LSE | LAKE SHORE ELECTRIC

Automatic Transfer Switch

AIF & AID Insulated Case

TRANSFER

Lake Shore Electric's AIF and AID Automatic Transfer Switches utilize industry-proven insulated case switches to perform safe transfers under load. These insulated case transfer switches are UL 1008 listed and offered in ampacities ranging from 800A to 5000A, up to 480VAC, with interrupting ratings starting at 65kAIC @480VAC. Service entrance rated, as well as open and closed transition configurations are also available.

Standard Features:

- 8600 Transfer Switch Controller
- Insulated Case Switches
- 100% Rated Copper Bus
- Rear Accessible
- Mechanically Interlocked Sources (Open Transition)
- Neutral Position
- Automatic & Manual Operation Under Load
- Engine Starting Contacts
- Momentary Load Test
- NEMA 1 Enclosure with Gray Powder Coat Finish

Optional Features:

- Service Entrance Rated
- Source 1 & Source 2 Overcurrent Protection
- Closed Transition Transfer
- Space Heater
- Surge Protection Device
- Ethernet Communications Gateway
- Metering
- Remote Disconnect
- Utility to Utility or Generator to Generator Configurations

Technical Data
Standard Features

8600 Transfer Switch Controller
The 8600 Transfer Switch Controller monitors the voltage and frequency of the power on the Normal Source (Source 1) and Alternate Source (Source 2). The factory programmed monitoring set points can be adjusted on the display screen or with the Controller software on a PC to meet specific application requirements. The Controller can also be PIN protected to ensure no unauthorized changes can be made. See page 6 for more information.

Fixed Insulated Case Units
The AIF transfer switch utilizes two (2) UL 489-listed fixed-mount insulated case switches and/or breakers. Switches are constructed using circuit breaker components and are of the high instantaneous automatic type, tripping at 10X the frame rating. Breakers are offered with electronic trip units.

Draw-Out Insulated Case Units
The AID transfer switch utilizes two (2) UL 489-listed draw-out insulated case switches and/or breakers. Switches are constructed using circuit breaker components and are of the high instantaneous automatic type, tripping at 10X the frame rating. Breakers are offered with electronic trip units.

Mechanically Interlocked Sources
A mechanical interlock is used to prevent the unintentional paralleling of the Normal Source (Source 1) and Alternate Source (Source 2).

Neutral Position
The AIF and AID transfer switches allow both sources to be placed in the “off” or neutral position.

Automatic & Manual Operation
The AIF and AID Transfer Switches are electrically operated and mechanically held self-contained power switching assemblies. They can be operated automatically or manually by selecting the desired mode on the 8600 Controller. Charging handles and push buttons are located on the front of the Normal Source (Source 1) and Alternate Source (Source 2) insulated case units for safe manual transfer under load.

Engine Starting Contacts
The 8600 Transfer Switch controller provides one form “C” dry contact output that is initiated upon sensing the loss of the Normal Source.

NEMA 1 Enclosure with Gray Powder Coat Finish
All insulated case transfer switch enclosures feature a dead-front design and come standard with a NEMA Type 1 environmental rating and a gray powder coat finish. For additional NEMA ratings and materials, see page 9.

Bus Connections
Mechanical lugs are provided as standard for all incoming and outgoing connections. Alternatively, a NEMA 2-hole pattern bus is available in place of mechanical lugs. This bus follows the standard spacing of 1.75” with a hole diameter of 0.5625”. See table on page 16 for available standard and optional lug sizes, as well as NEMA 2-Hole specifications.

Source Configuration
The AIF and AID Transfer Switch’s standard configuration was engineered to transfer between two distinct power sources, such as utility power and an Alternate generator. The option to transfer between two of the same types of power sources (e.g. utility to utility or generator to generator) can be specified by selecting the corresponding Source Configuration.

Please note: The generator to generator scheme does not allow both sources to be on standby simultaneously and requires that one source continually run and provide power to the ATS. See page 10 for more information.

Technical Data

Optional Features

Service Entrance Rated (Optional)

The service entrance rated option provides overcurrent protection for the Normal Source (Source 1), enabling it to serve as a designated means of service disconnect. A neutral-ground link is also included on the line side of Source 1. Service entrance rated AIFs and AIDs with ratings of 1000A or greater include the following:

- Ground fault protection: Provided when installed on solidly grounded wye electrical systems operating at 150 volts line-to-neutral.

Service entrance rated AIFs and AIDs with ratings of 1200A or greater include the following:

- Arc flash reduction components: Included as standard per NEC 240.87 (Arc Energy Reduction)

Source 1 & Source 2 Overcurrent Protection (Optional)

The AIF and AID can be configured to include overcurrent protection on the Normal Source (Source 1), or Alternate Source (Source 2). Breakers that are 1200A and greater come standard with arc flash reduction features.

Closed Transition Transfer (Optional)

The Closed Transition Transfer option allows the ATS to seamlessly switch between power sources, ensuring an uninterrupted supply to the load. This is achieved by synchronizing both sources and allowing the Alternate Source (Source 2) to close before opening the Normal Source (Source 1), thus performing a “make before break” transfer. Both sources will be closed in parallel for a maximum of 100 milliseconds. An electrical interlock is provided in place of the standard mechanical interlock.

Please note: Closed transition or “make before break” transfer can only occur if both power sources are available and synchronized. If one is unavailable or not synchronized, the Transfer Switch will revert to open transition or “break before make”, which may result in a momentary power interruption during the transfer.

Space Heater (Optional)

Two (2) 100W heaters are provided on a constant circuit to aid in regulating the interior temperature and mitigate the formation of condensation in the enclosure and on the internal components.

Surge Protection Device (Optional)

To protect the control circuit from transient voltage surges, a surge protection device (SPD) with a short circuit rating of 200kA can be added to the Normal Source.

861 USB to Ethernet Communication Device (Optional)

The 861 USB to Ethernet Communication Device is an optional accessory that allows for the monitoring of an 8600 Controller with USB connectivity over a LAN (network) or WAN (internet) connection. The device includes an LED indicator that shows the ATS’s operation and connection status and allows up to four users to simultaneously monitor the controller’s status remotely. See page 6 for more information.

Metering/Power Monitoring (Optional)

Metering/Power Monitoring is an optional accessory available on the 8600 Automatic Transfer Switch Controller, which monitors kWh, kVAr, kVAh, and kVArh. This accessory also allows for customer-configurable load shedding. See page 6 for more information.

