NOT MEASUREMENT SENSITIVE

MIL-C-17587B(SH) AMENDMENT 4 <u>2 August 1994</u> SUPERSEDING AMENDMENT 3 4 March 1994

#### MILITARY SPECIFICATION

CIRCUIT BREAKERS, LOW VOLTAGE, ELECTRIC POWER, AIR, OPEN FRAME, REMOVABLE CONSTRUCTION

This amendment forms a part of MIL-C-17587B(SH), dated 18 April 1983, and is approved for use within the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2 Add new types: "ACB-904LRC", "ACB-1404LRC", "ACB-1604LRC", "ACB-2603R", "ACB-2801R", "ACB-5001R" and "ACB-2000LRC".

1.2 Delete "ACB-2000HRC" and substitute "ACB-2000HR".

#### PAGE 2

1.2.1, subparagraph H: Add at end "and the a.c. short time withstand current equal to the interrupting rating".

1.2.1: Add new subparagraph:

"L - This suffix indicates that the circuit breaker has a rated a.c. short-circuit current not less than 50,000 A and a rated a.c. short-time withstand current of not less than 50,000 A, but not greater than the interrupting rating."

PAGE 5

Table I: Delete and substitute:

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TABLE I.	<u>General ra</u>	tings of	circuit	breaker	types	and atta	<u>chments</u>	
CIRCUIT BREAKER TYPE	ACB-	900R	901R	902R	904LR C	1404L RC	1604L RC	
Rated continuous current (see 6.5.15)	(amperes)	900	900	900	900	1400	1600	
Rated maximum voltage <u>l</u> / and frequency	a.c. (volts) 60 hertz	500	+	500	500	500	500	
	d.c. (volts)		355					
Max interrupting rating rated symmetrical	a.c. (see 6.5.14) 60 hertz	42,00 0		50,00 0	85,00 0	85,00 0	85,00 0	
short-circuit current (amperes)	d.c. (see 6.5.16)		50,000		•••	•		
Rated short time cu (amperes) (see 6.5		25,00 0	25,000	25,00 0	25,00 0	50,00 0	40,00 0 *	
	Rated short-time current (duration) (seconds)				0.5	0.3	0.3	
Operating mechanism <u>3</u> /	Manual	YES	YES	YES	YES	YES	YES	
mechanism <u>5</u> /	Electric	YES	YES	YES	YES	YES	YES	
Dimensions	Figure no.	1	2	3	3	· 3	9A	
Number of poles		3	2	3	3	3	3 .	
Number of overcurre or solid- state sensors	ent coils	2/3	2	2	3	3	3	
Overcurrent coils and sensors	Table	IV	IV	IV,V, VI	IVa	IVa	IVa	
Time-current characterístics	Figure no.	10	10	10 <u>4</u> /	14A	14A	14A	
	Time band no.	1,2,3	2	1,2,3 ,4	1,2,3	1,2,3 ,4	1,2,3	
ATTACHMENTS	. <u>.</u>							
Electric closing me (see 3.4.2.2.3.2)	Electric closing mechanism (see 3.4.2.2.3.2)		OPTION	OPTIO N	OPTIO N	OPTIO N	OPTIO N	
Auxiliary switches (see 3.4.2.9)	switches contacts		6	10	10	10	.10	
Lockout device (see	e 3.4.2.14)	Optional for all circuit breaker types						
Mechanical position (see 3.4.2.2.4)	n indicator	Required for all circuit breaker types						

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			<u>-</u>								
Secondary disconnec devices (see 3.4.2.7)	cting	Require unless	Required for all circuit breaker types, unless otherwise specified (see 6.2.1)								
Cell switch (see 3	Cell switch (see 3.4.2.10)			Optional for all circuit breaker types							
Indicator light (se	ee 3.4.2.8)	Provision for mounting required for all circuit breaker types; Furnished only when specified (see 6.2.1)									
Hold-closed mechan: 3.4.2.11)	Hold-closed mechanism (see 3.4.2.11)			Not Reqd	Not Reqd	Not Reqd	Not Reqd				
Undervoltage trip ( 3.4.2.12)	device (see	Optiona 6.2.1)	l for al	l círcui	t break	er types	s (see				
Shunt trip device 3.4.2.13)	(see	Require (see 3.	d for el 4.2.2.3.	ectrical 2)	ly-operation	ated bre	eakers				
Operations counter 3.4.2.15)	(see	Opt	Opt	Opt	Opt	Opt	Opt				
CIRCUIT BREAKER TYPE	ACB-	1600HR C (2000H R)	2000R	2000L RC	2002H R	2601 R	2801R				
Rated continuous current (see 6.5.15)	(amperes)	1600 (2000)	2000	2000	2000	2600	2800				
Rated maximum voltage <u>1</u> / and frequency	a.c. (volts) 60 hertz	500	500	500	500						
	d.c. (volts)					355	355				
Max interrupting rating rated symmetrical	a.c. (see 6.5.14) 60 hertz	85,000	50,000	85,00 0	100,0 00						
short-circuit current (amperes)	d.c. (see 6.5.16)					75,0 00	75,00 0				
Rated short time co (amperes) (see 6.1		85,000	50,000	70,00	100,0 00	50,0 00	50,00 0				
Rated short-time co (duration) (second		0.5	0.5	0.5	0.5	0.5	0.5				
Operating	Manual		YES								
mechanism <u>3</u> /	Electric	YES	YES	YES	YES	YES	YES				
Dimensions	Figure no.	4	4	4	5	4	4				
Number of poles		3	3	3	3	2	3				
Number of overcurre or solid- state sensors	ent coils	2/3	2/3	2/3	2/3	2	2/3				

