



EU Type Examination Certificate Number: **0120/SGS0387**

## **Legrand FRANCE SA**

128 av. Du Marechal de Lattre de Tassigny  
87045 Limoges Cedex  
France

Instrument Identification:  
**4 120 75**

**Polyphase, Active Import kWh, DIN Rail, Electricity Meter**

Instrument Traceable Number  
**0120/SGS0387**

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 13<sup>th</sup> June 2028  
Issue 1

Certification is based on report number(s) EMA248086/1 dated 14<sup>th</sup> June 2018  
EMA248086/1/TR50579 14<sup>th</sup> June 2018  
EMA259847

Authorised Signature


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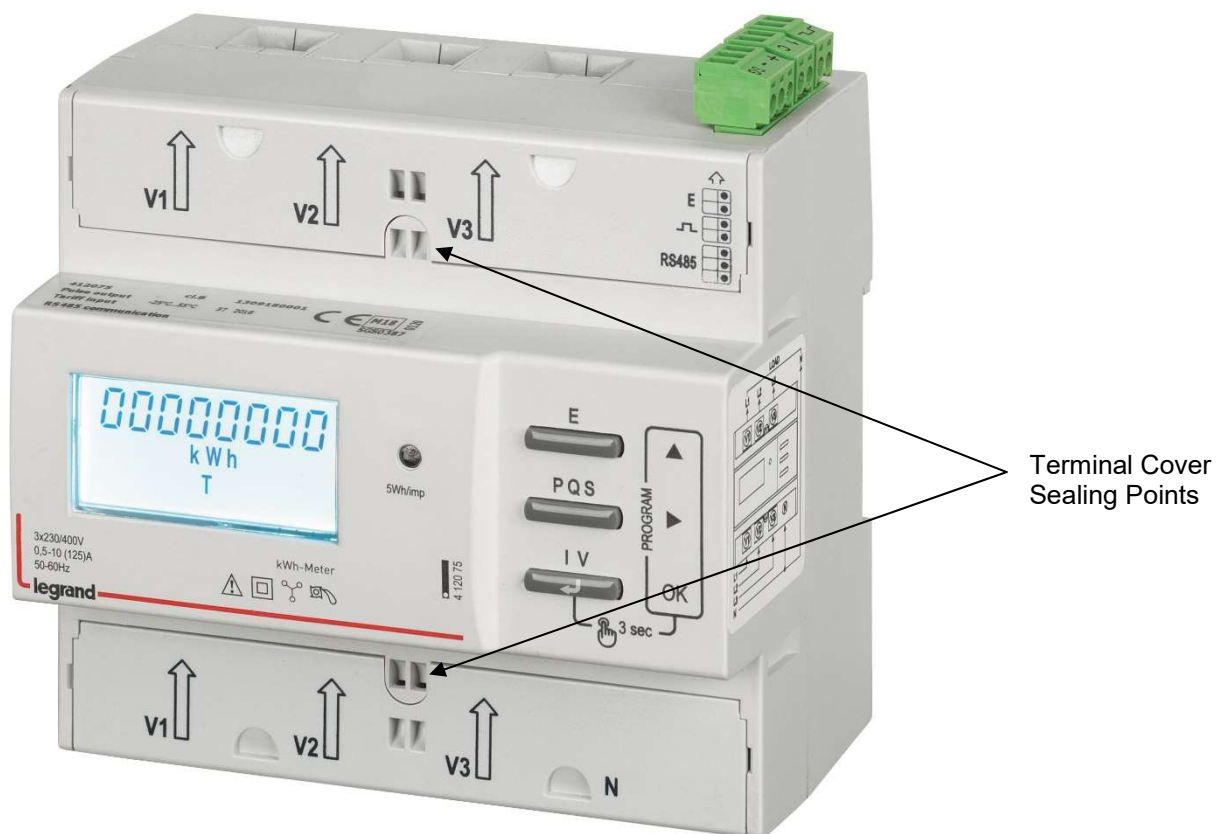
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## 1. Technical Data

<b>Manufacturer</b>	Legrand FRANCE SA
<b>Meter Type's</b>	4 120 75
<b>Voltage Rating (<math>U_n</math>)</b>	3 x 230/400V
<b>Current Rating (<math>I_{min} - I_{ref} (I_{max})</math>)</b>	0.5-10(125)A,
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (<math>kWh</math>)</b>	B ( $kWh$ )
<b>Type of circuit</b>	3p4w
<b>Temperature Range</b>	-25°C to +55°C
<b>Software/ Firmware Version No's</b>	MID 1.101
<b>CRC Checksum No's</b>	36085
<b>Identification Location</b>	LCD
<b>Bill Of Materials No's</b>	BT-F41DM125
<b>IP Rating</b>	Meter to be installed in a suitable IP rated enclosure as described in installation manual
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	5Wh/imp
<b>Impulse Voltage Rating</b>	6kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	4 x ultrasonic welded plastic plugs.
<b>Integrity of meter</b>	Inaccessible without breaking seals
<b>Intended Location of the Meter</b>	Indoor
<b>Type of Register</b>	LCD
<b>Terminal Arrangement(s)</b>	DIN
<b>Location of Manufacturers Address</b>	Nameplate & Documentation