Remote Disconnect (Optional)

A shunt trip input is provided so that either or both switches can be tripped, and the transfer switch sent into Fault mode. A manual reset of the switch is required. Customer interconnection can be made at a terminal block.

Technical Data

800A - 4000A Frame

Table 1 : Insulated Case Details (Fixed)

kAIC @ 480V	Rated Current (A)	Breaker Model Code		Switch Model Code	
		3 Pole	4 Pole	3 Pole	4 Pole
65	800	WG1AAB64A3S	BG1AAB64A3S		
	1200	WG1CCB64A3S	BG1CCB64A3S		
	1600	WG1EEB64A3S	BG1EEB64A3S		
	2000	WG1FFB64A3S	BG1FFB64A3S		
100	800	WG3AAB64A3S	BG3AAB64A3S	WG3AABSSX9S	BG3AABSSX9S
	1200	WG3CCB64A3S	BG3CCB64A3S	WG3CCBSSX9S	BG3CCBSSX9S
	1600	WG3EEB64A3S	BG3EEB64A3S	WG3EEBSSX9S	BG3EEBSSX9S
	2000	WG3FFB64A3S	BG3FFB64A3S	WG3FFBSSX9S	BG3FFBSSX9S
	2500	WG3GGB64A3S	BG3GGB64A3S	WG3GGBSSX9S	BG3GGBSSX9S
	3000	WG3HHB64A3S	BG3HHB64A3S	WG3HHBSSX9S	BG3HHBSSX9S
	4000	YG3KKM64A3S	CG3KKM64A3S	YG3KKMSSX9S	CG3KKMSSX9S

Table 2 : Insulated Case Details (Draw-Uut)

kAIC @ 480V	Rated Current (A)	Breaker Model Code		Switch Model Code	
		3 Pole	4 Pole	3 Pole	4 Pole
65	800	WG1AAR64A3S	BG1AAR64A3S		
	1200	WG1CCR64A3S	BG1CCR64A3S		
	1600	WG1EER64A3S	BG1EER64A3S		
	2000	WG1FFR64A3S	BG1FFR64A3S		
100	800	WG3AAR64A3S	BG3AAR64A3S	WG3AARSSX9S	BG3AARSSX9S
	1200	WG3CCR64A3S	BG3CCR64A3S	WG3CCRSSX9S	BG3CCRSSX9S
	1600	WG3EER64A3S	BG3EER64A3S	WG3EERSSX9S	BG3EERSSX9S
	2000	WG3FFR64A3S	BG3FFR64A3S	WG3FFRSSX9S	BG3FFRSSX9S
	2500	WG3GGR64A3S	BG3GGR64A3S	WG3GGRSSX9S	BG3GGRSSX9S
	3000	WG3HHR64A3S	BG3HHR64A3S	WG3HHRSSX9S	BG3HHRSSX9S
	4000	YG3KKR64A3S	CG3KKR64A3S	YG3KKRSSX9S	CG3KKRSSX9S

- Models stated above are Schneider Electric NW Insulated Case Switches
- Breakers that are 1000A and greater come standard with arc flash reduction features
- A higher withstand rating and/or frame rating may be used in place of a lesser rating at LSE discretion
- Contact factory for technical information on switching devices or withstand ratings not listed in Table
- Data subject to change without notice

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Technical Data
Adjustable Rating Plugs

Rating plugs are available for purchase as a field-installable accessory for switch elements that contain a trip unit. They allow adjustment to the breaker's base current rating using multipliers to limit the long-time threshold setting range. To determine which rating plug to select, the following formula can be applied:

Intended Long-Time Threshold / Base Long-Time Threshold = Multiplier

Base Long-Time Threshold: The default long-time threshold of the breaker before installing or adjusting the rating plug.
Intended Long-Time Threshold: The long-time threshold of the breaker after installing or adjusting the rating plug.
Multiplier: The setting on the rating plug that, when applied to the Base Long-Time Threshold, results in the Intended Long-Time Threshold.

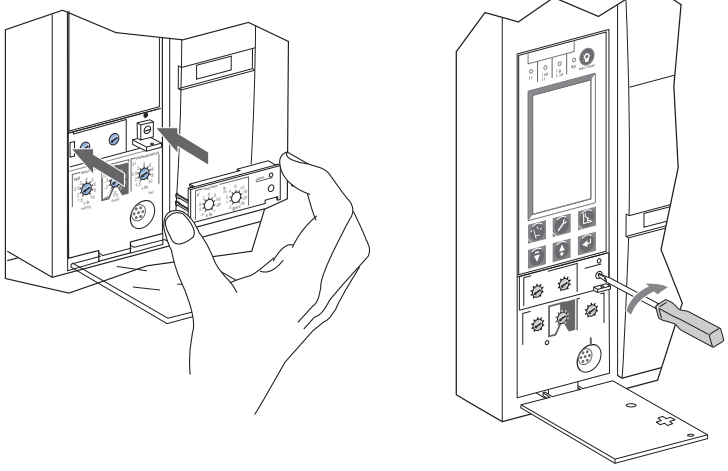
Example:
2800A / 4000A = .07, making any of the rating plugs that contain a .07 multiplier within their settings an appropriate choice.

Optional rating plugs are sold separately and shipped loose for field installation by others.

Table 4 : Rating Plugs

LSE Part Number	Description	Settings & Multipliers								
		1	2	3	4	5	6	7	8	9
12SDCRP0S48818	Plug A[1]	0.4	0.45	0.5	0.6	0.63	0.7	0.8	0.9	1
12SDCRP0S48819	Plug B	0.4	0.44	0.5	0.56	0.63	0.75	0.88	0.95	1
12SDCRP0S48820	Plug C	0.42	0.5	0.53	0.58	0.67	0.75	0.83	0.95	1
12SDCRP0S48836	Plug D	0.4	0.48	0.64	0.7	0.8	0.9	0.93	0.95	1
12SDCRP0S48837	Plug E	0.6	0.7	0.75	0.8	0.85	0.9	0.93	0.95	1
12SDCRP0S48838	Plug F	0.84	0.86	0.88	0.9	0.92	0.94	0.96	0.98	1
12SDCRP0S48839	Plug G	0.66	0.68	0.7	0.72	0.74	0.76	0.78	0.8	0.82
12SDCRP0S48840	Plug H	0.48	0.5	0.52	0.54	0.56	0.58	0.6	0.62	0.64

[1] Standard Offering



Location of Adjustable Rating Plug

Adjustable Rating Plug

Micrologic 6.0P Trip Unit

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Technical Data

Controller Features & Accessories

Controller Description & Overview

The 8600 Automatic Transfer Switch Controller monitors the voltage and frequency of the AC supply from two potential sources, such as a generator, utility, or a combination of both. If the supply from Source 1 (S1) fails, the Controller will issue a start command to Source 2 (S2). The 8600 Automatic Transfer Switch Controller will transfer the load to S2 once it produces an output that meets the required limits. When S1's supply returns and meets the specified limits, the load will be switched back, and S2 will be shut down. To prevent unnecessary start commands, the 8600 offers various timing sequences.

