

MASTERELITE

ERM 8-20kVA three/single phase

ERT 10-160kVA three/three phase



The MasterElite range uses advanced double-conversion on-line (VFI) technology with a transformer isolated inverter output to support loads up to 160kVA (1MVA for the maximum parallel system). ERM models provide a single output from a three phase input. ERT models provide a three phase output.

The load is powered continuously by the inverter with an EMI filtered, stabilised and regulated sinewave supply. The Eco-Mode (100kVA upwards) helps to improve operating efficiencies (up to 98%) for security applications such as emergency lighting. The UPS is an outstanding long runtime solution for critical voice and data processing applications. Runtimes from several minutes to many hours can be achieved using matching battery extension packs (BEPs) or local standby generators. MasterElite is supplied with the PowerShield² UPS management software package.

MasterElite models can be used with the CleanSource DC flywheel, a fundamental breakthrough in mechanical battery technology.

- CleanSource can pack 500kW into a 1m² footprint and typically occupies 1/10th the floor space of an equivalent battery cabinet or rack.
- CleanSource is highly efficient, low maintenance (less than 45minutes per year) and can save thousands in future battery replacement costs over its 20 year design life.
- CleanSource can be used to bridge the power break between mains failure and local generator power up, and can help to reduce the need for a traditional local battery and/or reduce the 'whip' effect of a generator on start up.
- CleanSource can also be used to reduce the initial 'on-demand' load strain placed by mains failures on chemical batteries, and the number of partial battery discharges.
- Two or more CleanSource systems can be used in parallel to increase the support time.



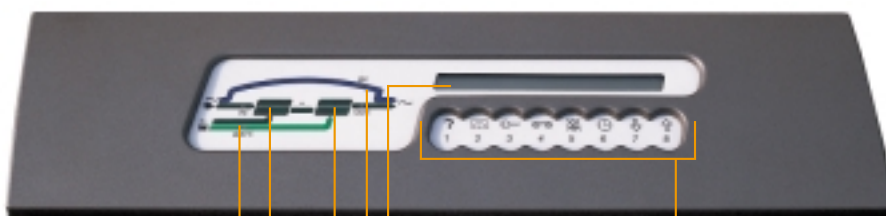
W x D x H
555 x 720 x 1200 mm



W x D x H
800 x 740 x 1400 mm



W x D x H
1070 x 740 x 1400 mm



- 9 Digital display
- 10 Bypass ON/Manual Bypass
- 11 Inverter ON/Overload
- 12 Mains supply present
- 13 On batteries/End of discharge pre-alarm

- 1 Language selection
- 2 Input/Output measurements
- 3 Controls/Settings/Customisation options
- 4 Event log
- 5 Alarm reset
- 6 Time/Date
- 7 Scroll down
- 8 Scroll up

FEATURES

- Advanced double-conversion on-line (VFI) technology (EN50091-3) with EMI filters and a transformer isolated inverter output
- High reliability: microprocessor controlled static and manual bypass facility
- IGBT based power electronics
- Extremely high short circuit current (2.8In)
- Parallel and redundant (N+1) operation (up to 6 units)
- Dual input option
- High level diagnostics: states, modes, measurements and alarms
- Built-in front panel LCD with scroll function, RS232 and signal contact ports
- Low power consumption and maintenance costs (MTTR 30minutes)
- Low cost and simplified installation including; calibration of the output voltage from the front panel keypad to allow for voltage drop down long cable runs
- Ability to place the UPS on any distribution network (neutral not required on rectifier input) using input isolation transformers
- Separation of the rectifier/bypass power supplies
- Powering from different sources without Galvanic isolation
- Built-in battery test facility (automatic and manual), temperature compensating charger and deep battery discharge protection
- Cold-start facility to allow the UPS to power up without a mains supply for security applications such as emergency lighting

ADVANCED COMMUNICATION

- Advanced, multi-platform communication, for all operating systems and network environments: PowerShield² monitoring and control software included, with SNMP agent, for Windows 95, 98, 2000, Me, NT 4.0, Novell operating systems. The UPS is supplied with a PC Communications cable for direct connection to a PC (Plug and Play)
- RS232 serial port
- Volt Free Signals
- EPO (Emergency Power Off) Contact for UPS shutdown using a remote panic button
- Input contact for remote bypass operation
- Digital or LED-based remote control panel

