

Zenith ZT30™

30-Cycle Automatic Transfer Switch

The Zenith ZT30 is a UL tested 30-cycle short-time rated Automatic Transfer Switch that is utilized to facilitate selective coordination via upstream Over Current Protective Device. The ZT30's industry leading short-time rating and best-in-class footprint greatly simplifies the selective coordination design process and provides the utmost in system design flexibility for future system growth. The ZT30 supplies 100% rated power to loads after an overcurrent event, helping to maximizing power distribution system reliability and uptime. The ZT30 is available in standard, delayed and closed transition modes as well as in bypass-isolation.

Advanced Controller Features

- Ease of Operation - Intuitive, color graphical display with built-in help functions
- Advanced Troubleshooting - High-speed event log & data logging
- Diagnostics - Advanced system troubleshooting & event reporting
- Low Cost Installation & Quick Commissioning - Built-in networking for reduced hardwiring, centrally located customer connections
- Simple, Low-Cost Facility Integration & Monitoring - Built-in networking, customizable User Data Map and plug-and-play monitoring using EnerVista™ Viewpoint Monitoring software
- Power Quality Metering - True PQ metering, including waveform, harmonics & high-speed event capture

Key Applications / Verticals

- Healthcare Facilities
- 7x24 Call Centers – Datacenters, E-Commerce, Call Centers
- Telecom Central Offices
- Waste Water Treatment



Reliability / Performance

- Facilitates selective coordination design
- Maximizes system uptime & reliability
- Industry-leading short-time rating (withstand & close-on)

Safety

- Manual Quick Make/Quick Break operation
- Manual operation with the door closed
- Patented shutter door system for bypass switches

Ease of Installation / Maintenance

- 100% top or bottom cable entry
- Interchangeable source cable terminations
- Mechanical switch position indicator
- Master terminal connection for customer control wiring
- Cable bracing not required

Space Optimization / Flexibility

- Best-in-class footprint
- 3-pole & 4-pole in the same footprint
- Field upgradeable from 3-pole to 4-pole
- Simple field configurable voltage selection





These OCPDs' short-time delay opening typically exceed the 3-cycle time duration. As a result, the 3-cycle ATS's that were once the norm are no longer sufficient in many cases.

Short-time current rating is defined by UL1008 as the maximum amount of fault current a switch can withstand at a specified voltage for a given amount of time and remain functional. For a system that utilizes OCPD's with short-time delays to be selectively coordinated, the automatic transfer switch must not only be able to withstand and close on the fault, but also be functional and "supply power to the loads after a fault". A UL listed 30-cycle short-time rated automatic transfer switches alleviates the challenges associated with selective coordination design process.

Reliability

The ZT30's industry leading short-time rating (85kA) helps assure that 100% rated power is supplied to the loads after a short circuit/withstand event, maximizing power distribution system reliability and uptime.

Safety

The ZT30's standard Manual Quick Make/Quick Break operation has the same contact speed as an electric operation and enables operators to perform manual operation with the door closed for added safety.

The optional shutter system for the bypass-isolation models further enhances safety during maintenance. The shutter system closes when the ATS is under maintenance, thereby protecting personnel from accidentally touching live bus while performing testing or maintenance. The shutter system automatically re-opens when the ATS is racked back in the "AUTO" position.



Manual Quick Make and Quick Break Operation (with push button activation)



Shutter System Design

The Challenge in Life Safety / Mission-Critical Facilities

Momentary loss of electric power to critical loads can endanger life, cause severe financial losses, or both. Today's 7x24 service centers, critical healthcare facilities, critical operation power systems and datacenters demand more than just continuous power delivery to critical loads. The quality of power delivered to the load, the effectiveness of periodic system testing and the ability to diagnose outages and disturbances in the electrical system are issues that have serious implications for critical facilities.

Selective Coordination

To minimize the effect of a fault to the overall electrical distribution system in life/public safety and mission-critical facilities, National Electrical Code (NEC) requires selective coordination of overcurrent protective devices (OCPD). The 2011 NEC, Article 100 defines selective coordination as the "localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the choice of OCPD's and their ratings or settings. Simply put, only the OCPD directly supplying the overloaded/faulted part of the system will open, allowing the rest of the system to remain operational. As shown in Fig. 1, in a selectively coordinated system, fault at Critical Load 1 (CL1) will only cause Over Current Protective Device 7 (OCPD 7) to trip open. All other critical loads will remain operational.