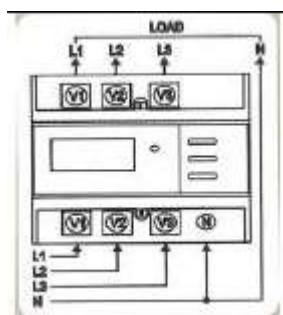
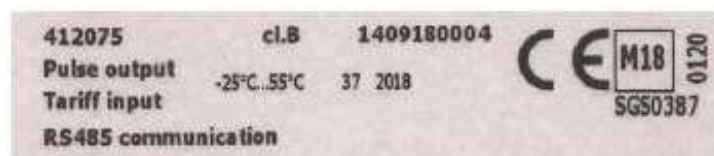
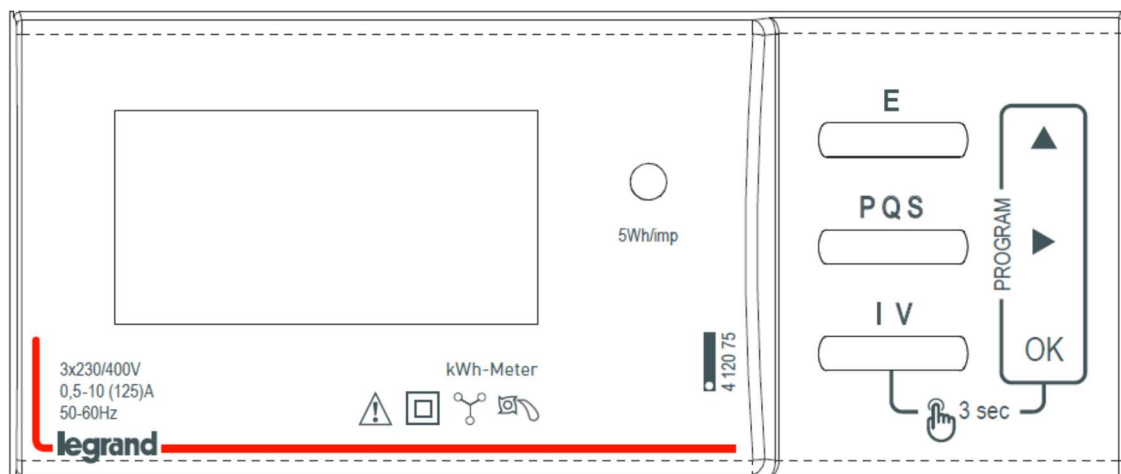
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## 2. Photograph of Meter and Sealing Plan



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### 3. Nameplates & Markings



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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 <sub>min</sub>	1.0	0.72	0.50	0.27	0.07	0.08	0.10
I <sub>tr</sub>	1.0	0.55	0.34	0.19	0.06	0.05	0.18
10I <sub>tr</sub>	1.0	0.55	0.33	0.18	0.06	0.11	0.17
I <sub>max</sub>	1.0	0.65	0.41	0.22	0.08	0.12	0.18
I <sub>tr</sub>	0.5ind	0.45	0.42	0.49	0.41	0.45	0.60
10I <sub>tr</sub>	0.5ind	0.49	0.31	0.28	0.35	0.43	0.57
I <sub>max</sub>	0.5ind	0.36	0.37	0.44	0.35	0.37	0.50
I <sub>tr</sub>	0.8cap	0.61	0.44	0.30	0.10	0.15	0.14
10I <sub>tr</sub>	0.8cap	0.58	0.40	0.27	0.18	0.33	0.50
I <sub>max</sub>	0.8cap	0.92	0.68	0.48	0.18	0.19	0.19
L1							
I <sub>tr</sub>	1.0	0.52	0.34	0.20	0.10	0.12	0.15
10I <sub>tr</sub>	1.0	0.40	0.24	0.17	0.21	0.25	0.28
I <sub>max</sub>	1.0	0.53	0.32	0.15	0.06	0.11	0.16
I <sub>tr</sub>	0.5ind	0.39	0.30	0.32	0.32	0.30	0.38
10I <sub>tr</sub>	0.5ind	0.47	0.30	0.24	0.41	0.51	0.67
I <sub>max</sub>	0.5ind	0.69	0.75	0.84	0.72	0.76	0.87
L2							
I <sub>tr</sub>	1.0	0.44	0.27	0.17	0.09	0.10	0.14
10I <sub>tr</sub>	1.0	0.46	0.27	0.14	0.05	0.09	0.13
I <sub>max</sub>	1.0	0.56	0.35	0.21	0.06	0.10	0.19
I <sub>tr</sub>	0.5ind	0.36	0.42	0.49	0.36	0.37	0.47
10I <sub>tr</sub>	0.5ind	0.41	0.28	0.29	0.38	0.51	0.69
I <sub>max</sub>	0.5ind	0.56	0.60	0.65	0.55	0.60	0.71
L3							
I <sub>tr</sub>	1.0	0.69	0.49	0.37	0.31	0.33	0.38
10I <sub>tr</sub>	1.0	0.66	0.39	0.19	0.07	0.17	0.26
I <sub>max</sub>	1.0	0.73	0.46	0.26	0.09	0.15	0.23
I <sub>tr</sub>	0.5ind	0.50	0.39	0.40	0.37	0.40	0.56
10I <sub>tr</sub>	0.5ind	0.61	0.38	0.28	0.33	0.42	0.53
I <sub>max</sub>	0.5ind	0.78	0.84	0.89	0.39	0.89	0.96


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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
4 120 75	Polyphase 3x230/400V, 10(125)A, 50Hz, RS485 Modbus communication

Modifications to the meter(s) described according to approval No. **0120/SGS0387** 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	11/10/2018	Initial Issue

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**END OF CERTIFICATE**