APPLICATIONS

- Local Area Networks (LANs)
- Servers
- Data centres
- Internet centres (ISP/ASP/POP)
- Industrial PLCs
- Medical appliances
- Telecommunications devices
- Emergency applications (lights/alarms)



TECHNICAL DATA

single phase output models ERM

MODEL	8KVA	10KVA	15KVA	20KVA
RECTIFIER INPUT				
Rated power [kVA]	8	10	15	20
Rated voltage	400Vac three-phase			
Voltage range	±20%			
Frequency range	45-65Hz			
Soft start	0-100% in 10s			
RECTIFIER OUTPUT				
Nominal battery voltage	384Vdc			
Maintenance voltage	Temperature dependant [-0.5V x °C]			
Ripple	< 1%			
INVERTER OUTPUT				
Rated power [kVA/KW]	8/6.4	10/8	15/12	20/16
Rated voltage [V]	230 single-phase			
Rated current [A]	35	43	65	87
Regulation of the output voltage	200-244Vac phase/neutral (from control panel)			
Crest factor	3:1			
Waveform	Sinewave			
Static stability	±1%			
Dynamic stability	±5% in 5ms			
Rated frequency	50/60Hz (auto sensing or selectable)			
Frequency stability (mains supply failure)	±0.05 %			
Frequency stability (mains supply present)	±2% (adjustable ± 1%/±5% from control panel)			
Overload	125/150/200% of the rated current for 10'/1'/7 s			
Inverter efficiency at rated load	92	93	93	93
BATTERY (Maintenance-free sealed lead-acid)				
Typical recharge time	8h			
BYPASS				
Rated current [A]	35	43	65	87
Rated voltage [V]	230 single-phase			
Permitted voltage range	±15% (adjustable ±10% , ±25% from front panel)			
Rated frequency	50/60Hz (auto sensing)			
Permitted frequency range	±2% (adjustable ±1% , ±5% from front panel)			
Overload capacity In x 10ms	18	14	12	14
Standard features	Back Feed protection; separate bypass line			
INSTALLATION INFORMATION				
Efficiency	91	92	92	92
Compliance	EN50091-1-1, EMC EN50091-2 Lev. A EC Directives 73/23-93/68-89/336			
Air flow (m3/h) (for installations in a closed environment)	310	372	558	744
Remote signaling	Volt-free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm... output 12Vdc 80mA)			
Remote controls	EPO and bypass			
Computer interface	RS232/C			
Operating temperature	0-40°C			
Maximum relative humidity non condensing	95%			
Noise (dBA)	48-54	48-54	53-60	53-60
Enclosure protection rating	IP20			
Colour	Light grey RAL 7035			
Rectifier maximum input current [A]	15	18	27	36
Bypass input current [A]	36	45	68	91
Differential input current*	100mA			
VALUE OF THE OUTPUT PROTECTION (FOR SELECTIVITY)**				
Normal fuses (G)	In (Rated current) / 5,5			
Normal switches (Curve C)	In (Rated current) / 5,5			
Extra fast fuses	In (Rated current) / 1.6			
Cable infeed	Bottom/rear			

* This value must be added to the differential current of the equipment. Special applications on request

** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

Model No	Power	Back-up at full load	Dimensions (W x D x H) mm	Weight Kg
ERM8KVA31/01	8kVA/6k4W	0m	555 x 720 x 1200	190
ERM8KVA31/02		10m	555 x 720 x 1200	280
ERM8KVA31/03		20m	555 x 720 x 1200	311
ERM8KVA31/05		35m	555 x 720 x 1200	401
ERM8KVA31/04		50m	555 x 720 x 1200	432
ERM10KVA31/01	10kVA/8kW	0m	555 x 720 x 1200	200
ERM10KVA31/02		6m	555 x 720 x 1200	290
ERM10KVA31/03		15m	555 x 720 x 1200	321
ERM10KVA31/05		30m	555 x 720 x 1200	411
ERM10KVA31/04		40m	555 x 720 x 1200	442
ERM15KVA31/01	15kVA/12kW	0m	555 x 720 x 1200	220
ERM15KVA31/02		10m	555 x 720 x 1200	341
ERM15KVA31/04		15m	555 x 720 x 1200	431
ERM15KVA31/03		20m	555 x 720 x 1200	462
ERM20KVA31/01	20kVA/16kW	0m	555 x 720 x 1200	240
ERM20KVA31/02		10m	555 x 720 x 1200	451
ERM20KVA31/03		15m	555 x 720 x 1200	482

