

PowerPro Static Frequency Converter Series

Single Phase Input & Output Static Frequency Converter

60Hz – 400Hz



BPC Energy's Single Phase range of Static Frequency Converters are used for converting utility mains power to different frequencies, such as 60Hz or 400Hz and voltages to run your mission critical equipment. All BPC Energy Static Frequency Converters use IGBT technology to achieve a high quality output under all load conditions with continuous operation.

The PowerPro Static Frequency Converter range of products offers very flexible technology which can be designed for frequency conversion 50 Hz, 60 Hz or 400 Hz solutions and/or voltage changes enabling us to meet your industrial specification and requirements.

All BPC PowerPro Static Frequency Converter ranges have options for adjustable output frequency and voltage requirements, communication intelligent interface for network/building management solutions, and other accessories enabling us to meet your industry specifications and requirements.

Single Phase Output

PowerPro HP – 100FC 60Hz (115 Volt Output)



*Picture not typical

Feature Options:

- True double conversion and PWM technology
- Galvanic isolation at the output included
- Pure Sine Wave
- LCD panel providing accurate detailed information
- Compatible with International Standards
- RS232 and dry contacts for communication and monitoring

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MODBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	HP105FC - 115	HP107FC - 115	HP110FC - 115	HP115FC - 115
Power Rating kVA	5 / 3.5	7 / 4.9	10 / 7	15 / 10.5
INPUT				
Nominal Voltage	220, 230 or 240 Vac (1ph + N + E)			
Voltage Range	±15%			
Frequency	50Hz ±5%			
Harmonic Distortion	<=30%			
OUTPUT				
Nominal Voltage	110, 115, 120 (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	60Hz ±0.2%			
Power Factor	0.7			
Crest Factor	3:1			
Efficiency	Up to 87%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise @ 1 meter	<55dB	<55dB	<55dB	<55dB
Dimensions (mm) W x D x H	265 x 600 x 585	265 x 660 x 640	265 x 740 x 720	300 x 810 x 775
Net Weight	60	75	82	107

*Depending on power and input/output conditions

Single Phase Output

PowerPro HP – 100FC 60Hz (230 Volt Output)



*Picture not typical

Feature Options:

- True double conversion and PWM technology
- Galvanic isolation at the output included
- Pure Sine Wave
- LCD panel providing accurate detailed information
- Compatible with International Standards
- RS232 and dry contacts for communication and monitoring

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MODBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	HP105FC - 230	HP107FC - 230	HP110FC - 230	HP115FC - 230
Power Rating kVA	5 / 3.5	7 / 4.9	10 / 7	15 / 10.5
INPUT				
Nominal Voltage	220, 230 or 240 Vac (1ph + N + E)			
Voltage Range	±15%			
Frequency	50Hz ±5%			
Harmonic Distortion	<=30%			
OUTPUT				
Nominal Voltage	220, 230 or 240 Vac (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	60Hz ±0.2%			
Power Factor	0.7			
Crest Factor	3:1			
Efficiency	Up to 87%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise @ 1 meter	<55dB	<55dB	<55dB	<55dB
Dimensions (mm) W x D x H	265 x 600 x 585	265 x 660 x 640	265 x 740 x 720	300 x 810 x 775
Net Weight	60	75	82	107

*Depending on power and input/output conditions

Single Phase Output

PowerPro CL – 100FC 400Hz (115 Volt Output)



*Picture not typical

Feature Options:

- True double conversion
- Advanced Digital Signal Processor (DSP)
- Modular Architecture improving reliability
- Pure Sine Wave
- Space saving design
- LCD panel providing accurate detailed information

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MODBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	CL105FC	CL107FC	CL110FC	CL115FC
Power Rating kVA / KW	5 / 3.5	7 / 4.9	10 / 7	15 / 10.5
INPUT				
Nominal Voltage	220, 230 or 240 Vac (1ph + N + E)			
Voltage Range	+15%, - 20%			
Frequency	50Hz ±5%			
Power Factor	0.99 @ full load			
Harmonic Distortion	<5% @ 100%			
OUTPUT				
Nominal Voltage	110, 115, 120 Vac (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	400Hz ±0.2%			
Power Factor	0.7			
Crest Factor	3:1			
Efficiency	Up to 92%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise	<55dB	<55dB	<55dB	<55dB
Dimensions (mm) W x D x H	220 x 780 x 590	220 x 780 x 590	220 x 780 x 590	220 x 780 x 590
Net Weight	40	40	42	45

