Street, residential, pedestrian lighting

VOLTAMPERA LED



About the product

The VOLTAMPERA family of lighting fixtures represents the solution to the challenges faced by municipal authorities - to ensure people's safety while saving energy and to reduce maintenance costs.
VOLTAMPERA is a family of modern lighting fixtures for street lighting, with last-generation light sources with extended life, being equipped with high-performance LED modules.
VOLTAMPERA is energy efficient.
The high-performance optical system, with a uniform distribution, allows the replacement of HID solutions without compromising distances, mounting height or light quality. It does not require interventions to replace the light sources and the metal case ensures recycling. Mounting on the boom or at the top of the pole and the dimensional variants allow for flexible placement.

EN IEC 60598	RoHS	IP66			-40°C÷ +50°C	10-141W LED

Application

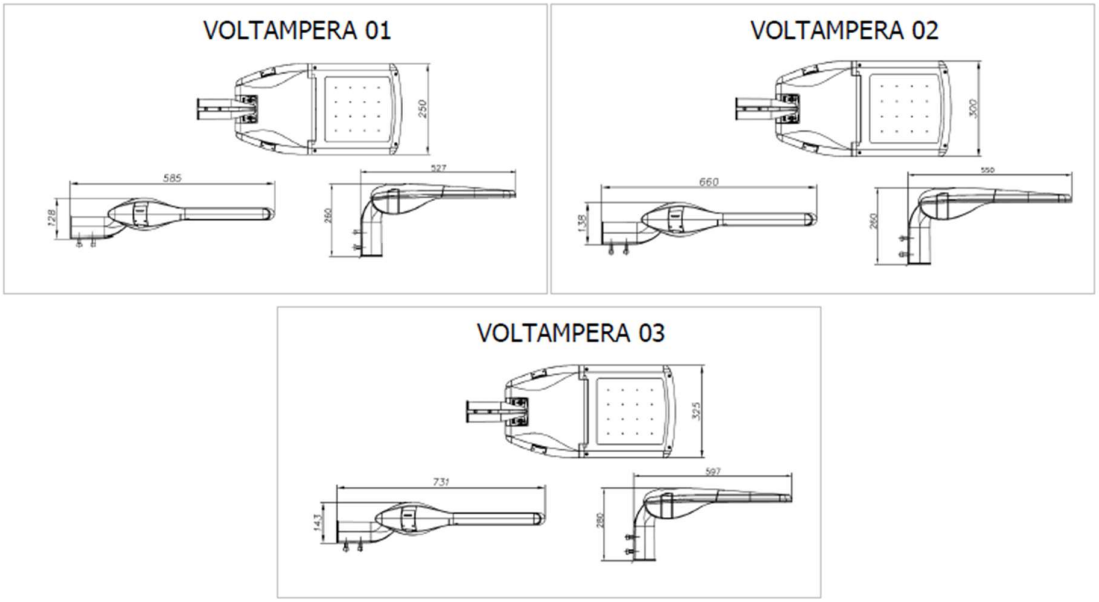
Street lighting for pedestrian crossings, main, local, secondary roads, with lighting classes ME1, ME2, ME3, ME4, ME5, ME6, S1÷S6, according to SR EN 13201. Residential lighting for alleys, sidewalks, parks, crossings pedestrians. Parking lots, train stations, bus stations, large public spaces etc.

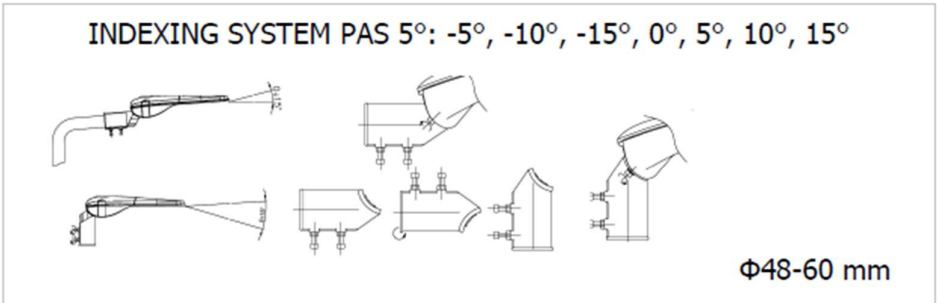
Light source

Power LEDs with specialized optical system for street, pedestrian lighting with light sources :CCT from 2200K to 6500K, CRI>70 or CRI>80 with an extended lifetime L90B10 to 231.595 hours at Ta=25ºC. Chromatic uniformity: 5 McAdam steps.

