



Cable Solutions

TC-ER for Fast, Economical Cable Installation

Your Challenge: The plant manager directs you to develop a plan to install a new production line. His only directions are to do it faster and for less money than the last change.

Your First Thought: How is this going to be possible without compromising installation quality?

The AmerCable Solution: Exposed run cables for fast, economical installation.

AmerCable Exposed Run Cables

This new rating for tray cables – TC-ER – was created by changes in NEC and UL standards. If the basic UL cable type meets additional crush and impact requirements, UL permits the manufacturer to add the -ER suffix to the basic listing on the cable. The -ER signifies that it has met the physical toughness requirements that permit it to be installed as exposed wiring in certain applications. Such wiring, i.e. wiring that is installed outside of a tray, conduit or other raceway, is sometimes also called **open wiring**. With the -ER suffix printed on the cable, the responsible electrical inspector is able to verify that the cable meets Code requirements for use as exposed wiring.

Lower Installed Cost!

UL Type TC tray cables are permitted in cable trays by the NEC. However, tray cables without the -ER suffix that extend from the tray for more than 1.8 meters (6 feet) to connect to a motor or other electrical device must be installed in conduit or other type of raceway. Tray cables with the -ER suffix can extend much further in certain applications if given adequate protection and support.

Type TC-ER cables are permitted to extend for an unlimited distance. Because of this increased out-of-tray cable length, the use of -ER rated cables can reduce the need for conduit and the overall cost of the installation.



Formerly "Open Wiring"

2005 National Electrical Code® Excerpt Type TC Cables Article 336.10 (7) In industrial establishments where the conditions of maintenance and supervision ensure that only qualified persons service the installation and where the cable is continuously supported and protected against physical damage using mechanical protection, such as struts, angles or channel, Type TC tray cable that complies with the crush and impact requirements of Type MC cable and is identified for such use with the marking Type TC-ER shall be permitted between a cable tray and the utilization equipment or device. The cable shall be secured at intervals not exceeding 1.8m (6ft). Equipment grounding for the utilization equipment shall be provided by an equipment grounding conductor within the cable.

Source: National Electrical Code 2005



Made in America

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Installation Cost Comparison



Installation Description: Bus Drop from bus plug to safety switch or control panel; 120 foot total cable run;
30 foot vertical drop

60 Amp Drop

Conduit Installation

6AWG RHW + 8AWG RHW gnd	\$159.00
1" Rigid Conduit + Fittings	349.00
Labor (24 Hours)	1200.00
Total	\$1708.00

Open Wiring Installation

AmerCable Power Cable 6AWG + gnd	\$398.00
(AmerCable Part #: 37-829-067)	
Cable Supports	90.00
Labor (8 Hours)	400.00
Total	\$888.00

Savings

Conduit Installation	\$1708.00
Open Wiring Installation	888.00
Cost Difference	820.00
Total Savings	48%

100 Amp Drop

Conduit Installation

2AWG RHW + 8AWG RHW gnd	\$335.00
1-1/4" Rigid Conduit + Fittings	472.00
Labor (24 Hours)	1200.00
Total	\$2007.00

Open Wiring Installation

AmerCable Power Cable 4AWG + gnd	\$468.00
(AmerCable Part #: 37-829-058)	
Cable Supports	90.00
Labor (8 Hours)	400.00
Total	\$958.00

Savings

Conduit Installation	\$2007.00
Open Wiring Installation	958.00
Cost Difference	1049.00
Total Savings	52%

200 Amp Drop

Conduit Installation

3/0AWG RHW + 6AWG RHW gnd	\$656.00
2" Rigid Conduit + Fittings	673.00
Labor (32 Hours)	1600.00
Total	\$2929.00

Open Wiring Installation

AmerCable Power Cable 2/0AWG + gnd	\$1183.00
(AmerCable Part #: 37-829-060)	
Cable Supports	140.00
Labor (16 Hours)	800.00
Total	\$2123.00

Savings

Conduit Installation	\$2929.00
Open Wiring Installation	2123.00
Cost Difference	806.00
Total Savings	28%

400 Amp Drop

Conduit Installation

600 kcmil RHW + 1/0AWG RHW gnd	\$2265.00
4" Rigid Conduit + Fittings	1994.00
Labor (48 Hours)	2400.00
Total	\$6659.00

Open Wiring Installation

AmerCable Power Cable 400 kcmil + gnd	\$2707.00
(AmerCable Part #: 37-829-063)	
Cable Supports	210.00
Labor (24 Hours)	1200.00
Total	\$4117.00

Savings

Conduit Installation	\$6659.00
Open Wiring Installation	4117.00
Cost Difference	2542.00
Total Savings	38%

