



EU Type Examination Certificate Number: **0120/SGS0446**

LEGRAND SA

128 Avenue du Marechal de Lattre de Tassigny
87045 LIMOGES
Cedex
France

Instrument Identification:

4 120 42 & 4 120 43

Polyphase, Active Import/Export kWh, DIN Rail, Transformer Operated, Electricity Meter

Instrument Traceable Number

0120/SGS0446

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU

on Measuring Instruments Annex II, Module B

It is certified that the manufacturer's technical design and specimen for the above instrument has been examined and, based on the evidence submitted, it is considered that the instrument conforms to the requirements of Annex V of EU Directive 2014/32/EU

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex II, Module D or Annex II, Module F

This certificate is valid until 24th September 2029

Issue 1


Certification is based on report number(s) EMA269525/1 dated 25th September 2019
EMA269525/1/TR50579 dated 17th September 2019
EMA273131

Authorised Signature

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	EU-Type Examination Certificate Number:	
	0120/SGS0446	
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1. Technical Data

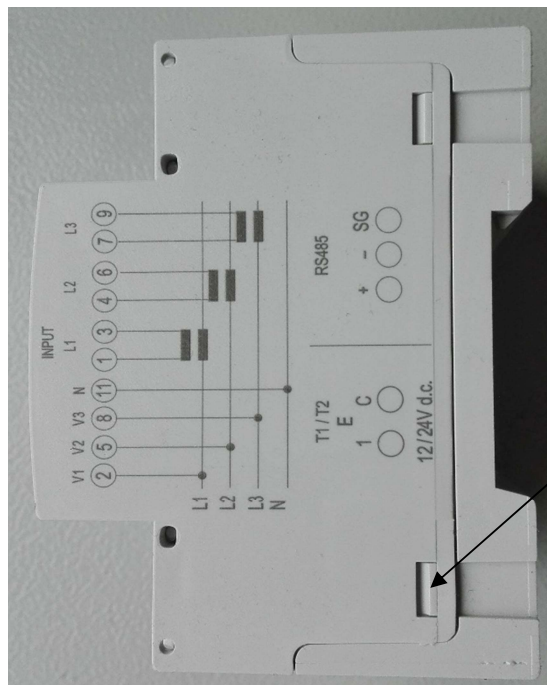
Manufacturer	LEGRAND SA
Meter Type's	4 120 42 & 4 120 43
Voltage Rating (U_n)	3x100/173V, 3 x 230/400V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.05-5(6)A,
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	3p4w, 3p3w, 2p3w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No's	V1.104
CRC Checksum No's	45621
Identification Location	LCD
Bill Of Materials No's	4 120 42: B004265AA, B004264AA, B004182AB 4 120 43: B004265AA, B004264AA, B004192AB, B004181AB
IP Rating	Meter to be installed in a suitable IP rated enclosure as described in installation manual
Insulation Protective Class	Class II
LED Pulse Constant	0.1Wh/imp
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	2 x clips ultrasonically welded
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Nameplate & Documentation

	EU-Type Examination Certificate Number:	
	0120/SGS0446	
	Issue Number: 1	Dated: 31 st January 2020