Advantages

- A modern lighting fixture with LED light sources;
- Low energy consumption;
- Extended life span;
- Ideal for replacing street lights with compact fluorescent, sodium, metal halide lamps;
- Low maintenance costs;
- No interventions are necessary to replace the light sources in operation;
- It is available in 3 product variants depending on power with a diversity of light distributions depending on the type of project;
- The modern design that fits into any urban and rural architecture.





Product Type	L [mm]	L1 [mm]	l [mm]	h [mm]	m [mm]
VOLTAMPERA 01 LED	585	527	250	128	Φ48-60 mm
VOLTAMPERA 02 LED	660	550	300	138	Φ48-60 mm
VOLTAMPERA 03 LED	731	597	325	143	Φ48-60 mm

Description

- Smooth, streak-free, painted in electrostatic field die-cast aluminum housing.
- Mounting system with integrated die-cast aluminum spigot, for pole or console mounting, indexable 0 -15°, in 5° increments: -15°,-10°,- 5°, 0°, 5°, 10°, 15°
- Transparent diffuser, made of flat, safety, heat-treated glass, which disintegrates into pieces when broken. 5 mm thickness for the standard version. The glass is fixed with screws.
- Optical system:
    - designed to meet the requirements of the SR EN 13201 standard for street lighting; includes power LEDs with the PMMA luminous flux orientation system, with asymmetric distribution, the same for each LED, specialized for road lighting or wide spaces, pedestrian circulation paths, intersections, pedestrian crossings depending on the variant;
    - The light distribution will not be influenced by the appearance of defects on some LEDs being complete for each LED;
    - Products equipped with at least 16 LEDs to prevent the loss of more than 10% of the luminous flux emitted by the lighting device in case an LED is damaged;
    - The total luminous flux of the lighting device is determined by the number of LEDs and/or the supply current of the LEDs;
    - The LED board is removable, fixed directly on the case, for a low thermal resistance, the case also having the role of a radiator.
- The optical compartment is separated from the apparatus compartment and both compartments can be opened easily, quickly, with clips, for repairs, for maintenance operations or for replacement of apparatus post warranty.



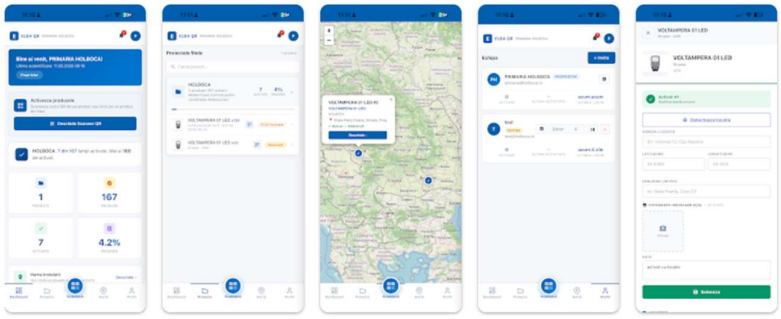
- Bayonet type connector for disconnecting the voltage when opening the apparatus compartment;
- Quick clamps with lock - for disconnecting the connections, it facilitates the quick replacement of the device board.
- Special radiator integrated in the housing for a superior thermal management of the LED lighting source;



- Apparatus (LED electronic driver) included in the product and executed in accordance with specific regulations.
- LED Drivers:
    - Input voltage range : AC 198-264 Vac , DC 176 – 280 Vdc;
    - Compatible with the type of LED module used;
    - D4i – certificate;
    - Programmable via NFC or DALI cable;
    - A system for maintaining constant light flux CLO (Constant Lumen Output);
    - It allows communication with the control components of the control systems through the DALI protocol;
    - Allows dimming in the range 1-100%, in steps of 1%.
    - Thermal protection in accordance with EN 61347-2-13 C5e;
    - Lifetime of 100,000 hours;
    - Adjusting the output current in steps of 1 mA;
    - Enhanced Constant Light Output (ECLO) function;
    - Protection features (over temperature, short circuit, overload, no load, supply voltage protection, reduction of overvoltage amplification);
    - Intelligent Temperature Protection (ITG)
    - Intelligent protection against voltage (IVG+)
    - External temperature management (ETM);
    - Auxiliary power supply 24 V, 3 W;
    - DiiA / Zhaga connectivity extensions DT49, DT50, DT51, DT52;

