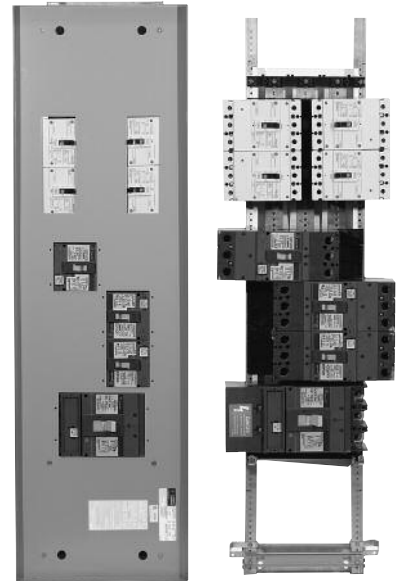




Typical ADP Panelboard

400/600/800A

Installation

Consult instructions NEMA PB-1 located in the circuit directory on the front door before installing this panelboard. If necessary, order replacement manual and PB-1.1 from supplier.

Wiring Guidelines (Cu or Al)

- Use 60°C or 75°C ampacity sized wire on line and neutral and equipment ground terminals.
- Standard wire sizes listed in this publication may be changed by using alternate terminal kits.
- Refer to circuit breakers for allowable wire temperature rating, wire size and tightening torque.

Short Circuit Current Rating

The panelboard's maximum short circuit interrupting rating in rms symmetrical amperes, is equal to the lowest interrupting rating of any device installed, except as noted in the series rating listed in DEH-40007, with integral or remote main circuit breaker or fusible switch installed upstream of the panelboard. Devices to be installed or replacement units shall be from the same manufacturer, of the same type, and have equal or greater interrupting capacity.

Maximum continuous loads on main or branch circuits shall not exceed 80% of the ratings of the listed circuit breakers. Branch breaker straps suitable for 300A maximum.

Tripped Breaker

If the breaker trips, handle will be in intermediate position.

Instructions To Restore Power

1. Move handle to OFF position.
2. Then move handle to ON position.

Seismic Rating

Meets or Exceeds the Requirements According to

- **IEEE-693-2005**
High Level with 1.8 Amplification Factor
- **IBC-2006**
Sds = 1.3g, Ss = 200%, Ip = 1.5, for z/h > 0
Sds = 2.0g, Ss = 300%, Ip = 1.5, for z/h = 0
In accordance with ICC-ES-AC156

Polybag Contents

A polybag of goods supplied with every panelboard interior contains:

- Arc flash label
- DEH-40007 Series Ratings, Wiring Diagrams & Circuit Directory
- Series rating sticker
- Front installation instructions
- ANSI PB1 documentation
- Circuit numbering stickers (1-84)
- Front and shield mounting screws



imagination at work

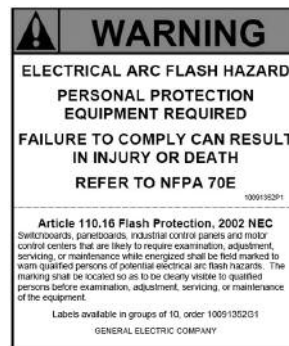
Torque

Tightening Torque

Applies to line, neutral and equipment ground terminal

Slotted Screw		
AWG Wire	Lbs-In	
	Min	Max
14-10	32	35
8	36	40
6-4	41	45
3-2/0	45	50

Internal Hex		
Hex Size	Lbs-In	
	Min	Max
3/16	108	120
1/4	180	200
5/16	240	275
3/8	330	375
1/2	450	500



Arc fault label included with all interiors to be applied by electrical contractor.

Torque Values for Hardware

Screw Size	Torque (In-Lbs)
#4 Steel	16
#10 Plastic	16
#8 Cu/Al/Steel	24
#10-32 Cu/Al/Steel	32
1/4-20 Al/<.150 Thick Cu	44
1/4-20 .150 Thick Cu	60
5/16-18 Cu/Al/Steel	110
3/8-16 Cu/Al/Steel	220
1/2-13 Cu/Al/Steel	220

Breaker Mounting Kits

Application	Type	Cat. No.
Breaker-Defined Spaces ⁽¹⁾	3-pole SG	ASPPSG3P
	3-pole SF	ASPPSF3P
	3-pole TED/THED/SE	ASPPTED3P
	3-pole FB	ASPPFB3P
Unspecified and Blank Spaces ⁽²⁾	SG Breaker	ASPP6SG3S
	SF Breaker	ASPP6SF3S
	SE/ED (double branch)	ASPP6SE6D
	FB Breaker (double branch)	ASPP6FB6D

(1) Includes items numbered 4, 5, 6 and 10 in exploded view.

