STEP®

YIXIN
INTERNATIONAL

Shanghai Yixin International Trade Co., Ltd.
NO.599 Meiyu Road, Jiading District, Shanghai
Zip：201802
TEL: 86-21-3101 0622
FAX: 86-21-3101 0649

Shanghai STEP Electric Corporation
NO.599 Meiyu Road, Jiading District, Shanghai
Zip：201802

Shanghai STEP Robotics Co., Ltd.
NO.599 Meiyu Road, Jiading District, Shanghai
Zip：201802

Shanghai Sigriner STEP Electric Co., Ltd.
NO.1560 Siyi Road, Jiading District, Shanghai
Zip：201801

Shanghai STEP Cable Technology Co., Ltd.
NO.289 Xinqin Road, Jiading District, Shanghai
Zip：201802

Shenzhen ADTECH Technology Co., Ltd.
5/F, Nanshan District,Yiyuan Road Majialong IC Industry Park,
Shenzhen
Zip：518052

Shanghai STEP Automotive Equipment Co., Ltd.
NO.66 Shenxu Road, Songjiang District, Shanghai
Zip：201612

Shanghai Huitong Automation Technology Development Co., Ltd.
Room 3503-3504, CITIC Plaza, No.859, North Sichuan Road,
Shanghai
Zip：200085

Hangzhou Zhishan Intelligent Control Technology Co., Ltd.
NO.9 Xianxin Road, Xianlin Industry Park, Yuhang District,
Hangzhou, Zhejiang
Zip：311112

STEP Sigriner Elektronik Gmbh
Martin-Moser-str.15, 84503 Altoetting, Germany

HONG KONG Inernational STEP Holdings Co., Ltd.
Unit AD, 9/F, Nathan Commercial Building, 430-436 Nathan Road, Kowloon, Hong Kong

SIGRINER Automation (Mfg) Sdn.Bhd.
Lot 5, Japan Asam Jawa 16/15, Section 16, 40200 Shah Alam, Selangor Darul Ehsan,
Malaysia

STEP-SIGRINER DO BRASIL
Rua Alvaro Fragoso, 96-Vila Carioca – Sao Paulo, SP, Brasil CEP 04223-000

www.stepelectric.com

ELEVATOR
COMPONENTS

ELECTRICAL

VER 1.0

Shanghai STEP Electric Corporation

Shanghai STEP Electric Corporation was founded in 1995 with the registered trademark of ***STEP***, and has been awarded with titles of National High-tech Enterprise, National Innovative Enterprise, National Enterprise Technology Center. STEP is committed to pursuing customers' satisfaction, fostering employees' esteem and creating sustainable benefit to the society. In December of 2010, STEP has been listed in Shenzhen Stock Exchange with stock name STEP and stock code 002527.

In accordance with STEP' s globalization strategy, we have established R&D as well as manufacturing centers in China and Germany, and the global selling and service network of coverage over 65 countries world-wide. As of year 2016, Shanghai STEP Electric Corporation (STEP Group) consists of following owned subsidiaries, namely Shanghai STEP Robotics Co.,Ltd., Shanghai Sigriner STEP Electric Co.,Ltd., Shanghai STEP Cable Technology Co., Ltd., Shenzhen ADTECH Technology Co.,Ltd., Shanghai STEP Automotive Equipment Co., Ltd., Shanghai Huitong Automation Technology Development Co., Ltd.,Yixin (Shanghai) International Trade Co., Ltd. in China; STEP Sigriner Elektronik GmbH in Germany, Hong Kong STEP International Holdings Co., Ltd, SIGRINER Automation (Mfg) Sdn. Bhd.in Malaysia, STEP-Sigriner DO BRASIL in Brazil.

STEP owns a national level Postdoctoral Research Station. The group Technical Centre is equipped with laboratories honored by the State CNAS Accreditation and the US UL certification. The company has been acting as the committee panel member responsible for edition and revision of 21 national technical standards. Furthermore, up-to-date, the company has secured 236 technical patents including 76 invention patents, as well as 182 software copyrights.

STEP High capacity port crane inverter development and application of key technologies, crane safety monitoring and information systems research and industrial development projects have been included in the national science and technology support program. The industrialization of STEP inverter project and robot servo project have received the financial support under the national key technology innovation fund. STEP Vector-type inverter and control system have been identified as National Key New Products and been honored with Shanghai Science & Technology Invention Award. Also, our 4-quadrant port machinery inverter, 6-axis industrial robot, robot servo drive system have been incorporated into the Shanghai major technical equipment research projects. Food

aseptic carton packaging robotic automation line development and application demonstration projects have been included in Shanghai Science and Technology Achievements Transformation and Application Project. Industrial robot project has received the financial support under Shanghai government special fund

STEP is positioned as the expert in Electric Drive and Motion Control with focus in six areas, namely Electric Control, Industrial Drive, Industrial Robot, Motion Control, Internet of Things, New Energy etc.. The core product ranges cover industrial robot, servo drive, high/medium/low voltage inverter, integrated controller, elevator control system, COP & LOP, elevator wire and cables, IOT, new energy vehicle motor controller etc. which are widely used in various industries like elevator, harbor crane, hoisting, rubber & plastic, mining, metallurgy, power generation, CNC, packaging, logistics, 3C and automobile etc.

1995

Company Information

Contents

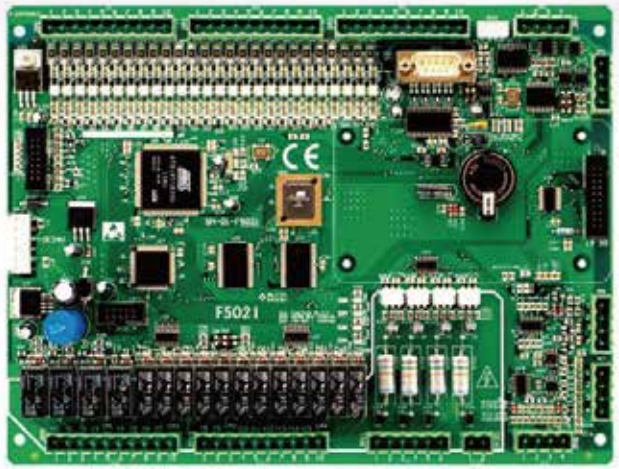
STEP Spirit: Strive for global competitiveness, pursue the best practice and always stay ahead of the industry.

STEP Mission: Provide the best controllers, drives and energy-saving products for the sustainable benefits of the society and the employees.

STEP Vision: To be a worldwide leading high-tech enterprise in electrical industry.

Mainboard

1. Serial Control Board F5021



Main Features

- 32-bit high performance industrial class ARM MCU
- Double CPU design, safer and more reliable
- Wide input voltage: DC20-28V
- Community monitoring with isolated CAN, high anti-interference ability
- High EMC performance(EFT-4000V, ESD 8000V)
- Complies with GB7588

Function Descriptions

- Suitable for business elevator, resident elevator, hospital elevator and panorama elevator
- Rated speed up to 4m/s
- Maximum stops up to 64 stops
- Suitable for synchronous and asynchronous traction machine
- CAN-Bus serial communication
- Analog speed and digital speed given
- Support for three types of encoders: difference, open-collector and push-pull
- Support duplex and group control
- Support load-weighing compensation
- Support elevator IC card management
- Support community monitoring and remote monitoring
- 20 elevator fault records

2. Serial Control Board SM.01PA/J(CE)

Function Descriptions

- Suitable for business elevator, resident elevator, hospital elevator and panorama elevator
- Rated speed up to 4m/s
- Maximum stops up to 64 stops
- Suitable for synchronous and asynchronous traction machine
- CAN-Bus serial communication
- Analog speed and digital speed given
- Support for three types of encoders: difference, open-collector and push-pull
- Support duplex and group control
- Support load-weighing compensation
- Support elevator IC card management
- Support community monitoring and remote monitoring
- Supports hand-held operator and onboard LCD operator
- 20 elevator fault records
- Complies with EN81, GB7588,passes CE certification

3. High Speed Elevator Control Board SM.01PA/D

Main Features

- 32-bit high performance industrial class ARM MCU
- Specially design for high speed elevator, up to 10m/s
- Actuate speed given with excellent riding performance
- Wide input voltage: DC20-28
- Community monitoring with isolated CAN, high anti-interference ability
- High EMC performance(EFT-4000V, ESD 8000V)
- Complies with GB7588

Function Descriptions

- Suitable for business elevator, resident elevator, hospital elevator and panorama elevator
- Rated speed up to 4m/s
- Maximum stops up to 64 stops
- Suitable for synchronous and asynchronous traction machine
- CAN-Bus serial communication
- Analog speed and digital speed given
- Support for three types of encoders: difference, open-collector and push-pull
- Support duplex and group control
- Support load-weighing compensation
- Support elevator IC card management
- Support community monitoring and remote monitoring
- 20 elevator fault records

1. AS320 Elevator Inverter (Close Loop)

Main Features

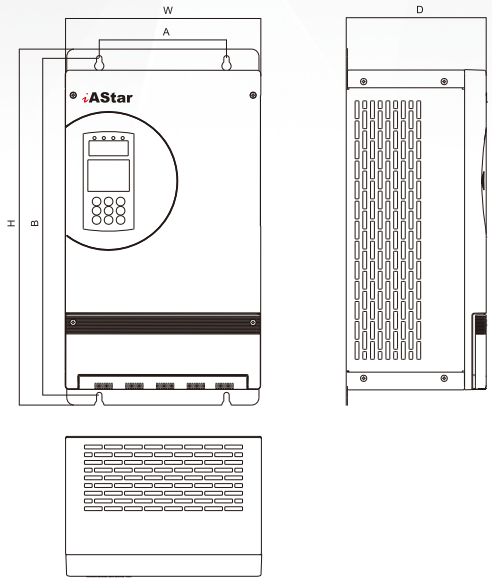
- Use 32-bit MCU, faster running speed leads to more accurate speed control
- Use PIM module, lower loss in switch on and off and longer lifetime
- Support one main contactor solution
- Support gear and gearless motor
- Creative Zero-speed torque compensation technology provides the elevators with good starting ride quality without installing weighing devices
- Close-loop vector brings higher performance in control
- New PWM dead-zone compensation technology brings less energy loss
- Dynamic PWM carrier modulation technology brings less motor noise
- Passed the CE and UL certifications

Main Features

Model AS320	Rated capacity (kVA)	Rated output current (A)	Adaptation rated power of motor (kW)	Model AS320	Rated capacity (kVA)	Rated output current (A)	Adaptation rated power of motor (kW)
200V-Level frequency converter				400V-Level frequency converter			
2S01P1	2.3	6.0	1.1	4T01P1	2.7	3.5	1.1
2S02P2	4.6	12	2.2	4T02P2	4.7	6.2	2.2
2S03P7	6.9	18	3.7	4T03P7	6.9	9	3.7
2T05P5	9.5	25	5.5	4T05P5	8.5	13	5.5
2T07P5	12.6	33	7.5	4T07P5	14	18	7.5
2T0011	17.9	47	11	4T0011	18	27	11
2T0015	23	60	15	4T0015	24	34	15
2T18P5	29	75	18.5	4T18P5	29	41	18.5
2T0022	32	80	22	4T0022	34	48	22
				4T0030	50	65	30
				4T0037	61	80	37
				4T0045	74	97	45
				4T0055	98	128	55
				4T0075	130	165	75

Technical Indicators

Item		Indicators
Maximum output voltage		Input voltage
Input power supply	Number of phases, voltage, and frequency	200V-level: ≤3.7kW single phase or three phase 220V 50/60Hz; > 3.7 kW three phase 220V, 50/60Hz 400V-level: three phase 380V, 50/60Hz
	Voltage range	15%-+10%
	Frequency range	-5%~+5%
	Instantaneous voltage drop	200V-level: input voltage < AC180V, low-voltage protection after 15 ms running 400V-level: input voltage < AC300V, low-voltage protection after 15 ms running
Control features	Control mode	Close loop vector control
	Overload capacity	0Hz, 150%;< 3Hz,160%; > 3Hz, 200%
	Braking torque	150% (External brake resistor), built-in brake unit
Protection grade		IP20
Installation mode		Installed in the cabinet



Installation Information

Mode AS320	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
2S01P1 2S02P2 2S03P7	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2	4.5
2T05P5 2T07P5 2T0011	165.5	357	379	222	185	7.0	4M6	4M6	4Φ6	3	8.2
2T0015 2T18P5 2T0022	165	440	465	254	261	7.0	4M6	4M6	4Φ6	3	10.3
4T02P2 4T03P7 4T05P5	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2	4.5
4T07P5 4T0011	165.5	357	379	222	192	7.0	4M6	4M6	4Φ6	3	8.2
4T0015 4T18P5 4T0022	165.5	392	414	232	192	7.0	4M6	4M6	4Φ6	3	10.3
4T0030 4T0037	200	510	530	330	290	9.0	4M8	4M8	4Φ8	6	30
4T0045	200	587	610	330	310	10.0	4M8	4M8	4Φ8	9	42
4T0055	200	587	610	330	310	10.0	4M10	4M10	4Φ10	14	42
4T0075	320	718	750	430	351	13.0	4M13	4M13	4Φ13	29	79.5

2. AS620 Elevator Inverter (Open Loop)

Main Features

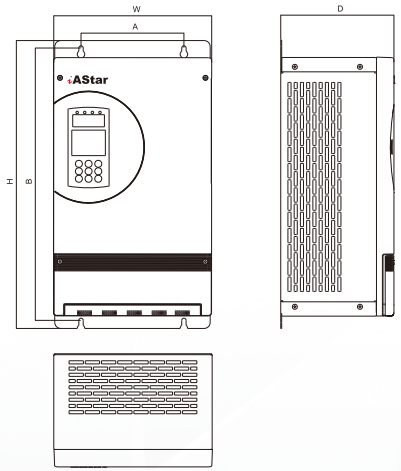
- Use 32-bit MCU, faster running speed leads to more accurate speed control
- Use PIM module, lower loss in switch on and off and longer lifetime
- Support gear motor
- Open-loop control
- New PWM dead-zone compensation technology brings less energy loss
- Dynamic PWM carrier modulation technology brings less motor noise

Specification Data

Model AS620	Rated capacity (kVA)	Rated output current (A)	Adaptation rated power of motor (kW)
4T05P5	9	13	5.5
4T07P5	13	18	7.5
4T0011	19	27	11
4T0015	24	34	15
4T18P5	29	41	18.5
4T0022	34	48	22
4T0030	45	65	30
4T0037	55	80	37
4T0045	68	97	45
4T0055	89	128	55
4T0075	115	165	75

Technical Indicators

Item		Indicators
Maximum output voltage		Input voltage
Input power supply	Number of phases, voltage, and frequency	400V-level: three phase 380V, 50/60Hz
	Voltage range	15%-+10%
	Frequency range	-5%~+5%
	Instantaneous voltage drop	400V-level: input voltage < AC300V, low-voltage protection after 15 ms running
Control features	Control mode	Close loop vector control
	Overload capacity	Zero speed, 150%;< 3Hz,160%; > 3Hz, 200%
	Braking torque	150% (External brake resistor), built-in brake unit
Protection grade		IP20
Installation mode		Installed in the cabinet



