Leading Conversion Technology for Power Resilience

CE+T External Maintenance Bypass Switch

A solution allows feeding critical AC loads directly from the Mains, If Inverter System Maintenance is required!

Telecom | Datacom | Mass transport | Industry | Power Utilities | Renewable

AC In	AC Out	Phases	Power
120 Vac L-N	120 Vac L-N	1, 2 , or 3	20 - 225 kVA

The Challenge

Provide a rotary switch style bypass design without the inherent risks of the traditional 3-breaker design with up to 700A switching capacity.

The Solution

CE+T has partnered with an American owned and manufactured switch company to provide the best solution compliant with American standards and safety ordinances.

Why CE+T Power?

CE+T is the AC critical power solutions provider for the Telecom, Industrial Oil & Gas, and Data Center markets. CE+T is an industry leader in the power conversion technology. TSI technology has revolutionized the inverter market with its new range of modular, scalable products to support telecom (48V) or industrial (110V, 220V) applications.

The System

Bundled with a CE+T (up to 225 kVA) inverter, a single solution for your critical AC loads both now and as your power demands change in the future.

Features

- Free standing or wall mount bypass
- 3-Phase Rotary Make-Before-Break Load Switch
- Electromechanical Interlock - Prevents movement of the load switch unless the inverter is in sync with utility
- Maintenance Test Position - Allows utility power to load even while performing energized testing on equipment
- Internal branch protection breakers for each Inverter cabinet input and output
- Handshaking compatibility with CE+T Inverters

Operating Mode – Normal

- Utility AC is provided to the inverter input.
- Clean, stable AC is provided to the critical load.

Operating Mode – Test

- Utility AC is provided to the inverter input and to the critical load.
- The inverter output is isolated from the load.

Operating Mode – Bypass

- Utility AC is provided to the critical load.
- The inverter input & output are isolated from an AC source.

Illustrations are non-binding and may include customized fittings.

CE+T EMBS

	30 kVA 1 or 2 PH	45 kVA 3 PH	60 kVA 1 or 2 PH	90 kVA 3 PH	180 kVA 3 PH	270 kVA 3 PH
General						
Part Number	T30960W030	T30950W045	T30960W060	T30950W090	T30950S150	T30950S225
Compatible CE+T Inverter Models	MPC: 1-6 / 1-12 / 2-12 RBS: 1-10 / 2-20 HD/BPC-2-25 MIPS-2-20 T1PS-2-20	MPC-3-18 RBS-3-30 HD/BPC-3-37 MIPS-3-30 T1PS-3-30	HD/BPC: 1-25 / 2-50 MIPS: 1-20 / 1-25 / 2-40 / 2-50 T1PS: 1-20 / 1-25 / 2-40 / 2-50	HD/BPC-3-75 MIPS: 3-60 / 3-75 T1PS: 3-60 / 3-75	MIPS-3-150 T1PS-3-150	MIPS-3-225 T1PS-3-225
Safety	UL1008					
RoHS	Compliant					
Altitude above sea without de-rating	<1500 m					
De-rating slope above 1500 m	0.8% / 100 m					
Ambient Temperature	-20°C to 40°C					
Storage Temperature	-40°C to 70°C					
Humidity	95% (non-condensing)					
Power						
AC Output Power – To Load						
Maximum Output Power (kVA)	30	45	60	90	180	270
Output Power per Phase (kVA)	15	15	30	30	60	90
Nominal Voltage (VAC L-N)	120					
Phases (Poles)	1 or 2	3	1 or 2	3	3	3
Frequency (Hz)	60					
Output Current per Phase (A)	105	105	210	210	420	630
Minimum Terminal Wire Size (AWG)*	6	6	6	6	4	4
Maximum Terminal Wire Size (AWG)*	1/0	1/0	350 MCM	2x500 MCM	2x500 MCM	2x500 MCM
Switch Rating per Phase (A)	125	125	255	255	500	850
Short Circuit Rating (kA)	5					
AC Input Power – From AC Mains						
Nominal Voltage (VAC L-N)	120					
Phases (Poles)	1 or 2	3	1 or 2	3	3	3
Voltage Range (AC L-N)	83 - 140 V					
Minimum Terminal Wire Size (AWG)*	6	6	6	6	4	4
Maximum Terminal Wire Size (AWG)*	1/0	1/0	350 MCM	2x500 MCM	2x500 MCM	2x500 MCM
Frequency (Hz)	47 - 63					
AC Power – Connections to Inverter	Refer to CE+T Installation & User manual					
Transfer Performance						
Max Voltage Interruption	0 s					
Total Transient Voltage Duration	0 s					
Signaling & Supervision						
Status Indication	Mechanical Pointer					
Request to Transfer	Black Push Button					
Ready to Transfer	White LED					
Lamp Test / Solenoid Override	White LED Push Button					
Cabinet						
Width x Depth x Height (in)	20 x 16 x 24	20 x 16 x 24	30 x 16 x 36	30 x 16 x 42	36 x 24 x 84	36 x 24 x 84
Mounting Type	Rack / Wall	Rack / Wall	Wall	Wall	Freestanding	Freestanding
Material (casing)	Coated Steel – ANSI 61 Grey					
Branch Protection						
Input CB (Provided by Others)	125 A	125 A	250 A	250 A	500 A	750 A
Output CB (Provided by Others)	125 A	125 A	250 A	250 A	500 A	750 A
Coordinated trip set by Project Engineer						
Accessories						
EMBSIE (EMBS Interface Enclosure) Required for 1st generation bypass when Inverters are not equipped with an internal bypass.						

* Refer to NEC and local code for proper cable sizing.