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ARKEL

تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)
روبـروی پالایشگاه نفت پـارس، پلاک ۱۲

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1998'den günümüze, Arkel

Asansör sektöründe sunduğu ürünler ve çözümler ile güveninizi ve beğeninizi kazanmış olmanın haklı gururunu yaşıyor.

Uzun yıllara dayanan tecrübesi, genç dinamik ekibi, güvenliği ve sağlamlığı ön planda tutan tasarımları, etkin satış sonrası servis desteği ile geçmişte olduğu gibi gelecekte de çözüm ortağınız...

Arkel, since 1998

Is proud of having your confidence and admiration with its solutions and products offered to the lift industry.

Arkel will always be your solution partner with its years of experience, young and dynamic staff, designs based on safety and durability, efficient after-sales support...

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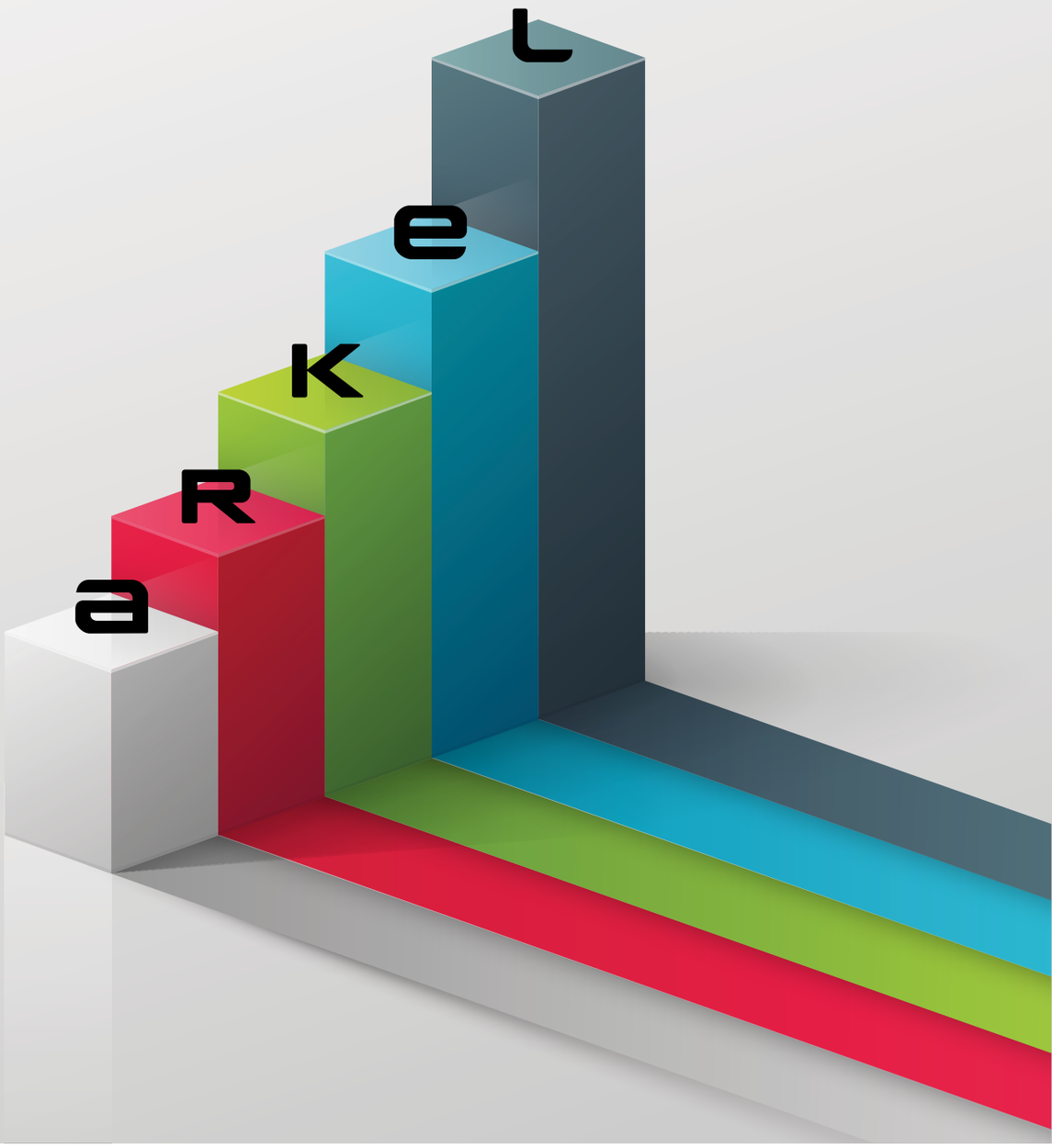

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ARKEL

ARKEL ELEKTRİK ELEKTRONİK SAN. VE TİC. A.Ş.

1998 yılında kurulan ARKEL ELEKTRİK ELEKTRONİK SAN. ve TİC. A.Ş. asansör kumanda kartları, vvvf motor sürücüleri, tümleşik asansör kumanda sistemleri, kumanda panoları, acil kurtarma sistemleri imalatını ve sektörde ihtiyaç duyulan diğer elektronik cihazların tasarımını yapmaktadır. ARKEL AR-GE çalışmalarını müşteri istekleri doğrultusunda, modern teknolojinin olanaklarını kullanarak kendi bünyesindeki personeli ile sürdürmektedir.

Genç bir firma olmasına rağmen ARKEL, kısa sürede sektörde tercih edilen marka olabilmeyi başarmış; yurt içindeki pazar payını müşteri memnuniyetini birinci hedef olarak seçmesi, yaptığı işlerdeki özeni, tecrübesi, teknolojik ilerlemeleri takibi, müşteriye özel çözümler üretmedeki becerisi, taahhüt edilen sürelerde iş teslim etmesi ile gün geçtikçe arttırmıştır. Sektörde söz sahibi müşteri portföyü ile uzmanlığını paylaşarak günümüz dünyasında ciddi önem arz eden bu sektörde ilerlemeye, yenilenmeye, ürün yelpazesini sürekli genişletmeye devam edecektir.

ARKEL ELEKTRİK ELEKTRONİK SAN. VE TİC. A.Ş.

Founded in 1998 ARKEL ELEKTRIK ELEKTRONIK SAN. ve TIC. A.Ş. manufactures lift control cards, control panels, vvvf inverters, integrated lift control units, emergency rescue systems and designs other electronic equipment needed in sector. ARKEL continues R&D works with its own staff on customers' demands using means of modern technology.

Despite being a young company, ARKEL accomplished to be a preferred brand in sector in a short time, increased market share day by day by selecting customers satisfaction as first mark, care in job, experience, following the developments in technology, reasonable price policy, ability to create customized solutions, on time delivery. By sharing its specialized experience with the qualified customers that are expert in the sector, keeps on improving, renewing and developing product range continuously in this sector which has a great importance in today's world.

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BAŞARI İÇİN ÇALIŞIYORUZ

ARKEL çözüm ortağınız olmanın getirdiği sorumluluk bilinciyle, hep daha iyiye ulaşmak için çalışıyor. Asansör sektörüne sürekli katma değer sağlama hedefiyle, her zaman güvenlik ve sağlamlığın ön planda olduğu tasarıma sahip, kaliteden ödün vermeyen ürünleriyle değişmez iş ortağınız olmayı amaçlıyor.

ARKEL için başarı, güveninize dayanan işbirliğimizi uzun yıllar boyu geliştirerek devam ettirmek demektir.

KALİTE / *QUALITY*


TEST ÖNCESİ ÖN-KONTROL İSTASYONU - RÖTUŞ
PRE-TEST CONTROL UNIT - TOUCH UP


PANO ÖRÜM
PANEL WIRING


AR-GE
R&D


%100 FONKSİYON TESTİ
100% FUNCTION TEST

ÜRETİM / *MANUFACTURE*


MALZEME HAZIRLIK
MATERIAL PREPARATION


SMD KART ARA STOĞU
SMD BUFFER STOCK

FOCUSED ON SUCCESS

ARKEL always tries to get better with the sense of responsibility that comes with being your solution partner. ARKEL aims to be your unique partner with continuous goal to provide added value to the lift industry.

ARKEL has always the priority on safety and durability in the design stage. ARKEL products never compromise on quality. Success for ARKEL means to keep and develop our trust based cooperation for many years.

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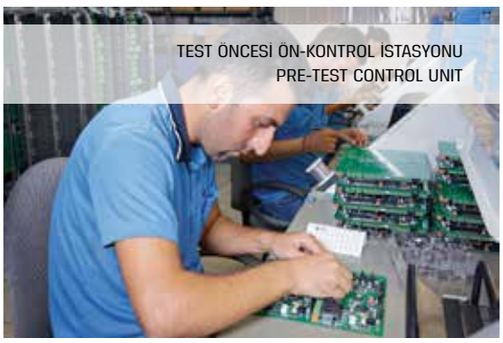
SMD ÜRETİM TEKNOLOJİSİ
SMD MANUFACTURING PROCESS

GÜVENLİ PAKETLEME
SAFE PACKAGING

YALIN ÜRETİM
LEAN MANUFACTURING

KONTROL / *CONTROL*



TEST ÖNCESİ ÖN-KONTROL İSTASYONU
PRE-TEST CONTROL UNIT

KARKAS MONTAJI İSTASYONU
BACKPLATE ASSEMBLY UNIT

SATIŞ VE PAZARLAMA
SALES & MARKETING

MANUEL THT DİZGİ HATTI
THT MANUAL INSERTION LINE

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Yılların tecrübesiyle asansör fikirlerinin buluşmasının sonucu:
Arkel'in benzersiz kullanıcı dostu ürünleri...

Lift ideas meet years of experience:
Arkel's user friendly products...

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NEDEN ARKEL?

ASANSÖR SİSTEMLERİNDE UZMANLIK

Arkel, kuruluşundan bu yana sadece kendi uzmanlığını ve teknik bilgi birikimini kullanmaktadır. Her zaman mükemmel sonuçlar elde etmek için işinde başarıya odaklanmıştır.

YERLİ TASARIM ÜRETİM

Tüm Arkel ürünleri, konusunda uzman Türk mühendisleri tarafından tasarlanmakta ve Arkel tesislerinde üretilmektedir.

ÖZENLİ KOMPONENT SEÇİMİ

Arkel, tasarım aşamasından başlayarak en kaliteli komponentleri tercih etmekte ve üretim aşamalarında asla kaliteden ödün vermemektedir.

WHY ARKEL?

EXPERTISE IN LIFT SYSTEMS

Arkel has been using only its own expertise and technical know-how since its establishment. It has always been focusing on success in the business to achieve excellent results.

DESIGN AND PRODUCTION

All Arkel products are being designed and manufactured by experts in world-class premises.

COMPONENT SELECTION WITH CARE

Arkel prefers best quality components starting from the design stage and never compromises on quality during production process.

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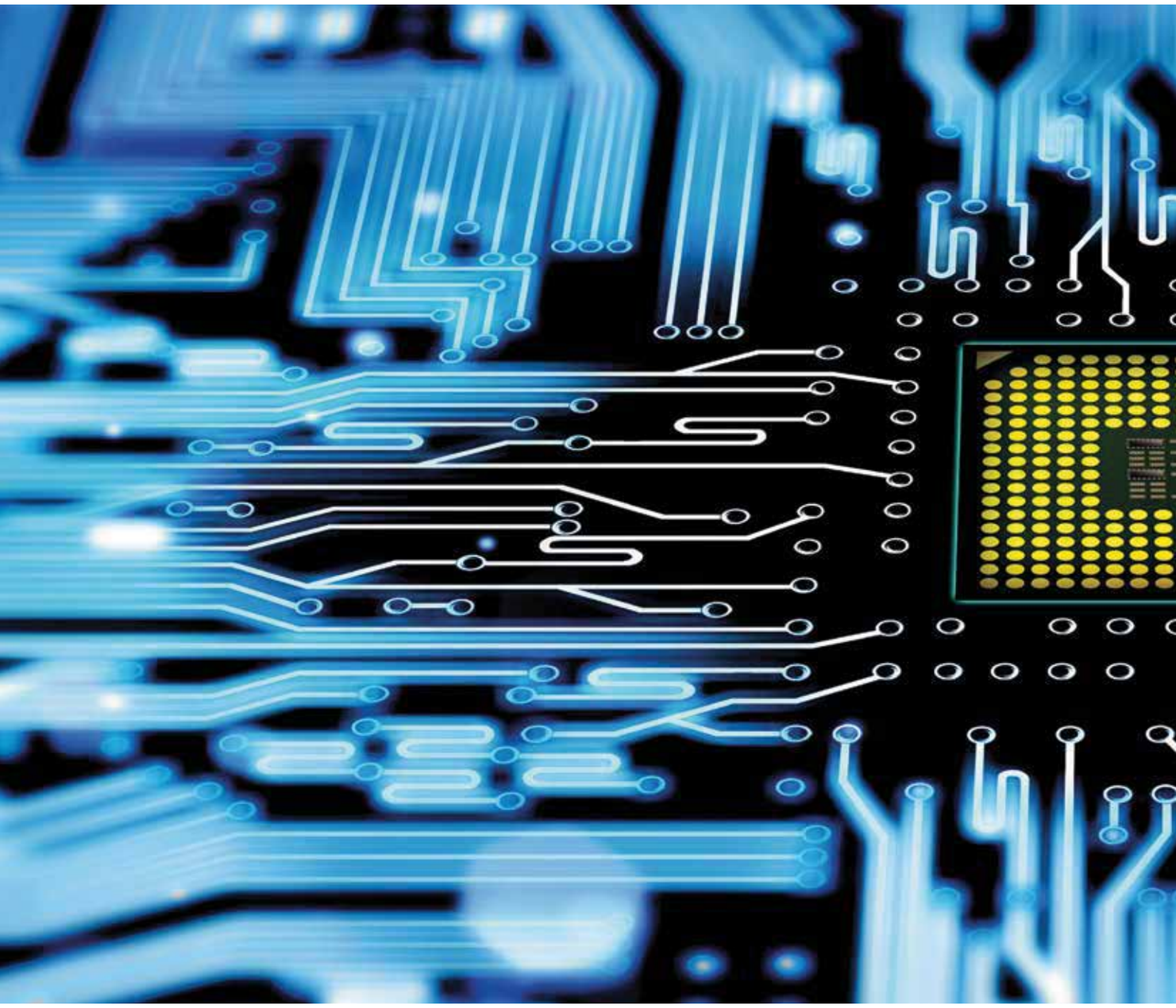
Geleceğin Kontrol Sistemlerini Tasarlıyoruz...