Installation Information

Model AS620	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
4T05P5	100	288.5	300	160	162	5.0	4M4	4M4	4Φ4	2.5	4.5
4T07P5 4T0011	165.5	357	379	222	182	7.0	4M6	4M6	4Φ6	3	8
4T0015 4T18P5 4T0022	165.5	392	414	232	182						10.3
4T0030 4T0037	200	512	530	330	288	9.0	4M8	4M8	4Φ8	9	29.5
4T0045 4T0055	200	587	610	330	310						38
4T0075	320	718	750	430	350	13.0	4M12	4M12	4Φ12	18	79.5

3. Regenerator

Main Features

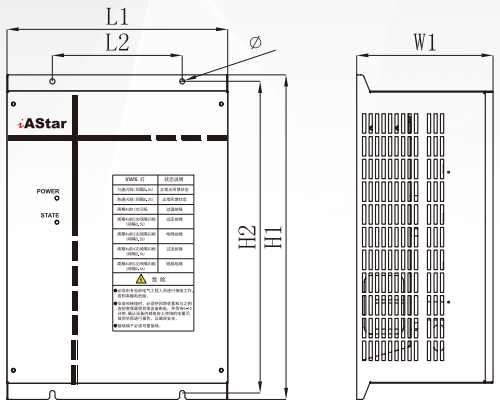
- Independent unit , used with different inverters
- Use PIM module, lower loss in switch on and off and longer lifetime
- Applying flexible feedback PWM leads to accurate phase output and effective higher harmonics suppression.
- Green feedback energy , THD ≤ 5%
- High efficiency energy feedback , energy saving rate ≥ 35%

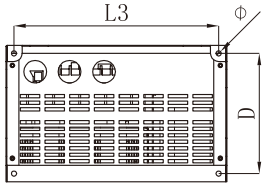
Technical Indicators

Type(ASRG-)		4T0011	4T0015	4T18P5	4T0022	4T0030
Adapt inverter power(kW)		11	15	18.5	22	30
Output	Output voltage	3-phase 380V AC				
	Power Factor	≥ 0.99				
	Efficiency	≥ 96%				
Input	Input voltage (V)	600 – 750V DC				
	Protection voltage	800V DC				

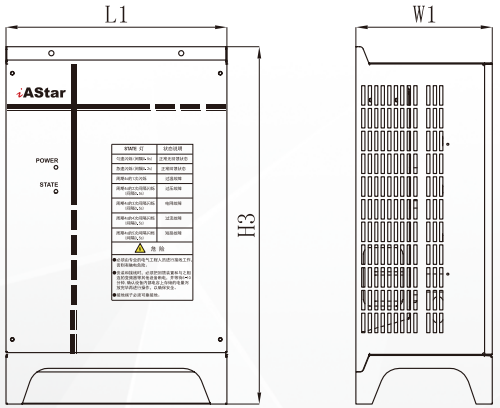
Regenerator

A - With base





B - No base



Installation Information

(V)	(kW)	L1 (mm)	L2 (mm)	L3 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	W1 (mm)	D (mm)	Φ (mm)
400	11-15 KW	270	200	245	400	380	450	200	175	8
	18.5-30 KW	340	270	315	520	500	570	215	190	8

Integrated Controller

1. AS380 Elevator Serial Integrated Controller

Main Features

- Prefect integration of control and drive of elevator leads to compact structure, few wiring, high reliability, easy operation and cost efficiency
- Double 32-bit MCU combines the elevator control and motor control
- Redundant safety design , double safety protection for control and drive
- CAN bus communication make the whole system easily, fast and reliable.
- Support traditional group control and destination dispatching control
- Support one main contactor solution
- Support gear and gearless motor
- Use PIM module, lower loss in switch on and off and longer lifetime,
- Creative Zero-speed torque compensation technology provides the elevators with good starting ride quality without installing weighing devices
- Close-loop vector brings higher performance in control
- New PWM dead-zone compensation technology brings less energy loss
- Dynamic PWM carrier modulation technology brings less motor noise

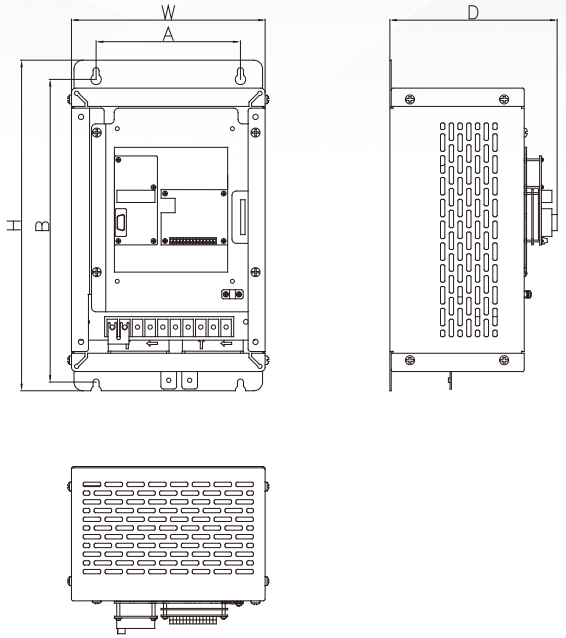
Integrated Controller

Specification Data

Model AS380	Rated capacity (kVA)	Rated output current (A)	Rated power of motor (kW)	Model AS380	Rated capacity (kVA)	Rated output current (A)	Rated power of motor (kW)
200V-level				400V-level			
2S01P1	2.3	6.0	1.1	4T01P1	2.7	3.5	1.1
2S02P2	4.6	12	2.2	4T02P2	4.7	6.2	2.2
2S03P7	6.9	18	3.7	4T03P7	6.9	9	3.7
2T05P5	9.5	25	5.5	4T05P5	8.5	13	5.5
2T07P5	12.6	33	7.5	4T07P5	14	18	7.5
2T0011	17.9	47	11	4T0011	18	27	11
2T0015	23	60	15	4T0015	24	34	15
2T18P5	29	75	18.5	4T18P5	29	41	18.5
2T0022	32	80	22	4T0022	34	48	22
				4T0030	50	65	30
				4T0037	61	80	37
				4T0045	74	97	45
				4T0055	98	128	55
				4T0075	130	165	75

Technical Indicators

Item		Indicators
Maximum output voltage		Input voltage
Input power supply	Number of phases, voltage, and frequency	200V-level: ≤3.7kW single phase or three phase 220V 50/60Hz; > 3.7 kW three phase 220V, 50/60Hz 400V-level: three phase 380V, 50/60Hz
	Voltage range	15%-+10%
	Frequency range	-5%~+5%
	Instantaneous voltage drop	200V-level: input voltage < AC180V, low-voltage protection after 15 ms running 400V-level: input voltage < AC300V, low-voltage protection after 15 ms running
Basic features	Floor number	2-64
	Elevator rated speed	≤4.00m/s
	Group control units	≤8 units
	Communication mode	CAN-Bus
Control features	Control mode	Close loop vector control
	Overload capacity	0Hz, 150%;< 3Hz,160%; > 3Hz, 200%
	Braking torque	150% (External brake resistor), built-in brake unit
Protection grade		IP20
Installation mode		Installed in the cabinet



Installation Information

Model AS380	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
2S01P1 2S02P2 2S03P7	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2	4.5
2T05P5 2T07P5 2T0011	165.5	357	379	222	185	7.0	4M6	4M6	4Φ6	3	8.2
2T0015 2T18P5 2T0022	165	440	465	254	261	7.0	4M6	4M6	4Φ6	3	10.3
4T02P2 4T03P7 4T05P5	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2	4.5
4T07P5 4T0011	165.5	357	379	222	192	7.0	4M6	4M6	4Φ6	3	8.2
4T0015 4T18P5 4T0022	165.5	392	414	232	192	7.0	4M6	4M6	4Φ6	3	10.3
4T0030	200	512	530	330	290	9.0	4M8	4M8	4Φ8	6	30
4T0037	200	512	530	330	290	9.0	4M8	4M8	4Φ8	9	30
4T0045	200	587	610	330	310	10.0	4M8	4M8	4Φ8	9	42
4T0055	200	587	610	330	310	10.0	4M10	4M10	4Φ10	14	42
4T0075	320	718	750	430	351	13.0	4M13	4M13	4Φ13	29	79.5

2. AS380S Elevator Serial Integrated Controller (EN81-20)

Main Features

- Galvanizing case, painting cover, acrylic window
- Advanced modular design, connection with plugs, more reliable
- Aluminum extrusion radiator, more efficient heat release
- Connectors with 5.08mm pitch, easier wiring
- Balance coefficient self-learning
- Comply with EN81-20

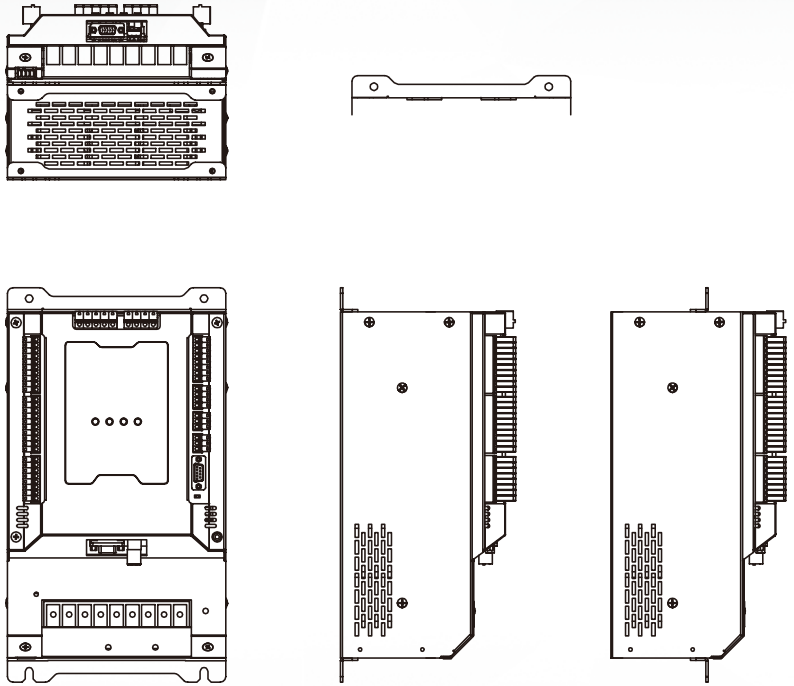
Specification Data

Model AS380	Rated capacity (kVA)	Rated output current (A)	Rated power of motor (kW)
4T05P5S	8.5	13	5.5
4T07P5S	14	18	7.5
4T0011S	18	27	11
4T0015S	24	34	15
4T18P5S	29	41	18.5
4T0022S	34	48	22
4T0030S	50	65	30
4T0037S	61	80	37

Technical Indicators

Item		Indicators
Maximum output voltage		Input voltage
Input power supply	Number of phases, voltage, and frequency	Three phase, 380V, 50/60Hz
	Voltage range	15%-+10%
	Frequency range	-5%~+5%
	Instantaneous voltage drop	Input voltage < AC300V, low-voltage protection after 15 ms running
Basic features	Floor number	2-64
	Elevator rated speed	⩽2.50m/s
	Group control units	⩽8 units
	Communication mode	CAN-Bus
Control features	Control mode	Close loop vector co ntrol
	Overload capacity	0Hz, 150%;< 3Hz,160%; > 3Hz, 200%
	Braking torque	150% (External brake resistor), built-in brake unit
Protection grade		IP20
Installation mode		Installed in the cabinet

Installation Information



3. AS360 Elevator Parallel Integrated Controller

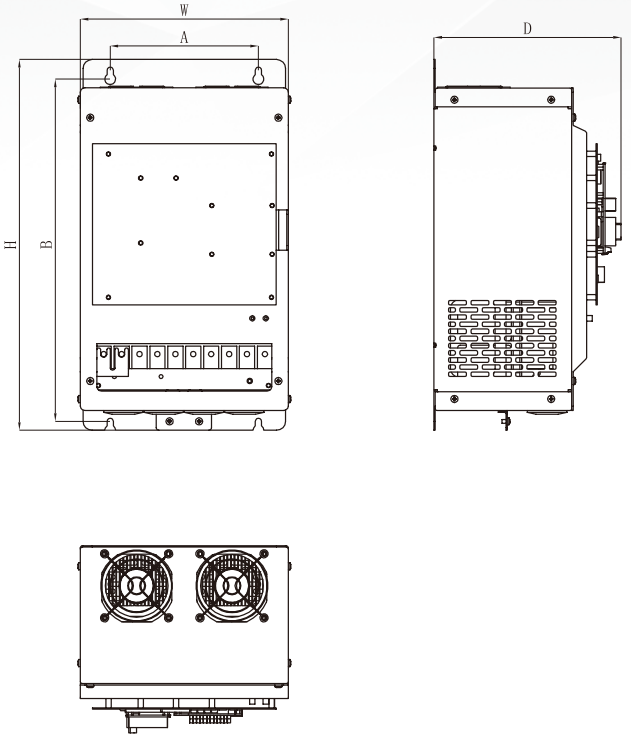
Main Features

- Prefect integration of control and drive of elevator leads to compact structure, few wiring, high reliability, easy operation and cost efficiency
- Double 32-bit MCU combines the elevator control and motor control
- Redundant safety design , double safety protection for control and drive
- All-parallel input and output
- Support one main contactor solution
- Support gear and gearless motor
- Use PIM module for hardware, lower loss in switch on and off and longer lifetime,
- Creative Zero-speed torque compensation technology provides the elevators with good starting ride quality without installing weighing devices
- New PWM dead-zone compensation technology brings less energy loss
- Dynamic PWM carrier modulation technology brings less motor noise

Integrated Controller

Specification Data

Model AS360	Rated capacity (kVA)	Rated output current (A)	Rated power of motor (kW)	Model AS360	Rated capacity (kVA)	Rated output current (A)	Rated power of motor (kW)
200V-level				400V-level			
2T02P2	4.6	12	2.2	4T02P2	4.7	6.2	2.2
2T03P7	6.9	18	3.7	4T03P7	6.9	9	3.7
2T05P5	9.5	25	5.5	4T05P5	8.5	13	5.5
2T07P5	12.6	33	7.5	4T07P5	14	18	7.5
2T0011	17.9	47	11	4T0011	18	27	11
2T0015	23	60	15	4T0015	24	34	15
2T18P5	29	75	18.5	4T18P5	29	41	18.5
2T0022	32	80	22	4T0022	34	48	22



Technical Indicators

Item		Indicators
Maximum output voltage		Input voltage
Input power supply	Number of phases, voltage, and frequency	200V-level: ≤3.7kW single phase or three phase 220V 50/60Hz; > 3.7 kW three phase 220V, 50/60Hz 400V-level: three phase 380V, 50/60Hz
	Voltage range	15%-+10%
	Frequency range	-5%~+5%
	Instantaneous voltage drop	200V-level: input voltage < AC180V, low-voltage protection after 15 ms running 400V-level: input voltage < AC300V, low-voltage protection after 15 ms running
Basic features	Floor number	2-9
	Elevator rated speed	≤1.75m/s
	Group control units	≤8 units
	Communication mode	Parallel mode
Control features	Control mode	Close loop vector control
	Overload capacity	When at 0Hz, the current overload capacity is 150% of the rated;
	Braking torque	150% (External brake resistor), built-in brake unit
Protection grade		IP20
Installation mode		Installed in the cabinet

