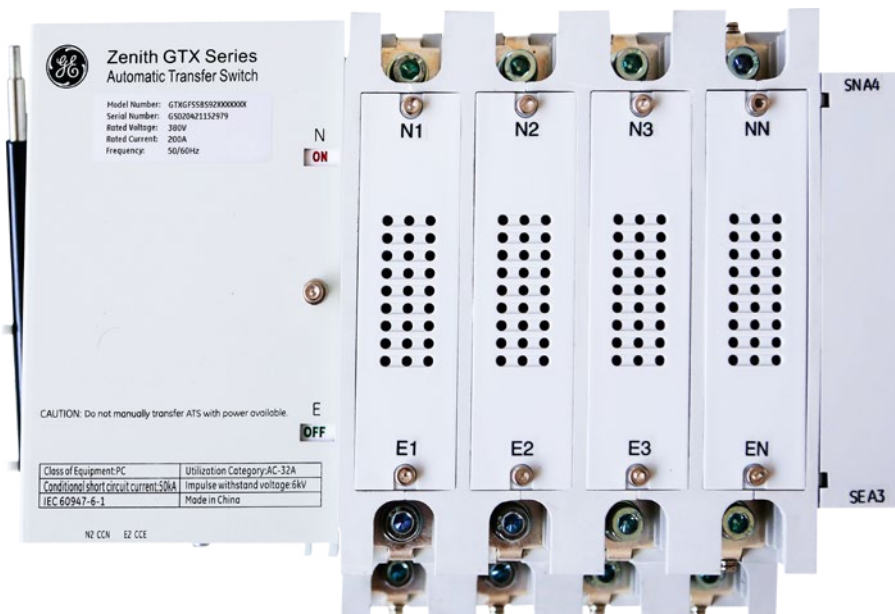
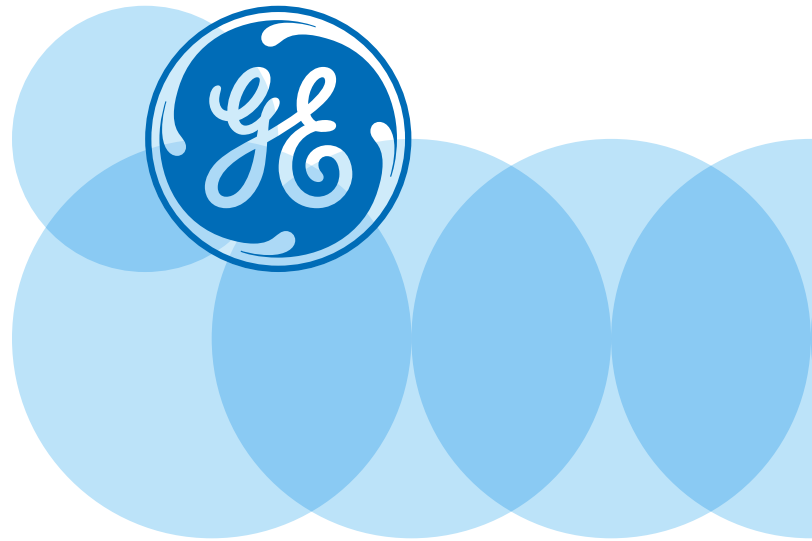


GE
Critical Power

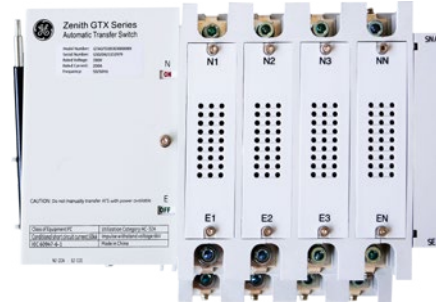
GTX Series

Automatic Transfer Switch (ATS)



GTX Series

GE has been providing customers with reliable ATS power switching systems since the 1920's. GE's GTX Series Automatic Transfer Switches (ATS) are used to provide a continuous source of power for critical loads by automatically transferring from source1 power to source2 power in the event that source1 voltage encounters undervoltage, phase loss or under frequency. Voltage sensing and system control can be performed via an optional state-of-the-art MX70 microprocessor providing highly accurate control. GE transfer switches are designed for use in emergency or standby systems supporting all types of loads at fully rated current, delivering reliability and ease of operation.