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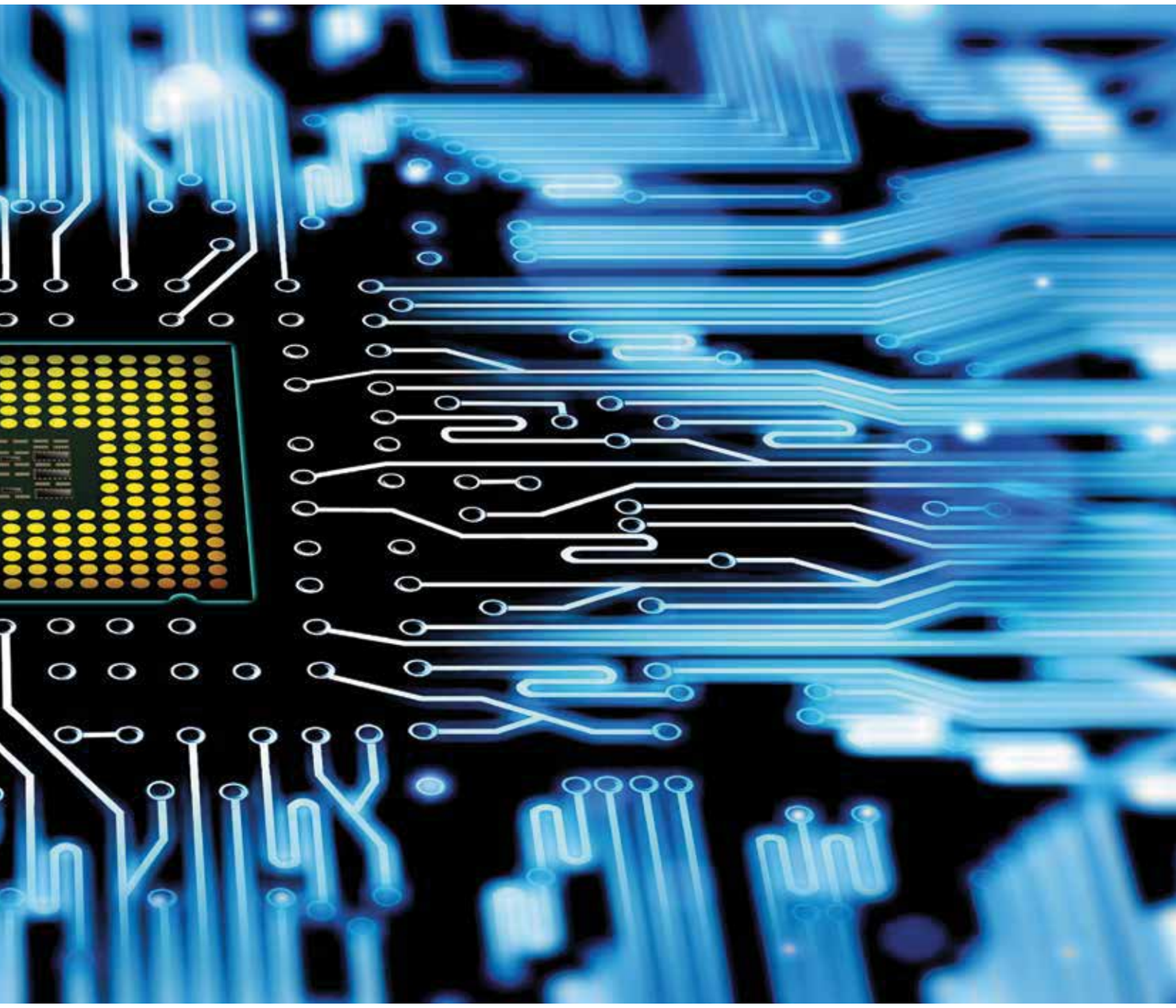

Designing control systems for the future...

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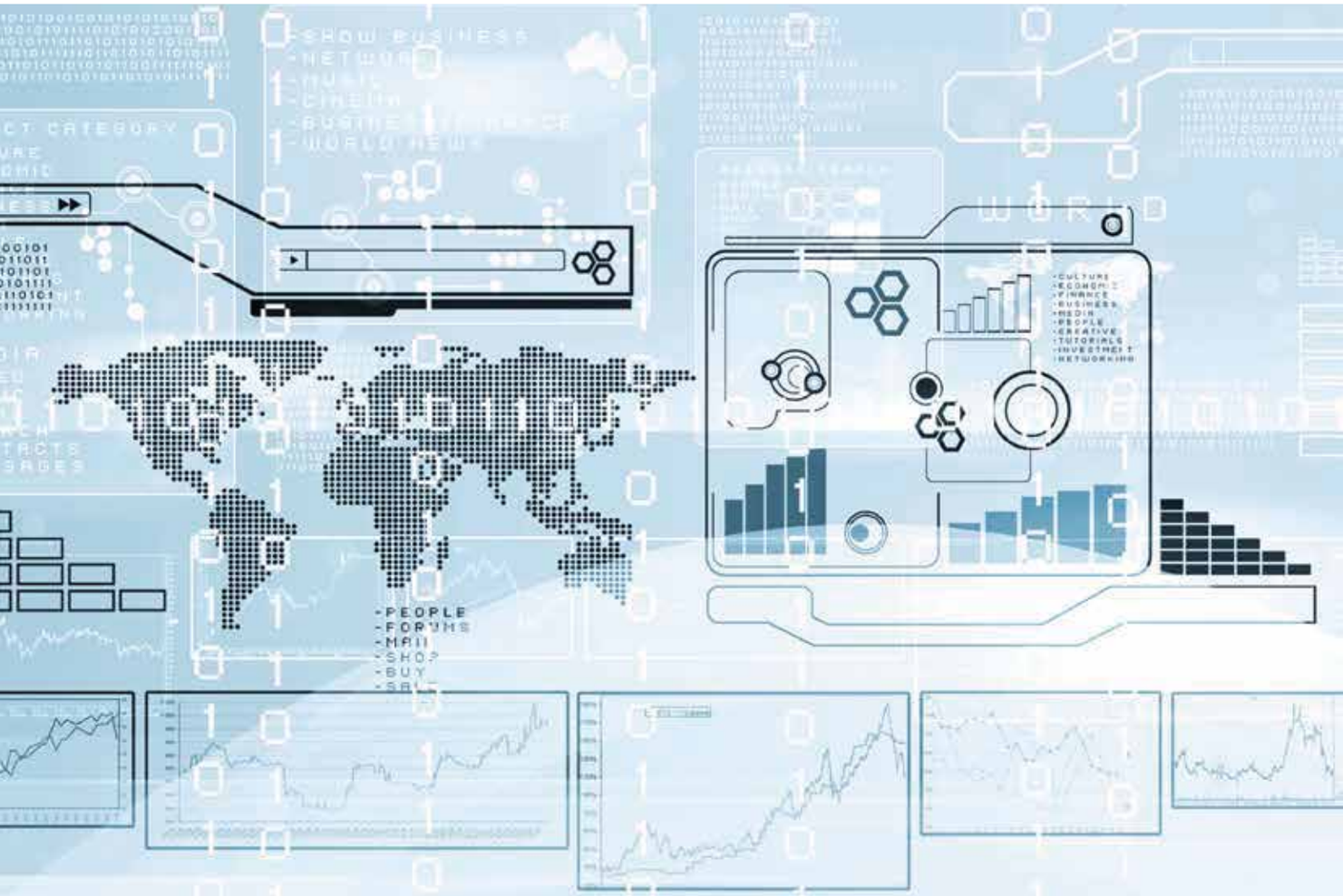

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ÜRÜN KATEGORİLERİ
PRODUCT CATEGORIES

- Tümleşik Asansör Kontrol Üniteleri
  Integrated Lift Control Units
- VVVF Hız Kontrol Cihazları
  VVVF Inverters
- Asansör Kumanda Kartları
  Lift Control Boards
- Asansör Kumanda Panoları
  Lift Control Panels
- Kapı Kontrol Kartları
  Door Control Boards
- Göstergeler
  Displays
- Yardımcı Birimler
  Auxiliary Units

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Tümleşik Asansör Kontrol Üniteleri
Integrated Lift Control Units

ARCODE®

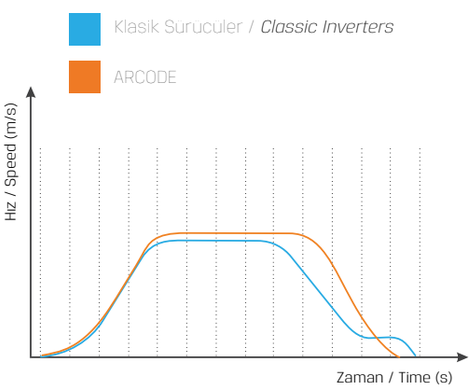
ARCODE®

ARCODE sektöründe birçok ilki başaran yenilikçi bir ürün. ARCODE içerisinde VVVF sürücü, kontrol birimleri ve kata getirme sistemini barındıran tümleşik asansör kontrol ünitesidir.

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

Direkt duruş özelliği sayesinde:
ARCODE:
- Seyahat eğrisini dinamik olarak hesaplayarak sürüklenme mesafesini ortadan kaldırır ve böylece seyahat süresinin kısalmasını sağlar.
- Yavaşlama noktasını otomatik tespit ederek kolay ayar imkanı sunar.
- Kısa katlı uygulamalarda ve yüksek hızlı asansörlerde ek ayar ve donanım gerektirmez.

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.



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NEDEN ARCODE?

- Direkt duruş sayesinde kusursuz konfor
- Standart VVVF sistemlere göre daha kısa seyahat süresi
- Enerji tasarruf modları
- Entegre çözüm sayesinde tam senkronizasyon
- Kompakt tasarım
- Basit ve hızlı Kurulum
- Kolay güncelleme

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

AREM

ARCODE için el terminali
Programming tool for ARCODE

ARCODE Özellikler / *Features*

Motor Kontrolü / *Motor Control*	Senkron & Asenkron Makine	*Gearless & Geared Machine*
Giriş Gerilimi (L1,L2,L3) / *Power Input (L1,L2,L3)*	AC 3 Ph, 320-420V, 50/60 Hz AC 3 Ph, 200-240V, 50/60 Hz	
Modeller / *Models*	ARCODE 14, 17 , 26 , 35 , 50 , 75 A	
Hız / *Speed*	4 m/s'ye kadar	*Up to 4 m/s*
Grup Çalışma / *Group Operation*	8 asansöre kadar	*Up to 8 lifts*
Durak Sayısı / *Number of Floors*	64 durağa kadar	*Up to 64 floors*
Haberleşme Protokolü / *Communication Protocol*	CANbus	
Enkoder Opsiyonları / *Encoder Options*	5V TTL, 10-30V HTL, EnDat, SSI, SinCos, BISS	
Güvenlik Devresi Gerilimi / *Safety Circuit Voltage*	48 VAC - 230 VAC	

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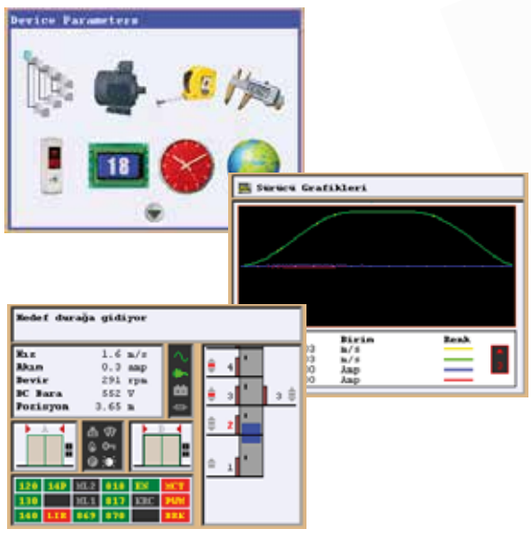
AREM Fonksiyonları / *Functions*

- SD Kart ile sistem parametrelerini yedekleyebilme ve taşıyabilme
- 3 seviye kullanıcıya göre farklı erişim modu sağlayabilme ve parametreleri kısıtlayabilme (misafir, bakımcı ve kurulum)
- Bilgisayarsız CANbus'a bağlı tüm birimlerin yazılımını güncelleyebilme
- CANbus üzerindeki herhangi bir noktadan sisteme erişebilme

- *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*



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VVVF Hız Kontrol Cihazları
VVVF Inverters

ADrive

KONFORLU ÇÖZÜM / *COMFORT SOLUTION*

ADrive Modelleri / *Models*

Model	kW	In	Imax (< 6s)
ADrive - 4B055	5,5 kW	14 A	28 A
ADrive - 4B075	7,5 kW	17 A	34 A
ADrive - 4B110	11 kW	26 A	52 A
ADrive - 4C150	15 kW	35 A	70 A
ADrive - 4C220	22 kW	50 A	100 A

Senkron / Asenkron
Synchronous / Asynchronous

VVVF Hız Kontrol Cihazı
Özellikler

- Asansörlere özel tasarım ve asansör uygulamalarına özel parametreler
- Asenkron (kapalı veya açık çevrim) ve senkron motorlara uyumluluk
- Yüksek seyahat konforu ve katlarda hassas duruş
- Vektör kontrolü sayesinde güçlü kalkış ve sürme momenti
- Asansörün elektrik sarfiyatında %40'a varan tasarruf
- Parametrelerin kaydedilmesi ve transfer edilmesi için parametre anahtarı
- 14, 17, 26, 35 ve 50 Amper akım seçenekleri
- Senkron motorlarda durağan (halatları kaldırmadan) otomatik ayar yapabilme
- Trifaz (300 VAC-420 VAC arası) besleme gerilimi ile çalışabilme
- Monofaz, trifaz 230VAC besleme gerilimi ile çalışabilme (opsiyonel)
- Türkçe, İngilizce ve Fransızca dil seçenekleri

VVVF Inverter
Features

- *Exclusively designed for lifts. Special parameters for travelling comfort*
- *Compatibility with geared motors (open loop or closed loop) and gearless motors*
- *High dynamic performance*
- *High torque motor drive at all speed thanks to Vector Modulation*
- *Contribution to energy-saving*
- *Data key for easy saving and transferring parameters*
- *14, 17, 26, 35 and 50 Ampere rating models*
- *Static auto-tuning for synchronous motors*
- *Operates with threephase (between 300VAC-420VAC) supply*
- *Operates with monophase or threephase (230VAC) supply (optional)*
- *Multiple language support: Turkish, English and French*

ENCABIT-Plus

Senkron motorlar için kullanılacak mutlak enkoder bağlantısı ve diğer fonksiyonlar ENCABIT-Plus kartı desteğiyle sağlanır.

The absolute encoder connection and other functions used for synchronous motors are provided with ENCABIT-Plus module.

SCR01 ADrive Buton ve Gösterge Paneli (ADrive Remote Keypad)

ADrive motor sürücüsünün ekran paneline direkt erişimin mümkün olmadığı durumlarda, ADrive menü kontrolü SCR01 Buton ve Gösterge Paneli ile sağlanır.

ADrive SCR01 provides remote control access to ADrive menu, when ADrive is out of reach and users do not have direct access.

