

Application :

Building wiring for installation on insulator or in raceway, dry and wet location.

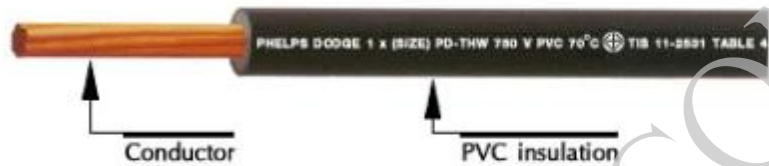
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 750 volts.

Equivalent :

TIS 11-2531 TABLE 4

**PHELPS DODGE CONDUCTOR PD-THW (MEA TYPE A)
750 V 70°C PVC INSULATED SINGLE CORE**



Construction :

- Conductor : Annealed copper, solid or stranded
Sizes 0.5 mm² up to 500 mm²
- Insulation : Heat resistance polyvinyl chloride (Any colour as requested)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Number & diameter of wire No. / mm	Thickness of insulation mm	Overall diameter mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
0.5 PD-THW	0.5	1/0.80	0.8	3.0	11	0.0175	11	100/C
1 PD-THW	1	1/1.13	0.8	3.3	16	0.0141	17	100/C
1 PD-THW	1	7/0.40	0.8	3.5	16	0.0135	17	100/C
1.5 PD-THW	1.5	1/1.38	0.8	3.6	21	0.0123	22	100/C
1.5 PD-THW	1.5	7/0.50	0.8	3.8	21	0.0116	22	100/C
2.5 PD-THW	2.5	1/1.78	0.8	4.0	29	0.0102	31	100/C
2.5 PD-THW	2.5	7/0.67	0.8	4.3	29	0.0093	31	100/C
4 PD-THW	4	1/2.25	0.9	4.8	39	0.0094	50	100/C
4 PD-THW	4	7/0.85	0.9	5.2	39	0.0085	50	100/C
6 PD-THW	6	7/1.04	0.9	5.8	51	0.0073	75	100/C
10 PD-THW	10	7/1.35	1.1	7.2	70	0.0069	120	100/C
16 PD-THW	16	7/1.70	1.1	8.4	96	0.0057	180	100/C

C = Packing in coil
R = Packing in reel

Application :

Building wiring for installation on insulator or in raceway, dry and wet location.

Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 750 volts.

Equivalent :

TIS 11-2531 TABLE 4

**PHELPS DODGE CONDUCTOR PD-THW (MEA TYPE A)
750 V 70°C PVC INSULATED SINGLE CORE**



Construction :

- Conductor : Annealed copper, solid or stranded
Sizes 0.5 mm² up to 500 mm²
- Insulation : Heat resistance polyvinyl chloride (Any colour as requested)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Number & diameter of wire No. / mm	Thickness of insulation mm	Overall diameter mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
25 PD-THW	25	7/2.14	1.3	10.5	127	0.0054	290	100/C
35 PD-THW	35	19/1.53	1.3	11.5	157	0.0047	380	100/C
50 PD-THW	50	19/1.78	1.5	13.5	191	0.0046	540	500/R
70 PD-THW	70	19/2.14	1.5	15.5	244	0.0039	720	500/R
95 PD-THW	95	19/2.52	1.7	18.0	297	0.0038	1,000	500/R
120 PD-THW	120	37/2.03	1.7	19.5	345	0.0034	1,240	500/R
150 PD-THW	150	37/2.25	1.9	21.5	397	0.0034	1,520	500/R
185 PD-THW	185	37/2.52	2.1	24.0	453	0.0034	1,900	500/R
240 PD-THW	240	61/2.25	2.3	27.0	535	0.0033	2,480	500/R
300 PD-THW	300	61/2.52	2.5	30.0	617	0.0032	3,100	500/R
400 PD-THW	400	61/2.85	2.7	33.5	741	0.0030	3,950	500/R
500 PD-THW	500	61/3.20	3.1	38.0	854	0.0031	5,150	500/R

C = Packing in coil
R = Packing in reel

Application :

For making cross connection between terminals inside appliances, instruments or apparatus.

Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 10

**PHELPS DODGE CONDUCTOR TYPE PD-VSF
300 V 70°C PVC INSULATED FLAT,
FLEXIBLE SINGLE CORE**



Construction :

- Conductor : Annealed copper, bunch stranded sizes 0.5 mm² up to 2.5 mm²
- Insulation : Polyvinyl chloride (Any colour as requested)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Min. Number & Max. diameter of wire No. / mm	Thickness of insulation mm	Overall diameter mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
1 x 0.5 PD-VSF	0.5	28/0.16	0.8	2.9	11	0.0160	12	100/C
1 x 0.5 PD-VSF	0.5	16/0.21	0.8	2.9	11	0.0160	12	100/C
1 x 0.75 PD-VSF	0.75	42/0.16	0.8	3.1	14	0.0140	15	100/C
1 x 0.75 PD-VSF	0.75	24/0.21	0.8	3.1	14	0.0140	15	100/C
1 x 1 PD-VSF	1	32/0.21	0.8	3.3	16	0.0127	18	100/C
1 x 1.5 PD-VSF	1.5	30/0.26	0.8	3.6	21	0.0111	23	100/C
1 x 2.5 PD-VSF	2.5	50/0.26	0.8	4.0	29	0.0092	33	100/C

C = Packing in coil
R = Packing in reel

Application :

For surface or above ceiling wiring or direct embedded in plaster

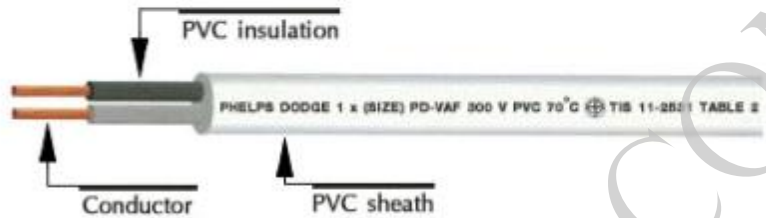
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 2

**PHELPS DODGE CONDUCTOR TYPE PD-VAF (MEA TYPE B)
300 V 70 °C PVC INSULATED AND SHEATHED FLAT TYPE,
TWO CORE**



Construction :

