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The World Class Wire & Cable

FIRE RESISTANT
AND LOW SMOKE HALOGEN FREE CABLES

Lifeline

เฟ้ลปส์ ดอด์จ ทุกสายคือชีวิต

The World Class Wire & Cable

PHELPS DODGE : THE TOP-NOTCH WIRE AND CABLE TECHNOLOGY LEADER

Phelps Dodge International (Thailand) Limited is producing the top-notch products serving the international markets, including Power Industry, Construction Industry, Oil and Gas Industry, Mining Industry, and Communication Industry with the strong network in North America, Asia, and Africa.

Phelps Dodge delicately focuses in all processes to deliver the excellent wire and cable to many prestigious domestic and international sites, starting from selecting the finest raw materials, producing through the ultimate systems, then finalizing with QC system. To ensure the most excellent quality, we are accredited international standards including ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 by UL(USA), as well as other world class standards. Furthermore, our finest quality products are certified by the world class certification bodies such as KEMA, TÜV, BASEC, CPRI, SGS, Intertek for IEC, ICEA, TIS, BS, EN, IS, JIS etc.

The Solely Extra High Voltage VCV in SEA up to 245 kV

- Superior durability from concentricity of insulation thickness
- Easy and safe for splicing and terminating, reducing the breakdown risks from the maximum insulation roundness
- Reducing the risk of water treeing in XLPE insulation, the major cause of premature breakdown with Completely Dry Curing and Dry Cooling (CDCC) process

The World Class High Voltage Technology

The Only Milliken Conductor Fabricator in Thailand

- Lower Skin Effect with more efficient power transfer
- Highest electrical current conduct at 2,500 A in one line*
- Reduce the spark risks comparing to the same level of conductivity in normal conductor
- Less cost and time consuming

Remark : *Copper Conductor 2500 mm² installed flat in air 40°C

The World Class Heavy Duty Metal Sheathed Cable for Underground & Petrochemical Environment

- Special armor, extra durability for underground work with resistance to high impact
- Lead Sheath, protect against chemical corrosion and moisture
- Corrugated metallic sheath, provide excellent water barrier and mechanical protection

The World Class High Voltage Mobile Engineering Solution AC Resonance On-Site Test The Only Service Provider in Thailand

- IEC 60840, IEC 62067 standard conformance
- Highest testing voltage at 260 kV
- Simulating electrical voltage withstand in 1 hours equal to 40 years operation
- AC high voltage test prevents the insulation damage
- Longest cable range testing at 20 km.
- Off-line partial discharge test for aged cable condition assessment

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REFERENCE STANDARD

	Publications	Description	Equivalent Standard
Cable construction	IEC 60502-1	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (U_m = 1.2 kV) up to 30 kV (U_m = 36 kV) - Part 1: Cables for rated voltages of 1 kV (U_m = 1.2 kV) and 3 kV (U_m = 3.6 kV)	
	IEC 60228	Conductors of insulated cables	BS EN 60228 (replaced BS 6360)
	BS EN 50525-3-41	Electric cables. Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U). Cables with special fire performance. Single core non-sheathed cables with halogen-free cross-linked insulation and low emission of smoke	
Fire resistant test (Circuit integrity)	IEC 60331-21	Tests for electric cables under fire conditions - Circuit integrity	
	BS 6387	Test method for resistance to fire of cables required to maintain circuit integrity under fire conditions	
Flame retardant test	IEC 60332-1-2	Tests on electric and optical fibre cables under fire conditions - Part 1 : Test for vertical flame propagation for a single insulated wire or cable	BS EN 60332-1-2 (replaced BS EN 50265, BS 4066 Part1)
	IEC 60332-3	Tests on electric cables under fire conditions - Part 3 : Test for vertical flame , spread of vertically-mounted bunched wires or cables	BS EN 60332-3 (replaced BS EN 50266, BS 4066 Part3)
Acid gas emission test	IEC 60754-1	Test on gases evolved during combustion of materials from cables - Part 1 : Determination of the halogen acid gas content	BS EN 60754-1 (replaced BS EN 50267-2-1, BS 6425-1)
	IEC 60754-2	Test on gases evolved during combustion of materials from cables - Part 2 : Determination of acidity (by pH measurement) and conductivity	BS EN 60754-2 (replaced BS EN 50267-2-2,BS 6425-2)
Smoke density test	IEC 61034-2	Measurement of smoke density of cables burning under defined conditions - Part 2 : Test Procedure and requirements	BS EN 61034-2 (replaced BS EN 50268, BS 7622)

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FIRE RESISTANT CABLES

VOTAGE RATING (U_o/U) : 600/1000V
STANDARD COMPLIED :

	CABLE CONSTRUCTION	FIRE RESISTANT TEST	FLAME RETARDANT TEST	ACID GAS EMISSION TEST	SMOKE DENSITY TEST
NON-SHEATHED CABLE	BS EN 50525-3-41 EN 60228	BS 6387 (Category CWZ) IEC 60331-21	BS EN 60332-1-2 BS EN 60332-3-22 (Category A) BS EN 60332-3-23 (Category B) BS EN 60332-3-24 (Category C)	BS EN 60754-1 BS EN 60754-2	BS EN 61034-2
SHEATHED CABLE	IEC 60502-1 IEC 60228	BS 6387 (Category CWZ) IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 (Category A) IEC 60332-3-23 (Category B) IEC 60332-3-24 (Category C)	IEC 60754-1 IEC 60754-2	IEC 61034-2

COLOUR OF IDENTIFICATION

INSULATION :

1 CORE : TRANSPARENT (ORANGE FOR NON-SHEATHED)
2 CORE : BROWN, BLUE
3 CORE : BROWN, BLACK, GREY
4 CORE : BROWN, BLACK, GREY, BLUE
GROUND CORE (PE) : GREEN/YELLOW

OVERSHEATH : ORANGE

LOW SMOKE HALOGEN FREE (LSHF) FLAME RETARDANT CABLES

VOTAGE RATING (U_o/U) : 600/1000V
STANDARD COMPLIED :

	CABLE CONSTRUCTION	FLAME RETARDANT TEST	ACID GAS EMISSION TEST	SMOKE DENSITY TEST
NON-SHEATHED CABLE	BS EN 50525-3-41 EN 60228	BS EN 60332-1-2 BS EN 60332-3-22 (Category A) BS EN 60332-3-23 (Category B) BS EN 60332-3-24 (Category C)	BS EN 60754-1 BS EN 60754-2	BS EN 61034-2
SHEATHED CABLE	IEC 60502-1 IEC 60228	IEC 60332-1-2 IEC 60332-3-22 (Category A) IEC 60332-3-23 (Category B) IEC 60332-3-24 (Category C)	IEC 60754-1 IEC 60754-2	IEC 61034-2

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4 CORE : BROWN, BLACK, GREY, BLUE
GROUND CORE (PE) : GREEN/YELLOW

OVERSHEATH : BLACK

IEC 60332-1-2 : TESTS ON ELECTRIC AND OPTICAL FIBRE CABLE UNDER FIRE CONDITIONS - PART 1-2: TEST FOR VERTICAL FLAME PROPAGATION FOR A SINGLE INSULATED WIRE OR CABLE - PROCEDURE FOR 1 KW PRE-MIXED FLAME

The standard specified test method for resistance to vertical flame propagation for a single insulate wire or cable.
A single insulated wire or cable is secured to supports vertically then flame is applied on the wire or cable for a specified duration.
The cable sample is deemed to pass the test if the distance between the lower edge of the top support and the onset of charring is greater than 50mm. In addition, a failure shall be recorded if burning extends downward to a point greater than 540mm from the lower edge of the top support.

IEC 60332-3 : TESTS ON ELECTRIC AND OPTICAL FIBRE CABLES UNDER FIRE CONDITIONS - PART 3: TEST FOR VERTICAL FLAME SPREAD OF VERTICALLY-MOUNTED BUNCHED WIRES OR CABLES

This test defines the abillity of cables to limit vertical flame spread along bunched cable installed vertically on ladder. There are 4 general categories of tests distinguished by different test duration, volume of non-metallic materials in the cables and the method of sample mounting for the test as shown in the table below:

CATEGORY	A	B	C	D*
Volume of non-metallic materials in a 1 metre sample (L/m)	7	3.5	1.5	0.5
Flame application time (minute)	40	40	20	20

*Category D is intended for use with small cables (overall diameter 12 mm or smaller) where very low volumes of non-metallic material are required to be evaluated.

The cable samples of minimum 3.5 m in length are mounted vertically on the ladder installed in a test chamber. Number of test samples are determined by volume of non-metallic materials per 1 metre of sample to achieve the specified values for each testing category. With a constant forced air flow through the test chamber, ribbon gas burner apply flame on the test samples for a specified flame application times, after which it shall be extinguished. After cable burning or glowing has ceased or been extinguished, the charring should not reached 2.5 m height above the bottom edge of the burner.

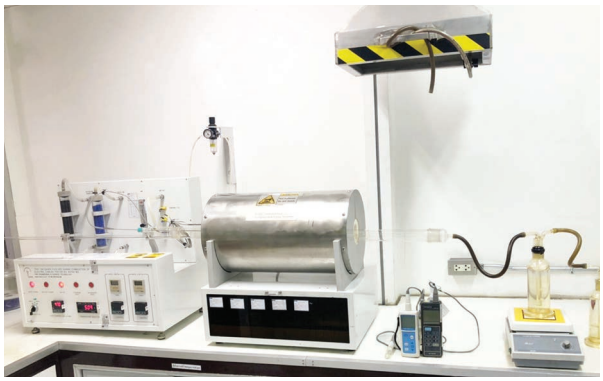
IEC 60331-21: TESTS FOR ELECTRIC CABLES UNDER FIRE CONDITIONS - CIRCUIT INTEGRITY - PART 21: PROCEDURES AND REQUIREMENTS - CABLES OF RATED VOLTAGE UP TO AND INCLUDING 0,6/1,0 KV

A cable sample is held horizontally by damps and supported rings above a gas burner and connected with fuse or circuit-breaker to an electrical supply and lamp, as visual Indicator, at its rated voltage. Fire is applied to the sample for a period of 90 minutes at temperature between 750˚C to 800˚C. After the fire extinguished, the sample is remained energising for a further 15 minutes. The sample pass the test if no fuse fails or no circuit-breaker is interrupted and the lamp is not extinguished.

IEC 60754-1 : TEST ON GASES EVOLVED DURING COMBUSTION OF MATERIALS FROM CABLES - PART 1: DETERMINATION OF THE HALOGEN ACID GAS CONTENT

This test specifies test method for detemination of halogen acid gas evolved during combustion of compounds taken from cable constructions. The amount of halogen acid expressed as milligrams of hydrochloric acid per gram of sample taken shall be not more than 5 mg/g (0.5%)

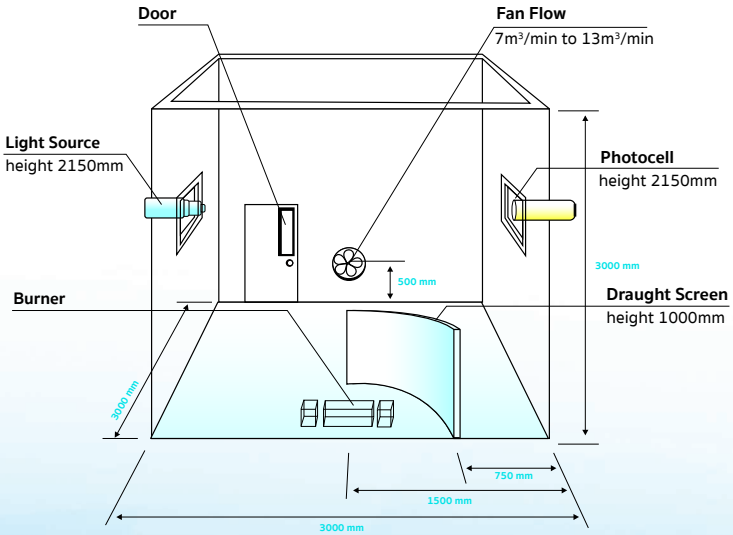
IEC 60754-2 : TEST ON GASES EVOLVED DURING COMBUSTION OF MATERIALS FROM CABLES - PART 2: DETERMINATION OF ACIDITY (BY PH MEASUREMENT) AND CONDUCTIVITY



This test specifies a method for the determintion of the degree of acidity of gases evolved during combustion of cables by measuring pH and conductivity. The performance requirements of this standard state the weighted pH value should not be less than 4.3 when related to 1 litre of water and the weighted value of conductivity should not exceed 10μS/mm.

IEC 61034-2 : MEASUREMENT OF SMOKE DENSITY OF CABLES BURNING UNDER DEFINED CONDITIONS - PART 2: TEST PROCEDURE AND REQUIREMENTS

Smoke density test or the "3 metre cube test" is performed in a chamber of 3m x 3m x 3m. The test is performed by burning cable sample in the chamber and recording transmittance of a light beam running from one side of the chamber to a photo cell on the other side, thus monitoring the build up of smoke inside the chamber. The minimum percentage of light transmittance is used to determine if the cable has passed or failed the test. A minimum light transmittance of 60% is applied in order to classify a cable as low smoke.