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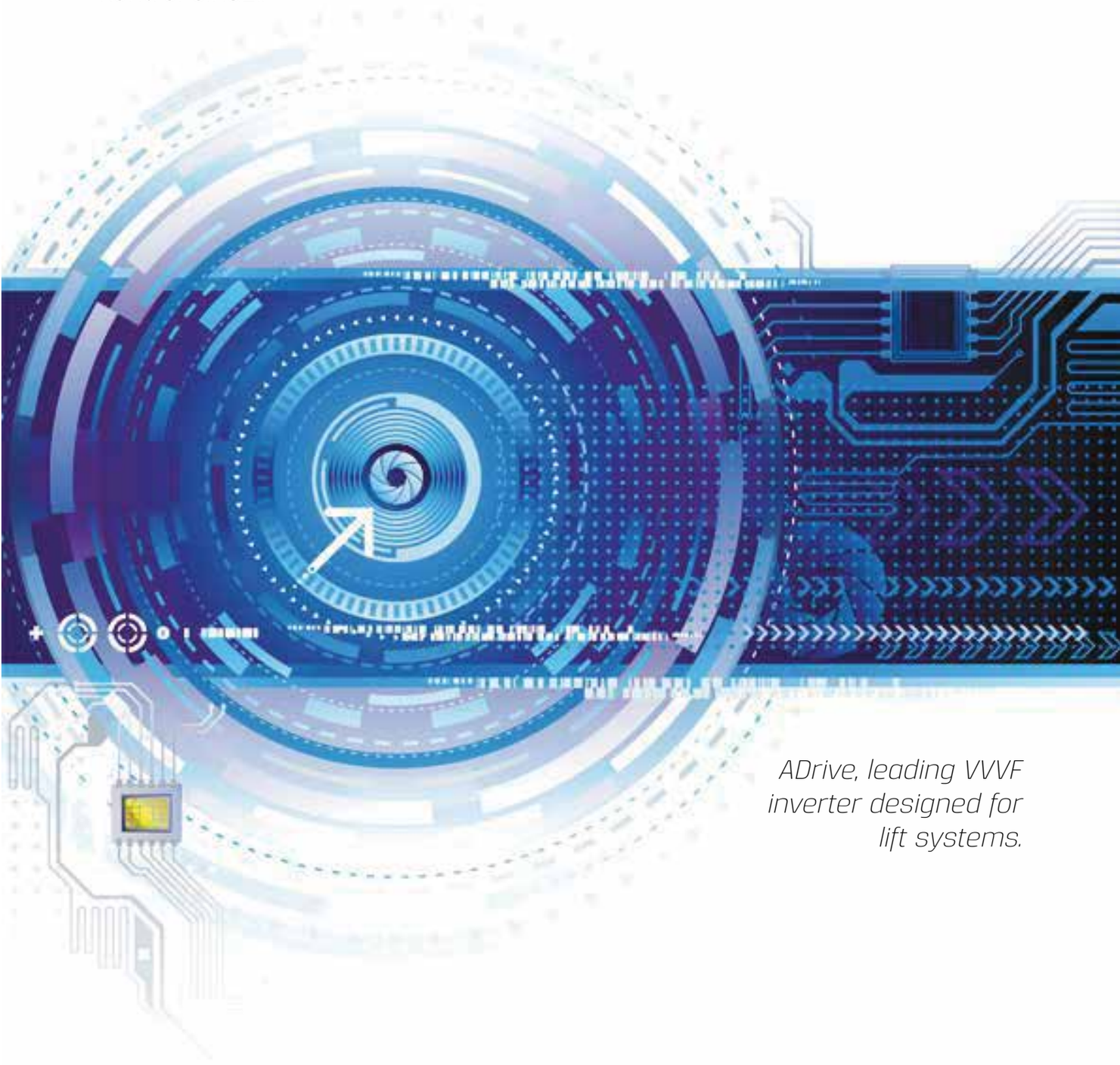
هایپرصنعت

ADrive, asansör çözümlerine yönelik tasarlanmış Türkiye'nin lider VVVF hız kontrol cihazı.



ADrive, leading VVVF inverter designed for lift systems.

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Asansör Kumanda Kartları
Lift Control Boards

ARL 500

GELİŞMİŞ ÇÖZÜM,
GELİŞMİŞ ÖZELLİKLER

ADVANCED SOLUTIONS,
ADVANCED FEATURES

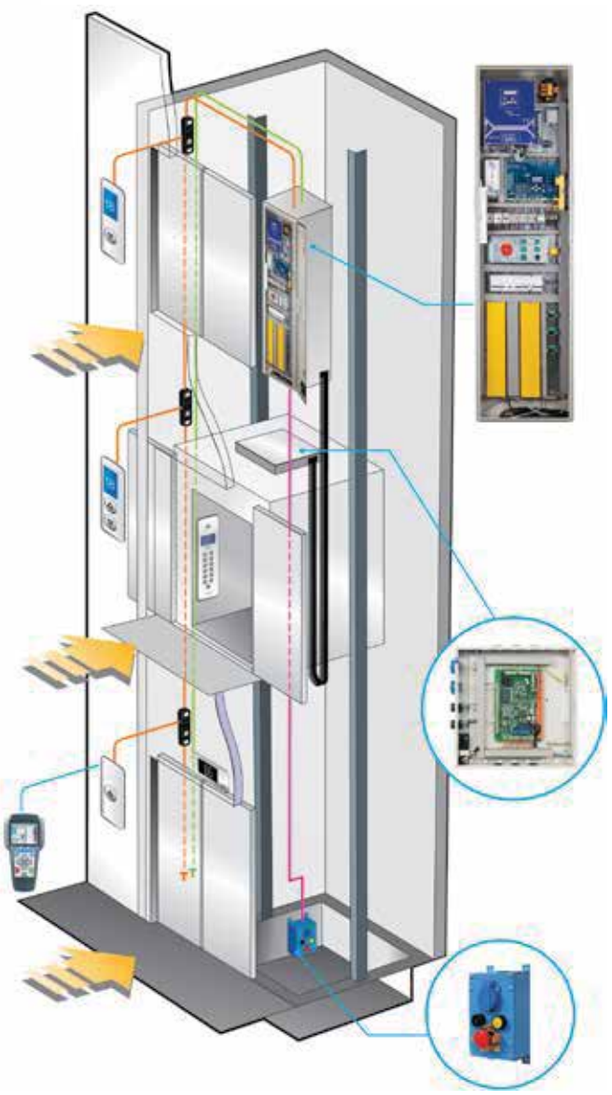
Komple Asansör Kumanda Sistemi
Complete Lift Control System

Özellikler

- 48 durağa kadar hidrolik ve halatlı asansörlere uygun
- 2,5 m/s hıza kadar çalışabilme
- 8 asansöre kadar grup çalışabilme
- Kabin pozisyon bilgisi için manyetik şalter veya enkoder sistemi
- Kat ve kabin üniteleri ile CANbus hattı üzerinden hızlı ve güvenli haberleşme
- Serbest programlanabilir girişler ve çıkışlar ile uygulamaya özel esnek çözümler
- Dahili kapı köprüleme röleleriyle erken kapı açma ve kapı açık seviye yenileme
- Dahili faz sıralı motor koruma devresi
- Çift kapı desteği ile duraklara göre bağımsız otomatik kapı kontrolü
- Türkçe, İngilizce, Rusça, Fransızca, Flemenkçe, İsveççe, Lehçe ve İtalyanca dil seçenekleri

Features

- *Compatible with hydraulic and traction lifts up to 48 stops*
- *Up to 2,5 m/s speed*
- *Up to 8 lifts in group*
- *Car position data by encoder or magnetic switches*
- *Fast and secure serial communication with car and landing units via CANbus*
- *Flexible solutions specific to application by free programmable inputs/outputs*
- *Internal door bridging safety relays for door pre-opening and relevelling*
- *Internal phase order motor protection circuit*
- *Independent automatic door control with respect to stops by double door support*
- *Multiple language support: Turkish, English, Russian, French, Dutch, Swedish, Polish and Italian*



ARL 500 Komple Asansör Kumanda Sistemi Hazır Tesisat Özelliği
ARL 500 Complete Lift Control System Plug & Play Wiring

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ARL 300

KOMPAKT ÇÖZÜM

COMPACT SOLUTIONS.

Hidrolik ve Halatlı Asansörler İçin Kumanda Kartı

Lift Control Board for Rope and Hydraulic Lifts

Özellikler

- 24 durağa kadar hidrolik ve halatlı asansörlere uygun
- 1,6 m/s hıza kadar çalışabilme
- 4 asansöre kadar grup çalışabilme
- Kabin pozisyon bilgisi için manyetik şalter veya enkoder sistemi
- Dahili kapı köprüleme röleleriyle erken kapı açma ve kapı açık seviye yenileme
- Dahili faz sıralı motor koruma devresi
- Dahili otomatik kapı kontrol giriş ve çıkışları
- LCD ve kayar dijital göstergeler için Gray/Binary kod çıkışları
- Kablo ve işçilik maliyetlerinde tasarruf sağlayan seri kabin tesisatı kartı (FX-SERI) ile uyumluluk
- EN 81-1 /2+A3 'e uygunluk
- Türkçe, İngilizce, Almanca, Rusça, Romence, Flemenkçe ve İtalyanca dil seçenekleri

Features

- *Compatible with traction and hydraulic lifts up to 24 stops*
- *Up to 1,6 m/s speed*
- *Up to 4 lifts in group*
- *Car position data by encoder or magnetic switches*
- *Internal door bridging safety relays for door pre-opening and relevelling*
- *Internal motor-phase protection relay*
- *Internal automatic door control inputs and outputs*
- *Binary or Gray code outputs for LCD display and Dot Matrix display*
- *Compatible with the serial car communication board FX-SERI which reduces labor and cable costs*
- *Designed according to EN 81-1/2+A3*
- *Multiple language support: Turkish, English, German, Russian, Romanian, Dutch and Italian*

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FAMCO
هایپرصنعت

Asansör Kumanda Kartları
Lift Control Boards

ARL 200 S

Fonksiyonel Programlı Kumanda Kartı

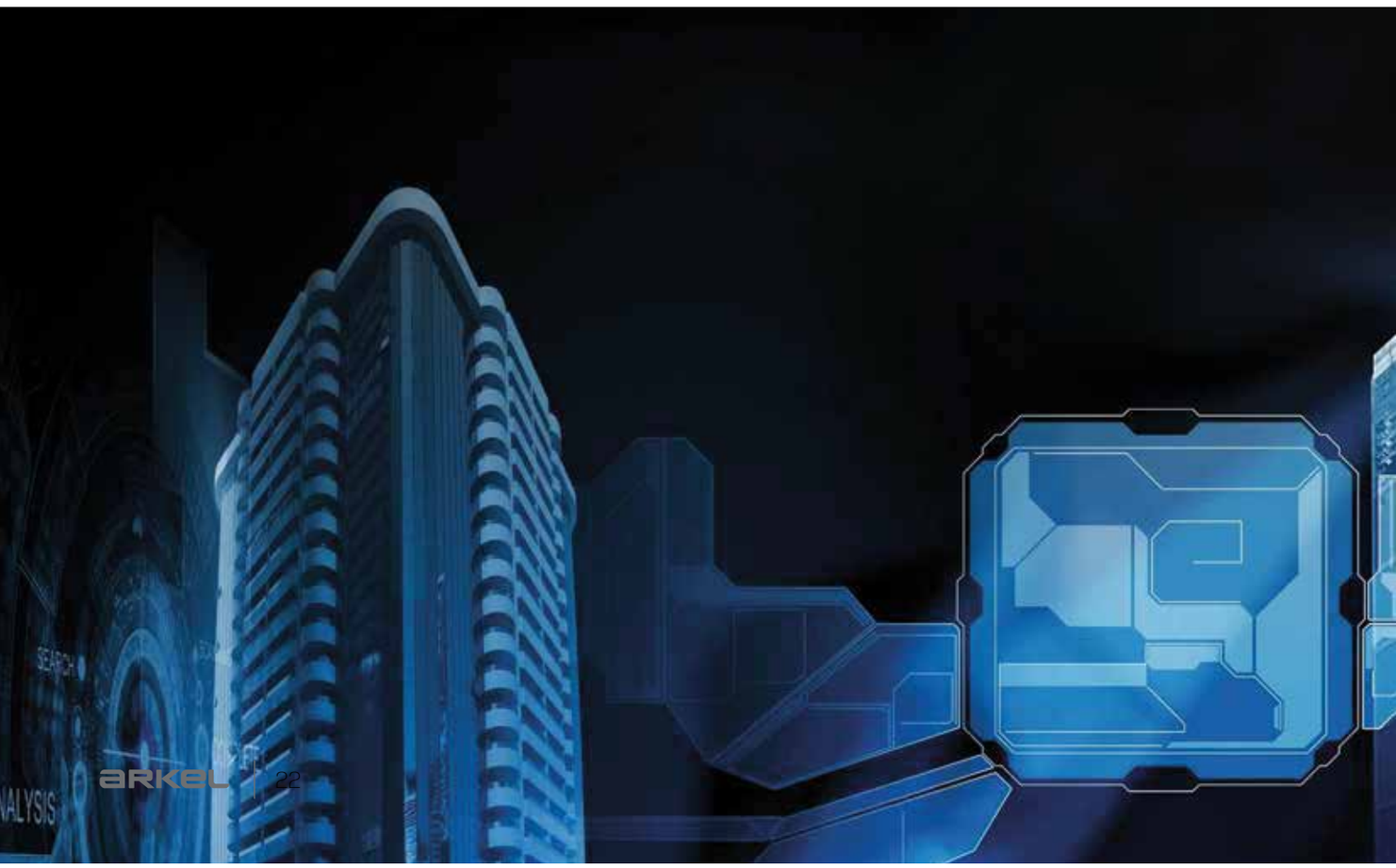
Economic Control Board for Rope Lifts

Özellikler

- 16 durağa kadar tek hızlı, çift hızlı ve VVVF kademesiz hızlı asansörlere uyumlu
- Dubleks asansörlerde çalışabilme
- Kabin pozisyon bilgisi için manyetik şalterler ile sayıcı sistemi yöntemi
- Kablo ve işçilik maliyetlerinde tasarruf sağlayan seri kabin tesisatı kartı (FX-SERI) ile uyumluluk
- EN 81-1 'e uygunluk
- Türkçe, İngilizce, Flemenkçe, Fransızca ve Romence dil seçenekleri

Features

- *Compatible with single speed, two speed and VVVF variable speed systems up to 16 stops*
- *Up to 2 lifts in group*
- *Counter system using magnetic switches for car position sensing*
- *Compatible with the serial car communication board FX-SERI which reduces labor and cable costs*
- *Designed according to EN 81-1*
- *Multiple language support: Turkish, English, French, Dutch and Romanian*



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ARL 100

Basit Kumanda Sistemler için Kumanda Kartı

Lift Control Board for Non Collective Systems

Özellikler

- 8 durağa kadar tek hızlı veya çift hızlı, basit kumanda sistemlere uygun
- Kabin pozisyon bilgisi için manyetik şalterler ile sayıcı sistemi yöntemi
- Yangın, deprem, aşırı yük, vatman anahtarı fonksiyonları, yön okları, kabin lambası, meşgul, servis dışı ve otomatik kapı kartı için sinyal çıkışları
- EN 81-1 'e uygunluk

Features

- *Compatible with single speed and two speed lifts with simple push button control up to 8 stops*
- *Counter system using magnetic switches for car position sensing*
- *Fire alarm input, earthquake sensor input, overload input, car priority switch input, direction arrow, car lamp, busy, out of service and automatic door outputs*
- *Designed according to EN 81-1*

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Asansör Kumanda Panoları
Lift Control Panels

Tahrik Sistemi
- Halatlı
  - Tek Hızlı
  - Çift Hızlı
  - Kademesiz Hızlı
    - Senkron Makine
    - Asenkron Makine
- Hidrolik

Otomatik Kapı
- Yarı Otomatik
- Tam Otomatik
- Çift Otomatik Kapı

Kurtarıcı Sistemi
- Pano İçine Entegre
- Harici

Kumanda Sistemi
- Basit Kumanda
- Yukarı / Aşağı Toplama
- Çift Buton Toplama
- Grup Kumanda

Uygunluk
- EN 81-1/2+A3

Kabin ve Kuyu Tesisatı
- Kabin Seri - Kat Seri
- Kabin Seri - Kat Paralel
- Kabin Paralel - Kat Paralel

Kabin Pozisyon Bilgisi
- Manyetik Şalterler ile
- Enkoderli Sistem ile

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Uzun Ömürlü ve Güvenilir
Long Life and Reliable

Lift Type
- *Traction*
  - *Single Speed*
  - *Two Speed*
  - *Speed Controlled*
    - *Gearless*
    - *Geared*
- *Hydraulic*

Automatic Door
- *Semi Automatic*
- *Full Automatic*
- *Side Selective*

Evacuation System
- *Integrated into Control Panel*
- *External*

Command Type
- *Simple Push Button*
- *Up / Down Collective*
- *Selective Collective*
- *Group Operation*

Compatibility
- *EN 81-1/2+A3*

Car and Landing Installation
- *Serial Car & Serial Landing*
- *Serial Car & Parallel Landing*
- *Parallel Car & Parallel Landing*

Car Positioning
- *With Magnetic Switches*
- *With Encoder*

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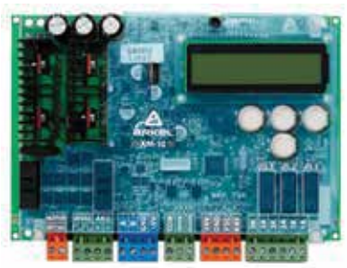
Kapı Kontrol Kartları
Door Control Boards