- Conductor : Annealed copper, solid or stranded
Sizes 0.5 mm² up to 35 mm²
- Insulation : Heat resistance polyvinyl chloride (Gray and Black colour)
- Sheath : Heat resistance polyvinyl chloride (White colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Number & diameter of wire No. / mm	Thickness of insulation mm	Thickness of sheath mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
2 x 0.5 PD-VAF	0.5	1/0.80	0.6	0.9	4.4x6.8	8	0.0146	37	100/C
2 x 1 PD-VAF	1	1/1.13	0.6	0.9	4.8x7.4	13	0.0115	50	100/C
2 x 1 PD-VAF	1	7/0.40	0.6	0.9	5.0x7.8	13	0.0110	50	100/C
2 x 1.5 PD-VAF	1.5	1/1.38	0.6	1.2	5.8x8.6	17	0.0100	70	100/C
2 x 1.5 PD-VAF	1.5	7/0.50	0.6	1.2	6.0x9.2	17	0.0094	70	100/C
2 x 2.5 PD-VAF	2.5	1/1.78	0.7	1.2	6.4x10.0	23	0.0092	100	100/C
2 x 2.5 PD-VAF	2.5	7/0.67	0.7	1.2	6.8x10.5	23	0.0084	100	100/C
2 x 4 PD-VAF	4	1/2.25	0.8	1.2	7.2x11.5	30	0.0086	140	100/C
2 x 4 PD-VAF	4	7/0.85	0.8	1.2	7.6x12.0	30	0.0078	140	100/C
2 x 6 PD-VAF	6	7/1.04	0.8	1.2	8.2x13.5	40	0.0066	200	100/C
2 x 10 PD-VAF	10	7/1.35	0.9	1.2	9.4x16.0	55	0.0059	300	100/C
2 x 16 PD-VAF	16	7/1.70	1.0	1.2	11.0x18.5	74	0.0053	440	100/C
2 x 25 PD-VAF	25	7/2.14	1.2	1.4	13.0x22.5	97	0.0051	690	500/R
2 x 35 PD-VAF	35	19/1.53	1.2	1.4	14.5x25.0	120	0.0043	900	500/R

C = Packing in coil

R = Packing in reel

Application :

Building wiring for installation on insulator or in raceway, dry and wet location.

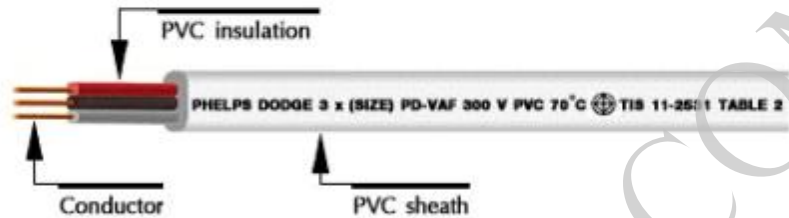
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 2

**PHELPS DODGE CONDUCTOR TYPE PD-VAF
300 V 70 °C PVC INSULATED AND SHEATHED FLAT TYPE,
THREE CORE**



Construction :

- Conductor : Annealed copper, solid or stranded
Sizes 0.5 mm² up to 16 mm²
- Insulation : Heat resistance polyvinyl chloride (Gray and Black colour)
- Sheath : Heat resistance polyvinyl chloride (White colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Number & diameter of wire No / mm	Thickness of insulation mm	Thickness of sheath mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
3 x 0.5 PD-VAF	0.5	1/0.80	0.6	0.9	4.4x9.0	6.5	0.0146	41	100/C
3 x 1 PD-VAF	1	1/1.13	0.6	0.9	4.8x10.0	11.5	0.0115	55	100/C
3 x 1 PD-VAF	1	7/0.40	0.6	0.9	5.0x10.5	11.5	0.0110	55	100/C
3 x 1.5 PD-VAF	1.5	1/1.38	0.6	1.2	5.8x11.5	15	0.0100	77	100/C
3 x 1.5 PD-VAF	1.5	7/0.50	0.6	1.2	6.0x12.5	15	0.0094	77	100/C
3 x 2.5 PD-VAF	2.5	1/1.78	0.7	1.2	6.4x13.5	21	0.0092	110	100/C
3 x 2.5 PD-VAF	2.5	7/0.67	0.7	1.2	6.8x14.5	21	0.0084	110	100/C
3 x 4 PD-VAF	4	1/2.25	0.8	1.2	7.2x16.0	28	0.0086	154	100/C
3 x 4 PD-VAF	4	7/0.85	0.8	1.2	7.6x16.5	28	0.0078	154	100/C
3 x 6 PD-VAF	6	7/1.04	0.8	1.2	8.2x18.5	36	0.0066	220	100/C
3 x 10 PD-VAF	10	7/1.35	0.9	1.2	9.4x22.0	50	0.0059	363	500/R
3 x 16 PD-VAF	16	7/1.70	1.0	1.4	11.5x26.5	66	0.0053	484	500/R

C = Packing in coil
R = Packing in reel

Application :

Surfaced wiring. Concealed wiring in wooden partition, or above ceiling. Embed in plaster.

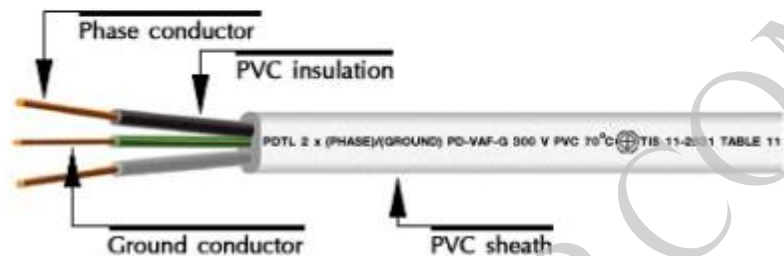
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 11

PHELPS DODGE CONDUCTOR TYPE PD-VAF-G (MEA TYPE B-GRD) 300 V 70°C PVC INSULATED AND SHEATHED FLAT TYPE, TWO CORE WITH GROUND



Construction :