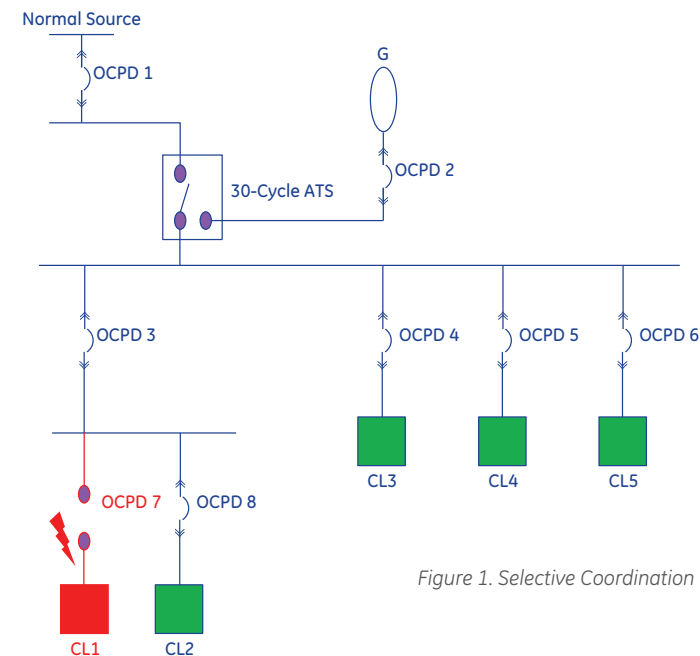


Figure 1. Selective Coordination

30-Cycle Short-Time Rating

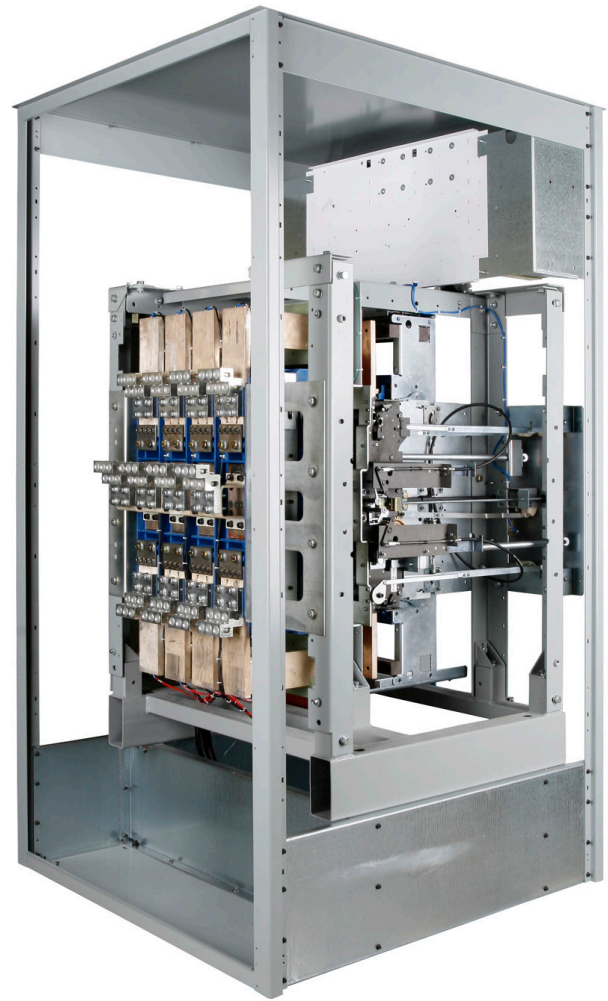
Per Section 5.4.2 of NEMA 1010, "if coordination is accomplished using short-time delays with circuit breakers, the transfer switches require a suitable short-time rating as well." The time delay assures that the downstream OCPD nearest the fault opens first. In a selectively coordinated design, every OCPD has a higher overcurrent rating and a longer time-delay than the one below it, so that every overload/fault will be cleared by the OCPD immediately "upstream" of the fault.



Interchangeable Source Cable Termination Kit



Mechanical Switch Position Indicator

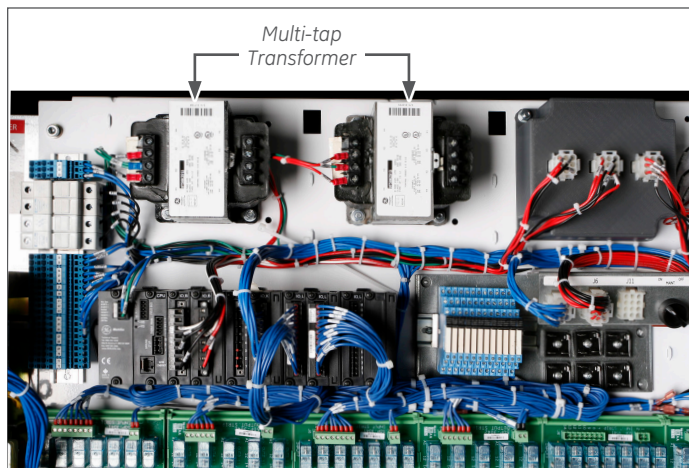


Ease of Installation / Maintenance

The "Plug and Play" Interchangeable Source Cable Termination kit enables installers to easily and quickly reconfigure the designation of Source 1 and Source 2 lugs.