  - DeviceKEY against unauthorized modification of parameters;
  - High overvoltage protection: Up to 10 kV asymmetric;
  - In accordance with the standard: EN 55015 EN 61000-3-2 EN 61000-3-3 EN 61000-4-4 EN 61000-4-5 EN 61347-1 EN 61347-2-13 EN 62384 EN 61547 EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-210(DALI-2), 50172, EN 60598-2-22 ;
  - THD < 8%
- Application communication interface for SMART solutions: ZHAGA socket standard + end cap ;
- Protections:
  - Thermal protection, LED module equipped with a thermistor, NTC(DRIVER);
  - Protection against internal atmospheric discharges in addition to the led driver (surge protection): L-N, 10,20kV – depend by version;
  - Short circuit protection;
- Pole mounting system:
  - with spigot integrated at the end of the housing, allows mounting in a console, on a pipe (arm) or on the top of a Φ48-60 mm pole.
  - is adjustable with adjustable tilt, with 3 steps of tilt from 5° to 15° (both up and down): 0°, 5°, 10°, 15°, both for console mounting and mounting at the top of the pole. Necessity depending on the application
- Protection against internal atmospheric discharges in addition to the led driver (surge protection): L-N,L-N-G 10KV, 20KV, dépend by variants ;
- RAL 7021M
- Accurate and easy identification of the installed luminaire and simple identification of the corresponding spare part (by numerical codes or QR codes).
- Repairable test luminaire, ensure availability for spare parts both in warranty and post warranty for at least 10 years, through identical or better components. The components can be individually replaced: light source, LED driver, surge protector, optical system and protective glass.
- Mobile application available IOS or ANDROID for reading the QR code and activating it according to geolocation (installation) . It provides information about the codes for spare parts.
  Also on the QR code can be written further information .

ELBA Light

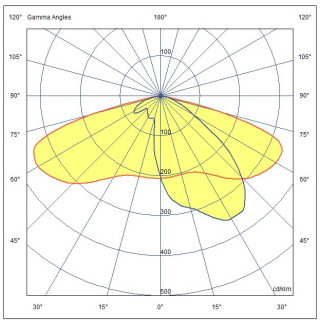


- Colour: grey.

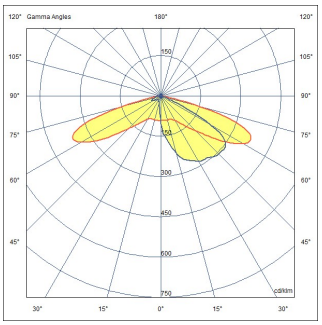
Lighting distribution

- PMMA standadised Zhaga optics;
- Easily replaceable.
- 18 asymetrical light distributions (medium, narrow, wide): DK-5050-TPIII-M-4H1 (TP3), C16505_STRADA-2X2-T3-M, C14517_STRADA-2X2-DWC-PC, C17446_STRADA-2X2-LN1, C16504_STRADA-2X2-T2-M, C16996_STRADA-2X2-PX-PC, C12362_STRADA-2X2-DWC, C14164_STRADA-2X2-ME-WIDE1, C14896_STRADA-2X2-PXL, C13300_STRADA-2X2-T2, C16927_STRADA-2X2-LW1, C16926_STRADA-2X2-LM1, C12360_STRADA-2X2-DNW, C13299_STRADA-2X2-ME, C12419_STRADA-2X2-A-T, C14116_STRADA-2X2-PX, C15021_STRADA-2X2-SCL, C15217_STRADA-2X2-CAT-B.