- Conductor : Annealed copper, solid or stranded sizes 1 mm² up to 35 mm² (Phase) sizes 1 mm² up to 10 mm² (Ground)
- Insulation : Polyvinyl chloride (Gray and Black colour) Phase, (Green with Yellow Stripe colour) Ground
- Sheath : Polyvinyl chloride (White colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Phase core Number & diameter of wire No. / mm	Thickness of insulation mm	Nominal sectional area mm ²	Ground core Number & diameter of wire No. / mm	Thickness of insulation mm	Thickness of sheath mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
2x1/1 PD-VAF-G	1	1/1.13	0.6	1	1/1.13	0.6	0.9	4.8x10.0	13	0.0115	70	100/C
2x1/1 PD-VAF-G	1	7/0.40	0.6	1	7/0.40	0.6	0.9	5.0x10.5	13	0.0110	70	100/C
2x1.5/1 PD-VAF-G	1.5	1/1.38	0.6	1	1/1.13	0.6	1.2	5.8x11.5	17	0.0100	95	100/C
2x1.5/1 PD-VAF-G	1.5	7/0.50	0.6	1	7/0.40	0.6	1.2	6.0x12.0	17	0.0094	95	100/C
2x2.5/1.5 PD-VAF-G	2.5	1/1.78	0.7	1.5	1/1.38	0.6	1.2	6.4x13.0	23	0.0092	130	100/C
2x2.5/1.5 PD-VAF-G	2.5	7/0.67	0.7	1.5	7/0.50	0.6	1.2	6.8x14.0	23	0.0084	130	100/C
2x4/2.5 PD-VAF-G	4	1/2.25	0.8	2.5	1/1.78	0.6	1.2	7.2x15.0	30	0.0086	190	100/C
2x4/2.5 PD-VAF-G	4	7/0.85	0.8	2.5	7/0.67	0.6	1.2	7.6x16.0	30	0.0078	190	100/C
2x6/4 PD-VAF-G	6	7/1.04	0.8	4	7/0.85	0.6	1.2	8.2x17.5	40	0.0066	270	100/C
2x10/4 PD-VAF-G	10	7/1.35	0.9	4	7/0.85	0.6	1.2	9.4x20.0	55	0.0059	380	100/C
2x16/6 PD-VAF-G	16	7/1.70	1.0	6	7/1.04	0.6	1.2	11.0x23.0	74	0.0053	550	500/R
2x25/6 PD-VAF-G	25	7/2.14	1.2	6	7/1.04	0.6	1.4	13.0x27.0	97	0.0051	810	500/R
2x35/10 PD-VAF-G	35	19/1.53	1.2	10	7/1.35	0.6	1.4	14.5x31.0	120	0.0043	1,070	500/R

C = Packing in coil
R = Packing in reel

Application :

Surfaced wiring. Concealed wiring in wooden partition, or above ceiling. Embed in plaster.

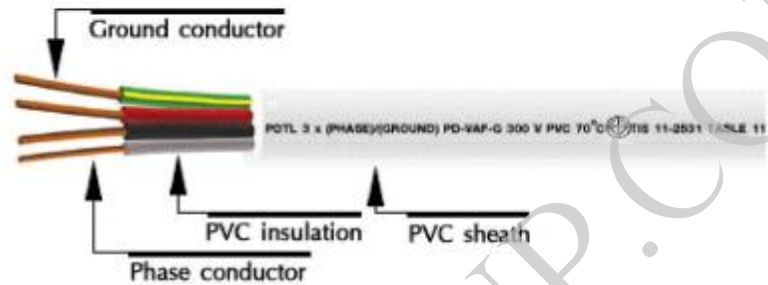
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 11

PHELPS DODGE CONDUCTOR TYPE PD-VAF-G 300 V 70°C PVC INSULATED AND SHEATHED FLAT TYPE, THREE CORE WITH GROUND



Construction :

- Conductor : Annealed copper, solid or stranded sizes 1 mm² up to 16 mm² (Phase) sizes 1 mm² up to 6 mm² (Ground)
- Insulation : Heat resistance polyvinyl chloride (Gray, Black and Red colour) Phase, (Green with Yellow Stripe colour) Ground
- Sheath : Heat resistance polyvinyl chloride (White colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Phase core Number & diameter of wire No. / mm	Thickness of insulation mm	Nominal sectional area mm ²	Ground core Number & diameter of wire No. / mm	Thickness of insulation mm	Thickness of sheath mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ · km	Cable weight (approx) kg / km	Standard Packing m
3x1/1 PD-VAF-G	1	1/1.13	0.6	1	1/1.13	0.6	0.9	4.8x12.5	11.5	0.0115	95	100/C
3x1/1 PD-VAF-G	1	7/0.40	0.6	1	7/0.40	0.6	0.9	5.0x13.5	11.5	0.0110	95	100/C
3x1.5/1 PD-VAF-G	1.5	1/1.38	0.6	1	1/1.13	0.6	1.2	5.8x14.0	15	0.0100	130	100/C
3x1.5/1 PD-VAF-G	1.5	7/0.50	0.6	1	7/0.40	0.6	1.2	6.0x15.0	15	0.0094	130	100/C
3x2.5/1.5 PD-VAF-G	2.5	1/1.78	0.7	1.5	1/1.38	0.6	1.2	6.4x16.5	21	0.0092	180	100/C
3x2.5/1.5 PD-VAF-G	2.5	7/0.67	0.7	1.5	7/0.50	0.6	1.2	6.8x17.5	21	0.0084	180	100/C
3x4/2.5 PD-VAF-G	4	1/2.25	0.8	2.5	1/1.78	0.6	1.2	7.2x19.0	28	0.0086	260	100/C
3x4/2.5 PD-VAF-G	4	7/0.85	0.8	2.5	7/0.67	0.6	1.2	7.6x20.5	28	0.0078	260	100/C
3x6/4 PD-VAF-G	6	7/1.04	0.8	4	7/0.85	0.6	1.2	8.2x22.5	36	0.0066	370	100/C
3x10/4 PD-VAF-G	10	7/1.35	0.9	4	7/0.85	0.6	1.2	9.4x26.0	50	0.0059	520	100/C
3x16/6 PD-VAF-G	16	7/1.70	1.0	6	7/1.04	0.6	1.4	11.0x31.5	66	0.0053	860	100/C

C = Packing in coil

Application :

For used in dryroom for small indoor electrical appliances such as desk-lamp, radios, fans etc.

Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 10

**PHELPS DODGE CONDUCTOR TYPE PD-VFF
300 V 70°C PVC INSULATED FLAT, FLEXIBLE TWO CORE**



Construction :

- Conductor : Annealed copper, bunch stranded sizes 0.5 mm² up to 2.5 mm²
- Insulation : Heat resistance polyvinyl chloride (Any colour as requested)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Min. Number & Max. diameter of wire No. / mm	Thickness of insulation mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
2 x 0.5 PD-VFF	0.5	28/0.16	0.8	3.2x6.2	11	0.0160	22	100/C
2 x 0.5 PD-VFF	0.5	16/0.21	0.8	3.2x6.2	11	0.0160	22	100/C
2 x 0.75 PD-VFF	0.75	42/0.16	0.8	3.4x6.6	14	0.0140	28	100/C
2 x 0.75 PD-VFF	0.75	24/0.21	0.8	3.4x6.6	14	0.0140	28	100/C
2 x 1 PD-VFF	1	32/0.21	0.8	3.6x7.0	16	0.0127	33	100/C
2 x 1.5 PD-VFF	1.5	30/0.26	0.8	3.9x7.6	21	0.0111	44	100/C
2 x 2.5 PD-VFF	2.5	50/0.26	0.8	4.8x9.4	29	0.0092	65	100/C

C = Packing in coil
R = Packing in reel

Application :

In dry room for connection of portable appliance where mechanical stresses are low (e.g. radio sets etc.) not for heating appliances. The ground conductor is provided for grounding of those appliances with electrical supply system.

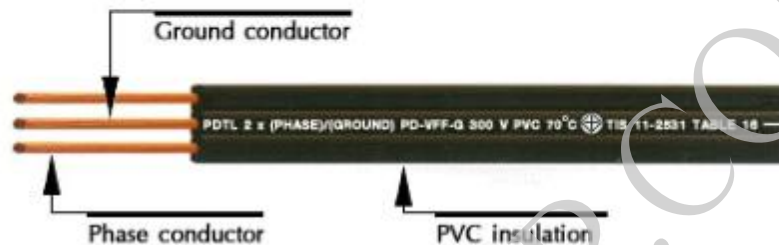
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 300 volts.

Equivalent :

TIS 11-2531 TABLE 16

**PHELPS DODGE CONDUCTOR TYPE PD-VFF-G
300 V 70°C PVC INSULATED FLAT TYPE, FLEXIBLE TWO
CORE WITH GROUND**



Construction :

- Conductor : Annealed copper, bunch stranded sizes 1 mm² up to 2.5 mm² (Phase) sizes 1 mm² up to 1.5 mm² (Ground)
- Insulation : Heat resistance polyvinyl chloride (Any colour as requested)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Phase core Min. Number & Max. diameter of wire No. / mm	Thickness of insulation mm	Nominal sectional area mm ²	Ground core Min. Number & Max. diameter of wire No. / mm	Thickness of insulation mm	Overall dimension mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MD + km	Cable weight (approx) kg / km	Standard Packing m
2x1/1 PD-VFF-G	1	32/0.21	0.8	1	32/0.21	0.6	3x6x9.8	16	0.0127	50	100/C
2x1.5/1 PD-VFF-G	1.5	30/0.26	0.8	1	32/0.21	0.6	3.9x10.5	21	0.0111	60	100/C
2x2.5/1.5 PD-VFF-G	2.5	50/0.26	0.8	1.5	30/0.26	0.6	4.8x12.5	29	0.0092	90	100/C

C = Packing in coil
R = Packing in reel

Application :

For mobile-electrical equipment used in mines, factories, farm or house hold appliances. This cable is particularly suitable for use in chemical factories or in places where cables come in contact with oils.

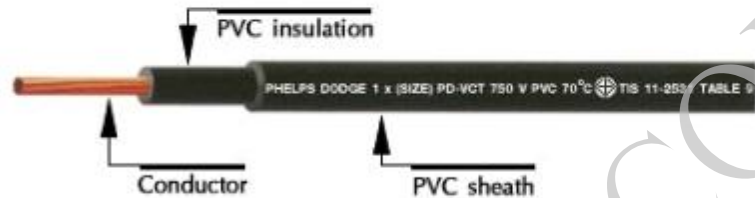
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 750 volts.

Equivalent :

TIS 11-2531 TABLE 9

**PHELPS DODGE CONDUCTOR TYPE PD-VCT
750 V 70°C PVC INSULATED AND SHEATHED,
FLEXIBLE SINGLE CORE**



Construction :

- Conductor : Annealed copper, bunch stranded sizes 0.5 mm² up to 95 mm²
- Insulation : Heat resistance polyvinyl chloride (Black colour)
- Sheath : Heat resistance polyvinyl chloride (Black colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Min. Number & Max. diameter of wire No. / mm	Thickness of insulation mm	Thickness of sheath mm	Overall diameter mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
0.5 PD-VCT	0.5	16/0.21	0.8	1.0	5.4	11	0.0160	27	500/R
0.75 PD-VCT	0.75	24/0.21	0.8	1.0	5.6	14	0.0140	31	500/R
1 PD-VCT	1	32/0.21	0.8	1.2	6.2	16	0.0127	39	500/R
1.5 PD-VCT	1.5	30/0.26	0.8	1.2	6.6	21	0.0111	46	500/R
2.5 PD-VCT	2.5	50/0.26	0.8	1.2	7.4	29	0.0092	59	500/R
4 PD-VCT	4	56/0.31	0.9	1.4	8.6	39	0.0084	87	500/R
6 PD-VCT	6	84/0.31	0.9	1.4	9.4	51	0.0071	114	500/R
10 PD-VCT	10	80/0.41	1.1	1.8	12.0	70	0.0068	190	500/R
16 PD-VCT	16	126/0.41	1.1	1.8	13.5	96	0.0050	256	500/R
25 PD-VCT	25	196/0.41	1.3	2.2	16.0	127	0.0048	391	500/R
35 PD-VCT	35	276/0.41	1.3	2.2	17.5	157	0.0041	504	500/R
50 PD-VCT	50	396/0.41	1.5	2.6	21.0	191	0.0040	770	500/R
70 PD-VCT	70	360/0.51	1.5	2.6	23.0	244	0.0034	974	500/R
95 PD-VCT	95	475/0.51	1.7	3.0	26.5	297	0.0034	1,242	500/R

C = Packing in coil
R = Packing in reel

Application :

For mobile-electrical equipment used in mines, factories, farm or house hold appliances. This cable is particularly suitable for use in chemical factories or in places where cables come in contact with oils.

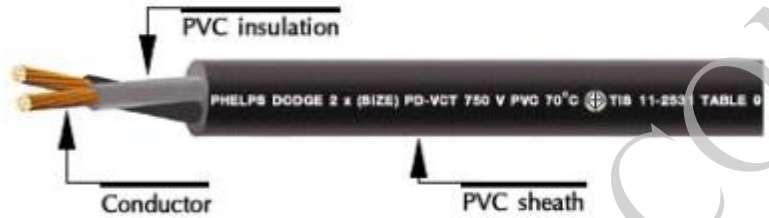
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 750 volts.