Installation Information

Model AS360	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
2T05P5 2T07P5 2T0011	165.5	357	379	222	185	7.0	4M6	4M6	4Φ6	3	8.2
2T0015 2T18P5 2T0022	165	440	465	254	261	7.0	4M6	4M6	4Φ6	3	10.3
4T02P2 4T03P7 4T05P5	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2	4.5
4T07P5 4T0011	165.5	357	379	222	192	7.0	4M6	4M6	4Φ6	3	8.2
4T0015 4T18P5 4T0022	165.5	392	414	232	192	7.0	4M6	4M6	4Φ6	3	10.3

4. AS300 Door Integrated Controller

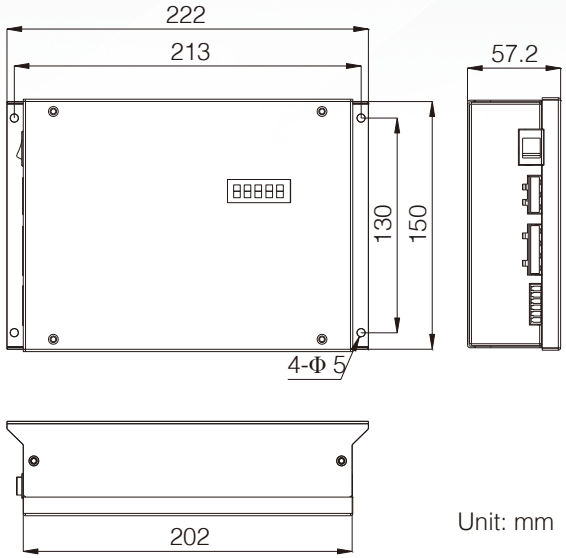
Main Features

Support synchronous and asynchronous motor
Support CAN-Bus communication
Support PC and hand-operator commissioning
Support open-loop and close-loop control
Intelligent : door width self-learning , intelligent overload running mode , simulation running
Safety : over voltage protection , over temperature protection , door block protection , emergency stop

Technical Indicators

Item		Indicators
Rated Power		200W/400W
Input power supply	Rated voltage	AC220V
	Voltage range	AC180 ~ 265V
	Frequency range	50/60Hz,5%~+5%
Output power	Voltage range	0 ~ input voltage
	Frequency range	0 ~ 120Hz
	Carrier wave frequency	Rated: 10k Hz Range:4-12kHz
Input signal type		Optocoupler isolate input
Output signal type		Relay, AC250V/3A,DC30V/1A
Encoder type		Incremental : push-pull , open-collector
Cooling type		200W , natural cooling / 400W forced-air cooling

Installation Information



Unit: mm

Control Cabinet

1. Integrated Control Cabinet C7000 (MR)

Main Features

Function Upgraded
Intelligent commissioning: fault record downloading and self-learning balance coefficient,etc
Innovative base block design， fast sampling in high voltage circuit and others enhance the reliability of C7000.
Creative Design
Unique integrated control cabinet's installation， pre-manufactured cable, wiring board design, unti-misplugging design, etc.
Simple Structure
Innovative design of door structure, improving cooling effect in cabinet.
C7000 control cabinet directly molded, lighter and stronger, the same dimension from 5.5kw-22kw
6 Patented Technologies
C7000 control cabinet won 1 invention patent, 2 appearance patents and 3 practical model patents.

Technical Indicators

Model: MCP-ST-C7000
Power supply: 3 phase , AC380~415V , 50/60Hz
Rated power: 5.5 - 22kW
Rated speed: ≤2.5m/s
Motor type: Synchronous/Asynchronous
Motor Brake: DC110V , ≤3A
Illumination: AC220V
Control Method: Single / Duplex / Group Control
Dimension(mm): 1184*420*200
Installation: Ground mounted /Wall mounted

2. Integrated Control Cabinet C7000 (MRL)

Technical Indicators

Model: MCP-SW/F-C7000
Power supply: 3 phase, AC380~415V, 50/60Hz
Rated power: 5.5 - 22kW
Rated speed: ≤2.5m/s
Motor type: Synchronous/Asynchronous
Motor Brake: DC110V,≤3A
Illumination: AC220V
Control Method: Single / Duplex / Group Control
Control Cabinet Dimension(mm): 1780*400*220
Brake Resistor Cabinet Dimension(mm): 420*255*105~420*255*243
Installation: Wall mounted

3. Integrated Control Cabinet (MR, EN81-20)

KC64M

Main Features

- Design base on EN81-20 and comply with CE.
- UCMP , Self-monitoring on braking force periodically.
- Door lock bypass device for bypassing hall or car door lock.
- Monitoring of door lock circuit, to prevent the car door or hall door unexpectedly shorted
- Protection for second brake added to ensure safer and reliable operation.
- Pit inspection controlled by communication for easier inspection and maintenance.

Technical Indicators

Power supply: 3 phase , AC380~415V , 50/60Hz
Rated power: 5.5 - 22kW
Rated speed: ⩽2.5m/s
Motor type: Synchronous/Asynchronous
Motor brake: DC110V , ⩽3A
Illumination: AC220V
Standard: EN81-20
Environment: -10℃-45 ℃
Cabinet material: Galvanized sheet
Control method: Single / Duplex / Group control
Control cabinet dimension(mm): 1000*580*300
Brake resistor cabinet dimension(mm): 420×255×117~420×255×255
Installation: Ground mounted

4. Integrated Control Cabinet (MRL, EN81-20)

KF20M

Technical Indicators

Power supply: 3 phase , AC380~415V, 50/60Hz
Rated power: 5.5 - 22kW
Rated speed: ⩽2.5m/s
Motor type: Synchronous/Asynchronous
Motor brake: DC110V , ⩽3A
Illumination: AC220V
Standard: EN81-20
Environment: -10℃-45 ℃
Cabinet material: Galvanized sheet
Control method: Single / Duplex / Group control
Control cabinet dimension(mm): 1780*400*220
Brake resistor cabinet dimension(mm): 420×255×117~420×255×255
Installation: Wall mounted

Control Cabinet

5. Integrated Home Lift Control Cabinet

Model	MCP-ST/B6000
Machine room configuration	Small machine room/ villa elevator
Power input	three-phase 380 (220) 50/60 HZ; single-phase 220V 50Hz
Environmental temperature	- 10- +45℃
Installation mode	Floor type
External interface forms	AMP plug-in
Adaptive brake specifications	DC110V<4A /DC200V /AC220V <2A
Adaptive door machine type	AC220V frequency conversion door machine, < 1A
Power of drive components	≤AS380 5.5kW
Dimension (high X width X thickness)	700x 400x 250
Resistance box configuration	Built-out
Standard color of cabinet body	Computer gray

Aux Board

Car Control Board SM.02/G

Description:

16-bit industrial MCU Communication with main controller via CAN-Bus Control car device (such as open/close door button , attendant switch , independent switch)
Support commissioning in the car On board buzzer

Car-top Control Board SM.02/H

Description:

16-bit industrial MCU
Communication with main controller via CAN-Bus
Control car-top device (such as door inverter , light curtain , arrival gong)
Support parallel voice announcement

Aux Board

Extension Board SM.09IO/B

Description:
For both SM.02/G and SM.02/H
6 inputs and outputs
Car extension function : hold-button , NS-SW
Car-top extension function : rear door

Car Call Board SM-03-D

Description:
Used with car control board SM-02
One SM-03-D supports maximum 8 floor numbers.

Car Call Board SM-03-E

Description:
Used with car control board SM-02
One SM-03-E supports maximum 16 floor numbers.

Group Control

1. Elevator Group Control System

Group Control Board SM.GC/C

Basic Features

1. The group control system can control 8 elevators at the same time, the maximum floor number of each elevator is 48.
2. CANBUS serial communicate
3. Group control system has back u protection function. If group control system has any problem, it will cut off the power supply. The elevators in the group control system can run normally as simplex mode.
4. Group control system can cut off the fault elevator

Main Functions

1. Homing Function
2. Dispatch Parking Floor
3. Up Peak Service
4. Down Peak Service
5. None Service Floor Control
6. Group Region Segmentation
7. Partly Group Region Segmentation
8. Emergency Power Operation

2. Destination Dispatch System

DDS Control Board SM.GC/D

Features

Super-Efficient

Various leading-edge technologies applied such as expect system, fuzzy Logic, neural network, etc. CAN bus based, improve dispatching efficiency greatly.

Joy-Journey

By destination dispatching system to guide passengers to the assigned lift, it reduces the average waiting time & long waiting ratio to avoid the crowed lobby and rushing people, which makes them more comfortable.

Cost-saving

With more efficient dispatching, reducing lifts deployment in a group for same traffic capacity requirement.

Energy-saving

Fewer unnecessary stop helps reducing energy consumption in the building.

Configuration

Support Hybrid/Full DDS Both

Hybrid DDS

- Destination operating panel at main entrance floor or parts of floors
- Conventional landing call stations on the other floors

Full DDS

- Destination operating panel at each landing

Multi-Choice for Destination Selector

Touch-Panel / Keypad / IC reader / Button

Multi-Choice for Destination Indicator

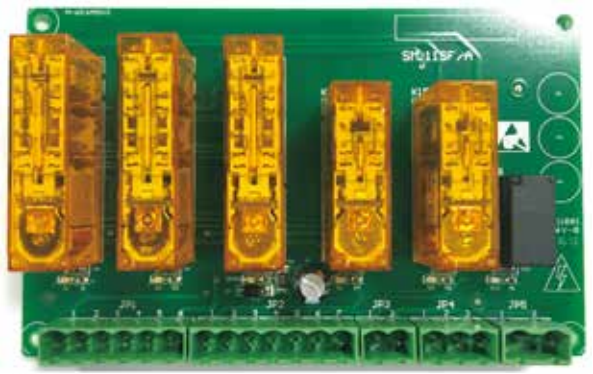
Car/landing, vertical/horizontal, dot-matrix LED/LCD

Main Functions

1. Up Peak.
2. Down Peak
3. Lunch Peak Time
4. Noon Peak.
5. Peak time self-identification in idle mode
6. Idle Mode
7. Energy Saving Mode
8. Distribution waiting
9. Service for Disable
10. Immediate forecasting
11. Anti-nuisance.
12. Car Call Disable

1. Pre-opening Control Board

SM-11-A (for Synchromesh Motor)



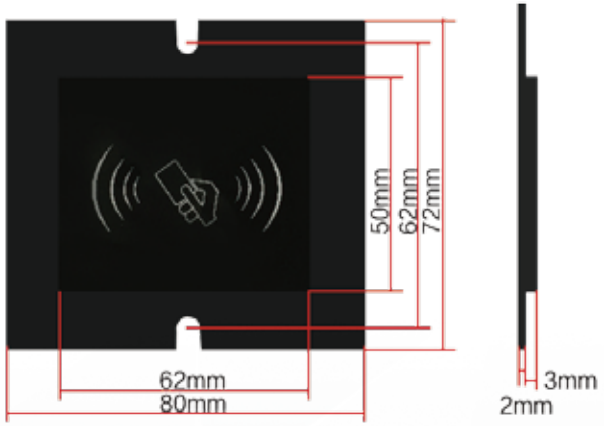
SM.11SF/A (for Asynchronous Motor)

Product Characteristic

- Specially designed circuit, Enables the safety , operation of the elevator during advanced door opening or re-leveling with door opening.
- Safety relays which use different metal materials in one set contactor to assure that the contactor will not stick.
- Modularized design, suitable for standard manufacturing , reduces errors in wire connection.
- Standard guide-rall card slot bottom shell, convenient for control cabinet installation.
- Complies with EN81,GB7588,passes CE certification.

2. IC Card Elevator Intelligent Management System

IC card elevator intelligent management system aims to provide an intelligent support for operational management of elevators, which enables the operation of the elevator to become a manageable extensible, controliable and cost-measurable mode. Call commands, cool opening control, elevator usage messurement, elevator charges, etc. can be activated through the messages inside the ic card.



Functional Description

- Automatic elevator calling according the messages inside the ic card
- Register car call automatically after tapping the card inside car
- Automatic price calculation
- Achieve monthly, yearly and fixed number of times usage packages
- Prevention against repeatedly card tapping
- Access multi-floors with one card(suitable for multi-floors passengers)
- Access every floor with one card(suitable for real estate management)
- Multi-floors IC card can reset the call instruction of those accessible floors, the passenger can register call through call button on his own
- Supports VIP elevator calling function
- Automatic cancelling of IC card management function in case of activation of attendant control and fireman control
- IC card user information management system, lost card cancellation, new card registration and IC card value refill
- Every elevator can support up to 32768 IC cards

3. Phase Sequences Relay

Product Characteristic

- Input voltage: AC 340-420V, 3-phase
- Power frequency: 50-60Hz
- Output terminal: NC contact 1 set, NO contact 1 set
- Contact rated load: NC contact AC 5A/240V
  NO contact AC 1A/60V
- Dimension（mm): 100x26x78
- Safety standard: Europe CE, China CCC

Functional Description

- Monitoring 3 phase power effectively, when there is a power sequence fault (phase loss or phase reversal), the relay will display and act immediately so as to keep the electric equipment working normally.

4. MP3 Voice Announcer

Product Characteristic

- The device announces accurately and has strong anti-interference ability.
- Adopts professional MP3 audio decoding, amplifying technology and high quality sound box, clear and loud
- TF card can store voice data, background music or advertising messages, which is easily for file changing.
- Supports mp3 file type.
- Supports CAN BUS serial communication.

5. ARD

6. Elevator Load Weighting Device DTZZ

Functional Description

- DTZZ III series elevator load weighing device is designed is designed specially to support the elevator main board, it transforms weight into electric signal through strain gauge sensor and transmits to the main board through CAN Bus communication, the ma in board will output a analog compensation voltage to the inverter, so as to enhance the startup comfort.
- DTZZ III-A model installs at rope hitch plate, and uses strain gauge sensor contacting installation method .
- DTZZ III-B model installs at bottom of car, and uses inductance displacement sensor non-contacting installation method, convenient for installation.

7. I/O Extension Board

SM.091CA.11

SM.01-EXT

Functional Description

- I/O port can be extended through CAN Bus
- Supports optical coupler inputs and dry-point relay outputs
- SM-01-EXT board supports maximum 20-way inputs and 32-way outputs
- SM.091CA.11 board supports maximum 8-way inputs and 8-way outputs, which can extend 8-way inputs and 8-way outputs through SM.091CA.12 board

8. Community Monitoring System

Functional Description

- The intelligent elevator monitoring software provides an intelligent management for the elevators inside an estate. Remote elevator commissioning is also possible under multiple levels of authorization. Information and reasons of elevator's fault can be obtained at first moment.
- Optional functions are available including GPRS remote monitoring; Internet remote monitoring; input port for intelligent estate security system and door security system.