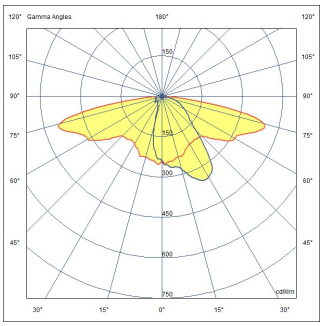
STRADA TP3



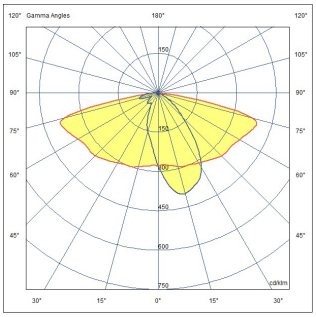
STRADA T3-M



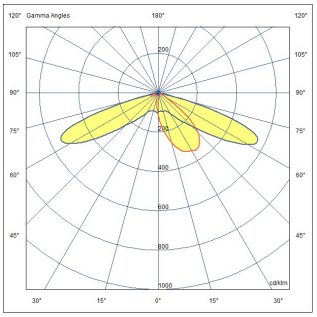
STRADA DWC-PC



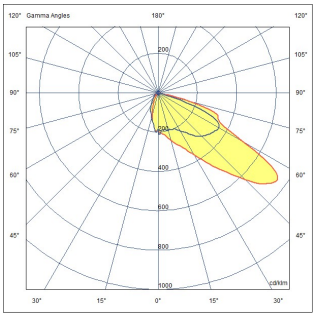
STRADA LN1



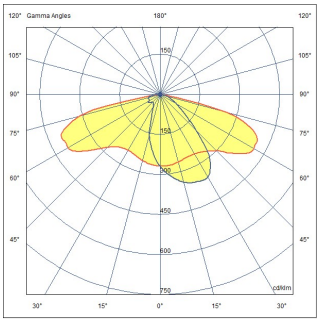
STRADA T2-M



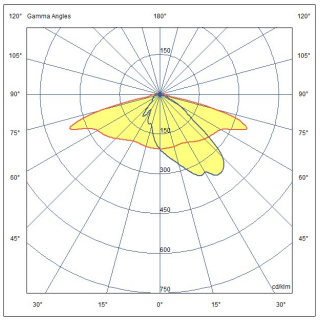
STRADA PX-PC



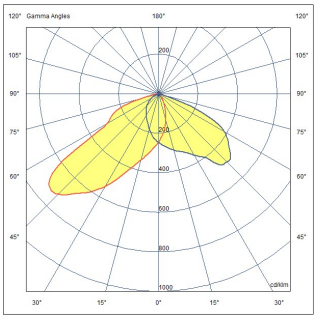
STRADA DWC



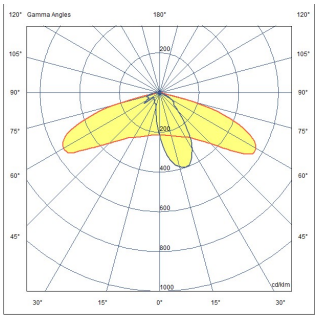
STRADA ME-WIDE1



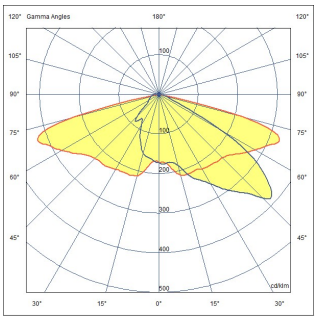
STRADA PXL



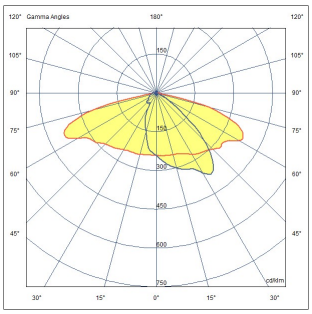
STRADA T2



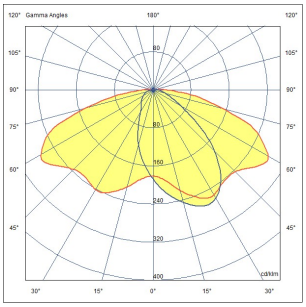
STRADA LW1



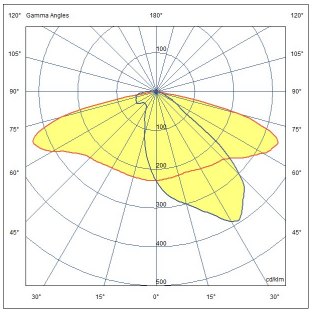
STRADA LM1



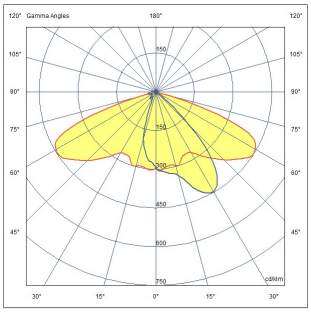
STRADA DNW



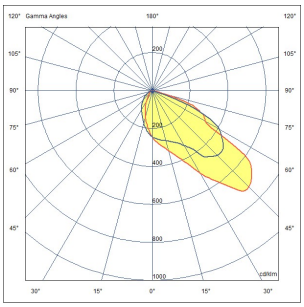
STRADA ME



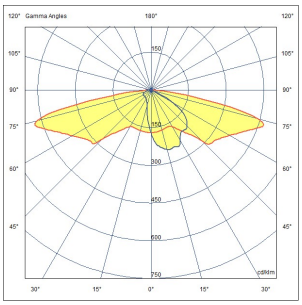
STRADA A-T



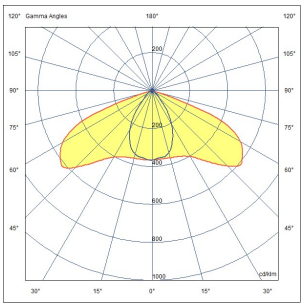
STRADA PX



STRADA SCL



STRADA CAT-B



Variants on request

- The product can be equipped with a polycarbonate diffuser with IK09 rating ;
- Other RAL colors for the casing at the customer's request ;
- Other types of distribution ;
- Prepared for telemanagement and sensors: nema socket, zhaga socket, zhaga+zhaga, nema+zhaga, etc.
- Power connector IP66 (mother-father) ;
- Other color temperatures 2200K – 6500K, CRI 70 – 80;

Wind resistance

- VOLTAMPERA 01 LED: Front wind surface=0.11 m²; Side wind surface=0.039 m²;
- VOLTAMPERA 02 LED: Front wind surface=0.16 m²; Side wind surface=0.04 m²;
- VOLTAMPERA 03 LED: Front wind surface=0.19 m²; Side wind surface=0.048 m²;
- Recommended mounting height: max 4-15m - depending on the power version and the type of application.

Technical specifications

- Supply voltage: 230V/50Hz;
- Ambient temperature range: -40°C...+ 50°C ;
- Relative humidity up to 80% at a temperature of + 20°C;
- Degree of protection: IP66 optical compartment, IP66 electronic equipment compartment
