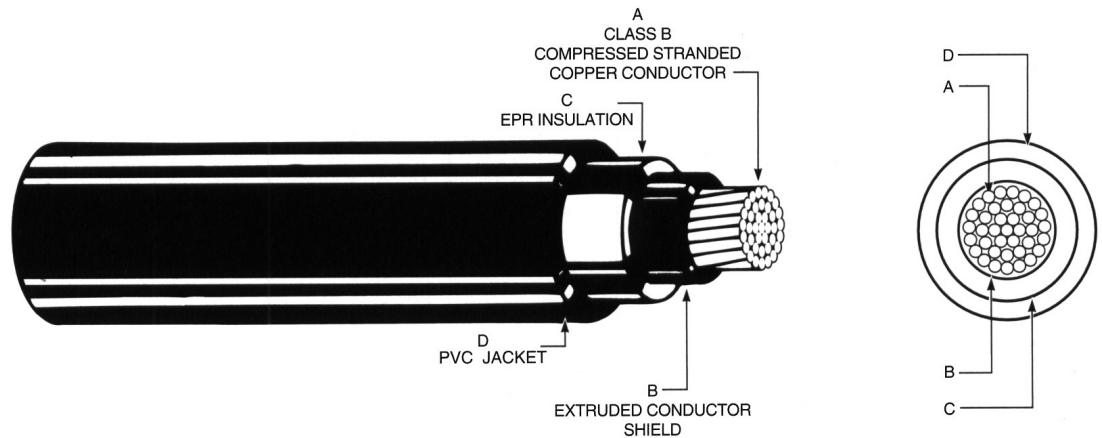


# 09ENS/PVC

**2.4kV Type MV-90. Copper Conductor. Thermosetting Conductor Shield.  
EPR Insulation. Nonshielded. PVC Jacket Sunlight Resistant.  
Limited to 2,400 Volts Maximum.**



## APPLICATIONS

Southwire 09ENS/PVC Type MV-90 Cable is for use primarily in raceways in industrial applications as specified by the National Electrical Code. These cables are capable of operating continuously at a conductor temperature not in excess of 90°C for normal operation, 130°C for emergency overload conditions, and 250°C for short circuit conditions, and are rated at 2,400V in wet or dry locations. Maximum sidewall pressure is 1000 lbs.

## SPECIFICATIONS

Southwire 09ENS/PVC Type MV-90 Cable is manufactured and tested in accordance with the latest revisions of:

- UL 1072 - Medium Voltage Power Cables.
- ICEA S-96-659 (NEMA WC 71) - Nonshielded Cables Rated 2001-5000 Volts
- ASTM B3 and B8
- RoHS

## CONSTRUCTION

Southwire 09ENS/PVC Type MV-90 Cable is constructed with Class B compressed stranded copper conductors with an extruded conductor shield. The conductor shield is covered with EPR insulation and a PVC outer jacket. The cable offers flexible, easy bending insulation, easy cable preparation, 90°C continuous operating temperature, resistance to moisture and is flame retardant. Cable Tray listing available by request on sizes 1/0 and larger.

# 09ENS/PVC 1c, EPR Heavy Wall, N/S, PVC Jacket

Product Code	Size	Conductor Diameter		Insulation Thickness		Diameter		Jacket Thickness		Approximate Overall Diameter		Approximate Net Weight		Allowable Ampacity+	
	AWG or kcmil	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs/1000 ft.	kg/km	Duct	Conduit in Air
09-ENS-006	6	.178	4.52	.125	3.18	.477	12.12	.08	2.03	.645	16.38	253	377	85	75
09-ENS-004	4	.225	5.72	.125	3.18	.524	13.3	.08	2.03	.692	17.56	321	477	110	97
09-ENS-002	2	.283	7.19	.125	3.18	.582	14.77	.08	2.03	.75	19.04	422	628	145	130
09-ENS-001	1	.322	8.18	.125	3.18	.621	15.76	.08	2.03	.789	20.03	489	728	170	155
09-ENS-010	1/0	.362	9.19	.125	3.18	.661	16.78	.08	2.03	.829	21.04	574	854	195	180
09-ENS-020	2/0	.405	10.29	.125	3.18	.703	17.86	.08	2.03	.871	22.12	676	1006	220	205
09-ENS-030	3/0	.456	11.58	.125	3.18	.754	19.15	.095	2.41	.954	24.23	834	1242	250	240
09-ENS-040	4/0	.512	13	.125	3.18	.81	20.56	.095	2.41	1.01	25.64	995	1480	290	280
09-ENS-250	250	.558	14.17	.14	3.56	.896	22.75	.11	2.79	1.127	28.61	1199	1784	320	315
09-ENS-350	350	.661	16.79	.14	3.56	.998	25.35	.11	2.79	1.229	31.22	1560	2321	385	385
09-ENS-500	500	.79	20.07	.14	3.56	1.126	28.6	.11	2.79	1.357	34.47	2072	3083	470	475
09-ENS-750	750	.968	24.59	.155	3.94	1.345	34.15	.125	3.18	1.608	40.83	3044	4529	585	600
09-ENS-100	1000	1.117	28.37	.155	3.94	1.493	37.91	.125	3.18	1.756	44.59	3897	5799	670	690

+Ampacities are based on the NEC, 2011 Edition. Duct ampacities are based on table 310.77 three conductors in one underground duct, 90°C conductor, 20°C earth ambient temperature. Conduit in air ampacities are based on table 310.73 three cables in isolated conduit in air, 90°C conductor, 40°C ambient temperature.

**SCOPE:** This specification covers single conductor EPR (ethylene propylene rubber) insulated, PVC jacketed power cable. This cable is capable of operating continuously at a conductor temperature not in excess of 90°C for normal operation, 130°C for emergency overload conditions, and 250°C for short circuit conditions, and is rated at 2,400V, wet or dry locations.

**STANDARDS:** The following standards will form part of this specification - UL Standard 1072 for Medium Voltage Power Cable and ICEA S-96-659 (NEMA WC 71) Nonshielded Cable Rated 2001-5000 Volts for Use in the Distribution of Electric Energy.

**CONDUCTOR:** The conductor will be Class B compressed soft or annealed copper in accordance with ASTM B3, and B8 and ICEA Part 2, Section 2.1 and 2.5.

**CONDUCTOR SHIELD:** The conductor shall be shield with an extruded semi-conducting thermosetting polymeric layer over the conductor, applied in tandem with and firmly bonded to the insulation.

**INSULATION:** The insulation will be EPR (ethylene propylene rubber) meeting the requirements of the referenced standards. The minimum thickness shall not be less than 90% of the average thickness.

**JACKET:** The cable shall be provided with a jacket of black PVC conforming to the requirements specified for polyvinyl chloride jackets in UL 1072. The average thickness shall be in accordance with table 4-3 of ICEA, and the minimum spot thickness shall not be less than 80% of the average thickness 1.

**IDENTIFICATION:** Cable shall be identified by surface printing on jacket.

**TESTS:** Physical and electrical tests shall be conducted in accordance with the requirements of UL Standard 1072 and ICEA S-96-659 (NEMA WC 71).

**AVAILABLE ALTERNATIVES:** Upon request, cable is available in sizes AWG 1/0 and larger listed for use in cable trays.

<sup>1</sup> For NEC when requested.