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Overcurrent coils and sensors	Table	IV	IV	,	IV		IV		IV	IV
Time-current characteristics	Figure no.	10	. 10	)	13A		13		10	10
	Time band no.	1,2,3	1,2	, 3	1,2,1	3	1,2,3	3	3	3
ATTACHMENTS										
Electric closing me (see 3.4.2.2.3.2)	chanism	STD	OPTI	ION	STD		STD		STD	STD
Auxiliary switches (see 3.4.2.9)	Number of contacts	8	8		8		12		8	8
Lockout device (see	3.4.2.14)	Optiona	l for	al	l circ	uit	<u>brea</u>	ike	r type	s
Mechanical position (see 3.4.2.2.4)	n indicator	Require	d for	• al:	l circ	uit	t brea	ake	er type	5
Secondary disconnec devices (see 3.4.2.7)	Required for all circuit breaker types, unless otherwise specified (see 6.2.1)									
Cell switch (see 3.	4.2.10)	Optional for all circuit breaker types								
Indicator light (se	e 3.4.2.8)	Provisi circuit specifi	brea	ıker	types	;	requii Furni	ced İsh	l for a ned onl	ll y when
Hold-closed mechani 3.4.2.11)	ism (see	Opt	Opt Opt Opt Opt Opt Op						Opt	
Undervoltage trip ( 3.4.2.12)	device (see	Optional for all circuit breaker types (see 6.2.1)								
Shunt trip device ( 3.4.2.13)	(see		Required for electrically-operated breakers (see 3.4.2.2.3.2)							eakers
Operations counter 3.4.2.15)	(see	Opt	Op	t	Opt		Opt		Opt	Opt
CIRCUIT BREAKER TYPE	ACB-	2603	R	(32	00HR 200H R)	40	)01R	5	5001R	6400HR
Rated continuous current (see.6.5.15)	(amperes)	2600	)		200 200)	4	000		5000	6400
Rated maximum voltage <u>l</u> / and frequency	a.c. (volts) 60 hertz			5	500					500
	d.c. (volts)	355		-		3	355		355	

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Max interrupting rating rated symmetrical	a.c. (see 6.5.14) 60 hertz		85,000			100,00 0			
short-circuit current (amperes)	d.c. (see 6.5.16)	150,000		150,00 0	150,00 0				
Rated short time cu (amperes) (see 6.5	urrent <u>2</u> / 5.17)	50,000	85,000	150,00 0	150,00 0	100,00 0			
Rated short-time cu (duration) (second		0.5	0.75	0.5	0.75	0.75			
Operating	Manual								
mechanism <u>3</u> /	Electric	YES	YES	YES	YES	YES			
Dimensions	Figure no.	4	7	8	7	9			
Number of poles		2	3	2	2	3			
Number of overcurre or solid- state sensors	ent coils	2	2	2	2	3			
Overcurrent coils and sensors	Table	IV	IV	IV	IV	IV			
Time-current characteristics	Figure no.	10	13, 13A	14	14	13			
	Time band no.	3	2,3,4	1,2,3, 4	1,2,3, 4	1,2,3, 4			
ATTACHMENTS									
Electric closing me (see 3.4.2.2.3.2)	chanism	OPTION	OPTION	OPTION	STD	STD			
Auxiliary switches (see 3.4.2.9)	Number of contacts	8	8	12	8	12			
Lockout device (see	3.4.2.14)	Optional for	r all cir	cuit bre	aker type	S			
Mechanical position (see 3.4.2.2.4)	indicator	Required for	c all cir	cuit bre	aker type	S			
Secondary disconnec devices (see 3.4.2.7)	ting	Required for unless other	c all cir cwise spe	cuit bre cified (:	aker type see 6.2.1	s, )			
Cell switch (see 3.	4.2.10)	Optional for all circuit breaker types							
Indicator light (se	Provision for mounting required for all circuit breaker types; Furnished only wh specified (see 6.2.1)								
Hold-closed mechani 3.4.2.11)	sm (see	Opt	Opt	Not Reqd	Opt	Not Reqd			



Undervoltage trip device (see 3.4.2.12)	Optional for 6.2.1)	r all cir	cuit brea	aker type	s (see
Shunt trip device (see 3.4.2.13)	Required for (see 3.4.2.)		cally-op	erated br	eakers
Operations counter (see 3.4.2.15)	Opt	Opt	Opt	Opt	Opt

PAGE 9

3.4.2.1.2, line 1: Delete "Alinement"...."alinement" and substitute "Alignment"...."alignment".

