

# Doncaster Cables

## **SPLIT CONCENTRIC PVC INSULATED SINGLE PHASE SPLIT CONCENTRIC CABLE WITH COPPER CONDUCTORS**



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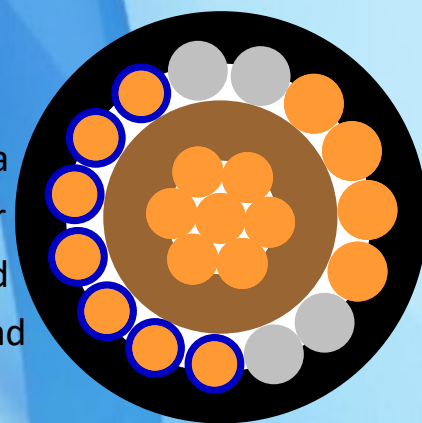
# Doncaster Cables

## SPLIT CONCENTRIC

### PVC INSULATED SINGLE PHASE SPLIT CONCENTRIC CABLE WITH COPPER CONDUCTORS

Manufactured to BS 4553-1 Table 3

The insulated neutrals and bare earth wires are laid in a concentric layer around the insulated phase conductor with PVC string separators separating the neutral and earths. This is then bound with a clear polyester tape and then PVC sheathed. (See diagram on the right)



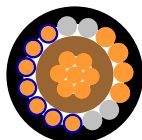
<b>Conductors:</b>	<b>Phase:</b>	Plain Annealed Copper Class 2 Stranded to BSEN60228
	<b>Neutral:</b>	Plain Annealed Copper Class 1 Solid to BSEN60228
	<b>Earth:</b>	Plain Annealed Copper Class 1 Solid to BSEN60228
<b>Insulation:</b>	<b>Phase:</b>	PVC Type TI1 to BS EN 50363-3
	<b>Neutral:</b>	Blue Compatible Polymeric Compound (PVC)
<b>Binder:</b>		Clear polyester tape
<b>Sheathing:</b>		PVC Type TM1 to B EN 50363-4-1

Split concentric cables are predominantly used by Distribution Network Operators (DNO's) when providing the final service connection to domestic properties.

Split concentric cables are also suitable for sub main distribution and have been found to be particularly useful within high rise buildings and street lighting systems.

These cables are designed to be installed in air, or for burial in free draining soil conditions

#### STANDARD CORE COLOURS



#### MINIMUM OPERATING TEMPERATURE

-15°C

#### MAXIMUM OPERATING TEMPERATURE

70°C

#### MINIMUM BENDING RADIUS

6 x Ø

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Reference	HSPLITCON4.0	HSPLITCON6.0	HSPLITCON710	HSPLITCON716	HSPLITCON725
Nominal CSA of Phase Conductor (mm <sup>2</sup> )	4.0	6.0	10.0	16.0	25.0
Nominal Makeup of Phase Conductor (mm)	7/0.85	7/1.04	7/1.35	7/1.70	7/2.14
Approx Combined CSA of Neutrals (mm <sup>2</sup> )	4.0	6.0	10.0	16.0	25.0
Nominal Makeup of Neutrals (mm)	7 x 0.85	7 x 1.04	7 x 1.35	7 x 1.70	11 x 1.70
Nominal Combined CSA of Earth (mm <sup>2</sup> )	4	6.0	10.0	16.0	16.0
Nominal Makeup of Earth (mm)	3 x 1.35	4 x 1.53	4 x 1.78	4 x 2.25	4 x 2.25
Nominal Radial Thickness of Insulation (mm)	0.8	0.8	1.0	1.0	1.2
Nominal Radial Thickness of Sheath (mm)	1.4	1.4	1.4	1.4	1.5
Approximate Overall Diameter (mm)	9.8	11.2	12.6	15.0	18.3
Approximate Weight (kg/km)	207	291	403	656	848

\* Weight and dimensional information is provided as an approximate guide only.



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### Current Ratings and Associated Voltage Drops

Phase Conductor Size (mm <sup>2</sup> )	Current Rating		Approx Voltage Drop (mV/A/m)
	In Air (A)	In Ground (A)	
4	42	53	11.0
6	54	66	7.2
10	74	88	4.3
16	97	115	2.7
25	130	150	1.7

### Maximum Conductor Resistance per 1000m of cable at 20°C

Phase Conductor Size (mm <sup>2</sup> )	4.0	6.0	10.0	16.0	25.0
PHASE Maximum d.c Conductor Resistance at 20°C (ohm/km)	4.61	3.08	1.83	1.15	0.727
NEUTRAL Maximum d.c Conductor Resistance at 20°C (ohm/km)	4.8	3.2	1.9	1.2	0.76
EARTH Maximum d.c Conductor Resistance at 20°C (ohm/km)	4.8	3.2	1.9	1.2	1.2

\* Weight and dimensional information is provided as an approximate guide only.

## Product Certification Schedule

Schedule No: 040/001/328  
Licensee: DONCASTER CABLES, ARKSEY LANE, BENTLEY, DONCASTER, DN5 0SJ  
Factory: DONCASTER CABLES, ARKSEY LANE, BENTLEY, DONCASTER, DN5 0SJ  
Specification: BS 4553-1:1998 Incorporating Amendment Nos. 1 & 2 Specification for 600/1000 V single-phase split concentric electric cables. Part 1: Cables having PVC insulation  
Type of Cable: Table 3 - 600/1000V PVC- insulated single phase split concentric cables with copper conductors  
HAR Document: Not applicable  
HAR Specification: Not applicable  
Range of Approval: 4sqmm to 35sqmm nominal cross-sectional area of conductors inclusive. Sheath - TM1 and Insulation - TI1.  
Origin Thread: Not applicable  
Origin Mark: DONCASTER CABLES or GB CABLES

### PERMISSIBLE MARKS



# BASEC

YELLOW  
ACETATE  
THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 05/02/2020

Signed for and on behalf of the British Approvals Service for Cables

Date 23/01/2017

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.



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