WHAT IS CLAIMED IS:

1. A method for protecting a direct-current (DC) electric power distribution system that includes one or more loads, one or more DC buses, and one or more converters, the converters comprising one or more AC/DC converters or one or more DC/DC converters, or both, the method comprising, in response to a detection of a fault in the system:

limiting an output current of each of one or more of the converters so that each of the one or more converters outputs a limited DC current at or about a corresponding predetermined current level; and

activating one or more protection devices in the system, wherein said activating at least partly depends on the limited DC currents being at or about the predetermined current levels,

wherein said activating comprises:

identifying a location for the detected fault, based on measurements of currents on the DC buses, wherein said identifying at least partly depends on the limited DC currents being at or about the predetermined current levels; and

opening one or more DC switches in the system, based on the identified location of the detected fault, and

wherein, after said opening of one or more DC switches, reconfiguring at least a portion of the system by activating one or more alternative paths for connecting equipment affected by said opening of one or more DC switches..

2. The method of claim 1, wherein limiting the output current of one of the converters comprises directly controlling the converter to produce the limited DC current at or about the corresponding predetermined current level.

3. The method of claim 1 or 2, wherein identifying the location for the detected fault is based on measurements on the DC buses of one or more of:

current levels;

current derivatives;

voltages; and

current directionalities.

4. The method of claim 3, wherein said opening of one or more DC switches in the system comprises opening all tie line and branch DC switches connected to a first DC bus in response to identifying the first DC bus as the location of the detected fault.

5. The method of claim 3 or 4, wherein said opening of one or more DC switches in the system comprises opening a DC switch immediately upstream or DC switches on both sides of an identified fault location in response to identifying a DC branch as the location of the detected fault.

6. The method of any of claims 3-5, further comprising, after said opening of one or more DC switches:

determining that the fault has been isolated; and,

in response to said determining, discontinuing the limiting of output current in each of the converters that is limited to its corresponding predetermined current level.

7. The method of any one of the preceding claims, wherein limiting the output current for one or more of the converters so that each of the one or more converters outputs a limited DC current at or about a corresponding predetermined current level comprises first limiting the output current to a first limited current level, for a first interval of time, and subsequently limiting the output current to a second limited current level.

8. The method of claim 7, wherein said activating comprises an automatic opening of one or more protection devices, wherein the opening of each protection device is based on a respective device current exceeding at least one respective threshold for a

respective period of time, and wherein the thresholds are based on the predetermined current levels.

9. A method for protecting a direct-current (DC) electric power distribution system that includes one or more loads, one or more DC buses, and one or more converters, the converters comprising one or more AC/DC converters or one or more DC/DC converters or both, the method comprising:

receiving measurements of DC bus currents;

receiving an indication of a fault in the system;

identifying a location for the indicated fault, based on the measurements of DC bus currents, wherein said identifying at least partly depends on a predetermined, limited, DC current level for at least one of the converters;

opening one or more DC switches in the system, based on the identified location of the indicated fault; and

after said opening of one or more DC switches, reconfiguring at least a portion of the system by activating one or more alternative paths for connecting equipment affected by said opening of one or more DC switches.

10. The method of claim 9, further comprising providing external control to at least one of the converters to produce its corresponding predetermined, limited, DC current .

11. The method of claim 9 or 10, wherein identifying the location for the indicated fault is further based on measurements on the DC buses of one or more of:

current levels;

current derivatives;

voltages; and

current directionalities.

12. The method of any of claims 9-11, wherein said opening of one or more DC switches in the system comprises opening all tie line and branch DC switches connected

to a first DC bus in response to identifying the first DC bus as the location of the indicated fault.

13. The method of any of claims 9-11, wherein said opening of one or more DC switches in the system comprises opening a DC switch immediately upstream or DC switches on both sides of an identified fault location in response to identifying a DC branch as the location of the indicated fault.

14. The method of any of claims 9-13, further comprising, after said opening of one or more DC switches:

determining that the fault has been isolated; and,

in response to said determining, discontinuing limiting of output current in each of the converters that is limited to its corresponding predetermined current level.

15. A direct-current (DC) electric power distribution system, comprising:

multiple DC buses, each either directly or through converters associated with one or more power sources and one or more loads, connected by branches and converters, wherein at least one of the converters is an AC/DC converter or DC/DC converter operable to produce a respective converter current at or about a predetermined, limited, DC current level in response to a detection of a fault or under the control of a controller;

one or more DC switches, wherein each DC switch is operative to disconnect at least a portion of a DC bus or a DC branch; and

a controller circuit configured to

receive measurements of DC bus currents;

receive an indication of a fault in the system;

identify a location for the indicated fault, based on the measurements of DC bus currents, wherein said identifying at least partly depends on the converter current being at or about its corresponding predetermined, limited, DC current level for at least one of the DC converters; and

open one or more of the DC switches, based on the identified location of the indicated fault,

wherein the controller circuit is further configured to reconfigure at least a portion of the system, after opening one or more of the DC switches, by activating one or more alternative paths for connecting equipment affected by said opening of one or more of the DC switches.

16. The DC electric power distribution system of claim 15, wherein the controller circuit is further configured to provide external control to at least one of the converters to produce the corresponding predetermined, limited DC current, in response to the indication of the fault in the system.

17. The DC electric power distribution system of claim 15 or 16, wherein the controller circuit is configured to identify the location for the indicated fault based further on measurements on the DC buses of one or more of:

current levels;

current derivatives;

voltages; and

current directionalities.

18. The DC electric power distribution system of any of claims 15-17, wherein the controller circuit is configured to open all tie line and branch DC switches connected to a first DC bus in response to identifying the first DC bus as the location of the indicated fault.

19. The DC electric power distribution system of any of claims 15-18, wherein the controller circuit is configured to open a DC switch immediately upstream or DC switches on both sides of an identified fault location in response to identifying a DC branch as the location of the indicated fault.

20. The DC electric power distribution system of any of claims 15-19, wherein the controller circuit is further configured to:

determine that the fault has been isolated, after opening one or more of the DC switches; and,

in response to said determining, discontinue the limiting of output current in each of the converters that is limited to its corresponding predetermined, limited, DC current level.

21. A direct-current (DC) electric power distribution system, comprising:

multiple DC buses, each either directly or through converters associated with one or more power sources and one or more loads, connected by branches and converters, wherein at least one of the converters is an AC/DC converter or

DC/DC converter and is configured to limit its DC output current to a first current level, for a first interval of time, in response to an indicated fault, and to subsequently limit the DC output current to a second current level;

one or more protection devices; and

a controller configured to open one or more protection devices in response to a device current exceeding at least one respective threshold for a respective period of time, wherein each of the thresholds is based on at least one of the first current levels and second current levels, and wherein after opening one or more protection devices, reconfiguring at least a portion of the system by activating one or more alternative paths for connecting equipment affected by said opening of one or more protection devices.

22. The DC electric power distribution system of claim 21, wherein the system comprises a first converter and first and second protection devices, wherein the second protection device is downstream from the first protection device, with respect to the first converter, and wherein the first and second protection devices are configured so that the second protection device opens before the first protection device, for a given fault current level.