



EU Type Examination Certificate Number: **0120/SGS0447**

LEGRAND SA

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

Instrument Identification:
4 120 92 & 4 120 93

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

Instrument Traceable Number
0120/SGS0447

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 4th August 2029
Issue 1

Certification is based on report number(s) EMA267382/1 dated 5th August 2019
EMA267382/1/TR50579 5th August 2019
EMA273131

Authorised Signature


SGS United Kingdom Limited, Notified Body 0120
Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA, UK
t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com

Contact Address
SGS United Kingdom Limited, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD, UK
t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com

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1. Technical Data

Manufacturer	LEGRAND SA
Meter Type	4 120 92 & 4 120 93
Voltage Rating (U_n)	3 x 230/400V
Current Rating (I_{min} – I_{ref} (I_{max}))	0.25-5(63)A,
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	3p4w, 3p3w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	V1.102
CRC Checksum	26298
Identification Location	LCD
Bill Of Materials Number	B004264AA B004265AA B004272AA B004266AA
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	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

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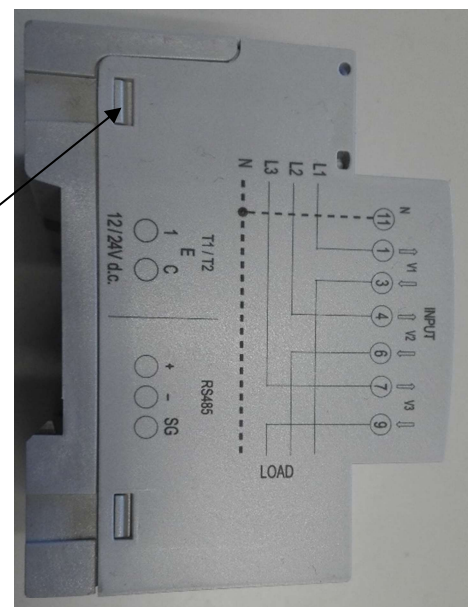
2. Photographs of Meter and Sealing Plans




