

DSW SOLUTIONS

CONTROLLER MODERNISATIONS
MADE EASY



arkel

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SPECIFICATIONS	
Max. number of floors	64
Number of car entries	1 or 2
Maximum travel speed	4 m/s
Shaft positioning system	- Motor encoder with single doorzone magnet on each floor - Linear shaft encoder (*)
Relevelling type	- Liftsense - Levelling magnets
Drive system	Closed loop (encoder mandatory)
Motor driver type	Seperate driver (MDC)
Direct landing	Yes
Contactless design (STO)	Yes
Landing panels communication	Serial (CANbus)
Car communication	Serial (CANbus)
Technician user interface	IOS/Android app
Machine room	MRL2
Physical form	Controller on top floor doorside, driver inside shaft
Safety chain voltage	42 VAC
Motor type	3-Phase Synchronous
EN81-28 compatibility (stranded passenger voice communication)	Built-in (*) With additional hardware
Monitoring and control over Internet	Built-in (*)
Monitoring and control on LAN	Built-in (*)
Remote assistance for technicians	Built-in (*)
Firmware updates	via IOS/Android app
Modbus	Modbus-TCP slave (wifi or ethernet) (*)
Custom feature programming (PLC modules)	- Advanced visual programming language (*) - Multiple modules (*)
EN81-20 compatibility	Yes
EN81-20+21	Yes
Input / Output System	Almost all of physical I/O ports in the system are function assignable according to demand (including LOP/COP call button/led terminals)
ARPASS with COP buttons	Yes (requires licence)
COP / LOP devices	Arcode compatible
Customer labelled devices (MOT)	Yes (*)
Maximum Number of Group Operation	8

ARMAXX	
64	
1 or 2	
4 m/s	
- Motor encoder with single doorzone magnet on each floor - Linear shaft encoder (*)	
- Liftsense - Levelling magnets	
Closed loop (encoder mandatory)	
Seperate driver (MDC)	
Yes	
Yes	
Serial (CANbus)	
Serial (CANbus)	
IOS/Android app	
MRL2	
Controller on top floor doorside, driver inside shaft	
42 VAC	
3-Phase Synchronous	
Built-in (*) With additional hardware	
Built-in (*)	
Built-in (*)	
Built-in (*)	
via IOS/Android app	
Modbus-TCP slave (wifi or ethernet) (*)	
- Advanced visual programming language (*) - Multiple modules (*)	
Yes	
Yes	
Almost all of physical I/O ports in the system are function assignable according to demand (including LOP/COP call button/led terminals)	
Yes (requires licence)	
Arcode compatible	
Yes (*)	
8	

ARC CODE	
64	
1 or 2	
4 m/s	
- Motor encoder with single doorzone magnet on each floor - Linear shaft encoder	
- Liftsense - Levelling magnets	
Closed loop (encoder mandatory)	
Integrated driver	
Yes	
No	
- Serial (CANbus) - Parallel wiring (up to 16 floors, with add-on board)	
- Serial (CANbus) - Parallel wiring (up to 16 floors, with add-on board)	
- AREM handheld device - Android app (with optional adapter device)	
MR / MRL1 / MRL2 / MRL3	
Integrated controller and driver. Doorside panel optional.	
220VAC, 110VAC, 48VAC	
3-Phase Synchronous/Asynchronous	
With additional hardware	
With additional hardware	
No	
No	
via SD-card	
Modbus-RTU slave	
- Simple programming tool with limited capabilities - Single module	
Yes	
Yes	
Almost all of physical I/O ports in the system are function assignable according to demand (LOP/COP call button/led terminals are fixed)	
Yes (requires licence)	
Arcode compatible	
Yes	
8 (With Additional Hardware)	

