An
AXELON GROUP
PRODUCT

Axelon®
Wire & Cables

WELDING CABLES

CROSS SECTIONAL VIEW

Application

For the transmission of high currents from the electric welding machine to the welding tool. Suitable for flexible use under rough conditions, on assembly lines and conveyor systems, in machine tool & motor car manufacturing, ship building, for manually and automatically operated line and spot welding machines.

TECHNICAL CHARACTERISTIC

Flame Propagation Property
Flame Retardant Test as per IEC-60332-1

Voltage Rating
1100V AV voltage

Operating Temperature Rating
-20 TO +105 DEG

Minimum Bending Radius
6 x Overall Dia

CABLE CONSTRUCTION

Conductor
Extra Flexible Annealed Bare
Copper As per ICE -60288 (CLASS-6)

Separator
PET (Polyester Tape)

Insulation
1. HOFR (Heat, Oil & Flame Resistance) +TPR
2. TPR + TPR (Thermoplastic Rubber)

Sheath Color

Black Orange

*note:any other colour on special required can all supply

STANDARD

IS-9857:1990,
BS-EN60228, CLASS-6

FEATURES OF WELDING CABLE

- High Conductivity Copper Conductor
- High Resistance To Cuts, Tears And Abrasion
- Magnificient Electrical, Flame & Heat Resistance Properties
- Exceptionally Resistance To Oil, Chemical, Solvent, & Ozone
- Excellent Flexibility Hence Lasts Longer

TECHNICAL DATA TABLE

Current Rating

The maximum current ratings of flexible welding cables for different duly cycles are based on an ambient air temperature of 25°c and a maximum conductor temperature of 105°c. The percentage duly cycles for various processes and applications are as follows :

- Automobile Welding : up to 100%
- Semi-Automatic Welding : 30% to 85%
- Manual Welding : 0% to 60%
- Very intermittent or Occasional Welding : up to 20%

Voltage Drop

When total cable lengths in excess of 1.5 mtrs., are involved, it may be necessary to use cables of larger cross section to ensure that the voltage drop is not excessive and welding currents are maintained at adequate levels.

TECHNICAL INFORMATION

Cross Sectional Area	Copper Construction	Nominal Thickness	Outer Dia Appx.	Max. Conductor Resistance at 20°C	Current rating					
					Welding applications					
					Duty Cycle					
					100%	85%	80%	60%	35%	20%
Sq. mm	Nos / Dia mm	mm	mm	Ω/km	amp	amp	amp	amp	amp	amp
10.00	320 / 0.200	2.00	10.04	1.910	100	100	100	101	106	116
16.00	513 / 0.200	2.00	11.25	1.210	135	136	136	139	150	174
25.00	783 / 0.200	2.00	12.96	0.780	180	182	183	190	213	254
35.00	1121 / 0.200	2.00	14.82	0.554	225	229	231	243	279	338
50.00	702 / 0.300	2.20	16.78	0.386	285	293	296	316	371	457
70.00	999 / 0.300	2.40	19.17	0.272	355	367	373	403	482	602
95.00	1332 / 0.300	2.60	21.88	0.206	430	448	456	498	606	765
120.00	1702 / 0.300	2.80	24.03	0.161	500	524	534	587	721	917

*The number of wires is approximate and wire diameter is nominal; they shall be such as to satisfy the requirements of conductor resistance of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

*In view of continuous improvements in our design and process, specifications given here in are subject change without notice.

Rating Factors for variation in ambient temperature

Ambient Temperature °C	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°
Rating Factor	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.69	0.64	0.57

R&B APPROVED | ISO 9001:2015 ISO 14001:2015 ISO 45001:2018 | RoHS COMPLIANT | CE | IS : 694 | IS : 7098 | IS : 1554 | IS : 9857 | CPRI

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