



EUSERC UCT
Single Main Circuit Breaker with
I-Line Distribution Panel



EUSERC UCT
Fusible Multiple Mains

Speed-D SB/SF Switchboards (UL Listed)

- UL Listed
- California Energy Commission (CEC) Title 24 compliant configurations available for California installations
- Hot sequence utility compartment per EUSERC requirements
- Two types:
 - Utility–Service disconnect–distribution
 - Utility–Up to six service disconnects
- Single service disconnect, either circuit breaker or fusible rated 400, 600, or 800 A with either type of distribution interiors, NQ up to 240 Vac, I-Line™ through 480 Vac
- Six service disconnects, group-mounted fusible, QMB/QMJ, 30–400 A; utility compartment—400, 600, and 800 A
- Meter doors can be 15 inches high with one meter socket and test block, or 30 inches high with two meter sockets and test block
- Meter sockets can be 6-, 8-, 13-, or 15-jaw meter sockets with test block, based on application
- Solar ready configurations are now available, using a back-fed circuit breaker on the I-Line stack
- Accessories include:
 - Underground pull sections with and without lug landing
 - Loadside wireway
 - Bus links for donut-type current transformers
 - Double padlock hasp attachments
 - Plug-on distribution panel
 - Subfeed circuit breakers
- Full height add-on I-Line distribution section
- Stand-alone I-Line distribution section

Application

Suitable for use as service entrance equipment on ac systems. Sections contain metering compartment, barriers, main disconnects, distribution panel, neutral bus, and grounding provisions.

Metering

C/T compartment with two 15-inch blank meter doors. (Order doors with meter socket from [Table 11.10 Meter Door Selection, page 11-13.](#)) Incoming cable lugs are for top feed with one twin conductor 2 AWG–600 kcmil lug per phase and neutral, suitable for aluminum or copper cables. Optional single conductor lug is available. Refer to [Table 11.11 Accessories, page 11-13.](#)

Mains

Main breaker can be LH, MJ, PowerPact L, or PowerPact P. Standard and advanced electronic trip units available for PowerPact breakers. Multiple main devices use plug-on fusible switches. Main breakers with Energy or Power trip units comply with CEC Title 24 metering requirements.

Branches

NQ distribution bus is rated 400 A and provides mounting space for QO™/QOB Type (150 A maximum) circuit breakers. Panel provides space for mounting 42 single pole circuit breakers. One or two individually mounted 225 A maximum circuit breakers can be added with bus connectors. (Order subfeed circuit breakers from [Table 11.12 Subfeed Circuit Breakers \(Series E4\), page 11-14.](#))

I-Line™ distribution bus is rated 400, 600, or 800 A and will accept 27 inches of I-Line circuit breakers on the left side with a maximum frame size of “J”. The right side will accept either a QO plug-on distribution panel (240 V only) or LA or LH I-Line circuit breaker, which allows for a back-fed solar power source.

Enclosure

Totally enclosed front accessible with ANSI 49 gray baked enamel finish. Dimensions are 90 in. (H) x 36 in. (W) x 14 in. (D) for indoor and 90 in. (H) x 36 in. (W) x 24.5 in. (D) for outdoor enclosures.

**EUSERC Utility Metering, Main Disconnects and Distribution Panel
(UL Listed)**

Table 11.6: Single Main Circuit Breaker with Distribution (Series E4)

System	Service Voltage	Mains Ratings (A)	Main Breaker Trip Unit	SCCR 240 V Max.	SCCR 480 V Max.	Distribution Interior	Circuit Breaker Catalog No.		
							Indoor	Outdoor	
1Ø3W	120/240	400	Thermal Magnetic	65	—	None	SB124QS	SB124QR	
			I-Line	SB124JS		SB124IR			
			None	SB124WS		SB124WR			
		LSI Standard Electronic	100	None		SB124QSJS	SB124QRJS		
		I-Line		SB124JSJS		SB124IRJS			
		None		SB124WSJS		SB124WRJS			
	600	LSI Energy Electronic	65	None	SB124QSJE	SB124QRJE			
		I-Line		SB124SJE	SB124IRJE				
		None		SB124WSJE	SB124WRJE				
	3Ø4W [1]	208Y/120 240/120	400	Thermal Magnetic	65	—	None	SB126IS	SB126IR
				I-Line	SB126WS		SB126WR		
				None	SB324QS		SB324QR		
LSI Standard Electronic			100	None	SB324WS		SB324WR		
I-Line				SB324QSJS	SB324QRJS				
None				SB324WSJS	SB324WRJS				
600		LSI Energy Electronic	65	None	SB324QSJE	SB324QRJE			
		I-Line		SB324SJE	SB324IRJE				
		None		SB324WSJE	SB324WRJE				
208Y/120 240/120 480Y/277		400	400	Thermal Magnetic	65	35	I-Line	SB344IS	SB344IR
				I-Line	SB344WS	SB344WR			
				None	SB344SJS	SB344IRJS			
			LSI Standard Electronic	100	65	None	SB344WSJS	SB344WRJS	
			I-Line		SB344ISJE	SB344IRJE			
			None		SB344WSJE	SB344WRJE			
		600	LI Basic Electronic	65	50	I-Line	SB346IS	SB346IR	
			I-Line		SB346WS	SB346WR			
			None		SB348IS	SB348IR			
		800	LI Basic Electronic	65	50	I-Line	SB348IS	SB348IR	
			I-Line		SB348WS	SB348WR			
			None		SB348SJS	SB348IRJS			
LSI Standard Electronic		100	65	65	I-Line	SB348WSJS	SB348WRJS		
					None	SB348ISJP	SB348IRJP		
					I-Line	SB348WSJP	SB348WRJP		
LSI Power Electronic	100	65	65	I-Line	SB348SJS	SB348IRJS			
				None	SB348WSJS	SB348WRJS			
				I-Line	SB348ISJP	SB348IRJP			
None	100	65	65	I-Line	SB348WSJP	SB348WRJP			
				None	SB348WSJS	SB348WRJS			
				I-Line	SB348ISJP	SB348IRJP			