- Standard Features:
- 4-Line Back-Lit LCD Text Display
- Five Key Menu Navigation
- Front Panel Editing with PIN Protection
- LED & LCD Alarm Indication
- Source 1/Source 2 Control
- Engine Test and Start Contact
- Load Inhibit
- Single Phase Protection
- Manual Restore to S1
- Configurable Timers & Alarms
- Event Log
- Multiple Date & Time Scheduler
- USB Connectivity
- Backed Up Real Time Clock
- Configurable Display Languages
- RS485 Communications
- Load Shedding Outputs (Requires Metering Accessory)

861 USB to Ethernet Communication Device (Optional)

The 861 USB to Ethernet Communication Device is an optional accessory used in conjunction with the 8600 Automatic Transfer Switch Controller to allow for remote monitoring of an ATS over a LAN (network) or WAN (internet) connection. The device includes an LED indicator that shows the operation and connection status of the ATS and allows up to four users to simultaneously monitor the Controller's status remotely.

- Converts Controller's USB port to an Ethernet port
- Built-In web server for use over an internal network and the internet
- Simple configuration via an internet browser
- Remote control and monitoring of the connected controller
- User access permission/restrictions available
- Supports MODBUS TCP via Ethernet port
- LED status indication on the device to aid in fault-finding

Metering/Power Monitoring (Optional)

Metering/Power Monitoring is an optional accessory for the 8600 Automatic Transfer Switch Controller, which can monitor kWh, kVAr, kVAh, and kVArh. This accessory also allows the user to configure the Controller for load-shedding applications that can be communicated via the native Modbus RS-485 or the optional Ethernet communication module shown above.

Technical Data

Adjustable Controller Features & Factory Defaults

Table 4 : Controller Features

Set Point	Description	Factory Default	Range
TDES	Time Delay Engine Start	3 Seconds	0 Seconds - 10 Hours
TDNE	Time Delay Normal to Alternate	3 Seconds	0 Seconds - 5 Hours
TDEN	Time Delay Alternate to Normal	3 Seconds	0 Seconds - 5 Hours
TDEC	Time Delay Engine Cool-Off	3 Seconds	0 Seconds - 1 Hours
TDN	Time Delay Neutral	3 Seconds	0 Seconds - 5 Hours
TDEF	Time Delay Alternate Fail Timer	3 Seconds	0 Seconds - 1 Hour
TPRE	Pre-Transfer Delay Timer	10 Seconds	0 Seconds - 5 Minutes
S1 UV DROP	S1 Undervoltage Dropout	80% of the Nominal Voltage	
S1 UV PICK	S1 Undervoltage Pickup	90% of the Nominal Voltage	
S2 UV DROP	S2 Undervoltage Dropout	80% of the Nominal Voltage	
S2 UV PICK	S2 Undervoltage Pickup	90% of the Nominal Voltage	
Check Sync	Synchronization	Off	0 Seconds - 10 Minutes
TD	Transient Delay	Off	0 Seconds - 30 Seconds
PHASES	Three-Phase or Single-Phase	Refer to Model Code or Schematic	
PLANT EXER	Plant Exerciser Programming	Off	Week/Day/Time/Duration
PHASE ROT	Phase Rotation	Off	(L1, L2, L3) OR (L3, L2, L1)

Table 5 : Contacts

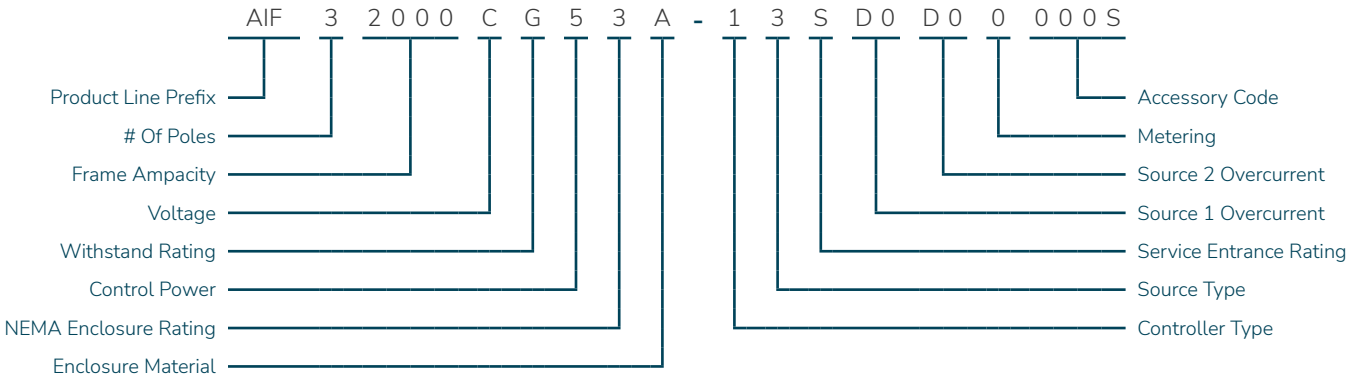
Available Contacts	Contact Type	Contact Position	Rating
Alarm	Dry	Form C	10A @250VAC
Pre-Transfer Contact	Dry	Form C	10A @250VAC
S1 Available	Dry	Form C	10A @250VAC
S2 Available	Dry	Form C	10A @250VAC
Engine Start	Dry	Form C	8A @ 250VAC
S1 Switch Position	Dry	Auxiliary	6A @ 250VAC
S2 Switch Position	Dry	Auxiliary	6A @ 250VAC
Remote Disconnect	Wet	Digital Input	N/A
Peak Shave	Wet	Digital Output	N/A

Selection Guide

Characters & Designations

All Lake Shore Electric Transfer products are designed using a structured, smart-style model code ordering system. The complete insulated case automatic transfer switch model code is composed of 25 customer-selected characters, each identifying a feature or function of the design. The first thirteen characters of the model code define the basic configuration. The twelve characters that follow identify the controller type, service rating, and any additional accessories.