PAGE 10

3.4.2.1.4, line 1: Delete "When specified" and substitute "Unless otherwise specified,".

3.4.2.2.3.2, line 12: Delete "0.1 second" and substitute "0.5 second".

#### PAGES 13, 14, AND 15

Table IV: Delete and substitute:

TABLE IV. General ratings and pickup current settings for overcurrent coils and sensors.

Туре	Coil or sensor rating <u>l</u> / Amperes	picku	ong tin p setti Amperes	.ng <u>5</u> /	Short time pickup setting <u>6</u> / Amperes				<u>6</u> /	m s 
ACB-900R	320 400 480 560 640 800 900	500 640 720 840 960 1280 1320	640 840 960 1120 1280 1600 1800	840 960 1280 1400 1600 2100 2340	720	640 800 960 1120 1280 1600 1800	840 960 1280 1400 1600 2100 2500	960 1280 1600 1800 2100 2400 2700	1280 1800 2100 2400 2800 3200 3600	1600 2100 2800 3200 3600 4000 4800
ACB-901R	400 480 640 900 <u>3</u> /1200	960 1320			  	800 960 1280 	  	2100		0 0 0 5400 6000
ACB-902R <u>4</u> /	100 160 250 320 400 480 560 640 800 900	160 250 400 500 640 720 840 960 1280 1320	200 320 500 640 840 960 1120 1280 1600 1800	250 400 640 840 960 1280 1400 1600 2100 2340	240 570 720 1200	200 320 500 640 800 960 1120 1280 1600 1800	250 400 640 840 960 1280 1400 1600 2100 2500	320 500 840 960 1280 1600 1800 2100 2400 2700	400 720 1120 1800 2100 2400 2800 3200 3600	500 840 1400 1600 2100 2800 3200 3600 4000 4800

See footnotes at end of table.

Туре	Coil or sensor rating <u>l</u> /	Long time pickup setting <u>5</u> /					rt time settin			Maximum instantaneous trip <u>2</u> /	
	Amperes		Amperes	i		Amperes					Amperes
ACB-2000R	320 400 480 660 640 800 1200 1200 1400 1600 2000	500 640 720 840 960 1280 1600 1800 2100 2400 3000	640 840 960 1120 1280 1600 2100 2400 2800 3200 4000	840 960 1120 1280 2100 2400 2800 3600 4000 5000	1200 1800 2400	640 800 960 1120 1280 1600 2100 2400 2800 3200	840 960 1280 1400 2100 2400 2800 3200 4000 4000	960 1280 1600 2100 2400 3200 3600 3600 4800 6000	1280 1800 2100 2800 3200 4000 4800 4800 6000 8000	1600 2100 2800 3200 3600 4800 6000 6000 8000 10000	$ \begin{array}{c} 16000\\ 20000\\ 24000\\ 32000\\ 36000\\ 4000\\ 4000\\ 4$
ACB-1600HR	800 1000 1200 1400 1600	1280 1600 1800 2100 2400	1600 2100 2400 2800 3200	2100 2400 2800 3600 4000	1200 1800 2400	1600 2100 2400 2800 3200	2100 2400 2800 3200 4000	2400 3200 3600 3600 4800	3200 4000 4800 4800 6000	4000 4800 6000 6000 8000	64000 68000 68000 68000 68000
ACB-2000LRC ACB-2000HR	2000	3000	4000	5000			4000	6000	8000	10000	68000
ACB - 2002HR	300 500 800 1200 1600 2000	450 750 1200 1800 2400 3000	600 1000 1600 2400 3200 4000	750 1250 2000 3000 4000 5000	600 1000 1600 2400 3200 4000	750 1250 2000 3000 4000 5000	900 1500 2400 3600 4800 6000	1200 2000 3200 4800 6400 8000	1500 2500 4000 6000 8000 10000		6000 10000 16000 24000 32000 40000
ACB-2601R ACB-2603R ACB-2801R	1600 2600 2600 2800				4000	3200	 		10000	12000	8000 14000 22000 14000

#### TABLE IV. General ratings and pickup current settings for overcurrent coils and sensors - Continued.

See footnotes at end of table.

