

# ARCODE<sup>®</sup>

## 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.

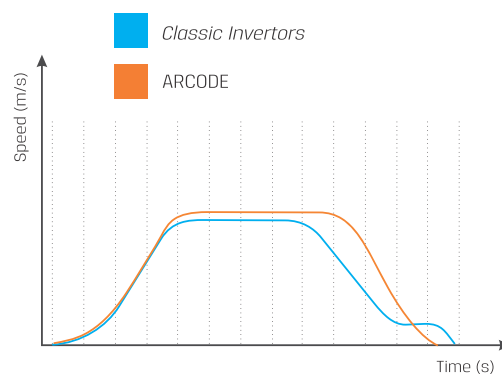
## ARCODE Features

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?

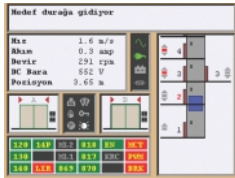
- Excellent travel comfort thanks to direct landing
- Shorter travel time in comparison to standard VVVF systems
- Energy-saving modes
- Full synchronization
- Compact modular design
- Simple and fast installation
- Easy update

### Features

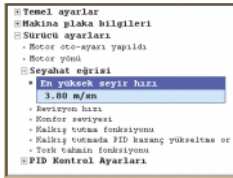
- Wiring:
  - . Serial CANbus communication with car top and car panel
  - . Conventional (up to 16 floors) or serial CANbus communication with landing panels
- Car positioning with motor encoder
- Independently operated 2 car entrances
- Evacuation operation:
  - . By using a monophase 220VAC UPS or 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

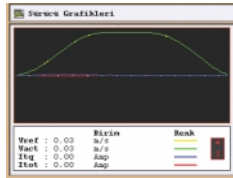
- Back-up and parameter transfers via SD Card
- 3 different accessibility levels for specific needs (guest, maintenance, expert)
- Firmware update of all CANbus units without PC
- Easy access to system from any point on CANbus



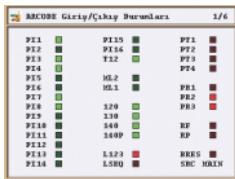
Information on car position, door status, car commands and landing calls



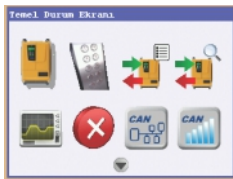
Parameter settings



Current and speed curve monitoring



Input/Output status report



Main menu



Settings



Multiple language support

## DONGLES

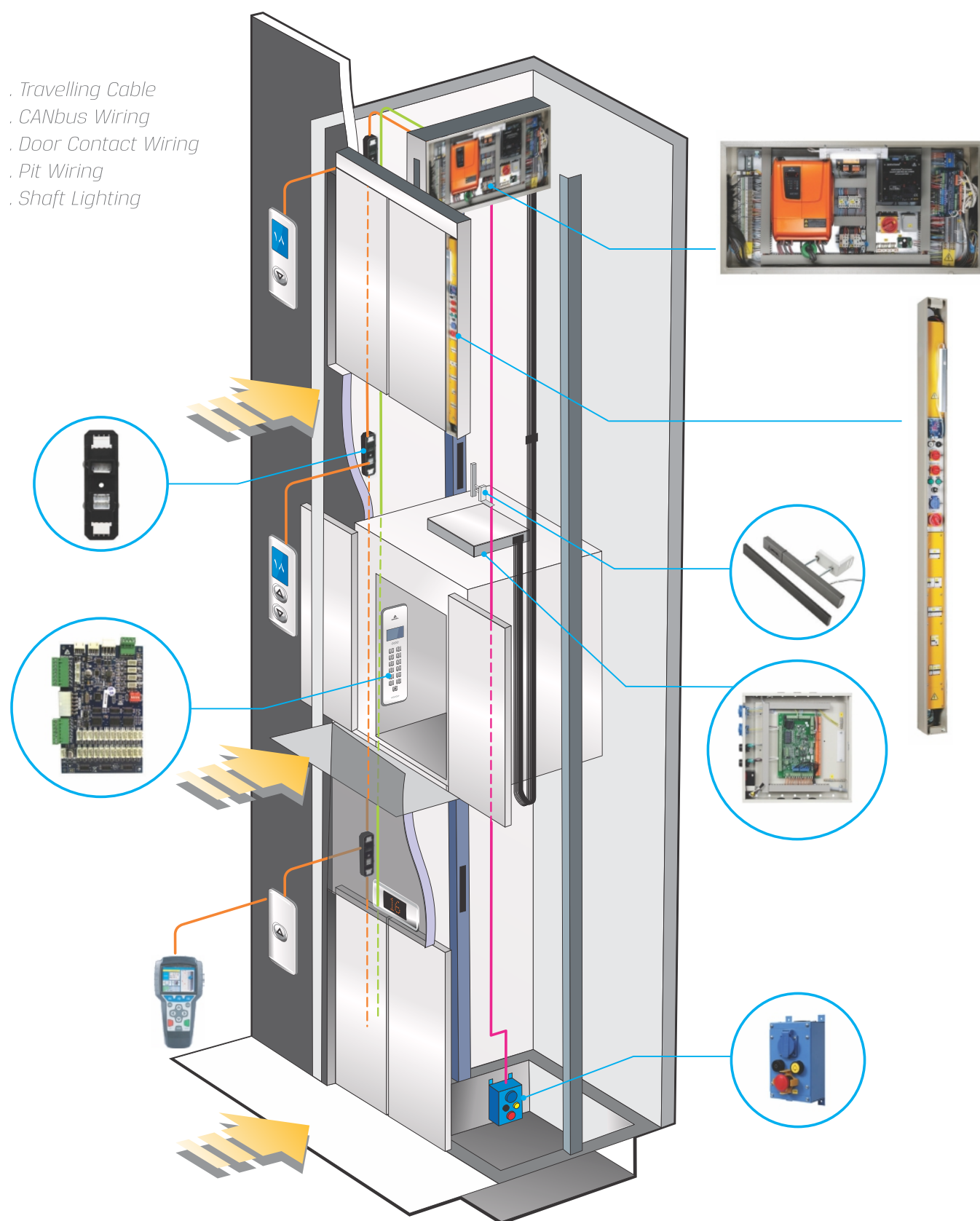
	Models		
	BASIC	MEDIUM	HIGHLINE
Maximum Number of Stops	16	24	64
Maximum Number of Group Operation	2	4	8
Maximum Speed	1,6 m/s	2,5 m/s	4 m/s
Special Function Addition/Modification	×	✓	✓
Firefighter's Lift	✓	✓	✓
Emergency Calls	×	✓	✓
VIP Calls	×	✓	✓
Parking Mode (Multiple stops, with time slots)	×	✓	✓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

