

Uninterruptible Power Supplies (UPS)

AUGUST 2011



Broadcrown is a **leading global manufacturer** of high quality generator sets and a provider of complete power generation systems.

We have **over 30 years experience** in power generation. We are trusted to deliver a wide range of standard and bespoke systems – from diesel generators to Uninterruptible Power Supplies (UPS) – plus turnkey power supply solutions, worldwide.

Broadcrown was one of the first power generation companies to be approved to **ISO 9001 standards** and quality drives every aspect of our business.

Our superior designs use **high quality components** throughout; not just in the generator sets but also the baseframes, canopies, containers and control panels.

Our full product range of single units extends from 6kVA to 3.3MVA. All units can be combined to meet the requirements of larger projects for a broad range of applications delivering standby, prime or continuous power.

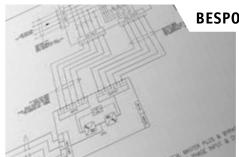
We will work with you to implement any **product modifications** that you may need specifically for your project. Our generator set range includes:

- Diesel and gas powered
- Trailer mounted, diesel powered
- Gas and co-generation
- Oil and gas
- Marine
- Medium speed
- Gas turbines
- Bespoke
- Rental

This brochure provides the main specifications and the options available for models in our UPS ranges.

More information on our comprehensive product range plus technical updates can be found on our website www.broadcrown.com

Superior Uninterruptible Power Supply (UPS) units ranging from 3kVA to 800kVA.



BESPOKE SOLUTIONS

We offer a wide range of high quality UPS models plus a bespoke service to help tailor each system to suit your specific needs. Contact our sales department or your local regional sales office for more details.



OPTIONS

All the necessary electrical options are available for every unit within our range, including maintenance bypass panels and static switches.



BATTERIES

We offer a wide range of autonomy times for all of our UPS systems from several minutes to many hours. The batteries can be housed inside the UPS unit, in a separate battery cabinet or an open battery rack depending upon the exact autonomy time.



REMOTE MONITORING

We offer maintenance packages that can include monitoring software which enables the UPS system's performance to be monitored remotely at all times.



Our UPS systems guarantee to keep s continuing to function without

critical applications continuing to function without interruption in supply.

Broadcrown's UPS systems ensure your application receives the correct level of power during a partial or total mains failure giving you total peace of mind.

They also provide:

- A wide input voltage range (without reverting to the battery)
- Clean and stable sine wave power output
- Higher system reliability due to inbuilt bypass function
- Filtration of disturbances and anomalies from the mains power supply
- Generator compatibility

World-class products

Our world class UPS units are offered either matched to a high quality Broadcrown generator or as a standalone system. They are suitable for small networks and servers all the way up to applications such as entire data centres.

Full range of products

Our UPS range incorporates continuous, online, double conversion technology which provides the highest level of power protection available. The range covers both single and three-phase power supply units, from 3kVA to 800kVA. It is also possible to connect up to 8 units in parallel to a maximum of 6400kVA or to have N+1 redundancy.

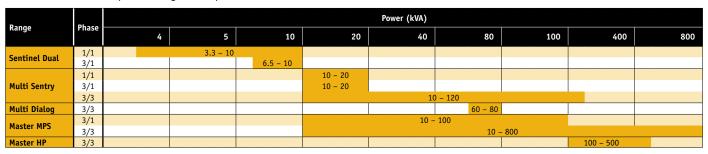
We also offer additional components such as static transfer and maintenance bypass switches and network supervision software which monitors the status of the UPS system installed including up-to-date operation information and fault condition recording.

Complete service

We undertake all aspects of the UPS power solution package including design, project management, installation, commissioning, maintenance packages, and extended warranties.

UPS Range

This table shows the power ranges and phases for the five UPS units detailed in this brochure.



UPS model designations

All UPS model designations begin with the standard prefix **BCR**.