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BS 6387 : TEST METHOD FOR RESISTANCE TO FIRE OF CABLES REQUIRED TO MAINTAIN CIRCUIT INTEGRITY UNDER FIRE CONDITIONS

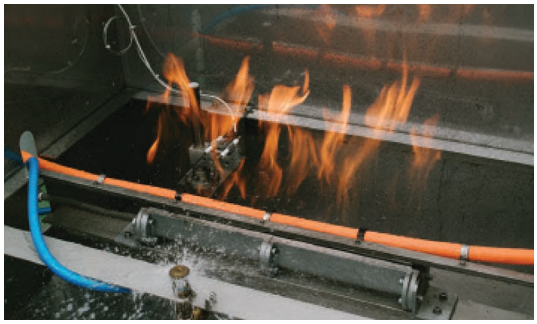
This test evaluates fire resistant performance of cables by determining capabillity of maintaining circuit integrity under 3 different simulated fire conditions. The tested cable is required to pass 3 different tests categorized by letter symbol CWZ which represents

- C : Resistance to fire alone
- W : Resistance to fire with water
- Z : Resistance to fire with mechanical shock

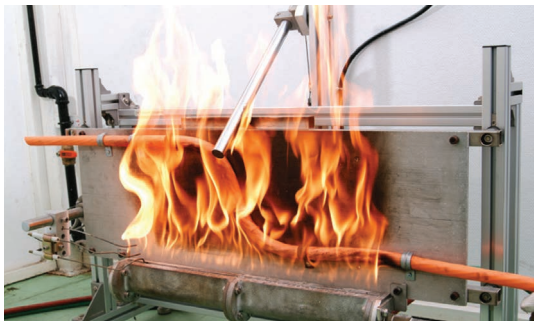
The cable samples are placed above a gas burner and connected with fuse or circuit-breaker to an electrical supply and lamp, as a visual indicator, at their rated voltage, Fire is applied to the samples at a specified temperatures and test durations. The samples shall have capability to maintain circuit integrity whithout short circuit through out the test period. The test temperatures and durations of the tests in accordance with BS 6387 are as below

RESISTANCE TO FIRE ALONE	Symbol
950˚C for 3 hours	C

RESISTANCE TO FIRE WITH WATER	Symbol
650˚C for 15 minutes then 650˚C with water spray for 15 minutes.	W



RESISTANCE TO FIRE WITH MECHANICAL SHOCK	Symbol
950˚C for 15 minutes with every 30 second mechanical shock	Z



Cable Characteristics

FIRE RESISTANCE
BS 6387
IEC 60331-21

FLAME RETARDANT
IEC 60332-3
IEC 60332-1-2

LOW SMOKE
EMISSION
IEC 61034-2

HALOGEN FREE
(No acid gas emission)
IEC 60754-1, IEC 60754-2

LEAD-FREE & RoHS
COMPLIANT

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CONTENT

Page No.	Cable Type	Standard	Description	Fire Performance			
				Fire Resistance	Flame Retardant	Low Smoke	Halogen Free
	Reference Standard : International Electrotechnical Commission (IEC) Standard Maximum Conductor Temperature 90°C						
9		IEC 60502-1	0.6/1 (1.2) kV Fire Resistant LSHF Single-core Cables (Copper conductor with fire barrier, XLPE insulated and LSHF sheathed cables)	BS 6387 Cat CWZ IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
10-12		IEC 60502-1	0.6/1 (1.2) kV Fire Resistant LSHF Multi-core Cables (Copper conductor with fire barrier, XLPE insulated and LSHF sheathed cables)	BS 6387 Cat CWZ IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
13		IEC 60502-1	0.6/1 (1.2) kV Fire Resistant LSHF Single-core Cables with Armour (Copper conductor with fire barrier, XLPE insulated, Aluminium Wire Armoured and LSHF sheathed cables)	BS 6387 Cat CWZ IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
14-16		IEC 60502-1	0.6/1 (1.2) kV Fire Resistant LSHF Multi-core Cables with Armour (Copper conductor with fire barrier, XLPE insulated Steel Wire Armoured and LSHF sheathed cables)	BS 6387 Cat CWZ IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
17-22		IEC 60502-1	0.6/1 (1.2) kV Fire Resistant LSHF Control Cables with Shield (Copper conductor with fire barrier, XLPE insulated, Copper Tape Shielded and LSHF sheathed cables)	BS 6387 Cat CWZ IEC 60331-21	IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
23		IEC 60502-1	0.6/1 (1.2) kV LSHF Flame Retardant Single-core Cables (Copper conductor, XLPE insulated and LSHF sheathed cables)		IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
24-26		IEC 60502-1	0.6/1 (1.2) kV LSHF Flame Retardant Multi-core Cables (Copper conductor, XLPE insulated and LSHF sheathed cables)		IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
27		IEC 60502-1	0.6/1 (1.2) kV LSHF Flame Retardant Single-core Cables with Armour (Copper conductor, XLPE insulated Aluminium Wire Armoured and LSHF sheathed cables)		IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
28-30		IEC 60502-1	0.6/1 (1.2) kV LSHF Flame Retardant Multi-core Cables with Armour (Copper conductor, XLPE insulated, Steel Wire Armoured and LSHF sheathed cables)		IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
31-36		IEC 60502-1	0.6/1 (1.2) kV LSHF Flame Retardant Control Cables with Shield (Copper conductor, XLPE insulated, Copper tape Shielded and LSHF sheathed cables)		IEC 60332-1-2 IEC 60332-3-22 Cat A IEC 60332-3-23 Cat B IEC 60332-3-24 Cat C	IEC 61034-2	IEC 60754-1 IEC 60754-2
	Reference Standard : British Standard / European Standard (BS EN) Maximum Conductor Temperature 90°C						
37		BS EN 50525-3-41	600/1000V Fire Resistant LSHF Non-sheathed Single-core Cables (Copper conductor with fire barrier, LSHF-XLPE insulated cables)	BS 6387 Cat CWZ IEC 60331-21	BS EN 60332-1-2 BS EN 60332-3-22 Cat A BS EN 60332-3-23 Cat B BS EN 60332-3-24 Cat C	BS EN 61034-2	BS EN 60754-1 BS EN 60754-2
38		BS EN 50525-3-41	600/1000V LSHF Flame Retardant Non-sheathed Single-core Cables (Copper conductor, LSHF-XLPE insulated cables)		BS EN 60332-1-2 BS EN 60332-3-22 Cat A BS EN 60332-3-23 Cat B BS EN 60332-3-24 Cat C	BS EN 61034-2	BS EN 60754-1 BS EN 60754-2

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE SINGLE CORE CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

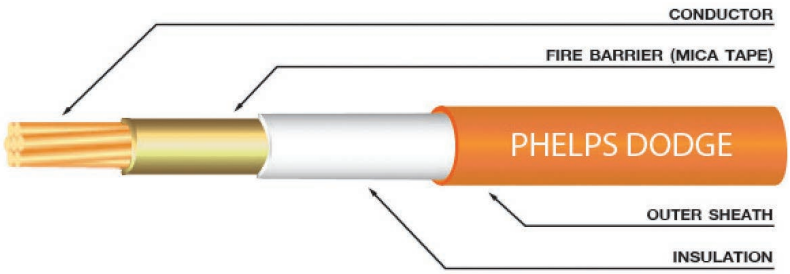
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper
Fire Barrier : Fire resistant tape (Mica).
Insulation : Cross-linked polyethylene (XLPE)
Colour : Transparent
Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Orange Colour. Other colours to special order.

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Current Rating in Free Air at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)										Single-phase	Three-phase		
Core x mm²		mm	mm	mm	mm	kg /km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	A	m/R
1 x 1.5	7	1.6	0.7	1.4	8.5	60	34	12.1	808	15.43	0.204	21	18	27	500
1 x 2.5	7	2.0	0.7	1.4	9.0	75	36	7.41	700	9.45	0.193	28	25	38	500
1 x 4	7	2.5	0.7	1.4	9.5	90	38	4.61	602	5.88	0.183	38	34	51	500
1 x 6	7	3.1	0.7	1.4	10	115	40	3.08	521	3.93	0.175	49	44	66	500
1 x 10	6	3.7	0.7	1.4	11	160	42	1.83	455	2.33	0.165	68	60	92	500
1 x 16	6	4.6	0.7	1.4	12	220	46	1.15	383	1.47	0.158	91	80	124	500
1 x 25	6	5.9	0.9	1.4	13	320	52	0.727	396	0.927	0.154	121	106	166	500
1 x 35	6	7.0	0.9	1.4	14	415	56	0.524	343	0.668	0.149	149	131	206	500
1 x 50	6	8.1	1.0	1.4	15	550	60	0.387	332	0.494	0.146	180	159	250	500
1 x 70	12	9.6	1.1	1.4	17	755	68	0.268	314	0.342	0.144	230	202	321	500
1 x 95	15	11.4	1.1	1.5	19	1,015	76	0.193	269	0.247	0.141	278	245	391	500
1 x 120	18	12.7	1.2	1.5	21	1,255	84	0.153	266	0.196	0.140	322	284	455	500
1 x 150	18	14.1	1.4	1.6	23	1,535	92	0.124	279	0.159	0.140	358	311	525	500
1 x 185	30	15.8	1.6	1.6	25	1,905	100	0.0991	286	0.127	0.139	409	349	602	500
1 x 240	34	18.1	1.7	1.7	28	2,465	140	0.0754	268	0.097	0.137	480	410	711	500
1 x 300	34	20.4	1.8	1.8	30	3,065	150	0.0601	253	0.078	0.136	549	468	821	500
1 x 400	53	23.5	2.0	1.9	34	3,975	170	0.0470	246	0.062	0.136	622	531	987	500
1 x 500	53	26.1	2.2	2.0	37	5,045	185	0.0366	243	0.049	0.135	713	606	1,140	500
1 x 630	53	30.0	2.4	2.2	42	6,505	210	0.0283	233	0.039	0.134	819	695	1,323	300

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE TWO CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
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- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

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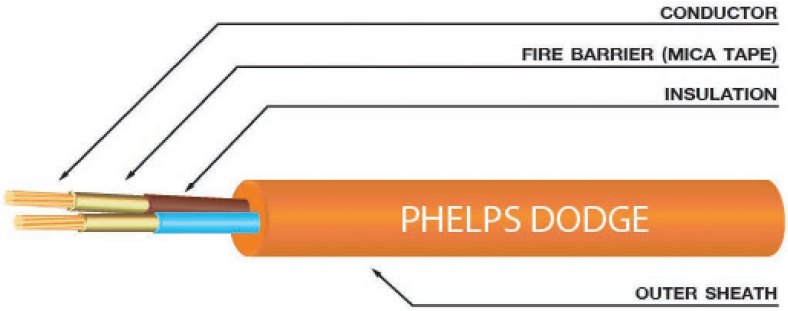


CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper
Fire Barrier : Fire resistant tape (Mica).
Insulation : Cross-linked polyethylene (XLPE) Colour : Brown, Blue Colour.
Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order.

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
2 x 1.5	7	1.6	0.7	1.8	14	190	56	12.1	678	15.43	0.103	20	24	500
2 x 2.5	7	2.0	0.7	1.8	15	225	58	7.41	600	9.45	0.097	27	33	500
2 x 4	7	2.5	0.7	1.8	16	245	62	4.61	602	5.88	0.091	36	45	500
2 x 6	7	3.1	0.7	1.8	17	310	68	3.08	521	3.93	0.087	46	57	500
2 x 10	6	3.7	0.7	1.8	18	415	72	1.83	455	2.33	0.079	63	78	500
2 x 16	6	4.6	0.7	1.8	19	570	76	1.15	383	1.47	0.076	83	105	500
2 x 25	6	5.9	0.9	1.8	23	840	92	0.727	396	0.927	0.076	108	136	500
2 x 35	6	7.0	0.9	1.8	25	1,090	100	0.524	343	0.669	0.074	133	168	500
2 x 50	6	8.1	1.0	1.8	28	1,425	140	0.387	332	0.494	0.073	159	205	500
2 x 70	12	9.6	1.1	1.8	31	1,945	155	0.268	314	0.342	0.072	201	263	500
2 x 95	15	11.4	1.1	1.9	35	2,600	175	0.193	269	0.247	0.070	241	320	500
2 x 120	18	12.7	1.2	2.0	38	3,215	190	0.153	266	0.196	0.070	278	373	500
2 x 150	18	14.1	1.4	2.2	42	3,965	210	0.124	279	0.160	0.071	304	430	500
2 x 185	30	15.8	1.6	2.3	47	4,935	235	0.0991	286	0.128	0.071	349	493	500
2 x 240	34	18.1	1.7	2.5	52	6,365	312	0.0754	268	0.099	0.070	418	583	500
2 x 300	34	20.4	1.8	2.6	57	7,890	342	0.0601	253	0.080	0.069	484	674	300
2 x 400	53	23.5	2.0	2.9	65	10,280	390	0.047	246	0.064	0.069	569	787	300

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE THREE CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

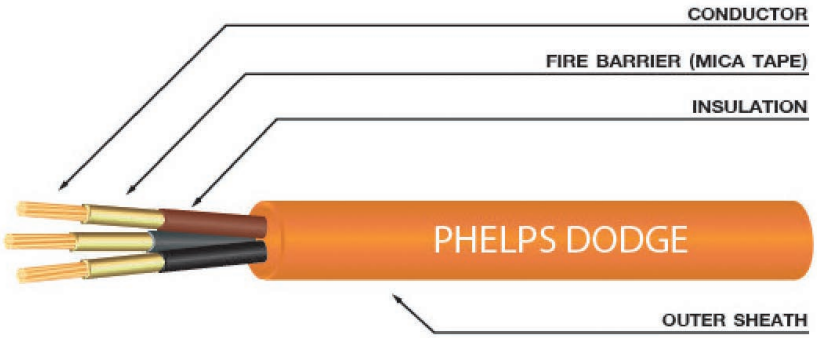
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper
Fire Barrier : Fire resistant tape (Mica).
Insulation : Cross-linked polyethylene (XLPE) Colour : Brown, Black, Grey Colour.
Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order.

