

ARCODE®

Looked **INTEGRATED CONTROL UNIT**



ARKEL

Integrated Control Unit

ARCODE®



ARCODE is an integrated lift control unit which combines VVVF inverter, control board and evacuation system in a single package.

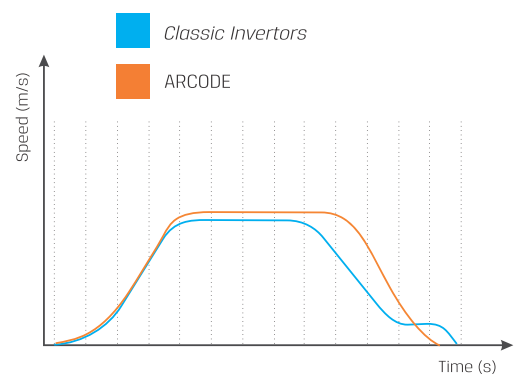
ARCODE Features

| | |
|------------------------|--|
| Motor Control | Gearless & Geared Machine |
| Power Input (L1,L2,L3) | AC 3 Ph., 420-320V, 60/50 Hz AC 3 Ph., 240-200V, 60/50 Hz |
| Models | ARCODE 75 , 50 , 35 , 26 , 17 ,14 A |
| Speed | Up to 4 m/s |
| Group Operation | Up to 8 lifts |
| Number of Floors | Up to 64 floors |
| Communication Protocol | CANbus |
| Encoder Options | 5V TTL, 30-10V HTL, EnDat, SSI, SinCos, BISS |
| Safety Circuit Voltage | 48 VAC - 230 VAC |

With "Direct Landing" feature,

ARCODE:

- Shortens travel time with removal of the creeping distance by dynamic calculation of the travel curve.
- Provides easy setup by automatic detection of the deceleration point.
- Does not require any additional settings for short floor travel or high speed applications.



WHY ARCODE?

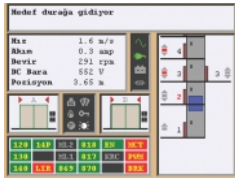
- Excellent travel comfort thanks to direct landing
- Shorter travel time in comparison to standard VVVF systems
- Energy-saving modes
- Full synchronization
- Compact modular design
- Simple and fast installation
- Easy update

Features

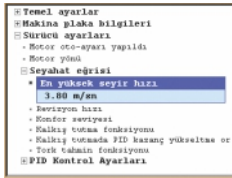
- Wiring:
 - . Serial CANbus communication with car top and car panel
 - . Conventional (up to 16 floors) or serial CANbus communication with landing panels
- Car positioning with motor encoder
- Independently operated 2 car entrances
- Evacuation operation:
 - . By using a monophasic 220VAC UPS or battery
 - . To the nearest or specific floor
- Incremental encoder (5V TTL or 30-10V HTL) or absolute encoder (EnDat, SSI, SinCos or BISS) options
- Automatic auto-tuning, shaft learning and control gain calculation
- Rollback prevention at start through pre-torque and anti-rollback functions
- Re-levelling and door pre-opening
- High stopping accuracy
- Programmable inputs-outputs in all peripheral units
- Stand-by mode

AREM Functions

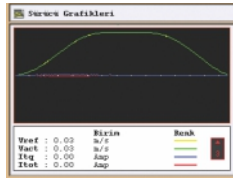
- Back-up and parameter transfers via SD Card
- 3 different accessibility levels for specific needs (guest, maintenance, expert)
- Firmware update of all CANbus units without PC
- Easy access to system from any point on CANbus



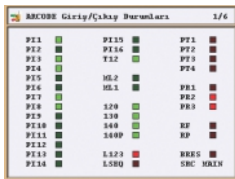
Information on car position, door status, car commands and landing calls