Equivalent :

TIS 11-2531 TABLE 9

**PHELPS DODGE CONDUCTOR TYPE PD-VCT
750 V 70°C PVC INSULATED AND SHEATHED,
FLEXIBLE TWO CORE**



Construction :

- Conductor : Annealed copper, bunch stranded sizes 0.5 mm² up to 35 mm²
- Insulation : Heat resistance polyvinyl chloride (Gray and Black colour)
- Sheath : Heat resistance polyvinyl chloride (Black colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Min. Number & Max. diameter of wire No. /mm	Thickness of insulation mm	Thickness of sheath mm	Overall diameter mm	Allowable ampacities Free Air 40°C A	Minimum insulation resistance at 70°C MΩ - km	Cable weight (approx) kg / km	Standard Packing m
2 x 0.5 PD-VCT	0.5	16/0.21	0.8	1.2	8.8	8	0.0160	56	500/R
2 x 0.75 PD-VCT	0.75	24/0.21	0.8	1.2	9.2	11	0.0140	65	500/R
2 x 1 PD-VCT	1	32/0.21	0.8	1.2	9.6	13	0.0127	72	500/R
2 x 1.5 PD-VCT	1.5	30/0.26	0.8	1.4	11.0	17	0.0111	94	500/R
2 x 2.5 PD-VCT	2.5	50/0.26	0.8	1.4	12.5	23	0.0092	133	500/R
2 x 4 PD-VCT	4	56/0.31	0.9	1.6	14.5	30	0.0084	199	500/R
2 x 6 PD-VCT	6	84/0.31	0.9	1.6	16.0	40	0.0071	256	500/R
2 x 10 PD-VCT	10	80/0.41	1.1	1.8	20.0	55	0.0068	401	500/R
2 x 16 PD-VCT	16	126/0.41	1.1	2.2	23.0	74	0.0050	581	500/R
2 x 25 PD-VCT	25	196/0.41	1.3	2.4	27.5	97	0.0048	862	500/R
2 x 35 PD-VCT	35	276/0.41	1.3	2.6	31.0	120	0.0041	1,138	500/R

C = Packing in coil
R = Packing in reel

Application :

For mobile-electrical equipment used in mines, factories, farm or household appliances. Also for heavy-duty service such as heavy tools, garage portable lights, and battery chargers.

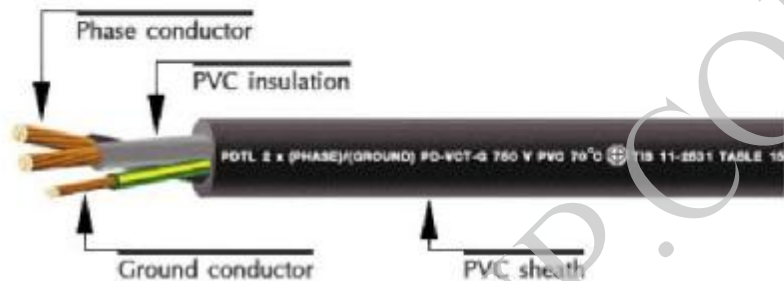
Classification :

Maximum conductor temperature 70°C Circuit voltage does not exceed 750 volts.

Equivalent :

TIS 11-2531 TABLE 15

**PHELPS DODGE CONDUCTOR TYPE PD-VCT-G
750 V 70°C PVC INSULATED AND SHEATHED,
FLEXIBLE TWO CORE WITH GROUND**



Construction :

- Conductor : Annealed copper, bunch or stranded sizes 1 mm² up to 35 mm² (Phase) sizes 1 mm² up to 10 mm² (Ground)
- Insulation : Heat resistance polyvinyl chloride (Gray and Black colour) Phase, (Green with Yellow Stripe colour) Ground
- Sheath : Heat resistance polyvinyl chloride (Black colour)

PHELPS DODGE TYPE LETTER	Nominal sectional area mm ²	Phase core Min. Number & Max. diameter of wires No. / mm	Thickness of insulation mm	Nominal sectional area mm ²	Ground core Min. Number & Max. diameter of wires No. / mm	Thickness of insulation mm	Thickness of sheath mm	Overall diameter mm	Allowable ampacity Free Air 40°C A	Minimum insulation resistance at 70°C MΩ-km	Cable weight (approx) kg/km	Standard Packing m
2x1/1 PD-VCT-G	1	32/0.21	0.8	1	32/0.21	0.6	1.2	10.5	13	0.0127	110	500/R
2x1.5/1 PD-VCT-G	1.5	30/0.26	0.8	1	32/0.21	0.6	1.4	11.5	17	0.0111	130	500/R
2x2.5/1.5 PD-VCT-G	2.5	50/0.26	0.8	1.5	30/0.26	0.6	1.4	13.0	23	0.0092	170	500/R
2x4/2.5 PD-VCT-G	4	56/0.31	0.9	2.5	50/0.26	0.6	1.6	15.5	30	0.0084	250	500/R
2x6/4 PD-VCT-G	6	84/0.31	0.9	4	56/0.31	0.6	1.6	17.0	40	0.0071	320	500/R
2x10/4 PD-VCT-G	10	80/0.41	1.1	4	56/0.31	0.6	1.8	20.0	55	0.0068	520	500/R
2x16/6 PD-VCT-G	16	126/0.41	1.1	6	84/0.31	0.6	2.2	23.0	74	0.0050	730	500/R
2x25/6 PD-VCT-G	25	196/0.41	1.3	6	84/0.31	0.6	2.4	27.5	97	0.0048	1,030	500/R
2x35/10 PD-VCT-G	35	276/0.41	1.3	10	80/0.41	0.6	2.6	31.0	120	0.0041	1,410	500/R

C = Packing in coil
R = Packing in reel

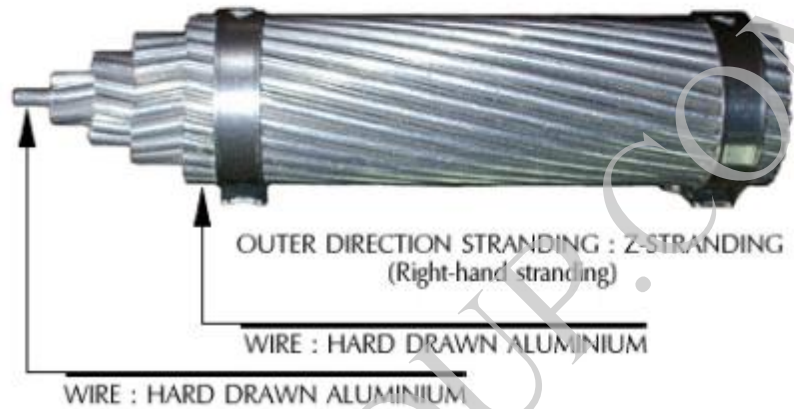
Application :

Aerial power transmission line.

