

## Low Voltage Disconnect (LVD) Modules

Product Datasheet

### Model Selection

Model	Contactors	Mounting
LVD400-00	1 x 400A	DCM1600/2400 Series internal module
LVD400-10	1 x 400A	DCM1610/1010 Series internal module
LVD401-20	1 x 400A	DCF0600/0601/0602 Series internal module
LVD402-00	2 x 400A	DCM1600/2400 Series internal module
LVD402-10	2 x 400A	DCM1610/2410 Series internal module
LVD402-20	2 x 400A	DCF0600/0601/0602 Series internal module
LVD801	1 x 1000A	4U Rack module
LVD802	2 x 1000A	4U Rack module
LVD1201	1 x 1200A	4U Rack module
LVD1202	2 x 1200A	4U Rack module

### Electrical Specifications

Voltage Range: 17.7 – 60V, + or - earth

### Operation

Connection Mode: Load disconnect or battery disconnect

### Control Settings

All control settings are made from the Supervisory Module. Refer to the appropriate Supervisory Module datasheet. Some settings require PowerManagerII or DCTools software.

#### Voltage settings

LVD1/LVD2 Disconnect Voltage: 0 – 60.0V (default: 43.2V or 21.6V)  
 LVD1/LVD2 Reconnect Voltage: 0 – 60.0V (default: 48V or 24V)

#### Timing settings

LVD1/LVD2 Validation Period: 10 – 600s (default: 10s)  
 LVD1/LVD2 Inhibit Time: 10 – 600s (default: 10s)  
 LVD1 Disconnect Delay Timer: 0 – 6000 minutes (default: 240 minutes)  
 LVD2 Disconnect Delay Timer\*: 0 – 6000 minutes (default: 240 minutes)

#### Supervisory Module Controls:

LVD1/LVD2 enable/disable (default: disabled)  
 LVD1 Disconnect delay timer enable/disable (default: disabled)  
 LVD2 Disconnect delay timer enable/disable\* (default: disabled)  
 LVD2 Slave Mode enable/disable (default: disabled)

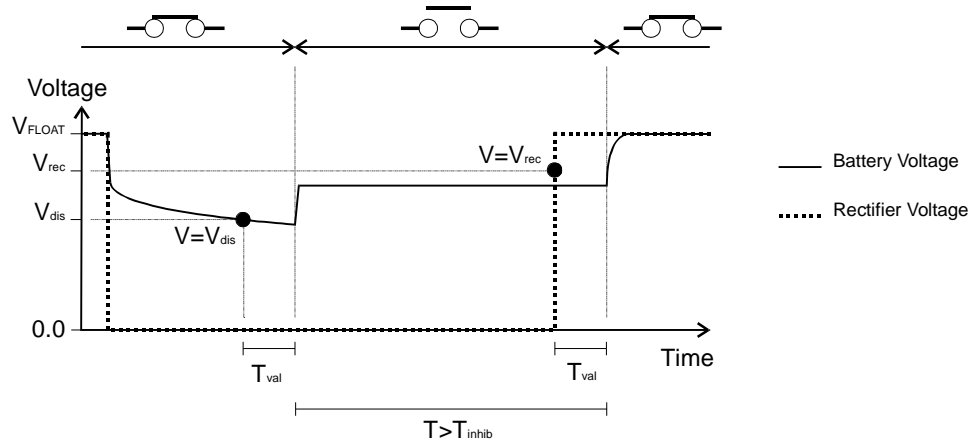
\* SM45/SM65 only.

### Manual control

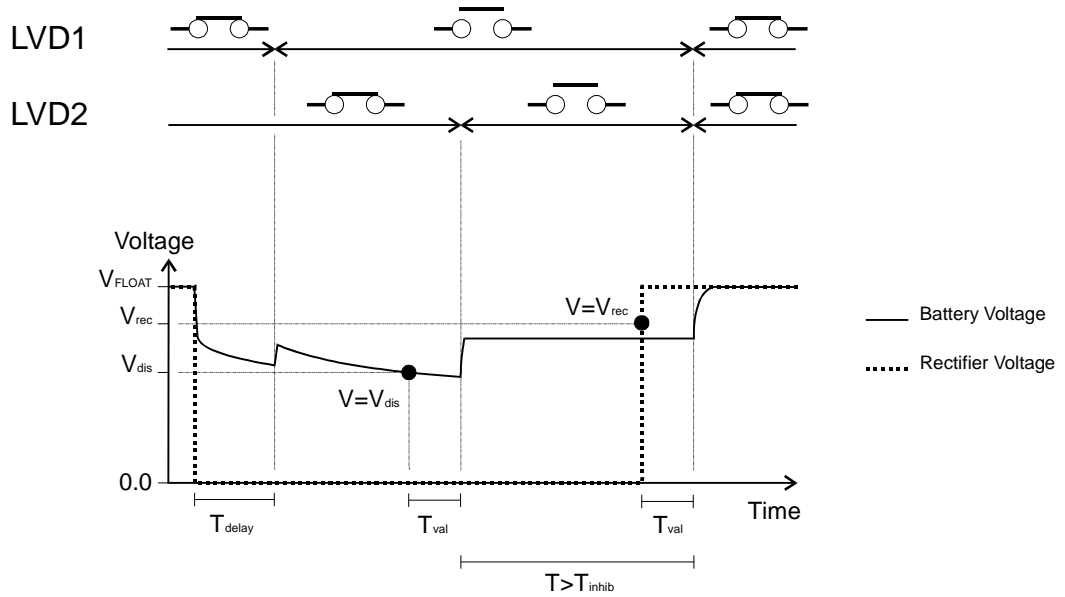
Manual control switch: Switch (open-auto-close) on control board for each contactor

