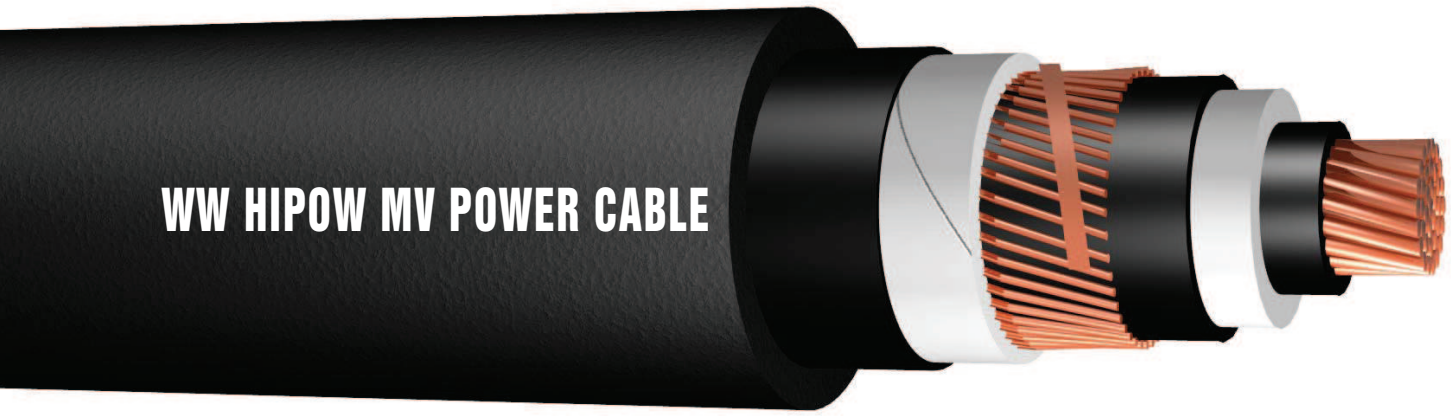
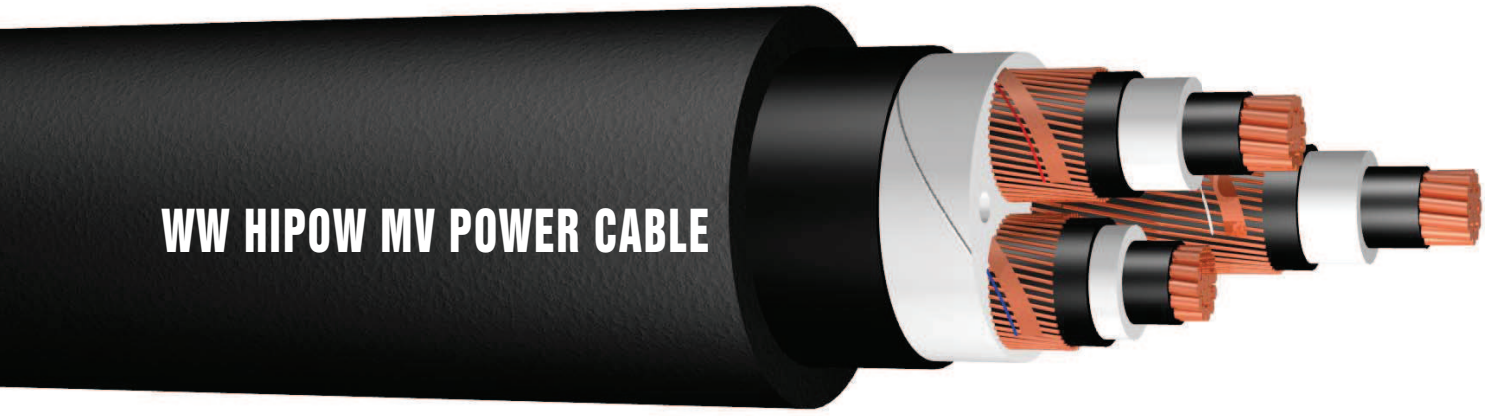
WW HIPOW - Medium Voltage Power Cable





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WW HIPOW - Medium Voltage Power Cable

Copper conductors, XLPE insulated and HDPE sheathed

Applications:

WW Medium voltage HDPE sheathed cables are mostly used as feeder electric cable for power distribution network where moisture penetration or heavy abrasion resistance is required. They are suitable for fix installation indoors, outdoors, in underground and in dry/damp areas.