Performance Features and Construction

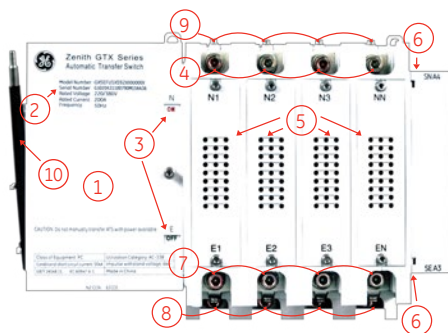
- True double throw operation where the single Solenoid Design is inherently inter-locked and prevents contacts from inadvertently stopping between sources or from being in contact with both sources at the same time.
- Highly reliable, Low MTBF (mean time between failure)
- Special wiring plug design prevents incorrect installation
- Smart diagnostic program and inphase monitor (available in the MX70 option)
- Arc quenching grids, enclosed arc chamber, and wide contact air gap
- Neutral pole break-last-close-first design, neutral contact is on the same shaft as other poles
- Ease of operation
- Fast contact transfer speed $\leq 120\text{ms}$

Technical Data

RATED CURRENT (IN)	40A, 63A, 80A	100A, 125A	160A, 200A, 250A	320A, 400A
Standard	IEC60947-6-1: 2013 Revision; GB14048.11-2008 Revision			
Voltage, Frequency	120/240V for 2 poles; 208/220/240/380/400/416V for 3 Poles, 4 Poles; 50&60Hz			
Enclosure	Power panel only, Open style, IP20 (Nema1), IP24 (Nema3R) options			
Utilization Category	AC-33A	AC-33A	AC-32A	AC-32A
Making Breaking Capability (x time rated amperage In, number of operations (cycles))	10 In, 50 cycles	10In, 50 cycles	3In, 50 cycles	3In, 50 cycles
Endurance	3000 cycles at 2x rated current	3000 cycles at 2x rated current	6000 cycles at 1x rated current	4000 cycles at 1x rated current
Rated conditional short circuit current	35kA @ 416V	35kA @ 416V	50kA @ 416V	65kA @ 416V
Contact transfer time	$\leq 85\text{ms}$	$\leq 90\text{ms}$	$\leq 90\text{ms}$	$\leq 120\text{ms}$
Transfer time with MX70 controller option	$\leq 1100\text{ms}$	$\leq 1500\text{ms}$	$\leq 1500\text{ms}$	$\leq 2000\text{ms}$
Product size (2 Poles) HxWxD Power Panel Only	209x172.8x115mm (8.23x6.8x4.53in)	230x222x114mm (9.06x8.74x4.49in)	230x238x114mm (9.06x9.37x4.49in)	287x303x152mm (11.30x11.93x5.98in)
Product size (3 Poles) HxWxD Power Panel Only	209x194x115mm (8.23x7.65x4.53in)	230x252x114mm (9.06x9.92x4.49in)	230x278x114mm (9.06x10.94x4.49in)	287x363x152mm (11.30x14.29x5.98in)
Product size (4 Poles) HxWxD Power Panel Only	209x216x115mm (8.23x8.50x4.53in)	230x282x114mm (9.06x11.10x4.49in)	230x318x114mm (9.06x12.52x4.49in)	287x423x152mm (11.30x16.65x5.98in)
Operating Temp. / Humidity	-5°C to +40°C / 5%-95% (non-condensing)			
Recommended Cable Size (Cu) *	10mm ² , 16mm ² , 25mm ²	35mm ² , 50mm ²	70mm ² , 95mm ² , 120mm ²	185mm ² , 240mm ²

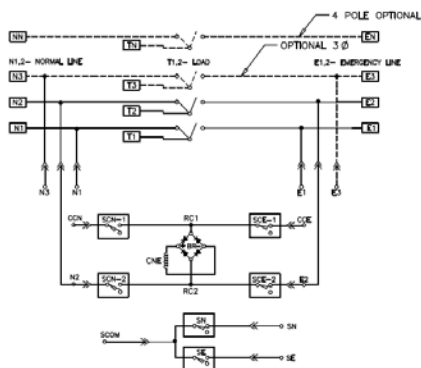
* For aluminum cable sizing please reference IEC 60228

Power Panel



- | | |
|---------------------------------------|---|
| 1. Main transfer operator | 7. Source2 terminals |
| 2. Nameplate (includes serial number) | 8. Load terminals |
| 3. Switch position indication | 9. Voltage sensing terminals |
| 4. Source1 terminals | 10. Manual operating maintenance handle |
| 5. Arc chamber | |
| 6. A3/A4 limit switches | |