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
3 x 1.5	7	1.6	0.7	1.8	15	215	60	12.1	678	15.43	0.103	18	21	500
3 x 2.5	7	2.0	0.7	1.8	16	260	64	7.41	600	9.45	0.097	24	29	500
3 x 4	7	2.5	0.7	1.8	17	290	68	4.61	602	5.88	0.091	32	38	500
3 x 6	7	3.1	0.7	1.8	18	370	72	3.08	521	3.93	0.087	40	49	500
3 x 10	6	3.7	0.7	1.8	19	510	76	1.83	455	2.33	0.079	55	68	500
3 x 16	6	4.6	0.7	1.8	21	720	84	1.15	383	1.47	0.076	73	91	500
3 x 25	6	5.9	0.9	1.8	24	1,065	96	0.727	396	0.927	0.076	96	116	500
3 x 35	6	7.0	0.9	1.8	27	1,395	135	0.524	343	0.669	0.074	116	144	500
3 x 50	6	8.1	1.0	1.8	29	1,845	145	0.387	332	0.494	0.073	140	175	500
3 x 70	12	9.6	1.1	1.9	33	2,550	165	0.268	314	0.342	0.072	177	224	500
3 x 95	15	11.4	1.1	2.0	37	3,430	185	0.193	269	0.247	0.070	212	271	500
3 x 120	18	12.7	1.2	2.1	41	4,255	205	0.153	266	0.196	0.070	244	315	500
3 x 150	18	14.1	1.4	2.3	45	5,240	225	0.124	279	0.160	0.071	273	363	500
3 x 185	30	15.8	1.6	2.4	50	6,525	250	0.0991	286	0.128	0.071	309	415	500
3 x 240	34	18.1	1.7	2.6	56	8,450	336	0.0754	268	0.099	0.070	362	490	300
3 x 300	34	20.4	1.8	2.7	61	10,480	366	0.0601	253	0.080	0.069	414	565	300
3 x 400	53	23.5	2.0	3.0	70	13,660	420	0.0470	246	0.064	0.069	488	674	200

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE FOUR CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

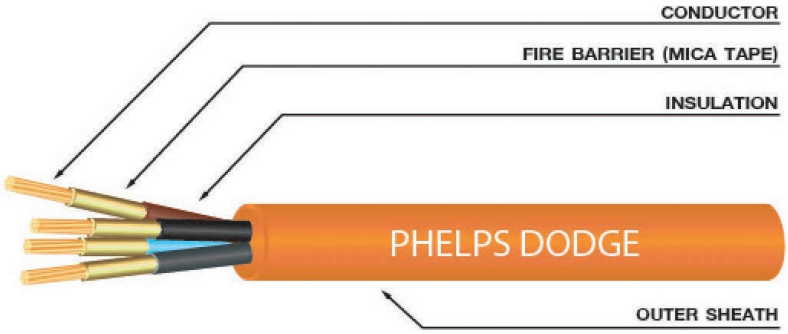
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper
Fire Barrier : Fire resistant tape (Mica).
Insulation : Cross-linked polyethylene (XLPE)
Colour : Brown, Black, Grey, Blue Colour.
Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Orange Colour. Other colours to special order.

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
4 x 1.5	7	1.6	0.7	1.8	16	250	64	12.1	678	15.43	0.110	18	21	500
4 x 2.5	7	2.0	0.7	1.8	17	305	68	7.41	600	9.45	0.104	24	29	500
4 x 4	7	2.5	0.7	1.8	18	345	72	4.61	602	5.88	0.099	32	38	500
4 x 6	7	3.1	0.7	1.8	19	445	76	3.08	521	3.93	0.094	40	49	500
4 x 10	6	3.7	0.7	1.8	20	630	80	1.83	455	2.33	0.087	55	68	500
4 x 16	6	4.6	0.7	1.8	22	895	88	1.15	383	1.47	0.083	73	91	500
4 x 25	6	5.9	0.9	1.8	26	1,335	130	0.727	396	0.927	0.083	96	116	500
4 x 35	6	7.0	0.9	1.8	29	1,760	145	0.524	343	0.669	0.081	116	144	500
4 x 50	6	8.1	1.0	1.8	32	2,330	160	0.387	332	0.494	0.080	140	175	500
4 x 70	12	9.6	1.1	2.0	37	3,255	185	0.268	314	0.342	0.079	177	224	500
4 x 95	15	11.4	1.1	2.1	41	4,385	205	0.193	269	0.247	0.078	212	271	500
4 x 120	18	12.7	1.2	2.3	45	5,465	225	0.153	266	0.196	0.077	244	315	500
4 x 150	18	14.1	1.4	2.4	50	6,705	250	0.124	279	0.160	0.078	273	363	300
4 x 185	30	15.8	1.6	2.6	56	8,380	336	0.0991	286	0.128	0.078	309	415	300
4 x 240	34	18.1	1.7	2.8	62	10,855	372	0.0754	268	0.099	0.077	362	490	300
4 x 300	34	20.4	1.8	3.0	69	13,505	414	0.0601	253	0.080	0.077	414	565	200
4 x 400	53	23.5	2.0	3.3	78	17,590	468	0.0470	246	0.064	0.076	488	674	200

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE SINGLE CORE CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

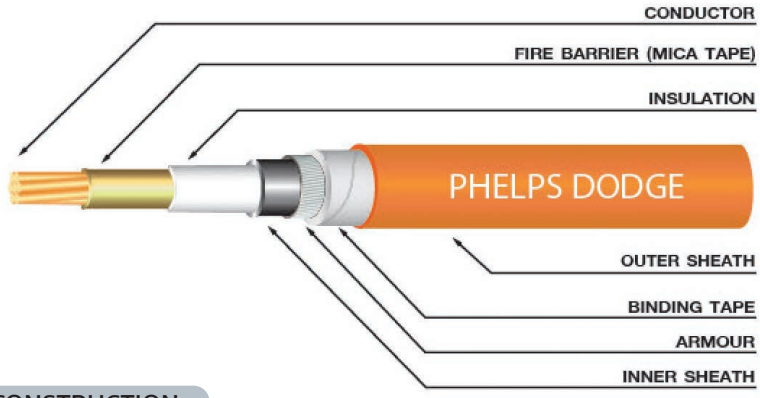
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire.
With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Fire Barrier	: Fire resistant tape (Mica).
Insulation	: Cross-linked polyethylene (XLPE) Colour : Transparent
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Aluminium wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)		Standard Packing
	Minimum Number of Wires	Diameter (Approx)												Single-phase	Three-phase	Flat	Trefoil	
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	A	A	m/R
1 x 1.5	7	1.6	0.7	1.0	0.80	1.4	13	160	156	12.1	678	15.43	0.188	21	18	-	-	500
1 x 2.5	7	2.0	0.7	1.0	0.80	1.4	14	175	168	7.41	600	9.45	0.178	28	25	-	-	500
1 x 4	7	2.5	0.7	1.0	0.80	1.4	14	195	168	4.61	602	5.88	0.169	38	34	-	-	500
1 x 6	7	3.1	0.7	1.0	0.80	1.4	14	225	168	3.08	521	3.93	0.161	49	44	-	-	500
1 x 10	6	3.7	0.7	1.0	0.80	1.4	15	275	180	1.83	455	2.33	0.150	68	60	-	-	500
1 x 16	6	4.6	0.7	1.0	0.80	1.4	16	350	192	1.15	383	1.47	0.143	91	80	-	-	500
1 x 25	6	5.9	0.9	1.0	0.80	1.4	17	465	204	0.727	396	0.927	0.139	121	106	151	141	500
1 x 35	6	7.0	0.9	1.0	0.80	1.4	18	575	216	0.524	343	0.668	0.135	149	131	177	168	500
1 x 50	6	8.1	1.0	1.0	1.25	1.5	21	785	252	0.387	332	0.494	0.132	180	159	211	202	500
1 x 70	12	9.6	1.1	1.0	1.25	1.5	22	1,010	264	0.268	314	0.342	0.129	230	202	267	259	500
1 x 95	15	11.4	1.1	1.0	1.25	1.6	24	1,305	288	0.193	269	0.247	0.126	278	245	320	315	500
1 x 120	18	12.7	1.2	1.0	1.60	1.7	27	1,630	324	0.153	266	0.196	0.125	322	284	369	366	500
1 x 150	18	14.1	1.4	1.0	1.60	1.7	29	1,935	348	0.124	279	0.159	0.125	358	311	420	421	500
1 x 185	30	15.8	1.6	1.0	1.60	1.8	31	2,350	372	0.0991	286	0.127	0.124	409	349	477	481	500
1 x 240	34	18.1	1.7	1.0	1.60	1.9	34	2,960	408	0.0754	268	0.097	0.123	480	410	557	569	300
1 x 300	34	20.4	1.8	1.0	1.60	1.9	36	3,585	432	0.0601	253	0.078	0.122	549	468	637	655	300
1 x 400	53	23.5	2.0	1.2	2.00	2.1	41	4,710	492	0.0470	246	0.062	0.121	622	531	698	742	300
1 x 500	53	26.1	2.2	1.2	2.00	2.2	45	5,850	540	0.0366	243	0.049	0.120	713	606	774	835	300
1 x 630	53	30.0	2.4	1.2	2.00	2.3	49	7,375	588	0.0283	233	0.039	0.120	819	695	851	935	300

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE TWO CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

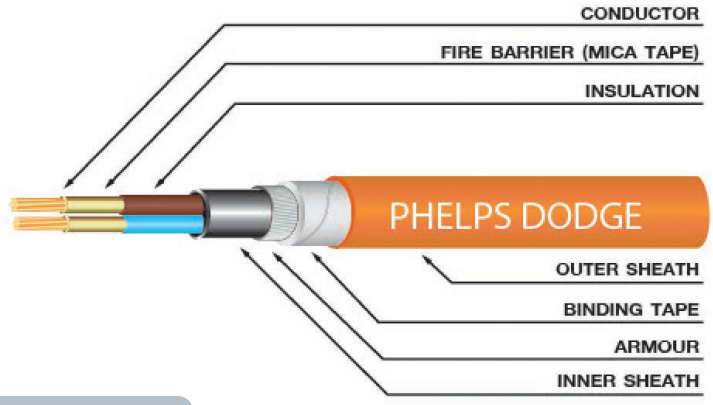
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire.
With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Fire Barrier	: Fire resistant tape (Mica).
Insulation	: Cross-linked polyethylene (XLPE) Colour : Brown, Blue Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Thickness of Inner Covering (Approx.)	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
2 x 1.5	7	1.6	0.7	1.0	0.80	1.8	18	430	216	12.1	678	15.43	0.103	26	500
2 x 2.5	7	2.0	0.7	1.0	0.80	1.8	19	485	228	7.41	600	9.45	0.097	35	500
2 x 4	7	2.5	0.7	1.0	0.80	1.8	20	510	240	4.61	602	5.88	0.091	47	500
2 x 6	7	3.1	0.7	1.0	0.80	1.8	21	595	252	3.08	521	3.93	0.087	60	500
2 x 10	6	3.7	0.7	1.0	1.25	1.8	22	860	264	1.83	455	2.33	0.079	82	500
2 x 16	6	4.6	0.7	1.0	1.25	1.8	24	1,065	288	1.15	383	1.47	0.076	105	500
2 x 25	6	5.9	0.9	1.0	1.60	1.8	28	1,585	336	0.727	396	0.927	0.076	138	500
2 x 35	6	7.0	0.9	1.0	1.60	1.8	31	1,895	372	0.524	343	0.669	0.074	171	500
2 x 50	6	8.1	1.0	1.0	1.60	1.8	33	2,330	396	0.387	332	0.494	0.073	207	500
2 x 70	12	9.6	1.1	1.0	1.60	2.0	37	2,995	444	0.268	314	0.342	0.072	265	500
2 x 95	15	11.4	1.1	1.2	2.00	2.1	42	4,115	504	0.193	269	0.247	0.070	322	500
2 x 120	18	12.7	1.2	1.2	2.00	2.2	45	4,855	540	0.153	266	0.196	0.070	373	500
2 x 150	18	14.1	1.4	1.2	2.00	2.3	49	5,740	588	0.124	279	0.160	0.071	430	500
2 x 185	30	15.8	1.6	1.4	2.50	2.5	55	7,405	660	0.0991	286	0.128	0.071	490	500
2 x 240	34	18.1	1.7	1.4	2.50	2.7	61	9,125	732	0.0754	268	0.099	0.070	579	300
2 x 300	34	20.4	1.8	1.6	2.50	2.8	67	10,985	804	0.0601	253	0.080	0.069	666	300
2 x 400	53	23.5	2.0	1.6	2.50	3.1	74	13,770	888	0.0470	246	0.064	0.069	771	300

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE THREE CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