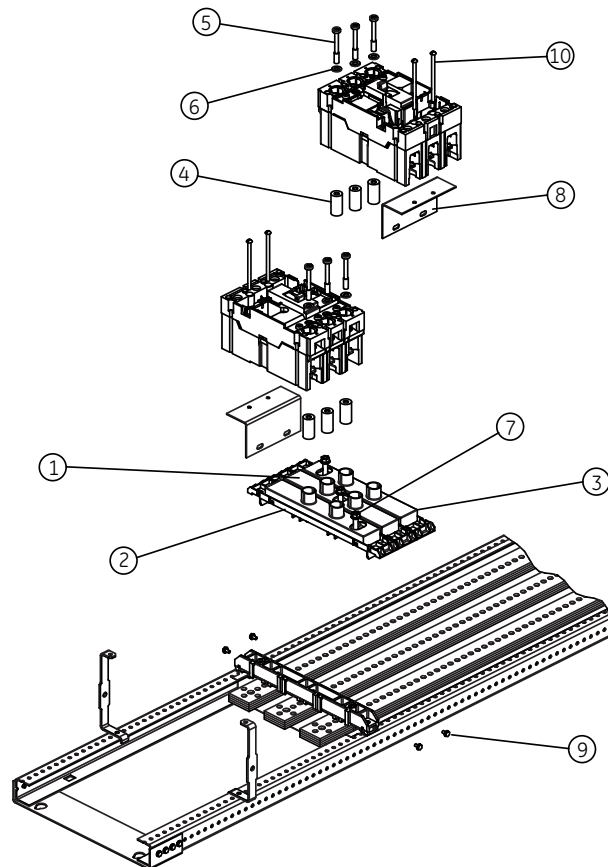
(2) Includes all numbered items in exploded view except 9.

Crimp Tools

Wire	Crimp Tool
Up to #6-1000 MCM Cu & #5-750 Kcmil Al	Burndy Tool Y644HS

Neutral

Wire Range	Cat. No.
(8) #2-600MCM	ANKN120
(10) #6-250MCM	
(9) #140-2/0	
(10) #8-#4	
(11) #2-600MCM	ANKN160
(13) #6-250MCM	
(12) #140-2/0	
(13) #8-#4	



Accessories

Field Installed Kits/Replacement Parts

Equipment Grounds

Bonded

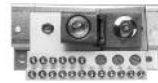


AEBG

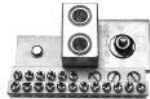
Isolated



AEIG



AEBGC



AEIGC



ASPGIBC – Isolated/Bonded

Item	Description	Wire Range	Cat. No.
Metal Equipment Ground	Bonded	#14-#8 Cu, #12-#8 Al (small holes); #14-#4 Cu, #6-#4 Al (large holes)	TGL2
	Extruded Bonded	#14-#8 Cu, #12-#8 Al (small holes); #14-#4 Cu, #6-#4 Al (large holes)	EGS12
Aluminum Equipment Ground	Extruded Bonded	(1) #6-350MCM	AEBG
	Extruded Isolated	(2) #6-250MCM	AEIG
Copper Equipment Ground	Main Lug	#14-#8 Cu, #12-#8 Al (small holes); #14-#4 Cu, #6-#4 Al (large holes)	TGL2
	Bonded	#14-#8 Cu, #12-#8 Al (small holes); #14-#4 Cu, #6-#4 Al (large holes)	TGC2
	Extruded Bonded	(1) #4-350MCM	AEBGC
	Extruded Isolated	(1) #6-250MCM	AEIGC
	Insulated Isolated	2/0 max.	ASPGIBC

Installation & Maintenance Kit

Order catalog number PROCARE. Kit includes:

- (5) filler plate hardware kits
- (9) bus stud nuts
- (5) MLA1 filler plates
- (2) 225A phase barriers
- (2) feed-thru barriers
- (1) 400/600A phase barrier
- (50) directory cards/rating books
- (50) circuit number strips (1-48)
- (50) circuit number strips (43-84)
- (5) standard locks & keys
- (50) deadfront screws
- (10) AQ/AE front hardware kits
- (10) AD front hardware kits
- (50) service disconnect labels
- (50) main labels