Community Monitoring Board OT.EM/A

Product Characteristic

- 32-bit high performance industrial class ARM controller
- 4-way complete independent electric isolated CANBUS port reduces communication cable and simple wiring connection
- 1-way independent electric isolated RS485 port
- Supports star and bus connection, provide effective short cut solution for wiring work
- 500 m/s per monitoring for 100 units of individual elevators
- Real-time fault alarm alert and intelligent fault reading function
- Multi-level authorization, management by levels can be set through intelligent customer software
- Remote elevator commissioning in monitoring room
- Remote elevator locking function, humanized management is realized
- Advanced intelligent analysis function which can automatically output elevator's parameter, performance and various reports
- GPRS remote monitoring port reserved, optional GPRS function can be selected
- BA(Intelligent building automation) port reserved, optional intelligent building automation function can be selected
- Excellent performance in anti-electrostatic ability (ESD 3000V) and anti-electromagnetic interference ability (EFT-4000V)

9. Hand-held Operator SM.08/G

Functional Description

- Elevator parameter setting: Elevator floors, elevator speed etc., can be set up through the hand-held operator.
- Elevator status monitoring: Elevator running stats such as automatic inspection, attendant, fire, etc.
Car position and running direction elevator running record and error code Shaft data of elevator Input and output status of elevator.
- Elevator shaft learning: During elevator commissioning, the hand -held operator can be used to carry cut the shaft learning operation, which allows the control system to learn and record the datum of each landing position.
- Monitoring and registration of car and landing call: Hand-held operator can be used to monitor and register the car and landing call.
- Review of error codes: the error codes of the latest 20 breakdowns or operational faults together with the elevator floor position and time at which they took place.
- Supports control board, integrated driver controller and inverter etc. Commissioning.

Other

1. Car Top Inspection Box

2. Pit Inspection Box

3. Machine Room Power Pack

4. Pit Second Emergency Stop Button Box

Escalator

Escalator

Main Board

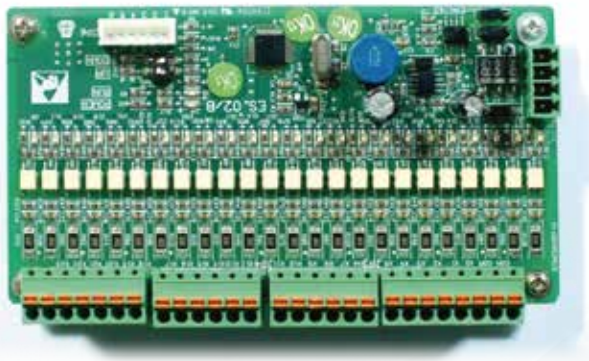
Escalator Main Board ES.01/B

- 32-bit high-performance industrial-level controller
- Excellent EMC and ESD performance
- Minimum system design, supporting I/O function extension
- Up and down safety monitoring by CANBUS
- Applied with CAN communication fault display boards
- Applied to escalators and pavements

Aux Board

1. Safety Chain Monitoring Board ES.02/F

2. Safety Chain Monitoring Board ES.02/B



Description

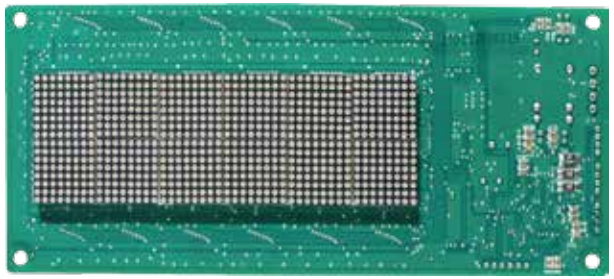
Monitoring the switch state of the up and down safety chains of the escalator, such as: switching states of upper control cabinet scram button, middle inclined scram button, upper left side comb teeth board switch, upper right side comb teeth panel switch, main drive chain rupture, etc. When any switch fails, through the CAN communication and main board communication, protect action can be realized. Safety up and down chain fault acquisition boards also communicate through CAN, which can greatly save the cables.

3. Main Board Extension Board ES.03/A

4. Monitoring Board ES.03/C

5. Escalator Fault Display Board

Escalator fault display boardSM.04HG/A
Connected to the man board through the CAN communication; display the running direction in normal state; display the escalator fault code in fault state, in both Chinese and English



Escalator fault display board SM.04HG/B
Connected to the man board through the CAN communication; display the running direction in normal state; display the escalator fault code in fault state

6. Safety Monitoring Board ES.11/A

Description

- Passed the certification of national standard GB16899-2011 about programmable electronic (PESSRAE) safety related system. Meet the safety monitoring requirements for cdeklm in Table 6 of GB16899-2011. Designed according to the requirements of SIL2
- Dual 32-bit CPU, dual-circuit power redundancy design, which is safer
- Can use hand-held manipulator SM.08/G for debugging, which is compatible with AS330 and AS380
- Multi-circuit redundant safety monitoring (host speed detection, cascade loss detection, handrail belt speed)
- Superior system self-detection function
- Good EMC electromagnetic compatibility
- Systematic solution, compatible with all kinds of systems, such as PLC, computer board, and integration

AS500 Series Escalator Inverter

Main Features

- Reliable protective function for machinery
- With user password setting, the operation safety of the system is improved efficiently.
- High-efficient energy-saving operation method
- With the high-efficiently driven energy-saving operation method and new PWM dead zone compensation technology, the loss of motor is reduced efficiently and the energy-saving rate is maximized.

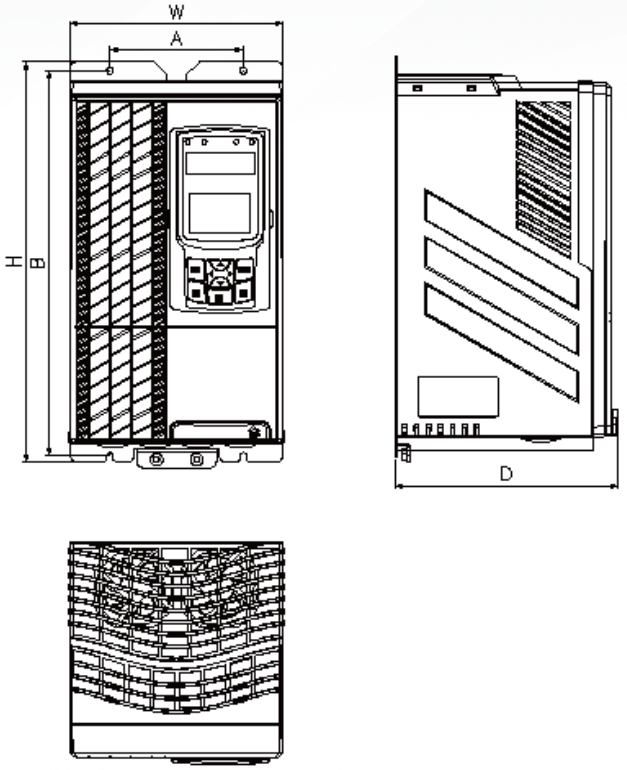
Specification Data

Model AS500	Rated output current (A)	Adaptation motor (kW)
4T02P2	6.2	2.2
4T03P7	9	3.7
4T05P5	13	5.5
4T07P5	18	7.5
4T0011	27	11
4T0015	34	15
4T18P5	41	18.5
4T0022	48	22
4T0030	65	30
4T0037	80	37
4T0045	96	45
4T0055	128	55

Technical Indicators

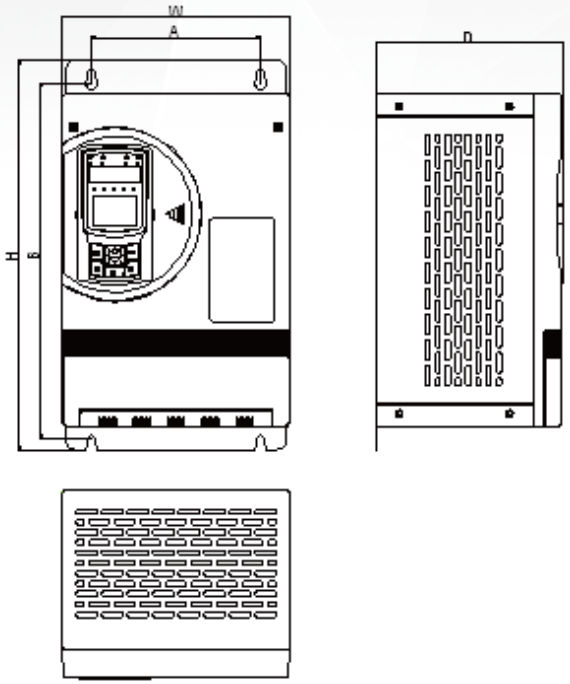
Item		Indicators
Power input	Input power	380V~460V (-15%~+10%), 3-phase power supply 220~240V 3-phase power supply optional
	Input frequency	45~65Hz
	Permissible voltage variation	Voltage unbalance factor < 3%
	Transient voltage dips	For 3-phase AC 380V~460V power supply, when input voltage < AC300V, under-voltage protection after 15ms (in the case of 85% load)
Power output	Motor output voltage	0VAC~Input voltage 100%, 3-phase power supply
	Output frequency	V/F control: 0.00~300.00Hz, Vector control: 0.00~120.00Hz
	Overload class	150%，10秒
	Efficiency (full load)	7.5kW below⩾80%；45kWbelow⩾85%； 55kW above ⩾90%
	Accuracy of output frequency	±0.01% (digital instruction -10~+45℃) ±0.1% (analog instruction 25±10℃)
Digital input/output	Optocoupler isolation input	8, 24V high/low effective level is settable. Input functions are definable.
	Open collector output	4, Output functions are definable.
	Relay output	2, NO and NC double contacts, contact capacity: resistive, 5A 250VAC or 5A 30VDC; Output functions are definable.
Analog input/output	Analog voltage input	1, -10~+10 VDC, 1-way -10~+10 V accuracy 0.1%
	Analog voltage output	2, -10~+10 VDC, accuracy 0.1%
Encoder input	PG card power supply	5V, 12V, 300mA
	PG card signal	Open collector, push-pull, differential, SIN/COS increment type, Endat absolute type, Resolver type
	PG card frequency division output	OA and OB orthogonal, frequency division coefficient: 0/2/4/8/16/32/64/128 (optional)
Environmental characteristics	Environment	Vertically installed in good ventilation cabinet. No horizontal or other installation methods are allowed. The air is the cooling medium. It is installed in the environment without sunshine, dust, corrosive gas, flammable gas, oil mist, steam and dripping water.
	Ambient temperature	-10～+40℃
	Temperature derating use	>40℃，increased 1 ℃, rated output current reduced by 2%, up to 50 ℃
	Altitude	1000m
	Height derating use	>1000m，increased by 100m, rated output current reduced by 1% (up to 3000m)
	environment humidity	Condensation is not allowed
	Vibration (installation)	3.5 m/s2，2～9Hz；10 m/s2，9～120Hz；
	storage temperature	-40～+70℃
	Protection class	IP00、IP20

Installation Information



AS500	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
4T02P2	100	288.5	300	160	166	5.0	4M4	4M4	4Φ4	2.5	4.5
4T03P7											
4T05P5											

Escalator Inverter



AS500	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
4T07P5	165.5	357	379	222	182	7.0	4M6	4M6	4Φ6	3	8
4T0011											
4T0015	165.5	392	414	232	182						10.3
4T18P5											
4T0022											
4T0030	200	518	540	332	247	9.0	4M8	4M8	4Φ8	9	23
4T0037											31
4T0045	200	578	610	330	310						42
4T0055											

Integrated Controller

AS330 Escalator Integrated Controller

Main Features

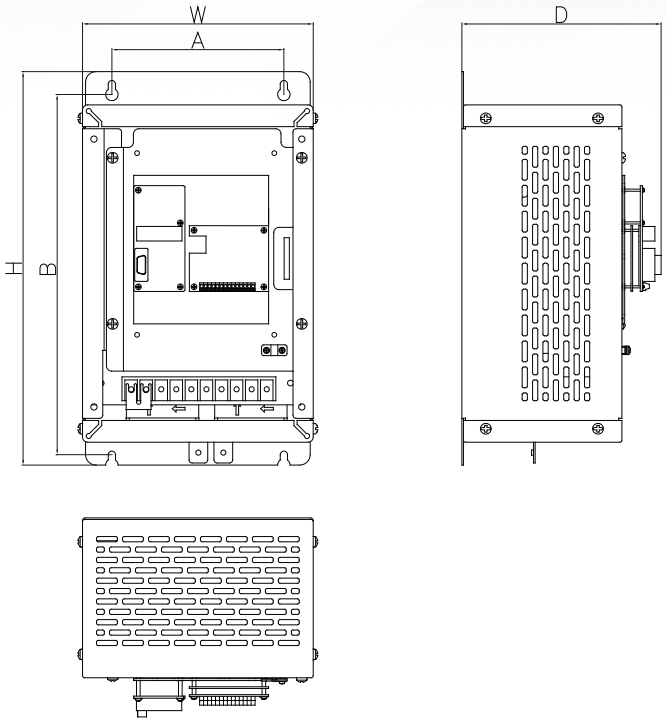
- Organic combination of the escalator control and drive,
- Dual 32-bit embedded microcontroller processor to jointly complete the escalator operation and motor drive control
- Redundant safety design and double safety protection by control processor and drive processor, to realize the strongest safety protection to the escalator running
- Anti-jamming design exceeds the highest level of industrial design requirements
- The sixth generation new module is used for hardware, and the resistance to junction temperature can reach 175°C, making the switching loss lower and the service life longer
- Up and down safety chain fault acquisition boards adopt CAN communication to save cables
- Equipped with CAN communication fault display boards

Specification Data

Model AS330	Rated capacity (kVA)	Rated output current (A)	Adaptation motor (kW)
4T05P5	8.5	13	5.5
4T07P5	14	18	7.5
4T0011	18	27	11
4T0015	24	34	15
4T18P5	29	41	18.5
4T0022	34	48	22
4T0030	50	65	30
4T0037	61	80	37

Technical Indicators

Item		Indicators							
		4T05P5	4T07P5	4T0011	4T0015	4T0018	4T0022	4T0030	4T0037
Input power supply	Maximum output voltage（V）	I400V-level: three phase 380/400/415/440/460V							
	Number of phases, voltage, and frequency	400V-level: three phase 380/400/415/440/460V、50/60Hz							
	Voltage range	-15%～+10%							
	Frequency range	-5%～+5%							
	Instantaneous voltage drop	400V-level: input voltage < AC300V, low-voltage protection after 15 ms running							
Basic characteristics	Escalator running speed	≤0.7m/s							
	Communication mode	CAN Bus serial communication							
Control features	Starting torque	180% 0.5Hz							
	Frequency control range	0～120Hz							
	Overload capacity	Zero speed, 150%;< 3Hz,160%; > 3Hz, 200%							
	Braking torque	150% (External brake resistor), built-in brake unit							
	Acceleration and deceleration time	0.01～600s							
Environment	Ambient temperature	-10～+45℃							
	Humidity	Below 95%RH							
	Preservation temperature	-20～+60℃（Short period）							
	Used	Indoor (no corrosive gas, dust, etc.)							
	Altitude	Below 1000m							
Structure	Protection grade	IP20							
	Cooling mode	Forced air cooling							
Installation mode		Installed in the cabinet							



Installation Information

AS330	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture < Φ(mm)	Installation			Tightening torque (Nm)	Mass (kg)
							Bolt	Nut	Gasket		
4T05P5	100	235	265	151	166	5.0	4M4	4M4	4Φ4	2	4.5
4T07P5	165.5	357	397	222	192	7.0	4M6	4M6	4Φ6	3	8.2
4T0011											
4T0015	165.5	392	414	232	192						10.3
4T18P5											
4T0022											
4T0030	200	512	530	330	290	9.0	4M8	4M8	4Φ8	6	30
4T0037										9	

Control Cabinet

1 Escalater Controller(Y-△)

2 Escalater Controller(VVVF)

Integration serial control cabinet

- Executive standard: GB7588/EN-81
- Applicable environment temperature: -10℃~+45℃
- Eexternal interface forms: AM, plug-in
- Power input: three-phase 380-460-V 50/60 HZ