Sample Model Code:



Please use the space provided below to document the transfer switch model code configuration, as guided by the options shown on pages 9-12.

TRANSFER

Selection Guide

Model Code Configuration

Product Line Prefix

Selection of the prefix indicates whether the breakers and/or switches will be fixed-mount or draw-out.

Table 6 : Prefix Code

Description	Alpha Numeric
Fixed-Mount	AIF
Draw-Out	AID

Number of Poles

Following the AIF or AID prefix is the number of poles. Available in configurations of 3–pole or 4–pole, this character is what distinguishes between a solid or switched neutral.

Table 7 : Pole Code

Poles	Alpha Numeric
3	3
4	4

Frame Ampacity

The AIF and AID product lines are designed using industry-standard insulated case frame sizes and are available in amperages ranging from 800A to 5000A.

Table 8 : Amperage Code

Description	Alpha Numeric
800	0800
1200	1200
1600	1600
2000	2000
2500	2500
3000	3000
4000	4000
5000[1]	0000

[1] Contact factory for order guidance

Voltage

Identification of the system voltage determines the number of phases as well as the presence of a neutral wire.

Table 9 : Voltage Code

Voltage	Phase/Wire	Alpha Numeric
208Y/120VAC	3 Ph 4W	B
480Y/277VAC	3 Ph 4W	C
120/240VAC	3 Ph 4W	G
480VAC	3 Ph 3W	K

Withstand Rating

The withstand rating is based on UL 489 Switching Device Ratings at 480VAC; Lower voltages offer higher kAIC ratings within the same alphanumeric code. Contact the factory for these ratings.

Table 10 : Withstand Rating Code

Description	Alpha Numeric
65kAIC @ 480V	G
100kAIC @ 480V	I

Control Power Supply

Control power is externally derived from the engine generator battery system. If external power is not available, internally derived power can be provided via a DC Uninterrupted Power Supply (UPS), which includes a 2AH battery.

Table 11 : Control Power Supply Code

Description	Alpha Numeric
Externally Derived (12VDC - 24VDC)	5
Internally Derived (UPS)	8

NEMA Enclosure Rating

The AIF and AID transfer switches are available in NEMA Type 1 or NEMA Type 3R enclosures. NEMA Type 3R enclosures include a hinged, full-height door.

Table 12 : NEMA Rating Code

Description	Alpha Numeric
NEMA Type 1	1
NEMA Type 3R	3

Enclosure Material

The AIF and AID transfer switch's standard enclosure material is hot-rolled steel with ANSI-61 gray powder coat finish. Additional material options are listed below.

Table 13 : Enclosure Material Code

Description	Alpha Numeric
Hot Rolled Steel (Powder Coat Finish)	A
Stainless Steel – 304 (#4 Brushed Finish)	C
Stainless Steel – 316 (#4 Brushed Finish)	D

Selection Guide

Accessory Code Configuration

Controller Type

The first character after the hyphen specifies the Transfer Switch Controller, with the Standard Controller Package (Alpha Numeric 1) being the default selection for all Automatic Transfer Switches. See page 6 for Controller and Ethernet Communication Module details.

Table 14 : Controller

Description	Alpha Numeric
Standard Controller Package	1
Standard Controller Package with Ethernet	2

Source Configuration

The second character after the hyphen identifies the power source type. The AIF and AID standard configuration switches between two distinct power source types, such as a Normal Source and an Alternate generator (Alpha Numeric T). Alternative configurations are listed below.

Table 15 : Source Configuration

Description	Alpha Numeric
S1 Utility & S2 Generator	T
S1 Utility & S2 Utility	P
S1 Generator & S2 Generator	G

Service Entrance Rating Code

Following the source configuration character is the option for service entrance rated or non-service entrance rated. See page 3 for more information.

Table 16 : Service Entrance Rating Code

Description	Alpha Numeric
Non-Service Entrance Rated	N
Service Entrance Rated	S

Source 1 Overcurrent

The AIF and AID can be configured to include overcurrent protection on the Normal Source (Source 1), which is based on the frame amperage as selected on page 9. The table below lists the default two-character trip amperage, as well as the option for no overcurrent protection. Field installable adjustable rating plugs are available on page 5.

Table 17 : S1 Overcurrent

Description	Alpha Numeric
No Source 1 Trip (Switch Only)	00
800A LSI	A0
1200A LSIG	B0
1600A LSIG	C0
2000A LSIG	D0
2500A LSIG	E0
3000A LSIG	F0
4000A LSIG	G0

Source 2 Overcurrent

The option to include overcurrent protection on the Alternate Source (Source 2) is also available and is based on the frame amperage as selected on page 9. The table below lists the default two-character trip amperage, as well as the option for no overcurrent protection. Field installable adjustable rating plugs are available on page 5.

Table 18 : S2 Overcurrent

Description	Alpha Numeric
No Source 2 Trip (Switch Only)	00
800A LSI	A0
1200A LSIG	B0
1600A LSIG	C0
2000A LSIG	D0
2500A LSIG	E0
3000A LSIG	F0
4000A LSIG	G0

Selection Guide

Accessory Code Configuration (cont.)

Metering/Power Monitoring

This accessory is selected to include Metering/Power Monitoring on the Load. Because it is an optional accessory, the default selection for all Automatic Transfer Switches is Alpha Numeric 0.

Table 19 : Metering Code

Description	Alpha Numeric
No Meter/Power Monitoring	0
Meter/Power Monitoring on Load	3

Accessory Code Position 1

The first position of the four-digit accessory code allows for the addition of a remote disconnect, as well as closed transition transfer.

- Remote Disconnect provides a shunt trip input so that either or both switches can be opened from a remote location, and the transfer switch can be sent to Fault mode.
- Closed Transition Transfer allows the ATS to transfer between sources without interruption of power to the load. See page 3 for more information.

Table 20 : Accessory Code 1

Description	Alpha Numeric
No Option	0
Remote Disconnect	1
Closed Transition Transfer	2
Remote Disconnect & Closed Transition	3

Accessory Code Position 2

The second position of the four-digit accessory code provides the option to include a space heater.

- Space Heaters operate on 120VAC and may include a control power transformer when necessary. Overcurrent protection and thermostat are also provided.

Table 21 : Accessory Code 2

Description	Alpha Numeric
No Option	0
Space Heater	1

Accessory Code Position 3

The third position of the four-digit accessory code is used to specify the need for an optional lug size or NEMA 2-Hole Bus, as well as well as the option to add a Surge Protection Device (SPD).