The mechanical position indicator enables personnel to quickly determine the switch's position.

The ZT30'S centralized terminals enable easy customer control wiring connection.



Centralized Terminal Connection

Space Optimization / Flexibility

The ZT30'S multi-tap transformer enables operation on a wide range of system voltages.

The ZT30's small footprint and removable panels (side/back) provides space optimization and easy access for maintenance.

Microprocessor Controller

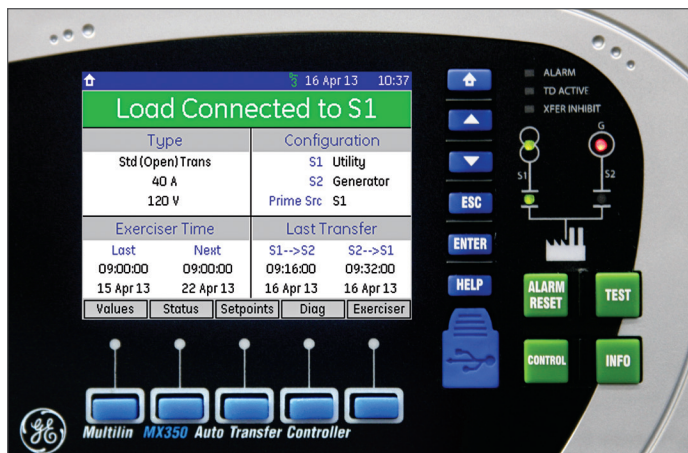
Available either with the MX350 or the MX250 microprocessor controller, the ZT30 family enables customers to select the controller that best meets their application needs. Loaded with features that allow ease of operation, advanced system troubleshooting, diagnostics and event capturing, to name a few, the MX350 is one of the most advanced ATS microprocessor controllers in the industry. Applications that require simple voltage and frequency sensing is ideal for the MX250 controller.

MX350 Features

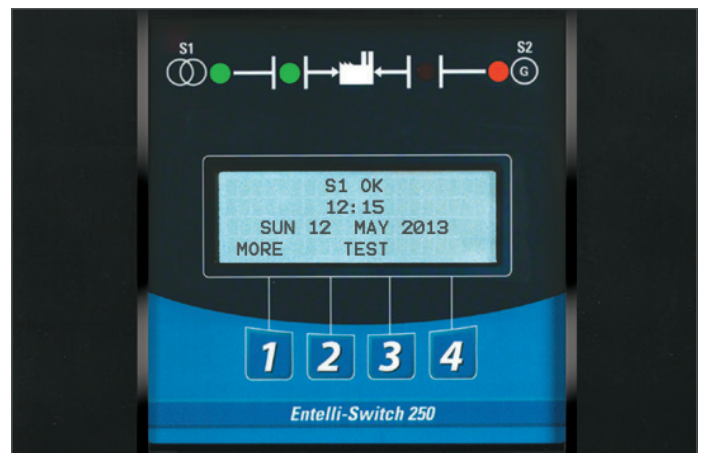
- Diagnostics & Event Recording
 - Sequence of Events Recorder (256 events)
 - Data Logger (configurable 20 channel data logger)
 - Waveform Capture/Oscillography
 - Outage & Test Event Recorder
 - 10 Digital & 11 Analog Configurable Alarms
- Power Quality Metering
 - Provides true RMS metering for current, voltage, real/reactive power, energy use, power factor & frequency
- Networking
 - Built-in, two-wire RS-485 serial & 10/100 base-T Ethernet
 - Open protocols – Modbus RTU (Serial) & Modbus (TCP)
 - Supports simultaneous communications on both Serial & 10/100 base-T ports
 - Easily interfaces with third-party building management systems
 - USB programming port accessible with ATS enclosure door closed
- Facility Integration
 - User-configurable customer data map
 - Fast download of event, waveform & data logs
 - Auto load shed capability, without need for system master control/PLC
- Advanced User Interface & Controls
 - Easy-to-See Status LEDs
 - Transfer Inhibit
 - USB Programming Port
 - Alarm Rest
 - Test