KM 20



KM 10

24VDC Motorlu Teleskobik Asansör Kapıları İçin Kontrol Kartı

Door Control Board for Automatic Telescopic Lift Doors

Özellikler

- Kapı kontrol kartları, 24V redüktorlü DC motorlu teleskobik asansör kapıları için üretilmiştir.
- Donanım olarak 4 bölge motor kontrollü ve çift kanal yüksek çözünürlüklü enkoder girişi ile motora tam hakimiyet sağlar.
- Gelişmiş yazılımı ile seyir rampalarında S yumuşatmaları ve limit şalter gerektirmeyen algoritması ile kapı hareketlerinde seri fakat sarsıntısız hareketlere olanak tanır.
- Kapı operatörünün çalışması için limit şaltere gerek yoktur. Kapı genişliği, kapı açık-kapalı pozisyonları otomatik olarak tespit edilmektedir.
- Kumanda panoları ile tam entegre çalışabilmesi için kapı tamamen açıldı, tamamen kapandı ve sıkışma/fotosel algılandı kontak çıkışları verebilir.
- Elektrik kesilmelerinde 2 adet 12V akü desteği veya harici 24VDC besleme ile çalışabilmektedir. Acil besleme tipi, kart üzerindeki jumper ile kolayca seçilebilmektedir.
- Akülerin şarjı kart tarafından yapılır. Akü desteği ile acil kapı açma sonrasında kart uykuya geçerek, akülerin tamamen boşalması engellenir.
- Üretici firmalar için motor redüksiyon oranı, motor devri, tahrik kasnak çevresi, kaşık açma bölgesi gibi uygulama esnekliği sağlayan parametreler girilebilir.
- Kullanıcı ayarları için cm/sn cinsinden tanımlı hız ayarları ve cm cinsinden tanımlı rampa yolları belirlenebilir
- Açma/kapama sayacı ile kapının çalışması takip edilebilir.
- Türkçe, İngilizce ve Yunanca lisan seçenekleri mevcuttur.
- Kapı sıkışması anında sesli ikaz ile geri açma yapılır. Sıkışma algılanan bölgeden yavaş hızla geçilerek yolcuların ve kapının zarar görmesi engellenir.
- Kapı açık ve kapalı tutma basıncı, kapı sıkışması algılama basıncı ihtiyaca göre ayarlanabilir.

Features

- *Door control boards are designed for automatic sliding lift doors with 24VDC reduction geared motor*
- *It provides complete hold of the motor with its 4 region motor control and high resolution encoder input hardware*
- *It allows swift and comfortable motion of doors with its software that provides S softening in travel ramps and which has the algorithm that does not require limit switches*
- *It provides features for auto-learning of door travel limits without open-close limit switches*
- *In order to work with the control panels in complete harmony it can generate "Doors are completely open", "Doors are fully closed" and "Obstruction or photocell detected" signals. These signals enable it to work for fire lift doors. " Doors are completely open", "doors are fully closed" and "obstruction or photocell detected" signals. These signals enable it to work for fire lift doors.*
- *In case of mains failure, it can get the power from 2 pcs 12V batteries or 24VDC external supply. The emergency supply type can be selected easily via a jumper on board.*
- *It protects the battery from over-charge with a smart battery charge system. After an emergency opening with battery supply, it goes into sleep mode and protects the batteries from over-discharge.*
- *It provides many functions and parameters for manufacturing companies that enable application flexibility, like motor reduction ratio, motor revolution, motor sheave circumference and skate open zone.*
- *It provides user friendly parameter setting with speed units in cm/s and travel distance units in centimeters.*
- *It provides a counter for the information of opening-closing times.*
- *Availability of multiple languages: Turkish, English and Greek.*

KM 20 Kontrol Kartı / Control Board

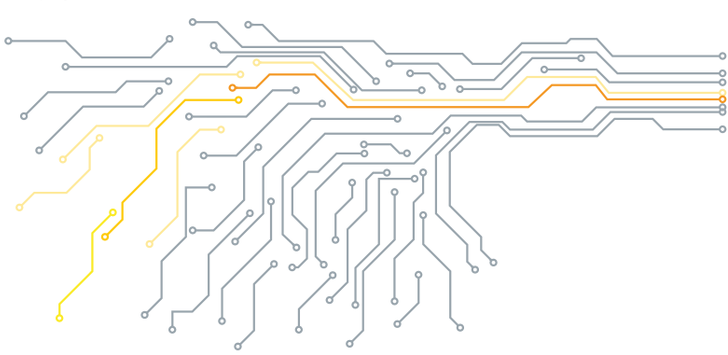
- Yavaş hız sinyal girişi ile uzun süreli fotosel kesmelerinde fotosel sinyali dikkate alınmayarak kapıların yavaş hızda ve sesli ikaz ile kapatılması sağlanır (Nudging modu)
- Yangın asansörü kapılarında kullanım için uygundur (Yüksek hız sinyal girişi algılanabilir.)
- İsteğe bağlı temin edilen harici KM-20 tuş takımı ile tüm sistem parametreleri kolayca ayarlanabilir. Kapının çalışması detaylı olarak izlenebilir
- Kart üzerindeki 7-segment gösterge ve butonlar kullanılarak temel parametreler (kapı açma-kapama hızı, sıkıştırma basıncı, sinyal tipi, demo modu) ayarlanabilir

- *A nudging function is included which allows closing the door slowly with an audible alarm in case the photocell remains interrupted longer than the allowed duration.*
- *Compatible with fi refi ghter lift doors (high speed signal input can be sensed.)*
- *Optional KM-20 keypad allows access to all its parameters, functionality and monitoring screens.*
- *Basic parameters (door opening-closing speed, obstruction pressure signal type and demo mode) can be adjusted easily by user via built-in 7-segment displays and buttons*

KM 10 Kontrol Kartı / Control Board

- Kart üzerindeki lcd gösterge ve butonlar kullanılarak temel parametreler (kapı açma-kapama hızı, sıkıştırma basıncı, sinyal tipi, demo modu) ayarlanabilir.

- *Basic parameters (door opening-closing speed, obstruction pressure signal type and demo mode) can be adjusted easily by user via built-in lcd display and buttons.*



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Göstergeler
Displays

LiftMedia

Asansörlere Özel TFT LCD Gösterge, Müzik ve Anons Sistemi

TFT LCD Display, Music and Announcement System for Lifts

Gelişmiş ve esnek bir grafik arayüzüne sahip LiftMedia Designer yazılımı ile göstergenizi isteğinize göre kolayca şekillendirebilirsiniz. Durak yazıları, durakla ilgili resimler, aşağı / yukarı yön okları, logolar, arka plan resimleri, sinyal göstergeleri, tarih, saat, sıcaklık bilgisi, sesli anonslar, müzik ve video oynatma dahil tüm ayarları rahatça yapabilirsiniz.

LiftMedia Designer is a user-friendly software to customize your displays. With its advanced and flexible graphic user interface, you can set up all display properties including: floor names, floor pictures, direction arrows, logo, background images, special messages, date, time, temperature, voice announcements and audio/video playback.

Özellikler

- 320x240 piksel 5.7 inç gerçek-renkli ekran
- Programlanabilir sesli anonslar (aşırı yüklü, servis dışı vs.)
- Video gösterimi (ekranın yaklaşık 1/4'lük bir bölümünde)
- Yüksek kalitede müzik çalabilme
- Durak yazıları, durak resimleri, yön okları ve sinyal göstergelerini (tam yük, aşırı yük vs.) gösterebilme
- Saat, tarih ve sıcaklık durumu göstergeleri
- Kullanıcı dostu görsel tasarım programı ile esnek ekran tasarımı imkanı
- mp3, mpeg, avi, wmv, fl v, mp4, m4u ve wav uzantılı medya dosya biçimleri desteği
- bmp, jpeg, gif ve png uzantılı resim dosya biçimleri desteği
- Tüm ekran, müzik ve video unsurları kullanıcı tarafından değiştirilebilir
- Yatay ve dikey çalışabilme
- Kablosuz programlanabilme. Tasarımınızı SD karta kopyalayıp LiftMedia'ya taktığınızda kullanıma hazır hale gelecektir.
- Sınırsız alfabe desteği (Kiril, Yunan, Arap harfleri vb.)
- Dahili SD kart ile müzik ve video kaydedebilme.
- SD kart aracılığıyla yazılım güncelleme
- Türkçe ve İngilizce dil seçenekleri

Features

- *320x240 pixels, 5.7" true colour screen*
- *Programmable voice announcement of lift events (full loaded, overloaded, out of service etc.)*
- *Video playing capability (about 1/4 of the screen section)*
- *High quality music playback*
- *Displays lift floor names, floor pictures, direction arrows and other lift controller signals (overload, full load etc.)*
- *Date, time and temperature displays*
- *User-friendly visual design software is freely available*
- *Supports common media file types: mp3, mpeg, avi, wmv, flv, mp4, m4u and wav*
- *Supports common image file types: bmp, jpeg, gif and png*
- *All screen, sound, music & video elements are user customizable*
- *Horizontal and vertical design*
- *No connection cables are needed for programming. Just copy the design from your PC to the SD card and insert the card to LiftMedia*
- *Uses fonts installed on the operating system so that every alphabet is available (Cyrillic, Greek, Arabic etc.)*
- *Hours of video and music playback with the included SD card. Capacity expansion possible with SDHC card support*
- *Firmware can be upgraded easily via SD card when new versions and new features are available*
- *Turkish and English language support*

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LCD10555 ÇOK RENKLİ LCD GÖSTERGE
LCD10555 Multi Color LCD Display

LCD 240X128A
Asansörler İçin Tasarlanmış 240 x 128
Piksel Çözünürlükte Grafik LCD Gösterge

LCD 240X128A
240 x 128 Pixel Resolution Graphic
LCD Display for Lifts

2X3057 Serisi Dot Matris
Çağrı / Gösterge Kartı

2X3057 Series Dot Matrix
Call / Display Module

3X3057 Serisi Dot Matris
Çağrı / Gösterge Kartı

3X3057 Series Dot Matrix
Call / Display Module

Kat Çağrı Kartı
(Göstergesiz)

Landing Call Module
(Without Display)

LCD-A (40x70 mm) Çağrı / Gösterge Kartı

LCD-A (40x70 mm) Call / Display Module

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روبروی پالایشگاه نفت پارس، پلاک ۱۲

Yardımcı Birimler
Auxiliary Units

AKUS

AKUS-SD COMBI
Acil Kurtarma Sistemi

AKUS-SD COMBI
Emergency Evacuation System

Özellikler

- Elektrik kesintisinde kat arasında kalan asansörün kat seviyesine getirilip otomatik kapının açılmasıyla yolcuların güvenli bir şekilde tahliyesi
- Tek hızlı, çift hızlı ve Asenkron VVVF hız kontrollü tüm sistemlere uygun
- Enerjiyi, bakım gerektirmeyen 5 adet aküden sağlama
- Akıllı akü şarj sistemi sayesinde akülerden uzun süre faydalanabilme
- LCD ekran sayesinde parametrelerinin rahatça değiştirilebilmesi
- Açık çevrim çalışabilme. Motora herhangi bir sensör bağlanmasına ihtiyaç duymama
- EN 81-1 standardına uygun

Features

- *In case of mains power failure, it moves the car to upper or lower floor level, opens the automatic door and passengers are evacuated in safety*
- *Can be applied to all one speed, two speed or geared speed-controlled systems*
- *Gets the power from 5 pcs batteries which need no maintenance*
- *Thanks to smart battery charge system which does not tire the batteries and makes them work for many years*
- *With LCD screen, program parameters can be adjusted easily*
- *Works open loop. No need to put a sensor on the motor*
- *Designed according to EN 81-1*

ApRe

ApRe Regülatör Kontrol Ünitesi Kartı
(EN 81-1/2 + A3)

ApRe Clamping Device Activation Unit
(EN 81-1/2 + A3)

Özellikler

- ApRe kartı ADrive hız kontrol cihazı ile birlikte EN 81-1+A3 standardına göre sertifikalanmış, A3 uyumlu hız regülatörleri için sistem dışı kabin hareketine karşı koruma sistemidir.
- Asansör seyir halinde iken emniyet devresinin veya elektriğin kesilmesi durumunda, gereksiz yere hız regülatörünün kilitlenmesini ve paraşüt freninin devreye girmesini engeller.
- 24Vdc (6A'e kadar) bobinli hız regülatörleri ile kullanılabilir.
- Akü ilavesi ile ana şebekenin kesilmesi durumunda dahi çalışmaya devam eder. Akü şarjı ApRe kartı tarafından yapılır.
- Hata durumunda kullanıcıyı sesli ve görsel olarak bilgilendirir.

Features

- *ApRe, which is certified according to EN 81-1+A3 standard together with ADrive inverter, is a protection system for A3 compatible overspeed governors against unintended car movement (UCM).*
- *In the event of safety circuit failure or power failure when lift is on the move, it blocks the activation of parachute brakes and overspeed governor to be locked up.*
- *Can be used with overspeed governors with 24Vdc (up to 6A) operating voltages.*
- *Works even in the event of mains failure with the help of additional battery which is to be charged by ApRe.*
- *Audible and visual warning in case of an error.*

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FAMCO
هایپرصنعت

Seri Kabin Tesisatı Kartı
Serial Car Communication Unit

FX-SERİ

Özellikler

- ARL-200S ve ARL-300 kumanda kartları ile 16 durağa kadar 2 kablo üzerinden haberleşme
- Kabin butonları, dijitaller, aşırı yük, tam yük, gong, yön okları, kabin lambası, otomatik kapı açma / kapama butonları, revizyonda hareket butonları için panodan kabine çekilecek tesisattan tasarruf

Features

- Communicates with ARL-200S and ARL-300 control boards up to 16 floors via two cables
- No installation is needed between car and control panel for car buttons, indicators, overload, full load, gong, direction arrows, car lamp, automatic door open / close buttons and inspection operation buttons

Yüksek Kat Desteği Sağlayan Seri Kabin Tesisatı Kartı
Serial Car Communication Unit for High-rise Buildings

FX-SERİ-32

Özellikler

- ARL-300 kumanda sistemi için tasarlanmış, 24 durağa kadar 2 kablo üzerinden haberleşme
- ARL-300 kumanda kartı menüsünden ayarlanabilen Gray / Binary kod çıkışları
- Kart üzerindeki A,B,C,D,E,F,G dijital çıkışlarını 7-segment, Gray kod, terslenmiş Gray kod, Binary kod ve terslenmiş Binary kod olarak programlayabilme
- Kabin butonları, dijitaller, aşırı yük, tam yük, gong, yön okları, kabin lambası, otomatik kapı açma / kapama butonları, revizyonda hareket butonları ve Gray / Binary kod çıkışları için panodan kabine çekilecek tesisattan tasarruf

Features

- *Communicates with ARL-300 control board up to 24 floors via two cables*
- *Gray / Binary code outputs programmed with ARL-300 lift control board's menu*
- *Display outputs A,B,C,D,E,F,G on FX-SERI32 board can be programmed as 7-segment, Gray code, Inverted Gray code, Binary code and Inverted Binary code*
- *No installation is needed between car and control panel for car buttons, indicators, overload, full load, gong, direction arrows, car light, automatic door open / close buttons, inspection operation buttons and Gray / Binary code outputs for position indicators*

Revizyon Kutuları / *Inspection Boxes*
RK 22 / RK 32 / RK 51 / RK 71

RK SERİSİ

Özellikler

- Acil aydınlatma lamba cıkışı
- Alarm, gong, aku şarj
- Revizyona geciş anahtarı ve hareket butonları
- Acil stop (kilitlemeli)
- 2 adet priz
- Aydınlatma icin priz-duy

Features

- *Emergency light output*
- *Alarm, gong, battery charge*
- *Inspection switch and operation buttons*
- *Emergency stop (locked)*
- *Two sockets*
- *Light socket for lamp*

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Yardımcı Birimler
Auxiliary Units

G&Z PLUS

Sesli Anons Sistemi
Announcement Sytem for Lifts

Özellikler

- Asansörler için sesli anons ve müzik sistemidir.
- Mp3 formatında SD karta yüklenen müzik ve anons dosyalarını çalabilir.
- Bilgisayara kurulacak özel bir programlama yazılımı gerektirmez.
- Özelleştirmek için SD kart içindeki ilgili klasörlere müzik ve ses dosyalarının kopyalanması yeterlidir.
- Gray kod, Binary giriş tipleri ile tüm asansör kontrolcüleriyle uyumludur.
- CANbus seri bağlantısı ile Arkel ARCODE ve ARL500 kontrolcüleriyle uyumludur.
- Anonslar ve müzik için ayrı ses seviye ayarları vardır.
- Türkçe ve İngilizce varsayılan anonslarla birlikte gelmektedir.

