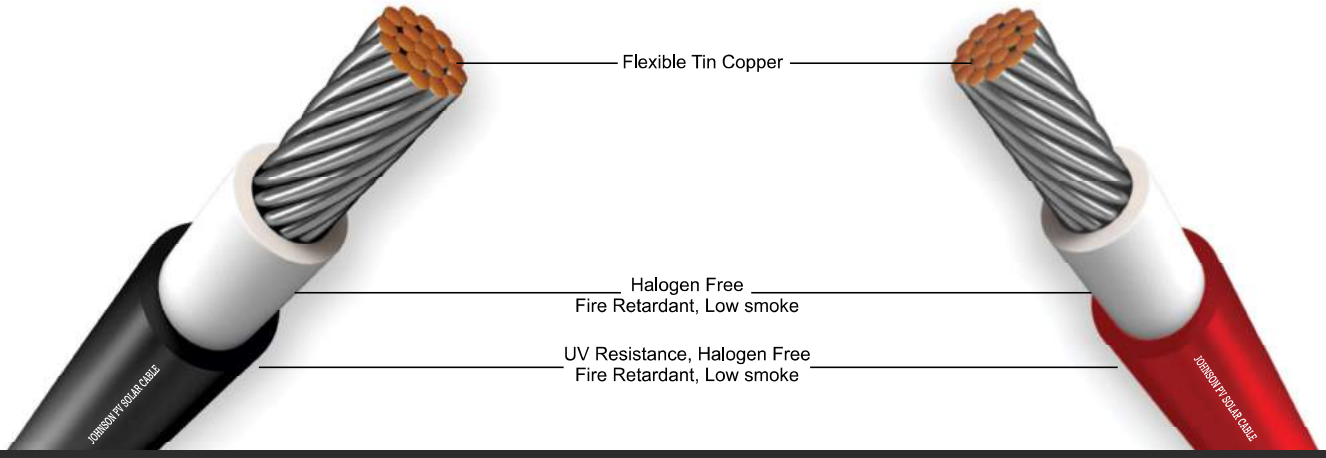
PHOTOVOLTAIC CABLES (SOLAR XLR-R)

TITLE	:	SOLAR ENERGY IS THE MOST SOURCE OF ENERGY ON OUR PLANET. SOLAR ENERGY IS CONVERTED IN TO ELECTRICAL ENERGY ITS MEANS OF ARRAYS OF PHOTOVOLTAIC MODULES. VERY SPECIALLY DESIGNED PHOTOVOLTAIC CABLES ARE USED IN THESES MODULES.
TYPES OF CABLES	:	SINGLE CORE ANNEALED TINNED FLEXIBLE COPPER CABLES (DOUBLE INSULATED) PV1-F & H1Z2Z2-K
DESIGNATION	:	UV RESISTANCE POLYOLEFIN COPOLYMER HALOGEN FREE FIRE RETARDANT LOW SMOKE DOUBLE INSULATED ROUND FLEXIBLE TIN COPPER CABLES
CABLES DESIGN :		
TIN COPPER CONDUCTOR	:	FLEXIBLE TINNED COPPER CONDUCTOR (IEC 60228)
INSULATION	:	POLYOLEFIN COPOLYMER HALOGEN FREE FIRE RETARDANT LOW SMOKE COMPOUND
SHEATH	:	HIGHLY WEATHER & UV RESISTANCE , POLYOLEFIN COPOLYMER HALOGEN FREE FIRE RETARDANT LOW SMOKE COMPOUND
MECHANICAL PROPERTY (INSULATION-HFFR)		
TENSILE STRENGTH	:	6.5 N/MM^2 (Min.) ACCORDING TO EN 60811-1-1
ELONGATION	:	125% (Min.) ACCORDING TO EN 60811-1-1
MECHANICAL PROPERTY (SHEATH -HFFR)		
TENSILE STRENGTH	:	8.0 N/MM^2 (Min.) ACCORDING TO EN 60811-1-1
ELONGATION	:	125% (Min.) ACCORDING TO EN 60811-1-1
TEMP. RANGE	:	(-40° C to + 90° C)
TEST VOLTAGE	:	6.5 KV FOR 5 MINUTE (AC)
VOLUME RESISTIVITY INSULATION (ELECTRICAL PROPERTY) EN 50395		
	-	1 X 10^{14} (Min.) Ω-cm AT 20 ° C TEMP.
	-	1 X 10^{11} (Min.) Ω-cm AT 90 ° C TEMP.
CORE COLOR	:	WHITE
SHEATH COLOR	:	RED, BLACK, RED WITH BLACK STRIP, BLACK WITH RED STRIP
ELECTRICAL CHARACTERISTICS	:	RATED VOLTAGE : 0.6/1 KV AC, RATED VOLTAGE : 1.5 KV DC
CABLES FEATURES	:	HIGH THERMAL RATING TO WITHSTAND EXTREME TEMPERATURES. SPECIALLY DESIGNED TO WITHSTAND EXTREME WEATHER CONDITIONS. UV RESISTANCE ACCORDING TO HD 605 / A 1 FLAME RETARDANT TO IEC 60332-1-2 HALOGEN FREE ACCORDANCE WITH BS EN 50525-1 LOW SMOKE DENSITY ACCORDANCE WITH IEC 61034-2 EXCELLENT ABRASION AND NOTCH RESISTANT VERY GOOD CURRENT CARRYING CAPACITY OF ACCORDING TO REQUIREMENT FOR PV CABLE SYSTEMS THE CABLES ARE AVAILABLE PROGRESSIVE SEQUENTIAL MARKING , BRAND NAME AND SIZE PRINTED ON SHEATH
APPLICATON	:	JOHNSON U-PV SOLAR CABLES ARE DESIGNED FOR USE IN PHOTOVOLTAIC POWER SUPPLY SYSTEMS BOTH FOR INDOOR AND/OR OUTDOOR SOLAR ENERGY APPLICATIONS.
REF. STD.	:	2Pfg 1169/08.2007 , EN 50618-2014 , IEC 60228
APPROVAL	:	TUV RHEINLAND CERTIFICATE NO. R 60160536 (PV1-F, H1Z2Z2-K)
ISO CERTIFICATION	:	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CE, RoHs
PRODUCT CERTIFICATION	:	IS 694:2010, IS 7098 P-1, CE, TUV RHEINLAND CERTIFICATE No. R 60160536

