



BATTERY DISCONNECTS

Ratings & Technical Data

D.C. disconnects are commonly used as a means to isolate a battery for maintenance purposes or to provide a means for personnel to manually or remotely disconnect the battery during an emergency situation. The ability to remotely operate the disconnect, addresses code and electrical inspector issues. Disconnect can be configured as a switch or as a current limiting breaker.

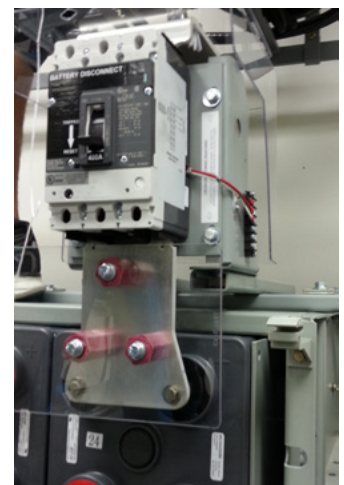
Designed for “out-of-the-box” direct interface to over 165 industry standard batteries, each disconnect is supplied with a pre-manufactured mounting kit and copper termination plate. Expected installation time is 30 minutes.



Typical 1200 Amp Top Mount Installation

Standard Features

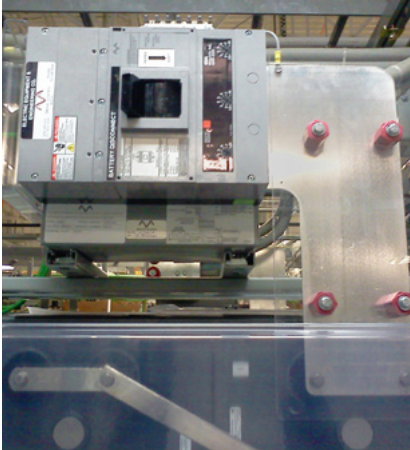
- UL Listed - UL489
- 200, 400, 600, 750, 1200, 1800 and 2400 Amp - 100% rated
- 24, 48 VDC @ 60,000 Amps DC, Interrupting Capacity
- 125 and 250 VDC @ 30,000 Amps DC, Interrupting Capacity
- Instantaneous (magnetic) trip mechanism will open the disconnect if a short circuit occurs
- Arc flash data upon request
- Internal Form C auxiliary contact (dry) is pre-wired to terminal block to report if the disconnect is open or closed.
- Designed for mounting on top of battery rack; includes rack specific mounting structure and hardware
- Custom tin plated copper battery connection plate (per battery type)
- Disconnects rated 200 through 750 Amp will accommodate three load cables. Other options available
- Disconnects rated 1200 through 2400 Amp will accommodate four load cables. Other options available.
- Load cables on all disconnects terminate with 2-hole lugs either on 1” or 1-3/4” centers.



Typical 400 Amp Top Mount Installation

Options

- Internal overload (thermal, current limiting) trip mechanism
- 24, 48, 125 or 250 VDC shunt trip, installed internally, for remote open capability. The shunt trip is fused and pre-wired to the terminal block for customer interface.
- Remote pushbutton station available for use with shunt trip (24 & 48 VDC only)
- 48 VDC motor operator provides the ability to remotely turn the disconnect Off and back On. This option also includes a two position selector switch with enclosure for remote mounting. (1200 & 1800 amp frames only)
- Integral DC metering shunt with 50 mV output
- Alternate mounting—Horizontal mount, 19" or 23" relay rack, ladder rack, wall mount and Nema 1 enclosures available



Optional 1200 Amp Horizontal Mount



Ladder Rack Mount



Nema 1 Enclosure



23" Relay Rack Mount



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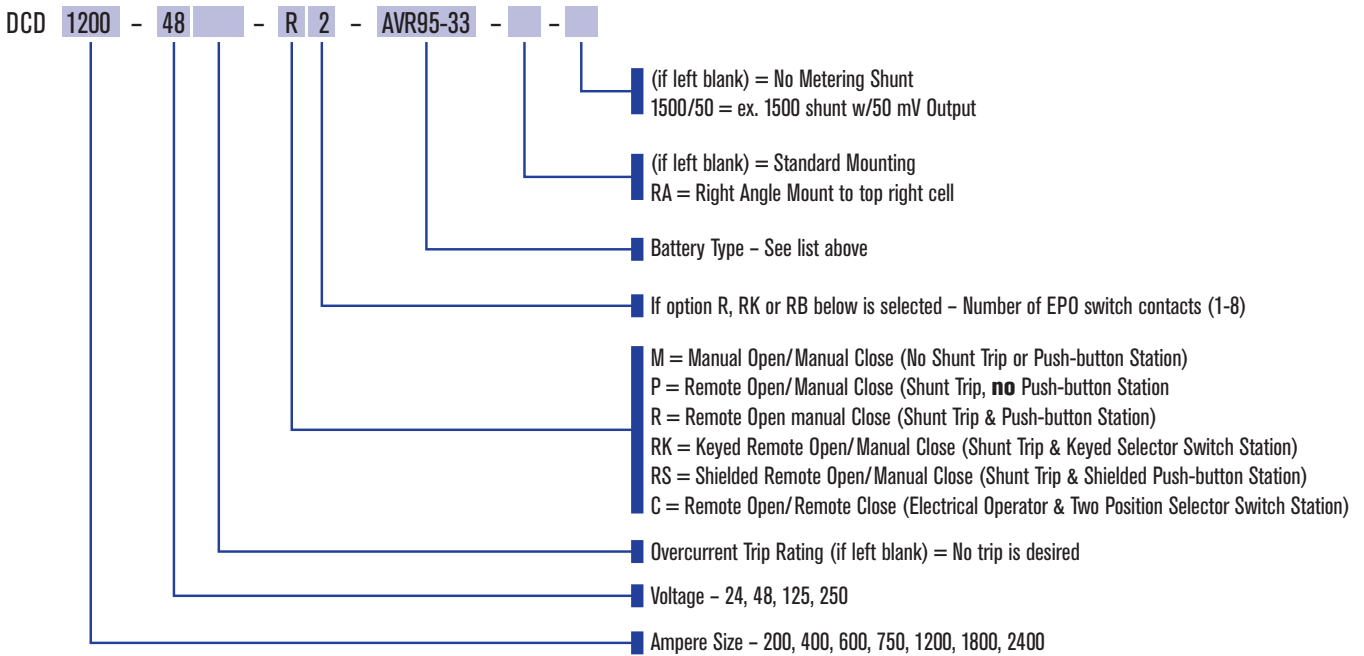