Parts

Description	Cat. No.
Directory Card	139C5612P3
Replacement Lock with Std. Key	569B737P1
Replacement Lock with GE75 Key	569B737P2
Additional Keys for Above Lock	569B737P5
Circuit Numbering Strips 1-48	569B806G1
Circuit Numbering Strips 49-84	569B806G2
Circuit Numbering Strips 85-126	569B806G3
Adhesive Backed Lamicaid Nameplate 3/4" x 3"	315A7190P1
Metal Directory Card Holder	139C5491G1
Directory Card Holder	139C5491P4
Delta Hi-leg Conversion Kit, to Add B-Phase Plug on AL Panels	APHBL
Bolt on AE/AQ Panels	APHBQ
NEMA 3R/12 Tamper Proof Tork Screw Kit	NEMATRX
2P to 3P TQD Conv. Kit	ASP2PTQD3P
2P to 3P SF Conv. Kit for horizontal subfeed	ASP2PTFJ3P
AD 25 to 65 kAIC Barrier kit	ASP25AD65KA1
Service Entrance Kit	ASPSEMENT
2 wire Relay Kit	ASP2WRelay
Yale Lock Kit	ASPYALE47
Corbin Lock Kit	ASPCORBNTU1
2-3 pole TQD Mechanical Interlock	TQDFM1
AQ/AL/AE Rail Bracket	ASPAQLEBKT
Front Flush Adjust Kit	ASPFLUSHADJ
AE Front Mounting Kit	139C5720G3
AQ/AL Front Mounting Kit	139C5720G6
AD Front Mounting Kit	139C5728G9
Front Hinge to Box Mounting Kit	139C5700G6
Front Extension Mounting Kit	139C5700G11

Box Extensions

Bolts to box with or without endwall in place. Extensions can be combined to obtain lengths greater than 18 and 24 inches.

Box Width and Depth	Box Mounting	Box Extension Length (Inches)	Cat. No.
30 x 7.81	Flush	18	ABX3718F
		24	ABX3724F
	Surface	18	ABX3718S
		24	ABX3724S

Filler Plates

Breaker Type	Cat. No.
TQD/THQD/TED4/SE/FB	TEDFP1

Interrupting Ratings - Molded Case Circuit Breakers

Molded Case Circuit Breakers						Federal Spec	UL Listed Interrupting Ratings in kA						
Construction	Frame	Trip Range(Amps)	Pole	AC	DC	C/B Class W-C-375B	RMS Symmetrical AC Volts / DC Volts						
							240	277	347	480	600	125Vdc	250Vdc
E150	TED4	15-100	2	480	250	13b	18			18			10
		15-150	3	480		13b	18			18			
	TED6	15-100	3	600		18a	18			18	14		
		110-150	3	600		N/A	18			18	14		
	THED4	15-100	2	480	250	22a	65			25			20
		110-150	3	480			42			25			
Record Plus	FBV	15-100	1,	347			35	35	22				
			2,3	600Y/347			65			35	22		
	FBN	15-100	1,	347			65	65	25				
			2,3	600Y/347			150			65	25		
	FBH	15-100	1,	347			100	100	35				
			2,3	600Y/347			200			100	35		
Spectra RMS	SEH ⁽¹⁾	15-150	2	480		13b, 15b	65			25			
			3	600		22a	65			25	18		
	SEL	15-150	2	480		13b, 15b	100			65			
			3	600		21a, 22a, 23a	100			65	25		
	SEP	15-150	2	480		16a	200			100			
			3	600		16a, 23a	200			100	25		
	SFH	70-250	2	480		13b	65			35			
			3	600		20a, 22a	65			35	22		
	SFL	70-250	2	480		13b	100			65			
			3	600		21a, 23a	100			65	25		
	SFP	70-250	2	480		16a	200			65			
			3	600		16a, 23a	200			65	25		
	SGH4 ⁽¹⁾	125-400	2,3	600		21a, 23a	65			35	25		
	SGH6 ⁽¹⁾	250-600	2,3	600		23a	65			35	25		
	SGL4	125-400	2,3	600		23a	100			65	65		
	SGP4	125-400	2,3	600		23a	200			100	65		
	SGL6	250-600	2,3	600		24a	100			65	65		
	SGP6	250-600	2,3	600		25a	200			100	65		
	SKH8	300-800	2,3	600		21a, 23a	65			50	25		
	SKL8	300-800	2,3	600		24a	100			65	42		
	SKP8	300-800	2,3	600		25a	200			100	65		