11 SWITCHBOARDS AND SWITCHGEAR

[1] Can be used on 3Ø3W Delta voltage systems (for example, 240 V Delta or 480 V Delta).

Table 11.7: Single Main Fusible Disconnect with Distribution (Series E4)

System	Service Voltage	Mains Ratings (A)	Distribution Interior	SCCR 240 V Max.	SCCR 480 V Max.	Fusible Disconnect Catalog No.	
						Indoor	Outdoor
1Ø3W	120/240	400	NQ	65	—	SF124QS	SF124QR
			I-Line	100	—	SF124IS	SF124IR
			None	200	—	SF124WS	SF124WR
		600	I-Line	100	—	SF126IS	SF126IR
			None	200	—	SF126WS	SF126WR
			NQ	65	—	SF324QS	SF324QR
3Ø4W [2]	208Y/120 240/120	400	None	200	—	SF324WS	SF324WR
3Ø4W [2]	208Y/120 240/120 480Y/277	400	I-Line	100	65	SF344IS	SF344IR
3Ø4W [2]	208Y/120 240/120 480Y/277	400	None	200	200	SF344WS	SF344WR
3Ø4W [2]	208Y/120 240/120 480Y/277	600	I-Line	100	65	SF346IS	SF346IR
3Ø4W [2]	208Y/120 240/120 480Y/277	600	None	200	200	SF346WS	SF346WR
3Ø4W [2]	208Y/120 240/120 480Y/277	800	I-Line	100	65	SF348IS	SF348IR
3Ø4W [2]	208Y/120 240/120 480Y/277	800	None	200	200	SF348WS	SF348WR

Table 11.8: Multiple Mains—Fusible (Series E4)

System	Service Voltage	Mains Rating (A)	240 V or 480 V Max. [3]	Multiple Mains (6) Fusible Catalog No. [4]	
				Indoor	Outdoor
1Ø3W	120/240	400	200	SF124FS	SF124FR
1Ø3W	120/240	600	200	SF126FS	SF126FR
3Ø4W [2]	208Y/120 240/120	400	200	SF344FS	SF344FR
	480Y/277				
	208Y/120				
3Ø4W [2]	240/120 480Y/277	600	200	SF346FS	SF346FR
	208Y/120				
	208Y/120				
3Ø4W [2]	240/120 480Y/277	800	200	SF348FS	SF348FR
	208Y/120				
	208Y/120				

Selection

Table 11.9: I-Line Distribution Section (Series E4)

System	Service Voltage	Mains Ratings (A)	Distribution Interior	SCCR 240 V Max.	SCCR 480 V Max.	Distribution Type	Catalog No.	
							Indoor	Outdoor
3Ø4W	208Y/120 240/120 480Y/277	800	I-Line	65 k	65 k	Add-on distribution section, must be connected to an SB UCT and main section without distribution panel, such as SB348WS. An I-Line plug-on subfeed lug kit must be ordered to terminate the distribution section.	SBAD800	SBAD800R
3Ø4W	208Y/120 240/120 480Y/277	800	I-Line	125 k	100 k	Stand-alone distribution section not connected to an SB section. A back-fed main circuit breaker or I-Line plug-on subfeed lug kit must be ordered to terminate the distribution section. (Non-ULSE)	SBSAD800	SBSAD800R

Table 11.10: Meter Door Selection

Meter Socket Jaws	15-inch High Door With One Meter Socket and Test Block	30-inch High Door With Two Meter Sockets and Test Blocks
	Catalog No.	Catalog No.
6 [5]	SBA15D6MS	—
8	SBA15D8MS	—
13	SBA15D13MS	SBA30D13MS
15	SBA15D15MS	SBA30D15MS
Blank	SBA15DBC	—
[6]	SBA15DMS	—

NOTE: To order structure with meter door factory-installed, add door catalog number as suffix to structure (for example, SF344IS-15D13MS).