Human Machine Interface

Arrive Gong Optional

Touch Product

Surface Mounted

SM.04TL/W

DISPLAY SIZE: 4.3”
RESOLUTION: 480*272
INSTALL MODE: HORIZONTAL/VERTICAL
APPLY FOR: CAR/HALL
BOUNDARY DIMENSION(mm): 163*73*10

SM.04TL/T

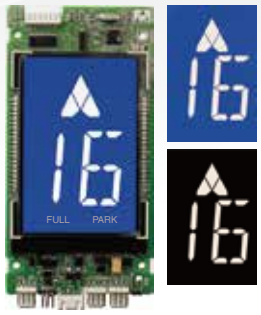
DISPLAY SIZE: 7”
RESOLUTION: 800*480
INSTALL MODE: HORIZONTAL/VERTICAL
APPLY FOR: CAR/HALL
BOUNDARY DIMENSION(mm): 192.9*115.4*25

SM.04TL/H(Pictures)
SM.04TL/P(Video)

DISPLAY SIZE: 10.4”
RESOLUTION: 800*600
INSTALL MODE: HORIZONTAL/VERTICAL
APPLY FOR: CAR/HALL
BOUNDARY DIMENSION(mm): 253.2*179.2*41

SM.04TL/K(Video)

DISPLAY SIZE: 12.1”
RESOLUTION: 800*600
INSTALL MODE: HORIZONTAL/VERTICAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm): 283.5*262*46



SM.04VL16/X

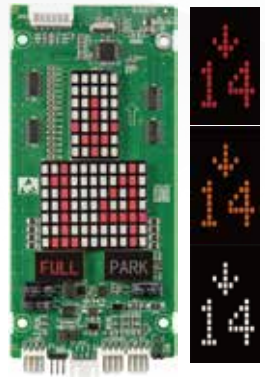
DISPLAY SIZE: 4.3"
ILLUMINATION:
WHITE ON BLUE
WHITE ON BLACK
INSTALL MODE: VERTICAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
192.9*115.4*25

SM.04VL16/Y

DISPLAY SIZE: 6.4"
ILLUMINATION:
WHITE ON BLUE
WHITE ON BLACK
INSTALL MODE: VERTICAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
213.4*109.2*21

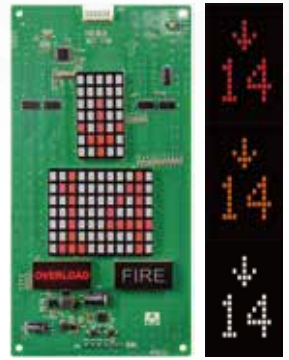
SM.04VL16/08

DISPLAY SIZE: 3.2"
ILLUMINATION:
WHITE ON BLUE
INSTALL MODE: VERTICAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
117*64*8



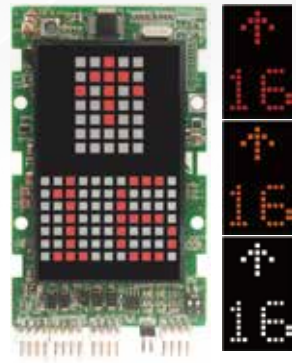
SM.04VS/12

ILLUMINATE MODE:
DOTMATRIX
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: VERTICAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
162.5*72*7.7



SM.04VS/13

ILLUMINATE MODE:
DOTMATRIX
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: VERTICAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
213.4*109.2*20

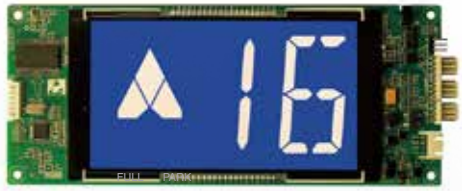


SM.04VS/09

ILLUMINATE MODE:
DOTMATRIX
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: VERTICAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
117*64*8

SM.04HL16/H

DISPLAY SIZE: 5.7"
ILLUMINATION:
WHITE ON BLUE
WHITE ON BLACK
INSTALL MODE: HORIZONTAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
151*129*20

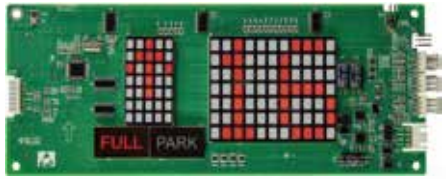


SM.04HL16/D

DISPLAY SIZE: 5.7"
ILLUMINATION:
WHITE ON BLUE
WHITE ON BLACK
INSTALL MODE: HORIZONTAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
218*86.2*9.4

SM.04HS/N

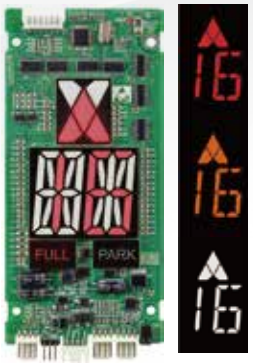
ILLUMINATE MODE:
DOTMATRIX
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: HORIZONTAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
151*129*20



SM.04HS/L

ILLUMINATE MODE:
DOTMATRIX
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: HORIZONTAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
217.9*86.2*7.3

Indicators

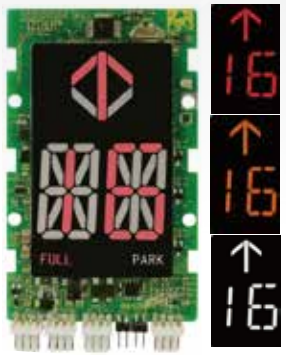


SM.04V16/A

ILLUMINATE MODE:
SEGMENT
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: VERTICAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
162.5*72*8

SM.04V16/B

ILLUMINATE MODE:
SEGMENT
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: VERTICAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
213.4*109.2*20

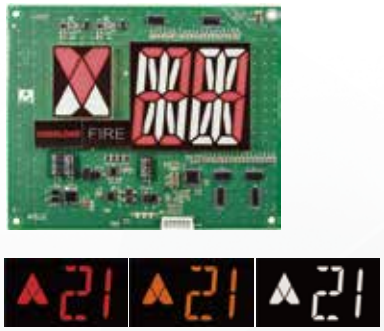


SM.04V16/G

ILLUMINATE MODE:
SEGMENT
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: HORIZONTAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
117*64*8

SM.04H16/A

ILLUMINATE MODE:
SEGMENT
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: HORIZONTAL
APPLY FOR: HALL
BOUNDARY DIMENSION(mm):
217.9*86.2*8.4

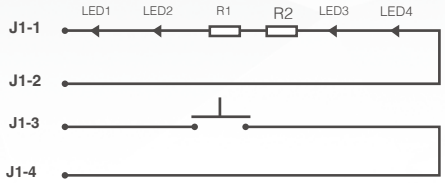


SM.04H16/C

ILLUMINATE MODE:
SEGMENT
ILLUMINATE COLOR:
RED,ORANGE,WHITE
INSTALL MODE: HORIZONTAL
APPLY FOR: CAR
BOUNDARY DIMENSION(mm):
151*129*20

Push Button

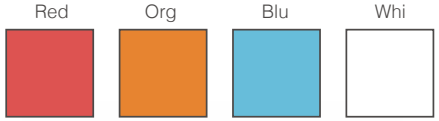
Wiring Diagram for Push Buttons:



Standard Letters/Symbol:

-3, -2, -1, 1~36, B, B1, B2, B3, G, H, M, Open, Close, Up, Down, Alarm, Telephone.

Standard Illumination:



PB31

Body: Polycarbonate, Chromeplated
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

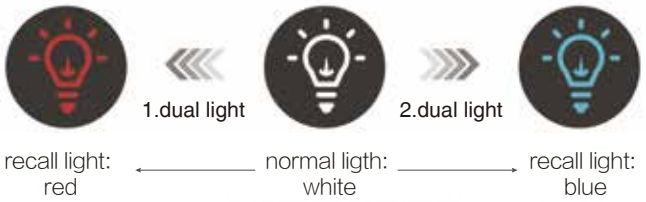
PB33

Body: Polycarbonate, St. steel rim
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

Push Button

PB31DL

PB33DL



Dual light button

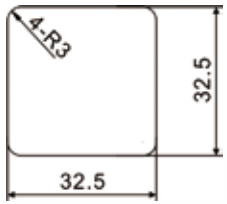
1.DL= Dual Light

2.White are normally lightened, when recalled, red/blue light on.

3.Instruction board should have grounding, eg. STEP's SM.03/E.

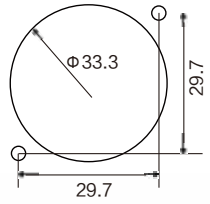
EB210

Body: Polycarbonate
Touch Plate: St. Steel
Touch Plate Finishing: Hairline, Mirror, Golden
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, Clip
Braille: Yes (EB218)



PUA130

Body: Polycarbonate
Touch Plate: St. Steel
Touch Plate Finishing: Matt
Recall light: Whi, Blu
Fixing Method: Frontal mounting, Clip
Braille: Yes

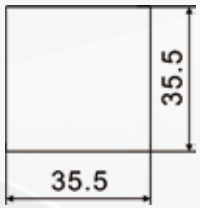


PB28

Body: Polycarbonate
Touch Plate: St. Steel
Touch Plate Finishing: Hairline
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, Clip
Braille: N/A

EB510

Body: Polycarbonate
Touch Plate: St. Steel
Touch Plate Finishing: Hairline
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, Clip
Braille: N/A



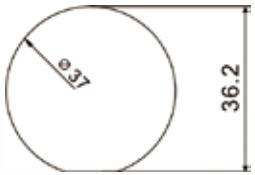
Push Button

EB410A

Body: Polycarbonate
Touch Plate: St. Steel
Touch Plate Finishing: Hairline, Mirror,
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

EB950

Body: Polycarbonate, chromeplated
Touch Plate: St. Steel
Touch Plate Finishing: Hairline, Mirror,
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes



EB960

Body: Polycarbonate, St. Steel rim
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

PB34

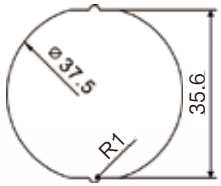
Body: Polycarbonate, St. Steel rim
Touch Plate: St. Steel
Touch Plate Finishing: Matt, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

PB36

Body: Zamak
Touch Plate: St. Steel
Touch Plate Finishing: Hairline, Matt,
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

PB38

Body: Zamak
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Std.



PB37

Body: Polycarbonate, St. steel rim
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

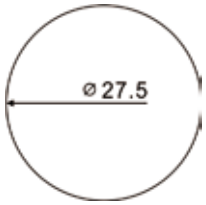
PB39

Body: Polycarbonate, St. steel rim
Touch Plate: St. Steel
Touch Plate Finishing: Turned, Mirror
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

Push Button

EBC22

Body: Polycarbonate, St. steel rim
Touch Plate: St. Steel, Concave
Touch Plate Finishing: Mirror, Golden
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: --

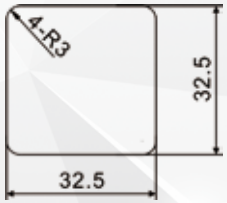


PUA150

Body: Polycarbonate, Black
Touch Plate: St. Steel
Touch Plate Finishing: Turned
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes

PUC300

Body: Zamak
Touch Plate: St. Steel
Touch Plate Finishing: Hairline, Matt
Recall light: Red, Org, Blu, Whi
Fixing Method: Frontal mounting, fastening by jam-nut
Braille: Yes



Touch Button

PTE121 (Dual light, blue or green on white)

PTE122 (Dual light, blue or green on white)

PTE120 Series

Working voltage: DC24V
Faceplate thickness: 2-3mm
Fixing Method: embed, with stud
Faceplate material: Champagne-gold
Size: PTE121: 68*50*43
PTE122: 188*50*43

PTE111 (Dual light, blue or green on white)
PTE114 (Recall light: white)

PTE112 (Dual light, blue or green on white)
PTE115 (Recall light: white)

PTE113 (Dual light, blue or green on white)
PTE116 (Recall light: white)

PTE110 Series

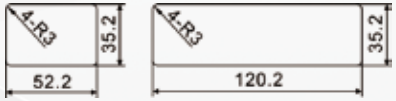
Working voltage: DC24V
Faceplate thickness: 2-3mm
Faceplate material: hairline(STD.), mirror, ti-golden
Fixing Method: embed, with stud
Size: PTE112/PTE113/PTE115/PTE116: 188*45*43
PTE111/PTE114:63*45*43

PTE131 (Dual light, blue or green on white)
PTE133(Recall light: white)

PTE132 (Dual light, blue or green on white)
PTE134(Recall light: white)

PTE130 Series

Working voltage: DC24V
Faceplate thickness: 2-3mm
Fixing Method: embed, with stud
Faceplate material: mirror st. steel
Size: PTE132/PTE134: 148*45*43
PTE131/PTE133: 63*45*43



Surface Mounted LOP

This icon represents surface-mounted products

LSA130

Summary:
Slim type with streamline design

Faceplate:
Hairline

Indicators:
SM.04V16/G

Buttons:

PUA130

Model	Boundary Dimensions (mm)
LSA130	290*85*13.5

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSA130	●	●	●	●	●

LSA170

LSA170

Summary:
Simplicity with a right-angle

Faceplate:
Hairline

Indicators:
SM.04VS/12 、
SM.04V16/A
SM.04VL16/X 4.3″

Buttons:

PB33 PB31

Model	Boundary Dimensions (mm)
LSA170	300*90*12.8

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSA170	●	●	●	●	—

LSA230

Summary:
Elegance with a streamline design

Faceplate:
Hairline

Indicators:
SM.04VS/12
SM.04V16/A
SM.04VL16/X
SM.04TL/W TFT

Buttons:

PUA130

Model	Boundary Dimensions (mm)
LSA230	380*100*15

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSA230	●	●	●	●	●

LSC260

LSC260S

DSC260S

C260 Series

Summary:
Black acrylic screen,
St. steel faceplate and aluminum frame(LSC260) or steel frame (C260S)

Faceplate:
Hairline, Mirror

Buttons:

PB33 PB31

Indicators:
SM.04VS/12
SM.04V16/A
SM.04VL16/ X 4.3″

Model	Boundary Dimensions (mm)
LSC260	350*105*12.8
LSC260S	350*105*13
DSC260S	350*170*13

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
C260 Series	●	●	●	●	●

Surface Mounted LOP

LSC300 DSC300

C300 Series

Summary:
Matte faceplate with fingerprint-proof

Indicators:
SM.04VS/12
SM.04V16/A
SM.04VL16/X 4.3″
SM.04TL/W 4.3″

Faceplate:
Hairline, Mirror

Buttons:

PB36 PB33 PB31

Model	Boundary Dimensions (mm)
LSC300	380*100*15
DSC300	380*175*15

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
C300 Series	●	●	●	●	●

EH981

EH981

Summary:
ABS end caps with Lichee pattern

Indicators:
SM.04VR/H

Faceplate:
Hairline St. steel

Buttons:

PUA150 PB31 PB33

Model	Boundary Dimensions (mm)
EH981	385*120*18 (up&down with switch) 335*120*18

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
EH981	●	●	●	●	●

DSE200

LSE200

BSE200

HSE200

KSE201

KSE200

FSE200

E200 Series

Summary:
St. steel frame with mirror polish

Indicators:
LSC200/ DSE200
SM.04VL16/X 4.3"
SM.04VS/12
SM.04V16/A
HSE200
SM.04HL16/D 5.7"
SM.04HS/L
SM.04H16/A

Faceplate:
Hairline, Mirror.