The next part of the designation is used to indicate the model range of the UPS unit. For example —

Sentinel Dual range: SDL

Multi Sentry range (single phase
input/output): MCM or MSM

Multi Sentry range (three phase
input/output): MCT or MST

Multi Dialog range: MDT

Master MPS range (single phase
output): MPM

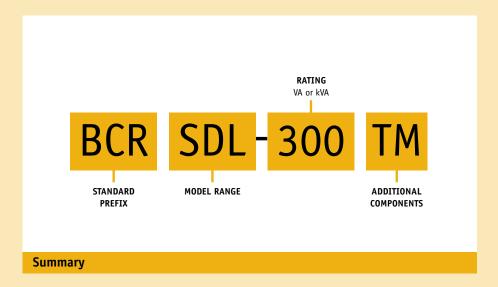
Master MPS range

(three phase output): MPT Master HP range: MHT

The third part of the designation is used to indicate the actual rating of the UPS unit (in VA for the Sentinel Dual range, and in kVA for all other ranges).

The final part of the designation indicates if any additional components have been included with the UPS unit. For example —

Three phase input model: TM



3.3 to 10 kVA Sentinel Dual UPS

The Broadcrown Sentinel Dual UPS is the ideal solution for computer and telecoms users wanting a flexible multiple operating format power system capable of either floor standing or 19" rack mount format for use in communication cabinets.

Kev Features -

- Auto-restart on mains return (programmable)
- Power factor correction low impact on the mains supply
- Wide input voltage range to reduce battery usage • Option to extend the back-up time to several hours
- Programming of operating functions via software
- Timer for scheduled shutdown (software programmable)



Single/single-phase and 3/single phase (50/60Hz frequency – selectable)											
le Power Supply Module		Input	Output								
Dimensions * Weight Height x Width x Depth (mm) (kg)		Voltage	Voltage	kVA	kWe						
455 x 175 x 520	38	220-230-240 Vac	220-230-240 Vac selectable	3300	2300						
455 x 175 x 520	40	220-230-240 Vac	220-230-240 Vac selectable	4000	2400						
455 x 175 x 660	62	220-230-240 Vac	220-230-240 Vac selectable	5000	3500						
455 x 175 x 660	64	220-230-240 Vac	220-230-240 Vac selectable	6000	4200						
2 x 455 x 175 x 660	94	220-230-240 Vac	220-230-240 Vac selectable	8000	6400						
2 x 455 x 175 x 660	95	220-230-240 Vac	220-230-240 Vac selectable	10000	8000						
2 x 455 x 175 x 660	91	400 Vac 3 phase + N	220-230-240 Vac selectable	6500	5200						
2 x 455 x 175 x 660	94	400 Vac 3 phase + N	220-230-240 Vac selectable	8000	6400						
2 x 455 x 175 x 660	95	400 Vac 3 phase + N	220-230-240 Vac selectable	10000	8000						
ι	e Power Supply Module Dimensions ght × Width × Depth (mm) 455 × 175 × 520 455 × 175 × 520 455 × 175 × 660 2 × 455 × 175 × 660 2 × 455 × 175 × 660 2 × 455 × 175 × 660 2 × 455 × 175 × 660 2 × 455 × 175 × 660 2 × 455 × 175 × 660	Power Supply Module Dimensions ght x Width x Depth (mm) 455 x 175 x 520 455 x 175 x 520 455 x 175 x 660 455 x 175 x 660 2 x 455 x 175 x 660 3 x 455 x 175 x 660 4 x 455 x 175 x 660 2 x 455 x 175 x 660 3 x 455 x 175 x 660 4 x 455 x 175 x 660	Power Supply Module Input Dimensions ght x Width x Depth (mm) * Weight (kg) 455 x 175 x 520 38 220-230-240 Vac 455 x 175 x 520 40 220-230-240 Vac 455 x 175 x 660 62 220-230-240 Vac 455 x 175 x 660 64 220-230-240 Vac 2 x 455 x 175 x 660 94 220-230-240 Vac 2 x 455 x 175 x 660 95 220-230-240 Vac 2 x 455 x 175 x 660 91 400 Vac 3 phase + N 2 x 455 x 175 x 660 94 400 Vac 3 phase + N	Dimensions	Power Supply Module						

^{*} Dry weight without batteries

Note: Standard autonomy times available - contact

Broadcrown for further information

10 to 120 kVA Multi Sentry UPS

The Broadcrown Multi Sentry UPS is perfect for the protection of critical information and systems that cannot run the risk of being powered from a poor quality electrical supply.