*Depending on power and input/output conditions

Single Phase Output

PowerPro HP – 200FC 60Hz (115 Volt Output)



*Picture not typical

Feature Options:

- True double conversion and PWM technology
- Galvanic isolation at the output included
- Pure Sine Wave
- LCD panel providing accurate detailed information
- Compatible with International Standards
- RS232 and dry contacts for communication and monitoring

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MODBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	HP210FC - 115	HP215FC - 115	HP220FC - 115	HP230FC - 115
Power Rating kVA / KW	10 / 7	15 / 10.5	20 / 14	30 / 21
INPUT				
Nominal Voltage	380, 400, 415 Vac (3ph + N + PE)			
Voltage Range	±15%			
Frequency	50Hz ±5%			
Harmonic Distortion	<=30%			
OUTPUT				
Nominal Voltage	110, 115, 120 (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	60Hz ±0.2%			
Power Factor	0.7			
Crest Factor	3:1			
Efficiency	Up to 87%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise	<55dB	<55dB	<58dB	<58dB
Dimensions (mm) W x D x H	300 x 810 x 775	300 x 810 x 775	500 x 650 x 1220	500 x 650 x 1220
Net Weight	90	115	125	135

*Depending on power and input/output conditions

Single Phase Output

PowerPro HP – 200FC 60Hz (230 Volt Output)



*Picture not typical

Feature Options:

- True double conversion and PWM technology
- Galvanic isolation at the output included
- Pure Sine Wave
- LCD panel providing accurate detailed information
- Compatible with International Standards
- RS232 and dry contacts for communication and monitoring

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MODBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	HP210FC - 230	HP215FC - 230	HP220FC - 230	HP230FC - 230
Power Rating kVA / KW	10 / 7	15 / 10.5	20 / 14	30 / 21
INPUT				
Nominal Voltage	380, 400, 415 Vac (3ph + N + PE)			
Voltage Range	±15%			
Frequency	50Hz ±5%			
Harmonic Distortion	<=30%			
OUTPUT				
Nominal Voltage	220, 230, 240 Vac (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	60Hz ±0.2%			
Power Factor	0.7			
Crest Factor	3:1			
Efficiency	Up to 87%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise	<55dB	<55dB	<58dB	<58dB
Dimensions (mm) W x D x H	300 x 810 x 775	300 x 810 x 775	500 x 650 x 1220	500 x 650 x 1220
Net Weight	90	115	125	135

*Depending on power and input/output conditions

Single Phase Output

PowerPro CL – 200FC 400Hz (115 Volt Output)



*Picture not typical

Feature Options:

- Advanced Signal Processor
- Pure Sine Wave output
- Advance communications
- Space saving design
- High efficiency
- Advanced graphical display

Options:

- Output frequency / voltage adjustment
- Intelligent SNMP communication or MDOBUS
- Remote monitoring panel RM2000
- Input and Output customisation available
- Battery backup autonomy

MODEL	CL210FC	CL215FC	CL220FC	CL230FC
Power Rating kVA / KW	10 / 8	15 / 12	20 / 16	30 / 24
INPUT				
Nominal Voltage	380, 400, 415 Vac (3ph + N + PE)			
Voltage Range	+15%, - 20%			
Frequency	50Hz ±5%			
Power Factor	0.99 @ full load			
Harmonic Distortion	<5% @ 100%			
OUTPUT				
Nominal Voltage	110, 115, 120 Vac (other voltages available) (1ph + N + E)			
AC Voltage Regulation	±1%			
Output Frequency	400Hz ±0.2%			
Power Factor	0.8			
Crest Factor	3:1			
Efficiency	Up to 92%			
Harmonic Distortion (Linear Load)	<3%			
Overload Capacity	125% for 10 minutes, 150% for 1 minute			
GENERAL				
Operating Temperature	0 - 40°C			
Operating Humidity	90% (non-condensing)			
Protection Degree	IP21			
Comms Adaptor	RS232 (SNMP, RS485, Modbus - optional)			
Acoustic Noise	<58dB	<58dB	<64dB	<64dB
Dimensions (mm) W x D x H	375 x 745 x 1030	375 x 745 x 1030	375 x 745 x 1030	495 x 835 x 1445
Net Weight	90	100	175	180

*Depending on power and input/output conditions

Advanced Power Conversion Solutions

The BPC Group

BPC is an international company operating for 20 years globally, with partners and distributors located around the world.