Terminal Cover
Sealing Points

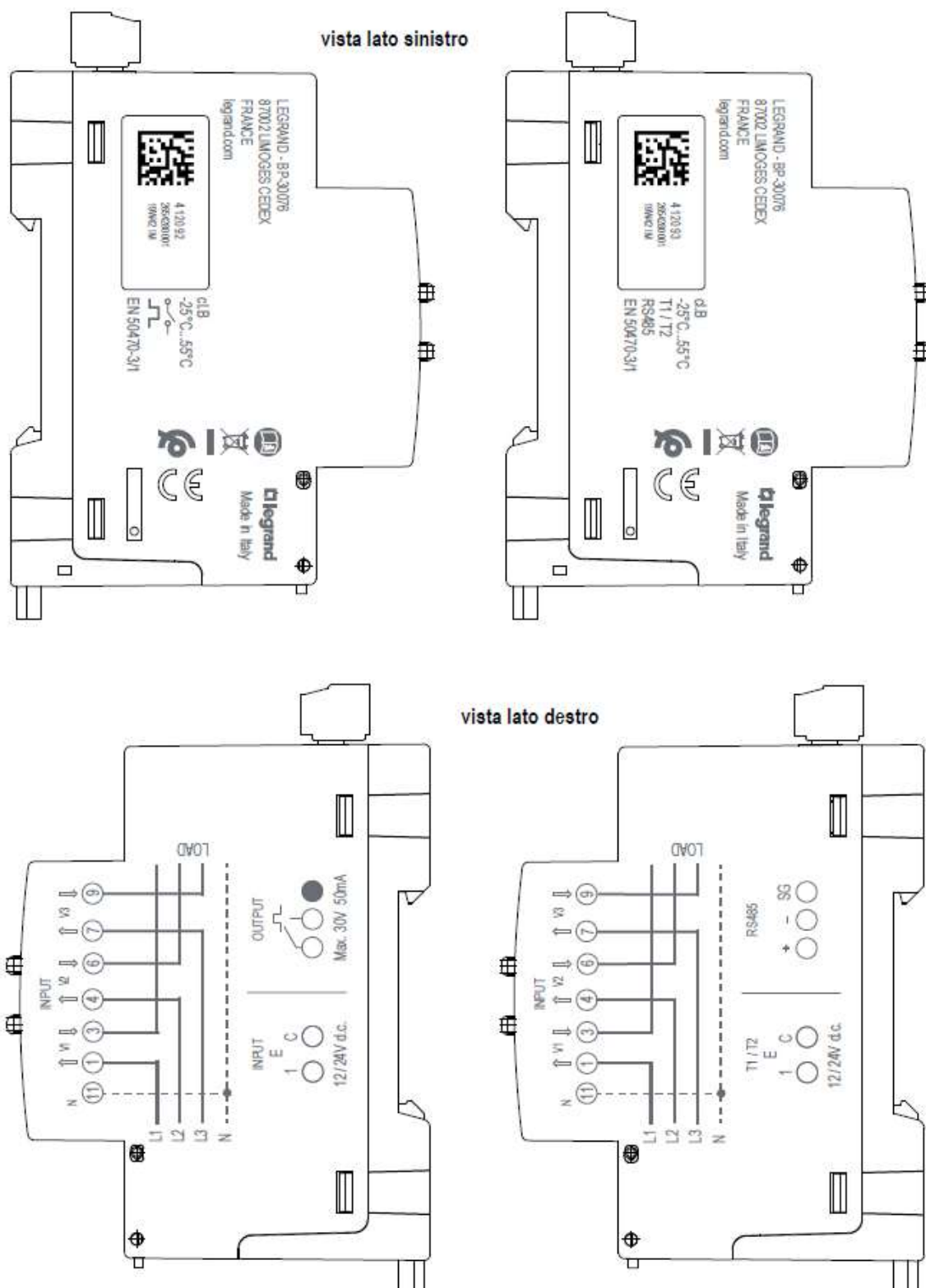



Main Cover
Sealing Points

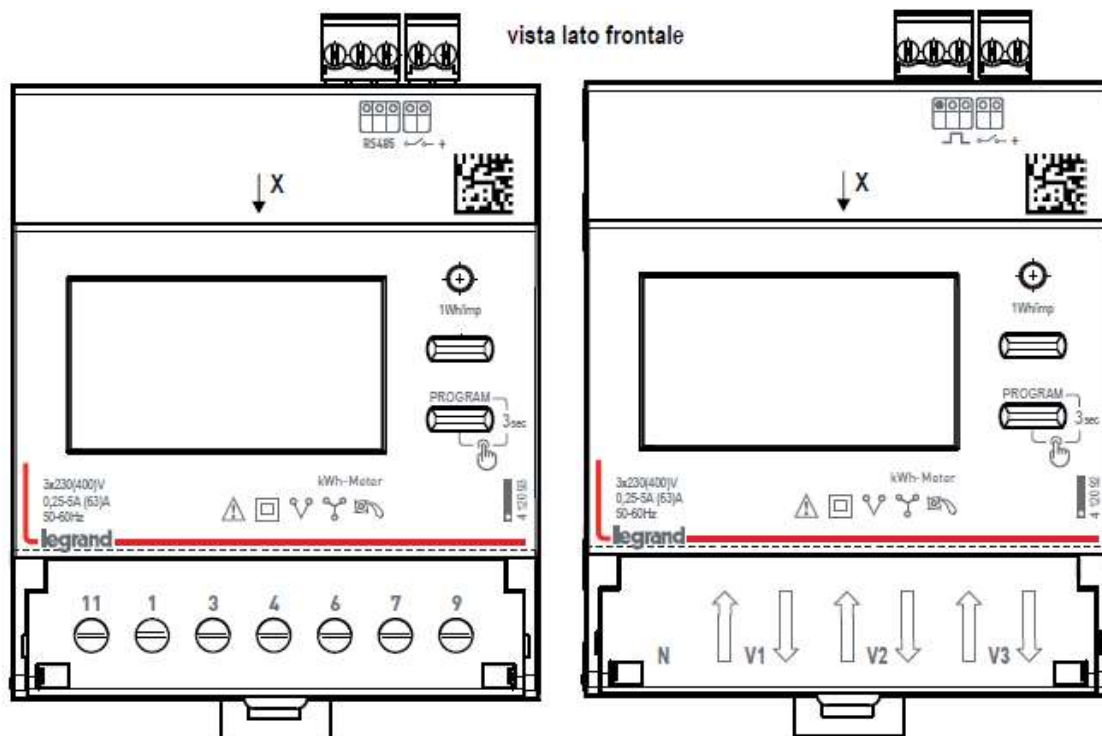


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3. Examples of Nameplates




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4 120 93	cl.B	3507200003	CE	M19	0120
T1/T2		-25°C...55°C			
RS485		46 2019		SGS0447	

4 120 92	cl.B	3507200002	CE	M19	0120
		-25°C...55°C			
		46 2019		SGS0447	

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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

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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	0.26	0.15	0.06	0.09	0.06	0.08
I _{tr}	1.0	0.27	0.16	0.08	0.04	0.04	0.03
10I _{tr}	1.0	0.32	0.21	0.09	0.05	0.05	0.05
I _{max}	1.0	0.85	0.11	0.09	0.09	0.10	0.12
I _{tr}	0.5ind	0.23	0.19	0.18	0.21	0.24	0.25
10I _{tr}	0.5ind	0.17	0.14	0.13	0.14	0.19	0.23
I _{max}	0.5ind	0.24	0.18	0.14	0.13	0.20	0.28
I _{tr}	0.8cap	0.56	0.37	0.17	0.09	0.09	0.09
10I _{tr}	0.8cap	0.59	0.38	0.22	0.11	0.11	0.11
I _{max}	0.8cap	0.46	0.35	0.29	0.26	0.26	0.27
L1							
I _{tr}	1.0	0.35	0.26	0.17	0.12	0.12	0.13