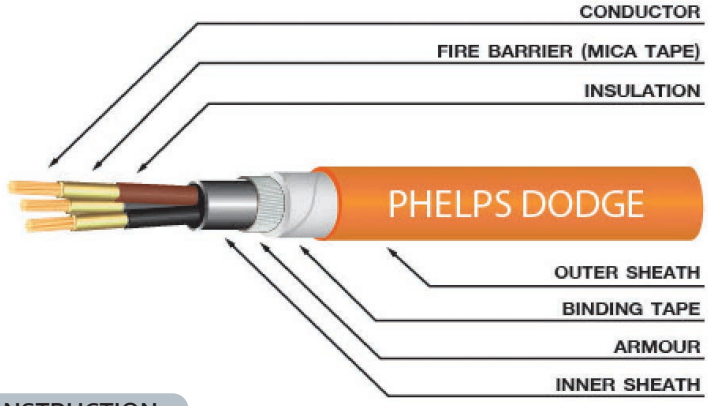
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire.
With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Fire Barrier	: Fire resistant tape (Mica).
Insulation	: Cross-linked polyethylene (XLPE) Colour : Brown, Black, Grey Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Thickness of Inner Covering (Approx.)	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
3 x 1.5	7	1.6	0.7	1.0	0.80	1.8	19	470	228	12.1	678	15.43	0.103	23	500
3 x 2.5	7	2.0	0.7	1.0	0.80	1.8	20	530	240	7.41	600	9.45	0.097	30	500
3 x 4	7	2.5	0.7	1.0	0.80	1.8	21	570	252	4.61	602	5.88	0.091	40	500
3 x 6	7	3.1	0.7	1.0	0.80	1.8	22	670	264	3.08	521	3.93	0.087	51	500
3 x 10	6	3.7	0.7	1.0	1.25	1.8	23	980	276	1.83	455	2.33	0.079	71	500
3 x 16	6	4.6	0.7	1.0	1.25	1.8	25	1,250	300	1.15	383	1.47	0.076	90	500
3 x 25	6	5.9	0.9	1.0	1.60	1.8	30	1,850	360	0.727	396	0.927	0.076	119	500
3 x 35	6	7.0	0.9	1.0	1.60	1.8	32	2,255	384	0.524	343	0.669	0.074	147	500
3 x 50	6	8.1	1.0	1.0	1.60	1.9	35	2,820	420	0.387	332	0.494	0.073	179	500
3 x 70	12	9.6	1.1	1.2	2.00	2.0	40	3,955	480	0.268	314	0.342	0.072	228	500
3 x 95	15	11.4	1.1	1.2	2.00	2.2	45	5,035	540	0.193	269	0.247	0.070	277	500
3 x 120	18	12.7	1.2	1.2	2.00	2.3	48	5,990	576	0.153	266	0.196	0.070	321	500
3 x 150	18	14.1	1.4	1.4	2.50	2.5	54	7,660	648	0.124	279	0.160	0.071	369	500
3 x 185	30	15.8	1.6	1.4	2.50	2.6	59	9,185	708	0.0991	286	0.128	0.071	421	500
3 x 240	34	18.1	1.7	1.6	2.50	2.8	65	11,495	780	0.0754	268	0.099	0.070	497	300
3 x 300	34	20.4	1.8	1.6	2.50	3.0	71	13,850	852	0.0601	253	0.080	0.069	571	300
3 x 400	53	23.5	2.0	1.6	2.50	3.2	79	17,390	948	0.0470	246	0.064	0.069	662	300

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE FOUR CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

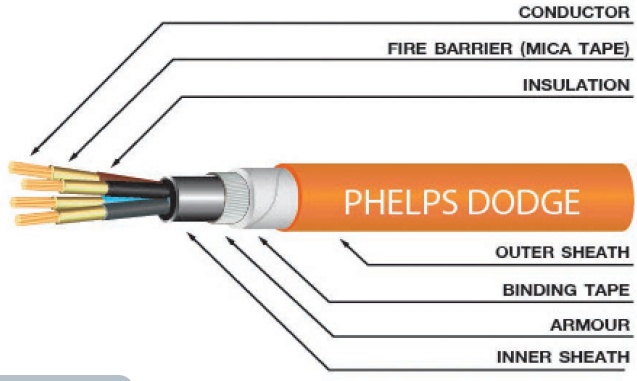
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire.
With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Fire Barrier	: Fire resistant tape (Mica).
Insulation	: Cross-linked polyethylene (XLPE) Colour : Brown, Black, Grey, Blue Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Thickness of Inner Covering (Approx.)	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
4 x 1.5	7	1.6	0.7	1.0	0.80	1.8	20	525	240	12.1	678	15.43	0.110	23	500
4 x 2.5	7	2.0	0.7	1.0	0.80	1.8	21	600	252	7.41	600	9.45	0.104	30	500
4 x 4	7	2.5	0.7	1.0	0.80	1.8	22	645	264	4.61	602	5.88	0.099	40	500
4 x 6	7	3.1	0.7	1.0	1.25	1.8	24	920	288	3.08	521	3.93	0.094	51	500
4 x 10	6	3.7	0.7	1.0	1.25	1.8	25	1,150	300	1.83	455	2.33	0.087	71	500
4 x 16	6	4.6	0.7	1.0	1.60	1.8	28	1,620	336	1.15	383	1.47	0.083	90	500
4 x 25	6	5.9	0.9	1.0	1.60	1.8	32	2,195	384	0.727	396	0.927	0.083	119	500
4 x 35	6	7.0	0.9	1.0	1.60	1.9	35	2,715	420	0.524	343	0.669	0.081	147	500
4 x 50	6	8.1	1.0	1.0	1.60	2.0	38	3,425	456	0.387	332	0.494	0.080	179	500
4 x 70	12	9.6	1.1	1.2	2.00	2.2	44	4,835	528	0.268	314	0.343	0.079	228	500
4 x 95	15	11.4	1.1	1.2	2.00	2.3	49	6,150	588	0.193	269	0.247	0.078	277	500
4 x 120	18	12.7	1.2	1.4	2.50	2.5	54	7,890	648	0.153	266	0.197	0.077	321	500
4 x 150	18	14.1	1.4	1.4	2.50	2.6	59	9,370	708	0.124	279	0.160	0.078	369	250
4 x 185	30	15.8	1.6	1.4	2.50	2.8	64	11,335	768	0.0991	286	0.129	0.078	421	250
4 x 240	34	18.1	1.7	1.6	2.50	3.0	71	14,205	852	0.0754	268	0.099	0.077	497	250
4 x 300	34	20.4	1.8	1.6	2.50	3.2	78	17,190	936	0.0601	253	0.080	0.077	571	200
4 x 400	53	23.5	2.0	1.8	3.15	3.5	89	22,790	1,068	0.0470	246	0.065	0.076	662	200

0.6/1 (1.2) kV FIRE RESISTANT LOW SMOKE & HALOGEN FREE CONTROL CABLES WITH METALLIC SHIELD

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

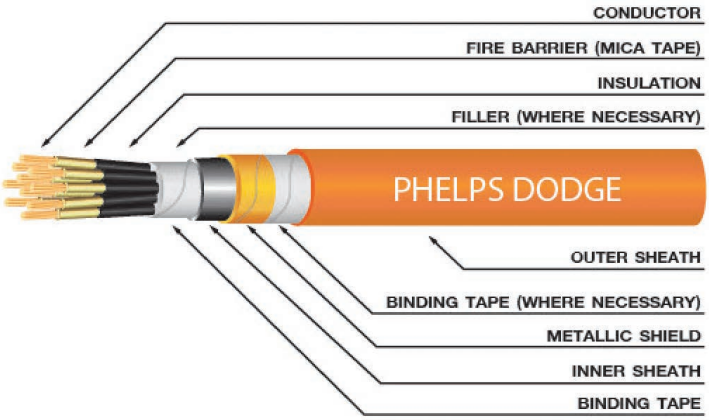
For supervisory electrical equipment, station control circuits installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke, low toxic emission and long-term circuit integrity under fire.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Fire Barrier	: Fire resistant tape (Mica).
Insulation	: Cross-linked polyethylene (XLPE) Colour : Black Colour with marked core number.
Filler	: Non-hygroscopic material
Binding Tape	: Polyester or other suitable binding tape
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Metallic Shield	: Annealed copper tape
Binding Tape	: Polyester or other suitable binding tape (Where necessary).
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Orange Colour. Other colours to special order


Control Cable 2 Cores

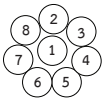

Control Cable 3 Cores

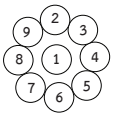

Control Cable 4 Cores

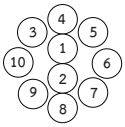

Control Cable 5 Cores

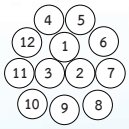

Control Cable 6 Cores

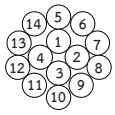

Control Cable 7 Cores

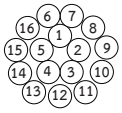

Control Cable 8 Cores

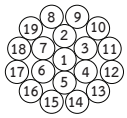

Control Cable 9 Cores

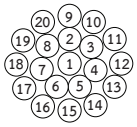

Control Cable 10 Cores

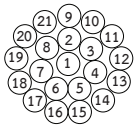

Control Cable 12 Cores

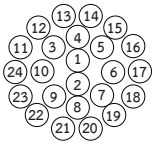

Control Cable 14 Cores

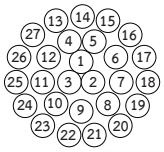

Control Cable 16 Cores

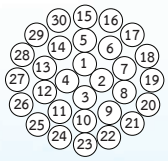

Control Cable 19 Cores


Control Cable 20 Cores


Control Cable 21 Cores


Control Cable 24 Cores


Control Cable 27 Cores


Control Cable 30 Cores

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
2	1.5	7	1.6	0.7	1.0	1.8	17	280	204	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	18	325	216	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	19	385	228	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	20	415	240	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	21	530	252	1.83	455	500
3	1.5	7	1.6	0.7	1.0	1.8	18	305	216	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	19	360	228	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	20	435	240	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	21	480	252	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	22	635	264	1.83	455	500
4	1.5	7	1.6	0.7	1.0	1.8	19	350	228	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	20	415	240	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	21	505	252	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	22	570	264	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	23	760	276	1.83	455	500
5	1.5	7	1.6	0.7	1.0	1.8	21	400	252	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	21	475	252	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	22	585	264	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	24	665	288	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	25	900	300	1.83	455	500
6	1.5	7	1.6	0.7	1.0	1.8	22	445	264	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	23	540	276	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	24	670	288	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	26	765	312	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	27	1,040	324	1.83	455	500
7	1.5	7	1.6	0.7	1.0	1.8	22	465	264	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	23	565	276	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	24	710	288	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	26	815	312	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	27	1,130	324	1.83	455	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
8	1.5	7	1.6	0.7	1.0	1.8	23	520	276	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	24	630	288	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	25	795	300	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	27	920	324	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	29	1,280	348	1.83	455	500
9	1.5	7	1.6	0.7	1.0	1.8	25	570	300	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	26	700	312	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	27	885	324	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	29	1,020	348	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	31	1,425	372	1.83	455	500
10	1.5	7	1.6	0.7	1.0	1.8	26	640	312	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	28	785	336	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	29	995	348	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	31	1,150	372	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	33	1,605	396	1.83	455	500
11	1.5	7	1.6	0.7	1.0	1.8	26	655	312	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	28	810	336	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	29	1,030	348	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	31	1,200	372	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	33	1,685	396	1.83	455	500
12	1.5	7	1.6	0.7	1.0	1.8	27	695	324	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	28	860	336	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	30	1,095	360	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	32	1,280	384	3.08	521	500
	10	6	3.7	0.7	1.0	1.8	34	1,815	408	1.83	455	500
13	1.5	7	1.6	0.7	1.0	1.8	28	750	336	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	29	930	348	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	31	1,185	372	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	33	1,385	396	3.08	521	500
	10	6	3.7	0.7	1.0	1.9	36	1,965	432	1.83	455	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
14	1.5	7	1.6	0.7	1.0	1.8	28	765	336	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	29	950	348	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	31	1,220	372	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	33	1,435	396	3.08	521	500
	10	6	3.7	0.7	1.0	1.9	36	2,045	432	1.83	455	500
15	1.5	7	1.6	0.7	1.0	1.8	29	820	348	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	31	1,025	372	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	32	1,315	384	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	35	1,545	420	3.08	521	500
	10	6	3.7	0.7	1.0	1.9	38	2,225	456	1.83	455	500
16	1.5	7	1.6	0.7	1.0	1.8	29	835	348	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	31	1,045	372	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	32	1,350	384	4.61	527	500
	6	7	3.1	0.7	1.0	1.8	35	1,595	420	3.08	521	500
	10	6	3.7	0.7	1.0	1.9	38	2,305	456	1.83	455	500
17	1.5	7	1.6	0.7	1.0	1.8	31	900	372	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	32	1,130	384	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	34	1,455	408	4.61	527	500
	6	7	3.1	0.7	1.0	1.9	37	1,715	444	3.08	521	500
	10	6	3.7	0.7	1.0	2.0	39	2,480	468	1.83	455	500
18	1.5	7	1.6	0.7	1.0	1.8	31	915	372	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	32	1,150	384	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	34	1,495	408	4.61	527	500
	6	7	3.1	0.7	1.0	1.9	37	1,765	444	3.08	521	500
	10	6	3.7	0.7	1.0	2.0	39	2,560	468	1.83	455	500
19	1.5	7	1.6	0.7	1.0	1.8	31	930	372	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	32	1,175	384	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	34	1,530	408	4.61	527	500
	6	7	3.1	0.7	1.0	1.9	37	1,815	444	3.08	521	500
	10	6	3.7	0.7	1.0	2.0	39	2,645	468	1.83	455	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
20	1.5	7	1.6	0.7	1.0	1.8	32	995	384	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	34	1,255	408	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	35	1,630	420	4.61	527	500
	6	7	3.1	0.7	1.0	1.9	38	1,935	456	3.08	521	500
	10	6	3.7	0.7	1.2	2.1	42	2,870	504	1.83	455	500
21	1.5	7	1.6	0.7	1.0	1.8	32	1,010	384	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	34	1,275	408	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	35	1,665	420	4.61	527	500
	6	7	3.1	0.7	1.0	1.9	38	1,985	456	3.08	521	500
	10	6	3.7	0.7	1.2	2.1	42	2,955	504	1.83	455	500
22	1.5	7	1.6	0.7	1.0	1.8	33	1,070	396	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	35	1,355	420	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	37	1,770	444	4.61	527	500
	6	7	3.1	0.7	1.0	2.0	40	2,125	480	3.08	521	500
	10	6	3.7	0.7	1.2	2.1	44	3,130	528	1.83	455	500
23	1.5	7	1.6	0.7	1.0	1.8	33	1,090	396	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	35	1,380	420	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	37	1,805	444	4.61	527	500
	6	7	3.1	0.7	1.0	2.0	40	2,175	480	3.08	521	500
	10	6	3.7	0.7	1.2	2.1	44	3,215	528	1.83	455	500
24	1.5	7	1.6	0.7	1.0	1.8	35	1,165	420	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	37	1,475	444	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	39	1,930	468	4.61	527	500
	6	7	3.1	0.7	1.2	2.0	43	2,350	516	3.08	521	500
	10	6	3.7	0.7	1.2	2.2	46	3,435	552	1.83	455	500
25	1.5	7	1.6	0.7	1.0	1.8	35	1,180	420	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	37	1,500	444	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	39	1,965	468	4.61	527	500
	6	7	3.1	0.7	1.2	2.0	43	2,400	516	3.08	521	500
	10	6	3.7	0.7	1.2	2.2	46	3,520	552	1.83	455	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
26	1.5	7	1.6	0.7	1.0	1.8	35	1,200	420	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	37	1,525	444	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	39	2,005	468	4.61	527	500
	6	7	3.1	0.7	1.2	2.0	43	2,455	516	3.08	521	500
	10	6	3.7	0.7	1.2	2.2	46	3,610	552	1.83	455	500
27	1.5	7	1.6	0.7	1.0	1.8	36	1,240	432	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	38	1,585	456	7.41	600	500
	4	7	2.5	0.7	1.0	1.8	40	2,080	480	4.61	527	500
	6	7	3.1	0.7	1.2	2.1	44	2,550	528	3.08	521	500
	10	6	3.7	0.7	1.2	2.2	47	3,745	564	1.83	455	500
28	1.5	7	1.6	0.7	1.0	1.8	37	1,300	444	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	39	1,660	468	7.41	600	500
	4	7	2.5	0.7	1.0	1.9	41	2,200	492	4.61	527	500
	6	7	3.1	0.7	1.2	2.1	46	2,685	552	3.08	521	500
	10	6	3.7	0.7	1.2	2.3	49	3,910	588	1.83	455	500
29	1.5	7	1.6	0.7	1.0	1.8	37	1,315	444	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	39	1,680	468	7.41	600	500
	4	7	2.5	0.7	1.0	1.9	41	2,235	492	4.61	527	500
	6	7	3.1	0.7	1.2	2.1	46	2,735	552	3.08	521	500
	10	6	3.7	0.7	1.2	2.3	49	3,995	588	1.83	455	500
30	1.5	7	1.6	0.7	1.0	1.8	37	1,335	444	12.1	678	500
	2.5	7	2.0	0.7	1.0	1.8	39	1,710	468	7.41	600	500
	4	7	2.5	0.7	1.0	1.9	41	2,275	492	4.61	527	500
	6	7	3.1	0.7	1.2	2.1	46	2,790	552	3.08	521	500
	10	6	3.7	0.7	1.2	2.3	49	4,085	588	1.83	455	500