Three-Core

Single-Core

Configuration:

Phase conductor:	plain annealed copper, class 2 compact stranded to reduce the cable diameter and cost, complying with AS/NZS 1125
Phase core:	triple extruded semi conductive conductor screen, cross-linked polyethylene (XLPE) insulation and semi conductive insulation screen to AS/NZS 3808.
Metallic screen:	copper wires screen provides high conductivity for faulty current as earth wires. (Plain annealed copper wire has a minimum diameter of 0.85 mm).Water-swellable tape collectively applied over the metallic screen.
Interstitial filler:	for three-core cable only, non-hydroscopic material.
Bedding:	Flame retardant 90 ^{0}C heavy duty polyvinyl chloride (PVC).
Sheath:	High density polyethylene (HDPE)

Technical Data:

Voltage Ranges:	11kV ~ 33kV
Conductor operating temp:	-25^{0}C ~ 90^{0}C,
Emergency conductor temp:	105^{0}C,
Short circuit temp:	Max. 250^{0}C for 5 sec
Minimum ambient temp:	-25^{0}C after installation and only when cable is in a fixed position
Minimum bending radius:	25xcable O.D during installation 15xcable O.D after installation
Maximum pulling tension:	70N/mm^{2} x total cross-sectional area of phase conductor

Note:

--The maximum conductor temperatures specified are based on the properties of the insulation material but in practice may need to be derated to take account of joints and terminations and environmental conditions.

--The emergency conductor temperatures are applicable for an average over several years, of not more than four times in any 12 consecutive months.

-- One or two Single-Core cables are not allowed to be installed in iron pipes due to the magnetic interference factor.

--When installed in tunnels, they should be fixed on brackets, and cannot bear large pull or pressure.

Core colour:	Single-core:	Natural
	Three-core:	Red, White and Blue
Sheath:	Black - UV stabilise	

Availability:

Halogen-free sheath and large size can be manufactured to customer order, further detail are available on request.

Standards:

International - IEC 60228, IEC 60502, IEC 60853, IEC 60949, IEC 60724, IEC 60986.