Electrical Schematic Diagram



- BR = Bridge Rectifier
- SN = Normal position limit switch
- SE = Emergency position limit switch
- CNE = Main transfer operator
- SCN/SCE = Operator limit switch
- Switch on Normal Source

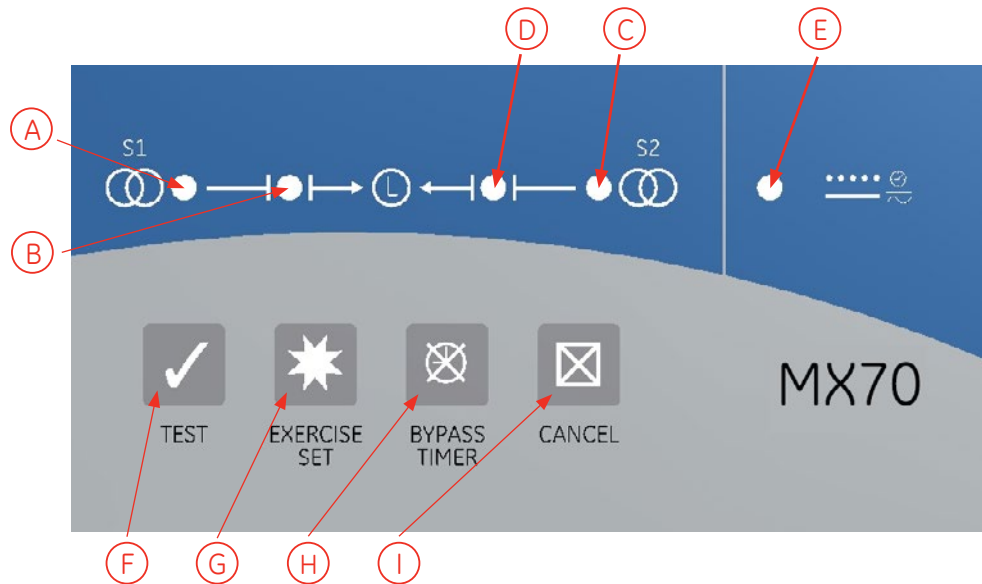
Description

- Method of Operation: If source1 fails, a circuit is closed to start the generator. When source2 reaches a predetermined output, the controller will signal to connect the load to source2.
- When source1 is restored to the preset point, the controller will send command to reconnect load to source1.
- Utility-Utility configuration: Both source1 and source2 are from utility feeds.
- Utility-Genset configuration: Source1 is from utility and source2 is from a generator.

Notice

- For GTX installation please reference operation manual.
- Warning! Turn off source1 and source2 power before using the handle to manually operate the GTX, or possibly cause severe injury.
- To keep GTX structure lubricated, regular maintenance is necessary (reference operation manual).