MX250 Features

- Voltage & Frequency Sensing
 - 3 Phase Sensing Both Sources
 - Quick-Voltage Averaging
 - Zero Crossing Detection
 - Phase Imbalance Detection (adj. "Fail", "Restore" & response time)
 - Rotation Match Checking (for "live source to live source" transfer)
- Synchro-Scope
- Voltage Imbalance Detection
- Phase Rotation Check
- Universal Motor Disconnect
- Nested Timers
- Automatic Daylight-savings time change
- Built-In Timer Exerciser
- Built-In Clock/Calendar Exerciser Option
- Keypad Entry
- 4 Line LCD Backlit Display
- Communications-Ready (ZNET)
 - Modbus RTU
 - LONWORKS



MX350



MX250

MX350 Option Package

FEATURE	DESCRIPTION	SEE NOTE #	CODE	Option Package				
				A	B	C	D	M
Contacts	ATS Source 1 & Source 2 Position Contacts, SPDT		3-A3, 3-A4	•	•	•	•	•
	Bypass MTS Source 1 & Source 2 Position Contacts, SPDT	1	1-AB3, 1-AB4	•	•	•	•	•
	Remote Load Test Signal, Dry Contact Input		Q2	•	•	•	•	•
Generator	Engine Start Contact, SPDT		E	•	•	•	•	•
	Source 1 to 2 In-Phase Monitor (w/enable-disable)	2	R50	•	•	•	•	•
	Synchroscope (Gen Fast/Slow vs. Utility Source)	3	SYNC	•	•	•	•	•
	Programmable Gen Exerciser, Gen-Util Applications, 365 Day (user-selectable with/without load)	4	EX-1	•	•	•	•	
	Automatic Load Shed, w/adj. Freq, Voltage & kW	5	LS 1		•	•	•	
Indication/ Status	Color Graphical Display with USB Calibration Port & Embedded Help		OIP, USB, HELP	•	•	•	•	•
	Status LED's for Source 1 & 2 Connected, Source 1 & 2 Available		L1/P, L2/P, L3/P, L4/P	•	•	•	•	•
	Status LCD Indication of ATS in Center-off Position	6	LN/P	•	•	•	•	•
	Event Log, last 256 events		EL/P	•	•	•	•	•
	Customer Configurable Alarms, 10 Status-Digital & 10 Threshold-Analog		CCA-A, CCA-D		•	•	•	
	Detailed Outage and Test Reports		INFO	•	•	•	•	•
	Event Waveform Capture		WC-1		•	•	•	
	Data Logger		DL 1		•	•	•	
	FlexLogic™		FLEX				•	
Sensing & Calibration	Calibration upload/download via Enervista™ MX350 Setup		CAL 1	•	•	•	•	•
	Diagnostics Reports		DIAG 1, 2, 3	•	•	•	•	•
	Over/under Freq Source 1 & 2		J2E / J2N	•	•	•	•	•
	Over/under Voltage Source 1 & 2		R1, R1-3, R7, R8, R17, R2E	•	•	•	•	•
	Phase Rotation Sensing		R16	•	•	•	•	•
	Voltage Imbalance Sensing		VI	•	•	•	•	•
Time Delays	Neutral-Source 1 or Neutral-Source 2 Transfer	6	DT/DW	•	•	•	•	•
	Engine Start Timer, adj up to 10 sec	9	P1	•	•	•	•	•
	Source 2 - Source 1 Retransfer		T	•	•	•	•	
	Emergency Source Failure Override Time Delay		ESO	•	•	•	•	
	Engine Stop/Cool Down		U	•	•	•	•	•
	Source 1 - Source 2 Transfer		W	•	•	•	•	
Switches	Test Switch, Load/No Load Adjustable		6/P	•	•	•	•	
	Maintenance Switch		Maintenance Switch	•	•	•	•	•
	Control Switch		Control Switch	•	•	•	•	•
	Bypass Retransfer Time Delays, Source 1-2/2-1, Adjustable	7	BYP-T, BYP-W	•	•	•	•	
	Manual Transfer, Source 1-2/2-1		YE/P, YN/P					•
	Preferred Source Selector Switch	8	S3/P	•	•	•	•	
	Auto/Manual Transfer, Source 2 to Source 1		S5/P	•	•	•	•	
	Auto/Manual Transfer, Source 2-1/1-2		S12/P	•	•	•	•	
	Commit/No Commit Transfer to Source 2		S13/P	•	•	•	•	
	Transition Mode Selector Switch (Microprocessor activated switch)	3	TMS/P	•	•	•	•	
Programmable I/O	4 INPUT and 4 OUTPUT			•	•			•
	8 INPUT and 8 OUTPUT					•		
	12 INPUT and 12 OUTPUT						•	