**Typical Operation**

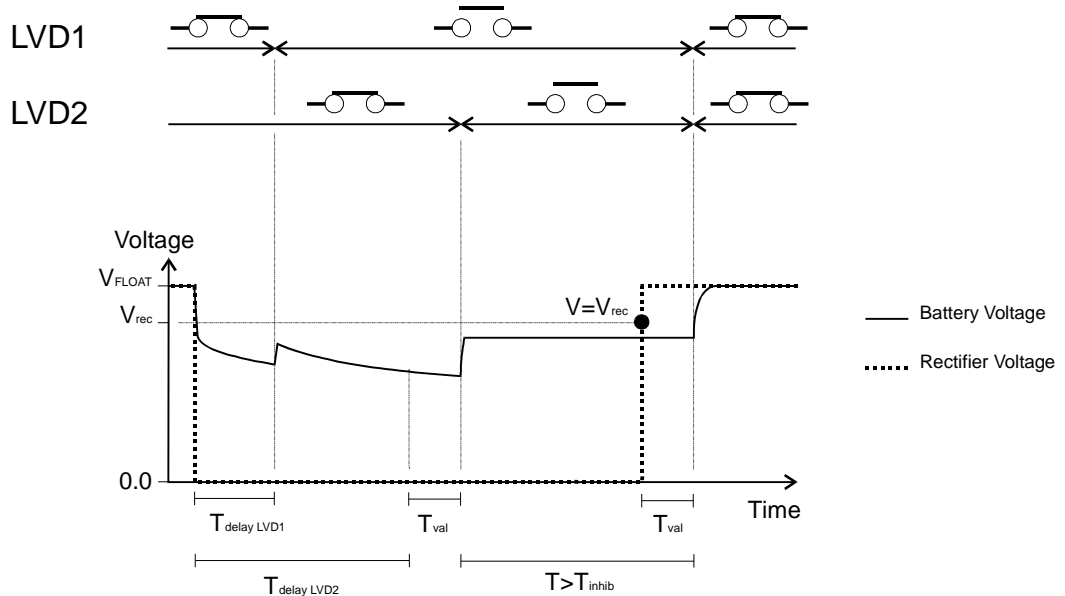
Single LVD (or dual LVDs with identical settings):



Dual LVD using LVD1 Disconnect Delay Timer:



Dual LVD using LVD1 and LVD2 Disconnect Delay Timers (SM45 or SM65 only):



$V_{dis}$  = Disconnect Voltage     $V_{rec}$  = Reconnect Voltage     $T_{val}$  = Validation Period     $T_{inhib}$  = Inhibit Time     $T_{delay}$  = Disconnect Delay

**Alarms**

LVD Fail Alarm:	Contactors state opposes control signal state.
LVD Manual Alarm:	Contactors is manually opened or closed by switch on control board.

**Environmental Requirements**

## Ambient Temperature

Nominal:	25°C ± 5°C [77°F ± 9°F]
Rated Operating Range:	-10°C to +50°C [14°F to 122°F]

## Humidity

Nominal:	50% ± 10%RH
Range:	<95%RH (Non-condensing)

**Mechanical**

## Dimensions H, W, D

LVD400/401:	140mm, 250mm, 120mm [5.5", 9.8", 4.7"]
LVD402:	140mm, 300mm, 120mm [5.5", 11.8", 4.7"]
All other models:	176mm (4U), 480mm, 350mm [7.0" (4U), 19" mounting, 13.7"]

## Cable Terminations

LVD400/401/402:	6 x M10 bolts (DCM1600 and DCM2400)
LVD800/1200:	8 x M10 bolts per contactor

## Contactor Type:

Non latching

## Alarm and Control Connections:

RJ45 connectors

**Compliances**

## Safety:

EN 60950, AS/NZS 3260

## EMC – immunity

Electrostatic discharge:	EN 61000-4-2
Radiated radio frequency:	EN 61000-4-3

## EMC – emissions

Conducted emissions:	EN 55022, CISPR 22
Radiated emissions:	EN 55022, CISPR 22

**Certifications**

## LVD801/802, LVD1201/1202:

CE-mark