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Туре	Coil or sensorLong timeShort timeTyperating1/pickup setting 5/pickup setting 6/							 Maximum instantaneous trip <u>2/</u>		
	Amperes		Amperes	3			Атре	res		 Amperes
ACB-3200HR	2000 2400 2800 3200	3200 3600 4200 4800	4000 4800 5600 6400	4800 6000 6600 8000		4000 4800 5600 6400	4800 6000 7000 8000	6000 8000 8400 9600	8000 	 68000 68000 68000 68000
ACB-4000HR	4000	6000	8000	10000		8000	10000	12000		 68000
ACB-4001R	400 800 1200	600 1200 1800	800 1600 2400	1000 2000 3000	800 1600 2400	1000 2000 3000	1200 2400 3600	1600 3200 4800	2000 4000 6000	 4000 8000 12000
ACB-5001R	2000 4000 5000	3000 6000 6500	4000 8000 10000	5000 10000 12500	4000 8000 10000	5000 10000 15000	6000 12000 20000	8000 16000 25000	10000 20000	 20000 40000 50000
ACB-6400HR	4800 5800 6400	7200 8700 9600	9600 11600 12800	12000 14500 16000	9600 11600 12800	12000 14500 16000	14400 17400 19200	19200 23200 25600	24000 29000 32000	 72000 80000 80000

#### TABLE IV. General ratings and pickup current settings for overcurrent coils and sensors - Continued.

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Continuous current rating.

Continuous current rating.
The instantaneous trip device shall be set at the place of manufacture from five times the coil or sensor rating to the maximum pickup setting specified for mechanical coils and 20 times sensor rating for solid state sensors with a default at maximum listed rating.
Coil rating is special and in excess of the circuit breaker's rated continuous current. When specified, the temperature rise requirements (see 3.3.8) may exceed each limit of table II by 10°C.
See tables V and VI for pickup current settings of overcurrent coils for circuit breaker type ACB-902R when general purpose motor or special purpose motor application is specified (see 3.4.2.6.2 and 6.2.1).
The long time settings for solid state devices shall be set at 1-1/2, 2 and 2-1/2 times sensor rating.  $\frac{1}{2}$ 

<u>3/</u>

.4/

<u>5</u>/ <u>6</u>/

#### PAGE 16

Add new table:

## TABLE IVa.General ratings and pickup current settings for<br/>overcurrent coils and sensors.<br/>(for ACB-904LRC, ACB-1404LRC, and ACB-1604LRC only)

Type and sensor rating (amperes): ACB-904LRC: 150, 275, 500, 900 ACB-1404LRC: 1000, 1200, 1400 AQB-1604LRC: 1600
Long time pickup settings (amperes): adjustable; 0.70, 0.80, 0.90, 1.0, and 1.10 times sensor rating.
Short time pickup settings (amperes): adjustable; 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, and 8.0 times sensor rating.
Instantaneous pickup settings (amperes): adjustable; 5.0, 7.5, 10.0, 12.5, 15.0, and 20.0 times sensor rating.

Table V: In column headings, delete "Adjustable long time delay settings" and substitute "Adjustable long time pickup settings", and delete "short time delay settings" and substitute "short time pickup settings".

Table VI: In column headings, delete "Adjustable long time delay settings" and substitute "Adjustable long time pickup settings", and delete "short time delay settings" and substitute "short time pickup settings".

PAGE 17

3.4.2.6.5, line 4: Delete: "from five times the trip coil or sensor rating" and "maximum".

PAGE 18

3.4.2.6.6.2, last sentence: Delete and substitute "The device shall have a provision through a test socket for secondary injection testing to check the overload calibrations. Means shall be provided to recalibrate the devices."

PAGE 19

3.4.2.10: Delete "By-pass" and substitute "Cell".

PAGE 20

#### Add as new paragraph:

"3.4.2.15 <u>Operations counter</u>. When specified (see 6.2.1), the circuit breakers shall be equipped with a mechanical device which indicates the number of close - open operations. The device may be operated on either the close or open portion of the cycle. The read-out shall be readably visible from the front of the breaker, but is not required to be mounted on the escutcheon plate. The device shall be resettable."

PAGE 22

4.2: Add: "(c) Comparison inspection (see 4.4.2)."

PAGE 23

Table X. In column headings, delete "ACB-902R" and substitute "ACB-902R, ACB-904LRC, ACB-1404LRC"; and delete "ACB-2000HR, ACB-1600HR" and substitute "ACB-2000HR, ACB-1600HR, ACB-1604LRC"; and delete "ACB-2601R" and substitute "ACB-2601R,

#### ACB-2801R".

#### PAGE 24

Sample note 1, line 3: Delete "maximum time" and substitute "minimum time".

Sample note 2: Delete "minimum time" and substitute "maximum time."

Sample note 4, line 3: Delete "minimum time" and substitute "maximum time".

Sample note 5, line 1: Delete "A.c" and substitute "D.c." and delete "3" and substitute "2".

Sample note 6, line 3: Delete "at maximum time" and substitute "at special maximum time".