TYPICAL BATTERY EXTENSION PACKS

UPS Model No	Back-up at full load	Battery Extension Packs Model No	Qty	Dimensions (W x D x H) mm	Weight Kg
ERM8KVA31/01	1h5	BEP384038AB/01	1	555 x 720 x 1200	537
	2h	BEP384065AC/01	1	860 x 720 x 1200	861
ERM10KVA31/01	1h5	BEP384038AB/01	1	555 x 720 x 1200	537
	2h10	BEP384065AC/01	1	860 x 720 x 1200	861
ERM15KVA31/01	40m	BEP384038AB/01	1	555 x 720 x 1200	537
	1h15	BEP384065AC/01	1	860 x 720 x 1200	861
ERM20KVA31/01	30m	BEP384038AB/01	1	555 x 720 x 1200	537
	55m	BEP384065AC/01	1	860 x 720 x 1200	861

OPTIONS

- USB signal converter
- SNMP network adaptor
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Harmonic filter pack (THD < 8%)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation cards
- PowerShield² UPS monitoring and control software, and SNMP solutions
- Service and maintenance plans
- StrikeSafe Transient Voltage Surge Suppressors (TVSS)

TECHNICAL DATA

three phase output models ERT

MODEL	10KVA	15KVA	20KVA	30KVA	40KVA
RECTIFIER INPUT					
Rated power [kVA]	10	15	20	30	40
Rated voltage	400Vac three-phase				
Voltage range	±20%				
Rated frequency	50/60Hz auto-sensing				
Frequency range	45-65Hz				
Soft start	0 -100% in 10s				
RECTIFIER OUTPUT					
Nominal battery voltage	384Vdc				
Maintenance voltage	Temperature dependant [-0.5V x °C]				
Ripple	< 1%				
INVERTER OUTPUT					
Rated power [kVA/KW]	10/8	15/12	20/16	30/24	40/32
Number of phases	3+N				
Rated voltage [V]	400				
Rated current [A]	14	22	29	43	58
Regulation of the output voltage	Adjustable from 348Vac to 424Vac (from control panel)				
Crest factor	3:1				
Waveform	Sinewave				
Static stability	±1%				
Dynamic stability	±5% in 5ms				
Rated frequency	50/60Hz (auto-sensing or selectable)				
Frequency stability (Mains supply failure)	±0.05%				
Frequency stability (Mains supply present)	±2% (adjustable ±1% / ±5% from control panel)				
Overload	25/150/200% of the rated current per 10'/1'/7 s				
Efficiency of the inverter at rated load	91	91	92	92	93
BATTERY (Maintenance-free sealed lead-acid)					
Typical recharge time	8h				
BYPASS					
Rated current [A]	14	22	29	43	58
Rated voltage [V]	400Vac three-phase				
Voltage range	±15% (adjustable ±10% , ±25% from control panel)				
Rated frequency	50/60Hz (auto-sensing)				
Permitted frequency range	±2% (adjustable ±1% , ±5% from control panel)				
Overload capacity In x 10ms	14	15	14	15	14
Standard features	Back Feed protection; separate bypass line				
INSTALLATION INFORMATION					
Efficiency	90	90	91	91	92
Compliance	EN50091-1-1, EMC EN50091-2 Lev. A Directives 73/23-93/68-89/336 EEC				
Remote signal	Volt-free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm... - output 12Vdc 80mA)				
Remote controls	EPO and remote bypass				
Standard interface	RS232/C				
Operating temperature	0 -40°C				
Maximum relative humidity non condensing	95%				
Noise (dBA)	48-54	48-54	53-60	53-60	53-60
Enclosure protection rating	IP20				
Colour	Light grey RAL 7035				
Air flow (m ³ /h) (for installations in a closed environment)	496	682	868	1240	1488
Maximum input current rectifier [A]	18	28	37	55	72
Bypass input current [A]	15	23	30	45	61
Differential input current*	100mA				
VALUE OF THE OUTPUT PROTECTION (FOR SELECTIVITY)**					
Normal fuses (G)	In (Rated current) / 5.5				
Normal switches (Curve C)	In (Rated current) / 5.5				
Fast-blow fuses	In (Rated current) / 1.6				
Cable infeed	bottom / rear				