Features

- *G&Z plus is a floor announcement and music system designed for lifts.*
- *G&Z plus uses the sound files in mp3 format, which can be transferred to the SD memory card easily.*
- *No additional software is required.*
- *Just drag and drop your sound files into the corresponding folders in SD card.*
- *Gray code, binary code, Arkel counter mode and CANbus mode are available as an input mode.*
- *Independent volume control for announcement and music.*
- *G&Z plus board comes loaded with default English & Turkish messages from the factory.*

MTM

MTM Elektronik Devreli Monostable Şalter
Electronic Monostable Switch

Özellikler

- Elektronik devre tasarımlı
- Kontaksız çalışma yapısı sayesinde uzun çalışma ömrü
- Sarsıntılara karşı dayanıklı ve sağlam tasarım
- Üzerindeki ledler sayesinde çalışmasının göz ile kontrol edilebilmesi
- Hızlı algılamanın gerektiği yüksek hızlı asansörlerde kullanılabilme
- Kapı açma güvenlik bölgesi için kullanıma uygun
- Mıknatısın kutbundan bağımsız olarak çalışma
- Plastik geçmeli tutucu ayak ile kolay montaj

Features

- *Electronic switching design with hall effect sensor*
- *Long service life by contactless switching*
- *Strong protection from impact and vibration*
- *Ability to observe the operation by built-in LEDs*
- *Can be used in high speed lifts where a faster detection is required*
- *Can be used for door safe zone sensing*
- *Independent operation from the polarity of magnets*
- *Easy mounting by a plastic holder*

LiftSense

Seviye Yenileme ve Kapi Erken Açma Için Kabin Pozisyon Sensörü
Car Position Sensor for Re-levelling and Door Pre-opening

Özellikler

- ARCODE tümleşik asansör kontrol ünitesiyle birlikte kullanılır. Seviye yenileme ve kapı erken açma için gerekli kabin pozisyon bilgilerini sağlar.
- Her katta hali hazırda bulunan kapı bölgesi mıknatısları ile çalışır.
- Seviye yenileme için kuyuya ilave mıknatıs dizilmesi ve manyetik şalter yerleştirilmesi zorunluluğunu ortadan kaldırır.
- Seviye yenileme sensörlerine ek olarak 2 adet de kapı bölgesi algılama sensörü içerdiğinden ayrıca kapı bölgesi şalteri kullanımına da gerek yoktur.
- Seviye hassas ayarı yapmak için mıknatısların yerini değiştirmek gerekmemektedir.
- Üzerindeki 20 adet manyetik sensörle 7,5 mm konum hassasiyeti sağlar.
- Kabin üstü revizyon kartına besleme+, besleme-, ML1, ML2 ve seri pozisyon iletişim kanallarından oluşan 5 hat ile bağlanır. Herhangi bir ayar gerektirmez.
- LiftSense Arkel'in patentli bir ürünüdür.

Features

- *Operates only with the existing door zone magnets.*
- *Neither extra magnets nor magnetic switches are required for re-leveling.*
- *LiftSense contains 2 pieces door zone detection sensors along with re-leveling sensors, therefore it is not necessary to use extra door zone switches.*
- *No need to relocate magnets to make sensitive level adjustment.*
- *20 magnetic sensors, located in LiftSense, provides position sensitivity of 7,5 mm.*
- *Easy connection to the inspection box through 5 lines composed of supply+, supply-, ML1, ML2 and serial position communication channel.*
- *LiftSense is a patented product of Arkel.*

ARKEL VISION

Dünyanin Neresinde Olursanız Olun,
ARL-500 ile Asansörleriniz Bir Tık Uzağınızda

Wherever You Are,
Your ARL-500 is Just a Click Away

Özellikler

- İstenilen sayıda asansöre internet veya yerel ağ üzerinden aynı anda bağlanabilme
- Asansörlerinizin o anki durumunu, internet aracılığı ile herhangi bir yerden izleyebilme ve müdahale edebilme
- Asansörün bulunduğu lokasyona gitmeden, arıza hakkında bilgi sahibi olabilme
- ARL-500 ve ADrive ekranlarını bulunduğunuz yerden görebilme ve ayar yapabilme

Asansör Monitörü

- Bulunduğu durak
- Hareket yönü
- Aktif çağrılar
- Kapıların durumu
- Servis dışı bilgisi
- Aşırı yük ve tam yük bilgisi
- Fotosel durumu
- Emniyet devresinin durumu
- Kapı açma bölgesi
- Revizyon ve geri alma durumu
- ETCM* modulu üzerindeki genel amaçlı girişlerin izlenebilmesi

Asansör Kumandası

- ARL-500 ve ADrive ekranlarını görebilme ve cihazları kumanda edebilme
- Asansöre kayıt verebilme
- ETCM modulu üzerindeki genel amaçlı rölelerin kontrolu

Hata Listesi

- Detaylı hata listesi (Zaman, durak ve hata açıklaması ile)

* Sistemin asansöre bağlantısı için ETCM uzaktan erişim modülü gereklidir.

Features

- *Ability to access multi-lift through the Internet or LAN connection simultaneously*
- *Ability to monitor and make adjustments on remote lifts*
- *Ability to obtain detailed error reports on remote lifts*
- *Ability to adjust and monitor the ARL-500 and ADrive menus remotely*

Lift Monitoring

- *Car position*
- *Car direction*
- *Active car and hall calls*
- *Door states*
- *Out of service data*
- *Overload and full load data*
- *Light barrier*
- *Safety circuit*
- *Door zone*
- *Inspection and recall states*
- *Monitoring the general purpose inputs on ETCM* module*

Lift Control

- *Controlling and monitoring the ARL-500 and ADrive menus remotely*
- *Giving calls to remote lifts*
- *Remote control of the general purpose relays on ETCM module*

Error Reporting

- *Detailed error reports (with time, floor and explanation)*

** ETCM remote control & monitoring module is required for connection of the system.*

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ARCODE

INTEGRATED ELEVATOR CONTROLLER FOR TRACTION LIFTS

ERROR DESCRIPTIONS

www.arkel.com.tr

Publisher ARKEL Elektrik Elektronik SAN. ve TİC. A.Ş.

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TABLE OF CONTENT

Error Code: Er01
Description:
Could not read parameters. Checksum wrong.
Conditions:
Hardware fault.
Possible solutions:
Contact ARKEL Technical Support.

Error Code: Er02
Description:
Could not write parameters. Verify error.
Conditions:
Hardware fault.
Possible solutions:
Contact ARKEL Technical Support.

Error Code: Er03
Description:
Parameters were written with a newer version. Some parameters will be lost.
Conditions:
If you make a downgrade to an older version and there are some functions and parameters which are not in the older version but are in the up-to-date version, the function and parameter values will be deleted after the downgrade.
Possible solutions:
Arcode new/up-to-date versions include bug fixes, software enhancements, new features and functions, behavior changes and enhancements. Review the necessity of installing an older version.

Error Code: Er04
Description:
No connection with ENCA board.
Conditions:
Arcode gives this error when it cannot communicate with the ENCA board for more than 1 second.
Possible solutions:
- Check the encoder connections. The connections are incorrect or there may be a problem with the encoder supply.
- Check the flat cable between Arcode and ENCA board. It may be dislodged or damaged.
- Check the parameters “Encode type [P0520]” and “Motor type [P0229]”. This error occurs with the ENCA board used with synchronous motors. If synchronous motor is used, be sure that an ENCA board is used in the system. If asynchronous motor is used and this error occurs, the parameter “Motor type [P0229]” may have selected accidentally as “Synchronous”.
- The ENCA board may be defective.

Error Code: Er05
Description:
DIP-switch configuration wrong or could not be read.
Conditions:
Hardware fault.
Possible solutions:
Contact ARKEL Technical Support.

Error Code: Er06
Description:
One of the encoder channels disconnected.
Conditions:
This error occurs when no information data comes from the ENCA board for 1 second.
Possible solutions:
Check the flat cable between Arcode and ENCA board. Be sure the encoder connections are done properly.

Error Code: Er07
Description:
Current was over driver limit.

Conditions:
If the motor current exceeds the maximum IPM module current percentage value set in the parameter “Motor overcurrent limit” [P0429], this error occurs.
Possible solutions:

- Be sure that the Arcode class current value is suitable for the motor.
- The car (car shoes too tight) might be jamming, the motor brake may not be fully open.
- Check if the error does not occur in both travel directions. If this error occurs only in one direction, the counterweight may not be in balance. Then check the counterweight balance.
- For geared (asynchronous) motors the parameters “Nominal slip frequency” [P0603] and “No-load current” [P0430] might be set wrong.
- The current and speed PID gain values may be too high.
- Make sure that the motor cable cross section is suitable for the current.
- Be sure that the latest Arcode firmware is installed.

Error Code: Er08

Description:
Current was near driver limit continuously.
Conditions:
If the motor current exceeds the maximum IPM module current value for %250 for the time set (6 seconds as standard) in the parameter “Motor overcurrent error time” [P1089], this error occurs.
Possible solutions:

- Be sure that the Arcode class current value is suitable for the motor.
- The car (car shoes too tight) might be jamming, the motor brake may not be fully open.
- Check if the error doesn’t occur in both travel directions. If this error occurs only in one direction, the counterweight may not be in balance. Then check the counterweight balance.
- For geared (asynchronous) motors the parameters “Nominal slip frequency” [P0603] and “No-load current” [P0430] might be set wrong.
- The current and speed PID gain values may be too high.
- Make sure that the motor cable cross section is suitable for the current.

Error Code: Er09

Description:
Motor or control cabinet overheated.
Conditions:

- When there T1 – T2 inputs are not short circuit, this error occurs.
- Arcode checks, to the T1 and T2 inputs serial connected panel, motor and brake resistor PTCs. When the circuit opens because of any reason, this error is given.

Possible solutions:

- Motor or panel temperature might be too high. Check the cooling fans.
- Check the motor, panel and brake resistor PTCs and their connections.
- Check the inputs T1 and T2 which are on Arcode. For normal operation, T1 and T2 should be short circuit.

Error Code: Er10

Description:
Dropping of main contactors could not be sensed.
Conditions:

- When the main contactors and the brake is inactive, if the input signal “(KRC) Main contactor checkback” is not active for 3 seconds, this error occurs.
- Despite the main contactor relay (RP) dropped, the state of the main contactors (contactors are passive) could not be checked from the (KRC) monitoring signal.
- The (100) (24VDC) signal, which passes through the “Normally closed” contacts of the (KPA), (KPB) and (KFR) contactors is connected to the (KRC) signal input on Arcode. When all contactors are passive, there must be (100) (24VDC) signal at the (KRC) signal input.

Possible solutions:

- Auxiliary contacts of KPA, KPB and KFR contactors on (KRC) line may be defective.
- There might be a voltage drop at the input where the (KRC) signal is programmed.

- When the door bridging board (DBR) is installed (available) and from the menu the board is selected as “Installed”, but the bridge between 140-140P isn’t disconnected, this error occurs (the door bridging board is between (140) – (140P). If the (DBR) board is not installed there should be a bridge between (140) – (140P).
- Check from the AREM main screen that the (KRC) signal is active when the elevator is stopped.

Note: After a few times this error occur, it will get a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er11

Description:

Picking of main contactors could not be sensed.

Conditions:

- When the main contactors and the brake is active, if the input signal “(KRC) Main contactor checkback” is active for 3 seconds, this error occurs.
- Despite the main contactor relay (RP) is active, the state of the main contactors (contactors are active) could not be checked from the (KRC) monitoring signal.
- Because Arcode cannot monitor the safety circuit after (140P), when a contact which is after (140P) doesn’t pick up, Arcode activates the (RP) relay because it senses the signal (140P), but because the safety circuit connection to the contactors is open, the contactors will not get energized and this error will occur.
- The (100) (24VDC) signal, which passes through the “Normally closed” contact of the (KPA), (KPB) and (KFR) contactors is connected to the (KRC) signal input on Arcode. When all contactors are active (the car is driving), there must be (1000) (0VDC) signal at the (KRC) signal input.

Possible solutions:

- Auxiliary contacts of KPA, KPB and KFR contactors on (KRC) line may be defective.
- There might be voltage at the input where the (KRC) signal is programmed.
- In the safety circuit, when signal (140) is on but (140P) is off and the system tries to drive the car, this error can occur.
- Ensure that the safety circuit contacts after (140P) are closed.
- If the time in the parameter “Door contacts settling time” [P0053] is set too low, Arcode will directly active the (RP) relay after it sees the signal (140P) during starting to drive. And if the door contacts aren’t fully closed (door contacts get open for a brief of a second), this error can occur during starting to drive. To prevent this from happening, the time should be entered minimum “0,3” seconds.

Note: After a few times this error occur, it will get a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er12

Description:

Holding of mechanical brake not sensed.

Conditions:

- When the brakes are passive, “(BRC) Mechanical brake checkback” and “(BRC2) Mechanical brake-2 checkback” signal is not active for 3 seconds, this error will occur.
- When the parameters “Mechanical brake monitoring” [P0045] and “Mechanical brake-2 monitoring” [P0800] are "On" and the brake relay “(MBR) Mechanical brake”/”(MBR2) Mechanical brake-2” is dropped, from the inputs where the brake monitoring signals (BRC) and (BRC2) are programmed, the closing (passive) of the brakes couldn’t be sensed.

Possible solutions:

- When the elevator is stopping (when the brakes are passive/closed), there must be 24VDC at the inputs where the (BRC) and (BRC2) signals are programmed. Check the voltage.
- Check the brake microswitches. They might be working unstable.
- By setting the parameter “Mechanical brake monitoring” to “Off”, this error can be temporarily switched off.
- Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er13

Description:

Release of mechanical brake not sensed.

Conditions:

- When the brakes are active, “(BRC) Mechanical brake checkback” and “(BRC2) Mechanical brake-2 checkback” signal is active for 3 seconds, this error will occur.

- When the parameters “Mechanical brake monitoring” [P0045] and “Mechanical brake-2 monitoring” [P0800] are "On" and the brake relay “(MBR) Mechanical brake”/”(MBR2) Mechanical brake-2” is energized, from the inputs where the brake monitoring signals (BRC) and (BRC2) are programmed, the opening (active) of the brakes couldn’t be sensed.

Possible solution:

- When the elevator is traveling (when the brakes are active/opened), there must be 0VDC at the inputs where the (BRC) and (BRC2) signals are programmed. Check the voltage.
- Check the brake microswitches. They might be working unstable.
- By setting the parameter “Mechanical brake monitoring” to “Off”, this error can be temporarily switched off.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu

Error Code: Er14

Description:

DC-bus voltage is too high.