- Resistance to mechanical impact: IK09;
- Corresponds to the standards for lighting fixtures: SR EN 60598-1 + A11, SR EN 60598-2-3.
- Luminaire of protection class I and protection class I

Compliance with the European Directives

- Low Voltage Directive.
- The Electromagnetic Compatibility Directive.
- RoHS directive. The WEEE Directive.

Type

Product type	Product code	Rated voltage DC [V]	Active power range [W]	Protection degree	Power factor	Mechanical impact	Weight [Kg]	Total luminous flux range [lm]	Total luminous efficiency range [lm/W]
VOLTAMPERA 01	**PXZYY WABB**								
VOLTAMPERA 01 LED 10-41W 722-765 STRADA YY	**P35YY5 A01÷32**	230	10÷41	IP66	≥0.95	IK09	3,5	950÷6150	95÷150
VOLTAMPERA 01 LED 10-41W 822-865 STRADA YY	**P35YY6 A01÷32**								
VOLTAMPERA 01 LED 10-41W 722-765 STRADA YY 20KV	**P36YY5 A01÷32**								
VOLTAMPERA 01 LED 10-41W 822-	**P36YY6 A01÷32**								

865 STRADA YY 20KV									
VOLTAMPERA 01 LED 10-41W 722-765 STRADA YY II	P45YY5 A01÷32	230	10÷41	IP66	≥0.95	IK09	3,5	950÷6150	95÷150
VOLTAMPERA 01 LED 10-41W 822-865 STRADA YY II	P45YY6 A01÷32								
VOLTAMPERA 01 LED 10-41W 722-765 STRADA YY 20KV II	P46YY5 A01÷32								
VOLTAMPERA 01 LED 10-41W 822-865 STRADA YY 20KV II	P46YY6 A01÷32								
VOLTAMPERA 02									
VOLTAMPERA 02 LED 35-80W 722-765 STRADA YY	P55YY5 A01÷46	230	35÷80	IP66	≥0.95	IK09	5,7	3325÷12000	95÷150
VOLTAMPERA 02 LED 35-80W 822-865 STRADA YY	P55YY6 A01÷46								
VOLTAMPERA 02 LED 35-80W 722-765 STRADA YY 20KV	P56YY5 A01÷46								
VOLTAMPERA 02 LED 35-80W 822-865 STRADA YY 20KV	P56YY6 A01÷46								
VOLTAMPERA 02 LED 35-80W 722-765 STRADA YY II	P65YY5 A01÷46	230	35÷80	IP66	≥0.95	IK09	5,7	3325÷12000	95÷150
VOLTAMPERA 02 LED 35-80W 822-865 STRADA YY II	P65YY6 A01÷46								
VOLTAMPERA 02 LED 35-80W 722-765 STRADA YY 20KV II	P66YY5 A01÷46								
VOLTAMPERA 02 LED 35-80W 822-	P66YY6 A01÷46								