2. Photographs of Meter and Sealing Plan




Terminal Cover
Sealing Points

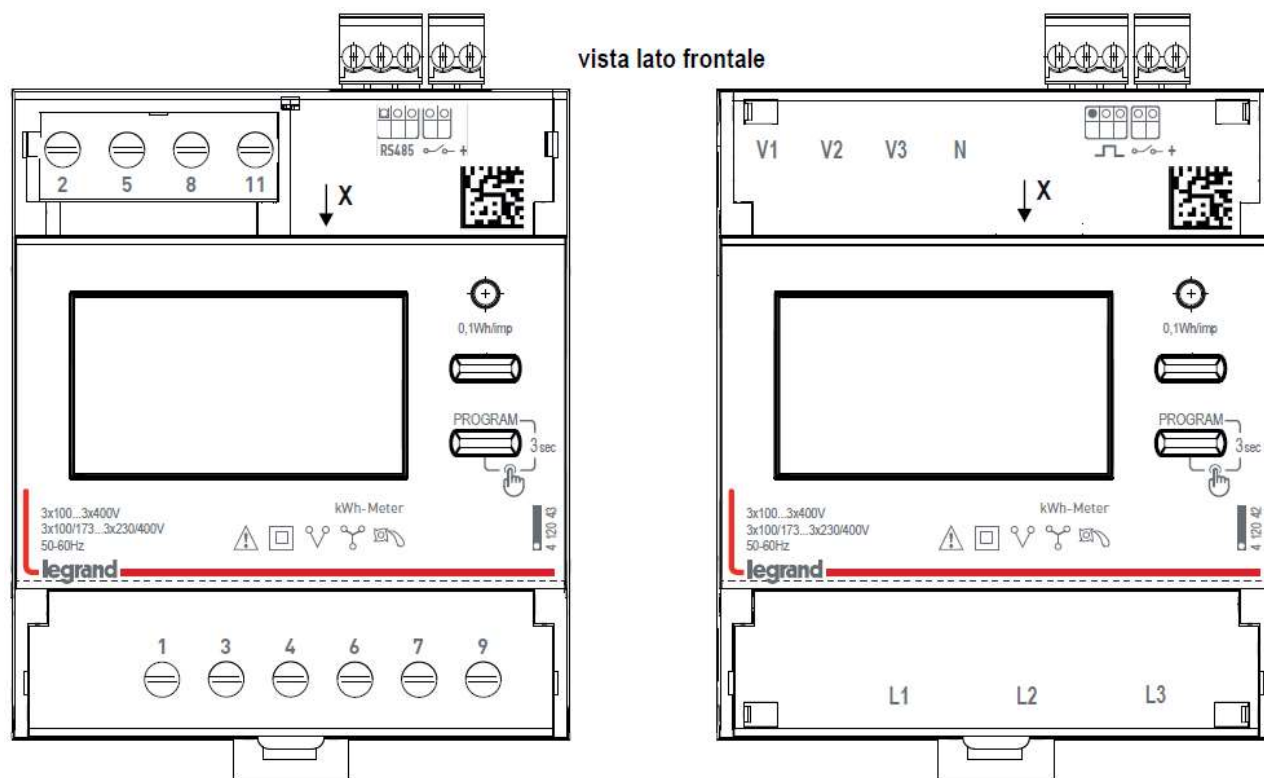


Main Cover
Sealing Points









	EU-Type Examination Certificate Number:	
	0120/SGS0446	
	Issue Number: 1	Dated: 31 st January 2020


