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| Refrigerant | R449A Dew Point |
| High Side Properties: | |
| Condensing Temperature, °C | 45.00 |
| Abs. Condensing Pressure, bar | 18.86 |
| Dew Point, °C | 45.00 |
| Bubble Point, °C | 40.70 |
| Saturated vapour enthalpy, kJ/kg | 414.00 |
| Specific volume of saturated vapour, dm ³ /kg | 11.30 |
| Low Side Properties: | |
| Evaporating Temperature, °C | -10.00 |
| Evaporating Abs. Pressure, bar | 3.61 |
| Dew Point, °C | -10.00 |
| Bubble Point, °C | -15.40 |
| With vapour at, °C | 20.00 |
| Specific volume, dm ³ /kg | 72.50 |
| Enthalpy, kJ/kg | 421.00 |
| Operating Conditions: | |
| Evaporating Temperature, °C | -10.00 |
| Condensing Temperature, °C | 45.00 |
| Suction Return Temperature, °C | 20.00 |
| Subcooling, K | 0.00 |
| Compressor Selected | ZBD29KCE-TFD |

**PERFORMANCE AT SPECIFIED OPERATING POINT
ZBD29KCE-TFD Data at 50 Hz**

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|------------------------|-------|
| Cooling Capacity, kW | 6.62 |
| Power, kW | 2.81 |
| COP | 2.35 |
| Current at 400 V, A | 5.20 |
| Suction Mass Flow, g/s | 41.70 |
| Heating Capacity, kW | 9.29 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

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| Displacement @ 50 Hz, m ³ /h | 11.4 |
| Length/Width, mm | 243/243 |
| Height, mm | 463 |
| Net Weight, kg | 29.9 |
| Rotalock Suction, inch | 1 1/4 |
| Rotalock Discharge, inch | 1 |
| Oil Quantity, l | 1.36 |
| Oil type (original charge) | POE RL32-3MAF |
| Oil type (approved oils) | POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC |
| Base mounting (hole dia), mm | 190 x 190 (19) |
| Sound Pressure @ 1m (MT), dBA | 63 |
| Sound Power (MT), dBA | 74 |
| Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed) | -10 / 45 / 20 °C at 50 Hz |
| PED Category | 1 |
| Max. Low Side Internal Free Volume, l | 4.6 |
| Max. High Side Internal Free Volume, l | 0.5 |
| Max. Internal Free Volume, l | 5.10 |
| High Side PS gauge, bar | 32 |
| Low Side PS gauge, bar | 21 |
| Refrigerant's GWP | 1397 |
| Refrigerant's classification | A1 |

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

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|------------------------------|----------------|
| Maximum Operating Current, A | 10 |
| Locked Rotor Current, A | 48 |
| Winding Resistance, ohm | 3.88 |
| Default Enclosure Class | IP 21 (IEC 34) |

ACCESSORIES INCLUDED

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|-------------------|----------|
| Mounting Grommets | Standard |
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ACCESSORIES OPTIONAL

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|----------------------------------|-----------------------------|
| Crankcase Heater | 70 W External |
| Discharge Temperature Protection | Discharge line thermostat |
| Mounting Grommets | Hard Mounts for Paralleling |
| Solenoid valve | Standard |
| Oil Control System | ALCO Trax-Oil OM3 |
| Sound Attenuation | Sound Shell (10dBA) |
| Valve Coil | 220V |
| Valve Coil | 24V AC |
| Solenoid Valve Kit | 220 V Ac 12" lead Length |
| Solenoid Valve Kit | 24 V Ac 12" lead Length |
| Digital Tubing Kit | 220 V 0.3m Rotalock |
| Digital Tubing Kit | 24 V 0.3m Rotalock |
| Digital Control Kit | EC2-552 |
| Digital Control Kit | EC3-652 |
| Digital Driver | EC3-D13 |

| MODEL NUMBER | A | B | C | D | E | F | G |
|--------------|-------|-------|-------|-------|-------|------|------|
| ZBD21KC/KCE | 432.4 | 414.3 | 363.6 | 261.6 | 218.9 | 75.0 | 50.0 |
| ZBD29KC/KCE | 463.2 | 445.2 | 394.3 | 291.3 | 249.7 | 75.0 | 50.0 |

