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| Summary of | ELFOEnergy Storm EVO R-32 SH 18.2, 20.2 | Reg. No. | ICIM-PDC-000092-00 |
|---------------------|--|----------|--------------------|
| Certificate Holder | | | |
| Name | Clivet s.p.a. | | |
| Address | Via camp lonc 25 c.ap. | Zip | I-32032 |
| City | z.i. Villapaiera - Feltre (BL) | Country | Italy |
| Certification Body | ICIM S.p.A. | | |
| Subtype title | ELFOEnergy Storm EVO R-32 SH 18.2 , 20.2 | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R32 | | |
| Mass of Refrigerant | 15 kg | | |
| Certification Date | 23.12.2020 | | |
| Testing basis | Festing basis HP KEYMARK certification scheme rules rev. 8 | | |



Model: ELFOEnergy Storm EVO WSAN-YES 18.2 R32

| Configure model | | |
|-------------------------------------|--|--|
| Model name | ELFOEnergy Storm EVO WSAN-YES 18.2 R32 | |
| Application | Heating (low temp) | |
| Units | Outdoor | |
| Climate Zone | n/a | |
| Reversibility | Yes | |
| Cooling mode application (optional) | n/a | |

| General Data | | |
|--------------|-------------|--|
| Power supply | 3x400V 50Hz | |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--|
| | Low temperature | |
| Heat output | 54.00 kW | |
| El input | 25.60 kW | |
| СОР | 4.07 | |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate



| EN 12102-1 | |
|---------------------------|-----------------|
| | Low temperature |
| Sound power level outdoor | 83 dB(A) |

| EN 14825 | | |
|------------------------|-----------------|--|
| | Low temperature | |
| η_s | 154 % | |
| Prated | 41.00 kW | |
| SCOP | 3.93 | |
| Tbiv | -7 °C | |
| TOL | -10 °C | |
| Pdh Tj = -7°C | 36.00 kW | |
| COP Tj = -7°C | 2.76 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 22.90 kW | |
| $COP Tj = +2^{\circ}C$ | 3.96 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = $+7$ °C | 19.90 kW | |
| $COP Tj = +7^{\circ}C$ | 4.83 | |
| Cdh Tj = +7 °C | 0.89 | |
| Pdh Tj = 12°C | 24.40 kW | |
| | | |

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| COP Tj = 12°C | 7.05 |
|---|-------------|
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 36.00 kW |
| COP Tj = Tbiv | 2.76 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 32.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.55 |
| WTOL | 55 °C |
| Poff | 97 W |
| PTO | 103 W |
| PSB | 97 W |
| PCK | 97 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 0 kWh |



Model: ELFOEnergy Storm EVO WSAN-YES 20.2 R32

| Configure model | | | |
|-------------------------------------|--|--|--|
| Model name | ELFOEnergy Storm EVO WSAN-YES 20.2 R32 | | |
| Application | Heating (low temp) | | |
| Units | Outdoor | | |
| Climate Zone | n/a | | |
| Reversibility | Yes | | |
| Cooling mode application (optional) | n/a | | |

| General Data | | |
|--------------|-------------|--|
| Power supply | 3x400V 50Hz | |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--|
| | Low temperature | |
| Heat output | 61.00 kW | |
| El input | 25.60 kW | |
| СОР | 4.00 | |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate

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| EN 12102-1 | |
|---------------------------|-----------------|
| | Low temperature |
| Sound power level outdoor | 83 dB(A) |

| EN 14825 | |
|-------------------------|-----------------|
| | Low temperature |
| η_{s} | 153 % |
| Prated | 49.00 kW |
| SCOP | 3.91 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7 °C | 44.50 kW |
| COP Tj = -7 °C | 2.79 |
| Cdh Tj = -7 °C | 0.90 |
| Pdh Tj = $+2$ °C | 29.60 kW |
| COP Tj = +2°C | 4.05 |
| Cdh Tj = +2 °C | 0.90 |
| Pdh Tj = $+7^{\circ}$ C | 20.60 kW |
| COP Tj = +7°C | 4.25 |
| Cdh Tj = +7 °C | 0.90 |
| Pdh Tj = 12°C | 26.60 kW |
| | |

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| COP Tj = 12°C | 7.02 |
|---|-------------|
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 44.50 kW |
| COP Tj = Tbiv | 2.79 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 41.70 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 |
| WTOL | 55 °C |
| Poff | 97 W |
| PTO | 103 W |
| PSB | 97 W |
| PCK | 97 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 0 kWh |