



	DATA SHEET	ST-186-001-E
	NPE® SUN FG21M21 PV1000-F	Rev. 0 21/10/2011

LOW VOLTAGE

    APPROVED	<table> <tr> <td>Construction:</td> <td>CEI 20-91; CEI 20-91/V1 2010 UTE C 32-502</td> </tr> <tr> <td>Flame propagation:</td> <td>CEI EN 60332-1-2</td> </tr> <tr> <td>Corrosive gases:</td> <td>CEI EN 50267-2-1 CEI EN 50267-2-2</td> </tr> <tr> <td>Resistance to UV:</td> <td>HD 605-A1</td> </tr> <tr> <td>Resistance to ozone:</td> <td>CEI EN 50396</td> </tr> <tr> <td>Properties of thermal endurance:</td> <td>CEI EN 60216-1</td> </tr> <tr> <td>Low Voltage directive:</td> <td>2006/95/EC</td> </tr> <tr> <td>RoHS directive:</td> <td>2011/65/EC</td> </tr> </table>	Construction:	CEI 20-91; CEI 20-91/V1 2010 UTE C 32-502	Flame propagation:	CEI EN 60332-1-2	Corrosive gases:	CEI EN 50267-2-1 CEI EN 50267-2-2	Resistance to UV:	HD 605-A1	Resistance to ozone:	CEI EN 50396	Properties of thermal endurance:	CEI EN 60216-1	Low Voltage directive:	2006/95/EC	RoHS directive:	2011/65/EC
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DESCRIPTION

Conductor: class 5, flexible tinned copper wire

Insulation: HT-PVI cross-linked special compound (LS0H)

Outer sheath: HT-PVG cross-linked special compound (LS0H)

Colour: black, red, blue

LS0H = Low Smoke Zero Halogen

Marking: LTC NPE SUN FG21M21 CEI 20-91 IEMMEQU 337 PV1000-F UTE C 32-502 NF-USE *formation year meter marking*

FUNCTIONAL CHARACTERISTICS

Max voltage U_m : 1200 V a.c.

Max voltage (to ground) U_m : 1800 V d.c.

Max. operating temperature: 90 °C

Min. operating temperature: -40 °C

Max. overload temperature: 120 °C

Max. short circuit temperature: 250 °C

SPECIAL FEATURES

Working feasibility for at least 25 years in normal operating conditions.

Thermal endurance properties (temperature index TI): 120 °C referring to 20.000 h (CEI EN 60216-1)

INSTALLATION CONDITIONS

Minimum installation temperature: -40 °C

Recommended minimum bending radius: 6 x overall diameter

Recommended maximum tensile stress: 50 N/mm² of the cross-section of the copper

USE AND INSTALLATION METHOD

For applications in photovoltaic installations in public and private building, industrial building, in agricultural applications, in lighting systems and in working areas.

Can be laid underground complying with CEI 11-17 standard.



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Formation n° x mm ²	Approx. conductor diameter mm	Max. overall diameter mm	Max. electrical resistance at 20°C Ω/km	Approx. cable weight. kg/km	Current carrying in free air at 60°C	
					Single cable	Two touching cables
					A	A
1 x 1,5	1,5	5,1	13,7	32	30	25
1 x 2,5	1,9	5,7	8,21	43	40	35
1 x 4	2,4	6,2	5,09	60	55	47
1 x 6	3,0	6,9	3,39	82	70	59
1 x 10	3,9	8,2	1,95	125	95	81
1 x 16	5,0	9,3	1,24	185	130	110
1 x 25	6,1	11,4	0,795	280	180	153
1 x 35	7,3	12,8	0,565	370	220	187
1 x 50	8,7	14,8	0,393	520	280	238
1 x 70	10,5	16,9	0,277	715	350	297
1 x 95	11,9	18,7	0,210	925	410	348
1 x 120	13,8	20,7	0,164	1165	480	408

Correction factors for ambient temperature other than 60°C

Ambient temperature (°C)	Correction factors
≤ 60	1,0
70	0,91
80	0,82
90	0,71
100	0,58
110	0,41

REVISION LEVEL

Rev.	Date	Reason	Application	Units	Red.	Ver.	App.
0	21/10/2011	First emission	Generic application	UP01-UP02	R&I	QAC	R&IC