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT SINGLE CORE CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

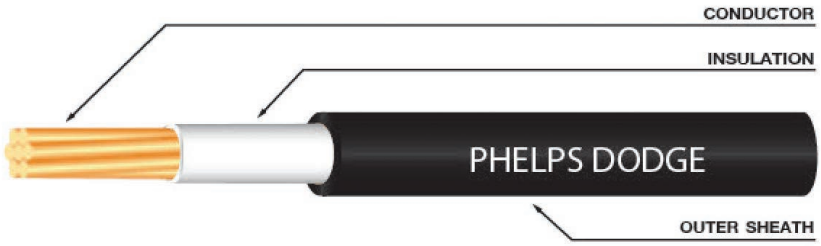
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper

Insulation : Cross-linked polyethylene (XLPE)
Colour : Transparent

Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Black Colour. Other colours to special order

FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Current Rating in Free Air at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)										Single-phase	Three-phase		
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	A	m/R
1 x 1.5	7	1.6	0.7	1.4	8.0	50	32	12.1	1,002	15.43	0.204	21	18	27	500
1 x 2.5	7	2.0	0.7	1.4	8.5	65	34	7.41	839	9.45	0.193	28	25	38	500
1 x 4	7	2.5	0.7	1.4	9.0	85	36	4.61	702	5.88	0.183	38	34	51	500
1 x 6	7	3.1	0.7	1.4	9.5	105	38	3.08	594	3.93	0.175	49	44	66	500
1 x 10	6	3.7	0.7	1.4	10	145	40	1.83	509	2.33	0.165	68	60	92	500
1 x 16	6	4.6	0.7	1.4	11	210	44	1.15	421	1.47	0.158	91	80	124	500
1 x 25	6	5.9	0.9	1.4	13	305	52	0.727	427	0.927	0.154	121	106	166	500
1 x 35	6	7.0	0.9	1.4	14	400	56	0.524	366	0.668	0.149	149	131	206	500
1 x 50	6	8.1	1.0	1.4	15	530	60	0.387	351	0.494	0.146	180	159	250	500
1 x 70	12	9.6	1.1	1.4	17	735	68	0.268	330	0.342	0.144	230	202	321	500
1 x 95	15	11.4	1.1	1.5	19	995	76	0.193	281	0.247	0.141	278	245	391	500
1 x 120	18	12.7	1.2	1.5	21	1,230	84	0.153	276	0.196	0.140	322	284	455	500
1 x 150	18	14.1	1.4	1.6	23	1,510	92	0.124	288	0.159	0.140	358	311	525	500
1 x 185	30	15.8	1.6	1.6	25	1875	100	0.0991	294	0.127	0.139	409	349	602	500
1 x 240	34	18.1	1.7	1.7	27	2,435	135	0.0754	275	0.097	0.137	480	410	711	500
1 x 300	34	20.4	1.8	1.8	30	3,030	150	0.0601	259	0.078	0.136	549	468	821	500
1 x 400	53	23.5	2.0	1.9	34	3,935	170	0.0470	251	0.062	0.136	622	531	987	500
1 x 500	53	26.1	2.2	2.0	37	5,000	185	0.0366	248	0.049	0.135	713	606	1,140	500
1 x 630	53	30.0	2.4	2.2	42	6,455	210	0.0283	237	0.039	0.134	819	695	1,323	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT TWO CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

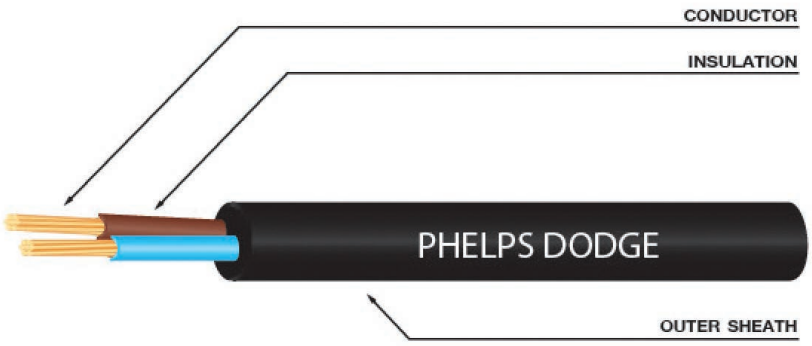
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper

Insulation : Cross-linked polyethylene (XLPE)
Colour : Brown, Blue Colour.

Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Black Colour. Other colours to special order


FLAME RETARDANT
IEC 60332-3
IEC 60332-1-2


LOW SMOKE
EMISSION
IEC 61034-2


HALOGEN FREE
(No acid gas emission)
IEC 60754-1, IEC 60754-2


LEAD-FREE & RoHS
COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
2 x 1.5	7	1.6	0.7	1.8	12	145	48	12.1	1,002	15.43	0.103	20	24	500
2 x 2.5	7	2.0	0.7	1.8	13	175	52	7.41	839	9.45	0.097	27	33	500
2 x 4	7	2.5	0.7	1.8	14	225	56	4.61	702	5.88	0.091	36	45	500
2 x 6	7	3.1	0.7	1.8	15	290	60	3.08	594	3.93	0.087	46	57	500
2 x 10	6	3.7	0.7	1.8	17	390	68	1.83	509	2.33	0.079	63	78	500
2 x 16	6	4.6	0.7	1.8	19	540	76	1.15	421	1.47	0.076	83	105	500
2 x 25	6	5.9	0.9	1.8	22	805	88	0.727	427	0.927	0.076	108	136	500
2 x 35	6	7.0	0.9	1.8	24	1,050	96	0.524	366	0.669	0.074	133	168	500
2 x 50	6	8.1	1.0	1.8	27	1,380	135	0.387	351	0.494	0.073	159	205	500
2 x 70	12	9.6	1.1	1.8	30	1,890	150	0.268	330	0.342	0.072	201	263	500
2 x 95	15	11.4	1.1	1.9	34	2,540	170	0.193	281	0.247	0.070	241	320	500
2 x 120	18	12.7	1.2	2.0	37	3,145	185	0.153	276	0.196	0.070	278	373	500
2 x 150	18	14.1	1.4	2.2	42	3,885	210	0.124	288	0.160	0.071	304	430	500
2 x 185	30	15.8	1.6	2.3	46	4,840	230	0.099	294	0.128	0.071	349	493	500
2 x 240	34	18.1	1.7	2.5	51	6,255	306	0.075	275	0.099	0.070	418	583	500
2 x 300	34	20.4	1.8	2.6	57	7,765	342	0.060	259	0.080	0.069	484	674	300
2 x 400	53	23.5	2.0	2.9	64	10,130	384	0.047	251	0.064	0.069	569	787	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT THREE CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

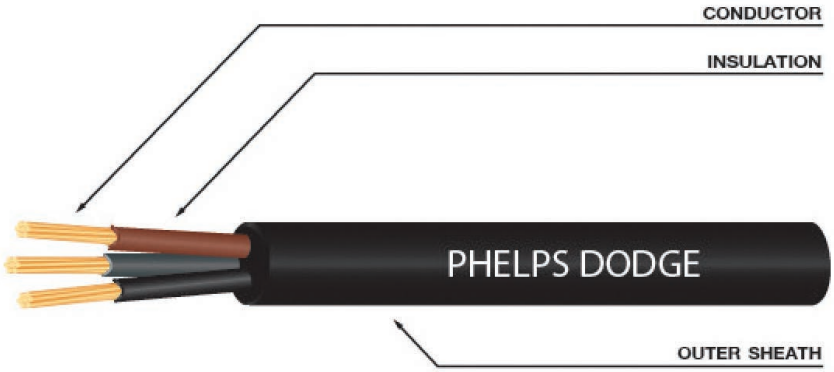
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper

Insulation : Cross-linked polyethylene (XLPE)
Colour : Brown, Black, Grey Colour.

Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Black Colour. Other colours to special order


FLAME RETARDANT
IEC 60332-3
IEC 60332-1-2


LOW SMOKE
EMISSION
IEC 61034-2


HALOGEN FREE
(No acid gas emission)
IEC 60754-1, IEC 60754-2


LEAD-FREE & RoHS
COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
3 x 1.5	7	1.6	0.7	1.8	13	160	52	12.1	1,002	15.43	0.103	18	21	500
3 x 2.5	7	2.0	0.7	1.8	14	205	56	7.41	839	9.45	0.097	24	29	500
3 x 4	7	2.5	0.7	1.8	15	265	60	4.61	702	5.88	0.091	32	38	500
3 x 6	7	3.1	0.7	1.8	16	345	64	3.08	594	3.93	0.087	40	49	500
3 x 10	6	3.7	0.7	1.8	18	480	72	1.83	509	2.33	0.079	55	68	500
3 x 16	6	4.6	0.7	1.8	20	685	80	1.15	421	1.47	0.076	73	91	500
3 x 25	6	5.9	0.9	1.8	23	1,025	92	0.727	427	0.927	0.076	96	116	500
3 x 35	6	7.0	0.9	1.8	26	1,350	130	0.524	366	0.669	0.074	116	144	500
3 x 50	6	8.1	1.0	1.8	29	1,795	145	0.387	351	0.494	0.073	140	175	500
3 x 70	12	9.6	1.1	1.9	32	2,490	160	0.268	330	0.343	0.072	177	224	500
3 x 95	15	11.4	1.1	2.0	37	3,360	185	0.193	281	0.248	0.070	212	271	500
3 x 120	18	12.7	1.2	2.1	40	4,175	200	0.153	276	0.197	0.070	244	315	500
3 x 150	18	14.1	1.4	2.3	44	5,155	220	0.124	288	0.160	0.071	273	363	500
3 x 185	30	15.8	1.6	2.4	49	6,425	245	0.0991	294	0.129	0.071	309	415	500
3 x 240	34	18.1	1.7	2.6	55	8,330	330	0.0754	275	0.100	0.070	362	490	300
3 x 300	34	20.4	1.8	2.7	61	10,350	366	0.0601	259	0.081	0.069	414	565	300
3 x 400	53	23.5	2.0	3.0	69	13,505	414	0.0470	251	0.065	0.069	488	674	200

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT FOUR CORES CABLES

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

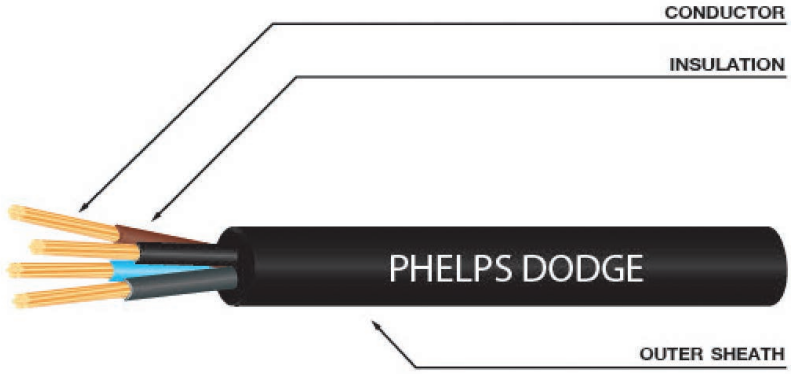
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor : Round concentric lay stranded or Compact round stranded copper

Insulation : Cross-linked polyethylene (XLPE)
Colour : Brown, Black, Grey, Blue Colour.