PAGE 26

Table XII: Delete and substitute:

Inspection	Requirement paragraph	Lock- out mecha- nism	Electric closing mecha- nism	Mechan- ical position indicator	Secondary discon- necting device	Indi- cator light	Auxil- iary switches	mecha-	Under- voltage trip device	Shunt trip device	Opera- tions counter
General examination	3.3.3	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1
Endurance	3.3.4		4.6.7	4.6.7			4.6.7		4.6.20	4.6.21	4.6.7
Inclined operation	3.3.5	4.6.3	4.6.3		4.6.3	4.6.3	4.6.3	4.6.3	4.6.3	4.6.3	4.6.3
Temperature rise	3.3.8	4.6.6	4.6.6		4.6.6	4.6.6	4.6.6		4.6.6	4.6.6	
Shock	3.3.9	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7	4.6.7
Vibration	3.3.10	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8	4.6.8
Dielectric with- standing voltage	3.3.11	4.6.9	4.6.9		4.6.9	4.6.9	4.6.9	4.6.9	4.6.9	4.6.9	
Insulation resistance	3.3.12	4.6.10	4.6.10		4.6.10	4.6.10	4.6.10	4.6.10	4.6.10	4.6.10	
Operation	1/	4.6.14	4.6.15		4.6.16	4.6.17	4.6.18	4.6.19	4.6.20	4.6.21	4.6.23
Interrupting performance	3.4.2.9						4.6.18				
Voltage range	<u>2/</u>		4.6.15				4.6.18		4.6.20	4.6.21	
Closing time	3.4.2.2.3.2		4.6.15								

TABLE XII. Qualification inspection of attachments.

College Sugar

#### PAGE 28

#### Add new paragraph:

"4.4.2 <u>Comparison inspection</u>. At intervals of not more than 3 years during which circuit breakers of a type have been acquired under this specification, the manufacturer shall provide sample circuit breakers with all attachments specified in table XII and conduct complete qualification tests specified in table XI. Circuit breakers of a type which have not been supplied within the 3-year period shall be tested as a part of the subsequent order for production line units. Failure of a sample to meet the requirements of this specification shall be cause for removal from the Qualified Products List."

#### PAGE 29

#### Table XIV, category 116: Delete "By-pass" and substitute "Cell".

Categories	Defects	Applicable paragraph
<u>Major</u>		
121	Operations counter not as specified	3.4.2.15

#### Table XIV, continued: Add under major defects:

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#### PAGE 30

#### \*Table XV: Delete and substitute:

TABLE XV. Circuit breaker electrical endurance test cycles of operation.

	Circuit breaker type	Total number of close-open cycles	Amperes circuit breaker close	Amperes on circuit breaker open	Maximum a.c. power factor (lagging) X/R or d.c. time constant
* *	ACB-900R ACB-900RC ACB-901R ACB-902R ACB-904LRC ACB-1404LRC ACB-1404LRC ACB-1600HR ACB-1600HR ACB-2000R ACB-2000HR ACB-2000HR ACB-2002HRC ACB-2601R ACB-2601R ACB-2801R ACB-3200HR ACB-400HR	4,000 10,000 4,000 25,000 25,000 10,000 10,000 1,000 1,000 10,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 4,000	900 6,000 900 5,400 5,400 7,000 8,000 8,000 8,000 8,000 8,000 8,000 8,000 8,000 2,600 2,600 2,600 3,200 4,000	900 900 900 900 900 1,400 1,600 1,600 1,600 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 4,000	$\begin{array}{c} \frac{1}{1/2} \\ 0.02 \text{ to } 0.06 \\ \frac{1}{1/2} \\ 1/2 \\ \frac{1}{1/2} \\ 1/2 \\ \frac{1}{1/2} \\ \frac{1}{1/2} \\ \frac{1}{1/2} \\ \frac{1}{1/2} \\ 0.02 \text{ to } 0.06 \\ 0.02 \text{ to } 0.06 \\ 0.8 \\ 0.8 \\ 0.02 \text{ to } 0.06 \\ 0.8$
	ACB-6400HR	1,000	6,400	6,400	

<u>1</u>/The lagging power factor for circuit breaker close shall be 0.25 maximum and for circuit breaker open shall be 0.80 maximum.

#### PAGE 31

4.6.4, line 3: Delete "Temperature rise" and substitute "The temperature rise".

#### PAGE 32

#### 4.6.5.4: Delete and substitute:

"4.6.5.4 <u>Interrupting current d.c. test circuit</u>. In d.c. test circuits, the test shall be performed on the two poles connected in series. The test circuit shall be so adjusted that the requirements in table XVI are met."

#### Add new table:

#### TABLE XVI. <u>Requirements for d.c. interrupting test</u>.

Short	Time	Maximum initial	
circuit	constant	current rise E/L	
current	L/R	(at 240 V) (amperes	
(amperes)	(milliseconds)	per microsecond)	
50,000	16.0	3.1	
75,000	15.6	3.3	
150,000	12.5	12.5	

#### PAGE 33

#### Delete table XVI and substitute:

TABLE XVII. Sizes of cables and bus bars for making temperature rise test.