These regions include:

EUROPE

UK, France, Germany, Gibraltar, Ireland, Netherlands, Malta, Norway, Portugal.

MIDDLE EAST

Bahrain, Jordan, Kuwait, KSA, Lebanon, Oman, Qatar, UAE, Yemen.

AFRICA

Burkina Faso, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Ghana, Libya, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Uganda, Zambia.

FAR EAST & ASIA

India, Pakistan, Sri Lanka.

To ensure a high level of pre and post-sales support is offered, BPC work closely with distributors, providing key commercial and technical training whilst providing competitive costing structures tailored to specific region markets, ensuring the most suitable BPC products are offered. We pride ourselves on long standing relationships with our partners which is reflected in the ongoing support provided locally.



•The British Power Conversion Company

•Authorised Distributor

PowerPro Static Frequency Converter Series

Three Phase Input & Output Static Frequency Converter
60Hz - 400Hz

» Maritime » Aviation » Industrial



BPC Energy's Three Phase range of Static Frequency Converters are used for converting utility mains power to different frequencies such as 60 Hz or 400 Hz and voltages to run your critical equipment BPC Three Phase output Static Frequency Converter systems are designed with Power Factor Correction to reduce input current and harmonic distortion, using IGBT technology to achieve a high quality output under all load conditions with continuous operation.

The PowerPro Static Frequency Converter range of products offers very flexible technology which can be designed for frequency conversion 50 Hz, 60 Hz or 400 Hz solutions and/or voltage changes enabling us to meet your industrial specification and requirements

All BPC PowerPro Static Frequency Converter ranges have options for adjustable output frequency and voltage requirements, communication intelligent interface for network/building management solutions, and other accessories enabling us to meet your industry specifications and requirements

- » Advanced Digital Signal Processor
- » Modular Architecture improving reliability
- » Pure Sinewave Output
- » Advanced Communications
- » Space-Saving Design
- » Advanced Graphical Display
- » High Efficiency

PowerPro EF - 300FC 60Hz (400 Volts output)

10 - 80kVA

Technical Specification



MODEL	EF310FC	EF315FC	EF320FC	EF330FC	EF340FC	EF360FC	EF380FC
Power Rating kVA	10	15	20	30	40	60	80
INPUT							
Voltage	220 / 380 VAC 3P + N + G ±20%						
Frequency	50Hz ±10%						
Power Factor	≥0.99 @ 100% load						
THDI	≤3%						
Rectifier Soft Start Time	Minimum 3 sec.						
OUTPUT							
Power Factor	Unity						
Voltage	220 / 380 VAC 3P + N + G						
Voltage THD	≤3% (linear load)						
Frequency	60Hz ±0.25%						
Voltage Tolerance	±1% (linear load) ±5% (dynamic load)						
Recovery Time	≤50ms						
Efficiency	≥93%		≥93.5%				≥94.8%
Crest Factor	3:1 @ 100% load						
Overload Capacity	5 min @ 125% load, 40ms at 150% load					10 min @ 125% load, 60sec @ 150% load, 40ms at 200% load	
GENERAL							
Operating Temperature	0°C - 40°C (operation) / -15°C to 45°C (storage)						
Operating Humidity	20% - 90%						
Operating Altitude	≤1000m: 100% > 1000m: Maximum 0.6% derating per 100m (3000m: 88% rated power with 12% derating)						
Acoustic Noise Level	≤57dBA				≤62dBA		
Comms Adaptors	SNMP, RS485, Remote Monitoring Panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport Multiplexer						
IP Protection	IP20						
Dimensions (mm) WxDxH	400 x 815 x 1040				515 x 855 x 1440		
Net Weight (kgs)	≤87	≤87	≤91	≤100	≤173	≤197	≤209



PowerPro EF - 300FC 60Hz (400 Volts output)