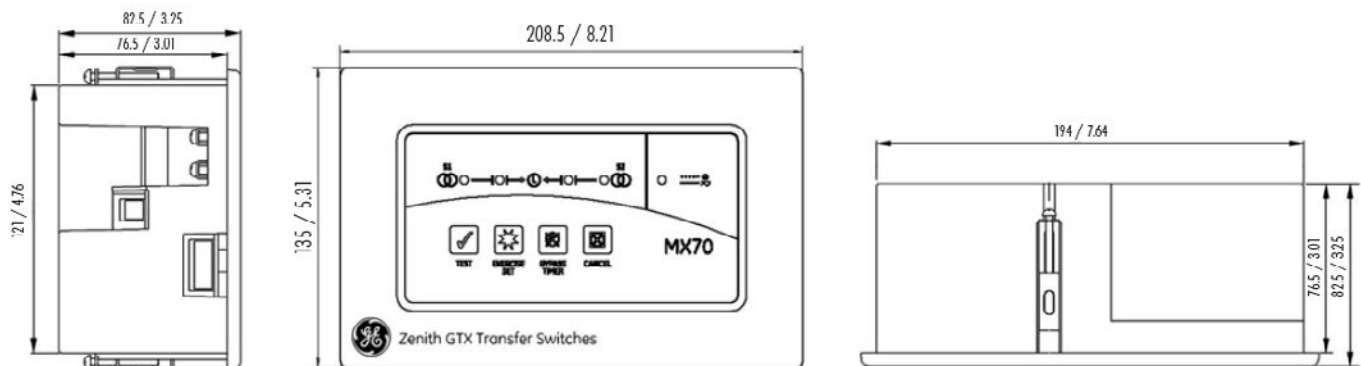
MX70 Microprocessor Control Panel



- A. S1 (Utility) Available Green LED.
- When on, indicates source is acceptable.
- B. S1 (Utility) Position Green LED.
- When on, indicates ATS is connected to Utility
- C. S2 (Generator) Available Red LED.
- When on, indicates source is acceptable.
- D. S2 (Generator) Position Red LED.
- When on, indicates ATS is connected to Generator.
- E. Timing/In-phase Amber LED.
- When blinking, indicates the ATS is timing a Delay
- When on steady, indicates the ATS is waiting for both sources to synchronize with each other.
- When off and other lights are on, indicates the ATS is working without active time delays or alarms.
- F. TEST: Press and hold for one second to simulate a power outage, start Generator and transfer the ATS to source2
- G. EXERCISE SET: Sets an automatic exerciser
- H. BYPASS TIMER: Press while timing is in process, bypass any remaining countdown timer
- I. CANCEL: Depending on the current state of the GTX operation, ends specific functions or indications

