

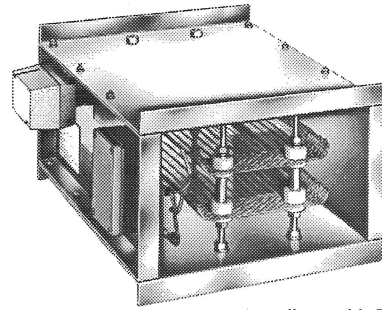
ENGELNORM® ELECTRIC AIR HEATER

ENGELNORM® ELECTRIC AIR HEATER Type E 0.5 - E 2

Operating voltage:
230 V AC
Circuit: Ph-N
Installation position: universal



Min. dimensions with min. output



illus. with TW type ZB 111

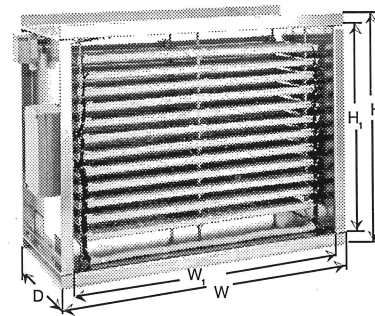
| Type | Output kW | Switch stages norm./ max. | Number of heating grids | Output per heating grid kW | Dim. in mm | | | Flange | Alu- minium duct | Weight approx. kg | Free duct cross- section, approx. qm |
|-------|--------------|------------------------------------|----------------------------------|--|---------------|-----|-----|--------|------------------------|-------------------------|---|
| | | | | | W1 | H1 | D | | | | |
| E 0.5 | 0.5 | 1/2 | 2 | 0.25 | 250 | 150 | 350 | 25 | 1.5 | 2.5 | 0.034 |
| E 1 | 1 | 1/3 | 3 | 0.33 | 250 | 200 | 350 | 25 | 1.5 | 3 | 0.045 |
| E 2 | 2 | 1/4 | 4 | 0.50 | 250 | 250 | 350 | 25 | 1.5 | 4 | 0.056 |

ENGELNORM® ELECTRIC AIR HEATER Type E 7.5 - E 20

Operating voltage:
230 V AC
Circuit: Ph-N
230/400 V rotary current
Circuit: Δ/Y
Installation position: universal



Square design - multi-stage



illus. with STB type ZB 121

| Type | Output kW | Switch stages norm./ max. 3+/-1- | Number of heating grids | Output per heating grid kW | Dim. in mm | | | Flange | Alu- minium duct | Weight approx. kg | Free duct cross- section, approx. qm |
|-------|--------------|--|----------------------------------|--|---------------|-----|-----|--------|------------------------|-------------------------|---|
| | | | | | W1 | H1 | D | | | | |
| E 7.5 | 7.5 | 3/9 | 9 | 0.83 | 350 | 350 | 250 | 30 | 1.5 | 6 | 0.10 |
| E 12 | 12 | 4/12 | 12 | 1.00 | 450 | 450 | 350 | 30 | 2.0 | 10 | 0.16 |
| E 16 | 16 | 4/12 | 12 | 1.33 | 450 | 450 | 350 | 30 | 2.0 | 10 | 0.16 |
| E 20 | 20 | 4/12 | 12 | 1.66 | 450 | 450 | 350 | 30 | 2.0 | 11 | 0.16 |

flat units - multi-stage

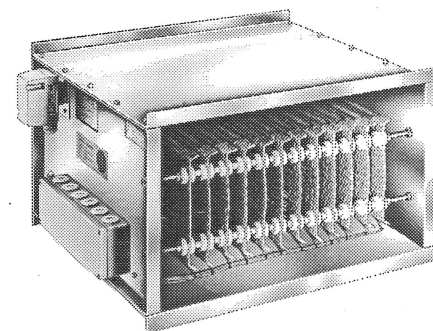
illus. with STB type ZB 123

ENGELNORM® ELECTRIC AIR HEATER Type EL 6 - EL 20

Operating voltage:
230 V AC
Circuit: Ph-N
Installation position: universal
230 / 400 V rotary current
Circuit: Δ / Y



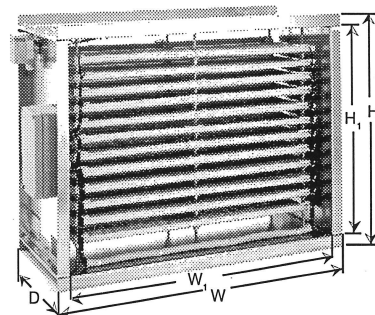
Our alternative:
Engelcanal® air heater
Type ELP 1 - 36 with
profile frame



| Type | Output kW | Switch stages norm./ max. 3+/-1- | Number of heating grids | Output per heating grid kW | Dim. in mm | | | Flange | Alu- minium duct | Weight approx. kg | Free duct cross- section, approx. qm |
|-------|--------------|--|----------------------------------|--|---------------|-----|-----|--------|------------------------|-------------------------|---|
| | | | | | W1 | H1 | D | | | | |
| EL 6 | 6 | 4/12 | 12 | 0.50 | 500 | 280 | 450 | 25 | 2.0 | 8 | 0.13 |
| EL 12 | 12 | 4/12 | 12 | 1.00 | 500 | 280 | 450 | 25 | 2.0 | 9 | 0.13 |
| EL 16 | 16 | 4/12 | 12 | 1.33 | 600 | 280 | 450 | 25 | 2.0 | 10 | 0.15 |
| EL 20 | 20 | 5/15 | 15 | 1.33 | 600 | 280 | 450 | 25 | 2.0 | 11 | 0.15 |