865 STRADA YY
20KV II

VOLTAMPERA 03									
VOLTAMPERA 03 LED 50-141W 722-765 STRADA YY	**P75YY5 A01÷92**								
VOLTAMPERA 03 LED 50-141W 822-865 STRADA YY	**P75YY6 A01÷92**								
VOLTAMPERA 03 LED 50-141W 722-765 STRADA YY 20KV	**P76YY5 A01÷92**	230	50÷141	IP66	≥0.95	IK09	8,1	4750÷21150	95÷150
VOLTAMPERA 03 LED 50-141W 822-865 STRADA YY 20KV	**P76YY6 A01÷92**								
VOLTAMPERA 03 LED 50-141W 722-765 STRADA YY II	**P85YY5 A01÷92**								
VOLTAMPERA 03 LED 50-141W 822-865 STRADA YY II	**P85YY6 A01÷92**								
VOLTAMPERA 03 LED 50-141W 722-765 STRADA YY 20KV II	**P86YY5 A01÷92**	230	50÷141	IP66	≥0.95	IK09	8,1	4750÷21150	95÷150
VOLTAMPERA 03 LED 50-141W 822-865 STRADA YY 20KV II	**P86YY6 A01÷92**								
VOLTAMPERA 02 LED 11700LM 78W 757 STRADA **PX II**	**P55795 629**								

* "STRADA" = Type of distribution; "YY" = code number and type of distribution;.
** II= Electrical Safety Class II.
*** For the list of product codes, see the annex 2,3,4
**** 20KV – surge protection 20 KV

ELBA product CODE (P...)	PXZYYWABB

Electrical Safety Class I/II (X)		Surge protection (Z)		Description of distribution	Type of distribution (2x2) (YY)	CODE number (YY)	CRI (W)		CCT (A)	
VOLTAMPERA 01		10 KV	5	DK-5050-TPIII-M-4H1	TP3	64	CRI 70	CODEE 5	2200K	CODEE 1
CLASS I	3	20 KV	6	C16505_STRADA-2X2-T3-M	T3-M	65	CRI 80	CODEE 6	2700K	CODEE 2
CLASS II	4			C14517_STRADA-2X2-DWC-PC	DWC-PC	66			3000K	CODEE 3
				C17446_STRADA-2X2-LN1	LN1	67			4000K	CODEE 4
VOLTAMPERA 02				C16504_STRADA-2X2-T2-M	T2-M	68			5000K	CODEE 5
CLASS I	5			C16996_STRADA-2X2-PX-PC	PX-PC	69			5700K	CODEE 6
CLASS II	6			C12362_STRADA-2X2-DWC	DWC	70			6500K	CODEE 7
				C14164_STRADA-2X2-ME-WIDE1	ME-WIDE1	71				
VOLTAMPERA 03				C14896_STRADA-2X2-PXL	PXL	72				
CLASS I	7			C13300_STRADA-2X2-T2	T2	73				
CLASS II	8			C16927_STRADA-2X2-LW1	LW1	74				
				C16926_STRADA-2X2-LM1	LM1	75				
				C12360_STRADA-2X2-DNW	DNW	76				
				C13299_STRADA-2X2-ME	ME	77				
				C12419_STRADA-2X2-A-T	A-T	78				
				C14116_STRADA-2X2-PX	PX	79				
				C15021_STRADA-2X2-SCL	SCL	80				
				C15217_STRADA-2X2-CAT-B	CAT-B	81				

