

SYSTEM 2000 MI WIRING ALLOY 825 CABLE



nVent PYROTENAX System 2000 mineral insulated (MI) wiring cable is a range of MI wiring cable, with an Alloy 825 sheath and nickel-clad copper conductors (600 V). It has a continuous exposure temperature of 1238 °F/670 °C and can withstand rapid-rise temperature excursions to 2000 °F/1093 °C. The inorganic cable construction provides superior fire resistance under conditions of both high heat flux and high temperature. Common applications include the supply of power to motor operated valves during fire exposure ensuring that valves can be safely controlled and closed when required. It is typically supplied as a factory-assembled wiring unit complete with terminations at each end.

FEATURES & BENEFITS

Ultimate performance: zero smoke generation, zero fuel contribution and zero flame spread.; no flow or transmission of explosive gases through the wiring cables

Maintains electrical circuit integrity for 30 minutes in the UL 1709 fire test, using UL2196 test procedure (UL 1709 test, referenced in API 2218, replicates an intense hydrocarbon fire, reaching 2000 °F/1093 °C in 5 minutes when subjected to a heat flux of 65,000 BTU/ft² hr (200 kW/m²) in an enclosed furnace).

Reliable during long life: 30 year product warranty available

Approved for hazardous locations

SPECIFICATIONS

Voltage Rating 600 V

Conductor Material Nickel Clad Copper

Construction Mineral Insulated Cable

Insulation Material Magnesium Oxide

Sheath Material Alloy 825

Flame Retardant In Accordance with EN 60332-3-24

Max Operating Temperature 670 °C

Table 1/2

Catalog Number	Item Name	Core Quantity	Current Rating @ 75°C	Current Rating @ 90°C	Outer Diameter	Outer Diameter
319-10/1NC825	1C/10AWG/SYS 2000 600V	1	50 A	55 A	8.1	0.319
286-12/1NC825	1C/12AWG/SYS 2000 600V	1	35 A	40 A	7.3	0.286
253-14/1NC825	1C/14AWG/SYS 2000 600V	1	30 A	35 A	6.4	0.253
527-2/1NC825	1C/2AWG/SYS 2000 600V	1	170 A	190 A	13.4	0.527
480-3/1NC825	1C/3AWG/SYS 2000 600V	1	145 A	165 A	12.2	0.48
434-4/1NC825	1C/4AWG/SYS 2000 600V	1	125 A	140 A	11	0.434
387-6/1NC825	1C/6AWG/SYS 2000 600V	1	95 A	105 A	9.8	0.387
355-8/1NC825	1C/8AWG/SYS 2000 600V	1	70 A	80 A	9	0.355
527-10/2NC825	2C/10AWG/SYS 2000 600V	2	35 A	40 A	13.4	0.527
465-12/2NC825	2C/12AWG/SYS 2000 600V	2	30 A	30 A	11.8	0.465
418-14/2NC825	2C/14AWG/SYS 2000 600V	2	20 A	25 A	10.6	0.418
590-8/2NC825	2C/8AWG/SYS 2000 600V	2	50 A	55 A	15	0.59
543-10/3NC825	3C/10AWG/SYS 2000 600V	3	35 A	40 A	13.8	0.543
496-12/3NC825	3C/12AWG/SYS 2000 600V	3	25 A	30 A	12.6	0.496
465-14/3NC825	3C/14AWG/SYS 2000 600V	3	20 A	25 A	11.8	0.465
418-16/3NC825	3C/16AWG/SYS 2000 600V	3		18 A	10.6	0.418
637-8/3NC825	3C/8AWG/SYS 2000 600V	3	50 A	55 A	16.2	0.637

Catalog Number	Item Name	Core Quantity	Current Rating @ 75°C	Current Rating @ 90°C	Outer Diameter	Outer Diameter
590-10/4NC825	4C/10AWG/SYS 2000 600V	4	35 A	40 A	15	0.59
527-12/4NC825	4C/12AWG/SYS 2000 600V	4	25 A	30 A	13.4	0.527
496-14/4NC825	4C/14AWG/SYS 2000 600V	4	20 A	25 A	12.6	0.496
684-8/4NC825	4C/8AWG/SYS 2000 600V	4	50 A	55 A	17.4	0.684
590-14/7NC825	7C/14AWG/SYS 2000 600V	7	20 A	25 A	15	0.59
637-12/7NC825	7C/12AWG/SYS 2000 600V	7	25 A	30 A	16.2	0.637

Table 2/2

Catalog Number	Item Name	AWG Size	Resistance
319-10/1NC825	1C/10AWG/SYS 2000 600V	#10	0.904
286-12/1NC825	1C/12AWG/SYS 2000 600V	#12	1.51
253-14/1NC825	1C/14AWG/SYS 2000 600V	#14	2.46
527-2/1NC825	1C/2AWG/SYS 2000 600V	#2	0.147
480-3/1NC825	1C/3AWG/SYS 2000 600V	#3	0.184
434-4/1NC825	1C/4AWG/SYS 2000 600V	#4	0.233
387-6/1NC825	1C/6AWG/SYS 2000 600V	#6	0.374
355-8/1NC825	1C/8AWG/SYS 2000 600V	#8	0.607
527-10/2NC825	2C/10AWG/SYS 2000 600V	#10	0.93
465-12/2NC825	2C/12AWG/SYS 2000 600V	#12	1.47
418-14/2NC825	2C/14AWG/SYS 2000 600V	#14	2.338
590-8/2NC825	2C/8AWG/SYS 2000 600V	#8	0.628
543-10/3NC825	3C/10AWG/SYS 2000 600V	#10	0.997
496-12/3NC825	3C/12AWG/SYS 2000 600V	#12	1.451
465-14/3NC825	3C/14AWG/SYS 2000 600V	#14	2.339
418-16/3NC825	3C/16AWG/SYS 2000 600V	#16	3.766
637-8/3NC825	3C/8AWG/SYS 2000 600V	#8	0.608
590-10/4NC825	4C/10AWG/SYS 2000 600V	#10	1.01
527-12/4NC825	4C/12AWG/SYS 2000 600V	#12	1.527
496-14/4NC825	4C/14AWG/SYS 2000 600V	#14	2.311

Catalog Number	Item Name	AWG Size	Resistance
684-8/4NC825	4C/8AWG/SYS 2000 600V	#8	0.634
590-14/7NC825	7C/14AWG/SYS 2000 600V	#14	2.258
637-12/7NC825	7C/12AWG/SYS 2000 600V	#12	1.506

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