* This value must be added to the differential current of the equipment. Special applications on request

** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

Model No	Power	Back-up at full load	Dimensions (W x D x H) mm	Weight Kg
ERT10KVA33/01	10kVA/8kW	0m	555 x 720 x 1200	210
ERT10KVA33/02		6m	555 x 720 x 1200	300
ERT10KVA33/03		15m	555 x 720 x 1200	331
ERT10KVA33/05		30m	555 x 720 x 1200	421
ERT10KVA33/04		40m	555 x 720 x 1200	452
ERT15KVA33/01	15kVA/12kW	0m	555 x 720 x 1200	220
ERT15KVA33/02		10m	555 x 720 x 1200	341
ERT15KVA33/04		15m	555 x 720 x 1200	431
ERT15KVA33/03		20m	555 x 720 x 1200	462
ERT20KVA33/01	20kVA/16kW	0m	555 x 720 x 1200	240
ERT20KVA33/02		10m	555 x 720 x 1200	451
ERT20KVA33/03		15m	555 x 720 x 1200	482
ERT30KVA33/01	30kVA/24kW	0m	555 x 720 x 1200	285
ERT40KVA33/01	40kVA/32kW	0m	555 x 720 x 1200	330

TYPICAL BATTERY EXTENSION PACKS

UPS Model No	Back-up at full load	Battery Extension Packs Model No	Qty	Dimensions (W x D x H) mm	Weight Kg
ERT10KVA33/01	1h5	BEP384038AB/01	1	555 x 720 x 1200	537
	2h10	BEP384038AB/01	2	555 x 720 x 1200	537
ERT15KVA33/01	40m	BEP384038AB/01	1	555 x 720 x 1200	537
	1h15	BEP384065AC/01	1	860 x 720 x 1200	861
ERT20KVA33/01	30m	BEP384038AB/01	1	555 x 720 x 1200	537
	55m	BEP384065AC/01	1	860 x 720 x 1200	861
ERT30KVA33/01	8m	BEP384024AA/01	1	270 x 720 x 1200	302
	15m	BEP384038AB/01	1	555 x 720 x 1200	537
	32m	BEP384065AC/01	1	860 x 720 x 1200	861
	40m	BEP384038AB/01	2	555 x 720 x 1200	537
	1h	BEP384038AB/01	1	555 x 720 x 1200	537
	-	BEP384065AC/01	1	860 x 720 x 1200	861
	ERT40KVA33/01	10m	BEP384038AB/01	1	555 x 720 x 1200
	25m	BEP384065AC/01	1	860 x 720 x 1200	861
	30m	BEP384038AB/01	2	555 x 720 x 1200	537
	55m	BEP384065AC/01	2	860 x 720 x 1200	861

OPTIONS

- USB signal converter
- SNMP network adaptor
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Harmonic filter pack (THD < 8%)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation cards
- PowerShield² UPS monitoring and control software, and SNMP solutions
- Service and maintenance plans
- StrikeSafe Transient Voltage Surge Suppressors (TVSS)