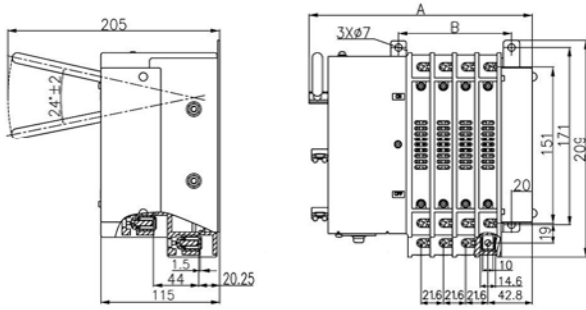
Optional MX70 Controller Dimensions

Unit: mm/in

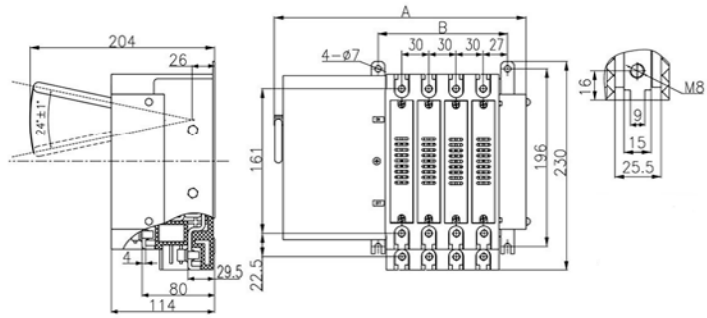


Power Panel Product Dimensions

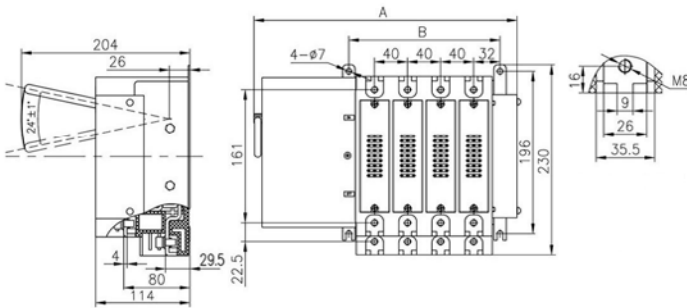
40-80Amps



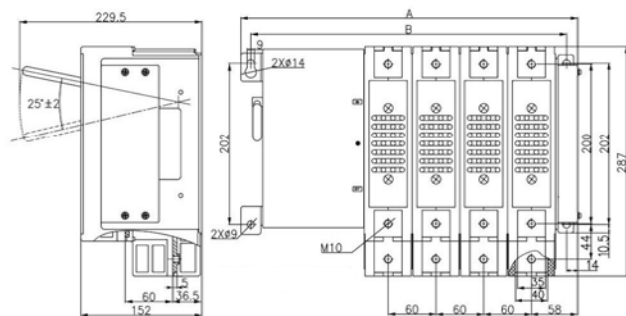
100-125Amps



160-250Amps



260-400Amps



40-80 Amps

Unit: mm/in

	2 POLE	3 POLE	4 POLE
A	172.8 / 6.80	194.4 / 7.65	216 / 8.50
B	66.2 / 2.61	87.8 / 3.46	109.4 / 4.31

100-125 Amps

Unit: mm/in

	2 POLE	3 POLE	4 POLE
A	222 / 8.74	252 / 9.92	282 / 11.10
B	83 / 3.27	113 / 4.45	143 / 5.63

160-250 Amps

Unit: mm/in

	2 POLE	3 POLE	4 POLE
A	238 / 9.37	278 / 10.94	318 / 12.52
B	103 / 4.06	143 / 5.63	183 / 7.20

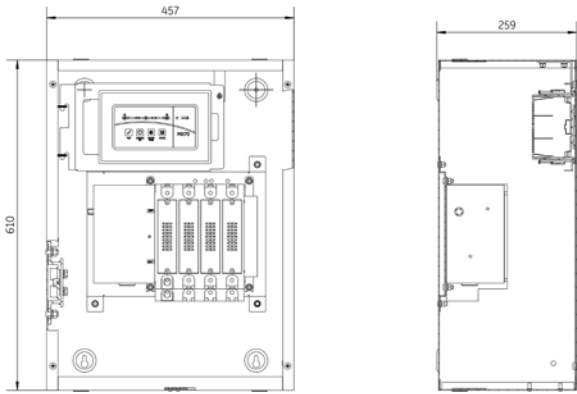
260-400 Amps

Unit: mm/in

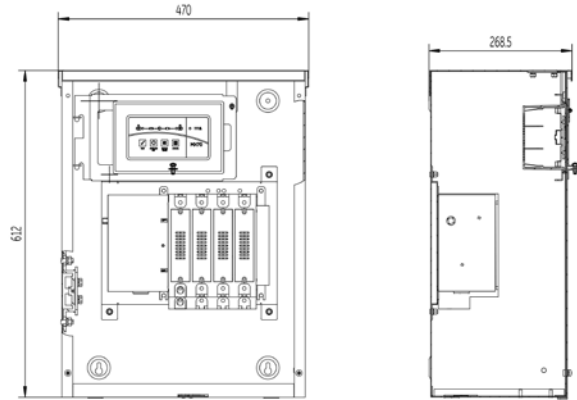
	2 POLE	3 POLE	4 POLE
A	303 / 11.93	363 / 14.29	423 / 16.65
B	276.5 / 10.89	336.5 / 13.25	396.5 / 15.61

Enclosure Dimensions (mm)

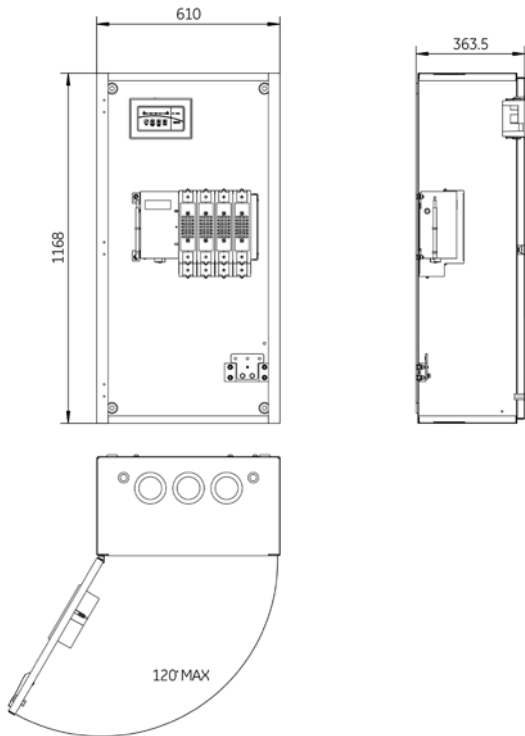
F-2000MP -- 40-250Amp, IP20 (NEMA 1)



