FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 120 MM2 SECTOR 90 AL PVC PVC BLACK : 600 V WAPDA DDS-8:2007-4C : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		WAPDA DDS-8:2007
Max. Permissible Continuous Conductor Temp	°C	120
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600
Number of Conductors x Cross-Section	mm²	4 x 120
Conductor Material & Shape		Aluminum & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.86
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	3.20
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	43.62
Approximate Cable Weight	Kg/km	2702

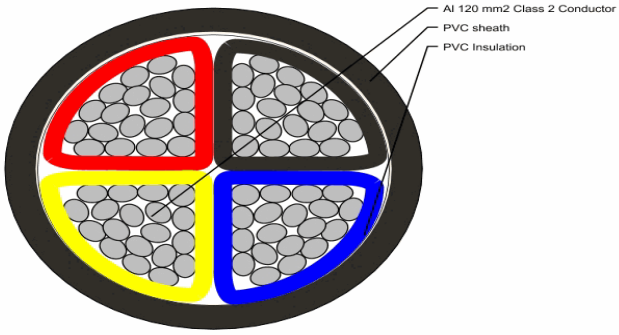
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.253
High Voltage Test at 3.0 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	8.83
Current Carrying Capacity		
Laid in Free air @ 30 °C Ambient Temperature (Trefoil)	Amp	212
Clipped Direct @ 30 °C	Amp	197
Ducting in ground @ 30 °C	Amp	160
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		WAPDA DDS-8:2007

Cable Marking

4x120 MM SQ AL/PVC/PVC 600V AS PER WAPDA FAST CABLES LTD Y.O.M - METER MARKED

Cable Drawing



4x 120MM SQ AL/PVC/PVC 600V		Approx. Diameter
Stranded Aluminum Conductor with sector shape	mm	12.36x17.43
Insulated	mm	16.08x21.15
Laid up Cores	mm	36.82
Outer Sheathing	mm	43.62

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 10 MM2 CIRCULAR COMPACT CU PVC PVC BLACK : 600/1000 V

IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 10
Conductor Material & Shape		Copper & Stranded Class 2 Circular Compacted
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.00
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	1.80
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	18.28
Approximate Cable Weight	Kg/km	672
Cable Length	Meter	1000 ±5%

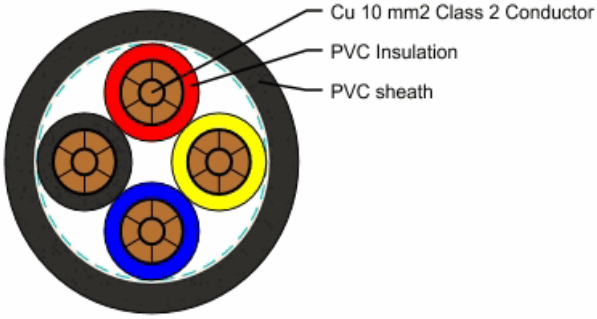
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	1.83
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	1.15
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	60
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	46
Minimum Bending Radius	mm	6D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x10mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 10 MM2 CIRCULAR COMPACT CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with round shape	mm	3.60- 4.00
Insulated	mm	5.90
Laid up Cores	mm	14.28
PVC-FR Outer Sheathing	mm	18.28

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 16 MM2 CIRCULAR COMPACT CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 16
Conductor Material & Shape		Copper & Stranded Class 2 Circular Compacted
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.00
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	1.80
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	20.70
Approximate Cable Weight	Kg/km	939
Cable Length	Meter	1000 ±5%

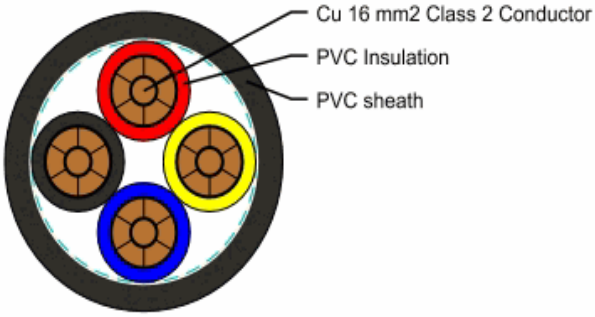
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	1.15
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	1.84
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	80
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	62
Minimum Bending Radius	mm	6D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x16mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 16 MM2 CIRCULAR COMPACT CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with round shape	mm	4.60- 5.20
Insulated	mm	6.90
Laid up Cores	mm	16.70
PVC-FR Outer Sheathing	mm	20.70