Conditions:

- If the DC-bus voltage is above the limit voltage, this error occurs.
- The DC-bus voltage is greater than the rated Arcode class limit voltage.
  for Arcode 380VAC: 715 V
  for Arcode 220VAC: 420 V

Possible solutions:

- Check that an appropriate brake resistor is connected to the B and P terminals.
- If the mains line voltage is too high this error can occur. Be sure that the mains line voltage is not above 420V.
- If this error is encountered when the device is first turned on, then check the mains line voltage. If the mains voltage is stable and at the appropriate voltage, the device may be defective.
- If the insulation of the motor coils is too weak this error may be gotten. Check the motor coil insulation.
- Control panel and motor grounding must be checked.

Error Code: Er15

Description:

DC-bus voltage is too low.

Conditions:

If the DC-bus voltage is under the limit voltage for 3 seconds, this error occurs. When the mains line voltage is below the operation values, this error is taken.

Possible solutions:

- Check that an appropriate brake resistor is connected to the B and P terminals.
- If the mains line voltage is too low this error can occur. Be sure that the mains line voltage is not under 320V.
- If the mains voltage is stable and at the appropriate voltage, the device may be defective. Contact ARKEL Technical Support.

Error Code: Er16

Description:

Power-module (IPM) reported error.

Conditions:

The power module (IPM) on Arcode sent an error signal. This signal may result from overcurrent, overvoltage or over-temperature.

Possible solutions:

- The safety circuit may be cut during travel or the contactors may drop for any reason.
  - If this error occurs in a specific floor, check the related landing door contact.
  - If this error occurs in different floors, check the car door contact.
  - If there is a possibility that the contactors may be defective, connect the motor cables directly to the “U, V, W” output terminals on Arcode (the panel is bypassed) to test the systems working. If in this case no error occurs, check the contactors and connections.
- When the elevator drives in the easy direction (the motor works as a generator) or this error is got during waiting at floor, the brake resistor connections must be checked. For testing, the brake resistor can be directly connected to the “B” and “P” output terminals on Arcode.

- While traveling in inspection or recall modes, if you release the pressed (up or down) button, the safety circuit will be cut, and the contactors will drop suddenly. This will cause the car to stop immediately and sometimes will cause Arcode to give IPM error. To not encounter this error, instead of releasing the pressed button, press the other button (up or down) too. When both buttons are pressed, the car will slow down and come to a stop. After the car has fully stopped, you can release both buttons.

Error Code: Er17

Description:

Inconsistent encoder speed reading.

Conditions:

This error will occur if an unusual change occurs in the information received from the encoder.

Possible solutions:

- Be sure that the motor parameters are set correctly.
- Check the mounting of the encoder on the motor. The encoder may be slipping during rotation.
- The encoder connection and the grounding should be checked.
- The encoder cable must be passed at least 10 cm away from the AC voltage wires.

Error Code: Er18

Description:

Car over speeded.

Conditions:

When the speed information from the encoder is higher than the calculated speed, this error will occur.

Possible solutions:

- The encoder connections must be checked. Motor parameters must be checked.
- The counterweight balance of the elevator must be correctly set. Counterweight balance should be checked by placing half the nominal load in the cabin.
- The safety circuit must be checked. If the safety circuit is suddenly cut while during travel, the car can accelerate for a moment and this error can occur.
- The encoder may have electromagnetic interference, and this cause the signals get distorted. Check the panels grounding connection.
- If an “incremental” encoder is used, be sure that the supply is connected right. If the encoder supply voltage is 5VDC it should be connected to the 5V terminal, if it is 5-30VDC it should be connected to the 24V terminal. If an “absolute” encoder is used, be sure that the “Encoder offset” angle was calculated correctly. Do the “autotune” process two times (after the first “autotune” it will be better to drive the car up and down) in inspection and ensure that the “Encoder offset” angle is calculated to be approximately the same.

Error Code: Er19

Description:

Could not reach required speed.

Conditions:

- When the motor cannot reach the reference speed in 5 seconds, this error occurs. This error is also encountered if the motor cannot reach the desired speed even though the required power is supplied to the motor.
- When the speed measured by the encoder is less than 30% of the targeted speed for 5 seconds, this error occurs.
- If the target speed is less than 0.05 m/s, this error is not given.

Possible solutions:

- Check that the motor connection is done properly, and the motor parameters are set correctly.
- Check the counterweight balance.
- The speed PID gains in the PID control settings may be insufficient. Increase the PID gains.
- For geared (asynchronous) motors, drive the motor in open loop. If no error is got in open loop, check the ENCI board connection and the encoder direction. The parameter “Encoder direction” [P0519] should be changed and afterwards the autotune process should be performed again.
- For geared (asynchronous) motors, set the parameter “No-load current” [P0430] to %20 which is under the machine plate information parameters.
- During travel, check that the brakes are fully opened.
- The motor brake must be checked during the brake contactor is activated. If the brake doesn’t open fully, Arcode will give this error.

Error Code: Er20
Description:
Encoder connection fault.
Conditions:
There is no communication between the absolute encoder and the ENCA board or wrong information was received from the ENCA board. This error is only taken in systems with synchronous motor.
Possible solutions:
- Check the connection between the encoder and the encoder board (ENCA).
- Be sure that the parameter “Encoder type” [P0520] is set correctly.

Error Code: Er21
Description:
At least one phase missing.
Conditions:
In one or more of the phases (L1, L2 or L3) there is not voltage, or the voltage value is too low.
Possible solutions:
- Check the L1, L2, L3 phases.
- If this error occurs during evacuation and not in normal operation, then the output phase of the UPS may be flowing to Arcodes L1, L2 or L3 phase. The output voltage of the UPS should only have a connection with the terminals ES1 and ES2 input on Arcode. During evacuation, measure on Arcode the terminals L1-N, L2-N and L3-N. No voltage should be measured here.
- If this error occurs during evacuation and not in normal operation, then if the parameter “Evacuation method” [P0712] is selected as “Evacuation disabled” and the main power of Arcode is shut down, this error can occur.

Error Code: Er22
Description:
3-Phase sequence is wrong.
Conditions:
L1, L2, L3 phases are not in the expected sequence.
Possible solutions:
The L2 phase must be replaced with L3 or L1.

Error Code: Er23
Description:
24V supply voltage too low.
Conditions:
If the voltage in the Arcodes 24VDC input get below 18-19 VDC, this error occurs.
Possible solutions:
- Measure Arcodes 24VDC input. If the measured value is below 18-19 VDC, this error is taken. When 18-19 VDC is measured at Arcodes input while the car is not moving, probably the voltage is dropping below this value after the car starts moving because some devices gets active which starts to draw current. Drive the car and check the voltage.
- Check the 24 V transformer output which is used before the bridge rectifier, there must be measured 19 VAC. If it is below 19 VAC, the transformer may be defective or the 24 VDC output voltage may drop because of a high current draw of a device. If a SMPS is used instead of a transformer, at the output of the SMPS should be measured 24VDC.
- If this error occurs because of instantaneous voltage drop, a filter capacitor can be added between 100 and 1000.
- Check that the power supplies maximum current output is suitable for the system.
- Arcode can remain energized with this error even at the threshold 15 VDC voltage value. However, when the current consuming devices increase more during the movement, the voltage may drop more, and the system may close.

Error Code: Er24
Description:
Car was over top floor level.
Conditions:
- When the car is at top floor level and the ML2 magnetic switch passes the door zone magnet (ML2 signal gets “Off”), this error is taken.
- While detecting this error, the encoder is not considering, only the signal 818, ML1 and ML2 signals are considered.

Possible solutions:

- The door zone magnet position may have changed.
- The 818 magnet position may have changed. After selecting shaft learning has done to “No”, the shaft learning must be done again.
- When the car is at top floor, one of the signals ML1/ML2 or both may have cut. Check the switches. Be sure that the supply voltage of the switches is not below 19VDC.
- If the motor parameters are not set according to the motor plate or are set incorrectly, the result is then a wrong learned shaft. Check the motor parameters.

Error Code: Er25

Description:

Car was below bottom floor level.

Conditions:

- When the car is at bottom floor level and the ML1 magnetic switch passes the door zone magnet (ML1 signal gets “Off”), this error is taken.
- While detecting this error, the encoder is not considering, only the signal 817, ML1 and ML2 signals are considered.

Possible solutions:

- The door zone magnet position may have changed.
- The 817 magnet position may have changed. After selecting shaft learning has done to “No”, the shaft learning must be done again.
- When the car is at bottom floor, one of the signals ML1/ML2 or both may have cut. Check the switches. Be sure that the supply voltage of the switches is not below 19VDC.
- If the motor parameters are not set according to the motor plate or are set incorrectly, the result is then a wrong learned shaft. Check the motor parameters.

Error Code: Er26

Description:

Total current measurement was non-zero.

Conditions:

If the vector sum of the U, V, W currents is not zero for 100 milliseconds, this error is taken.

Possible solutions:

- Check the motor cable and motor contactor connections.
- If the motor cable connections are correct and this error is taken constantly, then there might be problem with the current sensors on Arcode. To observe if the problem is related to the controller or motor, it is done by changing the position of the motor cables. From the screen “System information” in the “Info” menu, observe the current sensor values. When the car is stopping at floor, these three current sensor values should be equal. If any of them is different, one of the current sensors might be defective. When the current values are the same while the elevator is stopping but are different during travel, there may have been a problem with coil insulation. The motor cable (U, V and W cables) which is connected to the output where the current value is different from the others, is changed with another one. After interchanging the cables, if the different current value is transferred to another sensor, that means that the problem is related to the motor. If the different current value stays at the same sensor, the sensor is defective.

Error Code: Er27

Description:

Maximum time of travel exceeded.

Conditions:

- If the car cannot reach the door zone magnets (ML1 and ML2) within the time defined in the parameter “Maximum allowed time of travel between floors” [P0044], this error occurs.
- After the car reaches a door zone, the elevator waits to see next door zone magnet (ML1 and ML2) within the time defined in the parameter “Maximum allowed time of travel between floors” [P0044].

Possible solutions:

- This error may be caused because of the obstruction of the movement of the car. Check the elevator.
- The maximum travel time must be adjusted according to motor speed.
- The ML1 and ML2 magnetic switches should be checked. The distance between the magnetic switches and the door zone magnet should be approx. 1 – 1.5cm. The connections of magnetic switches should be checked.
- The door zone magnets must be checked.

- The maximum value of 45 seconds of the parameter [P0044] may not be enough for buildings with long floor distance (high tower buildings). According to the norm EN-81 this value cannot be higher than 45 seconds. In this case, there should be extra magnets in the shaft and a magnetic switch which reads these magnets and is connected to the input with the signal "(TTR) Reset max. travel timer" so the time of 45 seconds won't be exceed.

Note: After this error taken, a reset must be performed to delete this error. Taking the system to Inspection and then back to Normal will not delete this error.

Error Code: Er28

Description:

No EN signal.

Conditions:

Despite the main contactor relay (RP) and (140P) signal is active, if the (EN) signal is not active in 3 seconds, this error occurs. The circuit, supplying the (EN) signal with the signal 100 (24VDC), passes through the normally open contacts of the main contactors.

Possible solutions:

- When the (RP) relay is activated (contact is closed) (the "MCT" signal on the AREM tool main screen, shows if the main contactor relay (RP) is activated or not), be sure that the main contactors are also getting activated.
- After the main contactors are activated, check if the (EN) signal is active or not. When the main contactors are active, 100 (24VDC) signal must come to the Arcode (EN) input.
- If the door bridging board (DBR) is installed (available) in the system, be sure "Door safety circuit bridging board" [P0069] parameter is set "Installed" and there should not be any bridge between 140 and 140P.
- If the door bridging board (DBR) is not installed (not available) in the system, be sure "Door safety circuit bridging board" [P0069] parameter is set "Not installed". In this case there should be a bridge between 140 and 140P.

Error Code: Er29

Description:

ML1-ML2 short circuited.

Conditions:

- When the ML1 and ML2 inputs are active ("ON") or are closed ("OFF") simultaneously, this error occurs.
- When ML1 and ML2 are at the door zone magnet level and if one of them moves away from the magnet and in 5 milliseconds the other is also not at the magnet level (ML1 = ML2 = 0), this error occurs. The same for when ML1 and ML2 are out of the door zone magnet level and if one of them moves to the magnet and in 5 milliseconds the other is also at the magnet level (ML1 = ML2 = 1), this error occurs.

Possible solutions:

- Check if there is a short circuit between ML1 and ML2 input.
- Check the connections of the ML1 and ML2 magnetic switches. Perhaps one signal may not come continuously. The supply of the ML1 and ML2 sensors must be connected to the ML0 terminal (not 100 terminal) on the IBC board. Otherwise this error will occur directly after the system is re-energized again.
- Ensure that the door zone magnets are perfectly vertical, and they are not mounted on the joints of the rails. Be sure that sensors are not moving away from the magnet when the car is at floor level.

Note: This is a permanent error. The permanence of the error is deleted by selecting "Clear permanent error" in the "System Tools" menu.

Error Code: Er30

Description:

ML1-ML2 sequence wrong or could not be read.

Conditions:

When the car travels in up direction and the ML1 signal gets activated first when the door zone magnet is reached, this error occurs. The same for when the car travels in down direction and the ML2 signal gets activated first when the door zone magnet is reached, this error occurs.

Possible solutions:

- One of the ML1 and ML2 signals isn't connected or isn't working.
- Check if there is a short circuit between ML1 and ML2 signals.
- The ML1 and ML2 signal are connected reverse (ML2 should be connected to the upper sensor, ML1 should be connected to the lower sensor).

- The magnet is mounted too far away from the ML1-ML2 magnetic sensors. The distance between the magnets and the switches should be approximately 1,5 – 2 cm.
- There could be magnetization in the rail.
- When the car is at floor, the middle of the door zone magnet should align to the middle of the ML1 and ML2 sensors. Check the mounting.
- Check the correct working of the ML1-ML2 signal and the correct mounting of the door zone magnets by driving the car in inspection. (For example: ML2 should be activated after ML2 before entering the door area while the car is moving up slowly and the door zone is reached first ML2 then ML1 should be activated, while leaving the door zone first ML2 should be off then ML1. When going down, it should be the opposite.)

Note: This is a permanent error. The permanence of the error is deleted by selecting "Clear permanent error" in the "System Tools" menu.

Error Code: Er31

Description:

Door(s) could not close.

Conditions:

After the door close command is sent from Arcode and the door closing isn't sensed (140 signal isn't active) at the end of time defined in the parameter "Door normal closing time" [P0017]/[P0050], and after waiting the time defined in the parameter "Time to wait after photocell interruption" [P0023], the controller tries again to close the door. The reclosing attempts are going to continue until the value defined in the parameter "Number of unjamming tries" [P0033] is reached.

Possible solutions:

- The time defined in the parameter "Door-A normal closing time" [P0017] and "Door-B normal closing time" [P0050] can be shorter than the real closing time of the doors. In this case try again with increasing the closing time with these parameters.
- Despite the doors are closed, when the signal (140) is not active, there can be a bad contact. Check the door contacts and the connections.
- In semi-automatic doors, the controller board should be connected to (K3A) or (K3B) close output relay and not to (LIR) signal output. The (LIR) signal should not be used as the door close command.
- When the door limit switches are not connected or not available in the system, the parameters "Door-A limit switches" [P0013] and "Door-B limit switches" [P0020] has to be set as "Not used".

Error Code: Er32

Description:

Door(s) could not open.

Conditions:

Despite Arcode gave a door open command, when the doors aren't going to open in the time defined in the parameter "Door normal opening time" [P0016]/[P0049] which is under the door parameters, this error will occur.