Optional Metering Shunt

BATTERY MODELS SUPPORTED

GNB		EAST PENN		ENERSYS		C&D / PANASONIC		FIAMM
90G05	100G29	AVR45-05	AVR85-31	DDM35-07	m50-13	AT-07P	1040	2SLA1000
90G07	100G31	AVR45-07	AVR85-33	DDM50-09	m50-17	AT-09P	1440	2SLA1500
90G09	100G33	AVR45-09	AVR85-39	DDM50-13	m85-13	AT-11P	HD-500	2SLA2000
90G11	100G39	AVR45-11	AVR85-51	DDM50-17	m85-15	AT-13P	HD-700	
90G15	100G45	AVR75-05	AVR85-57	DDM85-13	m85-21	AT-15P	HD-900	
90G17	100G51	AVR75-05	AVR85-63	DDM85-15	m85-25	AT-17P	HD-1100	
90G19	100G57	AVR75-07	AVR85-69	DDM85-21	m85-27	AT-19P	HD-1300	
90G21	100G63	AVR75-09	AVR85-75	DDM85-25	m85-33	AT-21P	HD-1500	
90G23	100G69	AVR75-11	AVR85-81	DDM85-27	m100-21	AT-23P	HD-2000	
90G25	100G75	AVR75-13	AVR85-87	DDM85-33	m100-25	AT-25P	MBIA 240090	
90G27	100G81	AVR75-15	AVR85-93	DDM100-21	m100-27	AT-27P	MSE-500 AT	
100G13	100G87	AVR75-19	AVR85-99	DDM100-25	m100-33	AT-29P		
100G15	100G93	AVR75-23	AVR95-07	DDM100-27	m125-25	AT-35P		
100G17	100G99	AVR75-27	AVR95-09	DDM100-33	m125-27	AT-39P		
100G19	XL2000	AVR75-29	AVR95-11	DDM125-25	m125-33	100FL17		
100G21	XL3000	AVR75-31	AVR95-13	DDM125-27		100LF23		
100G23	XL4000	AVR75-31	AVR95-15	DDM125-33		100LF25		
100G25	XL5000	AVR75-33	AVR95-17	DDS85-21		100LF33		
100G27	XL6000	AVR75-87	AVR95-19	DDS85-33				
		AVR75-93	AVR95-21	DDS100-21				
		AVR75-99	AVR95-23	DDS125-29				
		AVR85-13	AVR95-25	DDS125-31				
		AVR85-15	AVR95-27	DDS125-33				
		AVR85-17	AVR95-29	DDH125-17				
		AVR85-21	AVR95-31					
		AVR85-23	AVR95-33					
		AVR85-25	AVR125-33					
		AVR85-29						

SAMPLE CATALOG NUMBER



Glossary of Terms

Battery Disconnect Switch

A device that serves as an “On/Off” switch for a string of batteries. Device used to disconnect a string of batteries from its’ load when battery maintenance is required. The switch provides internal short circuit (magnetic trip) protection. When required by code, the disconnect switch provides a means for remote operation by emergency personnel (see Shunt Trip below). The minimum current rating for this device is determined by calculating the worse case current for two conditions - load current *from* the battery during discharge or supply current *into* the battery during re- charge.

Battery Disconnect Breaker

The disconnect breaker has the same characteristics as the disconnect switch above, with one additional feature. In addition to short circuit protection, the disconnect breaker provides overload (thermal trip) protection as well. The overload protection should be sized 25% above the worse case current for two conditions - load current *from* the battery during discharge or supply current *into* the battery during recharge.

Auxiliary Switch

An internally installed device that reports the disconnect position (open or closed) via a Form C contact. The auxiliary switch is a dry contact, pre-wired to a terminal block for customer alarm interface.

Shunt Trip (24, 48, 125 or 250 VDC)

A factory installed accessory which will open the disconnect from a remote location. The device is pre-fused and may be operated up to 100 feet away. The shunt trip many be supplied with or without a pushbutton station.

Motor Operator

A 48 Volt DC motor operator allows the user the capability of both remotely opening and closing the disconnect. A two-position control station is provided.

Overload Protection Mechanism (Disconnect Breaker Only)

Factory installed thermal device that monitors current passing through the breaker. If the specified current of the disconnect breaker is exceeded, the thermal element will begin to overheat. After a time delay the device will cause the breaker to open.

Instantaneous Trip Mechanism (Disconnect Switch or Disconnect Breaker)

An internally installed device that measures the current through the disconnect during a short circuit condition. This device operates instantaneously to open the disconnect should an excessive amount of current flow through the unit.

Interrupting Capacity

The current rating the disconnect can safely interrupt under short circuit conditions.

EPO Switch

Emergency Power Off switch

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