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 25 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 25
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.20
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	1.80
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	22.41
Approximate Cable Weight	Kg/km	1344
Cable Length	Meter	1000 ±5%

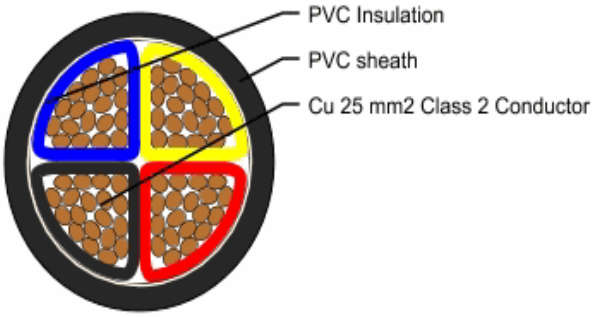
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.727
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	2.875
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	101
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	80
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x25mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 25 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	5.64x7.96
Insulated	mm	8.04x10.36
Laid up Cores	mm	18.41
PVC-FR Outer Sheathing	mm	22.41

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 35 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 35
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.20
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	1.80
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	24.79
Approximate Cable Weight	Kg/km	1739
Cable Length	Meter	1000 ±5%

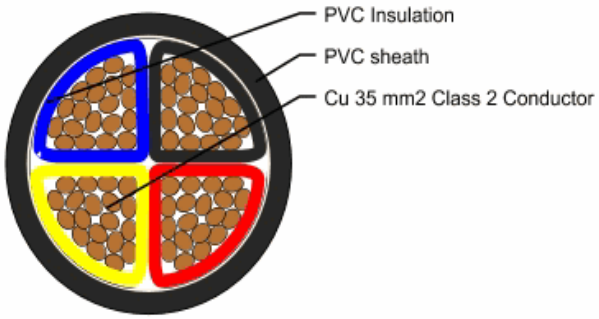
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.524
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	4.025
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	126
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	99
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x35mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 35 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	6.68x9.41
Insulated	mm	9.08x11.81
Laid up Cores	mm	20.79
PVC-FR Outer Sheathing	mm	24.79

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 50 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 50
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.40
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	1.90
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	28.89
Approximate Cable Weight	Kg/km	2329
Cable Length	Meter	500 ±5%

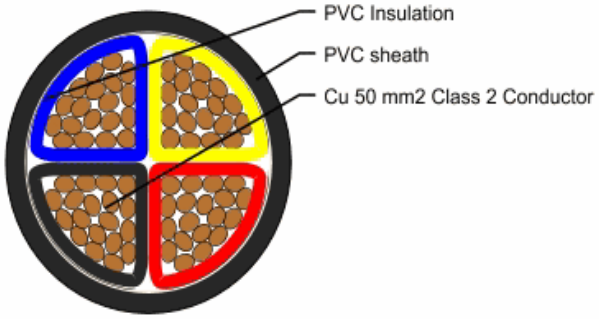
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.387
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	5.75
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	153
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	118
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x50mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 50 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	7.98x11.25
Insulated	mm	10.78x14.05
Laid up Cores	mm	24.69
PVC-FR Outer Sheathing	mm	28.89

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 70 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 70
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.40
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	2.00
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	32.43
Approximate Cable Weight	Kg/km	3183
Cable Length	Meter	500 ±5%

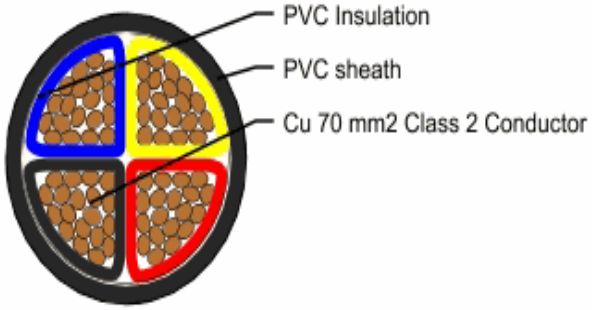
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.268
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	8.05
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	196
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	149
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x70mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 70 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	9.44x13.31
Insulated	mm	12.24x16.11
Laid up Cores	mm	28.03
PVC-FR Outer Sheathing	mm	32.43