Outer Sheath : Flame retardant Low smoke & halogen free compound (LSHF : ST8)
Colour : Black Colour. Other colours to special order


FLAME RETARDANT
IEC 60332-3
IEC 60332-1-2


LOW SMOKE
EMISSION
IEC 61034-2


HALOGEN FREE
(No acid gas emission)
IEC 60754-1, IEC 60754-2


LEAD-FREE & RoHS
COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)												
Core x mm²		mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
4 x 1.5	7	1.6	0.7	1.8	14	190	56	12.1	1,002	15.43	0.110	18	21	500
4 x 2.5	7	2.0	0.7	1.8	15	240	60	7.41	839	9.45	0.104	24	29	500
4 x 4	7	2.5	0.7	1.8	16	320	64	4.61	702	5.88	0.099	32	38	500
4 x 6	7	3.1	0.7	1.8	18	420	72	3.08	594	3.93	0.094	40	49	500
4 x 10	6	3.7	0.7	1.8	19	595	76	1.83	509	2.33	0.087	55	68	500
4 x 16	6	4.6	0.7	1.8	21	855	84	1.15	421	1.47	0.083	73	91	500
4 x 25	6	5.9	0.9	1.8	25	1,290	100	0.727	427	0.927	0.083	96	116	500
4 x 35	6	7.0	0.9	1.8	28	1,705	140	0.524	366	0.669	0.081	116	144	500
4 x 50	6	8.1	1.0	1.8	31	2,270	155	0.387	351	0.494	0.080	140	175	500
4 x 70	12	9.6	1.1	2.0	36	3,185	180	0.268	330	0.343	0.079	177	224	500
4 x 95	15	11.4	1.1	2.1	40	4,300	200	0.193	281	0.247	0.078	212	271	500
4 x 120	18	12.7	1.2	2.3	44	5,375	220	0.153	276	0.197	0.077	244	315	500
4 x 150	18	14.1	1.4	2.4	49	6,600	245	0.124	288	0.160	0.078	273	363	300
4 x 185	30	15.8	1.6	2.6	55	8,260	330	0.0991	294	0.129	0.078	309	415	300
4 x 240	34	18.1	1.7	2.8	61	10,715	366	0.0754	275	0.099	0.077	362	490	300
4 x 300	34	20.4	1.8	3.0	68	13,345	408	0.0601	259	0.080	0.077	414	565	200
4 x 400	53	23.5	2.0	3.3	77	17,410	462	0.0470	251	0.065	0.076	488	674	200

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT SINGLE CORE CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

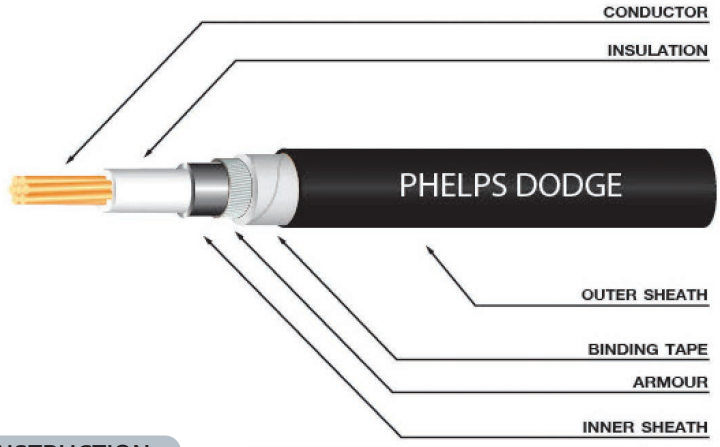
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire. With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Insulation	: Cross-linked polyethylene (XLPE) Colour : Transparent
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Aluminium wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Black Colour. Other colours to special order

FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)		Standard Packing
	Minimum Number of Wires	Diameter (Approx)												Single-phase	Three-phase	Flat	Trefoil	
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	A	A	m/R
1 x 1.5	7	1.6	0.7	1.0	0.80	1.4	12	135	144	12.1	1,002	15.43	0.188	21	18	-	-	500
1 x 2.5	7	2.0	0.7	1.0	0.80	1.4	13	150	156	7.41	839	9.45	0.178	28	25	-	-	500
1 x 4	7	2.5	0.7	1.0	0.80	1.4	13	175	156	4.61	702	5.88	0.169	38	34	-	-	500
1 x 6	7	3.1	0.7	1.0	0.80	1.4	14	210	168	3.08	594	3.93	0.161	49	44	-	-	500
1 x 10	6	3.7	0.7	1.0	0.80	1.4	15	260	180	1.83	509	2.33	0.150	68	60	-	-	500
1 x 16	6	4.6	0.7	1.0	0.80	1.4	15	330	180	1.15	421	1.47	0.143	91	80	-	-	500
1 x 25	6	5.9	0.9	1.0	0.80	1.4	17	450	204	0.727	427	0.93	0.139	121	106	151	141	500
1 x 35	6	7.0	0.9	1.0	0.80	1.4	18	560	216	0.524	366	0.67	0.135	149	131	177	168	500
1 x 50	6	8.1	1.0	1.0	1.25	1.5	21	760	252	0.387	351	0.49	0.132	180	159	211	202	500
1 x 70	12	9.6	1.1	1.0	1.25	1.5	22	985	264	0.268	330	0.34	0.129	230	202	267	259	500
1 x 95	15	11.4	1.1	1.0	1.25	1.6	24	1,275	288	0.193	281	0.25	0.126	278	245	320	315	500
1 x 120	18	12.7	1.2	1.0	1.60	1.7	27	1,595	324	0.153	276	0.20	0.125	322	284	369	366	500
1 x 150	18	14.1	1.4	1.0	1.60	1.7	29	1,895	348	0.124	288	0.16	0.125	358	311	420	421	500
1 x 185	30	15.8	1.6	1.0	1.60	1.8	31	2,310	372	0.0991	294	0.13	0.124	409	349	477	481	500
1 x 240	34	18.1	1.7	1.0	1.60	1.9	34	2,920	408	0.0754	275	0.10	0.123	480	410	557	569	300
1 x 300	34	20.4	1.8	1.0	1.60	1.9	36	3,540	432	0.0601	259	0.08	0.122	549	468	637	655	300
1 x 400	53	23.5	2.0	1.2	2.00	2.1	41	4,655	492	0.047	251	0.06	0.121	622	531	698	742	300
1 x 500	53	26.1	2.2	1.2	2.00	2.2	45	5,790	540	0.0366	248	0.05	0.120	713	606	774	835	300
1 x 630	53	30.0	2.4	1.2	2.00	2.3	49	7,310	588	0.0283	237	0.04	0.120	819	695	851	935	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT TWO CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

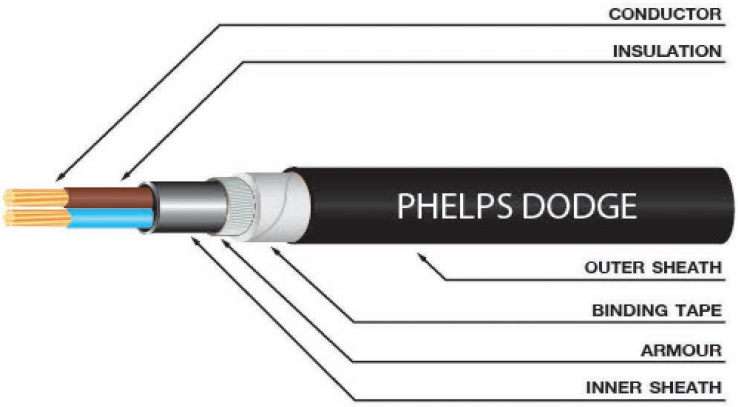
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire. With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Insulation	: Cross-linked polyethylene (XLPE) : Colour : Brown, Blue Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Black Colour. Other colours to special order

FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
2 x 1.5	7	1.6	0.7	1.0	0.80	1.8	16	345	192	12.10	1,002	15.43	0.103	26	500
2 x 2.5	7	2.0	0.7	1.0	0.80	1.8	17	400	204	7.41	839	9.45	0.097	35	500
2 x 4	7	2.5	0.7	1.0	0.80	1.8	18	470	216	4.61	702	5.88	0.091	47	500
2 x 6	7	3.1	0.7	1.0	0.80	1.8	19	555	228	3.08	594	3.93	0.087	60	500
2 x 10	6	3.7	0.7	1.0	1.25	1.8	22	805	264	1.83	509	2.33	0.079	82	500
2 x 16	6	4.6	0.7	1.0	1.25	1.8	23	1,010	276	1.15	421	1.47	0.076	105	500
2 x 25	6	5.9	0.9	1.0	1.60	1.8	27	1,510	324	0.727	427	0.927	0.076	138	500
2 x 35	6	7.0	0.9	1.0	1.60	1.8	30	1,830	360	0.524	366	0.669	0.074	171	500
2 x 50	6	8.1	1.0	1.0	1.60	1.8	32	2,260	384	0.387	351	0.494	0.073	207	500
2 x 70	12	9.6	1.1	1.0	1.60	2.0	36	2,915	432	0.268	330	0.342	0.072	265	500
2 x 95	15	11.4	1.1	1.2	2.00	2.1	41	3,990	492	0.193	281	0.247	0.070	322	500
2 x 120	18	12.7	1.2	1.2	2.00	2.2	45	4,755	540	0.153	276	0.196	0.070	373	500
2 x 150	18	14.1	1.4	1.2	2.00	2.3	48	5,635	576	0.124	288	0.160	0.071	430	500
2 x 185	30	15.8	1.6	1.4	2.50	2.5	54	7,270	648	0.099	294	0.128	0.071	490	500
2 x 240	34	18.1	1.7	1.4	2.50	2.7	60	8,975	720	0.075	275	0.099	0.070	579	300
2 x 300	34	20.4	1.8	1.6	2.50	2.8	66	10,830	792	0.060	259	0.080	0.069	666	300
2 x 400	53	23.5	2.0	1.6	2.50	3.1	73	13,595	876	0.047	251	0.064	0.069	771	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT THREE CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

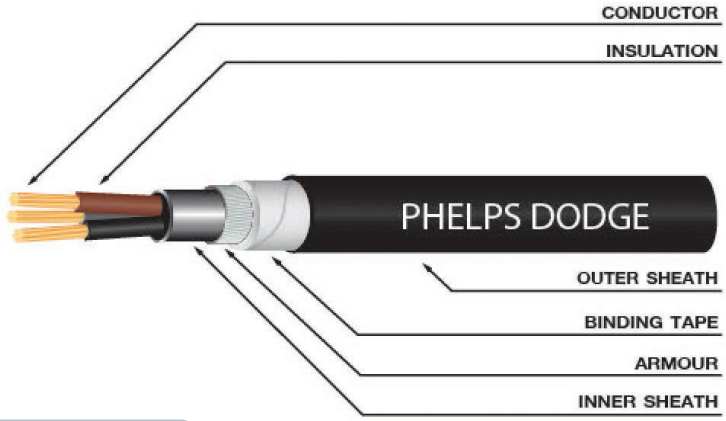
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire. With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Insulation	: Cross-linked polyethylene (XLPE) : Colour : Brown, Black, Grey Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Black Colour. Other colours to special order

FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
3 x 1.5	7	1.6	0.7	1.0	0.80	1.8	17	375	204	12.1	1,002	15.43	0.103	23	500
3 x 2.5	7	2.0	0.7	1.0	0.80	1.8	18	435	216	7.41	839	9.45	0.097	30	500
3 x 4	7	2.5	0.7	1.0	0.80	1.8	19	520	228	4.61	702	5.88	0.091	40	500
3 x 6	7	3.1	0.7	1.0	0.80	1.8	20	620	240	3.08	594	3.93	0.087	51	500
3 x 10	6	3.7	0.7	1.0	1.25	1.8	22	925	264	1.83	509	2.33	0.079	71	500
3 x 16	6	4.6	0.7	1.0	1.25	1.8	24	1,190	288	1.15	421	1.47	0.076	90	500
3 x 25	6	5.9	0.9	1.0	1.60	1.8	29	1,770	348	0.727	427	0.927	0.076	119	500
3 x 35	6	7.0	0.9	1.0	1.60	1.8	31	2,170	372	0.524	366	0.669	0.074	147	500
3 x 50	6	8.1	1.0	1.0	1.60	1.9	34	2,745	408	0.387	351	0.494	0.073	179	500
3 x 70	12	9.6	1.1	1.2	2.00	2.0	39	3,860	468	0.268	330	0.343	0.072	228	500
3 x 95	15	11.4	1.1	1.2	2.00	2.2	44	4,910	528	0.193	281	0.248	0.070	277	500
3 x 120	18	12.7	1.2	1.2	2.00	2.3	47	5,880	564	0.153	276	0.197	0.070	321	500
3 x 150	18	14.1	1.4	1.4	2.50	2.5	53	7,525	636	0.124	288	0.160	0.071	369	500
3 x 185	30	15.8	1.6	1.4	2.50	2.6	58	9,040	696	0.0991	294	0.129	0.071	421	500
3 x 240	34	18.1	1.7	1.6	2.50	2.8	64	11,295	768	0.0754	275	0.100	0.070	497	300
3 x 300	34	20.4	1.8	1.6	2.50	3.0	70	13,680	840	0.0601	259	0.081	0.069	571	300
3 x 400	53	23.5	2.0	1.6	2.50	3.2	78	17,200	936	0.0470	251	0.065	0.069	662	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT FOUR CORES CABLES WITH ARMOUR