(1) Not current limiting breaker type

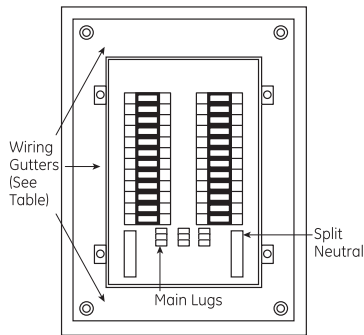
Circuit Breaker Terminals (Cu-Al)

Frame		Poles	No. per Pole	Cat. No.	Wire Cu-Al (Unless otherwise specified)	
Standard	Current Limiting / High Interrupting				Per Lug	Range
TED, THED		1	1	TCAL12	1	(30-60A) #14-3 Cu or #12-1 Al
TED4		2,3	1	TCAL12A	1	(70-90A) #6-2/0 Cu or #4-2/0 Al
TED6, THED		2,3	1	TCAL15	1	(100-150A) #3-3/0
FBV, FBN, FBH, FBL		1,2,3	1	FCAL12	1	(15-20A)#14-#12 Cu or #10-3/12 Al
				FCAL13	1	(35-60A)#10-#6 Cu or #8-#4 Al
				FCAL14	1	(70-100A)#4-#1 Cu or #2-1/0 Al
-	SEH, SEL, SEP	2,3	1	TCAL18	1	#12-3/0 AL; #12-3/0 Cu
SFHA	SFLA, SFPA	2,3	1	TCAL129	1	#8-350kcmil
SGHA	SGL, SGP	2	1	TCLK265 (1)	-	2 (2/0-400kcmil, Cu) or 2 (2/0-500kcmil, Al) or #6-600kcmil
		3	1	TCLK365 (1)	-	2 (2/0-400kcmil, Cu) or 2 (2/0-500kcmil, Al) or #6-600kcmil
-	FGN4, FGH4	2,3	1	FCALK318H	-	Top Hole #8-400kcmil Cu or #6-500kcmil Al. Bottom hole #2/0-600kcmil Cu & Al
SKHA8	SKLA8, SKPA8	2,3	1	TCAL41	1	#4-600kcmil or 2(1/0-250kcmil)
				TCAL61	2	2/0-500kcmil
				TCAL81	3	3/0-500kcmil

Wiring Space

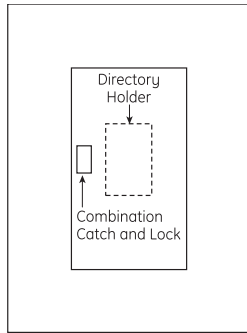
Typical Panelboard

Front view with trim removed

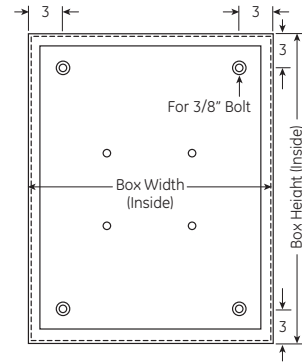


Typical Front w/Concealed Hinges and Trim Adjusting Screws

Surface mounting – add 1/4" to inside box dimensions
Flush mounting – add 1 1/2" to inside box dimensions



Typical Box



Minimum Wiring Space, From End of Lug to Box Wall, in Inches

Main rating in amps	Main Lugs Only, to End Wall		Frame Type	Mounting	Main Circuit Breaker
	Phase Lug	Neutral Lug			Phase Lug To End Wall
600A (1)	15	11 (1)	SG	Vertical	16
800A (2)	15	11 (1)	SK	Vertical	18

(1) Box width is 30" and 7.81" deep

Wiring Space – Branch Circuit Breakers

Branch Circuit Devices	Frame	No. of Poles	Minimum Wiring Spaces To Side Wall (30" Wide Box)
Double Branched Bolt-on Devices	FB, TED, THED	1,2,3	8.25"
	SE	2,3	8.25"
Horizontal Single Branch Mounted	SFHA, SFLA	2,3	7.5"
Horizontal Single Branch Mounted	SGHA, SGLA	2,3	8.5"