TECHNICAL DATA

three phase output models ERT

MODEL	60KVA	80KVA
RECTIFIER INPUT		
Rated power [kVA]	60	80
Rated voltage	400Vac three-phase	
Voltage range	±20%	
Rated frequency	50/60Hz auto-sensing	
Frequency range	45-65Hz	
Soft start	0-100% in 10s	
RECTIFIER OUTPUT		
Nominal battery voltage	384Vdc	
Maintenance voltage	Temperature dependant [-0.5V x °C]	
Ripple	<1%	
INVERTER OUTPUT		
Rated power [kVA/KW]	60/48	80/64
Number of phases	3+N	
Rated voltage [V]	400	
Rated current [A]	87	115
Regulation of the output voltage	Adjustable from 348Vac to 424Vac (from control panel)	
Crest factor	3:1	
Waveform	Sinewave	
Static stability	± 1%	
Dynamic stability	±5% in 5ms	
Rated frequency	50/60Hz (auto-sensing or selectable)	
Frequency stability (mains supply failure)	±0.05%	
Frequency stability (mains supply present)	±2% (adjustable ± 1% / ±5% from control panel)	
Overload	125/150/200 % of the rated current per 10'/1'/7 s	
Efficiency of the inverter at rated load	93	93
BATTERY (Maintenance-free sealed lead-acid)		
Typical recharge time	8h	
BYPASS		
Rated current [A]	87	115
Rated voltage [V]	400Vac three-phase	
Permitted voltage range	±15% (adjustable ±10%, ±25% from control panel)	
Rated frequency	50/60Hz (auto-sensing)	
Permitted frequency range	±2% (adjustable ± 1%, ±5% from control panel)	
Overload capacity In x 10ms	12	11
Standard features	Back Feed protection; separate bypass line	
INSTALLATION INFORMATION		
Efficiency	92	92
Compliance	EN50091-1-1, EMC EN50091-2 Lev. A Directives 73/23-93/68-89/336 EEC	
Remote signaling	Volt-free contacts (mains supply failure, UPS on bypass, end of discharge pre-alarm... - output 12Vdc 80mA)	
Remote controls	EPO and remote bypass	
Standard interface	RS232/C	
Operating temperature	0-40°C	
Maximum relative humidity non condensing	95%	
Noise (dBA)	53- 62	
Enclosure protection rating	IP20	
Colour	Light grey RAL 7035	
Air flow (m3/h) (for installations in a closed environment)	2232	2960
Maximum input current rectifier [A]	100	125
Bypass input current [A]	91	121
Differential input current*	100mA	
VALUE OF THE OUTPUT PROTECTION (FOR SELECTIVITY)**		
Normal fuses (G1)	In (Rated current) / 5.5	
Normal switches (Curve C)	In (Rated current) / 5.5	
Fast-blow fuses	In (Rated current) / 1.6	
Cable infeed	bottom/rear	

* This value must be added to the differential current of the equipment. Special applications on request

** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

Model No	Power	Back-up at full load	Dimensions (W x D x H) mm	Weight Kg
ERT60KVA33/01	60kVA/48kW	0m	800 x 740 x 1400	450
ERT80KVA33/01	80kVA/64kW	0m	800 x 740 x 1400	555

TYPICAL BATTERY EXTENSION PACKS

UPS Model No	Back-up at full load	Battery Extension Packs Model No	Qty	Dimensions (W x D x H) mm	Weight Kg
ERT60KVA33/01	6m	BEP384038AD/01	1	555 x 740 x 1400	552
	12m	BEP384065AE/01	1	860 x 740 x 1400	876
	18m	BEP384100AE/01	1	860 x 740 x 1400	1000
	36m	BEP384065AE/01	2	860 x 740 x 1400	876
ERT80KVA33/01	5m	BEP384038AD/01	1	555 x 740 x 1400	552
	8m	BEP384065AE/01	1	860 x 740 x 1400	876
	14m	BEP384100AE/01	1	860 x 740 x 1400	1000
	24m	BEP384065AE/01	2	860 x 740 x 1400	876

OPTIONS

- USB signal converter
- SNMP network adaptor
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Harmonic filter pack (THD < 8%)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation cards
- PowerShield² UPS monitoring and control software, and SNMP solutions
- Service and maintenance plans
- StrikeSafe Transient Voltage Surge Suppressors (TVSS)