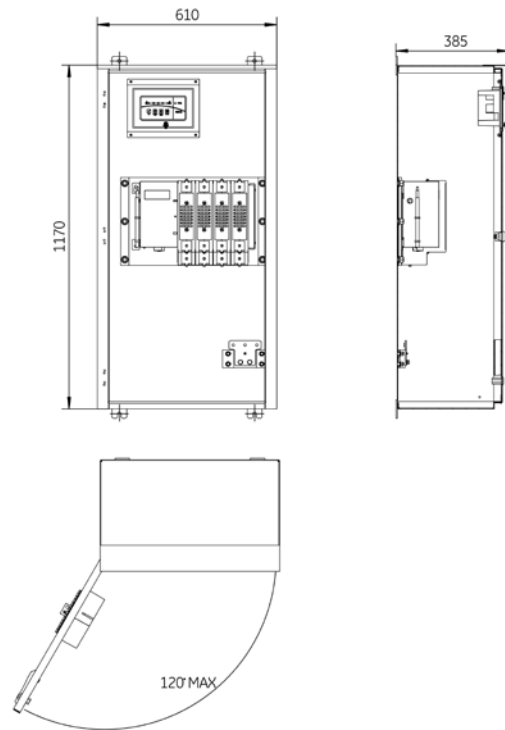
F-2001MP -- 40-250Amp, IP24 (NEMA 1)



F-2002MP -- 320-400Amp, IP20 (NEMA1)



F-2003MP -- 320-400Amp, IP24 (NEMA 3R)



CABINET NUMBER	DIMENSION	UNIT: mm/in
F-2000MP -- 40-250Amp, IP20 (NEMA 1)	457x259x610 / 18x10.2x24	
F-2001MP -- 40-250Amp, IP24 (NEMA 1)	470x268.5x612 / 18x10.6x24.1	
F-2002MP -- 320-400Amp, IP20 (NEMA1)	610x363.5x1168 / 24x14.3x46	
F-2003MP -- 320-400Amp, IP24 (NEMA 3R)	610x385x1170 / 24x15.2x46	

Shipping Weights and Packing Dimensions

Power Panel Only

FRAME	WEIGHT 2 POLE (KGS/LB)	WEIGHT 3 POLE (KGS/LB)	WEIGHT 4 POLE (KGS/LB)	DIMENSION H x W x L UNIT: mm/in
80A	5.76 / 12.70	6.38 / 14.07	7 / 15.43	300 x 275 x 205 / 11.8x10.8x8.1
125A	7.9 / 17.42	9 / 19.84	10 / 22.05	366 x 300 x 205 / 14.4x11.8x8.1
250A	8.72 / 19.22	10.11 / 22.29	11.5 / 25.35	400 x 275x 205 / 15.7x10.8x8.1
400A	17.34 / 382.15	20.42 / 45.02	23.5 / 51.8	547 x 400 x 272 / 21.5x15.7x10.7

Open Style

FRAME	WEIGHT 2 POLE (KGS/LB)	WEIGHT 3 POLE (KGS/LB)	WEIGHT 4 POLE (KGS/LB)	DIMENSION H x W x L UNIT: mm/in
80A	7.1 / 15.65	7.64 / 16.84	8.18 / 18.03	480 x 265 x 190 / 18.9x10.4x14.4
125A	9.94 / 21.91	10.86 / 23.94	11.78 / 25.97	520 x 295 x 190 / 20.5x11.6x7.5
250A	11.94 / 26.32	13.16 / 29.01	14.38 / 38.32	560 x 295 x 190 / 22.0x11.6x7.5
400A	19.22 / 42.37	22.3 / 49.16	25.38 / 55.95	690 x 410 x 270 / 27.2x16.1x10.6