3. Examples of Nameplates & Markings

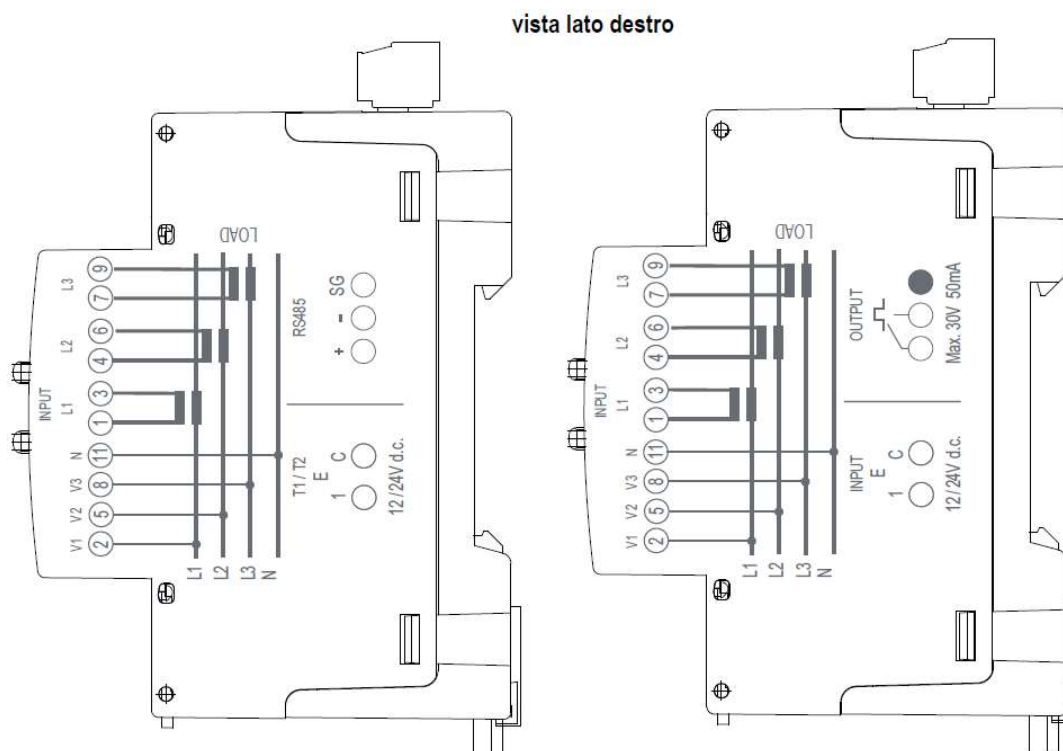
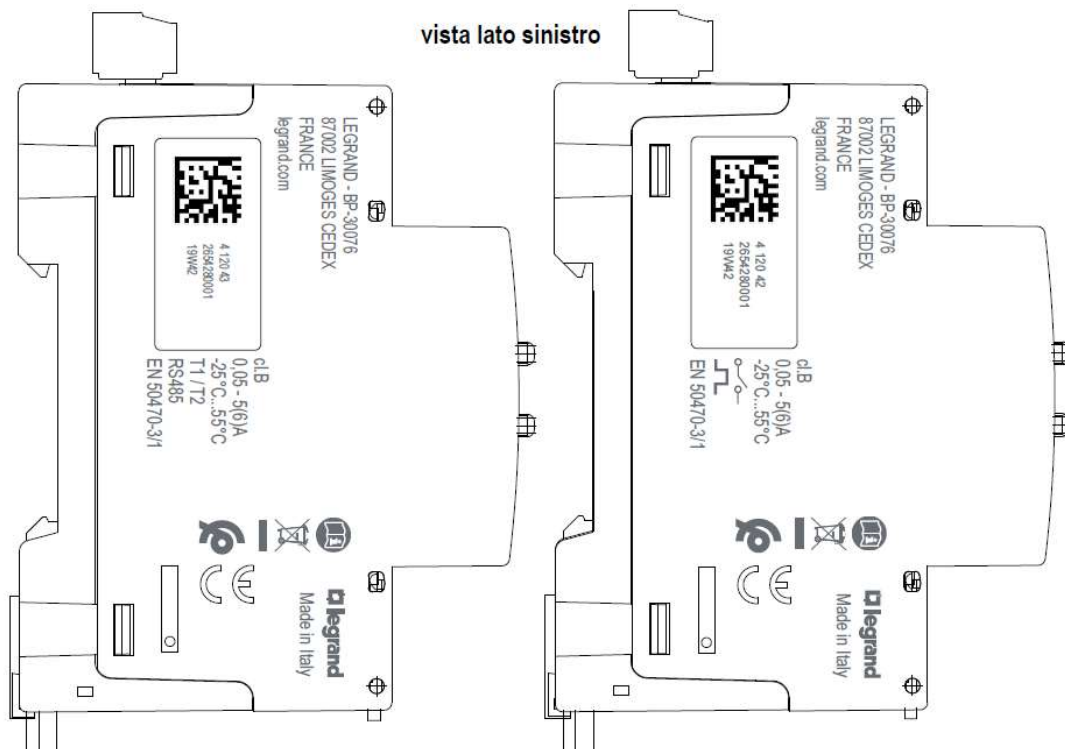