Circuit breaker type	Continuous current rating (amperes)	Cable quantity per terminal	Cable size	Bus bar quantity per phase	Bus bar size (inches) <u>2</u> /
ACB-900R ACB-901R ACB-902R ACB-904LRC ACB-1404LRC ACB-1604LRC ACB-1600HR ACB-2000HR ACB-2000HR ACB-2002HR ACB-2002HR ACB-2601R ACB-2601R ACB-2801R ACB-2801R ACB-3200HR ACB-3200HR	900 900 900 1400 1600 2000 2000 2000 2000 2000 2000 2600 2000	$ \begin{array}{c} 3\\ 3\\ 3\\ 3\\ 4\\ 4\\ 5\\ 5\\ 5\\ 3/7\\ 3/7\\ 3/7\\ 3/10 \end{array} $	300 MCM 300 MCM 300 MCM 300 MCM 400 MCM 400 MCM 400 MCM 400 MCM 400 MCM 400 MCM 400 MCM 400 MCM 400 MCM	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\begin{array}{c} 2.5 \times 1/4 \\ 2.5 \times 1/4 \\ 1.5 \times 1/4 \\ 1.5 \times 1/4 \\ 1.5 \times 1/4 \\ 1.5 \times 1/4 \\ 3.0 \times 1/4 \\ 4.0 \times 1/4 \\ 4.0 \times 1/4 \\ 4.0 \times 1/4 \\ 4.0 \times 1/4 \\ 3.0 \times 1/4 \\ 3.0 \times 1/4 \\ 3.0 \times 1/4 \\ 3.0 \times 1/4 \\ 6.0 \times 1/4 \\ 6.0 \times 1/4 \end{array}$
ACB-4001R ACB-5001R ACB-6400HR	4000 5000 6400	$\begin{array}{c} \underline{3}/ \ 10 \\ \underline{3}/ \ 10 \\ \underline{3}/ \ 12 \\ \underline{3}/ \ 16 \end{array}$	400 MCM 400 MCM 400 MCM	4 2 pr or 5 4	6.0 x 1/4 6.0 x 1/4 8.0 x 1/4

#### PAGE 34

4.6.7, line 5: Delete "carrying their rated continuous current," and substitute "carrying half their rated continuous current or less,".

4.6.8, lines 8 and 9: Delete "carry their rated continuous current." and substitute "be energized with their rated voltage.".

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Add: "4.6.23 <u>Operations counter</u>. The operations counter shall be monitored during all operational tests to ensure that it is registering a precise count of operations."

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#### 6.2.1(f): Delete.

6.2.1, between items (t) and (u): Add "(t.1) Operations counter (see 3.4.2.15)."

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6.5.1: Delete "By-pass switch. A By-pass" and substitute "Cell switch. A cell".

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6.5.23: Add "Three sensors may be required to derive enough energy to actuate the tripper."

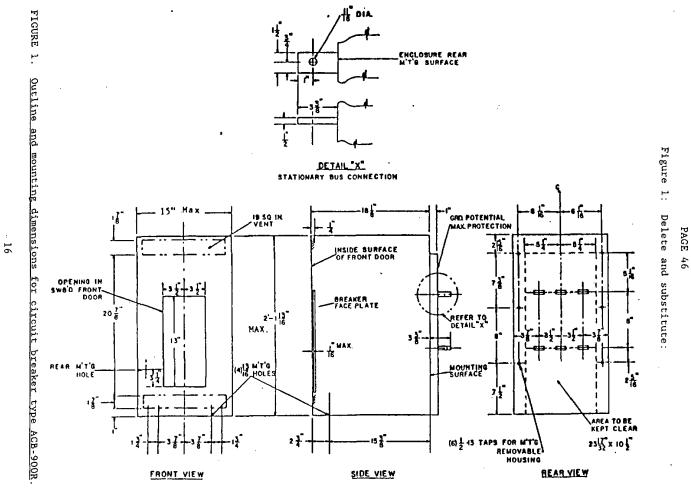
6.5.24: Add "Multiple sensors may be required to derive enough energy to actuate the tripper."

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### 6.6., line 9, column 2: Delete the word "Deleted" and substitute "ACB 1600HR".

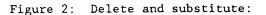
6.6, lines 15 and 16: Delete last sentence and substitute: In order for these types to be used as direct replacement, a wiring change must be made."