ARCUBE	
16 (Single Button) 9 (Double Button)	
1	
2 m/s	
- Motor encoder - Shaft positioning magnets	
- Liftsense - Levelling magnets	
Open or closed loop (encoder optional)	
Seperate driver (MDC)	
Yes (with closed loop)	
Yes	
- Serial (CANbus) - Parallel wiring (up to 16 floors, with add-on board)	
- Serial (CANbus) - Parallel wiring (up to 16 floors, with add-on board)	
- On-board keypad and screen - AREM handheld device (optional)	
MR / MRL1	
Controller and driver in main box. Doorside panel optional.	
48 VAC	
3-Phase Synchronous/Asynchronous	
With additional hardware	
With additional hardware	
No	
No	
via SD-card	
Modbus-RTU slave	
None	
Yes	
No	
4 inputs and 1 output terminals are assignable to limited functions	
No	
Arcode compatible	
Yes	
2	

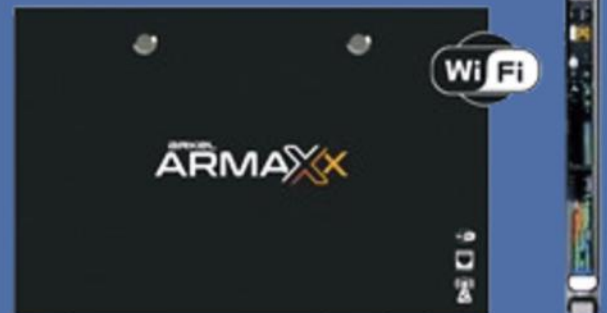
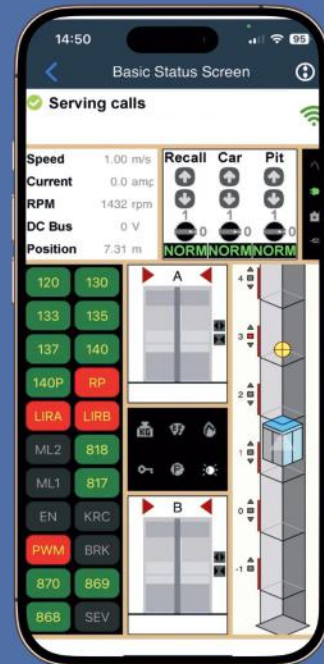
*These features will be included in the near future.

The world's

SMALLEST

remotely programmable
MRL controller.

- Contactorless design with STO function.
- Up to 4m/s & 8 car group.
- EN 81-1 +A3, 81-20, 81-21 & 81-28 compliant.
- Customisable modular software and hardware options.
- Reduced cabling.
- IOS/Android connectivity & updates.
- CANbus wiring.
- IoT connection (Gsm, Wi-Fi, Ethernet).
- Small, lightweight and easy to install.
- Integrated emergency rescue system.
- All in one (Ups+Battery, Inverter and Control card).
- Landing cabinet only 110mm w x 2220mm h.
- Shaft cabinet only 580mm w x 380mm h.



ARKEL
ARMAXX

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App Store

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ARCUBE

STOCK CONTROLLERS

- Direct from **stock**.
- Express delivery.
- EN81-20 Compliant.
- Geared & Gearless.
- Up to 1.75m/s & duplex.
- Remote monitoring (4G & Wifi).
- Plug & Play pre-wired from us.
- Direct to floor positioning.
- Eco-friendly features.
- Modular COP's/LOP's/LIP's.
- In-house technical support.



ARCUBE-SE

- Designed to ensure older lift systems
- Suitable for different brake voltages 40–60–80 and 110 dc



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ARCODE®

INTEGRATED CONTROL UNIT



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Integrated Control Unit

ARCODE®



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

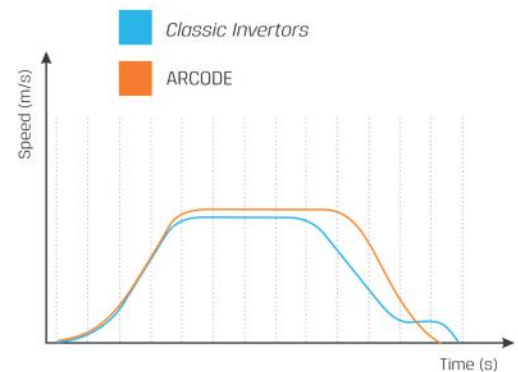
ARCODE Features

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

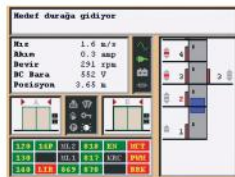
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Features