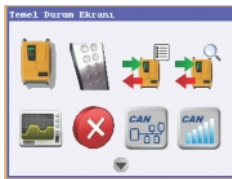
Parameter settings



Current and speed curve monitoring



Input/Output status report



Main menu



Settings



Multiple language support

DONGLES

| | Models | | |
|--|---------|--|--|
| | BASIC | MEDIUM | HIGHLINE |
| Maximum Number of Stops | 16 | 24 | 64 |
| Maximum Number of Group Operation | 2 | 4 | 8 |
| Maximum Speed | 1,6 m/s | 2,5 m/s | 4 m/s |
| Special Function Addition/Modification | ✗ | ✓ | ✓ |
| Firefighter's Lift | ✓ | ✓ | ✓ |
| Emergency Calls | ✗ | ✓ | ✓ |
| VIP Calls | ✗ | ✓ | ✓ |
| Parking Mode (Multiple stops, with time slots) | ✗ | ✓ | ✓ |
| | |  |  |
| | | MDA | HDA |

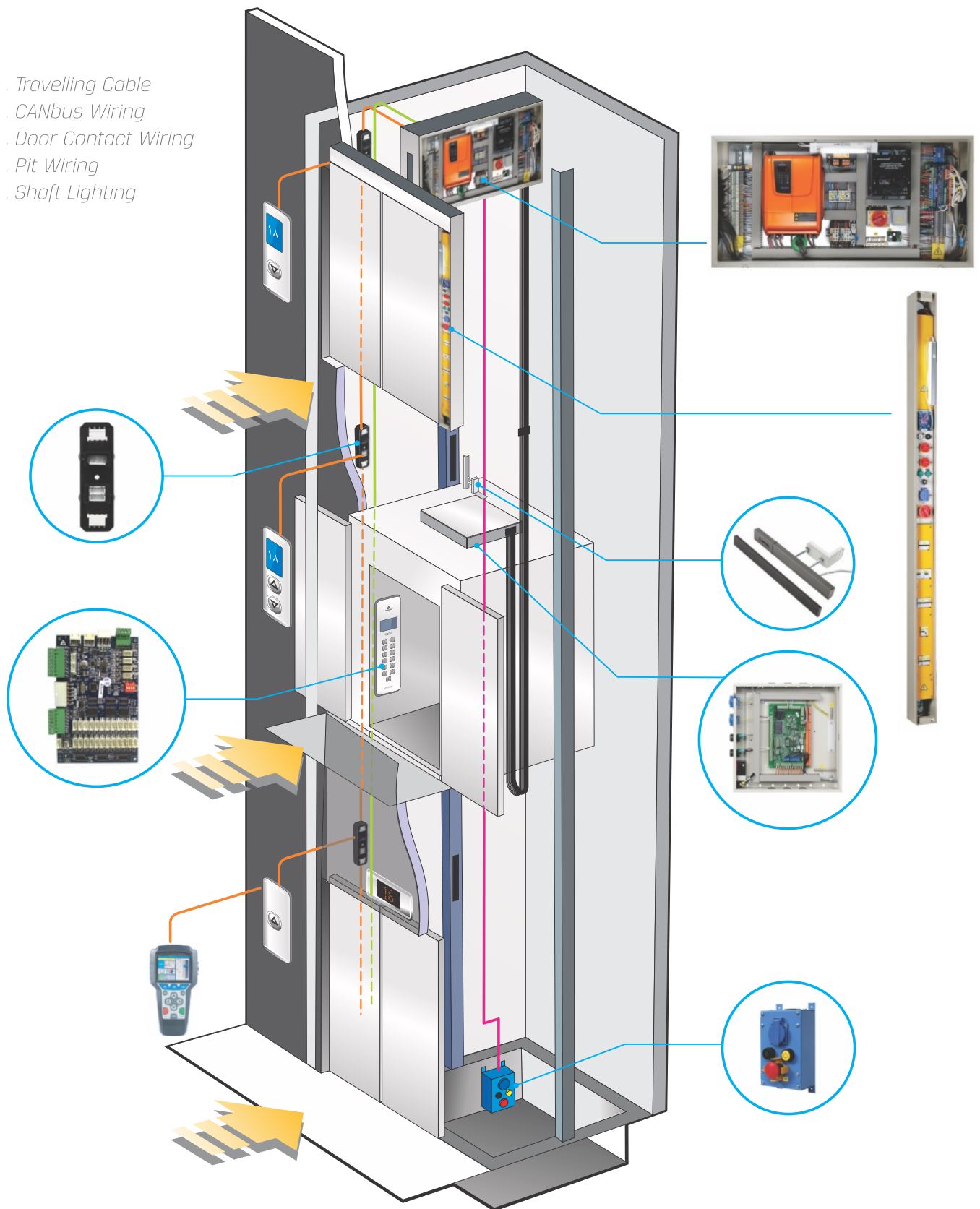
Arkel supplies halogen-free, shielded and high quality CANbus wiring.

