



EU Type Examination Certificate Number: **0120/SGS0261**

B+G E-Tech GmbH

Franz-Mehring Str.36
01979 Lauchhammer
Germany

Instrument Identification:

DRT428DC-MID

Poly Phase, Active Import, Indoor, Electricity Meter

Instrument Traceable Number

0120/SGS0261

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU

on Measuring Instruments Annex 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 18th September 2024
Issue 2

Certification is based on report number(s)
SHES140600277301 issued 18th September 2014
SHES150400182201 issued 22nd May 2015
EMA194426
EMA204555
EMA230025

Authorised Signature


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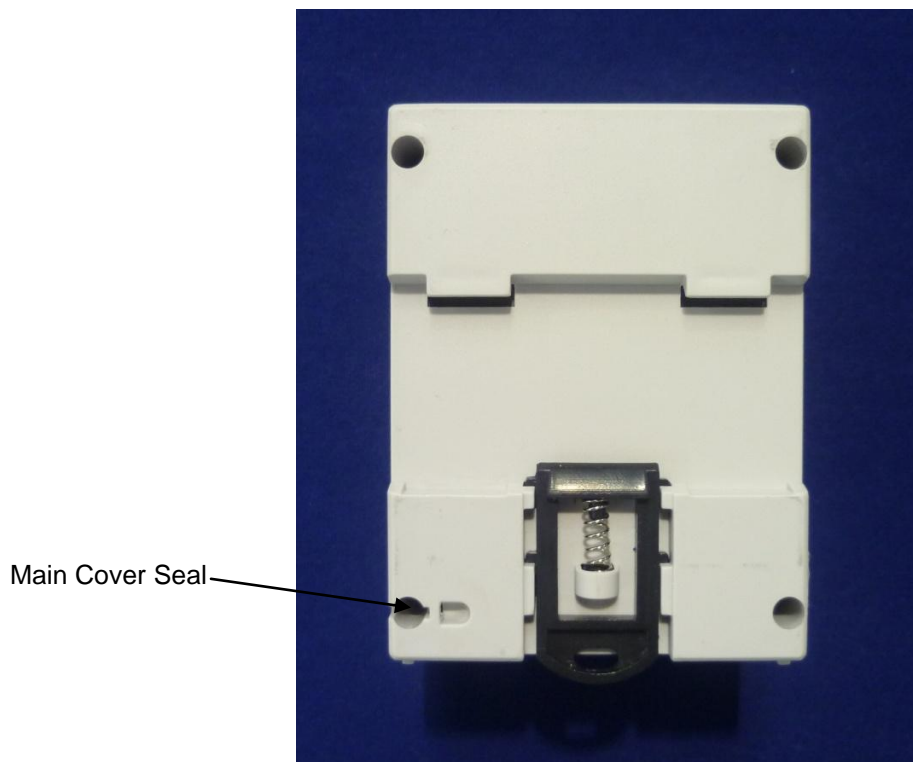
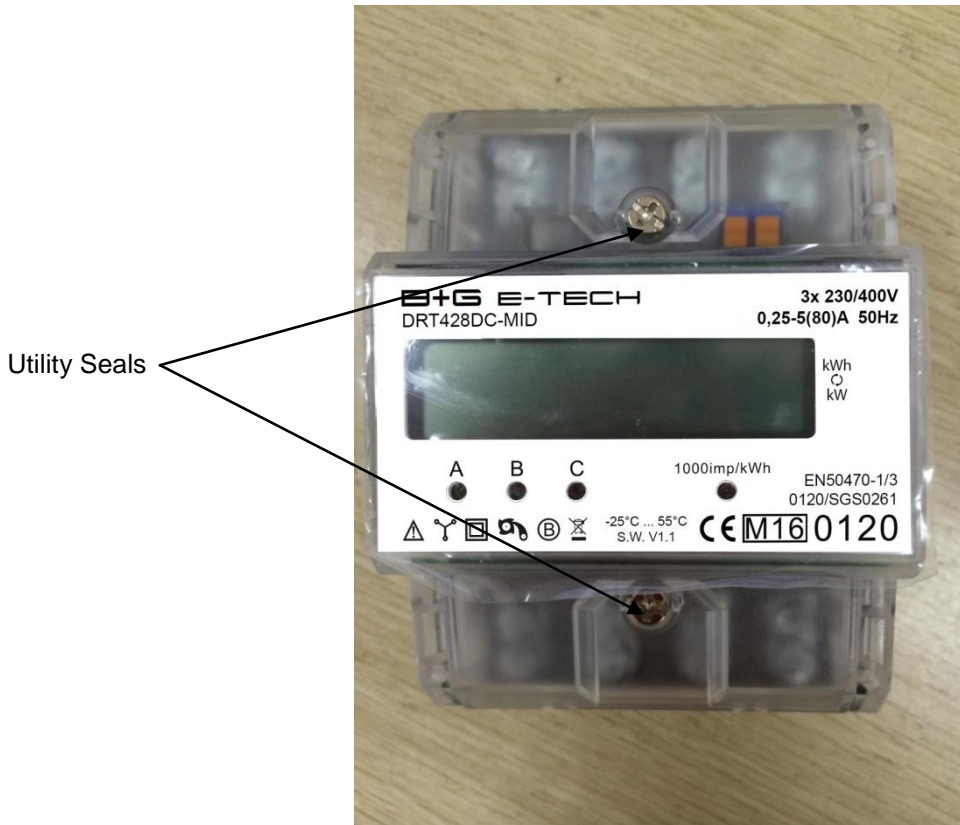
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1. Technical Data