- Optional Lug sizes and NEMA 2-Hole Bus information can be found on page 16.
- Surge Protection Devices are sized per the frame amperage of the ATS. See page 3 for more information.

Table 22 : Accessory Code 3

Description	Alpha Numeric
No Options (Standard Lug Size, no SPD)	0
Optional Lugs	1
Surge Protection Device (with Standard Lugs)	2
Optional Lugs & Surge Protection Device	3
NEMA 2-Hole Bus	4
NEMA 2-Hole Bus & Surge Protection Device	5

Accessory Code Position 4

The fourth position of the four-digit accessory code is a fixed character with no selection required.

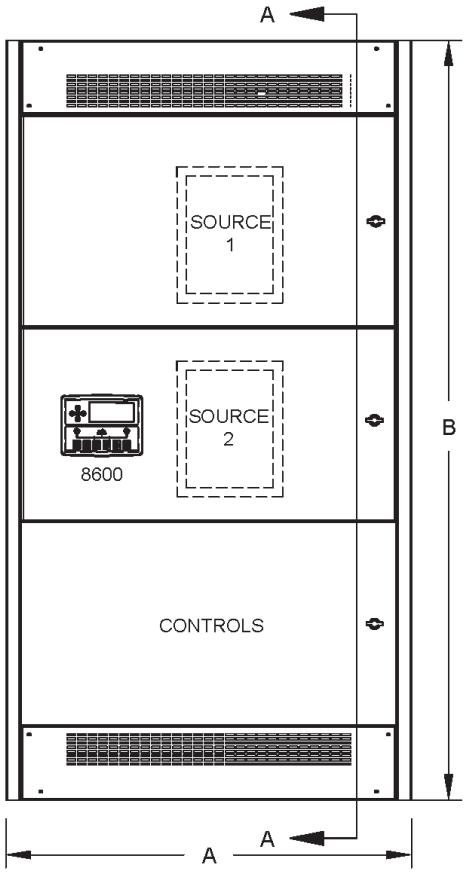
Table 23 : Accessory Code 4

Description	Alpha Numeric
Non-Selectable Character	S

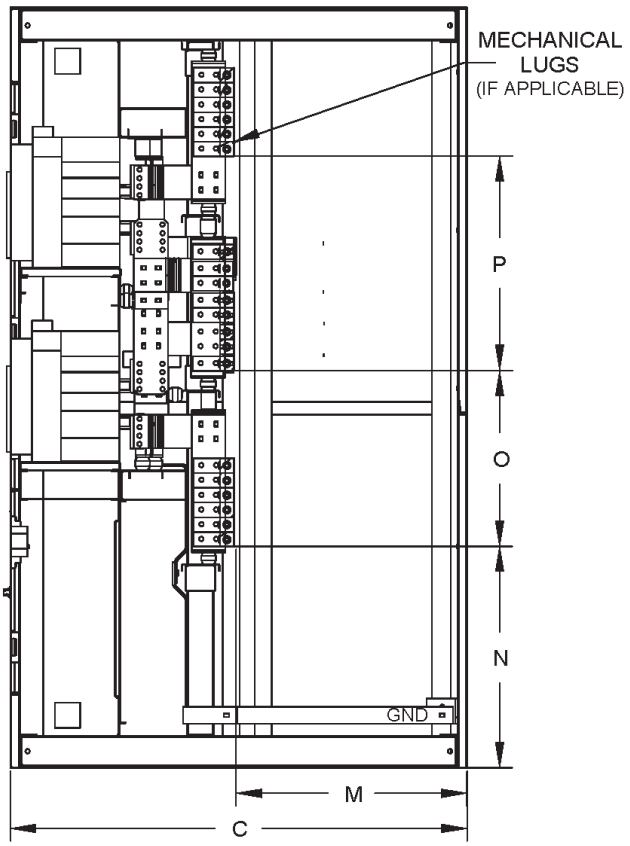
Weights & Dimensions

AIF Transfer Switch (NEMA Type 1)