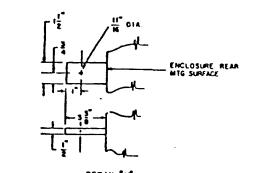
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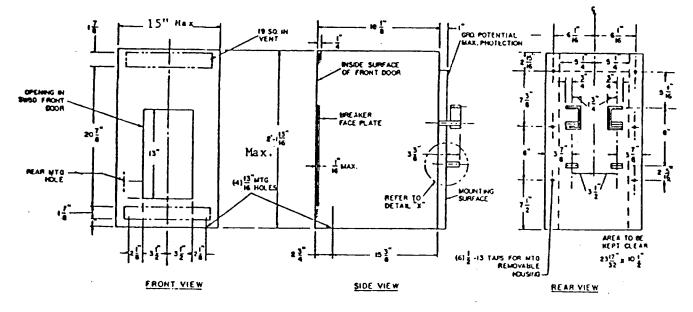
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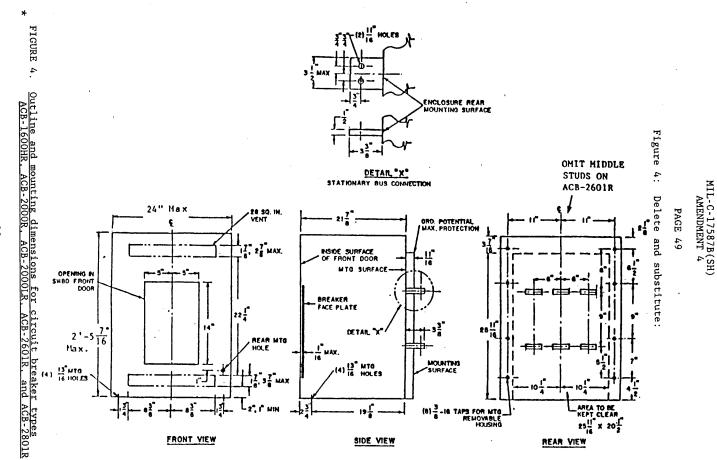
FIGURE 2. Outline and mounting dimensions for circuit breaker type ACB-901R.

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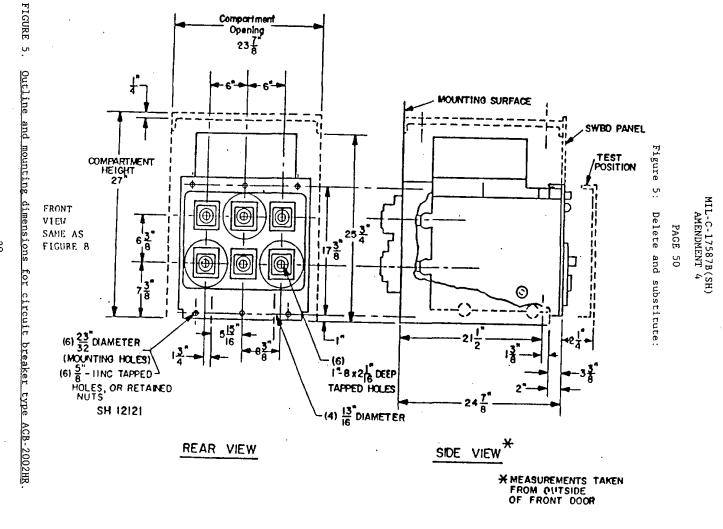
\*Figure 3: Delete title and substitute: "Outline and mounting dimensions for circuit breaker types ACB-902R, ACB-904LRC, ACB-1404LRC".



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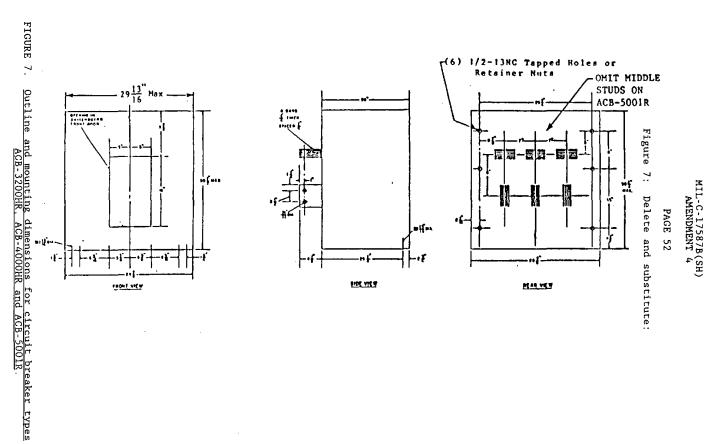
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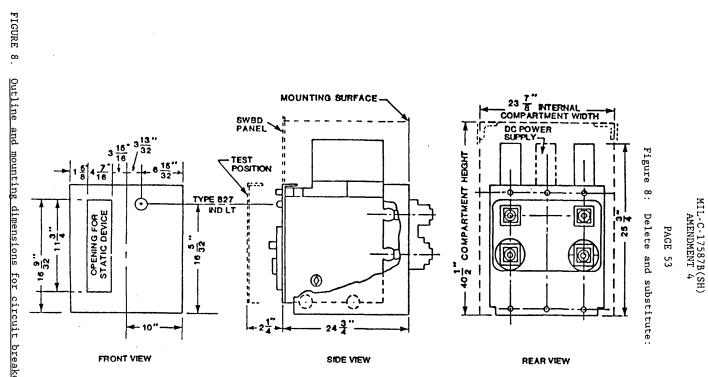
Figure 6: Delete.



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Outline and mounting dimensions for circuit breaker type ACB-4001R.