Australian/New Zealand - AS/NZS 1125, AS/NZS 3808, AS/NZS 1429.1,

WW HIPOW - Medium Voltage Power Cable

Copper conductors, XLPE insulated and HDPE sheathed

Physical and Electrical Data - Single Core

Rated Voltage kV	Standard Product Code	Nominal. Area mm^2	Core Dia. mm	Overall Dia. mm	Approx. Weight kg/m	A.C resist @90^0C,50Hz, Ω/km	Operating Inductance mH/km	Mutual Capacitance µF/km	Fault Current Rating Conductor kA/sec	Fault Current Rating Screen kA/sec
11	MV11C5X1C35HP	35	17.02	26.27	0.94	0.668	0.486	0.217	5.0	5.0
	MV11C7X1C50HP	50	18.32	27.67	1.22	0.467	0.460	0.244	7.2	7.2
	MV11C10X1C70HP	70	19.78	29.23	1.65	0.332	0.441	0.275	10	10.1
	MV11C10X1C95HP	95	21.34	30.90	1.97	0.247	0.421	0.308	13.6	10.1
	MV11C10X1C120HP	120	22.70	32.36	2.29	0.196	0.399	0.336	17.2	10.1
	MV11C10X1C150HP	150	24.16	33.92	2.62	0.157	0.386	0.366	21.5	10.1
	MV11C10X1C185HP	185	25.69	35.55	2.99	0.128	0.374	0.397	26.5	10.1
	MV11C10X1C240HP	240	27.82	37.84	3.64	0.099	0.358	0.441	34.3	10.1
	MV11C10X1C300HP	300	29.88	40.04	4.35	0.080	0.347	0.482	42.9	10.1
	MV11C10X1C400HP	400	32.91	43.28	5.34	0.062	0.338	0.544	57.2	10.1
22	MV22C5X1C35HP	35	21.43	30.99	1.12	0.668	0.515	0.173	5.0	5.0
	MV22C7X1C50HP	50	22.73	32.39	1.32	0.467	0.488	0.193	7.2	7.2
	MV22C10X1C70HP	70	24.19	33.95	1.80	0.332	0.468	0.215	10	10.1
	MV22C10X1C95HP	95	25.75	35.62	2.20	0.247	0.446	0.238	13.6	10.1
	MV22C10X1C120HP	120	27.11	37.08	2.49	0.196	0.424	0.258	17.2	10.1
	MV22C10X1C150HP	150	28.57	38.64	2.78	0.157	0.410	0.279	21.5	10.1
	MV22C10X1C185HP	185	30.10	40.27	3.28	0.128	0.397	0.302	26.5	10.1
	MV22C10X1C240HP	240	32.23	42.55	3.88	0.099	0.385	0.332	34.3	10.1
	MV22C10X1C300HP	300	34.29	44.76	4.67	0.080	0.372	0.362	42.9	10.1
	MV22C10X1C400HP	400	37.32	48.00	5.66	0.061	0.357	0.405	57.2	10.1
33	MV33C7X1C50HP	50	27.98	37.15	1.69	0.467	0.518	0.160	7.2	7.2
	MV33C10X1C70HP	70	29.44	38.71	2.18	0.332	0.495	0.177	10	10.1
	MV33C10X1C95HP	95	31.00	40.38	2.47	0.247	0.473	0.194	13.6	10.1
	MV33C10X1C120HP	120	32.36	41.84	2.88	0.195	0.455	0.210	17.2	10.1
	MV33C10X1C150HP	150	33.82	43.40	3.18	0.157	0.439	0.226	21.5	10.1
	MV33C10X1C185HP	185	35.35	45.03	3.67	0.127	0.425	0.242	26.5	10.1
	MV33C10X1C240HP	240	37.48	47.32	4.36	0.098	0.407	0.265	34.3	10.1
	MV33C10X1C300HP	300	39.54	49.52	5.08	0.080	0.398	0.287	42.9	10.1
	MV33C10X1C400HP	400	42.57	52.76	6.16	0.061	0.380	0.320	57.2	10.1

