# LIEBERT® CROSS CHASSIS/CABINET FROM 160 A TO 1250 A



#### **Secure Power Always**

Liebert CROSS by Vertiv<sup>™</sup> is a family of system static switches available in Cabinet versions from 160 to 1250 A and in both three and four pole versions. Liebert CROSS Chassis is available in 160 to 450 A, in the four pole version only. Liebert CROSS ensures maximum reliability to critical loads by eliminating system failures that are caused by problems in distribution rather than from the failure of the power source itself.

## Flexibility for Customised Solutions:

Liebert CROSS can be fully customised according to customers' load and environment requirements.

Options include priority mode operation, allowing users to select the preferred power source, selectable switching and tolerance features, galvanic isolation transformers, tripping coil switches, RFI filters, top cable entry connections and remote display units.

#### **Leading Technology**

A key function of Liebert CROSS is the Break Before Make transfer. This ensures that the two live feeds are never connected in parallel.

The Liebert CROSS static switch also ensures that switching between two power supplies occurs safely under both synchronous and asynchronous conditions relative to input waveforms.

#### Reliability

Employing a Liebert CROSS static switch adds another layer of security for mission critical loads.

It ensures a truly redundant power supply by enabling controlled switching between two independent AC power supply sources.

Switching is performed whenever the line that supplies power to the load goes out of tolerance.

Distribution downstream from Liebert CROSS is not only protected from failure of the power sources, but also against any failure in upstream lines.

#### Communication

An RS232 serial port and a voltage-free contact port are available in standard assembly versions and facilitate communication with installed power protection equipment.

LED and LCD displays offer complete and easy interaction with installed equipment and provide detailed information on the operational status of your equipment.

#### **Applications**

Liebert CROSS provides additional security for a wide range of mission critical applications including:

- Data centres /ISPs
- Call Centres
- Manufacturing Process Control
- Signalling Systems
- Safety Systems and Emergency Lighting
- Life Support Systems.

#### **Secure Power Always**

Simply supplying equipment will never deliver the level of business continuity our customers require. Vertiv offers a range of maintenance plans which will:

- Help deliver reliability to the load
- Extend the life of your power protection equipment
- Optimise your capital expenditure
- Provide risk management at a fixed cost
- Help to control your business environment
- Provide a pro active approach to disaster recovery.