Buttons:

PUC300 PB33 PB31

Model	Boundary Dimensions (mm)
LSE200	330 (350)*90*13
DSE200	330 (350)*170*3
HSE200	300*95*13
BSE200	270*90*13
KSE201	170*70*13
KSE200 \ FSE200	90*70*13

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSE200	●	●	●	●	●
DSE200	●	●	●	●	●

Surface Mounted LOP

EHD980

EH980


EW980


ES980


EF980


ESF980

EHH980

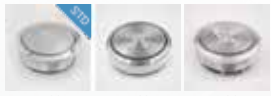
980 Series

Summary:
St. steel stamping

Indicators:
SM.04VL16/L 4.3″
SM.04VL16/X 4.3″
SM.04TL/S 4.3″
SM.04VS/G

Faceplate:
Hairline, Mirror

Buttons:



PB36 PB33 PB31

Model	Boundary Dimensions (mm)
EH980 \ EHH980	320 (360)*100*18
EHD980	350*190*18
ES980 \ EF980 \ ESF980 \ EW980	150*100*18

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
EH980	●	●	●	●	●
EHD980	●	●	●	●	●
EW980	●	●	●	●	—

EH985A

EH985B

EH985C

EH985D

985 Series

Summary:
Zamak frame with mirror polish

Indicators:
SM.04VL16/L 4.3″
SM.04VL16/X
SM.04TL/S 4.3″

Faceplate:
EH985A: black screen with st. steel faceplate
EH985B: white screen with st. steel faceplate
EH985C: st. steel
EH985D: black acrylic

Buttons:


PB33 PB31

Model	Boundary Dimensions (mm)
EH985 (A\B\C\D)	350*96*18

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
EH985 (A\B\C\D)	●	●	●	●	●

Surface Mounted LOP

EH984

Summary:
Touch buttons.
Zamak frame with mirror polish.

Faceplate:
Black acrylic

Buttons:

PB32(whi)　PB32(blu)

Model	Boundary Dimensions (mm)
EH984	330 x 115 x 16

Indicators:
SM.04VL16/B 4.3"
MONO LCD

"●" : Yes　"—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
EH984	●	●	●	●	—

EH982　EHD982

982 Series

Summary:
ABS end caps with Lichee pattern

Faceplate:
Hairline St. steel

Indicators:
SM.04VS/G

Buttons:

PUA150　PB31

EHD982

Model	Boundary Dimensions (mm)
EH982	385 x100 x 18
	335 x 100 x 18
EHD982	385 x160 x 18
	335 x 160 x 18

"●" : Yes　"—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
EH982	●	●	●	●	●
EHD982	●	●	●	●	●

FH COP

This icon represents touch products

COP1080 (IMPERIAL)

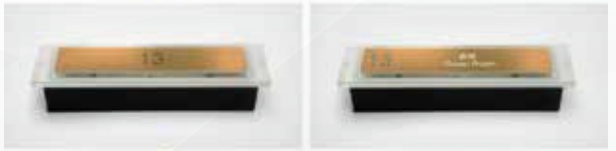
Faceplate:
STD: Mirror
OPT: Hairline,
Ti-Golden Mirror

Indicators:
SM.04TL/H 10.4" TFT
SM.04TL/T 7"
SM.04TL/G 8"
SM.04TL/K12.1"

Buttons:

PTE130Series

PTE120Series



PTE110Series

COP1080 (DELUXE)

Faceplate:
STD: Hairline
OPT: Mirror, Golden

Indicators:
SM.04TL/H 10.4″ TFT
SM.04TL/T 7″ TFT
SM.04TL/G 8″ TFT
SM.04TL/K 12.K2″ TFT

Buttons:

PB36

PB33

PUC300

COP1080 (SUPERIOR)

Faceplate:
STD: Mirror
OPT: Hairline, Golden

Indicators:
SM.04V16/B
SM.04VL16/T 6.4
SM.04VS/13
SM.04HL16/E

Buttons:

EBC22

PBC12

COP1080 (STANDARD)

Faceplate:
STD: Hairline
OPT: Mirror,Golden

Indicators:
SM.04V16/B
SM.04VL16/T 6.4″
SM.04VS/13
SM.04HL16/E

Buttons:

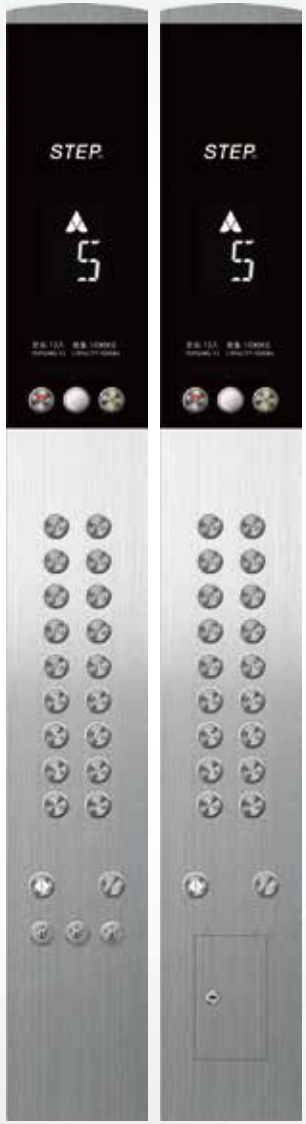
PB33

PB31

EB210

Front Car-wall Width and Recommended TFT Indicators

Display Size	Indicator Model	Front-wall Width (mm)
7"	SM.04TL/T	⩾250
8"	SM.04TL/G	⩾280
10.4"	SM.04TL/H	⩾300
12.1"	SM.04TL/K	⩾350



CEC300(Switch) CEC301(Attn. Box)

LEC300

DEC300

HEC300

300Series

Indicators:

COP

SM.04VS/13
SM.04V16/B
SM.04VL16/Y 6.4″
SM.04TL/T 7″ TFT

LOP

SM.04VS/12
SM.04V16/A
SM.04VL16/X 4.3″
SM.04TL/W 4.3″ TFT

Horizontal Display

SM.04HS/L
SM.04H16/A
SM.04HL16/D

Buttons:

PB33 PB31

PB36

Model	Floors	Faceplate	Box
CEC300&301	2 - 36	1600*200*3	1533*183*70

Model	Faceplate	Box
LEC300	440*110*3	413*100*50
DEC300	440*180*3	413*170*50
HEC300	440*110*3	413*100*50

Model	Boundary Dimensions (mm)	Model	Boundary Dimensions (mm)
迴 LSC300	380*100*15	迴 FSC300	130*100*15
迴 DSC300	380*175*15		

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSC300	●	●	●	●	●
DSC300	●	●	●	●	●

CEC260

迴 LSC260

learn more on p71

260Series

Indicators:

COP

SM.04VS/13
SM.04V16/B
SM.04VL16/Y 6.4″

LOP

SM.04VS/12
SM.04V16/A
SM.04VL16/X 4.3″

Faceplate:

St. Steel, Hairlines/ Mirror

Buttons:

PB33 PB31

Model	Boundary Dimensions (mm)
迴 LSC260	350*105*12.8

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSC260	●	●	●	●	●

CSA150

DSA150

LSA150

BSA150

KSA150

A150

Summary:
Surface mounted
COP and LOP

Indicators:
COP
SM.04VS/12
LOP
SM.04VS/09

Faceplate:
St. Steel, Hairlines/ Mirror

Buttons:

PUA150 PB31 PB33

Model	Boundary Dimensions (mm)
CEA150	1000*180*16
	1300*180*16
LSA150	265*95*15
DSA150	320*160*15
BSA150	200*95*15
KSA150	120*95*15

"●" : Yes "—" : N/A

Model	Up	Down	Up &Down	Up & Base	Up, Down &Base
LSA150	●	●	●	●	●
DSA150	●	●	●	●	●

learn more on p76

EH984

COP1070(TOUCH)

Summary:
Black acrylic faceplate
with touch buttons

Indicators:
COP
SM.04TL/F 7″ TFT
LOP
SM.04VL8/B 4.3″

Faceplate:
Black Acrylic

Buttons:

PB32(whi) PB32(blu)

Model	Boundary Dimensions (mm)
COP1070	1596*235*3

COP1010A

EH1010A

EHD1010A

COP1010A

Summary:
st. steel faceplate with hairline in the middle part and mirror around.

Faceplate:
st. steel faceplate with hairline in the middle part and mirror around.

Indicators:
COP
SM.04VL16/T 6.4″
SM.04TL/T 7″TFT
SM.04VR/01
LOP
SM.04VL16/L 4.3″
SM.04TL/S 4.3″TFT
SM.04VR/01

Buttons:

PB33 PB31 EB410A EB210

Model	Floors	Faceplate	Box
COP1010A	2 - 8	1026*170*2	1000*157*70
	9 - 16	1206*170*2	1180*157*70
	17 - 24	1386*170*3	1360*157*70
	25 - 32	1566*170*3	1540*157*70
EH1010A		440*110*2	413*100*50
EHD1010A		440*190*2	413*170*50

COP1030A

EH1030A

EHD1030A

COP1030A

Summary:
Long Screen

Faceplate:
Hairline, Mirror, Golden

Indicators:
COP
SM.04VL16/T 6.4″
SM.04TL/T 7″TFT
SM.04VR/01
LOP
SM.04VL16/L 4.3″
SM.04TL/S 4.3″
SM.04VR/01

Buttons:

PB33 PB31 EB410A EB210

Model	Floors	Faceplate	Box
COP1030A	2 - 8	1220*170*2	1180*157*70
	9 - 16	1400*170*3	1360*157*70
	17 - 24	1580*170*3	1540*157*70
	25 - 32	1580*200*3	1540*183*70
EH1030A		440*110*2	413*100*50
EHD1030A		440*190*2	413*170*50

COP1000B03

EH1000B03

EHD1000B03

COP1000B03

Summary:
Black Arc-shaped Screen

Faceplate:
Hairline, Mirror

Indicators:
COP
SM.04VL16/T 6.5″
SM.04VR/01
LOP
SM.04VL16/L 4.3″
SM.04TL/S 4.3″TFT
SM.04VR/01

Buttons:

PB33 PB31 EB410A EB210

Model	Floors	Faceplate	Box
COP1000B03	2 - 8	1030*170*3	1000*157*70
	9 - 16	1210*170*2	1180*157*70
	17 - 24	1390*170*3	1360*157*70
	25 - 36	1390*200*3	1360*183*70
EH1000B03		440*110*3	413*100*50
EHD1000B03		440*190*3	413*170*50

COP120A

EH120A

EHD120A

COP120A

Summary:
Classical type

Faceplate:
Hairline, Mirror

Indicators:
COP
SM.04VL16/T 6.5″
SM.04VR/01
LOP
SM.04VL16/L 4.3″
SM.04TL/S 4.3″TFT
SM.04VR/01

Buttons:

EB210 PB33 PB31 EB410A

Model	Floors	Faceplate	Box
COP120A	2 - 8	1030*170*2	1000*157*70
	9 - 16	1210*170*2	1180*157*70
	17 - 24	1390*170*3	1360*157*70
	25 - 36	1390*200*3	1360*183*70
EH120A		440*110*2	413*100*50
EHD120A		440*190*2	413*170*50

EH221

EHD221

COP221

Summary:
faceplate edge folded for a stronger structure

Indicators:
COP
SM.04VL16/T 6.5″
SM.04TL/T 7″ TFT
SM.04VR/01
LOP
SM.04VR/01

Faceplate:
St. Steel, Hairline

Buttons:

PB33 PB31 EB410A EB210

Model	Floors	Faceplate	Box
COP221	2 - 8	1026*190*9	1000*157*70
	9 - 16	1026*190*9	1180*157*70
	17 - 24	1386*190*9	1360*157*70
	25 - 32	1566*190*9	1540*157*70

Model	Faceplate	Box
EH221	446*110*5	413*75*50
EHD221	446*190*5	413*153*50

COP810X

Summary:
Surface mounted.

Faceplate:
Hairline, Mirror

Buttons:
EB218A

Model	Floors	Faceplate	L	L1	W	W1
COP810X	2 - 8	385 x 251 x 64	260	25	150	68.6
	9 - 15	430 x 296 x 64	320	17.5	195	91.6
	16 - 32	565 x 341 x 64	380	40	240	53.3

COP2010

EH2010

COP2010

Summary:
For homelift

Indicators:
COP
SM.04HR/F
SM.04VL16/L
SM.04TL/S 4.3″ TFT
LOP
SM.04VR/01

Faceplate:
Hairline, Mirror, Golden

Buttons:

PB33 PB31 EB410A PUA210

Model	Floors	Faceplate	Box
COP2010	2 - 4	600*200*2	540*180*65
EH2010		320*86*2	300*76*46

COP820

Summary:
Flat faceplate.

Faceplate:
Hairline, Mirror

Buttons:
EB218A

Model	Floors	Faceplate	Box
COP820	2 - 16	380*260*2	360*240*50
	17 - 24	380*360*2	360*340*50
	25 - 39	470*360*2	450*340*50

Hall Lantern

AEC335

AEC336

Indicators

STD: SM.04H16/A Segment led
OPT: SM.04HS/L Dot-matrix

AEC337

AEC338

AEC339

Illumination

Model	Illumination
AEC335	WHI
AEC336	WHI
AEC337	WHI ORG
AEC338	WHI ORG
AEC339	WHI ORG
AL220	WHI ORG BLU RED GRN
AL230	WHI ORG BLU RED GRN
AL240	WHI ORG BLU RED GRN

Arrive gong optional for products with this icon

Hall Lantern

AL220

AL240

AL230

SIZE, mm

Model	Faceplate	Box
AL220	300*100*2	280*80*80
AL230	266*266*2	256*256*60
AL240	300*120*2	280*110*80
AEC335	330*110*3	300*95*60
AEC336	330*110*3	300*95*60
AEC337	530*135*3	490*110*60
AEC338	300*135*3	260*110*60
AEC339	200*180*3	160 *155*60