Reference standard :

TIS 85-2522

**PHELPS DODGE CONDUCTOR TYPE AAC
ALL ALUMINIUM STRANDED CONDUCTOR**



Construction :

Conductor : Concentric stranded hard drawn aluminium wire.
size 16 mm² up to 1000 mm²

Nominal sectional area mm ²	Actual Area mm ²	Conductor Number & diameter of wires NO/mm	Overall diameter mm	Maximum DC. Resistance of Cdr. at 20 °C Ω / km	Ultimate strength N (kg.)	Cable weight (approx) kg/km	Allowable ampacities in free air A	Standard Packing m
16	15.89	7/1.70	5.10	1.8018	2,844(290)	44	110	1,000/R
25	25.18	7/2.14	6.42	1.1371	4,315(440)	69	145	1,000/R
35	34.91	7/2.52	7.56	0.8200	5,737(585)	96	180	1,000/R
50	50.14	7/3.02	9.06	0.5709	7,894(805)	137	225	1,000/R
50	49.97	19/1.83	9.15	0.5757	8,727(890)	137	225	1,000/R
70	68.98	19/2.15	10.75	0.4170	11,816(1,205)	190	270	1,000/R
95	94.76	19/2.52	12.60	0.3036	15,543(1,585)	261	340	1,000/R
120	121.21	19/2.85	14.25	0.2373	19,416(1,980)	333	390	1,000/R
150	147.12	37/2.25	15.75	0.1960	25,201(2,570)	406	455	1,000/R
185	184.54	37/2.52	17.64	0.1562	30,252(3,085)	509	550	1,000/R
240	242.54	61/2.25	20.25	0.1191	39,371(4,015)	670	625	1,000/R
300	304.24	61/2.52	22.68	0.0949	47,265(4,820)	840	710	1,000/R
400	389.14	61/2.85	25.65	0.0758	59,081(6,025)	1,075	855	1,000/R
500	506.04	61/3.25	29.25	0.0571	78,105(7,695)	1,398	990	1,000/R
625	626.20	91/2.95	32.56	0.0462	95,060(6,694)	1,735	1,140	500/R
800	802.08	91/3.35	36.85	0.0360	118,211(12,055)	2,222	1,340	500/R
1000	999.71	91/3.74	41.14	0.0289	145,570(14,845)	2,769	1,540	500/R

R = Packing in reel

Application :

For use above ground overhead distribution.

Classification :

Maximum conductor temperature 70 °C Circuit voltage does not exceed 750 volts.

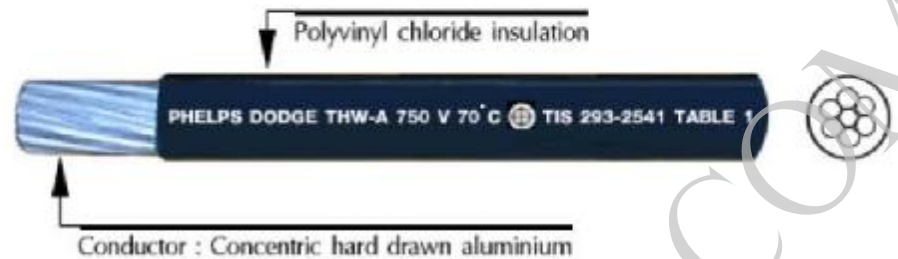
Testing voltage :

2,500 V

Reference standard :

TIS 293-2541 Table 1

**PHELPS DODGE CONDUCTOR TYPE THW-A
WEATHER-PROOF OR WEATHER-RESISTANCE CABLE
(CONCENTRIC)**



Construction :

- Conductor : Solid or stranded hard drawn aluminium wire, size 10 mm² up to 500 mm²
- Insulation : Polyvinyl chloride (70 °C)

Nominal sectional area mm ²	Actual sectional area mm ²	Number & diameter of wire No./mm	Thickness of insulation mm	Overall diameter (max) mm/km	Maximum DC. Resistance of Cdr. at 20 °C Ω / km	Breaking strength of conductor N	Cable weight (approx.) kg / km	Allowable ampacities in free air 40 °C (PVC 70 °C) A	Standard packing m
10	9.54	1/3.49	1.1	7	3.08	1562	49	54	1,000/R
10	9.64	7/1.32	1.1	8	3.08	1769	55	54	1,000/R
16	15.39	1/4.43	1.1	8	1.91	2445	70	73	1,000/R
16	15.55	7/1.68	1.1	9	1.91	2781	79	73	1,000/R
25	24.75	7/2.12	1.3	11	1.20	4241	120	97	1,000/R
35	34.21	7/2.49	1.3	12	0.868	5703	157	121	1,000/R
50	46.32	7/2.90	1.5	14	0.641	7423	221	147	1,000/R
50	46.32	19/1.76	1.5	14	0.641	8114	214	147	1,000/R
70	67.03	19/2.12	1.5	15	0.443	11487	277	189	1,000/R
95	92.79	19/2.49	1.7	18	0.320	15470	380	231	1,000/R
120	117.37	19/2.80	1.7	19	0.253	18810	468	268	1,000/R
120	117.37	37/2.01	1.7	19	0.253	20114	458	268	1,000/R
150	144.15	37/2.23	1.9	21	0.206	24704	565	310	1,000/R
185	181.06	37/2.50	2.1	23	0.164	30187	705	354	1,000/R
240	237.55	61/2.23	2.3	26	0.125	38568	909	419	1,000/R
300	296.94	61/2.49	2.5	29	0.100	46901	1,131	485	1,000/R
400	381.67	61/2.82	2.7	33	0.0778	57948	1,429	584	1,000/R
500	490.81	61/3.20	3.1	37	0.0605		1,861	674	500/R

R = Packing in reel

Application :

Aerial power transmission line and distribution.