SET POWER (BB)							
VOLTAMPERA 01		VOLTAMPERA 02		VOLTAMPERA 03			
10 W	CODEE 01	35 W	CODE 01	50 W	CODE 01	96 W	CODE 47
11 W	CODEE 02	36 W	CODE 02	51 W	CODE 02	97 W	CODE 48
12 W	CODEE 03	37 W	CODE 03	52 W	CODE 03	98 W	CODE 49
13 W	CODEE 04	38 W	CODE 04	53 W	CODE 04	99 W	CODE 50
14 W	CODEE 05	39 W	CODE 05	54 W	CODE 05	100 W	CODE 51
15 W	CODEE 06	40 W	CODE 06	55 W	CODE 06	101 W	CODE 52
16 W	CODEE 07	41 W	CODE 07	56 W	CODE 07	102 W	CODE 53
17 W	CODEE 08	42 W	CODE 08	57 W	CODE 08	103 W	CODE 54
18 W	CODEE 09	43 W	CODE 09	58 W	CODE 09	104 W	CODE 55
19 W	CODEE 10	44 W	CODE 10	59 W	CODE 10	105 W	CODE 56
20 W	CODEE 11	45 W	CODE 11	60 W	CODE 11	106 W	CODE 57
21 W	CODEE 12	46 W	CODE 12	61 W	CODE 12	107 W	CODE 58
22 W	CODEE 13	47 W	CODE 13	62 W	CODE 13	108 W	CODE 59
23 W	CODEE 14	48 W	CODE 14	63 W	CODE 14	109 W	CODE 60
24 W	CODEE 15	49 W	CODE 15	64 W	CODE 15	110 W	CODE 61
25 W	CODEE 16	50 W	CODE 16	65 W	CODE 16	111 W	CODE 62
26 W	CODEE 17	51 W	CODE 17	66 W	CODE 17	112 W	CODE 63
27 W	CODEE 18	52 W	CODE 18	67 W	CODE 18	113 W	CODE 64
28 W	CODEE 19	53 W	CODE 19	68 W	CODE 19	114 W	CODE 65
29 W	CODEE 20	54 W	CODE 20	69 W	CODE 20	115 W	CODE 66
30 W	CODEE 21	55 W	CODE 21	70 W	CODE 21	116 W	CODE 67
31 W	CODEE 22	56 W	CODE 22	71 W	CODE 22	117 W	CODE 68
32 W	CODEE 23	57 W	CODE 23	72 W	CODE 23	118 W	CODE 69
33 W	CODEE 24	58 W	CODE 24	73 W	CODE 24	119 W	CODE 70
34 W	CODEE 25	59 W	CODE 25	74 W	CODE 25	120 W	CODE 71
35 W	CODEE 26	60 W	CODE 26	75 W	CODE 26	121 W	CODE 72
36 W	CODEE 27	61 W	CODE 27	76 W	CODE 27	122 W	CODE 73
37 W	CODEE 28	62 W	CODE 28	77 W	CODE 28	123 W	CODE 74
38 W	CODEE 29	63 W	CODE 29	78 W	CODE 29	124 W	CODE 75
39 W	CODEE 30	64 W	CODE 30	79 W	CODE 30	125 W	CODE 76
40 W	CODEE 31	65 W	CODE 31	80 W	CODE 31	126 W	CODE 77
41 W	CODEE 32	66 W	CODE 32	81 W	CODE 32	127 W	CODE 78
		67 W	CODE 33	82 W	CODE 33	128 W	CODE 79
		68 W	CODE 34	83 W	CODE 34	129 W	CODE 80
		69 W	CODE 35	84 W	CODE 35	130 W	CODE 81
		70 W	CODE 36	85 W	CODE 36	131 W	CODE 82
		71 W	CODE 37	86 W	CODE 37	132 W	CODE 83
		72 W	CODE 38	87 W	CODE 38	133 W	CODE 84
		73 W	CODE 39	88 W	CODE 39	134 W	CODE 85
		74 W	CODE 40	89 W	CODE 40	135 W	CODE 86
		75 W	CODE 41	90 W	CODE 41	136 W	CODE 87
		76 W	CODE 42	91 W	CODE 42	137 W	CODE 88
		77 W	CODE 43	92 W	CODE 43	138 W	CODE 89
		78 W	CODE 44	93 W	CODE 44	139 W	CODE 90
		79 W	CODE 45	94 W	CODE 45	140 W	CODE 91
		80 W	CODE 46	95 W	CODE 46	141 W	CODE 92

The values are indicative and can suffer changes.
The tolerance of initial flux and initial active power is ±7% of the specified value. These values are measured at an ambient temperature of 25°C if no other temperature is mentioned.
ELBA S.A is continuously developing its products. We reserve the right to change technical specifications to improve our products without prior notice or public announcement.
© ELBA S.A.