Key Features —

- Auto-restart on mains return (programmable)
- Independently verified efficiency of 96.5%
- One of the most generator-compatible units available
- \bullet Advanced battery charging and monitoring for prolonged life • Automatic battery testing for advanced indication of failures
- Parallel connection (or N+1) of up to 6 units
- Compact footprint



Single/single phase and 3/single phase and 3/3 phase (50/60Hz frequency – selectable)											
Uninterr	uptible Power Supply Module		Input	Output							
UPS Model	Dimensions Height x Width x Depth (mm)	* Weight (kg)	Voltage	Voltage	kVA	kWe					
BCR MCM 10	930 x 320 840	80	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	10	8					
BCR MCM 12	930 x 320 840	82	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	12	9.6					
BCR MCM 15	930 x 320 840	90	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	15	12					
BCR MCM 20	930 x 320 840	95	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	20	16					
BCR MSM 10	1320 x 440 850	105	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	10	8					
BCR MSM 12	1320 x 440 850	110	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	12	9.6					
BCR MSM 15	1320 x 440 850	115	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	15	12					
BCR MSM 20	1320 x 440 850	120	230 Vac single or 400 Vac three phase + N	220-230-240 Vac selectable	20	16					
BCR MCT 10	930 x 320 840	80	380-400-415 Vac three phase + N	380-400-415 Vac selectable	10	9					
BCR MCT 12	930 x 320 840	82	380-400-415 Vac three phase + N	380-400-415 Vac selectable	12	10.8					
BCR MCT 15	930 x 320 840	90	380-400-415 Vac three phase + N	380-400-415 Vac selectable	15	13.5					
BCR MCT 20	930 x 320 840	90	380-400-415 Vac three phase + N	380-400-415 Vac selectable	20	18					
BCR MST 10	1320 x 440 850	105	380-400-415 Vac three phase + N	380-400-415 Vac selectable	10	9					
BCR MST 12	1320 x 440 850	110	380-400-415 Vac three phase + N	380-400-415 Vac selectable	12	10.8					
BCR MST 15	1320 x 440 850	115	380-400-415 Vac three phase + N	380-400-415 Vac selectable	15	13.5					
BCR MST 20	1320 x 440 850	115	380-400-415 Vac three phase + N	380-400-415 Vac selectable	20	18					
BCR MST 30	1320 x 440 x 850	135	380-400-415 Vac three phase + N	380-400-415 Vac selectable	30	27					
BCR MST 40	1320 x 440 x 850	145	380-400-415 Vac three phase + N	380-400-415 Vac selectable	40	36					
BCR MST 60	1600 x 500 x 850	190	380-400-415 Vac three phase + N	380-400-415 Vac selectable	60	54					
BCR MST 80	1600 x 500 x 850	200	380-400-415 Vac three phase + N	380-400-415 Vac selectable	80	72					
BCR MST 100	1900 x 750 x 855	370	380-400-415 Vac three phase + N	380-400-415 Vac selectable	100	90					
BCR MST 120	1900 x 750 x 855	380	380-400-415 Vac three phase + N	380-400-415 Vac selectable	120	108					

^{*} Dry weight without batteries

Note: Standard autonomy times available - contact

Broadcrown for further information



60 to 80 kVA Multi Dialog UPS

The Broadcrown Multi Dialog UPS is an excellent choice for the power protection of corporate wide and large network applications. It is suitable for computer and telecoms users wanting a flexible multiple operating format power system with advanced communications features.