Enclosure Dimensions

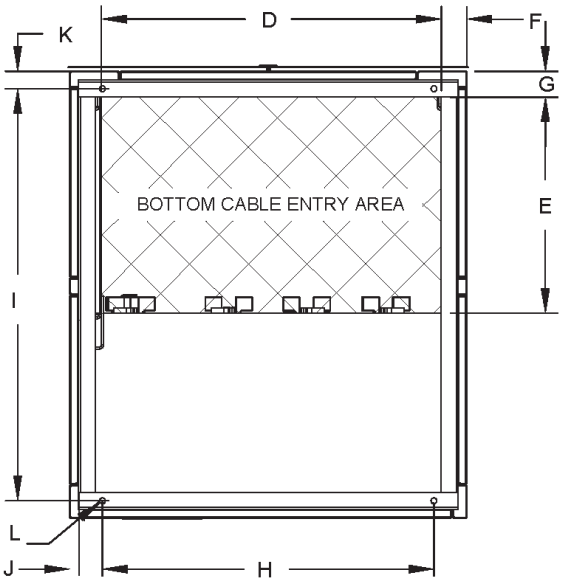


FRONT ELEVATION



SECTION A-A

Cable Access



PLAN VIEW
FRONT

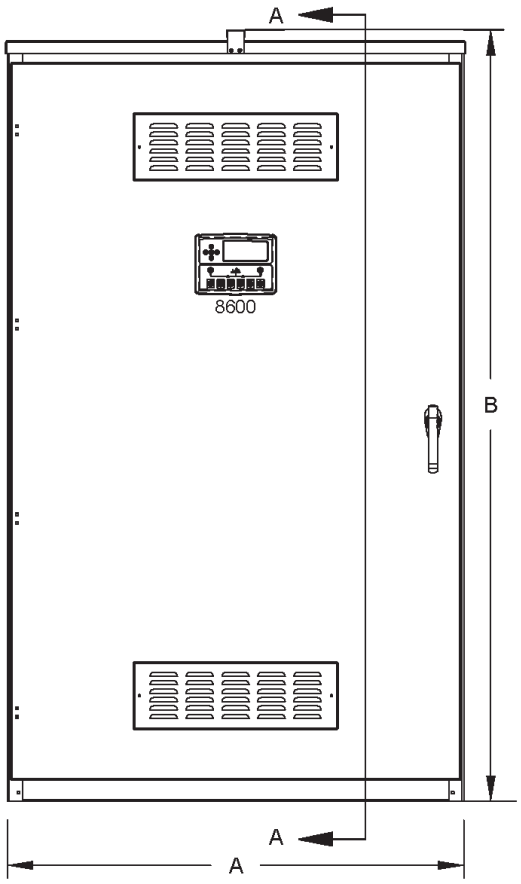
Table 24 : Fixed N1 Dimensions

	800A-3000A	4000A
Width (A)	48”	54”
Height (B)	90”	90”
Depth (C)	54”	54”
Cable Entry Width (D)	41”	47”
Cable Entry Depth (E)	26.13”	26.13”
Cable Entry Side (F)	3.13”	3.13”
Cable Entry Rear (G)	3.13”	3.13”
Anchor Width (H)	40”	46”
Anchor Depth (I)	49.75”	49.75”
Anchor Side (J)	4”	4”
Anchor Rear (K)	2.13”	2.13”
Anchor Hole Dia. (L)	.75”	.75”
Lug Depth Clearance (M)	27.31”	27.31”
S2 Height (N)	26.25”	26.25”
S2 to Load (O)	20.84”	20.84”
Load to S1 (P)	25.41”	25.41”
Approximate Weight	2100-2250 lbs	2750 lbs.

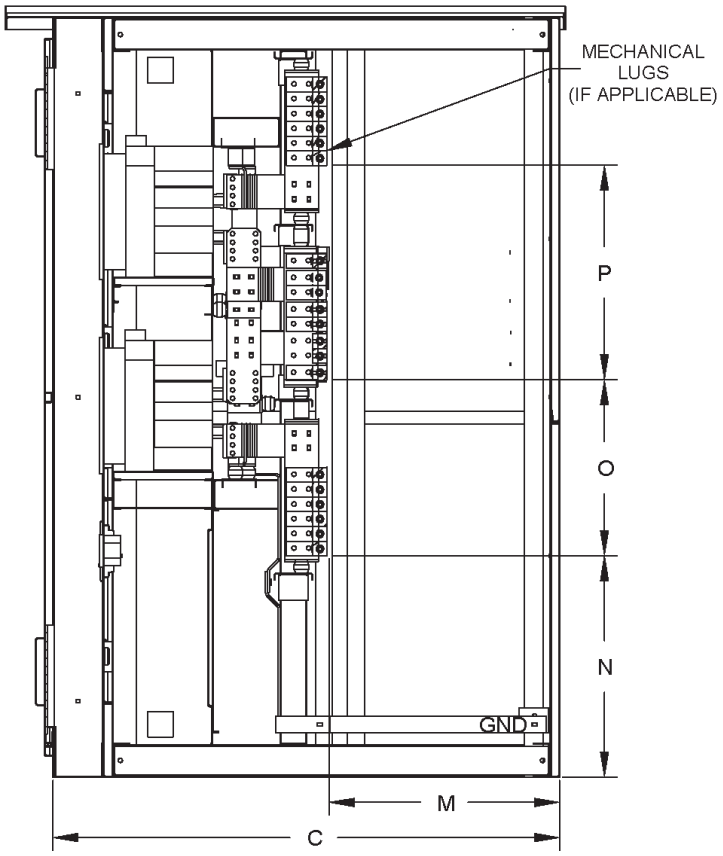
Weights & Dimensions

AIF Transfer Switch (NEMA Type 3R)

Enclosure Dimensions

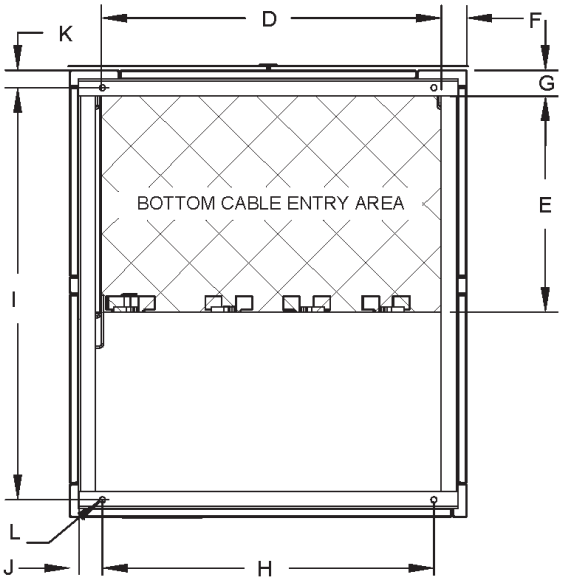


FRONT ELEVATION



SECTION A-A

Cable Access



PLAN VIEW
FRONT

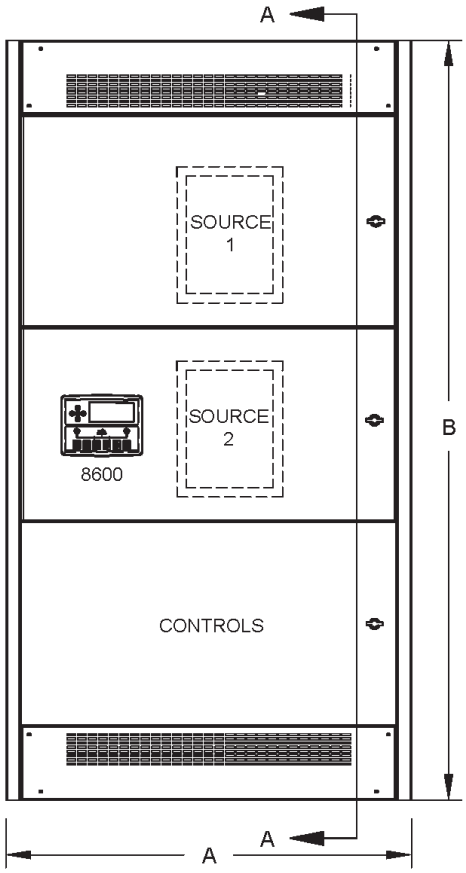
Table 25 : Fixed N3R Dimensions

	800A-3000A	4000A
Width (A)	48”	54”
Height (B)	91.39”	91.39”
Depth (C)	60”	60”
Cable Entry Width (D)	41”	47”
Cable Entry Depth (E)	26.13”	26.13”
Cable Entry Side (F)	3.13”	3.13”
Cable Entry Rear (G)	3.13”	3.13”
Anchor Width (H)	40”	46”
Anchor Depth (I)	49.75”	49.75”
Anchor Side (J)	4”	4”
Anchor Rear (K)	2.13”	2.13”
Anchor Hole Dia. (L)	.75”	.75”
Lug Depth Clearance (M)	27.31”	27.31”
S2 Height (N)	26.25”	26.25”
S2 to Load (O)	20.84”	20.84”
Load to S1 (P)	25.41”	25.41”
Approximate Weight	2100-2250 lbs	2750 lbs.