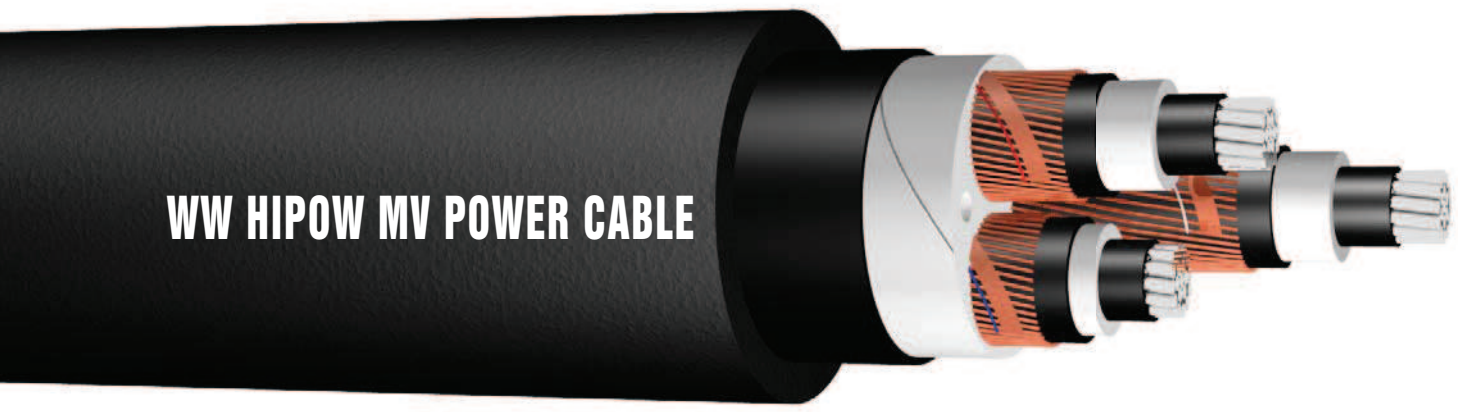
WW HIPOW - Medium Voltage Power Cable

Copper conductors, XLPE insulated and HDPE sheathed

Physical and Electrical Data - Three Core

Rated Voltage kV	Standard Product Code	Nominal. Area mm^2	Core Dia. mm	Overall Dia. mm	Approx. Weight kg/m	A.C resist @90^0C,50Hz, Ω/km	Operating Inductance mH/km	Mutual Capacitance µF/km	Fault Current Rating Conductor kA/sec	Fault Current Rating Screen kA/sec
11	MV11C5X3C35HP	35	17.02	49.10	2.42	0.668	0.486	0.217	5.0	5.0
	MV11C7X3C50HP	50	18.32	52.10	3.01	0.467	0.460	0.244	7.2	7.2
	MV11C10X3C70HP	70	19.78	55.47	4.04	0.332	0.441	0.275	10	10.1
	MV11C10X3C95HP	95	21.34	59.06	5.01	0.247	0.421	0.308	13.6	10.1
	MV11C10X3C120HP	120	22.70	62.20	6.06	0.196	0.399	0.336	17.2	10.1
	MV11C10X3C150HP	150	24.16	65.56	7.01	0.157	0.386	0.366	21.5	10.1
	MV11C10X3C185HP	185	25.69	69.08	8.38	0.128	0.374	0.397	26.5	10.1
	MV11C10X3C240HP	240	27.82	74.00	10.40	0.099	0.358	0.441	34.3	10.1
	MV11C10X3C300HP	300	29.88	78.75	12.58	0.080	0.347	0.482	42.9	10.1
	MV11C10X3C400HP	400	32.91	85.72	15.75	0.062	0.338	0.544	57.2	10.1
22	MV22C5X3C35HP	35	21.43	59.26	3.04	0.668	0.515	0.173	5.0	5.0
	MV22C7X3C50HP	50	22.73	62.26	3.73	0.467	0.488	0.193	7.2	7.2
	MV22C10X3C70HP	70	24.19	65.63	4.85	0.332	0.468	0.215	10	10.1
	MV22C10X3C95HP	95	25.75	69.22	5.94	0.247	0.446	0.238	13.6	10.1
	MV22C10X3C120HP	120	27.11	72.36	6.93	0.196	0.424	0.258	17.2	10.1
	MV22C10X3C150HP	150	28.57	75.73	8.02	0.157	0.410	0.279	21.5	10.1
	MV22C10X3C185HP	185	30.10	79.25	9.31	0.128	0.397	0.302	26.5	10.1
	MV22C10X3C240HP	240	32.23	84.16	11.50	0.099	0.385	0.332	34.3	10.1
	MV22C10X3C300HP	300	34.29	88.92	13.86	0.080	0.372	0.362	42.9	10.1
	MV22C10X3C400HP	400	37.32	95.89	17.14	0.061	0.357	0.405	57.2	10.1
33	MV33C7X3C50HP	50	27.98	74.50	5.1	0.467	0.518	0.160	7.2	7.2
	MV33C10X3C70HP	70	29.44	77.94	6.2	0.332	0.495	0.177	10	10.1
	MV33C10X3C95HP	95	31.00	81.60	7.4	0.247	0.473	0.194	13.6	10.1
	MV33C10X3C120HP	120	32.36	84.80	8.4	0.195	0.455	0.210	17.2	10.1
	MV33C10X3C150HP	150	33.82	88.23	9.6	0.157	0.439	0.226	21.5	10.1
	MV33C10X3C185HP	185	35.35	91.82	11.0	0.127	0.425	0.242	26.5	10.1
	MV33C10X3C240HP	240	37.48	96.83	13.2	0.098	0.407	0.265	34.3	10.1
	MV33C10X3C300HP	300	39.54	101.68	15.6	0.080	0.398	0.287	42.9	10.1
	MV33C10X3C400HP	400	42.57	108.79	19.1	0.061	0.380	0.320	57.2	10.1