Serial CANbus Wiring

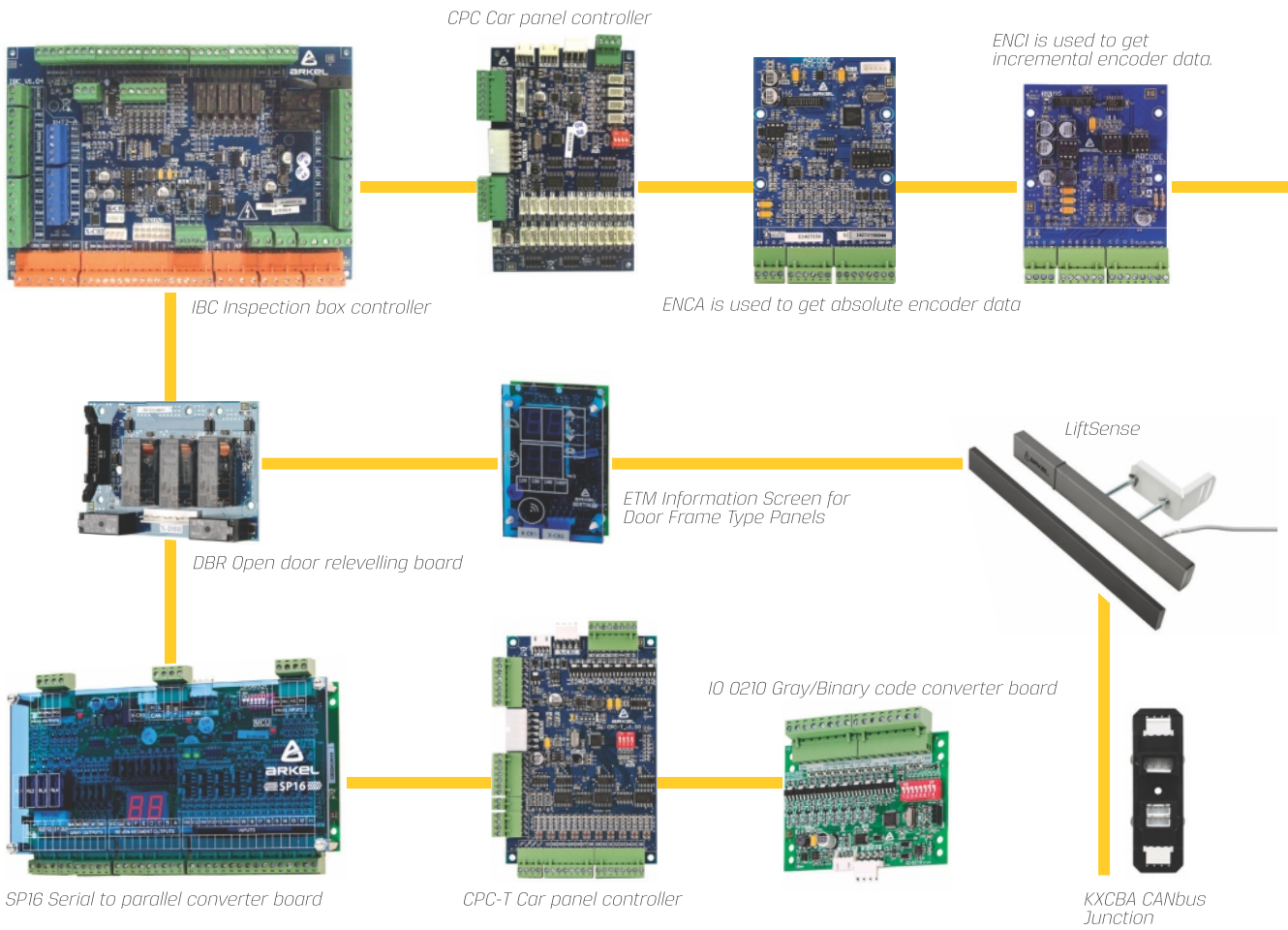
| Model | Length (m) | From ----> To | |
|-----------|------------------------|---------------|-----------|
| KBL-ACOP | 5 | COP | IBC |
| KBL-CBK10 | 10 | Control Panel | Top floor |
| KBL-CBK3 | 3,3 | Floor | Floor |
| KBL-CBI2 | 2 | Floor | Display |
| KBL-CBT | CANbus Line Terminator | | |