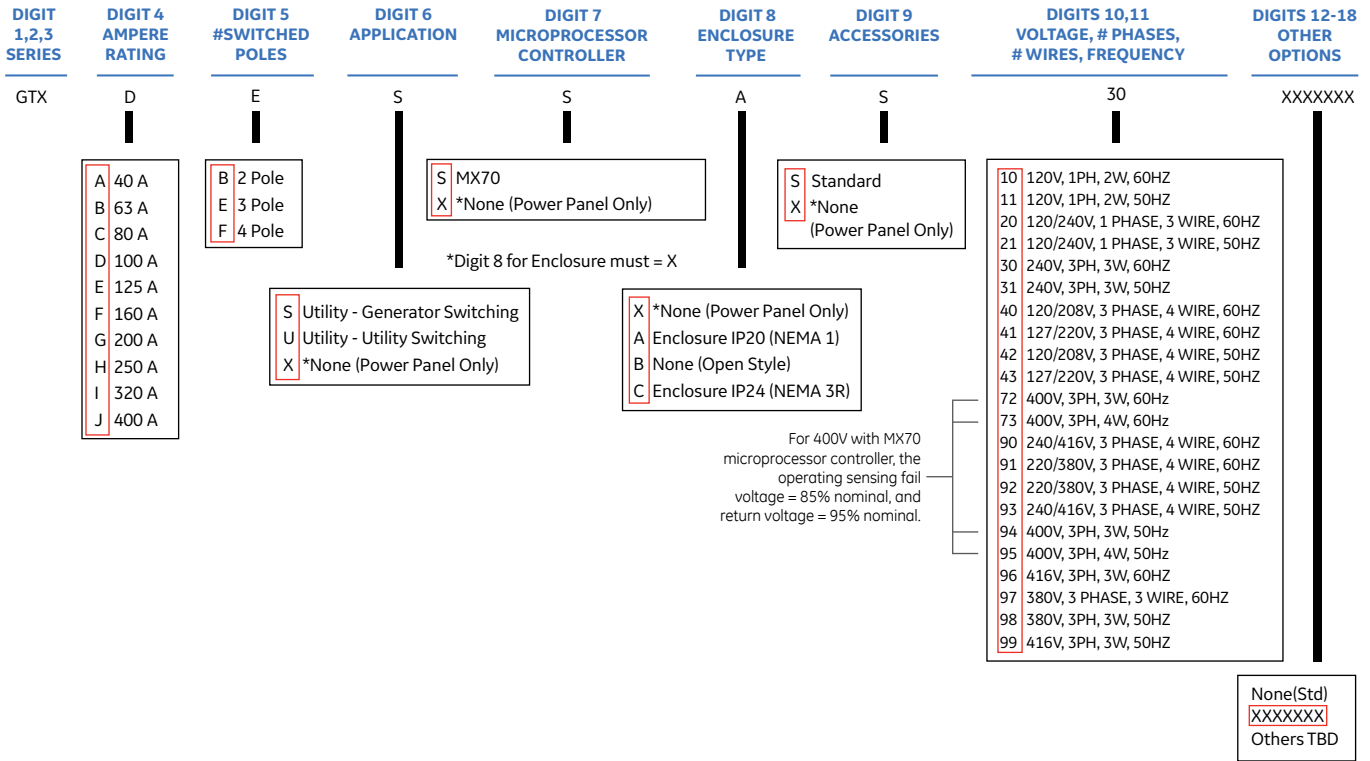
Enclosure Style IP20 (Nema 1)

FRAME	WEIGHT 2 POLE (KGS/LB)	WEIGHT 3 POLE (KGS/LB)	WEIGHT 4 POLE (KGS/LB)	DIMENSION H x W x L UNIT: mm/in
80A	7.1 / 15.65	7.64 / 16.84	8.18 / 18.03	690 x 530 x 330 / 27.2x20.9x13.0
125A	9.94 / 21.91	10.86 / 23.94	11.78 / 25.97	690 x 530 x 330 / 27.2x20.9x13.0
250A	11.94 / 26.32	13.16 / 29.01	14.38 / 38.32	690 x 530 x 330 / 27.2x20.9x13.0
400A	19.22 / 42.37	22.3 / 49.16	25.38 / 55.95	1400 x 870 x 450 / 55.1x34.3x17.7

Enclosure Style IP24 (Nema 3R)

FRAME	WEIGHT 2 POLE (KGS/LB)	WEIGHT 3 POLE (KGS/LB)	WEIGHT 4 POLE (KGS/LB)	DIMENSION H x W x L UNIT: mm/in
80A	8.46 / 18.65	9 / 19.84	9.54 / 21.03	690 x 530 x 330 / 27.2x20.9x13.0
125A	11.3 / 24.91	12.22 / 26.94	13.14 / 28.97	690 x 530 x 330 / 27.2x20.9x13.0
250A	13.3 / 29.32	14.52 / 32.01	15.74 / 34.70	690 x 530 x 330 / 27.2x20.9x13.0
400A	25.58 / 56.39	28.66 / 63.18	31.74 / 69.98	1400 x 870 x 450 / 55.1x34.3x17.7

Order Code



Example

GTXDESSAS30

This number string shows the correct format for a GTX module that is 100Amps with 3 poles, utility to generator switching configuration, MX70 with an enclosure style IP20 (NEMA 1), that has a 240V, 3PH, 3W, 60HZ operating voltage.

GE
Critical Power
601 Shiloh Road
Plano, TX USA 75074
Toll Free +1 877 546 3243
Direct +1 972 244 9288
www.gecriticalpower.com

*Registered trademark of the General Electric Company.
The GE brand, logo, and lamination are trademarks of the General Electric Company. © 2015 General Electric Company.
Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.