Targhetta prodotto MID vista da sopra X

4 120 43	cl.B	3507200003	 
T1/T2		-25°C...55°C	
RS485		46 2019	
			SGS0446

4 120 42	cl.B	3507200004	 
		-25°C...55°C	
		46 2019	
			SGS0446

	EU-Type Examination Certificate Number:	
	0120/SGS0446	
	Issue Number: 1	Dated: 31 st January 2020



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4. Calculation of the composite error/ MPE

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table below represents the sum of the square values per load, determined via the following formula:-


$$\delta e(T, U, f) = \sqrt{(\delta e^2(T, I, \cos\phi) + \delta e^2(U, I, \cos\phi) + \delta e^2(f, I, \cos\phi))}$$

where

$\delta e(T, I, \cos\phi)$	=	Additional error due to variation of the temperature at the same load
$\delta e(U, I, \cos\phi)$	=	Additional error due to variation of the voltage at the same load
$\delta e(f, I, \cos\phi)$	=	Additional error due to variation of the frequency at the same load

	EU-Type Examination Certificate Number:	
	0120/SGS0446	
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		Influence Factors for Temperature. Frequency & Voltage					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.42	0.27	0.15	0.03	0.07	0.12
I _{tr}	1.0	0.41	0.27	0.15	0.01	0.07	0.13
10I _{tr}	1.0	0.41	0.27	0.15	0.01	0.04	0.09
I _{max}	1.0	0.60	0.52	0.47	0.44	0.44	0.45
I _{tr}	0.5ind	0.59	0.40	0.23	0.08	0.09	0.12
10I _{tr}	0.5ind	0.55	0.43	0.21	0.10	0.42	0.29
I _{max}	0.5ind	0.49	0.40	0.24	0.14	0.33	0.16
I _{tr}	0.8cap	0.41	0.23	0.14	0.03	0.08	0.13
10I _{tr}	0.8cap	0.32	0.20	0.13	0.10	0.19	0.22
I _{max}	0.8cap	0.34	0.28	0.19	0.18	0.22	0.23
L1							
I _{tr}	1.0	0.43	0.27	0.13	0.06	0.05	0.10
10I _{tr}	1.0	0.39	0.27	0.15	0.01	0.07	0.14
I _{max}	1.0	0.41	0.27	0.14	0.01	0.07	0.13
I _{tr}	0.5ind	0.58	0.36	0.20	0.07	0.12	0.20
10I _{tr}	0.5ind	0.32	0.22	0.13	0.07	0.12	0.17
I _{max}	0.5ind	0.34	0.25	0.13	0.10	0.14	0.18
L2							
I _{tr}	1.0	0.46	0.29	0.15	0.03	0.06	0.18
10I _{tr}	1.0	0.44	0.28	0.15	0.05	0.10	0.16
I _{max}	1.0	0.45	0.30	0.17	0.03	0.09	0.16
I _{tr}	0.5ind	0.44	0.28	0.08	0.05	0.07	0.07
10I _{tr}	0.5ind	0.40	0.26	0.14	0.04	0.08	0.16
I _{max}	0.5ind	0.40	0.27	0.15	0.05	0.08	0.14
L3							
I _{tr}	1.0	0.33	0.20	0.14	0.02	0.06	0.09
10I _{tr}	1.0	0.34	0.21	0.11	0.02	0.13	0.02
I _{max}	1.0	0.37	0.22	0.13	0.05	0.04	0.07
I _{tr}	0.5ind	0.69	0.34	0.26	0.10	0.14	0.25
10I _{tr}	0.5ind	1.29	0.64	0.30	0.89	1.09	0.84
I _{max}	0.5ind	1.36	0.46	0.37	0.67	0.92	0.56


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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
4 120 42	Polyphase, 3x230/400V, 5(6)A, pulse output
4 120 43	Polyphase, 3x230/400V, 5(6)A, dual tariff, RS485 Modbus communication

Modifications to the meter(s) described according to approval No.**0120/SGS0446** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

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6. Document Revision History

Issue	Date	Comments
1	31/01/2020	Initial Issue

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END OF CERTIFICATE