10I _{tr}	1.0	0.35	0.23	0.13	0.11	0.11	0.12
I _{max}	1.0	0.48	0.49	0.53	0.53	0.52	0.50
I _{tr}	0.5ind	0.24	0.21	0.22	0.25	0.26	0.25
10I _{tr}	0.5ind	0.22	0.17	0.15	0.18	0.20	0.23
I _{max}	0.5ind	1.00	1.03	1.06	1.14	1.17	1.24
L2							
I _{tr}	1.0	0.30	0.16	0.05	0.04	0.05	0.05
10I _{tr}	1.0	0.38	0.22	0.10	0.05	0.05	0.05
I _{max}	1.0	0.46	0.40	0.37	0.37	0.38	0.39
I _{tr}	0.5ind	0.26	0.22	0.14	0.11	0.14	0.20
10I _{tr}	0.5ind	0.13	0.14	0.13	0.16	0.20	0.25
I _{max}	0.5ind	1.96	0.23	0.27	0.23	0.29	0.35
L3							
I _{tr}	1.0	0.22	0.13	0.07	0.05	0.06	0.06
10I _{tr}	1.0	0.30	0.18	0.12	0.04	0.04	0.04
I _{max}	1.0	0.02	0.02	0.07	0.05	0.02	0.04
I _{tr}	0.5ind	0.18	0.13	0.12	0.07	0.07	0.09
10I _{tr}	0.5ind	0.12	0.12	0.12	0.12	0.15	0.24
I _{max}	0.5ind	0.97	0.84	0.72	0.38	0.64	0.59


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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
4 120 92	Polyphase, 3x230/400V, 5(63)A, pulse output
4 120 93	Polyphase 3x230/400V, 5(63)A, dual tariff, RS485 Modbus communication

Modifications to the meter(s) described according to approval No.**0120/SGS0447** 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