

# 309-Y / H05V2V2-F BS EN 50525-2-11 Flexible Cable



Eland Product Group: A5Y

## APPLICATION

For internal wiring or supply cords to electrical apparatus, particularly for use in high temperature zones such as lighting applications.

## CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
300/500V

**Temperature Rating**  
Fixed: 0°C to +90°C

**Minimum Bending Radius**  
Fixed: 6 x overall diameter  
Flexed: 10 x overall diameter

## CONSTRUCTION

**Conductor**  
Class 5 flexible copper conductor

**Insulation**  
PVC (Polyvinyl Chloride)

**Sheath**  
PVC (Polyvinyl Chloride)

**Core Identification**  
2 core: ● Blue ● Brown  
3 core: ● Green/Yellow ● Blue ● Brown  
4 core: ● Green/Yellow ● Brown ● Black ● Grey  
5 core: ● Green/Yellow ● Brown ● Black ● Grey ● Blue

**Sheath Colour**  
○ White

## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A5Y020075HRWH	2	0.75	0.6	0.8	6.3	63
A5Y030075HRWH	3	0.75	0.6	0.8	6.7	74
A5Y03010HRWH	3	1	0.6	0.8	7	86
A5Y03015HRWH	3	1.5	0.7	0.9	8.1	115
A5Y03025HRWH	3	2.5	0.8	1	9.7	170

## BSI KITEMARK™ TESTED



Cables are tested and verified by The Cable Lab® to confirm they meet the quality standards required of the BSI Cable Testing Verification Kitemark™.

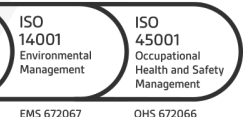
## STANDARDS

BS EN 60228, BS EN 50525-2-11

Flame Retardant according to BS EN/IEC 60332-1-2

## ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



## REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





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A5Y040075HRWH	4	0.75	0.6	0.8	7.3	78
A5Y04010HRWH	4	1	0.6	0.9	7.9	110
A5Y04015HRWH	4	1.5	0.7	1	9	140
A5Y04025HRWH	4	2.5	0.8	1.1	10.8	210
A5Y050075HRWH	5	0.75	0.6	0.9	8.1	105

## CONDUCTORS

### Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	
		Plain Wires	Metal-Coated Wires
0.75	0.21	26	26.7
1	0.21	19.5	20
1.5	0.26	13.3	13.7
2.5	0.26	7.98	8.21

The above table is in accordance with BS EN 60228 (previously BS 6360)

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity and Mass Supportable

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		MAXIMUM MASS SUPPORTABLE BY TWIN FLEXIBLE CORD (See regulations 522.7.2 and 559.6.1.5 of the 17th Edition of IEE Wiring Regulations) kg
	Single-Phase AC	Three-Phase AC	
0.75	6	6	3
1	10	10	5
1.5	16	16	5
2.5	25	20	5

The above table is in accordance with Table 4F3A of the 17th Edition of IEE Wiring Regulations..

## VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	DC OR SINGLE-PHASE AC mV/A/m	THREE-PHASE AC mV/A/m
0.75	62	54
1	46	40
1.5	32	27
2.5	19	16

Conductor operating temperature: 60°C\*

\* The tabulated values above are for 60°C thermoplastic or thermosetting insulated flexible cords. For other types of flexible cords they are to be multiplied by the following factors: for thermoplastic or thermoset insulation at 90°C: 1.09, at 105°C: 1.31

The above table is in accordance with Table 4F3B of the 17th Edition of IEE Wiring Regulations.

## DE-RATING FACTORS

### De-Rating factor for ambient temperature 60°C thermoplastic or thermosetting insulated cords

AIR TEMPERATURE	35°C	40°C	45°C	50°C	55°C
DE-RATING FACTOR	0.91	0.82	0.71	0.58	0.41

The above table is in accordance with Table 4F3A of the 17th Edition of IEE Wiring Regulations.

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.