STANDARDS ACHIEVED :

Construction

- IEC 60228, IEC 60502-1

Flame propagation

- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission

- IEC 60754-1

pH and conductivity

- IEC 60754-2

Smoke emission

- IEC 61034-2

APPLICATION :

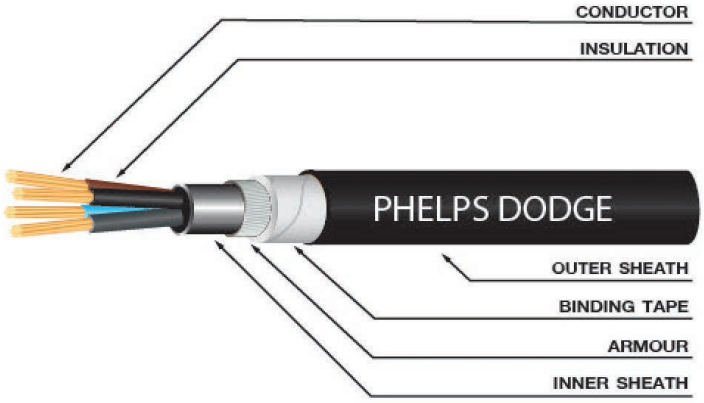
For power distribution installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire. With metallic armour, the cable is suitable for installation in areas where special mechanical protection is required.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc



CONSTRUCTION :

Conductor	: Round concentric lay stranded or Compact round stranded copper
Insulation	: Cross-linked polyethylene (XLPE) : Colour : Brown, Black, Grey, Blue Colour.
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Armour	: Galvanized steel wire
Binding Tape	: Polyester or other suitable binding tape
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Black Colour. Other colours to special order

FLAME RETARDANT IEC 60332-3 IEC 60332-1-2 | LOW SMOKE EMISSION IEC 61034-2 | HALOGEN FREE (No acid gas emission) IEC 60754-1, IEC 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Armour Wire Diameter	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 20°C	AC Resistance at 90° C	Inductive Reactance	Current Rating in Free Air or on a Perforated Cable Tray at 40°C (ambient)	Standard Packing
	Minimum Number of Wires	Diameter (Approx)													
Core x mm²		mm	mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	m/R
4 x 1.5	7	1.6	0.7	1.0	0.80	1.8	18	420	216	12.1	1,002	15.43	0.110	23	500
4 x 2.5	7	2.0	0.7	1.0	0.80	1.8	19	495	228	7.41	839	9.45	0.104	30	500
4 x 4	7	2.5	0.7	1.0	0.80	1.8	20	595	240	4.61	702	5.88	0.099	40	500
4 x 6	7	3.1	0.7	1.0	1.25	1.8	22	860	264	3.08	594	3.93	0.094	51	500
4 x 10	6	3.7	0.7	1.0	1.25	1.8	24	1,075	288	1.83	509	2.33	0.087	71	500
4 x 16	6	4.6	0.7	1.0	1.60	1.8	27	1,535	324	1.15	421	1.47	0.083	90	500
4 x 25	6	5.9	0.9	1.0	1.60	1.8	31	2,105	372	0.727	427	0.927	0.083	119	500
4 x 35	6	7.0	0.9	1.0	1.60	1.9	33	2,615	396	0.524	366	0.669	0.081	147	500
4 x 50	6	8.1	1.0	1.0	1.60	2.0	37	3,320	444	0.387	351	0.494	0.080	179	500
4 x 70	12	9.6	1.1	1.2	2.00	2.2	43	4,700	516	0.268	330	0.343	0.079	228	500
4 x 95	15	11.4	1.1	1.2	2.00	2.3	47	6,030	564	0.193	281	0.247	0.078	277	500
4 x 120	18	12.7	1.2	1.4	2.50	2.5	53	7,745	636	0.153	276	0.197	0.077	321	300
4 x 150	18	14.1	1.4	1.4	2.50	2.6	58	9,210	696	0.124	288	0.160	0.078	369	300
4 x 185	30	15.8	1.6	1.4	2.50	2.8	63	11,120	756	0.0991	294	0.129	0.078	421	300
4 x 240	34	18.1	1.7	1.6	2.50	3.0	70	14,015	840	0.0754	275	0.099	0.077	497	300
4 x 300	34	20.4	1.8	1.6	2.50	3.2	77	16,985	924	0.0601	259	0.080	0.077	571	300
4 x 400	53	23.5	2.0	1.8	3.15	3.5	87	22,535	1,044	0.0470	251	0.065	0.076	662	300

0.6/1 (1.2) kV LOW SMOKE & HALOGEN FREE FLAME RETARDANT CONTROL CABLES WITH METALLIC SHIELD

STANDARDS ACHIEVED :

Construction
- IEC 60228, IEC 60502-1

Flame propagation
- IEC 60332-1-2
- IEC 60332-3-22 (Category A)
- IEC 60332-3-23 (Category B)
- IEC 60332-3-24 (Category C)

Acid gas emission
- IEC 60754-1

pH and conductivity
- IEC 60754-2

Smoke emission
- IEC 61034-2

APPLICATION :

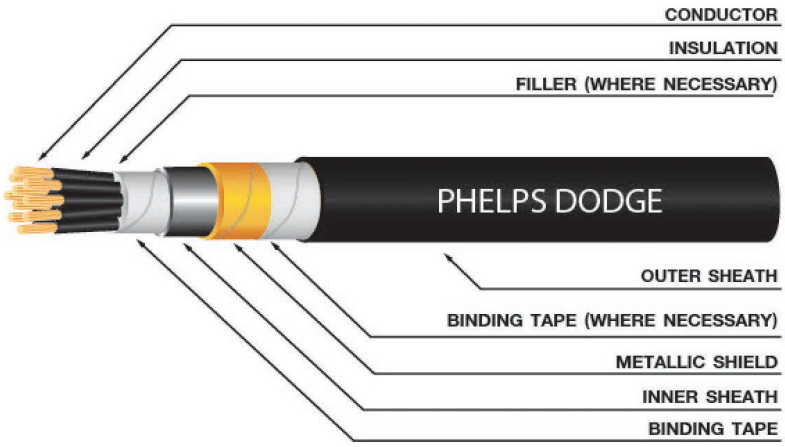
For supervisory electrical equipment, station control circuits installed in air, conduit, duct, trench and tray which provide flame retardant, low smoke and low toxic emission under fire.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U (U_m) : 0.6/1 (1.2) kV
600 Volts between conductor and earth
1000 Volts between conductors
1200 Volts maximum system voltage

VOLTAGE TEST :

3.5 kVac or 8.4 kVdc




FLAME RETARDANT
IEC 60332-3
IEC 60332-1-2

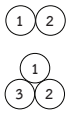

LOW SMOKE
EMISSION
IEC 61034-2


HALOGEN FREE
(No acid gas emission)
IEC 60754-1, IEC 60754-2


LEAD-FREE & RoHS
COMPLIANT

CONSTRUCTION :

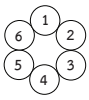
Conductor	: Round concentric lay stranded or Compact round stranded copper
Insulation	: Cross-linked polyethylene (XLPE) Colour : Black Colour with marked core number.
Filler	: Non-hygroscopic material
Binding Tape	: Polyester or other suitable binding tape
Inner Sheath	: Flame retardant Low smoke & halogen free compound (LSHF) Colour : Black Colour
Metallic Shield	: Annealed copper tape
Binding Tape	: Polyester or other suitable binding tape (Where necessary).
Outer Sheath	: Flame retardant Low smoke & halogen free compound (LSHF : ST8) Colour : Black Colour. Other colours to special order


Control Cable 2 Cores

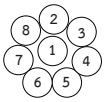
Control Cable 3 Cores

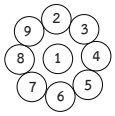

Control Cable 4 Cores

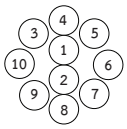

Control Cable 5 Cores

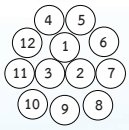

Control Cable 6 Cores

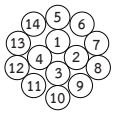

Control Cable 7 Cores

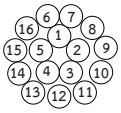

Control Cable 8 Cores

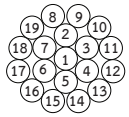

Control Cable 9 Cores

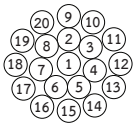

Control Cable 10 Cores

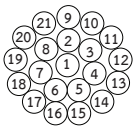

Control Cable 12 Cores

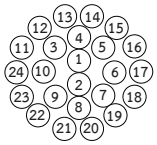

Control Cable 14 Cores

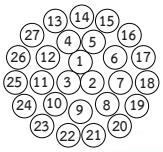

Control Cable 16 Cores

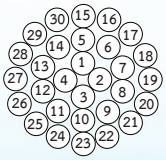

Control Cable 19 Cores


Control Cable 20 Cores


Control Cable 21 Cores


Control Cable 24 Cores


Control Cable 27 Cores


Control Cable 30 Cores

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
2	1.5	7	1.6	0.7	1.0	1.8	14	215	168	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	15	255	180	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	16	310	192	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	17	380	204	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	19	490	228	1.83	509	500
3	1.5	7	1.6	0.7	1.0	1.8	15	235	180	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	16	285	192	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	17	355	204	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	18	440	216	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	20	585	240	1.83	509	500
4	1.5	7	1.6	0.7	1.0	1.8	16	265	192	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	17	325	204	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	18	415	216	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	19	520	228	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	21	705	252	1.83	509	500
5	1.5	7	1.6	0.7	1.0	1.8	17	300	204	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	18	375	216	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	19	475	228	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	21	610	252	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	23	835	276	1.83	509	500
6	1.5	7	1.6	0.7	1.0	1.8	18	340	216	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	19	420	228	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	20	545	240	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	22	700	264	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	24	970	288	1.83	509	500
7	1.5	7	1.6	0.7	1.0	1.8	18	355	216	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	19	445	228	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	20	580	240	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	22	755	264	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	24	1,055	288	1.83	509	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
8	1.5	7	1.6	0.7	1.0	1.8	19	390	228	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	20	495	240	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	22	650	264	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	24	845	288	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	26	1,195	312	1.83	509	500
9	1.5	7	1.6	0.7	1.0	1.8	20	430	240	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	21	550	252	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	23	720	276	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	25	940	300	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	27	1,330	324	1.83	509	500
10	1.5	7	1.6	0.7	1.0	1.8	21	480	252	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	23	610	276	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	25	805	300	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	27	1,055	324	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	29	1,490	348	1.83	509	500
11	1.5	7	1.6	0.7	1.0	1.8	21	490	252	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	23	635	276	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	25	840	300	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	27	1,105	324	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	29	1,575	348	1.83	509	500
12	1.5	7	1.6	0.7	1.0	1.8	21	520	252	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	23	670	276	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	25	895	300	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	27	1,185	324	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	30	1,695	360	1.83	509	500
13	1.5	7	1.6	0.7	1.0	1.8	22	555	264	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	24	725	288	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	26	965	312	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	29	1,275	348	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	32	1,835	384	1.83	509	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
14	1.5	7	1.6	0.7	1.0	1.8	22	570	264	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	24	745	288	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	26	1,000	312	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	29	1,325	348	3.08	594	500
	10	6	3.7	0.7	1.0	1.8	32	1,915	384	1.83	509	500
15	1.5	7	1.6	0.7	1.0	1.8	23	610	276	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	25	800	300	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	27	1,075	324	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	30	1,430	360	3.08	594	500
	10	6	3.7	0.7	1.0	1.9	33	2,080	396	1.83	509	500
16	1.5	7	1.6	0.7	1.0	1.8	23	625	276	12.1	1002	500
	2.5	7	2.0	0.7	1.0	1.8	25	820	300	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	27	1,110	324	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	30	1,480	360	3.08	594	500
	10	6	3.7	0.7	1.0	1.9	33	2,160	396	1.83	509	500
17	1.5	7	1.6	0.7	1.0	1.8	24	670	288	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	26	880	312	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	29	1,190	348	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	31	1,585	372	3.08	594	500
	10	6	3.7	0.7	1.0	1.9	35	2,315	420	1.83	509	500
18	1.5	7	1.6	0.7	1.0	1.8	24	680	288	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	26	900	312	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	29	1,225	348	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	31	1,635	372	3.08	594	500
	10	6	3.7	0.7	1.0	1.9	35	2,400	420	1.83	509	500
19	1.5	7	1.6	0.7	1.0	1.8	24	695	288	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	26	920	312	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	29	1,255	348	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	31	1,685	372	3.08	594	500
	10	6	3.7	0.7	1.0	1.9	35	2,485	420	1.83	509	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
20	1.5	7	1.6	0.7	1.0	1.8	25	740	300	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	27	980	324	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	30	1,335	360	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	33	1,790	396	3.08	594	500
	10	6	3.7	0.7	1.2	2.0	37	2,690	444	1.83	509	500
21	1.5	7	1.6	0.7	1.0	1.8	25	750	300	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	27	1,000	324	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	30	1,370	360	4.61	702	500
	6	7	3.1	0.7	1.0	1.8	33	1,840	396	3.08	594	500
	10	6	3.7	0.7	1.2	2.0	37	2,770	444	1.83	509	500
22	1.5	7	1.6	0.7	1.0	1.8	26	795	312	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	28	1,060	336	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	31	1,450	372	4.61	702	500
	6	7	3.1	0.7	1.0	1.9	34	1,965	408	3.08	594	500
	10	6	3.7	0.7	1.2	2.0	39	2,930	468	1.83	509	500
23	1.5	7	1.6	0.7	1.0	1.8	26	810	312	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	28	1,080	336	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	31	1,485	372	4.61	702	500
	6	7	3.1	0.7	1.0	1.9	34	2,015	408	3.08	594	500
	10	6	3.7	0.7	1.2	2.0	39	3,015	468	1.83	509	500
24	1.5	7	1.6	0.7	1.0	1.8	27	865	324	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	30	1,150	360	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	33	1,580	396	4.61	702	500
	6	7	3.1	0.7	1.2	1.9	36	2,175	432	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	41	3,215	492	1.83	509	500
25	1.5	7	1.6	0.7	1.0	1.8	27	875	324	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	30	1,175	360	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	33	1,615	396	4.61	702	500
	6	7	3.1	0.7	1.2	1.9	36	2,225	432	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	41	3,295	492	1.83	509	500