100 - 200kVA

Technical Specification

MODEL	EF100FC	EF120FC	EF160FC	EF200FC	EF250FC
Power Rating kVA	100	120	160	200	250
INPUT					
Voltage	220 / 380 VAC 3P + N + G ±20% (@ 100% load) / -40% (@ 70% load)				
Frequency	50Hz ±10%				
Power Factor	≥0.99 @ 100% load				
THDI	≤3%				
Rectifier Soft Start Time	Minimum 3 sec.				
OUTPUT					
Power Factor	Unity				
Voltage	220 / 380 VAC 3P + N + G				
Voltage THD	≤2% (linear load)				
Frequency	60Hz ±0.1%				
Voltage Tolerance	±1% (linear load) ±5% (dynamic load)				
Recovery Time	≤50ms				
Efficiency	up to 95.5%		up to 96%		
Crest Factor	3:1				
Overload Capacity	10 min @ 125% load: 1 min at 150% load				
GENERAL					
Operating Temperature	0°C - 40°C (operation) / -15°C to 45°C (storage)				
Operating Humidity	90% max. (non-condensing)				
Operating Altitude	≤1000m: 100% > 1000m: Maximum 0.6% derating per 100m (3000m: 88% rated power with 12% derating)				
Acoustic Noise Level	≤62dBA		≤65dBA		
Comms Adaptors	SNMP, RS485, Remote Monitoring Panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport Multiplexer				
IP Protection	IP20				
Dimensions (mm) WxDxH	475 x 890 x 1440				TBC
Net Weight (kgs)	210	220	262	270	TBC

PowerPro EF - 300TFC 60Hz (400 Volts output)

10 - 80kVA

Technical Specification



MODEL	EF310TFC	EF315TFC	EF320TFC	EF330TFC	EF340TFC	EF360TFC	EF380TFC
Power Rating kVA	10	15	20	30	40	60	80
INPUT							
Voltage	220 / 380 VAC 3P + N + G ±20%						
Frequency	50Hz ±10%						
Power Factor	≥0.99 @ 100% load						
THDI	≤3%						
Rectifier Soft Start Time	Minimum 3 sec.						
OUTPUT							
Power Factor	Po						
Voltage	120 / 208 VAC 3P + N + G						
Voltage THD	≤3% (linear load)						
Frequency	60Hz ±0.25%						
Voltage Tolerance	±1% (linear load) ±5% (dynamic load)						
Recovery Time	≤50ms						
Efficiency	≥91.1%		≥91.6%				≥92.6%
Crest Factor	3:1 @ 100% load						
Overload Capacity	5 min @ 125% load, 40ms at 150% load					10 min @ 125% load, 60sec @ 150% load, 40ms at 200% load	
GENERAL							
Operating Temperature	0°C - 40°C (operation) / -15°C to 45°C (storage)						
Operating Humidity	20% - 90%						
Operating Altitude	≤1000m: 100% > 1000m: Maximum 0.6% derating per 100m (3000m: 88% rated power with 12% derating)						
Acoustic Noise Level	≤55dBA		≤60dBA			≤62dBA	
Comms Adaptors	SNMP, RS485, Remote Monitoring Panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport Multiplexer						
IP Protection	IP20						
Dimensions (mm) WxDxH	400 x 815 x 1040				515 x 855 x 1440		
Net Weight (kgs)	187	198.5	244	270	393	457	536



PowerPro EF - 300TFC 60Hz (400 Volts output)

100 - 200kVA

Technical Specification

MODEL	EF100TFC	EF120TFC	EF160TFC	EF200TFC	EF250TFC
Power Rating kVA	100	120	160	200	250
INPUT					
Voltage	220 / 380 VAC 3P + N + G ±20% (@ 100% load) / -40% (@ 70% load)				
Frequency	50Hz ±10%				
Power Factor	≥0.99 @ 100% load				
THDI	≤3%				
Rectifier Soft Start Time	Minimum 3 sec.				
OUTPUT					
Power Factor	Unity				
Voltage	120 / 208 VAC 3P + N + G				
Voltage THD	≤3% (linear load)				
Frequency	60Hz ±0.25%				
Voltage Tolerance	±1% (linear load) ±5% (dynamic load)				
Recovery Time	≤50ms				
Efficiency	≥92.6%		≥93%		
Crest Factor	3:1				
Overload Capacity	10 min @ 125% load; 60 sec at 150% load, 40 ms @ 200% load				
GENERAL					
Operating Temperature	0°C - 40°C (operation) / -15°C to 45°C (storage)				
Operating Humidity	20% - 90%				
Operating Altitude	≤1000m: 100% > 1000m: Maximum 0.6% derating per 100m (3000m: 88% rated power with 12% derating)				
Acoustic Noise Level	≤67dBA				≤71dBA
Comms Adaptors	SNMP, RS485, Remote Monitoring Panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport Multiplexer				
IP Protection	IP20				
Dimensions (mm) WxDxH	825 x 855 x 1770			1250 x 1055 x 1900	
Net Weight (kgs)	539	595	647	910.5	1150

The BPC Group

BPC is an international company operating for over 27 years globally, with partners and distributors located around the world.