Manufacturer	B+G E-Tech GmbH
Meter Type	DRT428DC-MID
Voltage Rating (U_n)	3x230/400V
Current Rating (I_{min} – I_{ref} (I_{max}))	0,25-5(80)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	3p4w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No's	V1.1
Identification Location	Nameplate
Bill Of Materials Numbers	D512075
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	2 x Wire & Crimp
Terminal Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacture Address	Operation Manual

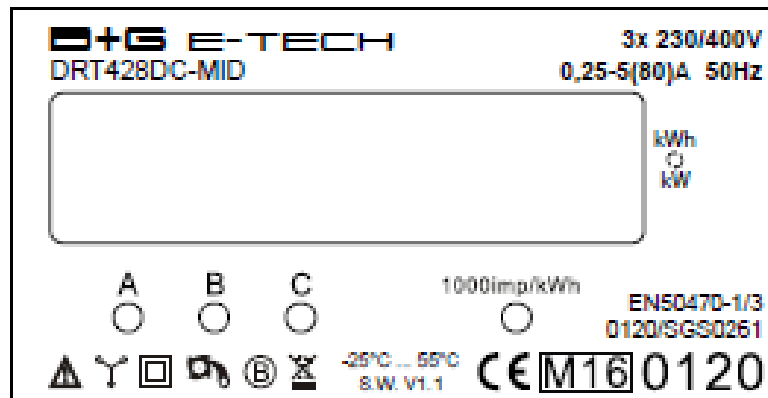
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2. Photographs of Meter Sealing Points



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3. Name-plates



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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 presents the sum of the square values per load, determined via the following formula:-

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

where

- $\delta e(T, I, \cos\varphi) =$ Additional error due to variation of the temperature at the same load
- $\delta e(U, I, \cos\varphi) =$ Additional error due to variation of the voltage at the same load
- $\delta e(f, I, \cos\varphi) =$ 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	0.65	0.60	0.25	0.16	0.31	0.36
I _{tr}	1.0	0.59	0.46	0.42	0.42	0.48	0.60
10I _{tr}	1.0	0.68	0.54	0.42	0.39	0.50	0.68
I _{max}	1.0	0.67	0.53	0.44	0.49	0.61	0.83
I _{tr}	0.5ind	0.43	0.37	0.29	0.06	0.15	0.31
10I _{tr}	0.5ind	0.48	0.41	0.38	0.45	0.60	0.77
I _{max}	0.5ind	0.45	0.34	0.26	0.34	0.47	0.65
I _{tr}	0.8cap	0.60	0.45	0.30	0.27	0.40	0.52
10I _{tr}	0.8cap	1.27	1.17	1.00	0.67	0.60	0.56
I _{max}	0.8cap	0.68	0.47	0.37	0.39	0.48	0.69
L1							
I _{tr}	1.0	1.02	0.89	0.56	0.20	0.32	0.60
10I _{tr}	1.0	1.01	0.77	0.51	0.17	0.34	0.64
I _{max}	1.0	1.04	0.76	0.48	0.16	0.33	0.64
I _{tr}	0.5ind	1.12	0.68	0.44	0.25	0.39	0.56
10I _{tr}	0.5ind	1.01	0.59	0.42	0.21	0.41	0.67
I _{max}	0.5ind	0.77	0.52	0.27	0.24	0.42	0.69
L2							
I _{tr}	1.0	0.62	0.47	0.35	0.16	0.14	0.21
10I _{tr}	1.0	0.49	0.40	0.31	0.12	0.13	0.25
I _{max}	1.0	0.44	0.32	0.18	0.11	0.20	0.38
I _{tr}	0.5ind	0.37	0.35	0.24	0.12	0.13	0.17
10I _{tr}	0.5ind	0.25	0.32	0.36	0.23	0.18	0.28
I _{max}	0.5ind	0.28	0.19	0.15	0.12	0.20	0.32
L3							
I _{tr}	1.0	0.80	0.66	0.41	0.29	0.25	0.42
10I _{tr}	1.0	0.82	0.67	0.46	0.20	0.24	0.42
I _{max}	1.0	0.68	0.49	0.30	0.15	0.29	0.55
I _{tr}	0.5ind	0.33	0.33	0.23	0.22	0.22	0.46
10I _{tr}	0.5ind	0.52	0.22	0.12	0.28	0.24	0.45
I _{max}	0.5ind	0.42	0.31	0.19	0.19	0.36	0.58

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5. Annex of Variants

Product Variant Identification Details:


Type Designation

Description of meter

DRT428DC-MID

3x230/400V, 5(80)A, Active Import, 1000imp/kWh,
kWh, Power and Software Checksum by scrolling display,
Transparent meter cover and terminal cover.

Modifications to the meter(s) described according to approval No. **0120/ GS0261** 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	30/09/2016	Initial Issue
2	16 /09/2016	Modify name plate : Change terminal cover description