ARCODE DOOR FRAME TYPE MRL CONTROL SYSTEM

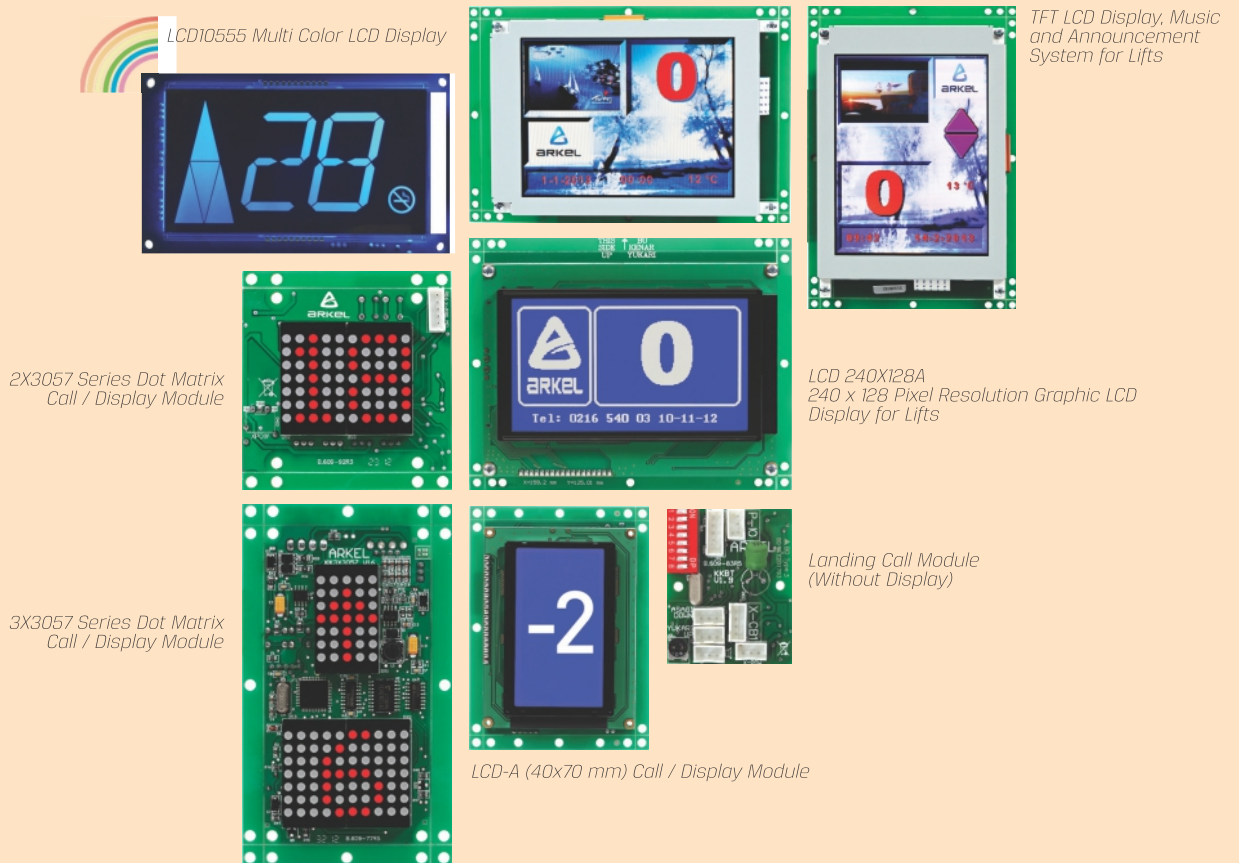
- . Travelling Cable
- . CANbus Wiring
- . Door Contact Wiring
- . Pit Wiring
- . Shaft Lighting