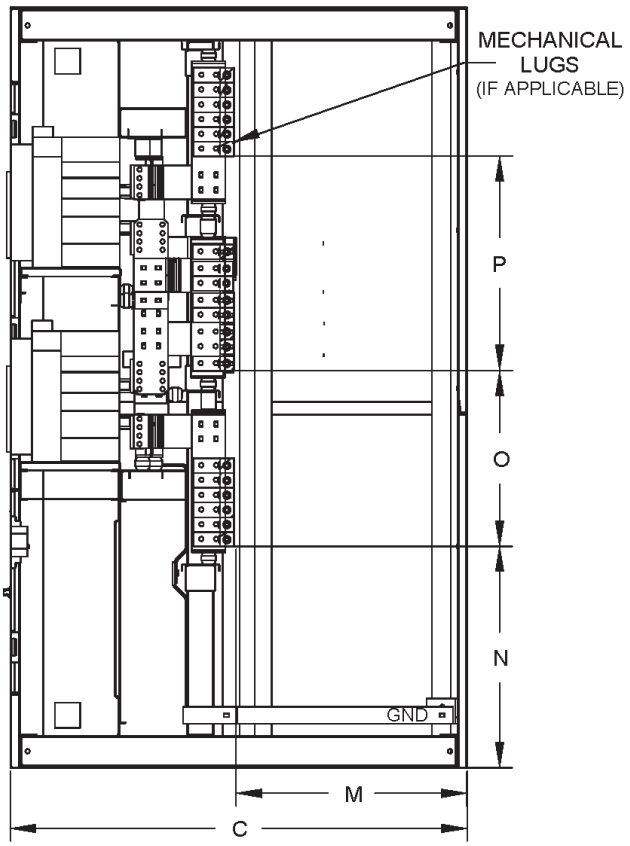
Weights & Dimensions

AID Transfer Switch (NEMA Type 1)

Enclosure Dimensions

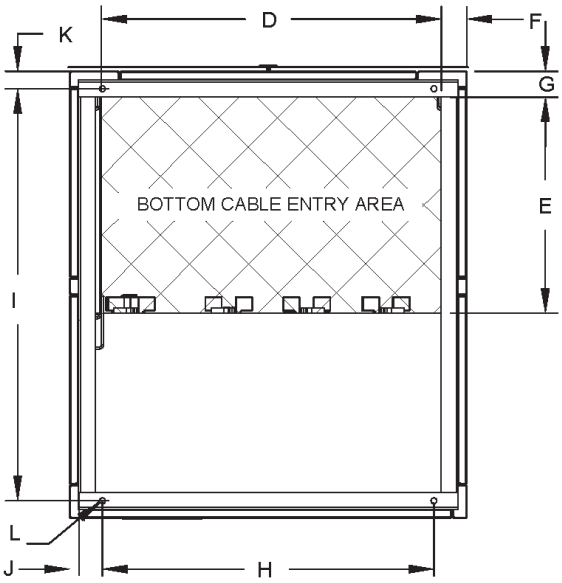


FRONT ELEVATION



SECTION A-A

Cable Access



PLAN VIEW
FRONT

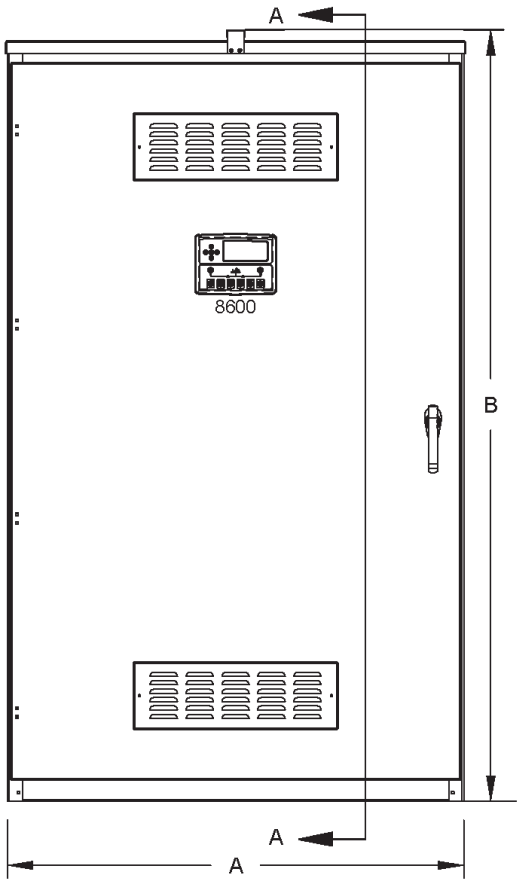
Table 26 : Draw Out N1 Dimensions

	800A-3000A	4000A
Width (A)	48”	54”
Height (B)	90”	90”
Depth (C)	60”	60”
Cable Entry Width (D)	41”	47”
Cable Entry Depth (E)	26.13”	26.13”
Cable Entry Side (F)	3.13”	3.13”
Cable Entry Rear (G)	3.13”	3.13”
Anchor Width (H)	40”	46”
Anchor Depth (I)	55.75”	55.75”
Anchor Side (J)	4”	4”
Anchor Rear (K)	2.13”	2.13”
Anchor Hole Dia. (L)	.75”	.75”
Lug Depth Clearance (M)	27.31”	27.31”
S2 Height (N)	26.25”	26.25”
S2 to Load (O)	20.84”	20.84”
Load to S1 (P)	25.41”	25.41”
Approximate Weight	2700-2850 lbs	3350 lbs.