- 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

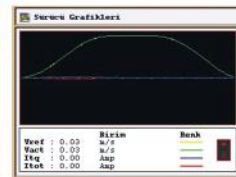
- Back-up and parameter transfers via SD Card
- 3 different accessibility levels for specific needs (guest, maintenance, expert)
- Firmware update of all CANbus units without PC
- Easy access to system from any point on CANbus



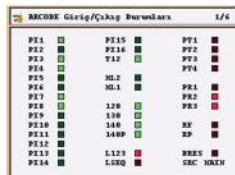
Information on car position, door status, car commands and landing calls



Parameter settings



Current and speed curve monitoring



Input/Output status report



Main menu

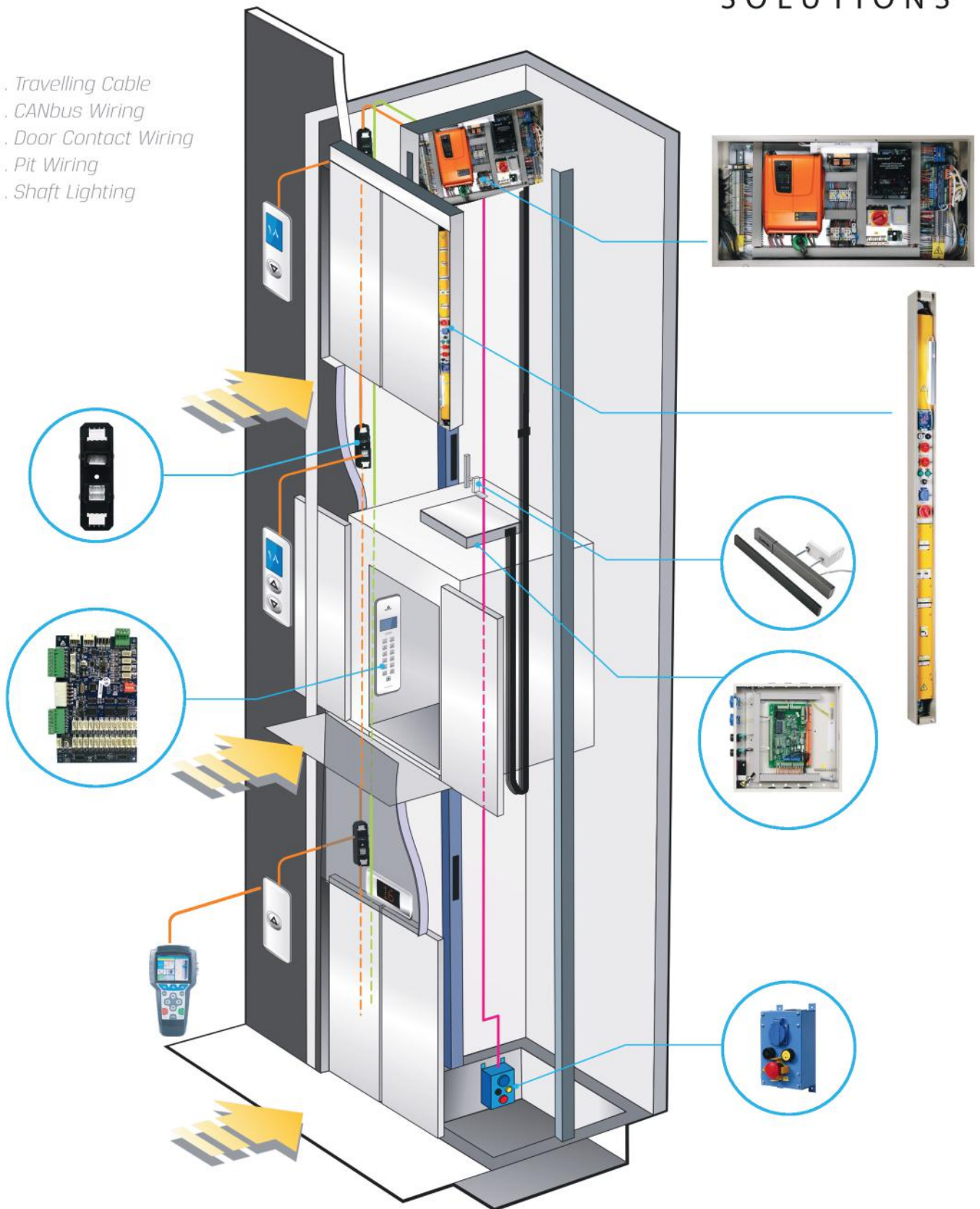


Settings

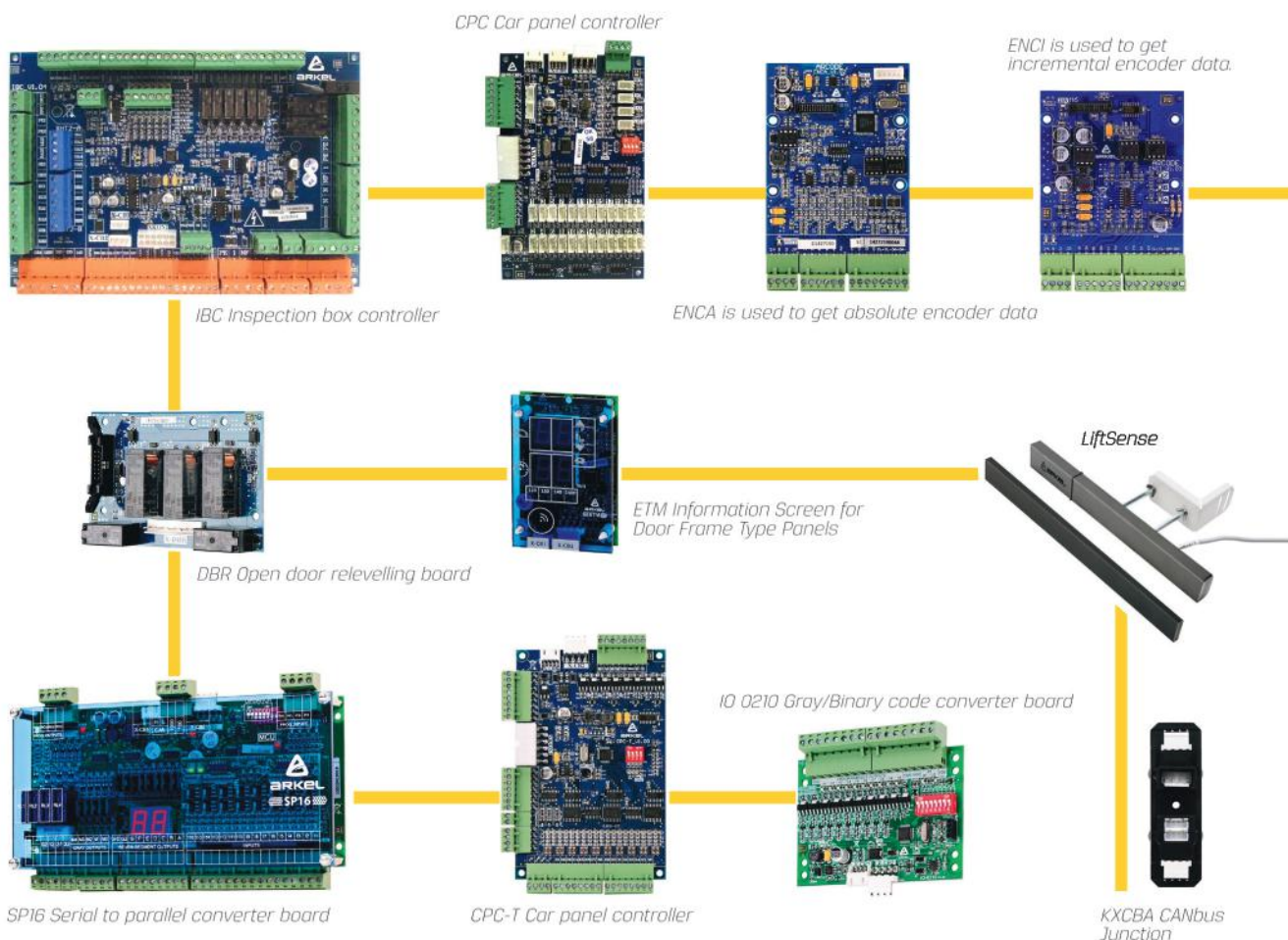


Multiple language support

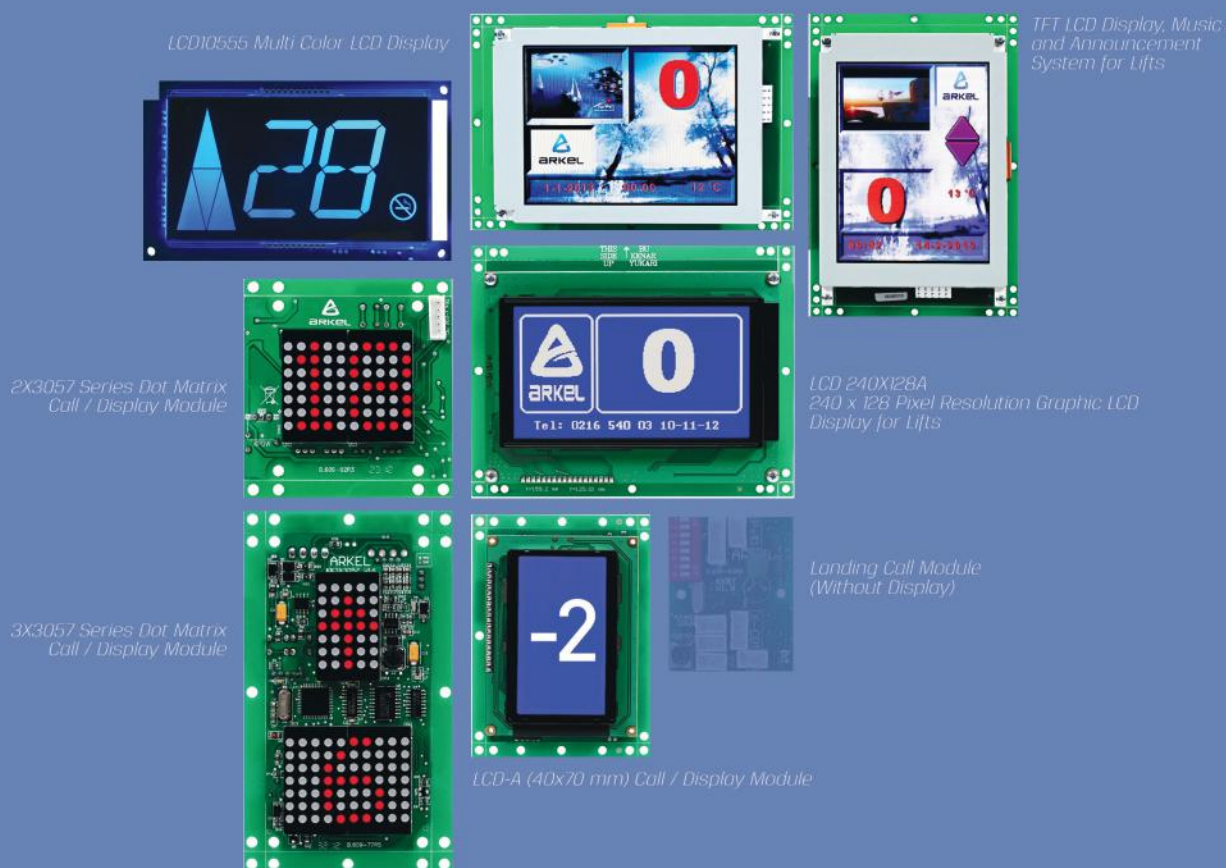
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Peripherals