Key Features —

- High reliability: IGBT technology with full microprocessor control
- High level diagnostics
- Power factor correction with sinusoidal input to ensure a low impact on the mains supply
- Low harmonic pollution in the Multi Dialog CLEAN (AF series) (THDi<4%)
- Failure of the active filter does not affect UPS operation
- Connect up to 8 units in parallel or N+1 redundancy, even of different power ratings



3 phase/3 phase (45 – 65Hz frequency)												
Uninterr	uptible Power Supply Module		Input	Output								
UPS Model	Dimensions Height x Width x Depth (mm)	* Weight (kg)	Voltage	Voltage	kVA	kWe						
BCR MDT 60 - AF	1400 x 500 x 740	180	400 Vac three phase + N	380-400-415 selectable	60	48						
BCR MDT 80 - AF	1400 x 500 x 740	192	400 Vac three phase + N	380-400-415 selectable	80	64						

^{*} Dry weight without batteries

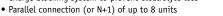
Note: Standard autonomy times available – contact Broadcrown for further information

10 to 800 kVA Master MPS UPS

The Broadcrown Master MPS UPS has a high quality output providing ultimate power protection for 'mission critical' applications such as data processing, telecommunications, industrial processes, security and electro-medical systems.

Key Features —

- Efficiency of up to 98% in smart mode
- One of the most generator-compatible units available
- · Advanced battery charging and monitoring for prolonged life
- Automatic battery testing for advanced indication of failures
- Charge blocking system to prevent electrolyte loss





3 phase/single phase & 3 phase/3 phase (45 – 65Hz frequency)											
Uninterr	uptible Power Supply Module		Input	Output							
UPS Model	Dimensions Height x Width x Depth (mm)	* Weight (kg)	Voltage	Voltage	kVA	kWe					
BCR MPM 10	1400 x 555 x 740	200	380-415 Vac 3 phase	220-230-240 Vac single-phase	9						
BCR MPM 15	1400 x 555 x 740	220	380-415 Vac 3 phase	220-230-240 Vac single-phase	15	13.5					
BCR MPM 20	1400 x 555 x 740	230	380-415 Vac 3 phase	220-230-240 Vac single-phase	20	18					
BCR MPM 30	1400 x 555 x 740	290	380-415 Vac 3 phase	220-230-240 Vac single-phase	30	27					
BCR MPM 40	1400 x 555 x 740	340	380-415 Vac 3 phase	220-230-240 Vac single-phase	40	36					
BCR MPM 60	1400 x 800 x 740	440	380-415 Vac 3 phase	220-230-240 Vac single-phase	60	54					
BCR MPM 80	1400 x 800 x 740	520	380-415 Vac 3 phase	220-230-240 Vac single-phase	80	72					
BCR MPM 100	1400 x 555 x 740	650	380-415 Vac 3 phase	220-230-240 Vac single-phase	100	90					
BCR MPT 10	1400 x 555 x 740	212	380-415 Vac 3 phase	380-415 Vac 3 phase + N	10	9					
BCR MPT 15	1400 x 555 x 740	220	380-415 Vac 3 phase	380-415 Vac 3 phase + N	15	13.5					
BCR MPT 20	1400 x 555 x 740	230	380-415 Vac 3 phase	380-415 Vac 3 phase + N	20	18					
BCR MPT 30	1400 x 555 x 740	280	380-415 Vac 3 phase	380-415 Vac 3 phase + N	30	27					
BCR MPT 40	1400 x 555 x 740	330	380-415 Vac 3 phase	380-415 Vac 3 phase + N	40	36					
BCR MPT 60	1400 x 800 x 740	450	380-415 Vac 3 phase	380-415 Vac 3 phase + N	60	54					
BCR MPT 80	1400 x 800 x 740	600	380-415 Vac 3 phase	380-415 Vac 3 phase + N	80	72					
BCR MPT 100	1900 x 800 x 800	640	380-415 Vac 3 phase	380-415 Vac 3 phase + N	100	90					
BCR MPT 120	1900 x 800 x 800	650	380-415 Vac 3 phase	380-415 Vac 3 phase + N	120	96					
BCR MPT 160	1900 x 800 x 800	770	380-415 Vac 3 phase	380-415 Vac 3 phase + N	160	144					
BCR MPT 200	1900 x 800 x 800	810	380-415 Vac 3 phase	380-415 Vac 3 phase + N	200	180					
BCR MPT 600	1900 x 3200 x 1000	4000	380-415 Vac 3 phase	380-415 Vac 3 phase + N	600	480					
BCR MPT 800	1900 x 4400 x 1000	5300	380-415 Vac 3 phase	380-415 Vac 3 phase + N	800	640					