Table 11.11: Accessories

Description	Catalog No.
Indoor underground pull section (w/o lug landing)—26-in. (W) Order separate SA8LL lug kit below if required.	SA26PS
Outdoor (3R) underground pull section (w/o lug landing)—26 in. (W) x 24.5 in. (D) Order separate SA8LL lug landing kit below when required.	SA26PSR
Lug landing kit —800 A max. For terminating utility service cables in indoor or outdoor underground pull sections.	SA8LL [7]
Single barrel lug kit —Kit provides single barrel lugs and pad in lieu of twin barrel lug provided with service section. Mechanical lugs provided are sized to fit 1-3/0–750 kcmil cable. Two lugs per phase are supplied.	SA7PL

[2] Can be used on 3Ø3W Delta voltage systems (for example, 240 V Delta or 480 V Delta).

[3] QMB/QMJ fusible switches, maximum 400 A, SCCR based on Class J, R, or T fuses. QMB plug-in circuit breaker rating is equal to the lowest rating of the circuit breaker.

[4] Multiple mains—provisions for mounting 30 inches of fusible devices. No more than six main devices permitted per NEC.

[5] 6-jaw meter socket can also be used on 4- and 5-jaw applications.

[6] Door with provisions for mounting meter socket.

[7] All EUSERC Utilities (except Arizona Public Service and Salt River Project) require a lug landing kit SA8LL.

Table 11.11 Accessories (cont'd.)

Description	System	Phase	Pole Spaces	Catalog No.
Loadside wireway —11.5 in. (W) x 14 in. (D)—indoor only				SA10LW
Bus link kit —800 A max.—Order one kit per phase for 400, 600, and 800 A.				SA10BL
Double padlock hasp attachment —For mounting two padlocks on door handle of rainproof enclosure. Padlocks not included.				SS2PL
Plug-On Distribution Panel —mounts on right side of I-Line interior. Cannot be used with LA/LH branch circuit breaker. Panel rated 225 A for 240 V applications. For QO™ type plug-on circuit breakers only.	1Ø	AC	12	SS212AC
	3Ø	ABC		SS312
	3Ø	AB		SS212AB [8]

Table 11.12: Subfeed Circuit Breakers (Series E4)

Description	Rating (A)	2-Pole Catalog No. [9]		3-Pole Catalog No.	
		Left	Right	Left	Right
Subfeed Circuit Breaker Kit [10] Includes circuit breaker, connectors and mounting hardware. The complete kit, mounting hardware, circuit breaker and connectors will be shipped direct from plant. Delivery is stock to three days.	100	SASFBH100L()	SASFBH100R()	SASFBH100L	SASFBH100R
	110	SASFBH110L()	SASFBH110R()	SASFBH110L	SASFBH110R
	125	SASFBH125L()	SASFBH125R()	SASFBH125L	SASFBH125R
	150	SASFBH150L()	SASFBH150R()	SASFBH150L	SASFBH150R
	175	SASFBJ175L()	SASFBJ175R()	SASFBJ175L	SASFBJ175R
	200	SASFBJ200L()	SASFBJ200R()	SASFBJ200L	SASFBJ200R
	225	SASFBJ225L()	SASFBJ225R()	SASFBJ225L	SASFBJ225R

Ordering Information

- Service section:** Order service section from Table 11.6 Single Main Circuit Breaker with Distribution (Series E4), page 11-12, Table 11.7 Single Main Fusible Disconnect with Distribution (Series E4), page 11-13, or Table 11.8 Multiple Mains—Fusible (Series E4), page 11-13, as determined by mains rating, voltage, and system.
- Meter doors:** Order meter door from Table 11.10 Meter Door Selection, page 11-13 as determined by the height and utility metering requirements.
- Accessories and subfeeds:** Order as required from Table 11.11 Accessories, page 11-13 and/or Table 11.12 Subfeed Circuit Breakers (Series E4), page 11-14.
- Circuit breakers and switches:** Order devices from pages listed below as determined by voltage, trip rating, AIR, and mounting space.

Multiple Mains and Branch Devices

- QO, QOB, QO-VH, QOB-VH: See Digest Section 1 or Section 7.
- I-Line: See Digest Section 9.
- QMB Switches: See Digest Section 9.

[8] To be used on 120/240 V, 3Ø4W delta applications.

[9] Two pole circuit breaker catalog numbers are completed by adding required phase connection letters as suffix (for example, SASFBH100LAC).

[10] Cannot use subfeed circuit breaker kit with multiple mains service section switchboards.