

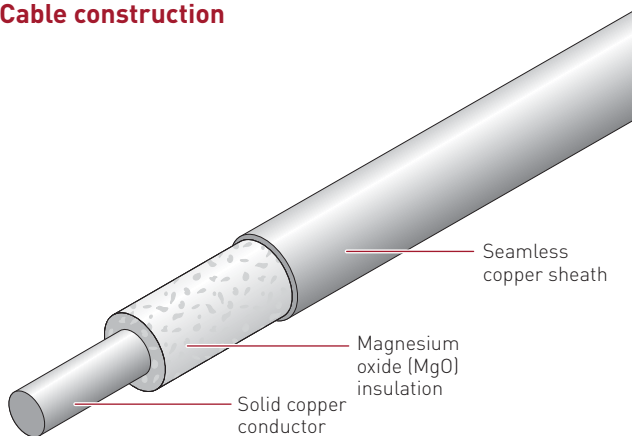


SYSTEM 1850-SE

2-HOUR FIRE-RATED, MI COPPER-SHEATHED SERVICE ENTRANCE CABLE SYSTEM

A service entrance system that allows service entrance conductors to be routed inside the building

Cable construction



PRODUCT OVERVIEW

When running traditional service entrance conductors through the building, electrical codes require that they be encased in concrete so that the conductors may be considered outside the building.

Pyrotenax System 1850-SE offers an alternative that has been approved by the Authorities Having Jurisdiction (AHJs) in several major cities, including New York, Washington D.C., and Philadelphia, and is allowed on a case-by-case basis in many other cities. In areas where lightning activity is exceptionally high, lightning protection must be installed.

System 1850 cable is manufactured using only inorganic materials and offers a unique combination of dependability, versatility, and permanence with zero smoke generation, zero fuel contribution, and zero flame spread.

Unlike a conduit and wire system, System 1850 cables do not typically require derating and can be installed using the "free air" ratings of Table 310.15(B)(17) of the 2011 National Electrical Code (NEC).

The System 1850-SE service entrance cable system consists of:

- UL Classified 2-hour fire-rated mineral insulated (MI) cable
- QuickTerm service entrance termination kits
- NEMA Class 12B stainless steel ventilated cable tray with louvered covers
- Optional SE-Protect lightning arrester kit for lightning protection. For more information, contact Technical Support.

Applications include service entrance feeders for buildings.

System 1850-SE can be used in the following environments:

- High-rise buildings
- Health care facilities
- Historic buildings
- Airports, stadiums, hotels, banks etc.

For additional information, contact your Pentair Thermal Management representative or call (800) 545-6258.

SYSTEM 1850-SE

CABLE CONSTRUCTION

Sheath	Seamless soft-drawn copper
Insulation	Highly compressed magnesium oxide (MgO)
Conductor type	Copper
Insulation voltage rating	600 V
Conductor size	350 kcmil, 500 kcmil
Number of conductors	1

CABLE TEMPERATURE RATING

Continuous exposure temperature	250°C (482°F)
Maximum exposure temperature	1010°C (1850°F)

BENDING RADIUS

	NEC	CEC
	10 times cable diameter	12 times cable diameter

TERMINATION KIT FOR SERVICE ENTRANCE APPLICATIONS

QuickTerm kit	
Seal type	Special service entrance seal
Gland fitting	Brass
Cable seal rating	Nonhazardous locations: 90°C (194°F) maximum
Termination and flexible tail size selection	

MI cable size	Circuit ampacity	If landing on:	Termination method	Flexible tail size
350 kcmil	310 A maximum	Circuit breaker	Size-for-size	350 kcmil
	475 A maximum	Circuit breaker	Sized-up	750 kcmil
	505 A maximum	Bus bar	Sized-up	750 kcmil
500 kcmil	380 A maximum	Circuit breaker	Size-for-size	500 kcmil
	475 A maximum	Circuit breaker	Sized-up	750 kcmil
	620 A maximum	Bus bar	Sized-up	750 kcmil

600 V WIRING CABLE SPECIFICATIONS

Cable reference number	Conductor size (kcmil)	Current rating NEC (75°C)	Current rating CEC (75°C)	Nominal cable diameter (in)	Nominal coil length ft (m)	Nominal weight (lb/1000 ft)	NPT gland size (in)
Single conductor							
1/350-834	350	505	505	0.834	284 (86)	1675	1-1/4
1/500-1000	500	620	620	1.0	197 (60)	2403	1-1/4

System 1850-SE ampacity is shown for cables landing on bus bar. For cables landing on circuit breakers or heat-sensitive devices, Table 310.15(B)(16) 75°C ampacities apply to System 1850-SE cables.

APPROVALS

BULK CABLE



Nonhazardous Locations

Hazardous Locations

Class I, Div. 1 and 2, Groups A, B, C, D
 Class II, Div. 1 and 2, Groups E, F, G
 Class III



Nonhazardous Locations



UL Classified, 2-hour fire-resistive cable,
 tested to UL 2196



ULC Listed, 2-hour fire-resistant cable,
 tested to ULC-S139

FM Approvals GP-1

2-hour fire-resistive cable

TERMINATED CABLE

QUICKTERM KIT



Nonhazardous Locations

Note: Overall approval of the terminated cable depends on the termination kit used.



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