

# HVAC/R

Heating, Ventilation, Air Conditioning & Refrigeration

**Fast  
Facts**

Market Applications



According to the 2007 North American Industrial Classification System (NAICS) definition, this industry comprises establishments primarily engaged in (1) manufacturing air-conditioning (except motor vehicle) and warm air furnace equipment and/or (2) manufacturing commercial and industrial refrigeration and freezer equipment.

**A few types of these manufacturers are (among others):**

- Air-conditioning equipment manufacturing
- Display cases, refrigerated, manufacturing
- Freezing equipment, industrial and commercial-type, manufacturing
- Heating and air conditioning combination units manufacturing

*Connection devices allow electrical installers to safely connect equipment located inside an electrical or control cabinet to the equipment located in the field. To accomplish this, electricians will use terminal blocks and various other connection devices.*

HVAC manufacturers face various challenges when wiring their electrical cabinets.

**Some of the challenges are:**

- Constant vibration on the units will create loose wire connections. Finding wire termination devices which can handle constant vibration becomes a primary focus in sourcing connection devices.
- Finding components small enough to meet the ever increasing need to reduce the size of the heating and cooling units.
- Decreasing human error during the wiring process



**ABB**

To meet these strenuous demands, ABB offers a complete line of control solutions including Terminal Blocks, Contactors, Circuit Breakers and Switches just to name a few.

Terminal Blocks Entrelec, with Spring Clamp and ADO technology (IDC – Insulation Displacement Connection) design are superior to the traditional screw clamp terminal block seen in the industry and offers a wide range of wire size terminations.

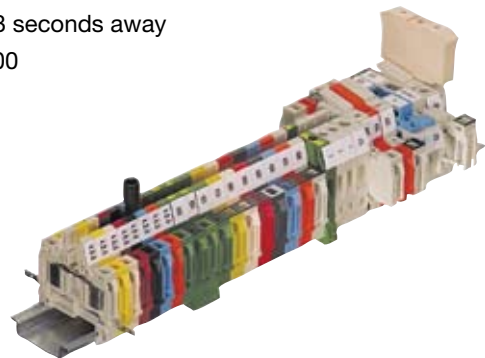
**The Spring Clamp technology offers a standard solution with many features and benefits, some of which are:**

- A vibration resistant connection by keeping constant pressure on the wire termination
- Flexible jumper system – screwless jumpers
- Complete connection range from 16AWG to 2AWG
- Free-hand connection (screwdriver locks the spring open until released)



**The ADO technology style Terminal Block is an advanced solution with many features and benefits some of which are:**

- With no wire stripping, a fast secure connection is just 3 seconds away
- The largest number of tested compatible wire – over 400
- Vibration proof
- Corrosion proof
- Time and Cost Effective



Terminal Blocks Entrelec is the only Insulation Displacement Connection on the market which is NOT operator dependent. The tool does the work.

Terminal Blocks Entrelec Spring Clamp and ADO technology eliminates numerous wire preparation steps. Thus increasing your productivity and giving you peace of mind knowing that your wires are properly terminated.

**ABB also offers a full line of Printed Circuit Board terminals in either Screw Clamp, Spring Clamp, or ADO System (IDC) connection. A few of the features and benefits are:**

- Various wire entry orientations– parallel, perpendicular, or angled to the printed circuit board
- Spacing from 3.5mm to 7.62mm for fixed and pluggable connectors
- Spacing from 6.35mm to 12.7mm for Power Blocks
- Sockets available in either open or closed ends



*For additional information please refer to the following resources:*

**Connection Products Catalog - LV042**

**Connection Products Shortform Catalog - LV006**

**ADO System (IDC) Catalog - LV009**

**ABB PCB Connections Catalog - LV116**

or visit us at: [www.abb.us/controlproducts](http://www.abb.us/controlproducts) and click “Terminal Blocks”