Possible solutions:

- The time defined in the parameter "Door-A normal opening time" [P0016] and "Door-B normal opening time" [P0049] can be shorter than the real opening time of the doors. In this case try again with increasing the opening time with these parameters.
- After the door open command is activated, check that the doors are also opening physically.
- When Arcode tries to open the door, check the (130) and (140) LEDs on Arcode gets off for automatic doors according to the norm EN 81-1. If there are bridges in the safety circuit, disconnect them.
- According to the norm EN 81-20 for automatic doors, check the safety circuit signals (135) and (140). They should be off after the doors are opened (between the signals 120 – 130 there is permanent bridge so signal 130 should be on). If there are bridges in the safety circuit, disconnect them.

Error Code: Er33

Description:

Door(s) could not be locked.

Conditions:

Despite the doors are closed, when the signals (137) and (140) is not active, this error occurs.

Possible solutions

- If this error is got during inspection or installation be sure the operation mode is set to installation mode.

- If this error is got during normal operation, it must be checked that the signals (137) and (140) are available after the doors are closed. If not, the door contacts must be checked.
- When the photocell signal is connected to the door controller board and not to Arcode, after the door is opened, when the photocell signal is cut, the door controller board will give an open command but Arcode will not know about this, Arcode will still give the door close command and because the doors won't close, this error will occur.
- The connection of the signals (140) and (140P) might be reverse connected. Check.

Error Code: Er34

Description:

130 off when 140 on. Check safety circuit.

Conditions:

If the safety circuit signal (140) is on (active) but the safety circuit signal (130) is not (off), this error is taken. During UCM test or door pre-opening this error is not given. When the DBR board has bridged the doors, this error is not given also.

Possible solutions:

Check the safety circuit connections. After the landing doors are closed the signal (130) and after the car doors are closed the signal (140) should be on (active).

Error Code: Er35

Description:

Safety-chain (120) interrupted during travel.

Conditions:

If the parameter "When safety chain (120) is off" [P0795] is set as "Block elevator" or "Block until a car call" and the safety chain (120) signal is cut during traveling when the elevator isn't in inspection/recall mode, this error is given.

Possible solutions:

Check the 120 circuit. Check the door, slack rope, regulator contact and any safety circuit contact before 120 (which are directly related to the movement of the car).

Error Code: Er36

Description:

Absolute encoder fault (Elgo Limax).

Conditions:

- The absolute encoder parameters [(P1041) Abs.position shaft encoder settings] are not correctly set.
- The communication between Elgo Limax and Arcode fails.
- Limax detects overspeed, UCM, wrong direction and crossing the limits (normal operation and inspection limits). (Fault signal)
- Limax gives an internal error. (Defect code)

Possible solutions:

- When using Limax33RED + SAFEBOX or Limax33CP, after "Error 36" appears, the "Limax Status" screen in the "Info" menu should be checked.
- The communication status between Arcode-Arlim-Limax can be seen in the "Limax Status" screen. (Arlim board provides the communication between Arcode and Limax)
- If "Fault" is given, the next pages in the "Limax Status" screen should be investigated for looking up which red box is active.
- If "Defect" is given, the meaning of the defect code, should be looked up in the user manual written by Elgo.

Error Code: Er37

Description:

140 interrupted during travel.

Conditions:

During travel when signal (140) does not exist for 50 milliseconds this error is taken.

Possible solutions:

- Check the door safety circuit contacts and mechanism.
- The car door contact might be cut during travel. Check the car door contact.
- During travel the door close signal might be cut. Check the door and door signal connections.

Error Code: Er38
Description:
Encoder position was too different from magnet reading.
Conditions:
During normal operation, when the car passes the door zone magnet, it compares the encoder information and the information learned during shaft learning. When the difference is more than 15 cm, this error occurs.
Possible solutions:
- The encoder may not work properly, or the encoder coupling is slipping.
- After shaft learning, the position of the door zone magnet may has changed. It should be considered that after changing any magnet position, shaft learning must be performed again.
- Because of magnetization of the rails, there can be an unwanted signalization of the magnetic switches. Drive the car in inspection from top to bottom floor and check the working of the ML1 and ML2 switches. If the switches get active even there is no magnet, clean this part of the rail.

Error Code: Er39
Description:
Door-zone magnet could not be found.
Conditions:
When the car position is in the interval of ±3 cm of the position of the door zone magnet which was learned during shaft learning, but one of the signals ML1 or ML2 is not active, this error occurs.
Possible solutions:
- Check the ML1 and ML2 magnetic switches.
- Check the door zone magnet. The magnet may have slipped. Perform shaft learning again.
- The encoder may not work properly, or the encoder coupling is slipping.

Error Code: Er40
Description:
Earthquake sensor activated.
Conditions:
If (DEP) input is active, this error occurs.
Possible solutions:
Check if the programmable input which is defined as (DEP) signal is LOW (0 VDC) or HIGH (24 VDC).
Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu. Afterwards reset the system. Taking the system to Inspection and then back to Normal will not delete this error.

Error Code: Er41
Description:
817 signal was not OFF when it should.
Conditions:
During normal operation, if the position of the car according to the position information received from the encoder, is below the 817 magnet and the 817 signal is not cut, this error occurs.
Possible solutions:
- 817 magnet may has slipped. After correcting the magnet, perform shaft learning again.
- If the ropes slip excessively this error can occur because the encoder information will not match the learned shaft information.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er42
Description:
817 signal was not ON when it should.
Conditions:
During normal operation, if the position of the car according to the position information received from the encoder, is above the 817 magnet and the 817 signal is not active, this error occurs.
Possible solutions:
- 817 magnet may has slipped. After correcting the magnet, perform shaft learning again.

- If the ropes slip excessively this error can occur because the encoder information will not match the learned shaft information.

Error Code: Er43

Description:

818 signal was not OFF when it should.

Conditions:

During normal operation, if the position of the car according to the position information received from the encoder, is above the 818 magnet and the 818 signal is not cut, this error occurs.

Possible solutions:

- 818 magnet may has slipped. After correcting the magnet, perform shaft learning again.
- If the ropes slip excessively this error can occur because the encoder information will not match the learned shaft information.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er44

Description:

818 signal was not ON when it should.

Conditions:

During normal operation, if the position of the car according to the position information received from the encoder, is below the 818 magnet and the 818 signal is not active, this error occurs.

Possible solutions:

- 818 magnet may has slipped. After correcting the magnet, perform shaft learning again.
- If the ropes slip excessively this error can occur because the encoder information will not match the learned shaft information.

Error Code: Er45

Description:

Door limit-switch fault.

Conditions:

When the door limit switches are not working right, which are defined in the parameter “Door-A limit switches” [P0013] and/or “Door-B limit switches” [P0020], this error occurs.

Possible solutions:

- If door limit switches are not used, the parameters must set as “Not used” or if used the wiring must be correctly.
- On the AREM basic status screen where the doors are indicated, the door fully-opened and fully-closed limit information can be seen with the blue “I” sign.
  When the door is fully-opened, on the outside of the green triangle icon on the door, the door open limit information is marked with the blue “I” sign.
  When the door is fully-closed, on the inside of the red triangle icon on the door, the door close limit information is marked with the blue “I” sign.
  Be sure, from the blue “I” signs that the limits are working correctly when the doors are fully-opened and fully-closed.
- Check that the limits are programmed correctly to the inputs. The door fully-opened (IBC board PI5 input) and fully-closed (IBC board PI6 input) input and the contact type of the input should be checked. The contact type of the related input can be changed by pressing the F2 button on the AREM tool.

Error Code: Er47

Description:

Brake resistor overheated.

Conditions:

The brake resistor temperature is not measured by sensors. However, based on the On/Off state of the brake resistor and the DC-bus voltage, the estimated temperature of the brake resistor is always calculated. This error is given when this calculated temperature rises above a certain limit.

Possible solutions:

- Check if the brake resistor is suitable for Arcode.
- Make sure that the brake resistor is installed according to the instructions and it is open on all four sides to ensure proper ventilation.

Error Code: Er48
Description:
Heatsink overheated.
Conditions:
The temperature of the refrigerant connected to the IPM module and the bridge rectifier diodes inside Arcode is monitored by means of a sensor. This error is given when the temperature of the refrigerant exceeds the value given in the parameter “Heatsink overheat error threshold” [P0774].
Possible solutions:
- Check that the fans, which are underneath the device are working or not.
- If the device is operating in a not-ventilated, narrow place, it will become very hot. Check the ventilation of the place where Arcode is operating.
- With time, dust accumulation may occur in Arcode and its fan. This dust can block the heat exchange and may cause this error to occur. Clean it if dust is present.
- If it gets necessary, the temperature value of the parameter [P0744] can be increased.

Error Code: Er49
Description:
External error (XER1) signal activated.
Conditions:
If the input signal (XER1) is active, this error is taken.
Possible solutions:
The programmable input where the signal (XER1) is defined, is triggered with signal 100 (24VDC), the system will give this error. Be sure if the input is triggered or not. After the input is low (off) the elevator will switch to normal operation in 5 seconds.

Error Code: Er50
Description:
External error (XER2) signal activated.
Conditions:
If the input signal (XER2) is active while the car is at floor, this error is taken.
Possible solutions:
The programmable input where the signal (XER2) is defined, is triggered with signal 100 (24VDC), the system will give this error. Be sure if the input is triggered or not. After the input is low (off) the elevator will switch to normal operation in 5 seconds.

Error Code: Er51
Description:
External blocking signal (XBL1) activated.
Conditions:
If the input signal (XBL1) is active, this error is taken.
Possible solutions:
The programmable input where the signal (XBL1) is defined, is triggered with signal 100 (24VDC), the system will give this error. Be sure if the input is triggered or not. Even after the input is low (off) the elevator will still be blocked.
Note: After the signal is not active anymore, to take back the system to normal operation, take the system to inspection by turning the inspection key and then back to normal.

Error Code: Er52
Description:
External blocking signal (XBL2) activated.
Conditions:
If the input signal (XBL2) is active while the car is at floor, this error is taken.
Possible solutions:
The programmable input where the signal (XBL2) is defined, is triggered with signal 100 (24VDC), the system will give this error. Be sure if the input is triggered or not. Even after the input is low (off) the elevator will still be blocked.
Note: After the signal is not active anymore, to take back the system to normal operation, take the system to inspection by turning the inspection key and then back to normal.

Error Code: Er53
Description:
Encoder direction is wrong.

Conditions:
Despite Arcode gives a positive direction signal when a negative signal comes from the encoder or vice versa this error will occur.
Possible solutions:
Try again by changing the parameter “Encoder direction” [P0519]. (For gearless machines if the encoder direction is changed the Auto-Tune process must be performed again)

Error Code: Er54
Description:
OGD error.
Conditions:
If the Anti-Rollback PID gain values are set to high, then a jerky start will occur. In this case this error will be taken.
Possible solutions:
Decrease the Anti-Rollback PID gain values.

Error Code: Er55
Description:
Contactor dropped.
Conditions:
- During starting the motor, during travel or stopping, when the signal “(EN) Main contactor active” isn’t active, this error occurs.
- The (100) (24VDC) signal, which passes through the “Normally open” contact of the (KPA) and (KPB) contactors is connected to the (EN) signal input. When all contactors are active, there must be (100) signal at the (EN) signal input. When, during travel any of the contactors drops or the (100) signal cuts from the (EN) signal input, this error is given.

Possible solutions:
- The safety circuit may have cut during travel.
- The (EN) signal connection is perhaps not good wired or there can be a voltage drop in the terminal. Measure the (EN) signal input.
- There can be a problem with the auxiliary contactors which are connected to the (EN) signal input. Check the contactors.
- If this error occurs during door pre-opening, the ML1-ML2 signals may have get electromagnetic noise.

Error Code: Er56
Description:
817&818 cut at the same time.
Conditions:
- If the signals (817) and (818) are cut at the same time, this error occurs.
- In elevators with only 2 floors this error is not given.

Possible solutions:
- Check the 817 and 818 signal wiring and their magnetic switches.
- There may be a break in the signal line (817) and/or (818) in the travel cable. For the (817) and (818) signals, use the spare wires in the travelling cable.

Error Code: Er57
Description:
Unbalanced motor current.
Conditions:
This error occurs, if one or both motor phases are not supplying the motor.
Possible solutions:
Check the main contactors KPA and KPB. For testing purposes, the motor cables can be directly connected to the motor terminals on Arcode. If the problem persists there could be a problem with the Arcode motor outputs or a problem with the motor windings.

Error Code: Er58
Description:
Current sensor offset fault.
Conditions:
The current sensors cannot be read. When the U, V and W current sensor offset values are for 1 second not between the minimum and maximum accepted values, this error is given.

Possible solutions:

- From the screen “System information” in the “Info” menu, observe the current sensor values. When the car is stopping at floor, these three current sensor values should be equal. If any of them is different, one of the current sensors might be defective. When the current values are the same while the elevator is stopping but are different during travel, there may have been a problem with coil insulation.
- To observe if the problem is related to the controller or motor, it is done by changing the position of the motor cables. The motor cable (U, V and W cables) which is connected to the output where the current value is different from the others, is changed with another one. After interchanging the cables, if the different current value is transferred to another sensor, that means that the problem is related to the motor. If the different current value stays at the same sensor, the sensor is defective.
- Contact ARKEL Technical Support.

Error Code: Er59

Description:

Car moving on wrong direction.

Conditions:

When the car reference speed is positive and the signal 817 gets from active to passive (from on to off), or when the car reference speed is negative and the signal 818 gets from active to passive (from on to off), this error occurs.

Possible solutions:

- If the error is gotten during up travel the 817 signal, if during down travel then the 818 signal has to be checked.
- The 817, 818 may have cut or there can be a short circuit.
- The 817, 818 signal cable may be broken.
- Drive the car in inspection and check the motor direction and the working of the signals.

Error Code: Er60

Description:

Door bridging failure.

Conditions:

If an error is detected during door bridging or a problem is detected about the DBR board, this error is taken.

Possible solutions:

- DBR board might be defective.
- ML1 and ML2 signals may be getting electrical noise or there is an unstable working of the signals.

Error Code: Er61

Description :

UDI exception.

Conditions :

CPU error.

Possible solutions :

Contact ARKEL Technical Support.

Error Code: Er62

Description:

Overflow exception.

Conditions:

CPU error.

Possible solutions:

Contact ARKEL Technical Support.

Error Code: Er63

Description:

Watchdog timeout.

Conditions:

CPU error.

Possible solutions:

Contact ARKEL Technical Support.

Error Code: Er65

Description:

DFC communication error.

Conditions:

- From the menu, if the parameter “Door safety contact connections” [P1029] is selected as “EN81-20 compatible” and the DFC board isn’t connected or the connection is available, but the DFC board firmware isn’t up-to-date, this error is taken.
- Check if the DFC board is defect or not.

Possible solutions:

- The DFC board connection must be checked, and it needs to be sure that the DFC board firmware is up-to-date. If the MCU LED of the DFC board isn’t blinking synchronously, an Arcode software update must be performed and it needs to be sure that the “DFC” board is going to be find during the update process. For update, go to the “Software update” screen in the “Tools” menu and click on the version with the latest date (newest) to perform a system update.

Error Code: Er66

Description:

Door contacts or DFC board error.

Conditions:

According to the standard EN 81-20, every time when the doors are opened at floor, the doors are checked if there is any bridge in the door contacts, a bridge that should be normally not be there. If the DFC board detects an unexpected signal during the test (when the door contact signal isn’t cut which normally should cut), this error occurs.

Possible solutions:

- The door type and safety circuit connections must be checked. According to the table below, it must be checked if the safety circuit signals are active correctly.