Application Notes:

1. Bypass Only
2. Utility to Generator Only
3. Closed Transition Only
4. Standard on Gen-Utility Applications Only
5. Requires R15 for transfer of ATS away from source, utilizes (1) programmable output if only signal to downstream load required
6. Delayed Transition Only
7. Automatic Switches Only
8. Not available with load shed option/R15
9. Can be extended beyond 10 sec (up to 259 min) with customer-supplied 120VAC 24VDC external input

MX250 Accessory Definitions

ACCESSORIES	DESCRIPTION
6A/P	Microprocessor activated test switch (Maintained)
6A	(selector or key) Hardwired test switch (Maintained)
6B	(selector or key) Hardwired test switch (Maintained Auto - Momentary Test)
A1	Source 1 failure Auxiliary Contact DPDT (max 5 sets)
A1E	Source 2 failure Auxiliary Contact DPDT (max 5 sets)
A3	Source 2 position Auxiliary Contact DPDT (max 5 sets)
A34N	Closed and Neutral Position Contact
A4	Source 1 position Auxiliary Contact DPDT (max 5 sets)
A62	Motor disconnect and staged restart (max 10 contacts)
AB3	Bypass Source 2 position Auxiliary Contact SPST
AB4	Bypass Source 1 position Auxiliary Contact SPST
BC	Battery Charger
CALIBRATE	Microprocessor activated calibration feature
CDP	Programmable exerciser daily, 7/14/28/365 days user-selectable, with or without load
CDT	Exerciser no load timer
CTAP	Chicago transfer alarm panel mounted on enclosure door
Control Switch	Inhibits controller from transferring for maintenance and troubleshooting
Maintenance Switch	Removes power from control circuit for maintenance and troubleshooting
DT	(DELAYED TRANSITION ONLY) Time Delay from Neutral Switch position to Source 1 on retransfer
DW	(DELAYED TRANSITION ONLY) Time Delay from Neutral Switch position to Source 2 on retransfer
E	Engine Start Relay
EL/P	Event log of last 16 events
EVM	EnerVista Viewpoint Monitoring
GB	Ground Bus Mechanical Lugs
F	Fan contact, closed when engine runs
HTH	Thermostat and humidistat controlled heater mounted in enclosure
J2E	Over/Under Frequency Source 2
J2N	Over/Under Frequency Source 1
K/P	Frequency Indication on the controller
LN/P	Center-off position LCD-Indicator
L1/P	LED light indicates Switch in Source 2 position
L2/P	LED light indicates Switch in Source 1 position
L3/P	LED light indicates Source 1 available
L4/P	LED light indicates Source 2 available
LCM	LonWorks Communication Module
MCM	Modbus RTU Communication Module
ECM	Ethernet Communication Adapter. Requires MCM (Modbus) Accessory.
M2	Three Phase Amp Meter (Analog)
M90	EPM2000 True RMS Digital Meter with display (Amps, Volts, Power, Energy, Power Factor and Frequency). 3 Line LED Display. 50/60 Hz Universal Operation. 3 phase. Standard Modbus RTU RS485 communications capability.
M90A (M90 & MCM)	Adds Pre-Wiring for Enervista Viewpoint Monitoring of M90 Accessory & ATS Status using Modbus RS485 Serial Communications
M90B (M90, MCM & ECM)	Adds Pre-Wiring for Enervista Viewpoint Monitoring of M90 Accessory & ATS Status using Ethernet TCP/IP Communications

