

Engelmann Heat Cost Allocator

HCAe2



- Approved according to EN 834:2013 and in compliance with the German HKVO
- Type approval: A1.01.2013 according to HKVO
- 132 monthly and 132 semimonthly values memory
- Clip-on remote temperature sensor
- Optical communication interface
- Optional communication interface wireless M-Bus based on EN 13757-4
 AMR (according to OMS)
 Walk-by read-out

- **Dimensions**

HCAe2	(H x W x D)	95 x 38 x 30 (mm)
Remote sensor cover	(H x W x D)	26 x 12 x 10 (mm)



Technical data:

HCAe2

Device type		2-sensor device; measuring mode can be set: 2-sensor mode or 1-sensor mode
Estimated lifetime	years	11 + 1
Scaling		unit scale; product scale
Clip-on remote sensor		cable length: 2 m; 5 m
Temperature range	°C	2-sensor mode: 35 – 95 (with remote sensor up to 105); 1-sensor mode: 55 – 95 (with remote sensor up to 105)
Ambient temperature	°C	-25 – 60
Minimum temperature difference $\Delta\theta$ (Counting start temp. difference)	K	4,5
Interfaces		optical interface (M-Bus protocol); optional: wireless M-Bus
Display		LCD - 7 digits + special characters
Displayed values		current consumption, billing (due) date, billing date value, checksum
Billing date options		annually variable (except 29.02.); monthly variable (1. – 28. day)
Stores monthly values		132 monthly and 132 semimonthly values
Measuring free summer months		May-June-July-August-September: freely selectable
Detection of manipulation		break contact
Power supply	V	3; lithium battery
Protection class		IP41 (mounted)

Technical data wireless M-Bus radio interface (* factory setting)

Telegrams		“short telegram” in conformity with OMS (AMR) (current consumption, billing (due) date, billing date value, hint flag); “long telegram” for walk-by read-out (factory setting) (current consumption, billing date, billing date value, 15 monthly and 15 semimonthly values, hint flag)
Transmission power (maximum)	dBm	10
Frequency	MHz	868
Operating modes acc. to EN 13757-4		S1; T1*; C1
Encryption		AES 128 / Engelmann Master Key*
Radio activation date		annually variable (except 29.02.)
Transmission period		transmission interval: 2 – 240 min (2 min)* transmission period: 00:00 – 12 pm (8 am – 6 pm)* weekdays: Mon – Sun (Mon – Fri)* weeks in a month: 1 – 4 (1 – 4)* months: Jan – Dec (Jan – Dec)*

Technical data wireless M-Bus radio interface OMS 4 Mode 7 (* factory setting)

Telegram		“short telegram” in conformity with OMS (AMR) (current consumption, billing (due) date, billing date value, hint flag)
Operating modes acc. to EN 13757-4		T1*; C1
Encryption		AES 128 / individual key per device
Transmission period		transmission interval: 2 – 240 min (15 min)* transmission period: 00:00 – 12 pm (8 am – 6 pm)* weekdays: Mon – Sun (Mon – Sun)* weeks in a month: 1 – 4 (1 – 4)* months: Jan – Dec (Jan – Dec)*