PHOTOVOLTAIC CABLES (SOLAR XLR-R)



TECHNICAL DETAILS & DIMENSION AS PER TUV 2Pfg 1169/08.2007 (PV1-F)

NUMBER AND NOMINAL CROSS SECTIONAL AREA OF CONDUCTORS	NOS. & DIA OF WIRE (MAX.)	MIN. INSULATION THICKNESS	MIN. SHEATH THICKNESS	NOMINAL OVERALL DIMENSION	TINNED COPPER MAXIMUM DC RESISTANCE @ at 20 ° C	MAX. CURRENT CARRING CAPACITY (AIR) AT at 60° C	MAX. CURRENT CARRING CAPACITY (SURFACE) AT at 60° C
mm²	mm	mm	mm	mm	Ω / km	Amps	Amps
1 x 2.5	36/0.3	0.50	0.50	4.70	7.56	41	39
1 x 4	56/0.3	0.50	0.50	5.20	5.09	55	52
1 x 6	84/0.3	0.50	0.50	5.70	3.39	70	67

TECHNICAL DETAILS & DIMENSION AS PER TUV SPECIFICATION - EN 50618:2014 (H1Z2Z2-K)

NUMBER AND NOMINAL CROSS SECTIONAL AREA OF CONDUCTORS	NOS. & DIA OF WIRE (MAX.)	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIMENSION	TINNED COPPER MAXIMUM DC RESISTANCE @ at 20 ° C	MAX. CURRENT CARRING CAPACITY (AIR) AT at 60° C	MAX. CURRENT CARRING CAPACITY (SURFACE) AT at 60° C
mm²	Nos./mm	mm	mm	mm	Ω / km	Amps	Amps
1 x 2.5	36/0.3	0.7	0.8	5.30	7.56	41	39
1 x 4	56/0.3	0.7	0.8	5.80	5.09	55	52
1 x 6	84/0.3	0.7	0.8	6.30	3.39	70	67
1 x 10	140/0.3	0.7	0.8	7.90	1.95	98	93
1 x 16	224/0.3	0.7	0.9	9.20	1.24	132	125
1 x 25	350/0.3	0.9	1.0	11.20	0.795	176	167
1 x 35	490/0.3	0.9	1.1	12.60	0.565	218	207
1 x 50	703/0.3	1.0	1.2	14.50	0.393	276	262
1 x 70	988/0.3	1.1	1.2	16.50	0.277	347	330
1 x 95	1349/0.3	1.1	1.3	18.70	0.21	416	395
1 x 120	608/0.5	1.2	1.3	21.00	0.164	488	464

NOTE : AT : AMBIENT TEMPERATURE
TOLERANCE ON DIAMETER 2.5 SQ MM TO 16 SQ MM +/- 0.40 MM AND 25 SQ MM TO 120 SQ MM +/- 0.60 MM
THE NO. OF STRAND & STRANDS DIAMETER SHALL BE SUCH THAT IT MEETS THE CONDUCTOR RESISTANCE AS PER RELEVANT STANDARD