DIMENSIONS SAME AS FIGURE 5

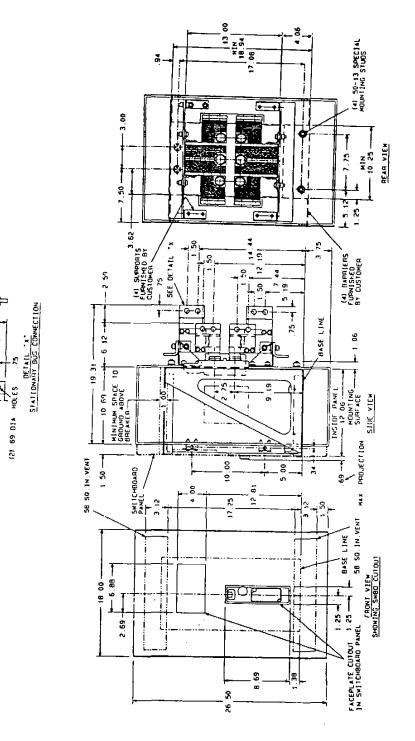
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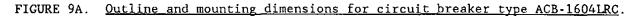
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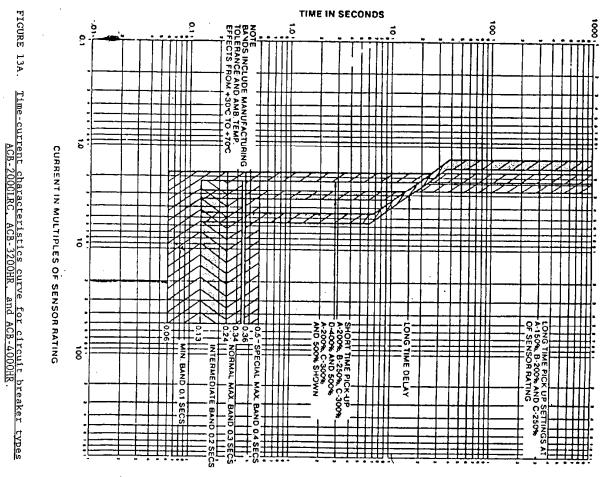
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\*Figure 10: Delete title and substitute: "Time-current characteristics curve for circuit breaker types ACB-900R, ACB-901R, ACB-902R, ACB-1600HR, ACB-2000R, ACB-2000HR, ACB-2601R, ACB-2801R, ACB-3200HR, and ACB-4000HR."



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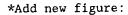
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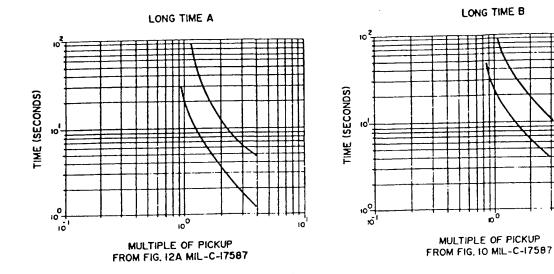
# MIL-C-17587B(SH) AMENDMENT 4

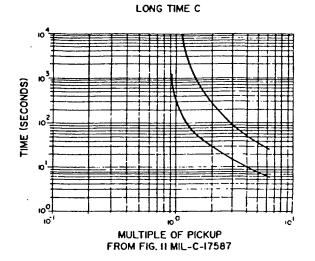
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Add new figure:

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SHEET 1 OF 2

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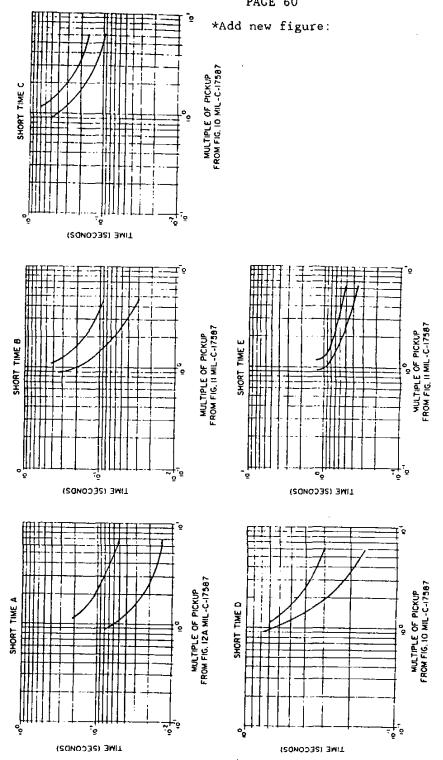
#### FIGURE 14A. <u>Time-current characteristics curve for circuit breaker types</u> <u>ACB-904LRC, ACB-1404LRC, and ACB-1604LRC</u>.

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<u>Time-current characteristics curve for circuit breaker types</u> <u>ACB-904LRC, ACB-1404LRC, and ACB-1604LRC</u> - Continued. FIGURE 14A.

NOTE: The margins of this amendment are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Preparing activity Navy - SH (Project 5925-N163)