WW HIPOW - Medium Voltage Power Cable



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WW HIPOW - Medium Voltage Power Cable

Aluminum conductors, XLPE insulated and HDPE sheathed

Applications:

WW Medium Voltage HDPE sheathed aluminium conductors cables are mostly used as feeder electric cable for underground residential power distribution network where moisture penetration or heavy abrasion resistance is required. They are suitable for fix installation in underground and in dry/damp areas or in concrete group pipes.

Three-Core

Technical Data:

Voltage Ranges:	11kV ~ 22kV
Conductor operating temp:	-25°C ~ 90°C,
Emergency conductor temp:	105°C,
Short circuit temp:	Max. 250°C for 5 sec
Minimum ambient temp:	-25°C after installation and only when cable is in a fixed position
Minimum bending radius:	25xcable O.D during installation 15xcable O.D after installation
Maximum pulling tension:	50N/mm^2 x total cross-sectional area of phase conductor

Note:

--The maximum conductor temperatures specified are based on the properties of the insulation material but in practice may need to be derated to take account of joints and terminations and environmental conditions.
--The emergency conductor temperatures are applicable for an average over several years, of not more than four times in any 12 consecutive months.
--When installed in tunnels, they should be fixed on brackets, and cannot bear large pull or pressure.

Configuration:

Phase conductor:	plain aluminium, class 2 compact stranded to reduce the cable diameter and cost, complying with AS/NZS 1125.
Phase core:	triple extruded semi conductive conductor screen, cross-linked polyethylene (XLPE) insulation and semi conductive insulation screen to AS/NZS 3808.
Metallic screen:	copper wires screen provides high conductivity for faulty current as earth wires. (Plain annealed copper wire has a minimum diameter of 0.85 mm).Water-swellable tape collectively applied over the metallic screen.
Interstitial filler:	for three-core cable only, non-hydroscopic material.
Bedding:	Flame retardant 90°C polyvinyl chloride (PVC).
Sheath:	High density polyethylene (HDPE)

Core colour:	Red, White and Blue
Sheath:	Black - UV stabilise

Availability:

Halogen-free sheath and large size can be manufactured to customer order, further detail are available on request.

Standards:

International - IEC 60228, IEC 60502, IEC 60853, IEC 60949, IEC 60724, IEC 60986.
Australian/New Zealand - AS/NZS 1125, AS/NZS 3808, AS/NZS 1429.1, AD/NZS 4026

Physical and Electrical Data - Three Core

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11	MV11A5X3C35HP	35	17.02	49.10	1.90	1.106	0.393	0.217	3.3	3.3
	MV11A10X3C95HP	95	21.34	59.06	3.20	0.408	0.336	0.308	9.0	9.0
	MV11A10X3C185HP	185	25.69	69.08	4.70	0.213	0.303	0.397	17.5	10.1
	MV11A10X3C240HP	240	27.82	74.00	5.70	0.162	0.293	0.441	22.7	10.1
	MV11A10X3C300HP	300	29.88	78.75	6.50	0.131	0.282	0.482	28.4	10.1
22	MV22A5X3C35HP	35	21.43	59.26	2.60	1.106	0.435	0.173	3.3	3.3
	MV22A10X3C95HP	95	25.75	69.22	4.00	0.408	0.371	0.238	9.0	9.0
	MV22A10X3C185HP	185	30.10	79.25	5.13	0.213	0.332	0.302	17.5	10.1
	MV22A10X3C240HP	240	32.23	84.16	6.70	0.162	0.318	0.332	22.7	10.1