^{*} Dry weight without batteries

Note: Standard autonomy times available – contact

Broadcrown for further information

100 to 400 kVA Master HP UPS

The Broadcrown Master HP UPS has a high quality output to provide the optimum in power protection for 'mission critical' applications such as data processing, telecommunications, industrial processes, security and electro-medical systems. The range guarantees maximum protection as well as high quality power for any type of IT and industrial load by using a new configuration that includes an IGBT rectifier with sinusoidal input in place of the traditional thyristor rectifier.

Key Features —

- Efficiency of up to 98% in 'smart mode';
- Low input current distortion (less than 2.5%);
- Parallel connection (or N+1) of up to 8 units;
- Group synchronisation possible when not load-sharing;
- Closed loop communication in parallel;
- Charge blocking system to prevent electrolyte loss.



3 phase/3 phase (45 – 65Hz frequency)												
Uninterruptible Power Supply Module			Input	Output								
UPS Model	Dimensions Height x Width x Depth (mm)	* Weight (kg)	Voltage	Voltage	kVA	kWe						
BCR MHT 100	1900 x 800 x 850	656	380-415 Vac 3 phase	380-415 Vac 3 phase + N	100	90						
BCR MHT 120	1900 x 800 x 850	700	380-415 Vac 3 phase	380-415 Vac 3 phase + N	120	108						
BCR MHT 160	1900 x 1000 x 850	800	380-415 Vac 3 phase	380-415 Vac 3 phase + N	160	144						
BCR MHT 200	1900 x 1000 x 850	910	380-415 Vac 3 phase	380-415 Vac 3 phase + N	200	180						
BCR MHT 250	1900 x 1000 x 850	1000	380-415 Vac 3 phase	380-415 Vac 3 phase + N	250	225						
BCR MHT 300	1900 x 1500 x 1000	1400	380-415 Vac 3 phase	380-415 Vac 3 phase + N	300	270						
BCR MHT 400	1900 x 1500 x 1000	1700	380-415 Vac 3 phase	380-415 Vac 3 phase + N	400	360						
BCR MHT 500	1900 x 2100 x 1000	2100	380-415 Vac 3 phase	380-415 Vac 3 phase + N	500	450						

^{*} Dry weight without batteries

Note: Standard autonomy times available – contact Broadcrown for further information







Software and accessories

Floor-standing static transfer switches (STS) 100 - 600A

These UPS STS devices can be used to provide a source of power from one of two primary input sources. This can include either two separately deviced mains supplies, the outputs from two uninterruptible power supplies or a combination of the two. Our floor-standing static transfer switch range includes Master Switch which is designed for use with large three-phase loads

Powershield³ UPS Monitoring and Control Software

PowerShield³ provides user-friendly UPS management. The software displays real time information in the form of bar charts and values for critical data such as mains voltage, UPS load and battery charge percentage. It allows remote interrogation of UPS logs and operating parameters to help diagnose alarms and potential fault conditions. The software can be instructed to perform an automated safe power down of the protected PCs and file servers.



SNMP Interfaces

The NetMan network agent allows UPS management across a LAN using any of the main network communication protocols – TCP/IP, HTTP and network interface (SNMP). NetMan-enabled UPS integrate easily into medium and large-sized networks and provide reliable communications between the UPS and management systems employed.



MULTICOM 301/302

The MultiCOM 301/302 protocol converter can be used to monitor the UPS using the MODBUS/JBUS protocol on RS485 or RS232 serial lines. It will also manage a second, independent RS232 serial line that can be used to connect other devices such as the Netman 101 or a PC that uses the control software PowerShield.