Door A	Door B	133	135	137	140
OPEN	CLOSE	0	0	1	1
CLOSE	OPEN	1	0	0	1
OPEN (TEST 1)	OPEN (TEST 1)	0	0	0	1
OPEN (TEST 2)	OPEN (TEST 2)	0	1	0	1

- If two doors are opened simultaneously, two tests are performed. If the test result is not correct according to the table, the system will give an error.
- According to the standard EN 81-20, for full-automatic doors, the landing A door contacts are connected between 130-133, landing B contact between 133-135, car A door contacts between 135-137 (to the terminals KA1-KA2 on the IBC board) and the car B door contacts between 137-140 (to the terminals KB1-KB2 on the IBC board). Check the door wiring. Be sure that the bridged which are made during the first installation of the system are disconnected and the door wiring is made properly. Also, for full-automatic doors, between the safety circuit signal 120 and 130 there is always a permanent bridge.

Error Code: Er71

Description:

Licence key (dongle) not found.

Conditions:

If the parameter “Device Class" [P0839] is set as “Midline" and in the system there no “Midline” or “Highline” dongle installed or the parameter is set as “Highline” and in the system there is no “Highline” dongle installed, this error is taken.

Possible solutions:

- After ordering the required dongle from ARKEL, install the dongle to the system. Connect it to the CANbus line and perform a firmware update.
- If you want to use Arcode in “Basic” functions, then set this parameter to “Basic”.

Error Code: Er72

Description:

Limited feature.

Conditions:

- If the parameter “Device Class" [P0839] is set as “Basic” and any of the following conditions is present, this error occurs.
  “Number of floors" [P0002], is set more than 16.
  “Maximum travel speed" [P0135], is set more than 1,6 m/s.

There are more than 2 Arcodes in the group.
“Firefighter operation (Phase-2) enabled" [P0842], is set as "Yes".
“Priority service function" [P0890], is set as "Enabled".
“Park floor selection method" [P0942], is set as "Park floor is selected by time zone".

- If the parameter “Device Class" [P0839] is set as “Midline” and any of the following conditions is present, this error occurs.
  “Number of floors" [P0002], is set more than 24.
  “Maximum travel speed" [P0135], is set more than 2,5 m/s.

Possible solutions:
If you want to use the functions listed above and if an Arcode Dongle is installed in the system, then set the parameter [P0839] according to the dongle. If you have a “Basic” model Arcode and you want to use a function mentioned above, then contact ARKEL Technical Support.

Error Code: Er73
Description:
Detected entry inside shaft.
Conditions:
In case the shaft entry protection is active, when the signal "(SPR*) Shaft entry protection switch Floor-*" is received from any floor besides the floor where the car is at, this error is taken (Normally there should be no signal when the doors are closed. The signal is detected when an entrance to the shaft is detected).
Possible solutions:
Check the door contacts and the signal status of the SPR signal(s) (SPR signals must be checked from the Input/Output States by Function” menu).
Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er74
Description:
Encoder offset angels could not founded.
Conditions:
If “incremental encoder” is used with synchronous motor (gearless) and during Auto-Tune process the encoder “offset angle” could not be found, this error occurs.
Possible solutions:

- The encoder connections should be checked and done according to the electrical diagrams. Especially the Z channel must be checked.
- If an “absolute encoder” is used, then the encoder parameters must be checked.

Error Code: Er75
Description:
CML feedback error.
Conditions:
Sometimes a special coil is used under the car when the motor brake is not used as a solution against UCM. That coil is energized before the movement and de-energized when the car stops. The CML input is high when the car stops and is low when the car moves. This error occurs if there is an unstable working related to the (CMLC) signal (input), which this device is being monitored.
Possible solutions:

- During the movement of the car, at the input where the (CMLC) signal is programmed, must be measured 0VDC, when the car is at floor the input voltage should be measured 24VDC.
- If you do not use an CML device, then by setting the parameter “Car movement lock (CML) monitoring” [P1056] to “Off”, the monitoring can be disabled.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er76
Description:
Shaft protection reset key is active.

Conditions:
If the shaft protection reset input (DOMRS) which is used in EN 81-21 applications is activated continuously for more than 60 seconds, this error is taken.
Possible solutions:
This input should only be activated during the reset process. Afterwards this input must then be de-energized. Check that the input which the (DOMRS) signal is defined, is not continuously energized.

Error Code: Er79
Description:
Current was over motor limit.
Conditions:
The current value transferred to the motor has exceeded the current value specified in the parameter “Nominal motor current” [P0159]
Possible solutions:
- Check the motor parameters.
- Check the counterweight load.
- Check that the power class of Arcode is appropriate for the motor current.
- Make sure that there is no jam during the movement of the car.
- Be sure the brakes are fully opened.

Error Code: Er80
Description:
Current was near motor limit continuously.
Conditions:
If the motor current exceeds the value which is the multiplication of the parameters “Nominal motor current” [P0159] and “Motor overcurrent limit” [P0429] for 6 seconds, this error is given.
Possible solutions:
- Check the motor parameters.
- Check the counterweight load.
- Check that the power class of Arcode is appropriate for the motor current.
- Make sure that there is no jam during the movement of the car.
- Be sure the brakes are fully opened.

Error Code: Er81
Description:
Group identity conflict error.
Conditions:
If there is a conflict between the Arcode identities in the group which is defined in the parameter “Group identity” [P0086], this error occurs.
Possible solutions:
Check that all devices in the system has in the parameter [P0086] a different identity number and change if any two or more has the same ID.

Error Code: Er82
Description:
Number of stops of all lifts in the group must be same.
Conditions:
If the parameter “Number of floors” [P0002] is set differently for any of the elevator in the system (group control), this error is given.
Possible solutions:
Be sure the parameter [P0002] is set the same for all elevators in the group. The bottom and/or top missing floors has to be set in the parameters “Bottom missing floors” [P0087] and “Top missing floors” [P0088].

Error Code: Er83
Description:
APRE could not be unlocked.

Conditions:
If the parameter “Overspeed governor monitoring” [P0788] is active and the input signal “(APRI) APRE monitoring” is not in 3 seconds in “0” position after the brakes are opened, this error is given.
Possible solutions:

- Check the overspeed governor system and the ApRe card.
- Check the input where the signal (APRI) and the output where the signal (APRO). Be sure the signals are programmed, and the wiring is made.
- If no overspeed governor is used, set the parameter “Overspeed governor monitoring” [P0788] as “No monitoring”.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er84
Description:
APRE could not be locked.
Conditions:
If the parameter “Overspeed governor monitoring” [P0788] is active and the output signal "(RP) Main contactor" and "(APRO) APRE activation" is in “0” position and the input “(APRI) APRE monitoring” is not in “1” position even the time in the parameter “Speed governor locking time” [P0804] is exceeded, this error is taken.
Possible solutions:

- Check the overspeed governor system and the ApRe card.
- Check the input where the signal (APRI) and the output where the signal (APRO). Be sure the signals are programmed, and the wiring is made.
- If no overspeed governor is used, set the parameter “Overspeed governor monitoring” [P0788] as “No monitoring”.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er85
Description:
Encoder reference error.
Conditions:
If the parameter “Encoder coupling type" [P0868] is set "Indirect incremental encoder" and the angle correction ratio exceeds 120 degree (magnetic angle), this error occurs.
Possible solutions:

- Check the encoder connections. Be sure that the grounding of the encoder is connected.
- Check the mechanical coupling of the encoder. The encoder wheel may be slipping.
- Check that the reference signal, which is received from the Z channel, is correct or not.

Error Code: Er86
Description:
UCM detected.
Conditions:
When the door is bridged and one of the signals 140 or 130 is "0" (door is open) or one of the ML1-ML2 signal is "0" (out of the door zone), this error occurs.
Possible solutions:

- Check the ML1 and ML2 magnetic switch supply.
- Disable the pre-opening and re-levelling function.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er87
Description:
Out of re-level zone.
Conditions:

- If the parameter “Releveling function” [P0075] is set as "Releveling using 141-142 signals”.
  When the car is at floor and the signal input "(141) Relevel down trigger" and "(142) Relevel up trigger" is “0”, this error occurs.
- If “Releveling function” [P0075] is set as "With LiftSense”.

- When the car is at floor and the slip value read from LiftSense is not in-between +7 and -7 cm, this error occurs. If releveling is done with LiftSense but the releveling is done in the wrong direction (releveling in up direction when the car slides upwards, releveling in down direction when the car slides downwards), change the value in the parameter “Manyeto sensor orientation” [P0823].

Possible solutions:

- Check the magnetic switches. When there is an unstable function of the magnetic switches, this error can be encountered.
- When there is a problem or un unstable working of the releveling function, disable the pre-opening and re-levelling function.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er88

Description:

Overspeed on releveling.

Conditions:

During releveling if the car speed exceeds the speed value which is defined in the parameter “Overspeed error limit on releveling” [P0814], this error is taken.

Possible solutions:

- If the value in the parameter [P0814] is set too low this error can be encountered.
- Be sure that the encoder does not get any electrical noise during releveling.

Error Code: Er89

Description:

Could not hold car on starting.

Conditions:

While starting to move, if the rotor rotates more than quarter-turn, it gives this error.

Possible solutions:

Adjust the Anti-Rollback PID gains (KP and KD parameters).

Error Code: Er90

Description:

Overspeed on pre-opening.

Conditions:

While the doors are bridged, if the car speed exceeds the value set in the parameter “Overspeed error limit on preopening [P0813], this error is given.

Possible solutions:

- If the value in the parameter [P0813] is entered too low this error can occur.
- Be sure that the encoder does not get any electromagnetic noise during door pre-opening.

Error Code: Er91

Description:

Shaft is too long.

Conditions:

This error occurs when the shaft is learned incorrectly during shaft copying. If the motor speed is set wrong, the length of any door zone magnet in the shaft is wrong or the flag length parameter is incorrect this error will be taken.

Possible solutions:

After making the changes, the shaft copy process must be performed again.

Error Code: Er92

Description:

Position tracking error.

Conditions:

Especially in KONE motors used “incremental encoder”, when error rate is too high, this error is taken.

Possible solutions:

- The trigger sensitivity of this error can be set by the parameter “Pos. tracking error sensitivity” [P1085].
- If this error occurs with a standard geared or gearless motor, then the parameter “Pos. tracking error sensitivity” [P1085] can be selected “Off”.

Error Code: Er93
Description:
Maintenance time exceeded.
Conditions:
The system gives this error and goes out of service, when the system clock exceeds the time which is set in the parameter “Maintenance time” [P1006].
Possible solutions:
- For the parameter “Maintenance time” [P1006] to be active, first the parameter “Maintenance time control” [P1005] must be set to “On”.
- In order to delete this error after it gets active, the maintenance time in the parameter [P1006] must be set to a later time or the parameter [P1005] must be set to “Off”.

Error Code: Er94
Description:
Car light fuse is blown.
Conditions:
If the parameter “Behavior when car light fuse is blown" [P0799] is set as “Only inspection” and the availability of 3 phase is detected by Arcode, but there is no 220VAC voltage at the terminal 1 on the IBC board, and the system is not in inspection mode, then this error will occur.
Possible solutions:
Check why the input terminal 1 on the IBC board has no 220VAC voltage.

Error Code: Er95
Description:
Manual rescue (SEV key).
Conditions:
If the parameter “Acceptance test tools" [P0810] is “Off” and the signal "(MEM) Manual-evacuation mode switch" is active, this error is given. Because the manual evacuation switch is used after a main power loss, this error is there for to give a warning.
Possible solutions:
- “Acceptance test tools” should only be activated during a test.
- Make sure that the “SEV” switch is closed when it is unnecessary.

Error Code: Er96
Description:
UPS failed on test.
Conditions:
If the UPS test is not completed successfully this error will occur.
Possible solutions:
- Check the batteries.
- Check the UPS battery charge terminals.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er97
Description:
Direction change limit reached.
Conditions:
If the parameter “Direction change count limit" [P0964] is set as a value other than “0” and the direction change counter reached this value, after the first stop at a floor this error occurs.
Possible solutions:
- This function is generally used to prevent the usage of the plastic-coated ropes after it reaches its duty cycle. After the ropes are changed, the parameter [P0964] must be increased to an appropriate value.
- If the ropes are not plastic-coated ropes, this value must be set as “0”.
- After the ropes are changed and the value “Direction change count limit” is set again, it must be considered that the new value must be added on the previous value.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er98

Description:

One of critical devices is offline.

Conditions:

- During normal operation, when the CANbus connection (communication) is cut from any peripheral device which programmable input is assigned as a critical signal, this error occurs.
- For example, the photocell input (FSLA) is programmed to one of the IBC boards programmable input and when the main controller cannot communicate with the IBC board, this error is taken during normal operation.

Possible solutions:

- This error code is added according to the standard EN 81-20. To not take this error during the installation, set the parameter “Operation mode” [P0292] has to be set as “Installation mode”.
- The critical signals are the signals which are shown in red color in the programmable input menu. The critical signals; 869, 870, 868, FSLHA, FSLA, K19A, BYP, FSLHB, FSLB, K19B, SPR*, FES1, FES2, FFKL, FRES, FFKC, PAN, DEP, FD0A, FD0B, FDL*, U36*.
- It can be seen where the critical signals are programmed from the “Inputs/Outputs by Function” screen in the “Info” menu.
- Other than analyzing the reason of this error, to make the system not showing this error, by setting the parameter “Critical device monitoring” [P1035] as “Off”, the protection monitoring is disabled so this error isn’t given anymore.
- A critical signal is probably assigned to a peripheral devices input, but either the peripheral device has not been connected or an update hasn’t been performed after it has been connected. Perform a firmware update.

Error Code: Er99

Description:

Rope slip correction error.

Conditions:

If the parameter “Rope slip correction” [P1033] is activated, Arcodes door zone correction movement can be up to maximum 100 cm. After 100 cm movement if the door zone still could not find, this error is given. Arcode, after this parameter is activated, considers the possibility of the ropes to slip and corrects the distance errors that occur when passing through the door zone in accordance with the information received from the encoder. If Arcode is making a correction, an audible signal is got from the buzzer on Arcode and the “floor level” LED on Arcode will be flashing to indicate that a correction has been made.

Possible solutions:

Check the slip in the ropes.

Error Code: Er100

Description:

External Perm. Error-1 (Except Recall).

Conditions:

If the input signal “(XPE1) Ext.perm. Error-1(Except/inspection recall)” is activated, this error occurs.

Possible solutions:

- Check the corresponding input connection.
- If this input is activated and this error is taken, it is still possible to drive the car in Inspection or Recall mode.

Note: This is a permanent error. The permanence of the error is deleted by selecting “Clear permanent error” in the “System Tools” menu.

Error Code: Er101

Description:

Insp./Recall terminal connection wrong.

Conditions:

If any inspection/recall key is taken to inspection position and the up/down button is not pressed but the signal 120 is still active, this error is taken.

Possible solutions:

- This error means that there is a problem with the wiring in the inspection/recall terminal circuit. Check the wiring.
- Bu sure that the safety circuit signal 120 is cut when the system is in inspection mode.
- If the parameter “Operation mode” [P0292] is set as “Normal operation”, this protection is always active. If the parameter is set as “Installation mode” and the parameter “Bridged hand-terminal detection” [P1127] is set as “Disabled (Warning: Danger of death!!!)”, then this protection will not be active, and this error won’t occur.

Error Code: Er102

Description:

EN signal not cut-off.

Conditions:

If the (RP) (main contactor) relay is off (no power) or (140P) signal is off and the (EN) signal is still active, this error occurs. In other words, the contactor has dropped, but the (EN) signal is continuously active. In normal operation, the (EN) signal becomes active when the elevator is moving and the (EN) signal is off when the elevator is standstill.

Possible solutions:

- Check why the input where the (EN) signal is programmed, got activated when the contactors are deenergized.
- The circuit, supplying the (EN) signal with the signal 100 (24VDC), passes through the NO contacts of the main contactors. Make sure that the main contactors are working properly and check the contact in possibility of stuck.
- Make sure that there is no bridge between (EN) input and 100 (24VDC).