Displays



TECHNICAL SPECIFICATIONS

DRIVER

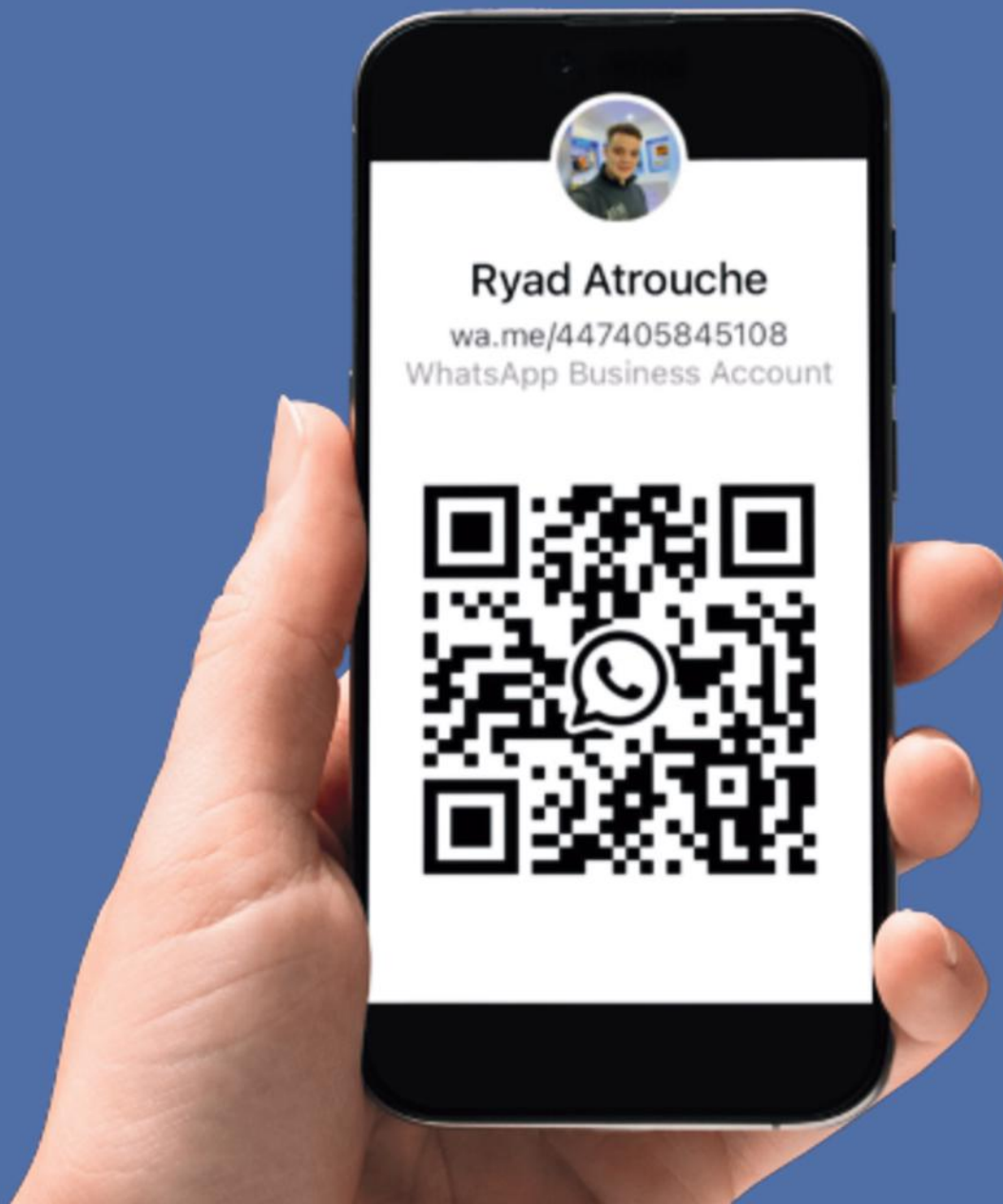
Power Input (L1, L2, L3)	AC 3 Ph., 420-320V, 60/50 Hz						AC 3 Ph., 240-200V, 60/50 Hz				
Power Output (U, V, W)	AC 3 Ph., 400-0V, 100-0Hz										
Model	4B14A	4B17A	4B26A	4C35A	4C50A	4D75A	2B14A	2B17A	2B26A	2C35A	2C50A
Nom. Output Current (I _{nom})	14 A	17 A	26 A	35 A	50 A	75 A	14 A	17 A	26 A	35 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



IN-HOUSE TECHNICAL SUPPORT



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REMOTE MONITORING
DOOR MODERNISATIONS
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