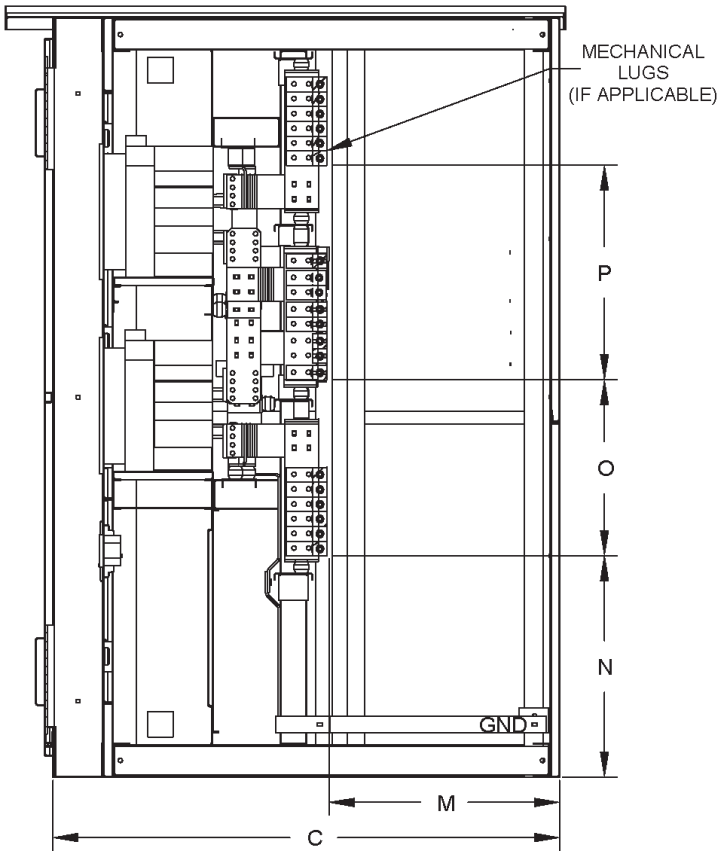
Weights & Dimensions

AID Transfer Switch (NEMA Type 3R)

Enclosure Dimensions

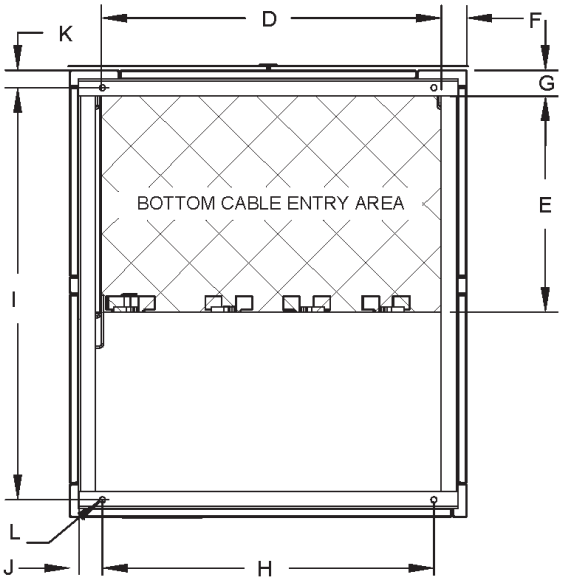


FRONT ELEVATION



SECTION A-A

Cable Access



PLAN VIEW
FRONT

Table 27 : Draw Out N3R Dimensions

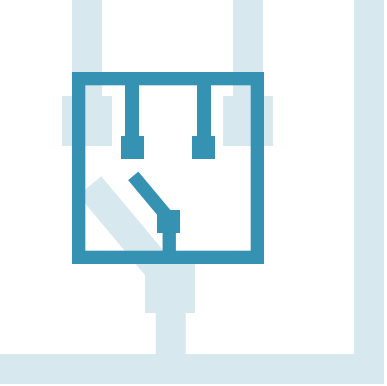
	800A-3000A	4000A
Width (A)	48”	54”
Height (B)	91.39”	91.39”
Depth (C)	66”	66”
Cable Entry Width (D)	41”	47”
Cable Entry Depth (E)	26.13”	26.13”
Cable Entry Side (F)	3.13”	3.13”
Cable Entry Rear (G)	3.13”	3.13”
Anchor Width (H)	40”	46”
Anchor Depth (I)	55.75”	55.75”
Anchor Side (J)	4”	4”
Anchor Rear (K)	2.13”	2.13”
Anchor Hole Dia. (L)	.75”	.75”
Lug Depth Clearance (M)	27.31”	27.31”
S2 Height (N)	26.25”	26.25”
S2 to Load (O)	20.84”	20.84”
Load to S1 (P)	25.41”	25.41”
Approximate Weight	2700-2850 lbs	3350 lbs.

Connection Information

Bus Connections

Table 28 : Lug Size & Quantity

Ampacity	Location		Standard Lug	Optional Lug	NEMA 2-Hole	Ground
800A	Normal Source	Per Phase & Neutral	(2) 300 - 800 MCM	(4) #2 - 600 MCM	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#6 - 350 MCM
	Alternate Source	Per Phase & Neutral	(2) 300 - 800 MCM	(4) #2 - 600 MCM		
	Load	Per Phase & Neutral	(2) 300 - 800 MCM	(4) #2 - 600 MCM		
1200A	Normal Source	Per Phase & Neutral	(4) 300 - 800 MCM	(6) #2 - 600 MCM	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#6 - 350 MCM
	Alternate Source	Per Phase & Neutral	(4) 300 - 800 MCM	(6) #2 - 600 MCM		
	Load	Per Phase & Neutral	(4) 300 - 800 MCM	(6) #2 - 600 MCM		
1600A	Normal Source	Per Phase & Neutral	(6) 300 - 800 MCM	(8) #2 - 600 MCM	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#6 - 350 MCM
	Alternate Source	Per Phase & Neutral	(6) 300 - 800 MCM	(8) #2 - 600 MCM		
	Load	Per Phase & Neutral	(6) 300 - 800 MCM	(8) #2 - 600 MCM		
2000A	Normal Source	Per Phase & Neutral	(6) 300 - 800 MCM	N/A	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#6 - 350 MCM
	Alternate Source	Per Phase & Neutral	(6) 300 - 800 MCM			
	Load	Per Phase & Neutral	(6) 300 - 800 MCM			
2500A	Normal Source	Per Phase & Neutral	(8) 300 - 800 MCM	N/A	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#2 - 600 MCM
	Alternate Source	Per Phase & Neutral	(8) 300 - 800 MCM			
	Load	Per Phase & Neutral	(8) 300 - 800 MCM			
3000A	Normal Source	Per Phase & Neutral	(8) 300 - 800 MCM	N/A	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#2 - 600 MCM
	Alternate Source	Per Phase & Neutral	(8) 300 - 800 MCM			
	Load	Per Phase & Neutral	(8) 300 - 800 MCM			
4000A	Normal Source	Per Phase & Neutral	(10) 300 - 800 MCM	N/A	(6) Per Phase & Neutral Spacing: 1.75" Hole Diameter .5625"	#2 - 600 MCM
	Alternate Source	Per Phase & Neutral	(10) 300 - 800 MCM			
	Load	Per Phase & Neutral	(10) 300 - 800 MCM			



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