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 95 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 95
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	1.60
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	2.20
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	37.32
Approximate Cable Weight	Kg/km	4385
Cable Length	Meter	500 ±5%

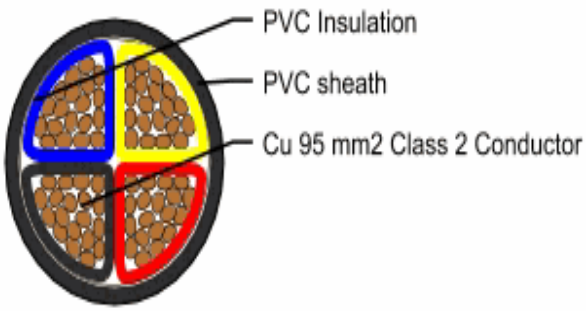
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.193
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	10.925
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	238
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	179
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x95mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 95 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	10.99x15.50
Insulated	mm	14.19x18.70
Laid up Cores	mm	32.52
PVC-FR Outer Sheathing	mm	37.32

FAST CABLES LIMITED

Technical Data Sheet

Cable - Low Voltage Power

Cable Description: 4 X 300 MM2 SECTOR 90 CU PVC PVC BLACK : 600/1000 V IEC60502 PT 1 : SHEATHING

Design and Construction Data

Reference Manufacturing Standards		IEC 60228 IEC 60502 PT 1
Max. Permissible Continuous Conductor Temp	°C	70
Max. Conductor Short Circuit Temp for 5 Seconds	°C	160
Rated Voltage ' Uo / U '	V	600/1000
Number of Conductors x Cross-Section	mm²	4 x 300
Conductor Material & Shape		Copper & Stranded Class 2 Sector 90
Insulation Material		PVC
Insulation Nominal Thickness	mm	2.40
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC
Sheath Material Thickness	mm	3.00
Colour of Outer Sheath		Black
Approximate Cable Overall Diameter	mm	62.14
Approximate Cable Weight	Kg/km	13386
Cable Length	Meter	250 ±5%

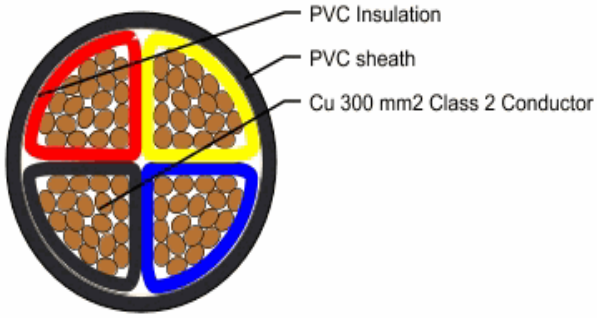
Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.0601
High Voltage Test at 3.5 kV for 5 min		No Breakdown Shall Occur
Min. Insulation Resistance Test @ 20 °C	M.Ω.Km	36.7
Max Conductor Short Circuit Current @ 1 Second	kA	34.50
Current Carrying Capacity		
Laid in Free air or on cable tray @ 30 °C	Amp	497
Laid in ground @ 20 °C	Amp	
Laid in Conduit or in Trunking @30 °C	Amp	336
Minimum Bending Radius	mm	8D
The Cable shall meet all Test requirements		IEC 60228 IEC 60502 PT 1

Cable Marking

4x300mm² CU/PVC/PVC ELECTRIC CABLE 0.6/1kV IEC 60228, 60502-1 FAST CABLES LTD Manufacturing Year - Meter marked

Cable Drawing



4 X 300 MM2 SECTOR 90 CU PVC PVC BLACK 600/1000 V IEC60502 PT 1 : SHEATHING		Approx. Diameter
Stranded Copper Conductor with sector shape	mm	19.54x27.55
Insulated	mm	24.34x32.35
Laid up Cores	mm	55.74
PVC-FR Outer Sheathing	mm	62.14