Reference standard :

TIS 86-2522

**PHELPS DODGE CONDUCTOR TYPE ACSR
ALUMINIUM CONDUCTOR STEEL REINFORCED**



Construction :

- Conductor : Hard drawn aluminium wires size 16 mm² up to 680 mm²
- Steel core : Galvanized steel (Zinc coated), solid or concentric stranded, size 2.5 mm² up to 85 mm²

Nominal cross sectional area Al/stl. mm ²	ALUMINIUM		STEEL WIRE		Overall diameter mm	Maximum DC. Resistance of Cdr. at 20 °C Ω / km	Breaking strength kgf.	Allowable ampacities in free air A	Cable weight (approx.) kg / km	Standard packing m
	Number & diameter of wires No/mm	Cross sectional area mm ²	Number & diameter of wires No/mm	Cross sectional area mm ²						
185/30	26/3.00	183.8	7/2.33	29.80	19.0	0.1571	6,618	535	741	1,000/R
210/35	26/3.20	209.1	7/2.49	34.10	20.3	0.1381	7,7489	590	844	1,000/R
210/50	30/3.00	212.1	7/3.00	49.50	21.0	0.1363	9,390	610	979	1,000/R
230/30	24/3.50	230.9	7/2.33	29.80	21.0	0.1250	7,313	630	871	1,000/R
240/40	26/3.45	243.0	7/2.68	39.50	21.9	0.1188	8,640	645	981	1,000/R
265/35	24/3.74	263.7	7/2.49	34.10	22.4	0.1095	8,307	680	995	1,000/R
300/50	26/3.86	304.3	7/3.00	49.50	24.5	0.0949	10,702	740	1,228	1,000/R
305/40	54/2.68	304.6	7/2.68	39.50	24.1	0.0949	9,942	740	1,152	1,000/R
380/50	54/3.00	382.0	7/3.00	49.50	27.0	0.0758	12,312	840	1,443	1,000/R
435/55	54/3.20	434.3	7/3.20	56.30	28.8	0.0666	13,673	900	1,642	1,000/R
490/65	54/3.40	490.3	7/3.40	63.60	30.6	0.0590	15,343	960	1,853	1,000/R
550/70	54/3.60	550.0	7/3.60	71.30	32.4	0.0526	17,096	1,020	2,078	1,000/R
680/85	54/4.00	678.8	19/2.40	89.00	36.0	0.0426	21,040	1,150	2,552	1,000/R

R = Packing in reel

Revision : 0 Dated July 31, 2000

Aluminium Cables

Phelps Dodge Thailand Limited

Maneeya Center Building, 16th Floor, 518/5 Ploenchit Rd., Lumpini, Pathumwan, Bangkok 10330 Telephone : (66 2) 652 0588
 Fax : (66 2) 255 6821, 254 8264 Export Fax : (66 2) 652 0572 Website : www.pdwc.com

Application :

Aerial power transmission line and distribution.

Reference standard :

TIS 86-2522

**PHELPS DODGE CONDUCTOR TYPE ACSR
ALUMINIUM CONDUCTOR STEEL REINFORCED**



Construction :

- Conductor : Hard drawn aluminium wires size 16 mm² up to 680 mm²
- Steel core : Galvanized steel (Zinc coated), solid or concentric stranded. size 2.5 mm² up to 85 mm²

Nominal cross sectional area Al/stl. mm ²	ALUMINIUM		STEEL WIRE		Overall diameter mm	Maximum DC. Resistance of Cdr. at 20 °C Ω / km	Breaking strength kgf.	Allowable ampacities in free air A	Cable weight (approx.) kg / km	Standard packing m
	Number & diameter of wires No/mm	Cross sectional area mm ²	Number & diameter of wires No/mm	Cross sectional area mm ²						
16/2.5	6/1.80	15.3	1/1.80	2.55	5.4	1.8800	592	90	62	1,000/R
25/4	6/2.25	23.8	1/2.25	4.00	6.8	1.2030	916	125	97	1,000/R
35/6	6/2.70	34.3	1/2.70	5.70	8.1	0.8353	1,265	145	139	1,000/R
50/8	6/3.20	48.3	1/3.20	8.00	9.6	0.5947	1,716	170	195	1,000/R
50/30	12/2.33	51.2	7/2.33	29.80	11.7	0.5611	4,380	170	375	1,000/R
70/12	26/1.85	69.9	7/1.44	11.40	11.7	0.4131	2,676	290	282	1,000/R
95/15	26/2.15	94.4	7/1.67	15.30	13.6	0.3058	3,565	350	381	1,000/R
95/55	12/3.20	96.5	7/3.20	56.30	16.0	0.2993	7,965	350	708	1,000/R
120/20	26/2.44	121.6	7/1.90	19.80	15.5	0.2375	4,555	410	491	1,000/R
120/70	12/3.60	122.0	7/3.60	71.30	18.0	0.2365	10,034	410	896	1,000/R
125/30	30/2.33	127.9	7/2.33	29.80	16.1	0.2259	5,759	425	587	1,000/R
150/25	26/2.70	148.9	7/2.10	24.20	17.1	0.1939	5,513	470	601	1,000/R
170/40	30/2.70	171.8	7/2.70	40.10	18.9	0.1683	7,675	520	789	1,000/R

R = Packing in reel

Application :

For re-draw to wire for electrical conductors.

Feature :

Continuous cast aluminum 1350 redraw rod (EC grade).

Reference standard :

ASTM B 233

**PHELPS DODGE RE-DRAW COPPER ROD
EC GRADE**



General Description :

- | | | |
|--------------------------|---|---|
| Aluminum content | : | Minimum 99.70% aluminum with Iron / Silicon ratio 2/1 minimum. |
| Nominal outside diameter | : | 9.50 mm plus/minus 0.76 mm |
| Conductivity | : | Minimum 61.4% IACS |
| Tensile strength | : | 10.5 - 14.0 kg / mm ² |
| Electrical resistivity | : | Maximum 0.028080Ω. mm ² /m at 20 °C |
| General | : | The rod shall be clean, sound, smooth, and free of pipes, laps, cracks, kinks, twists, seams, damaged ends, excessive oil, and other injurious defects within the limits of good commercial practice. |
| Standard packing | : | Net (approx.) : 2,000 kg/coil
Gross (approx.) : 2,050 kg/coil
Dimension IDxODxH (approx.) : 0.9x2.0x1.5 m |

Application :

For high speed re-draw to wire for electrical conductors.