ENGELNORM® ELECTRIC AIR HEATER

ENGELNORM®
ELECTRIC AIR HEATER
Type L 1 - 20 / Universal



Operating voltage:
230 V AC
Circuit: Ph-N
230/400 V rotary current
Circuit: Δ/Y
Installation position: universal

**Large performance and
large-volumed design**

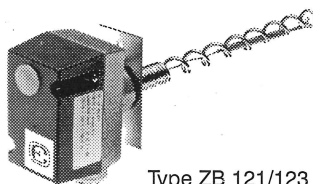
illus. with STB type ZB 121

| Type | Output kW | Switch stages norm./ max | Number of heating grids | Output per heating grid kW | Dim. in mm | | | Flange | Alu- minium duct | Weight approx. kg | Free duct cross- section, approx. qm |
|------|--------------|-----------------------------------|----------------------------------|--|---------------|------|-----|--------|------------------------|-------------------------|---|
| | | | | | W1 | H1 | D | | | | |
| L 1 | 0.75 | 1/3 | 3 | 0.25 | 360 | 200 | 250 | 30 | 1,5 | 3 | 0,06 |
| L 2 | 1 | 1/3 | 3 | 0,33 | 360 | 200 | 250 | 30 | 1,5 | 3 | 0,06 |
| L 3 | 1.5 | 1/3 | 3 | 0,50 | 360 | 200 | 250 | 30 | 1,5 | 3 | 0,06 |
| L 4 | 2 | 2/6 | 6 | 0,33 | 360 | 280 | 250 | 30 | 1,5 | 4 | 0,08 |
| L 5 | 3 | 2/6 | 6 | 0,50 | 360 | 280 | 250 | 30 | 1,5 | 4 | 0,08 |
| L 6 | 4 | 2/6 | 6 | 0,66 | 360 | 280 | 330 | 30 | 1,5 | 5 | 0,08 |
| L 7 | 5 | 2/6 | 6 | 0,83 | 360 | 280 | 330 | 30 | 1,5 | 5 | 0,08 |
| L 8 | 6 | 2/6 | 6 | 1,00 | 360 | 280 | 330 | 30 | 1,5 | 5 | 0,08 |
| L 9 | 9 | 3/9 | 9 | 1,00 | 460 | 380 | 260 | 30 | 1,5 | 6,5 | 0,14 |
| L 10 | 12 | 3/9 | 9 | 1,33 | 460 | 380 | 260 | 30 | 1,5 | 6,5 | 0,14 |
| L 11 | 15 | 3/9 | 9 | 1,66 | 460 | 380 | 350 | 30 | 2,0 | 9 | 0,14 |
| L 12 | 18 | 3/9 | 9 | 2,00 | 460 | 380 | 350 | 30 | 2,0 | 9 | 0,14 |
| L 13 | 20 | 3/9 | 9 | 2,22 | 540 | 420 | 350 | 30 | 2,0 | 12 | 0,18 |
| L 14 | 24 | 3/9 | 9 | 2,66 | 540 | 420 | 400 | 30 | 2,0 | 15 | 0,18 |
| L 15 | 30 | 3/9 | 9 | 3,33 | 540 | 420 | 450 | 30 | 2,5 | 17 | 0,18 |
| L 16 | 40 | 4/12 | 12 | 3,33 | 800 | 600 | 350 | 35 | 2,5 | 24 | 0,38 |
| L 17 | 50 | 6/18 | 18 | 2,77 | 800 | 800 | 350 | 35 | 2,5 | 27 | 0,51 |
| L 18 | 60 | 6/18 | 18 | 3,33 | 800 | 800 | 350 | 35 | 2,5 | 30 | 0,51 |
| L 19 | 80 | 8/24 | 24 | 3,33 | 1000 | 1000 | 350 | 35 | 2,5 | 35 | 0,80 |
| L 20 | 100 | 10/30 | 30 | 3,33 | 1200 | 1200 | 350 | 35 | 3,0 | 57 | 1,15 |

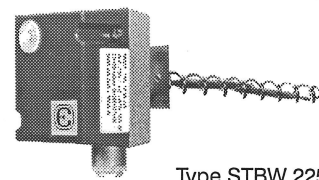
Engelcontrol® Temperature Monitoring and Limiting



acc. to Info No. S 20, suitable for all units
Regulations acc. to VDE-DIN 57100, part 420
Fire-protected acc. to VDI 3803



Type ZB 121/123



Type STBW 225

| Type | Unit | Weight approx. kg | availability | Code |
|----------|---|----------------------|-------------------------|------|
| ZB 111 | Temperature monitor - automatic - change-over switch 230V 10A Temperature adjustable from 313 - 383 K (+40 °C to +110 °C) | 0,5 | integrated or single | TW |
| ZB 121 | Temperature limiter as STB - locking - change-over switch, 230V 10A Temperature pre-set to 348 K (+75 °C) with switch-on lock, release button behind cover. TÜV-tested acc. to DIN 3440. | 0,5 | | TB |
| ZB 123 | Safety temperature limiter as STB - locking - change-over switch, 230V 10A Temperature pre-set to 373 K (+100 °C) with switch-on lock, release button behind cover. TÜV-tested acc. to DIN 3440. | 0,5 | | STB |
| STBW 225 | Safety temperature limiter and monitor. Two change-over switches, 230V 10A, TÜV-tested acc. to DIN 3440. Inner temperature adjustable from 273 K - 343 K. STB Temperature pre-set to 348 K (+75 °C) with switch-on lock, release knob behind cover. | 0,6 | | |
| ZB 131 | Temp. regulator - adjustable duct thermostat, change-over switch 230V 10A. Temp. adjustable from outside from 273 - 343 K (0 to +70 °C), single-staged. | 0,5 | | TR |