ACCESSORIES	DESCRIPTION
M91	EPM6000 True RMS Digital Meter with display (Amps, Volts, Power, Energy, Power Factor and Frequency, THD). Certified energy and demand metering. Meets ANSI C12.20 and IEC 687. Accuracy Classes. Front IrDA Port Laptop Connection. Std. Modbus RTU RS485 or DNP 3.0 communications capability
M91A (M91 & MCM)	Adds Pre-Wiring for Enervista Viewpoint Monitoring of M91 Accessory & ATS Status using Modbus RS485 Serial Communications
M91B (M91, MCM & ECM)	Adds Pre-Wiring for Enervista Viewpoint Monitoring of M91 Accessory & ATS Status using Ethernet TCP/IP Communications
P1	Engine Start Timer (adjustable to 6 sec.)
P2	External to Controller extended Engine Start Timer (adjustable to 300 sec.)
Q2	Peak shave/remote load test/area protection - Relay (S.P.D.T.) (Need to specify voltage - 120 VAC, 24 VAC, 24 VDC)
Q3	Inhibit transfer to Source 2 (load add relay) - Relay (S.P.D.T.) (Need to specify voltage - 120 VAC, 24 VAC, 24 VDC)
Q7	Inhibit transfer to Source 1 - Relay (S.P.D.T.) (Need to specify voltage - 120 VAC, 24 VAC, 24 VDC)
R1-3	Over Voltage sensing for Source 1 three phase
R8	Over Voltage sensing 3-phase source 2
R15	Load Shed. Should Source 2 become overloaded, a signal can be given to switch to the Neutral position.
R16	Phase rotation sensing of Source 1 and Source 2
R26	Interruptible Power Rate Provisions. Allow transfer out of Source 1 position to Mid position or dead Source 2. Alarm and Pre-Signal circuit included. (Need to specify voltage - 120 VAC, 24 VAC, 24 VDC)
R50	In Phase monitor between Source 1 and Source 2 to allow transfer
S3	Prime Source Selector Switch
S5P	Microprocessor activated auto/manual retransfer selector switch for transferring to Source 1 (includes microprocessor activated YN accessory)
S12P	Microprocessor activated auto/manual retransfer selector switch for transferring to Source 1 (includes microprocessor activated YN & YE accessory)
S13P	Microprocessor activated commit/no commit on transferring to Source 2 (with enable/disable settings)
S14	(selector or key) Switch for retransfer to normal-test-auto
SPD	Surge Protection Device
SSS	Bypass Safety Shutter System
SW1	Auto/Off/Start Engine control selector - Door mounted (keyed or non-keyed operation available)
T	Retransfer to Source 1 adjustable time delay
TMS	Transfer Mode Selector (Closed Transition Only)
T3/W3	Pre-signal contact on transfer to Source 1 or Source 2 during test
U	Engine stop /cool adjustable cool down timer
UMD	Pre and post transfer motor disconnect and restart.
VI	Voltage imbalance between phases (3 Phase only)
W	Adjustable time delay on transfer to Source 2
YEN	Bypass transfer timers function (soft key switch in microprocessor)

Zenith Controls MX250 Accessory Group Matrix

ACCESSORIES	GROUP PACKAGES					
	MSTD	MEXE	MCON	MSEN	MSPE	MPSG
6/P	●	●	●	●	●	●
A1	○	●	●	●	●	●
A1E	○	●	●	●	●	●
A3	●	●	●	●	●	●
A4	●	●	●	●	●	●
Calibrate	●	●	●	●	●	●
CDT	●					
CDP		●	●	●	●	●
Control Switch	●	●	●	●	●	●
Maintenance Switch	●	●	●	●	●	●
*DT	●	●	●	●	●	●
*DW	●	●	●	●	●	●
E	●	●	●	●	●	●
EL/P	●	●	●	●	●	●
J2E	●	●	●	●	●	●
J2N	●	●	●	●	●	●
K/P	●	●	●	●	●	●
L1/P	●	●	●	●	●	●
L2/P	●	●	●	●	●	●
L3/P	●	●	●	●	●	●
L4/P	●	●	●	●	●	●
*LN/P	●	●	●	●	●	●
P1	●	●	●	●	●	●
Q2	○	●	●	●	●	●
Q3	○	○	●	○	●	●
Q7	○	○	●	●	●	●
R1-3	○	○	○	●	●	●
R8	●	●	●	●	●	●
R15	○	○	○	○	○	●
R16	○	●	●	●	●	●
R50	●	●	●	●	●	●
S5P	●	●	●		●	
S12/P	●	●	●	●		●
S13/P	●	●	●	●	●	●
T	●	●	●	●	●	●
T3/W3	○	○	●	○	●	●
U	●	●	●	●	●	●
UMD	○	○	●	○	●	●
VI	●	●	●	●	●	●
W	●	●	●	●	●	●
YEN	●	●	●	●	●	●

- Standard Accessory included in the group package.
- Optional Accessory not included but can be added to group package.
- Optional Accessory. Can not be used with accessory having the same symbol.
- * Delayed Transition Units Only