FIRE RESISTANT AND LOW SMOKE HALOGEN FREE CABLES

No. of Cores	Conductor			Nominal Thickness of Insulation	Approx. Thickness of Inner Covering	Nominal Thickness of Sheath	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Standard Packing
	Cross Sectional Area	Minimum Number of Wires	Diameter (Approx)									
	mm²		mm	mm	mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	m/R
26	1.5	7	1.6	0.7	1.0	1.8	27	890	324	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	30	1,195	360	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	33	1,650	396	4.61	702	500
	6	7	3.1	0.7	1.2	1.9	36	2,280	432	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	41	3,385	492	1.83	509	500
27	1.5	7	1.6	0.7	1.0	1.8	27	920	324	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	30	1,240	360	7.41	839	500
	4	7	2.5	0.7	1.0	1.8	33	1,710	396	4.61	702	500
	6	7	3.1	0.7	1.2	1.9	37	2,365	444	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	42	3,510	504	1.83	509	500
28	1.5	7	1.6	0.7	1.0	1.8	28	965	336	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	31	1,295	372	7.41	839	500
	4	7	2.5	0.7	1.0	1.9	35	1,800	420	4.61	702	500
	6	7	3.1	0.7	1.2	2.0	39	2,485	468	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	43	3,665	516	1.83	509	500
29	1.5	7	1.6	0.7	1.0	1.8	28	975	336	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	31	1,315	372	7.41	839	500
	4	7	2.5	0.7	1.0	1.9	35	1,835	420	4.61	702	500
	6	7	3.1	0.7	1.2	2.0	39	2,535	468	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	43	3,745	516	1.83	509	500
30	1.5	7	1.6	0.7	1.0	1.8	28	990	336	12.1	1,002	500
	2.5	7	2.0	0.7	1.0	1.8	31	1,340	372	7.41	839	500
	4	7	2.5	0.7	1.0	1.9	35	1,870	420	4.61	702	500
	6	7	3.1	0.7	1.2	2.0	39	2,590	468	3.08	594	500
	10	6	3.7	0.7	1.2	2.1	43	3,835	516	1.83	509	500

600/1000 V FIRE RESISTANT LOW SMOKE & HALOGEN FREE SINGLE CORE CABLES (NON-SHEATHED)

STANDARDS ACHIEVED :

Construction
- BS EN 50525-3-41, BS EN 60228

Circuit integrity
- BS 6387 Category CWZ
- IEC 60331-21

Flame propagation
- BS EN 60332-1-2
- BS EN 60332-3-22 (Category A)
- BS EN 60332-3-23 (Category B)
- BS EN 60332-3-24 (Category C)

Acid gas emission
- BS EN 60754-1

pH and conductivity
- BS EN 60754-2

Smoke emission
- BS EN 61034-2

APPLICATION :

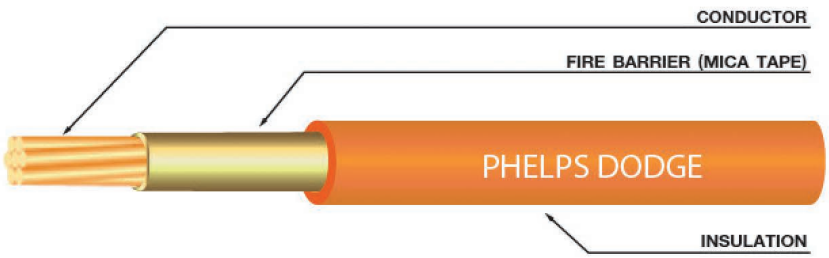
For fixed installation in electrical cabinet, conduit and wire way which provide flame retardant, low smoke, low toxic emission and long term circuit integrity under fire.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U : 600/1000 V
600 Volts between conductor and earth
1000 Volts between conductors

VOLTAGE TEST :

3.5 kVac



CONSTRUCTION :

Conductor : Round concentric lay stranded or round compact stranded copper

Fire Barrier : Fire resistant tape (Mica).

Insulation : Flame retardant Low smoke & halogen free Cross-linked polyethylene (LSHF-XLPE : EI5).
Colour : Orange Colour (Other colours to special order).

FIRE RESISTANCE BS 6387 IEC 60331-21 | FLAME RETARDANT BS EN 60332-3 BS EN 60332-1-2 | LOW SMOKE EMISSION BS EN 61034-2 | HALOGEN FREE (No acid gas emission) BS EN 60754-1, BS EN 60754-2 | LEAD-FREE & RoHS COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 90°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Standard Packing
	Minimum Number of Wires	Diameter (Approx)									Single-phase	Three-phase	
Core x mm²		mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
1 x 1.5	7	1.6	0.7	5.5	25	22	12.1	0.010	15.43	0.162	21	18	100/C
1 x 2.5	7	2.0	0.8	6.0	40	24	7.41	0.009	9.45	0.159	28	25	100/C
1 x 4	7	2.5	0.8	6.5	55	26	4.61	0.0077	5.88	0.152	38	34	100/C
1 x 6	7	3.1	0.8	7.0	75	28	3.08	0.0065	3.93	0.148	49	44	100/C
1 x 10	6	3.7	1.0	8.0	120	32	1.83	0.0065	2.33	0.144	68	60	500/R
1 x 16	6	4.6	1.0	9.0	180	36	1.15	0.0050	1.47	0.140	91	80	500/R
1 x 25	6	5.9	1.2	11	275	44	0.727	0.0050	0.927	0.139	121	106	500/R
1 x 35	6	7.0	1.2	12	365	48	0.524	0.0043	0.668	0.136	149	131	500/R
1 x 50	6	8.1	1.4	14	500	54	0.387	0.0043	0.494	0.136	180	159	500/R
1 x 70	12	9.6	1.4	15	695	60	0.268	0.0035	0.342	0.133	230	202	500/R
1 x 95	15	11.4	1.6	18	955	70	0.193	0.0035	0.247	0.133	278	245	500/R
1 x 120	18	12.7	1.6	19	1,180	74	0.153	0.0032	0.196	0.131	322	284	500/R
1 x 150	18	14.1	1.8	21	1,450	82	0.124	0.0032	0.159	0.132	358	311	500/R
1 x 185	30	15.8	2.0	23	1,815	90	0.0991	0.0032	0.127	0.131	409	349	500/R
1 x 240	34	18.1	2.2	25	2,370	100	0.0754	0.0032	0.097	0.131	480	410	500/R
1 x 300	34	20.4	2.4	28	2,960	140	0.0601	0.0030	0.078	0.131	549	468	500/R
1 x 400	53	23.5	2.6	32	3,850	160	0.0470	0.0028	0.062	0.130	622	531	500/R
1 x 500	53	26.1	2.8	35	4,900	175	0.0366	0.0028	0.049	0.130	713	606	500/R
1 x 630	53	30.0	2.8	39	6,280	195	0.0283	0.0025	0.039	0.128	819	695	500/R

600/1000 V LOW SMOKE & HALOGEN FREE FLAME RETARDANT SINGLE CORE CABLES (NON-SHEATHED)

STANDARDS ACHIEVED :

Construction
- BS EN 50525-3-41, BS EN 60228

Flame propagation
- BS EN 60332-1-2
- BS EN 60332-3-22 (Category A)
- BS EN 60332-3-23 (Category B)
- BS EN 60332-3-24 (Category C)

Acid gas emission
- BS EN 60754-1

pH and conductivity
- BS EN 60754-2

Smoke emission
- BS EN 61034-2

APPLICATION :

For fixed installation in electrical cabinet, conduit and wire way which provide flame retardant, low smoke and low toxic emission under fire.

CLASSIFICATION :

Maximum conductor temperature: 90°C
Reted voltage U_0/U : 600/1000 V
600 Volts between conductor and earth
1000 Volts between conductors

VOLTAGE TEST :

3.5 kVac

CONSTRUCTION :

Conductor : Round concentric lay stranded or round compact stranded copper

Insulation : Flame retardant Low smoke & halogen free Cross-linked polyethylene (LSHF-XLPE : EI5).
Colour : Black Colour (Other colours to special order).

FLAME RETARDANT
BS EN 60332-3
BS EN 60332-1-2

LOW SMOKE
EMISSION
BS EN 61034-2

HALOGEN FREE
(No acid gas emission)
BS EN 60754-1, BS EN 60754-2

LEAD-FREE & RoHS
COMPLIANT

SIZE	Conductor		Nominal Thickness of Insulation	Overall Diameter (Approx.)	Cable Weight (Approx.)	Minimum Bending Radius	Maximum Conductor Resistance at 20° C	Minimum Insulation Resistance at 90°C	AC Resistance at 90°C	Inductive Reactance	Current Rating In Conduit In Air at 40°C (ambient)		Standard Packing
	Minimum Number of Wires	Diameter (Approx)									Single-phase	Three-phase	
Core x mm²		mm	mm	mm	kg / km	mm	Ω / km	MΩ . km	Ω / km	Ω / km	A	A	m/R
1 x 1.5	7	1.6	0.7	3.5	25	14	12.1	0.010	15.43	0.162	21	18	100/C
1 x 2.5	7	2.0	0.8	4.5	35	18	7.41	0.009	9.45	0.159	28	25	100/C
1 x 4	7	2.5	0.8	5	50	20	4.61	0.0077	5.88	0.152	38	34	100/C
1 x 6	7	3.1	0.8	5.5	70	22	3.08	0.0065	3.93	0.148	49	44	100/C
1 x 10	6	3.7	1.0	7	115	28	1.83	0.0065	2.33	0.144	68	60	500/R
1 x 16	6	4.6	1.0	8.0	170	32	1.15	0.0050	1.47	0.140	91	80	500/R
1 x 25	6	5.9	1.2	10	265	40	0.727	0.0050	0.927	0.139	121	106	500/R
1 x 35	6	7.0	1.2	11	355	44	0.524	0.0043	0.668	0.136	149	131	500/R
1 x 50	6	8.1	1.4	13	485	52	0.387	0.0043	0.494	0.136	180	159	500/R
1 x 70	12	9.6	1.4	15	680	60	0.268	0.0035	0.342	0.133	230	202	500/R
1 x 95	15	11.4	1.6	18	935	72	0.193	0.0035	0.247	0.133	278	245	500/R
1 x 120	18	12.7	1.6	19	1,160	76	0.153	0.0032	0.196	0.131	322	284	500/R
1 x 150	18	14.1	1.8	22	1,430	88	0.124	0.0032	0.159	0.132	358	311	500/R
1 x 185	30	15.8	2.0	24	1,790	96	0.0991	0.0032	0.127	0.131	409	349	500/R
1 x 240	34	18.1	2.2	28	2,345	140	0.0754	0.0032	0.097	0.131	480	410	500/R
1 x 300	34	20.4	2.4	31	2,930	155	0.0601	0.0030	0.078	0.131	549	468	500/R
1 x 400	53	23.5	2.6	34	3,820	170	0.0470	0.0028	0.062	0.130	622	531	500/R
1 x 500	53	26.1	2.8	38	4,865	190	0.0366	0.0028	0.049	0.130	713	606	500/R
1 x 630	53	30.0	2.8	43	6,245	215	0.0283	0.0025	0.039	0.128	819	695	500/R

Why Phelps Dodge

Raw materials

Each of raw materials is elaborately selected from specialized and reliable suppliers by concisely selection criteria and incoming inspection

Copper

Phelps Dodge International Thailand (PDITL) possesses state-of-the-art technology of copper melting furnace producing high purity oxygen free copper rod.
PDITL's copper rod provides high conductivity of conductor and ensures best quality of wires and cables.

Insulation

Because of best-in-class raw materials and manufacturing process, insulation employed on PDITL's wires and cables are ensured highest level of safety and quality over lifetime

Testing

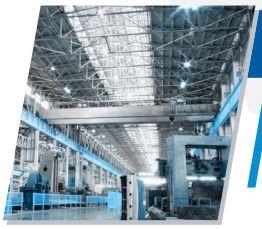
PDITL's quality commitment begins with the careful scrutiny of raw materials and continues to the testing of final products, where finish length of cable undergoes a series of rigorous tests to meet their specification criteria before being shipped to customers.

Technical service

PDITL's is willing to provide pre-purchased and post-purchased technical service by well-trained human resource with strong background and solid experience.

Customer

No wonder PDITL's products are chosen by various leading organizations in Thailand and worldwide, including ; EGAT PEA MEA TOT PTT. Indeed, PDITL's industry-wide reputation speaks for itself.



Distribution center

PDITL and its business partners own entirely distribution and transportation facilities countrywide to offer superior delivery service to customer premises.

Safety

Sefety is at the very core of our manufacturing excellence, and is an integral part of our industry leading and performance. Not only safety concern in internal manufacturing processes, but also concern safety in use of our products.

The World Class Wire & Cable

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