Multipanel: Remote Monitoring Panel

MultiPanel is a remote monitoring panel designed to provide a detailed overview of the UPS unit to which it is connected. The UPS remote panel can provide a range of useful operating information including specific UPS input and output voltage and frequency values, as well as status information on the UPS battery set. The high-definition remote panel display can provide information in seven languages including English, Italian, German, French, Spanish, Russian and Chinese. The device has three independent serial ports. One port for UPS monitoring using the MODBUS/JBUS protocol (either an RS485 or RS232 serial line) and other two designed for use with UPS accessories such as Netman Plus and the UPS monitoring and control software Powershield.

Software and accessories - compatibility table

	Standard Fittings					ngs Software and optional accessories																	
	USB Port	RS232 Port	SLOT	UPS Modem Management	Microsoft Plug & Play	Powershield	NetMan 101 plus	NetMan 102 plus	MultiCOM 351	MultiCOM 352	MultiCOM 301	MultiCOM 302	MultiCOM 362	MultiCOM 372	MultiCOM 382	MultiCOM 401	Multi I/0	Expansion I/0	MultiCOM 401	AS/400 Kit	PowerNetGuard	TeleNetGuard	Multi Panel
UPS Product Range																							
Sentinel Dual	1	1	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
Multi Dialog		2	1	•		•	•	•	•	•	•	•				•	•		•	•	•	•	•
Multi Sentry	1	1	3	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
Master MPS		2	2	•		•	•	•	•	•	•	•				•	•	•	•	•	•	•	•
Master HP		2	2	•		•	•	•	•	•	•	•				•	•	•	•	•	•	•	•

Broadcrown is independently owned and managed. When you contact us you are talking to friendly people who will work with you to meet your specific needs.

Our generator set range includes:

- Diesel and gas powered
- Trailer mounted, diesel powered
- Gas and co-generation
- Oil and gas
- Marine
- Medium speed
- Gas turbines
- Bespoke
- Rental

Production Facilities

All Broadcrown products are designed and manufactured in our purpose-built factories at our corporate headquarters in Hixon, England and in Newtown, Wales.

Brochures are available for all our products and services on our website, www.broadcrown.com





GROUP HEADQUARTERS

Broadcrown Ltd Airfield Industrial Estate Hixon, Stafford Staffs ST18 OPF England

tel: +44 (0) 1889 272200 fax: +44 (0) 1889 272220 email: info@broadcrown.co.uk www.broadcrown.com

INTERNATIONAL NETWORK

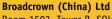
Our growing international network of distributors backed by the Broadcrown Regional Support Centres of Miami, Singapore, Nigeria, South Africa, India and China, provides worldwide product availability and after sales support including training.











Room 1503, Tower B, SOHO Newtown, 88 Jianguo Avenue, Chaoyang Dist., Beijing, China 100022 tel: +86 (0) 10 8589 3698 fax: +86 (0) 10 8589 5771 email: info@broadcrown.com.cn www.broadcrownchina.com

Broadcrown Singapore Pte Ltd

3791 Jalan Bukit Merah, #05-08, E-Centre @ Redhill, Singapore 159471 tel: +65 6235 3630 fax: +65 6732 4355 email: info@broadcrown.com.sg www.broadcrownsingapore.com

Broadcrown (West Africa) Ltd

4/6 Kudirat Abiola Way, Alausa, Ikeja, Lagos, Nigeria tel: +234 1 761 7107 email: info@broadcrown.com.ng www.broadcrownwestafrica.com

Broadcrown SA (Pty) Limited

Office Address: Unit 1 Atom Park, Neutron Street, Stikland 7530, South Africa Postal Address: PO Box 1065, Durbanville 7551, South Africa tel: +27 21 946 3463 fax: +27 21 946 3953 email: info@broadcrown.co.za www.broadcrownsouthafrica.com

Broadcrown Inc.

9705 NW 108th Avenue, Suite 10, Miami, Florida 33178, USA tel: +1 305 888 1414 fax: +1 305 888 1801 email: info@broadcrownusa.com www.broadcrownusa.com

Broadcrown India (PVT) Ltd

R-06 A, 3rd Floor, MGF Plaza, Mehrauli-Gurgaon Road, Gurgaon – 122002, Haryana, India email: info@broadcrownindia.com www.broadcrownindia.com