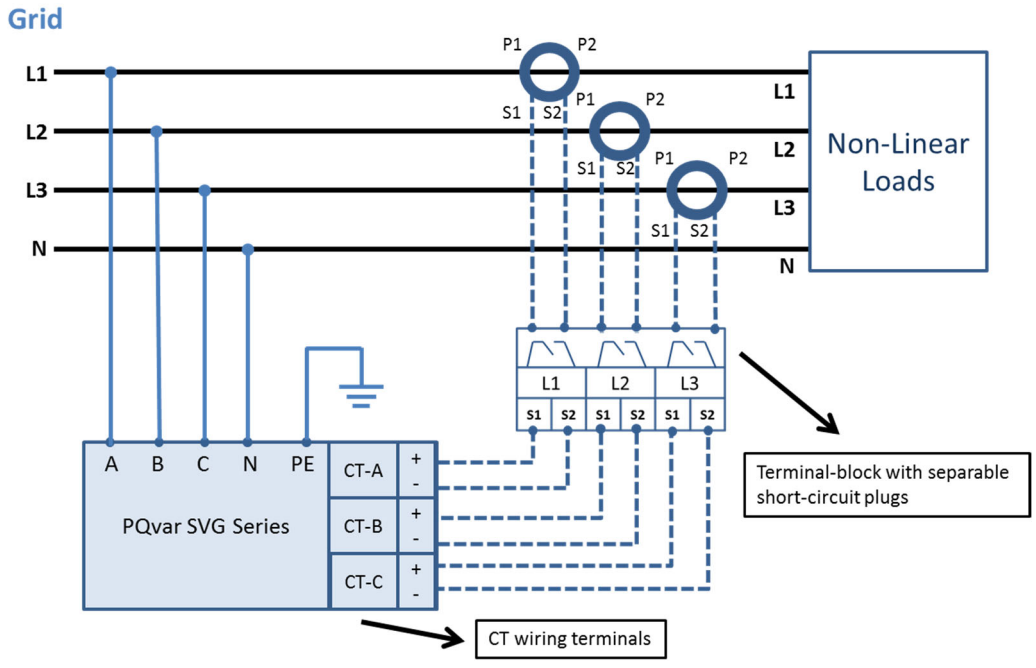
2 The CT primary current selection should be 1.5 … 4 times to maximum load current and secondary ration should be always 5
3 The rated current selection of breaker should be 1.2 times or above to SVG rated current capacity
4 For all specific information about the cable breaker, CT selection which is not included in the table, please contact TDK
Note: Current transformers are not included in the delivery and must be purchased separately

Connection Diagram

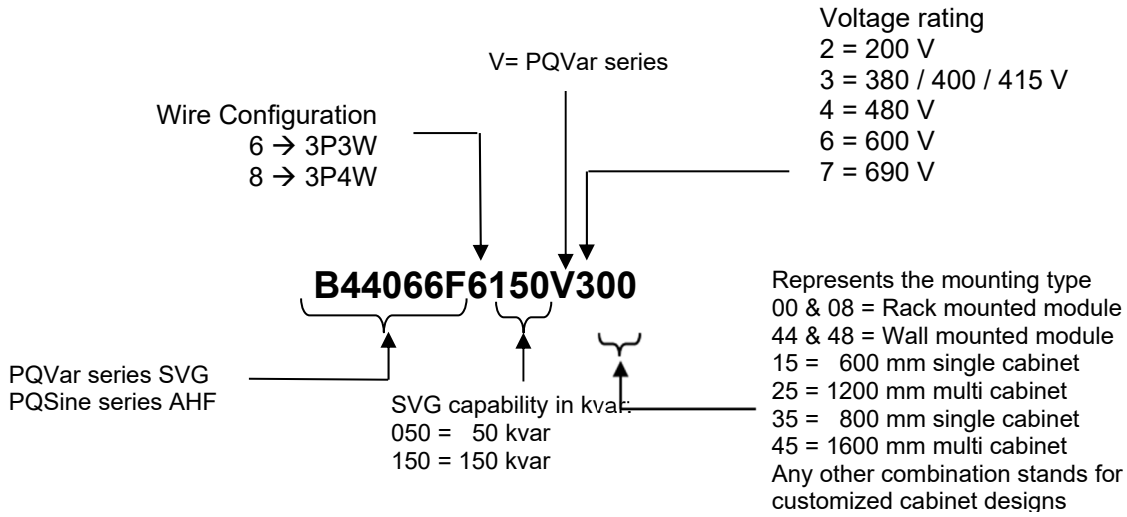
3P3W



3P4W



Ordering code nomenclature and decoding table



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, on the company website, 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.