Technical Specifications

Product Specification

		ATS & ISOLATION BYPASS
Transition Type	Standard (Open) Transition	YES
	Delayed Transition	YES
	Closed Transition	YES
Amperage Rating	1000A to 3000A	
Poles	3 or 4 Pole Switching	
Voltage	120V L-L	
	208V L-L	
	220V L-L	
	230V L-L	
	240V L-L	
	380V L-L	
	400V L-L	
	415V L-L	
	440V L-L	
	460V L-L	
	480V L-L	
	575V L-L	
	600V L-L	
	Multi-tap	
Short-Time Rating	85kA: 30 Cycle (0.5s)	
	100kA: 3 cycle	
Enclosure Type	Open Style	
	NEMA 1	
	NEMA 3R	
	NEMA 4	
	NEMA 4X	
	NEMA 12	
Microprocessor Controller	MX250	
	MX350	
Certifications	UL/cUL rated up to 600V at 50/60Hz	
	Seismic Qualified to IBC-2009 & IEEE 693-2005	
	OSHDP	
Code Compliance	NFPA 70, 99, 101, 110	
	IEEE 446, 241, 602	
	NEMA ICS 10, CC1 (lug)	
Enclosure Compliance	UL 50	
	UL 508	
	NEMA 250	

Dimension and Weight

SWITCH TYPE	AMPERAGE RATING	POLES	DIMENSION: SPLIT CABLE ENTRY (NEMA 1) INCH (CM)				APPROX. SHIPPING (NEMA 1) WEIGHT (LB)		APPLICATION NOTES
			HEIGHT	WIDTH	DEPTH	REF. FIGURE	3-POLE	4-POLE	
			(A)	(B)	(C)				
Standalone ATS	1000	3 , 4	90 (229)	36.5 (93)	23.5 (60)	Figure A	998	1051	1- 5
Standalone ATS	1200	3 , 4	90 (229)	36.5 (93)	23.5 (60)	Figure A	998	1051	1- 5
Standalone ATS	1600	3 , 4	90 (229)	36.5 (93)	23.5 (60)	Figure A	998	1051	1- 5
Standalone ATS	2000	3 , 4	90 (229)	36.5 (93)	23.5 (60)	Figure A	998	1051	1- 5
Standalone ATS	2600	3 , 4	90 (229)	36.5 (93)	32.5 (83)	Figure B	1239	1322	1- 5
Standalone ATS	3000	3	90 (229)	36.5 (93)	32.5 (98)	Figure B	1239	—	1- 5
Standalone ATS	3000	4	90 (229)	36.5 (93)	38.5 (98)	Figure B	—	1356	1- 5
Bypass	1000	3 , 4	90 (229)	45.5 (116)	50 (127)	Figure C	2497	2707	1- 5
Bypass	1200	3 , 4	90 (229)	45.5 (116)	50 (127)	Figure C	2497	2707	1- 5
Bypass	1600	3 , 4	90 (229)	45.5 (116)	50 (127)	Figure C	2497	2707	1- 5
Bypass	2000	3 , 4	90 (229)	45.5 (116)	50 (127)	Figure C	2497	2707	1- 5
Bypass	2600	3 , 4	90 (229)	45.5 (116)	60 (152)	Figure D	2856	3097	1- 5
Bypass	3000	3 , 4	90 (229)	45.5 (116)	60 (152)	Figure D	2856	3097	1- 5

Switch Type	Amperage Rating	Poles	Dimension: All Top or All Bottom Cable Entry (NEMA 1) Inch (cm)				Approx. Shipping (NEMA 1) Weight (lb)		Application Notes
			Height	Width	Depth	Ref. Figure	3-Pole	4-Pole	
			(A)	(B)	(C)				
Standalone ATS	1000	3, 4	90 (229)	36.5 (93)	32.5 (83)	Figure A	1050	1103	1- 5
Standalone ATS	1200	3, 4	90 (229)	36.5 (93)	32.5 (83)	Figure A	1050	1103	1- 5
Standalone ATS	1600	3, 4	90 (229)	36.5 (93)	32.5 (83)	Figure A	1050	1103	1- 5
Standalone ATS	2000	3, 4	90 (229)	36.5 (93)	32.5 (83)	Figure A	1050	1103	1- 5
Standalone ATS	2600	3	90 (229)	36.5 (93)	38.5 (98)	Figure B	1273	—	
Standalone ATS	2600	4	90 (229)	36.5 (93)	53.5 (136)	Figure B	—	1442	1- 5
Standalone ATS	3000	3	90 (229)	36.5 (93)	38.5 (98)	Figure B	1273	—	
Standalone ATS	3000	4	90 (229)	36.5 (93)	53.5 (136)	Figure B	—	1442	1- 5
Bypass	1000	3, 4	90 (229)	45.5 (116)	60 (152)	Figure C	2856	3097	1- 5
Bypass	1200	3, 4	90 (229)	45.5 (116)	60 (152)	Figure C	2856	3097	1- 5
Bypass	1600	3, 4	90 (229)	45.5 (116)	60 (152)	Figure C	2856	3097	1- 5
Bypass	2000	3, 4	90 (229)	45.5 (116)	60 (152)	Figure C	2856	3097	1- 5
Bypass	2600	3, 4	90 (229)	45.5 (116)	60 (152)	Figure D	2856	3097	1- 5
Bypass	3000	3	90 (229)	45.5 (116)	60 (152)	Figure D	2856	—	
Bypass	3000	4	90 (229)	45.5 (116)	85 (216)	Figure D	—	3240	1- 5