### **Liebert CROSS CABINET Specifications**

CROSS CABINET (A)		160	250	400	600	800	1250
Default Input Voltage (V)				40			
Nominal frequency (Hz) [selectable	e]			50/			
Input phases	-			3+			
Number of poles		3-4	3-4	3-4	3-4	3-4	3-4
Transfer Mode			Br	eak Before Make Switc	hing (No source overla	p)	
Overload capacity							
e volleda eapaolity	for 10 minutes (%)			12	5		
	for 1 minutes (%)			15	0		
	for 10 seconds (%)			20	00		
	for 1 seconds (A)	5300	5300	5300	5300	5300	9200
Transfer Time worst condition zero	voltage			≤	E		
source failure (msec)							
Static Switch Fault detector				Ye			
Ventilation		Natural	Natural	Natural	Forced		Forced
Width (mm)		620	620	820	1220	1220	1620
DIMENSIONS AND WEIGHT							
Height (mm)		1780	1780	1780	1780	1780	1780
Width (mm)		620	620	820	1220	1220	1620
Depth (mm)		830	830	830	830	830	830
Neutral sized (*in)		2	2	21.7	1.3	1	1.28
ENVIRONMENT AND STANDA	ARDS						
Safety		CE marking, IEC EN 62310-1					
EMC Compatibility				IEC EN 6204	0-2 Class C3		
Degree of Protection				IP2	20		
Operating temperature (°C)				0-4	40		
Acoustic noise (dBA)		<45	<45	<45	<45	<73	<76
CROSS CHASSIS (A)		16	60	25	io	4!	50
Default Input Voltage (V)				40	00		
Nominal frequency (Hz)				50-	60		
Input phases					N		
				3+	14		
Number of poles				3+			
			Br	4		p)	
Transfer Mode (for Phases)			Br			p)	
Transfer Mode (for Phases)	for 10 minutes (%)		Br	4 eak Before Make Switc	hing (No source overla	p)	
Transfer Mode (for Phases)	for 10 minutes (%) for 1 minutes (%)		Br	4 eak Before Make Switc 12	hing (No source overla	p)	
Transfer Mode (for Phases)			Br	4 eak Before Make Switc 12 15	hing (No source overla	p)	
Number of poles Transfer Mode (for Phases) Overload capacity (without fuses)	for 1 minutes (%)		Br	4 eak Before Make Switc 12	hing (No source overla 5 0	p)	
Transfer Mode (for Phases)	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)		Br	4 eak Before Make Switc 12 15 20	hing (No source overla 5 0 0	p)	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)		Br	eak Before Make Switc 12 15 20 530	hing (No source overla 5 0 00 5	p)	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)		Br	eak Before Make Switc 12 15 20 530 4	hing (No source overla 5 0 0 00 5	p)	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)	2*	Br	eak Before Make Switc 12 15 20 530 4 Ye	hing (No source overla 5 0 0 00 5 es	p) 1.7	*In
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)	2*		eak Before Make Switc 12 15 20 530 \$ Ye	hing (No source overla 5 0 0 00 5 es		*In
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)	2*		eak Before Make Switc 12 15 20 530 \$ Ye	hing (No source overla 55 0 00 00 5 5 es ural		*In
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT  Height (mm)	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A)	2*		eak Before Make Switci 12 15 20 530 \$ Yee Natu	hing (No source overla 5 0 0 00 5 ss ural		*In
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Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT  Height (mm)  Width (mm)  Depth (mm)	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A) voltage	2*	In	eak Before Make Switc 12 15 20 530 4 Ye Natu 2*	hing (No source overla  5  0  00  5  es  ural  In	1.7	*In
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Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT  Height (mm)  Width (mm)  Depth (mm)  Weight (kg) Main CROSS Cabinet MEINTIPE (Main CROSS Cabinet MEINTIPE (Main CROSS Cabinet MEINTIPE (Main CROSS Cabinet MEINTIPE (Main CROSS CABINET AND STANDAMENT AND STANDAME	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A) voltage		ln 25	4 eak Before Make Switci 12 15 20 530 \$ Ye Nato 2*	hing (No source overla	1.7	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT  Height (mm)  Width (mm)  Depth (mm)  Weight (kg) Main CROSS Cabinet Notes (Main CROSS Cabinet Notes)  ENVIRONMENT AND STANDA  Safety	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A) voltage		ln 25	44 eak Before Make Switc  12 15 20 530 \$  Ye  Natr 2*  70 60 120 15	hing (No source overla  5  0  00  5  ss  ural  In  00  00  00  00  mpliant to safety stand	1.7	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized  DIMENSIONS AND WEIGHT  Height (mm)  Width (mm)  Depth (mm)  Weight (kg) Main CROSS Cabinet Meight (kg) Meigh (kg) Meigh (kg) Meight	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A) voltage		ln 25	eak Before Make Switci 12 15 20 530 \$ Yee Natu 2* 70 60 120 15 seed inside a cubicle con	hing (No source overlands)  5  0  00  5  es  ural  In  00  00  mpliant to safety stand  0-2 Class C3	1.7	
Transfer Mode (for Phases)  Overload capacity (without fuses)  Transfer Time worst condition zero source failure (msec)  Static Switch Fault detector  Ventilation  Neutral sized	for 1 minutes (%) for 10 seconds (%) for 1 seconds (A) voltage		ln 25	eak Before Make Switci  12 15 20 530 \$ Yee Natu 2* 70 60 120 15 seed inside a cubicle cor	hing (No source overlands)  5  0  00  5  es  ural  In  00  00  mpliant to safety stand 0-2 Class C3 e on demand)	1.7	

#### **VertivCo.com** | Vertiv Infrastructure Limited, George Curl Way, Southampton, SO18 2RY, VAT Number: GB188146827

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