Peripherals



Displays



TECHNICAL SPECIFICATIONS

DRIVER

| | | | | | | | | | | | |
|-----------------------------|---|----------------|----------------|----------------|----------------|----------------|------------------------------|----------------|----------------|----------------|----------------|
| Power Input (L1, L2, L3) | AC 3 Ph., 420-320V, 60/50 Hz | | | | | | AC 3 Ph., 240-200V, 60/50 Hz | | | | |
| Power Output (U, V, W) | AC 3 Ph., 400-0V, 100-0Hz | | | | | | | | | | |
| Model | 4B14A | 4B17A | 4B26A | 4C35A | 4C50A | 4D75A | 2B14A | 2B17A | 2B26A | 2C35A | 2C50A |
| Nom. Output Current (Inom) | 14 A | 17 A | 26 A | 35 A | 50 A | 75 A | 14 A | 17 A | 26 A | 35 A | 50 A |
| Max. Output Current (< 6 s) | 28 A | 34 A | 52 A | 70 A | 100 A | 150 A | 28 A | 28 A | 52 A | 70 A | 100 A |
| Brake Resistor (B, P) | 50 Ω / 1 kW | 50 Ω / 1 kW | 40 Ω / 1 kW | 25 Ω / 2 kW | 18 Ω / 3 kW | 10 Ω / 6 kW | 50 Ω / 1 kW | 50 Ω / 1 kW | 40 Ω / 1 kW | 25 Ω / 2 kW | 18 Ω / 3 kW |
| Inbuilt EMC Filters | DC Reactor EMI/RFI Filter | | | | | | | | | | |
| Evacuation (ES1, ES2) | 120-60VDC Battery Supply Input 220VAC Single Phase Line Supply Input | | | | | | | | | | |

CONTROLLER

| | |
|----------------------|--|
| Supply Voltage | 24VDC (28-20VDC) |
| Encoder Options | 5V TTL, 30-10V HTL, EnDat, SSI, SinCos, BISS |
| Serial Communication | 2 CANBUS (shaft and car) 3 RS2) 485 Full-Duplex, 1 Half Duplex |
| Relay Outputs | 4 Programmable Relay Output (10A@250VAC, 10A@30VDC) 1 Main contactor Relay Output (10A@250VAC, 10A@30VDC) |
| Signal Inputs | 16 Programmable Input (24VDC, 3mA sink) Floor Level Magnetic Switches (ML1,ML2) |
| Transistors Outputs | 4 Programmable Transistor Output (open collector I _{max} :200mA) |
| Door Bridging | Door Bridging Board Connector (reserved) |
| Cooling | Air Ventilation and Aluminum Cooler |
| Safety circuit | 220-110-48VAC |
| User Interface | 4 Digit Seven Segment plus 8 LED indicator |
| Logging | SD Card |

ARCODE

Stand-by mode



Eco-friendly ARCODE control unit save costs with stand-by functions.



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