Please also read carefully the cautions, notes and warnings in the SVG PQVar Series operating and installation instruction manual

- The PQvar Static Var Generator (SVG) is applicable to industrial occasion, connected in parallel with the load in power grid and serving the purpose of reactive power compensation. SVG can be used in the system which already has power factor compensation. Please ensure to get additional guidance in this case to install SVG with existing power factor corrections capacitors. Otherwise, interactions between the SVG and the compensation systems could occur.

HIGH VOLTAGE: Risk of death due to short circuits and electric shock if the active filter is opened while connected to the AC mains or for up to 30 minutes after being disconnected.

  - All interventions involving opening the device cover, removing or installing the connection cable may only be performed by qualified personnel.
  - Make sure the filter is grounded. Good grounding is required to prevent any risk from leakage current.
  - Keep away from liquids.
  - Avoid exposure to excessive humidity.
  - Switch off the power before removing or opening the covers/doors.

- Installation of the active filter, inspections for proper operation, and certain troubleshooting measures may only be performed by qualified personnel. All other measures may be performed by people who have read these instructions.
- All SVG must be installed in a clean, dry location, e.g. in sufficiently ventilated or air-conditioned electric cabinets or closed electric rooms.
- Contaminants such as oils, liquids, corrosive vapors, abrasive debris, dust and aggressive gases must be kept out of the filter enclosure.

Conductive dust may cause damage to SVG. Ensure that installation site of SVG is free of conductive dust.

- The SVG is used to compensate reactive power, so SVG capacity should be considered in accordance with system reactive content. Insufficient capacity affects the performance of compensation.
  - External CTs are required to detect reactive current.
  - To ensure SVG has good reliability and to avoid overheat, do not block or cover the air inlet/outlet
  - Make sure that no corrosive gas and conductive dust exist in work environment and that the working temperature is ranged between -10 °C and +40 °C. SVG will be giving reduced output beyond the above-mentioned temperature range.
  - User needs to specify it particularly when grid voltage distortion rate is higher than 15% so that the possibility of other alternate/add on solutions can be discussed.
  - The ventilation clearance requirement varies from case to case, depending on the panel design , no of units in the panel , horizontal / vertical/ wall mounting etc. So please make sure to seek expert opinion on ventilation requirement needed for the selected solution. Sufficient ventilation should be provided to the modules/wall mounted units /cabinets!!!! For panels in any case a minimum clearance of 500mm should be allowed on the front and rear side of the horizontal modules mounted horizontally
- Seal the SVG in its original packing materials to avoid damage. If you don't install SVG immediately after you receive it, do store it in a dry, well-ventilated indoor environment. Make sure the temperature is between -40°C~70°C, and relative humidity between 5%～95%.

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.** As a rule we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified.** In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.tdk-electronics.tdk.com/material). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.

   We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
6. Unless otherwise agreed in individual contracts, **all orders are subject to our General Terms and Conditions of Supply.**
7. **Our manufacturing sites serving the automotive business apply the IATF 16949 standard.** The IATF certifications confirm our compliance with requirements regarding the quality management system in the automotive industry. Referring to customer requirements and customer specific requirements (“CSR”) TDK always has and will continue to have the policy of respecting individual agreements. Even if IATF 16949 may appear to support the acceptance of unilateral requirements, we hereby like to emphasize that **only requirements mutually agreed upon can and will be implemented in our Quality Management System.** For clarification purposes we like to point out that obligations from IATF 16949 shall only become legally binding if individually agreed upon.

Important notes

8. The trade names EPCOS, CarXield, CeraCharge, CeraDiode, CeraLink, CeraPad, CeraPlas, CSMP, CTVS, DeltaCap, DigiSiMic, FilterCap, FormFit, InsuGate, LeaXield, MediPlas, MiniBlue, MiniCell, MKD, MKK, ModCap, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, PiezoBrush, PlasmaBrush, PowerHap, PQSine, PQvar, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SurfIND, ThermoFuse, WindCap, XieldCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.tdk-electronics.tdk.com/trademarks.

Release 2024-02