CU UL Listed Solderless Screw-Type Terminals for External Power Connections

SWITCH TYPE	SWITCH SIZE AMPS	NORMAL, EMERGENCY & LOAD TERMINALS	
		CABLE / POLE (max)	WIRE RANGES
ATS	1000	6	2-750 Kcmil
	1200	6	2-750 Kcmil
	1600	6	2-750 Kcmil
	2000	6	2-750 Kcmil
	2600	8	2-750 Kcmil
	3000	8	2-750 Kcmil
Bypass	1000	6	2-750 Kcmil
	1200	6	2-750 Kcmil
	1600	6	2-750 Kcmil
	2000	6	2-750 Kcmil
	2600	8	2-750 Kcmil
	3000	8	2-750 Kcmil

Screw-Type Terminals for External Power Connections Application Notes

- Line and load terminals are located in rear and arranged for bus bar connection. Terminal lugs are available as an accessory. Contact the GE factory for more details.
- Special terminal lugs are available at additional cost. Contact the GE factory and advise cable sizes and number of conductors per pole.
- Fully rated neutral provided on 3 phase, 4 wire system.
- Special lug arrangements may require different enclosure dimensions. For certified drawings, contact the GE factory.

Figure A

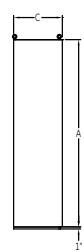


Figure B

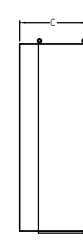
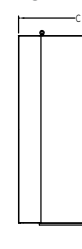


Figure C



Figure D



Application Notes

- All dimensions and weights are approximate and subject to change without notice.
- Special enclosures (NEMA 3R, 4, 4X, 12) dimensions and layout may differ. Consult the GE factory for details.
- Special lug arrangements may require different enclosure dimensions. For certified drawings, contact the GE factory.
- Add 4" in height for removable lifting lugs.
- Enclosures with louvers must be clear for airflow on the rear for ventilation.

Notes

[illegible]

Notes

[illegible]

Ordering

ZT30

	XX	X	XX	XXX	X	-	X	X	X	X	X	Description
Product Type	ZT											ATS
	ZB											Bypass
Series	3											30 Cycle
Transition Type		ST										Standard
		DT										Delayed
		CT										Closed
Amperage			100									1000 Amps
			120									1200 Amps
			160									1600 Amps
			200									2000 Amps
			260									2600 Amps
			300									3000 Amps
Number of Poles				E								3-Pole
				F								4-Pole
Voltage					A							120V L-L
					B							208V L-L
					C							220V L-L
					D							230V L-L
					E							240V L-L
					F							380V L-L
					G							400V L-L
					H							415V L-L
					I							440V L-L
					J							460V L-L
					K							480V L-L
					L							575V L-L
					M							600V L-L
					X							Multitap
Number of Wires, Frequency					A							2 wire at 60 Hz
					B							3 wire at 60 Hz (1-phase)
					C							3 wire at 60 Hz (3-phase)
					D							4 wire at 60 Hz
					E							2 wire at 50 Hz
					F							3 wire at 50 Hz (1-phase)
					G							3 wire at 50 Hz (3-phase)
					H							4 wire at 50Hz
Enclosure					1							NEMA 1
					R							NEMA 3R
					4							NEMA 4
					X							NEMA 4X
					2							NEMA 12
					N							Open Style
Application								S				Utility to Generator
								U				Utility to Utility
								M				Manual
Controller									2			MX250
									3			MX350

Part Number Example:

ZB3CT160E-KC1S3

Bypass, 30 Cycle, Closed Transition, 1600A,
3-pole, 480V, 3 wire at 60 Hz (3-phase),
NEMA 1, Utility to Generator, MX350 Controller



imagination at work

GE Critical Power

601 Shiloh Road, Plano, TX 75074
+1 800 637 1738 (toll-free in North America)
+1 773 299 6600 (direct number)
gepqsales@ge.com
www.GECriticalPower.com

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