These regions include:

EUROPE

UK, France, Germany, Gibraltar, Ireland, Netherlands, Malta, Norway, Portugal, Russia.

MIDDLE EAST

Bahrain, Georgia, Iraq, Jordan, Kuwait, KSA, Lebanon, Oman, Qatar, Syria, Turkey, UAE, Yemen.

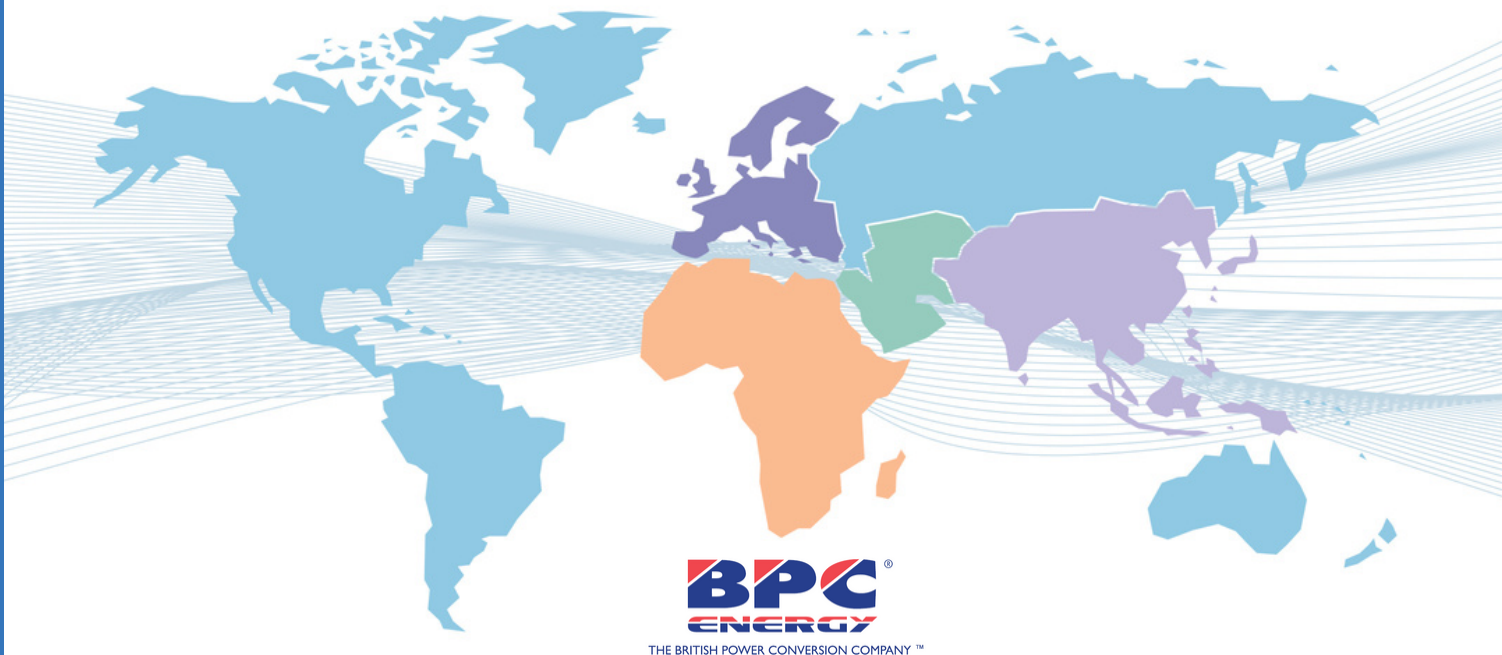
AFRICA

Algeria, Botswana, Burkina Faso, Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Kenya, Libya, Mozambique, Nigeria, Rwanda, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, Zambia.

FAR EAST & ASIA

India, Pakistan, Sri Lanka, Indonesia.

To ensure a high level of pre and post sales support is offered, BPC work closely with distributors, providing key commercial and technical training whilst providing competitive costing structures tailored to specific region markets, ensuring the most suitable BPC products are offered. We pride ourselves on long standing relationships with our partners which is reflected in the ongoing support provided locally.



THE BRITISH POWER CONVERSION COMPANY™

Authorised Distributor