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

## Serial CANbus Wiring

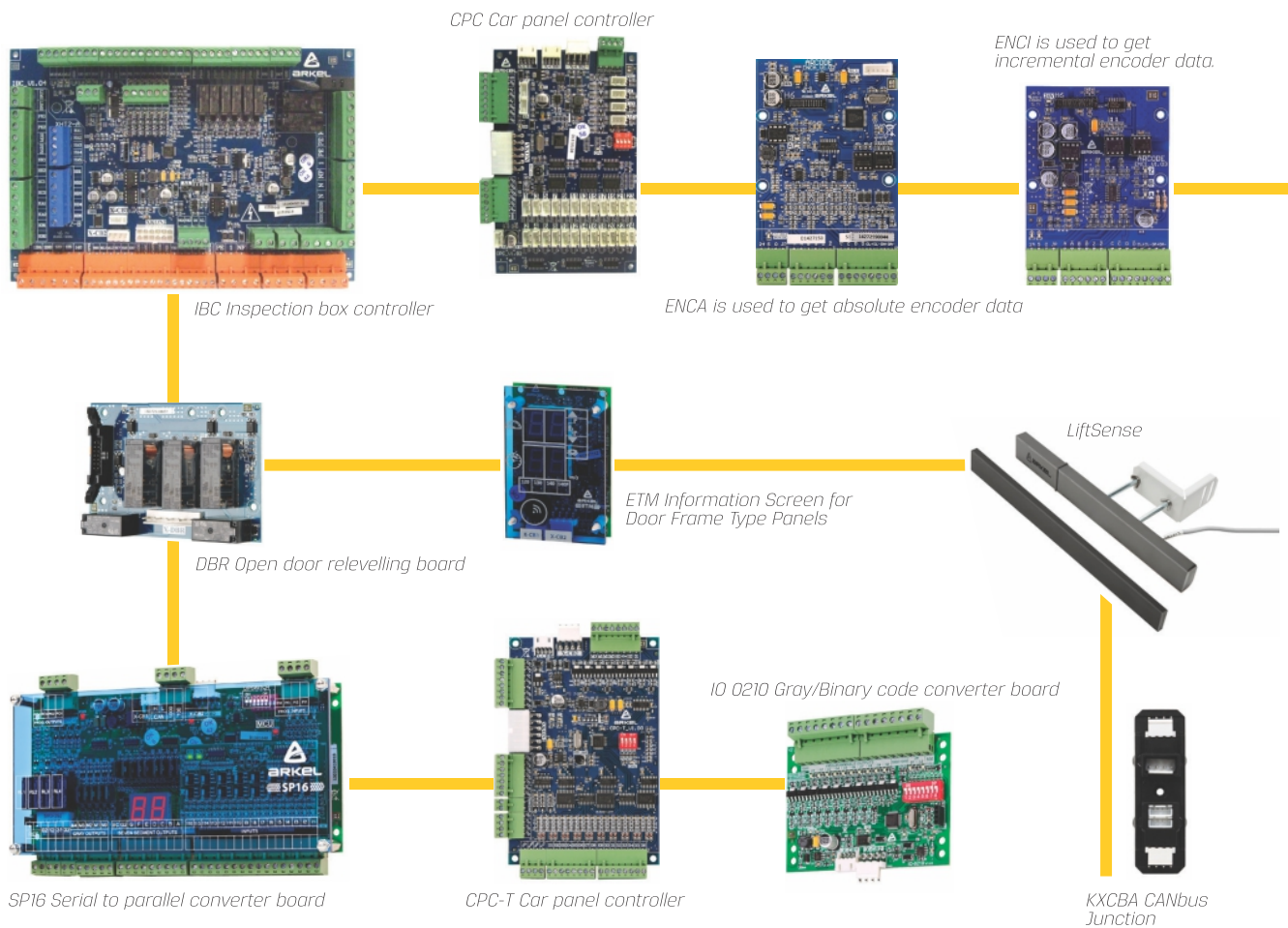
Model	Length (m)	From ----> To	
KBL-ACOP	5	COP	IBC
KBL-CBK10	10	Control Panel	Top floor
KBL-CBK3	3,3	Floor	Floor
KBL-CBI2	2	Floor	Display
KBL-CBT	CANbus Line Terminator		