TECHNICAL DATA

three phase output models ERT

MODEL	100KVA	120KVA	160KVA
RECTIFIER INPUT			
Rated power [kVA]	100	120	160
Rated voltage	400Vac three-phase		
Voltage range	±20%		
Rated frequency	50/60Hz auto-sensing		
Frequency range	45-65Hz		
Soft start	0-100% in 10s		
RECTIFIER OUTPUT			
Nominal battery voltage	480Vdc		
Maintenance voltage	Temperature dependant [-0.5V x °C]		
Ripple	< 1%		
INVERTER OUTPUT			
Rated power [kVA/KW]	100/80	120/96	160/128
Number of phases	3+N		
Rated voltage [V]	400		
Rated current [A]	145	174	232
Regulation of the output voltage	Adjustable from 348Vac to 424Vac (from control panel)		
Crest factor	3:1		
Waveform	Sinewave		
Static stability	±1%		
Dynamic stability	±5% in 5ms		
Rated frequency	50/60Hz (auto-sensing or selectable)		
Frequency stability (mains supply failure)	±0.05%		
Frequency stability (mains supply present)	±2% (adjustable ±1% / ±5% from control panel)		
Overload	125/150/200% rated current for 10'/1'/7 s		
Efficiency of the inverter at rated load	94	94	95
BATTERY (Maintenance-free sealed lead-acid)			
Typical recharge time	8h		
BYPASS			
Rated current [A]	145	174	232
Rated voltage [V]	400Vac three-phase		
Permitted voltage range	±15% (adjustable ±10%, ±25% from control panel)		
Rated frequency	50/60Hz (auto-sensing)		
Permitted frequency range	±2% (adjustable ±1%, ±5% from control panel)		
Overload capacity In x 10ms	12	10	10
Standard features	Back Feed protection; separate bypass line		
INSTALLATION INFORMATION			
Efficiency	93	93	93
Compliance	EN50091-1-1, EMC EN50091-2 Lev. A Directives 73/23-93/68-89/336 EEC		
Remote signaling	Volt-free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm... - output 12Vdc 80mA)		
Remote controls	EPO and remote bypass		
Standard interface	RS232/C		
Operating temperature	0-40°C		
Maximum relative humidity non condensing	95%		
Noise (dBA)	54-62		
Enclosure protection rating	IP20		
Colour	Light grey RAL 7035		
Air flow (m3/h) (for installations in a closed environment)	3700	4400	5800
Maximum input current rectifier [A]	160	190	250
Bypass input current [A]	152	182	243
Differential input current*	100mA		
VALUE OF THE OUTPUT PROTECTION (FOR SELECTIVITY)**			
Normal fuses (GI)	In (Rated current) / 5.5		
Normal switches (Curve C)	In (Rated current) / 5.5		
Fast-blow fuses	In (Rated current) / 1.6		
Cable infeed	bottom / rear		

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** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

Model No	Power	Back-up at full load	Dimensions (W x D x H) mm	Weight Kg
ERT100KVA33/01	100kVA/80kW	0m	1070 x 740 x 1400	650
ERT120KVA33/01	120kVA/96kW	0m	1070 x 740 x 1400	730
ERT160KVA33/01	160kVA/128kW	0m	1070 x 740 x 1400	900

TYPICAL BATTERY EXTENSION PACKS

UPS Model No	Back-up at full load	Battery Extension Packs Model No	Qty	Dimensions (W x D x H) mm	Weight Kg
ERT100KVA33/01	7m	BEP480065AG/01	1	860 x 740 x 1800	1108
	11m	BEP480100AG/01	1	860 x 740 x 1800	1560
	20m	BEP480065AG/01	2	860 x 740 x 1800	1108
	30m	BEP480100AG/01	2	860 x 740 x 1800	1560
ERT120KVA33/01	5m	BEP480065AG/01	1	860 x 740 x 1800	1108
	10m	BEP480100AG/01	1	860 x 740 x 1800	1560
	15m	BEP480065AG/01	2	860 x 740 x 1800	1108
	20m	BEP480100AG/01	2	860 x 740 x 1800	1560
ERT160KVA33/01	8m	BEP480100AG/01	1	860 x 740 x 1800	1560
	12m	BEP480065AG/01	2	860 x 740 x 1800	1108
	17m	BEP480100AG/01	2	860 x 740 x 1800	1560

OPTIONS

- USB signal converter
- SNMP network adaptor
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Harmonic filter pack (THD < 8%)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation cards
- PowerShield² UPS monitoring and control software, and SNMP solutions
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- StrikeSafe Transient Voltage Surge Suppressors (TVSS)