Enclosures

Panel Size	Box Cat. No. (1)	Size Inches (2)	Front Cat. No. (3)
0-25.5	AB25BDW	25.5	AF25F,S
28.5-31.5	AB31BDW	31.5	AF31F,S
34.5-37.5	AB37BDW	37.5	AF37F,S
40.5-43.5	AB43BDW	43.5	AF43F,S
46.5-49.5	AB49BDW	49.5	AF49F,S
52.5-55.5	AB55BDW	55.5	AF55F,S
58.5-64.5	AB64BDW	64.5	AF64F,S
67.5-76.5	AB76BDW	76.5	AF76F,S
79.5-82.5	AB82BDW	82.5	AF82F,S
85.5-88.5	AB88BDW	88.5	AF88F,S

(1) "B" suffix provides blank end walls. Order "K" suffix for endwalls with knockouts.

(2) Standard boxes are 30" wide by 7.81" deep.

(3) Flush fronts are 1 1/2" larger than box. Surface fronts are 1/4" larger.

Front Options

Description	Cat. No. Suffix (1)
Screw cover	C
Front hinged to box	D
Yale 5116 w/Rosette Lock	Y
Corbin 15767 Lock	L
GE 75 Key Lock	E
Corbin 60 Key Lock	J
Door within a door (2)	P
Stainless steel (3)	S
30" wide	W
Nameplate	N
Screw on nameplate	U
Metal directory	M

(1) Add to base front catalog number.

(2) Consists of two lockable doors—one over panel interior and one over box wiring gutters. Yale locks not available.

(3) Flush only. Available with C and N options.

Box Options

Description	Cat. No. Suffix (1)
Painted Box	P
30" wide (2)	W
NEMA 3R/12/4S/4X	3 or 4
NEMA 4X (316 Stainless Steel)	4S

(1) Add to base box product number.

(2) Includes field installable gutter barrier.

Permanent Circuit Number Kits

Description	Cat. No.
1-48	APN48
43-84	APN84
85-126	APN126

Stainless Steel Enclosures

Dimensions (inches)			Cat No.	
H	W	D	UL Standard	CSA Labeled
25.5	30	8	AB254DWS	AB254DWS
31.5	30	8	AB314DWS	AB314DWS
37.5	30	8	AB374DWS	AB374DWS
43.5	30	8	AB434DWS	AB434DWS
49.5	30	8	AB494DWS	AB494DWS
55.5	30	8	AB554DWS	AB554DWS
64.5	30	8	AB644DWS	AB644DWS
76.5	30	8	AB764DWS	AB764DWS

Specifications

A-Series Panelboards and branch breakers meet or exceed the following standards and specifications:

- UL 50 Cabinets and Boxes
- UL 67 Panelboards
- UL 489 Circuit Breakers
- NEMA AB-1 Circuit Breakers
- NEMA PB-1 and PB-1.1 Panelboards
- US Federal Spec W-P.115B Panelboards
- US Federal Spec W-C375b Gen Circuit Breakers

Boxes

- Galvanized steel
- Blank end walls are standard
- Boxes furnished with provisions for ground bus as standard

Fronts

- Finished in ANSI-61 grey polyester powder coat paint.
- Equipped with corrosion-resistant Valox combination catch and lock door latch (doors over 48" high provided with 2 latches)
- Equipped with concealed hinges and trim adjusting screws
- Directory holder permanently mounted to door

Panels

- Dead front construction
- Interiors are factory assembled on rigid steel frames
- Metal gages in accordance with UL and NEMA standards
- Solderless, anti-turn main lugs suitable for copper or aluminium wires are front removable and branch straps are silver-plated copper fully rated at 100 amperes
- Main bus is aluminum with copper branch connections unless otherwise specified
- Main disconnect device is identified when supplied, and numbers are provided for branch circuits
- Interior base assemblies are Noryl and provide breaker mounting and busbar insulation

Publications

E-DET-465	Certification of Seismic Compliance
DE-47A	Typical ADP Panelboard Technical Information
DEH 40007	Lighting Panels Rating Labels, Wiring Diagrams & Circuit Directory
DEH-40155	TEY Three Phase Circuit Breaker Kits
DEH-40152	TQD Three Phase Circuit Breaker Kits
DEH-40153	SE/TED/FB Three Phase Circuit Breaker Kits
DEH-40154	THQB Three Phase Circuit Breaker Kits
DEH-40151	SF Three Phase Circuit Breaker Kits

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