## ARCODE DOOR FRAME TYPE MRL CONTROL SYSTEM

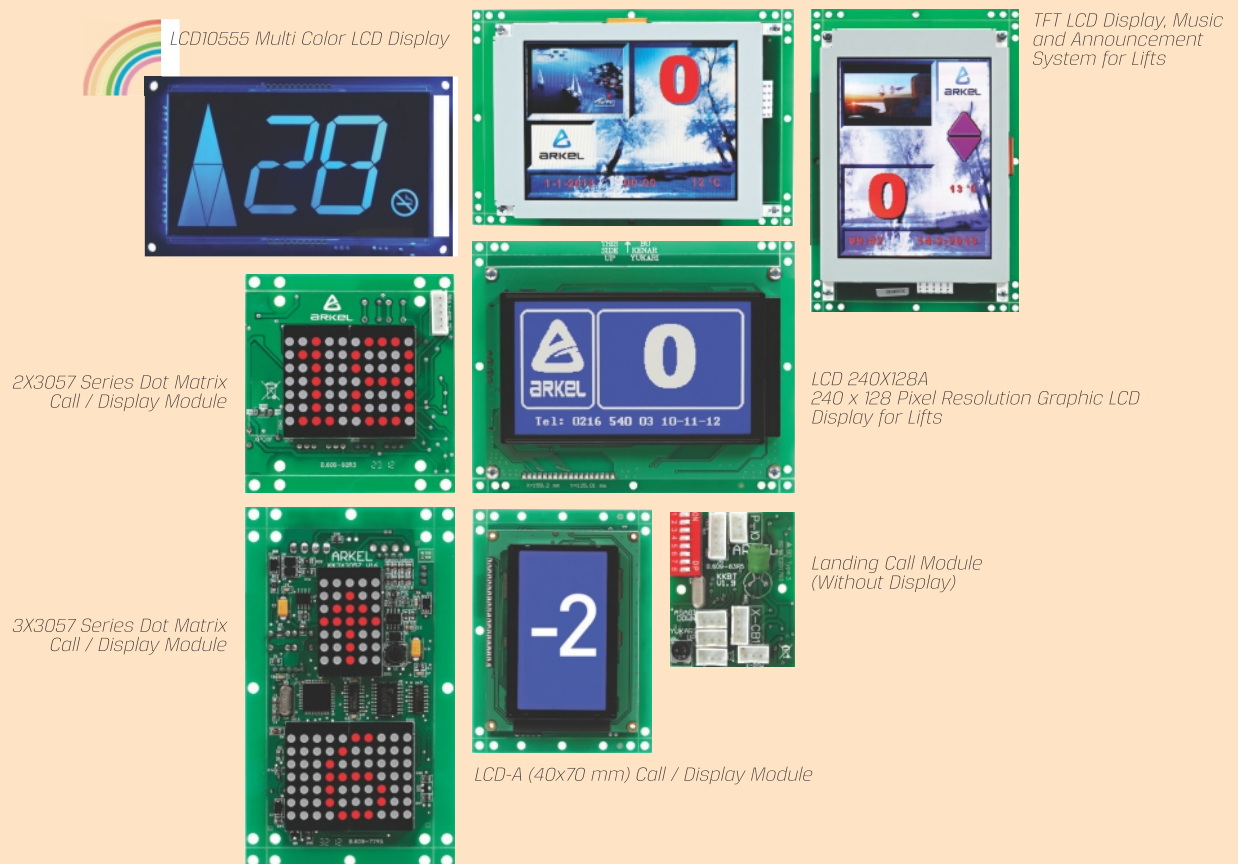




# Peripherals



# 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 <sub>max</sub> :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.



  
**ARKEL**