Feature :

Continuous Upcast soft or hard temper, Oxygen free, clean bright copper rod for all electrical conductor applications especially ENAMELED WIRE, ELECTRONIC WIRE AND SOUDRONIC WIRE

Reference standard :

ASTM B49 or ASTM B1

PHELPS DODGE RE-DRAWN COPPER ROD



General Description :

Typo OF	:	Minimum 99.95% copper, silver counted as copper, which Oxygen content to be maximum 10 ppm. (Grade 1, minimum 99.99% copper available on request)
Nominal outside diameter	:	8.00 mm plus or minus 0.38 mm.
Conductivity	:	Minimum 100% IACS in soft state and 97.16% in hard state
Elongation	:	Minimum 30% in soft state and 2.5% in hard state
Electrical resistivity	:	Not exceed 0.017241Ω. mm ² /m at 20 °C in soft state and 0.017745Ω. mm ² /m at 20 °C in hard state
Surface	:	The surface shall be clean, bright, smooth, free of cracks, seams, large grain and any other imperfection not consistent with the best commercial practice.

Application :

For high speed re-draw to wire for electrical conductors.

Feature :

This specification covers the requirements for 8 mm diameter soft round bare copper rod for electrical purposes.

Reference standard :

ASTM B49 or ASTM B1

PHELPS DODGE DIRECT-TO-CAST 8MM OXYGEN FREE COPPER ROD



General Description :

- Type OF : The rod is produced by OUTOKUMPU oxygen free-continuous upcasting process. The copper content shall be exceed 99.99%
- Diameter and Permissible Variations : The nominal diameter of rod shall be 8.00 mm, and shall not vary more than ± 0.38 mm.
- Electrical Conductivity : The electrical conductivity shall be exceed 100% IACS.
- Elongation : The elongation of rod shall be exceed 30%
- Finish : The rod shall be clean, smooth and free of imperfections not consistent with the best commercial practice.
- Standard packing : Inside diameter of coil: 700 mm, approximately
 Outside diameter of coil: 1,400 mm, approximately
 Height : 750 mm, approximately
 Weight : 3,500 kg, approximately
 The rod shall be laid on pallet size 1400x1400x150 mm
 The rod shall be packed and protected against damage from normal handling and shipping as is consistent with good commercial practice.

Application :

Suitable for linking associated connecting hardware used in local area network whose transmission characteristics are specified up to 100 MHz

Availability :

The cables are supplied with standard jacket colors of white, ivory and light grey. Special color, upon request and contract review, including rip cord option are also available, packaging options are coil, spool and reel in box of 305 m standard length. Longer shipping length in drum is also available. Other special requirements such as flame resistance performance per IEC 332-3, CM (UL 1581 method 1160) and CMR(UL 1666) are subject to conditions of sales or purchase agreements.

**PHELPS DODGE UTP CAT5
4 PAIRS 24 AWG**



Construction :

The cable is composed of 24 AWG solid annealed plain copper conductors insulated with colored polyethylene or polypropylene. The insulated conductors are twisted into pairs of white-blue, white-orange, white-green and white-brown. The four pairs are cabled together and enclosed with polyvinylchloride jacket.

Specification :

Electrical parameters and transmission characteristics shall be in accordance with EIA/TIA 568 A. The cable shall meet flame test requirement per IEC 332-1. UTP and STP, employing low smoke nonhalogen jacket, with electrical characteristics ISO/IEC conforming to 11801 are also available.

Electrical Characteristics

Max. DC Resistance at 20 °C	: 9.38 Ω/100m
Max. DC Resistance Unbalance	: 5%
Max. Mutual capacitance	: 5.6 nF/100m
Max. Capacitance Unbalance Pair to Ground	: 330 pF/100m
Characteristic Impedance from 1 to 100 MHz	: 100 Ω±15%

Frequency (MHz)	0.064	0.150	0.256	0.512	0.772	1	4	8	10	16	20	25	31.25	62.5	100
Max. Attenuation (dB/100m)	0.8	-	1.1	1.5	1.8	2.0	4.1	5.8	6.5	8.2	9.3	10.4	11.7	17.0	22.0
Min. NEXT (dB/100m)	-	74	-	-	64	62	53	48	47	44	42	41	39	35	32
Min. SRL (dB/100m)	-	-	-	-	-	23	23	23	23	23	23	22	21	18	16

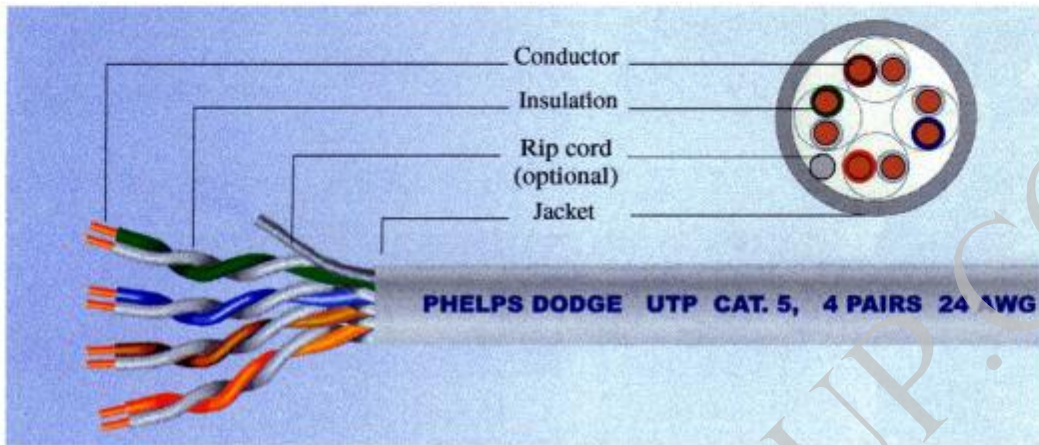
Revision : 0 Dated July 31, 2000

Special Cables

Phelps Dodge Thailand Limited

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 Fax : (66 2) 255 6821, 254 8264 Export Fax : (66 2) 652 0572 Website : www.pdwc.com

**PHELPS DODGE UTP CAT5
4 PAIRS 24 AWG**



Product Characteristics				
No. of Pairs	Nominal Insulation Thickness (mm)	Nominal Jacket Thickness (mm)	Nominal O.D. (mm)	Nominal Weight (kg/km)
4	0.2	0.5	5.6	35

Typical Transmission Characteristics