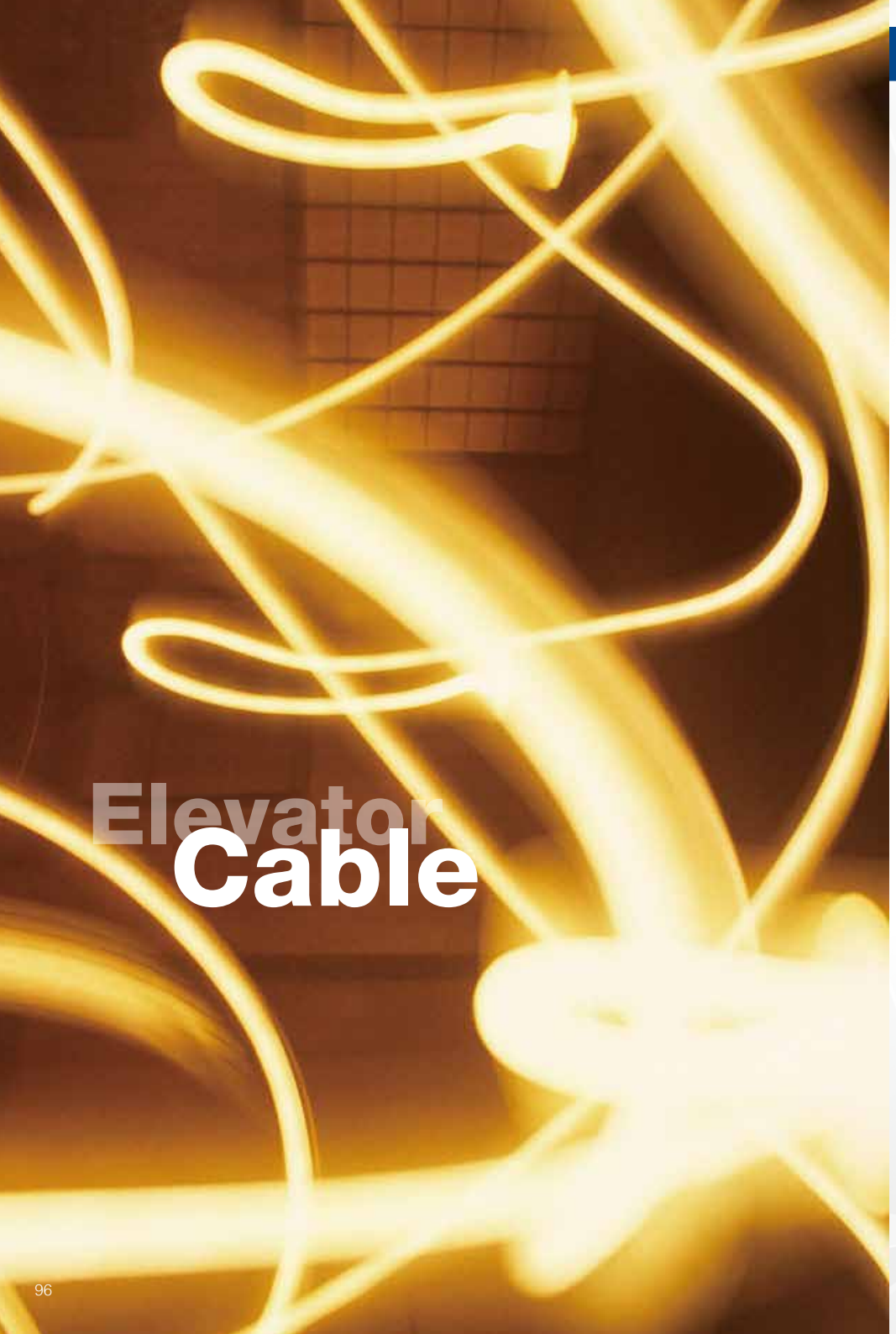
Fireman's Switch

EF274

EF980

FSC300

Model	Fixing Method	Faceplate material	Faceplate Size (mm)
EF274	Embedded	st. steel, hairline	185*90*2
EF980	Surface mounted	st. steel, hairline	150*100*18
FSC300	Surface mounted	st. steel, matt	130*100*15



Flexible Elevator Cable (24 cores and below)

Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follw:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product name: Travelling control cable for elevator
- Product standard: GB/T5023.6-2006(IEC60227-6:2001)
- Type of cable：60227 IEC 71f （TVVB）
- Specification of cable：60227 IEC 71f （TVVB）300/500V 0.75~1.0mm2 (3~24) cores 60227 IEC 71f （TVVB）450/750V 1.5~2.5mm2 (3~12) cores
- Opearating temperature: -15℃~40℃ (Max. allowed temperature of cable is 70℃)
- Type of conductor: Class 5
- Meterial of conductor: Anaerobic soft copper wire
- Meterial of insulation: High quality lead free PVC soft insulation
- Colour of insulation core : Black insulation with white number+yellow/green
- Material & colour of jacket: High quality cold proof & lead free elastic PVC, gray (or black)
- Burining test: Comply with IEC60332-1 single Vertical burning requrement
- Resistance of conductor at 20℃: Comply with GB/T3956-2008（IEC60228：2004）and JB/T8734.3~4-1998
- Insulation resistance at 70℃: Comply with GB/T5023.5-2006 (idt IEC60227.5: 2001) requirment
- Finished product voltage proof test: 2.0KV(AC)/5min, no breakdown 450/750V：2.5KV(AC)/5min，no breakdown
- 60227 IEC 71f （TVVB）finished mechanical specification: free suspension length: ≤35m; travelheight : ≤70m；rated speed：≤1.6m/s；freed bending diameter：≤400mm； minimum diameter：30mm；flexibility test：>3,000,000 times (insulation core has no broken circuit and short circuit)
- When rated speed is 1.6m/s＜v≤4.0m/s，free suspension length is more than 35m; the cable should be added with reinforced component made of galvanized steel wire or fiber wire. The corresponding cable type is 60227 IEC 71f （TVVB） （G）
- Product certificate : 3C certificate No. 2004010105119795 2; CE certificat No: CE-LVD-0502

Flexible Elevator Cable (24 cores and below)

60227 IEC 71f (TVVB)Cable Parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)			Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
			e1	e2	e3				
60227IEC71f (TVVB) 300/500V	3 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	11.0 × 4.5	83
	4 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	13.5 × 4.5	106
	5 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	16.0 × 4.5	125
	6 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	19.0 × 4.5	150
	9 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	27.5 × 4.5	219
	12 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	35.0 × 4.5	285
	16 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	45.5 × 4.5	375
	18 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	50.0 × 4.5	425
	20 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	56.0 × 4.5	470
	24 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	67.0 × 4.5	560
60227IEC71f (TVVB) 300/500V	3 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	11.5 × 4.7	100
	4 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	14.0 × 4.7	130
	5 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	17.0 × 4.7	155
	6 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	20.5 × 4.7	180
	9 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	29.0 × 4.7	260
	12 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	37.0 × 4.7	348
	16 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	48.5 × 4.7	455
	18 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	54.0 × 4.7	505
	20 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	60.0 × 4.7	560
	24 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	71.5 × 4.7	670
60227IEC71f (TVVB) 450/750V	3 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	13.0 × 5.3	129
	4 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	16.0 × 5.3	170
	5 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	19.0 × 5.3	210
	6 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	23.0 × 5.3	229
	9 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	33.0 × 5.3	330
	12 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	42.0 × 5.3	430
	3 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	16.0 × 6.2	184
60227IEC71f (TVVB) 450/750V	4 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	19.5 × 6.2	250
	5 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	23.5 × 6.2	315
	6 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	28.5 × 6.2	335
	9 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	41.5 × 6.2	490
	12 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	53.0 ×6.2	645

60227 IEC 71f (TVVB)Cable Parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)			Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
			e1	e2	e3				
60227IEC71f (TVVB) 300/500V	6 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	27.0 × 4.5	242
	9 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	35.5 × 4.5	323
	12 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	43.0 × 4.5	362
	16 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	53.5 × 4.5	486
	18 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	58.0 × 4.5	530
	20 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	64.0 × 4.5	555
	24 × 0.75	0.6	1.0	0.9	1.5	⩾ 0.011	⩽ 26.0	75.0 × 4.5	675
60227IEC71f (TVVB) 300/500V	3 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	19.5 × 4.7	185
	4 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	20.0 × 4.7	215
	5 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	35.0 × 4.7	240
	6 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	28.5 × 4.7	270
	9 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	37.0 × 4.7	350
	12 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	45.0 × 4.7	428
	16 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	56.5 × 4.7	530
	18 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	62.0 × 4.7	595
	20 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	68.0 × 4.7	645
	24 × 1.0	0.6	1.0	0.9	1.5	⩾ 0.010	⩽ 19.5	79.5 × 4.7	750
60227IEC71f (TVVB) 450/750V	3 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	21.0 × 5.3	219
	4 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	24.0 × 5.3	260
	5 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	27.0 × 5.3	300
	6 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	31.0 × 5.3	319
	9 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	41.0 × 5.3	420
	12 × 1.5	0.7	1.0	1.0	1.5	⩾ 0.010	⩽ 13.3	50.0 × 5.3	520
60227IEC71f (TVVB) 450/750V	3 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	24.0 × 6.2	289
	4 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	27.5 × 6.2	355
	5 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	31.5 × 6.2	420
	6 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	36.5 × 6.2	440
	9 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	49.5 × 6.2	595
	12 × 2.5	0.8	1.5	1.0	1.8	⩾ 0.009	⩽ 7.98	61.0 ×6.2	750

Flexible Elevator Cable (25 cores and above)

Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follw:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product Name：Travelling control cable for elevator
- Product standard：GB/T5023.6-2006 IEC60227-6:2001) and CNCA-01C-002：2007
- Type of cable：TVVB、TVVB（G）
- Specification of cable：TVVB 300/500V 0.75~1.0mm2 (25~60) cores: TVVB（G）300/500V 0.75~1.0mm2 (25~60) cores
- Operating temparature：-15℃~40℃ (Max. allowed temperature of conductor is 70℃)
- Type of Conductor：Class 5
- Meterial of Conductor：Anaerobic soft copper wire
- Meterial of Insulation：High quality lead free PVC soft insulation
- Colour of Insulation core：Various colour with printed number
- Material & Colour of jacket：High quality cold proof & lead free elastic PVC, gray (or black)
- Burining test：Comply with IEC60332-1 single Vertical burning requirement
- DC resistance of conductor at 20℃：Comply with GB/T3956-2006（IEC60228：2004）
- Insulation resistance at 70℃：Comply with GB/T5023.6-2008(IEC60227-6:2001) and CNCA-01C-002：2007
- Finished product voltage proof test：300/500V：2.0KV(AC)/5min, no breakdown
- TVVB finished mechanical specification：free suspension length：≤80m；travel height：≤160m；Rated speed：≤4.0m/s；free bending diameter：≤700mm；minimum bending diameter：8 times of cable thickness；flexibility test：>3,000,000 times (insulation core has no broken circuit and short circuit)
- When rated speed is 4.0m/s＜v≤10.0m/s，free suspension length exceeds 80m; the cable should be added with reinforced component made of galvanized steel wire or fibre wire, the corresponding cable type is TVVB(G)
- Product certificate: 3C certificate No. 2004010105119789; CE certificat No: CE-LVD-0502

TVVB Product Parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)			Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
			e1	e2	e3				
TVVB 300/500V	30 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	41.0 × 9.0	640
	36 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	45.0 × 9.5	775
	40 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	52.5 × 9.0	840
	42 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	51.0 × 9.5	900
	48 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	57.0 × 9.5	1010
	60 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	69.0 × 9.5	1250
TVVB 300/500V	30 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	49.0 × 10.5	900
	36 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	54.0 × 11.5	1050
	40 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	63.0 × 10.5	1150
	42 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	61.0 × 11.5	1100
	48 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	69.0 × 11.5	1350
	60 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	84.0 × 11.5	1690

TVVB（G）product parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)			Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
			e1	e2	e3				
TVVB 300/500V	30 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	53.0 × 9.0	850
	36 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	56.0 × 9.5	990
	40 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	64.0 × 9.0	1050
	42 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	63.0 × 9.5	1100
	48 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	69.0 × 9.5	1240
	60 × 0.75	0.4	2.0	1.2	1.4	≥ 0.011	≤ 26.0	81.0 × 9.5	1480
TVVB 300/500V	30 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	60.5 × 10.5	1120
	36 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	65.0 × 11.5	1290
	40 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	74.0 × 10.5	1370
	42 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	72.0 × 11.5	1340
	48 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	80.0 × 11.5	1590
	60 × 1.0	0.6	2.0	1.4	1.6	≥ 0.010	≤ 19.5	95.0 × 11.5	1930

PVC Insulation Soft Cable (5 cores and below)

Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follow:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product Name: PVC insulation jaceket soft wire
- Product standard:GBTT5023.5-2008(IEC60227-5:2003)
- Type of cable: 60227IEC 52(RW) 60227IEC53(RW)
- Specification of cable: 60227IEC52(RW)300/300V 0.5-0.75 mm2(2~3cores); 60227IEC53(RW) 300/500V0.75-2.5 mm2(3~5ocres)
- Operating temperature: 0°C~40°C (Max. allowed temperature of conductor is 70°C)
- Type of Conductor: Class 5
- Meterial of Conductor: Anaerobic soft copper wire
- Meterial of Insulation: High quality leadfree PVC soft insulation
- Colour of Insulation Core: Comply with GB7T5023.5-2008(1EC60227-5:2003)
- Material & Colour of jacket: High quality lead free PVC soft jacket, gay(or black)
- Burning test Accord with IEC60332-1 Single Verticl burning requirement
- DC resistance of conductor at 20°C: Comply with GB/T3956-2008 (IEC60228:2004) requirement
- Insulation resistance at 70°C Comply with GB/T5023.5-2008(IEC60227-5:2003) requirement
- Finshed product voltage proof test:2.0KV(AC)/5min,no breakdown
- Profuct certificate: 3C certificate No. 2003010105082952; CE certificate No: CE-LVD-0502

Type Voltage class	Cores ×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)	
							Type ofpile pipe	Type of extrusion
60227IEC52 (RVV) 300/300V	2×0.5	0.5	0.6	⩾0.012	⩽39.0	3.24×5.24		20.2
	2×0.5	0.5	0.6	⩾0.012	⩽39.0	5.26	30	38
	2×0.75	0.5	0.6	⩾0.010	⩽26.0	3.48×5.72		25
	2×0.75	0.5	0.6	⩾0.010	⩽26.0	5.72	37	48
	3×0.5	0.5	0.6	⩾0.010	⩽39.0	5.55	39	45
	3×0.75	0.5	0.6	⩾0.010	⩽26.0	6.06	49	57
	2×0.75	0.6	0.8	⩾0.011	⩽26.0	4.10×6.50		44
	2×0.75	0.6	0.8	⩾0.011	⩽26.0	6.60	47	60
	3×0.75	0.6	0.8	⩾0.011	⩽26.0	6.90	59	69
	4×0.75	0.6	0.8	⩾0.011	⩽26.0	7.55	74	84
	5×0.75	0.6	0.9	⩾0.011	⩽26.0	8.45	93	103
60227IEC53 (RVV) 300/500V	2×1.0	0.6	0.8	⩾0.010	⩽19.5	6.82	53	67
	3×1.0	0.6	0.8	⩾0.010	⩽19.5	7.20	69	80
	4×1.0	0.6	0.9	⩾0.010	⩽19.5	8.10	90	101
	5×1.0	0.6	0.9	⩾0.010	⩽19.5	8.85	108	120
	2×1.5	0.7	0.8	⩾0.010	⩽13.3	7.78	70	90
	3×1.5	0.7	0.9	⩾0.010	⩽13.3	8.45	97	113
	4×1.5	0.7	1.0	⩾0.010	⩽13.3	9.45	126	142
	5×1.5	0.7	1.1	⩾0.010	⩽13.3	10.52	158	174
	2×2.5	0.8	1.0	⩾0.009	⩽7.98	9.54	108	138
	3×2.5	0.8	1.0	⩾0.009	⩽7.98	10.10	144	168
	4×2.5	0.8	1.1	⩾0.009	⩽7.98	11.30	188	211
	5×2.5	0.8	1.2	⩾0.009	⩽7.98	12.60	234	258

PVC Insulation Soft Cable (6 cores and above)

Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follw:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product name: PVC insulation jacket soft cable
- Product standard: GB/T5023.5-2008(IEC60227-5:2003)； CNCA-01C-002 : 2007
- Type of cable； RVV
- Operating temparature: 0℃~40℃ (Max. allowed temperature of conductor is 70℃)
- Type of conductor: Class 5
- Meterial of conductor: Anaerobic soft copper wire
- Meterial of insulation: High quality lead free PVC soft insulation
- Colour of insulation core : Various colour with printed number
- Material & colour of jacket: High quality lead free PVC soft jacket, gray (or black)
- Burining test: Comply with IEC60332-1 single Vertical burning requirement
- DC resistance of conductor at 20℃: Comply with GB/T3956-2008 (IEC60228: 2004)
- Insulation resistance at 70℃： Comply with GB/T5023.5-2008(IEC60227-5:2003), CNCA-01C-002:2007 requirment
- Finished product voltage proof test:2.0KV(AC)/5min, no breakdown
- Product certificate : 3C certificate No. 2004010105119795; CE certificat No: CE-LVD-0502

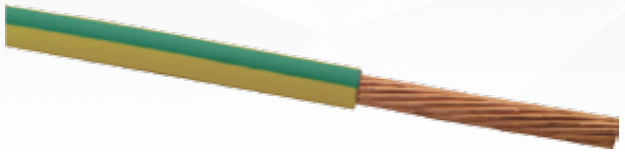
Product Parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
RVV 300/500V	6×1.5	0.7	1.1	⩾ 0.011	⩽ 13.3	11.50	192
	6×2.5	0.8	1.2	⩾ 0.011	⩽ 7.98	13.80	286
	7×1.5	0.7	1.1	⩾ 0.011	⩽ 13.3	11.50	203
	8×1.5	0.7	1.2	⩾ 0.011	⩽ 13.3	12.60	238
	6× 0.75	0.4	0.8	⩾ 0.011	⩽ 26.0	8.05	100
	7× 0.75	0.4	1.0	⩾ 0.011	⩽ 26.0	8.05	106
	8× 0.75	0.4	1.0	⩾ 0.011	⩽ 26.0	9.06	130
	10×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	10.50	157
	12×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	11.35	190
	15×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	12.40	238
	16×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	12.40	244
RVV 300/500V	19×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	13.00	278
	20×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	13.50	290
	24×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	15.05	345
	25×0.75	0.4	1.2	⩾ 0.011	⩽ 26.0	15.40	368
	30×0.75	0.4	1.4	⩾ 0.011	⩽ 26.0	16.40	431
	37×0.75	0.4	1.4	⩾ 0.011	⩽ 26.0	17.60	515
	40×0.75	0.4	1.4	⩾ 0.011	⩽ 26.0	19.60	554
	41×0.75	0.4	1.4	⩾ 0.011	⩽ 26.0	19.60	585
	6 × 1.0	0.6	1.0	⩾ 0.010	⩽ 19.5	9.95	138
	7 × 1.0	0.6	1.1	⩾ 0.010	⩽ 19.5	9.95	145
RVV 300/500V	8 × 1.0	0.6	1.2	⩾ 0.010	⩽ 19.5	11.10	174
	10× 1.0	0.6	1.2	⩾ 0.010	⩽ 19.5	13.00	216
	12× 1.0	0.6	1.2	⩾ 0.010	⩽ 19.5	13.40	245
	15× 1.0	0.6	1.2	⩾ 0.010	⩽ 19.5	14.75	302
	16× 1.0	0.6	1.2	⩾ 0.010	⩽ 19.5	14.75	316

Product Parameter

Type Voltage class	Cores×Section (mm2)	Type of Conductor (mm)	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
RVV 300/500V	19×1.0	0.6	1.2	≥0.010	≤19.5	15.50	361
	20×1.0	0.6	1.2	≥0.010	≤19.5	15.90	378
	24×1.0	0.6	1.2	≥0.010	≤19.5	18.10	453
	25×1.0	0.6	1.2	≥0.010	≤19.5	18.50	467
	30×1.0	0.6	1.4	≥0.010	≤19.5	19.50	562
	37×1.0	0.6	1.4	≥0.010	≤19.5	21.05	648
	40×1.0	0.6	1.4	≥0.010	≤19.5	23.60	740
	41×1.0	0.6	1.4	≥0.010	≤19.5	23.60	755
RVV 300/500V	5×0.75+1×2	0.4/0.4	1.0	≥0.010/0.009	≤26.0/9.97	9.20	123
	6×0.75+1×2	0.4/0.4	1.0	≥0.010/0.009	≤26.0/9.97	9.20	132
	7×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	9.60	151
	11×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	12.00	211
	12×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	12.00	222
	18×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	13.70	297
	19×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	14.60	320
	19×0.75+1×2	0.4/0.4	1.2	≥0.010/0.009	≤26.0/9.97	14.60	320
	24×0.75+1×2	0.4/0.4	1.4	≥0.010/0.009	≤26.0/9.97	15.80	390
	29×0.75+1×2	0.4/0.4	1.4	≥0.010/0.009	≤26.0/9.97	16.70	449
	36×0.75+1×2	0.4/0.4	1.4	≥0.010/0.009	≤26.0/9.97	18.30	536
	38×0.75+1×2	0.4/0.4	1.4	≥0.010/0.009	≤26.0/9.97	18.30	558

Fixed Wirng or No Jacket Cable Installation



Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follow:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product Name: PVC insulation no jacket wire
- Product standard: GB/T5023.3-2008(IEC80227-3:1997), JB/T8734.2-1998 JBCT8734.4-1998
- Type of Cable: 60227IEC01 (BV); 60227IEC02 (RV): BVR 60227IEC05 (BV); 60227IEC06 (RV); 60227IEC07 (BV-90); 60227IEC08 (RV-90)
- Cable specification: 60227IEC01(BV)450/750V1.5~95mm2; 60227IEC02 (RV)450/750V1.5~6mm2; 60227IEC05(BV)300/500V0.5-1.0mm2; 60227IEC06(RV)300/500V 0.5-1.0mm2; 60227IEC07(BV-90)300/500V0.5~2.5mm2; 60227IEC08(RV-90)300/500V 0.5-2.5mm2; BV300/500V0.75-1.0mm2; BVR450/750V2.5-70mm2 AV(AV-90,ARV, ARV-90 300/300V 0.20~0.4mm2
- Operating temperature: 0°C~40°C(Max.allowed temperature of conductor is 70°C)
- Material of conductor, Anaercbic soft copper wires
- Material of insulation: BV, RV, BVR, AV, AVR, high quality leadfree PVC Soft insulation; BV-90, RV-90, AV-90, AVR-90: Highquality lead free & heat proof PVC Soft insulation
- Colour of insulation core: Random
- Burning test: Accord with IEC60332-1 single Vertical burning requirement
- DC resistance of conductor at 20°C: Comply with GBTT3956-2008 (IEC60228:1997) and JB/T8734.3-4-1998
- Insulation resistance at 70°C: Comply with GB/T5023.3-2008 (idt IEC60227-3:1997) and JBTT8734.4-1998
- Finished product voltage proof test 300/300V: 1.5kv(ac)/5min, no breakdown; 300/500V:2.0KV(AC)/5Min, no breakdown; 450/750V:2.5KV(AC)5min, no breakdown
- 3C certificate no: 2003010105082949, 2004010105119784, 2004010105119789

Elevator Cable

Product Parameter

Type Voltage class	Section (mm2)	Type of Conductor	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
60227IEC01(BV) 450/750V	1.5	1	0.7	≥ 0.011	≤ 12.1	2.85	19.9
	1.5	2	0.7	≥ 0.010	≤ 12.1	2.98	20.9
	2.5	1	0.8	≥ 0.010	≤ 7.41	3.45	31.5
	2.5	2	0.8	≥ 0.009	≤ 7.41	3.70	33.7
	4.0	1	0.8	≥0.0085	≤ 4.61	3.90	46.5
	4.0	2	0.8	≥0.0077	≤ 4.61	4.20	49.1
	6.0	1	0.8	≥0.0070	≤ 3.08	4.40	66.1
	6.0	2	0.8	≥0.0065	≤ 3.08	4.80	68.6
	10	1	1.0	≥0.0070	≤ 1.83	5.70	113.5
	10	2	1.0	≥0.0065	≤ 1.83	6.10	115.8
	16	2	1.0	≥0.0050	≤ 1.15	7.20	175.1
	25	2	1.2	≥0.0050	≤ 0.727	8.90	277.5
	35	2	1.2	≥0.0040	≤ 0.524	10.10	372.2
	50	2	1.4	≥0.0045	≤ 0.387	11.90	499.5
	70	2	1.4	≥0.0035	≤ 0.268	13.70	703.5
	95	2	1.6	≥0.0035	≤ 0.193	16.00	972.1
60227IEC02(RV) 450/750V	1.5	5	0.7	≥ 0.010	≤ 13.3	3.00	20.9
	2.5	5	0.8	≥ 0.009	≤ 7.98	3.70	33.0
	4	5	0.8	≥ 0.007	≤ 4.95	4.30	48.9
60227IEC05(BV) 300/500V	6	5	0.8	≥ 0.006	≤ 3.30	4.85	69.4
	0.5	1	0.6	≥ 0.015	≤ 36.0	1.98	8.1
	0.75	1	0.6	≥ 0.012	≤ 24.5	2.20	10.7
	1.0	1	0.6	≥ 0.011	≤ 18.1	2.35	11.5
60227IEC06(RV) 300/500V	0.5	5	0.6	≥ 0.013	≤ 39.0	2.15	8.8
	0.75	5	0.6	≥ 0.011	≤ 26.0	2.40	11.9
	1.0	5	0.6	≥ 0.010	≤ 19.5	2.56	14.5

BVR Product Parameter

Type Voltage class	Section (mm2)	Type of Conductor	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
BVR 450/750V	2.5	19/0.41	0.8	≥ 0.011	≤ 7.41	3.70	33.6
	4.0	19/0.52	0.8	≥ 0.009	≤ 4.61	4.30	49.2
	6.0	19/0.64	0.8	≥ 0.0084	≤ 3.08	4.85	72.9
	10	49/0.52	1.0	≥ 0.0072	≤ 1.83	6.60	123.4
	16	49/0.64	1.0	≥0.0062	≤ 1.15	7.70	178.7
	25	98/0.58	1.2	≥0.0058	≤ 0.727	9.90	295.9
	35	133/0.58	1.2	≥0.0052	≤ 0.524	11.00	388.6
	50	133/0.68	1.4	≥0.0051	≤ 0.387	12.80	533.4
	70	189/0.68	1.4	≥0.0045	≤ 0.268	15.30	746.5

BV, AV, AVR Product Parameter

Type Voltage class	Section (mm2)	Type of Conductor	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
BV 300/500V	0.75	7/0.37	0.6	≥0.014	≤ 24.5	2.35	13.5
	1.0	7/0.43	0.6	≥0.013	≤ 18.1	2.50	14.4
AV 300/300V	0.2	1/0.50	0.4	≥0.015	≤ 92.3	1.3	3.3
	0.3	1/0.50	0.4	≥0.014	≤ 64.1	1.40	4.3
	0.4	1/0.70	0.4	≥0.012	≤ 47.1	1.50	5.3
AVR 300/300V	0.2	12/0.15	0.4	≥0.014	≤ 92.3	1.45	3.7
	0.3	16/0.15	0.5	≥0.014	≤ 69.2	1.70	5.2
	0.4	23/0.15	0.5	≥0.012	≤ 48.2	1.90	6.9

90℃ Heat Proof Wire Parameter

Type Voltage class	Section (mm2)	Type of Conductor	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
AV-90 300/300V	0.2	1/0.50	0.4	≥ 0.015	≤ 92.3	1.3	3.3
	0.3	1/0.50	0.4	≥ 0.014	≤ 64.1	1.40	4.3
	0.4	1/0.70	0.4	≥ 0.012	≤ 47.1	1.50	5.3
AV-90 300/300V	0.2	12/0.15	0.4	≥ 0.014	≤ 92.3	1.45	3.7
	0.3	16/0.15	0.5	≥ 0.014	≤ 69.2	1.70	5.2
	0.4	23/0.15	0.5	≥ 0.012	≤ 48.2	1.90	6.9
60227IEC07 (BV-90) 300/500V	0.5	1/0.80	0.6	≥ 0.015	≤ 36.0	1.98	8.1
	0.75	1/0.97	0.6	≥0 .013	≤ 24.5	2.20	10.7
	1.0	1/1.13	0.6	≥ 0.012	≤ 18.1	2.35	13.5
	1.5	1/1.38	0.7	≥ 0.011	≤ 12.1	2.85	20.1
	2.5	1/1.78	0.8	≥ 0.009	≤ 7.41	3.45	31.5
60227IEC06(RV) 300/500V	0.5	16/0.20	0.6	≥ 0.013	≤ 39.0	2.15	8.8
	0.75	24/0.20	0.6	≥ 0.012	≤ 26.0	2.40	11.9
	1.0	32/0.20	0.6	≥ 0.010	≤ 19.5	2.56	14.5
	1.5	48/0.20	0.7	≥ 0.009	≤ 13.3	3.00	20.9
	1.5	30/0.25	0.7	≥ 0.009	≤ 13.3	3.00	21.1
	2.5	77/0.20	0.8	≥ 0.009	≤ 7.98	3.70	33.0
	2.5	49/0.25	0.8	≥ 0.009	≤ 7.98	3.70	33.0

Integrated Elevator Cable Built in With Communication、Audio、Optical Fiber Cable etc.

Technical Description

● Non-standard cable is without fixed specification and model number. It can be basing on customer's request to modify or addition of cable for particular functions such as:

1.coaxial cable
2.Video/Audio cable
3.Optical fiber
4.Power cable for air conditioner

● Installation of shielded cable :

1) All equipments inside control panel should be earthed properly, should use short and thick earth wires to connect to suitable earth point.
The shield layer usually use flat conductor (eg. metal mesh) due to its low impedance in high frequency.
2)To effectively restrain the radiation and transmission of electromagnetic wave, power cable must be shielded.
3) Twisted pair shield cable should be used as control cable as it can effectively minimize the interference between transmission wires.
i.The wire for transmission of analog signal should use twisted pair double shield cable.
ii.Different analog signal should be transmitted by separated wires with independent shielded layer to minimize the interference between the transmission wire.
iii.The wire for transmission of low voltage digital signal should use double shielded twisted pair cable or single shielded twisted pair cable.
iv.Analog signal and digital signal should be transmitted by separated wire. Don't put together the wires of 24VDC and 115/230VAC in the same cable.
4) Disposition of wire: Power cable should be disposed independently from other cable with min. 500mm apart from each other. Power cable should be avoided to run a parallel line with other cable in a long distance. If control cable and power cable pass across each other, they should be arranged at right-angle. The earth of power system and the earth of control system should be separated. The shielded drive cable and control cable should be fixed on installation panel.

Elevator Cable

Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follw:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product Name：Elevator traveling cable
- Product standard：Elevator cable is complied to GB/T5023.6-2006(IEC60227-6:2001) and CNCA-01C-002：2007；audio cable：GB/T14864-1993；communication cable：YD/T322-1996 communication optical fiber cable：YD/T1258-2005
- Type of cable： TVVBP；TVVBPG；TVVBG-O；TVVBPG-O
- Voltage： 300/500V
- Specification of cable：Travelling cable built in with communication、audio, optical fiber calbe etc.
- Operating temperature: -15℃~40℃ (Max. allowed temperature of conductor is , 70℃)
- Type of Conductor: class 5
- Meterial of Conductor: Anaerobic soft copper wire
- Meterial of Insulation: High quality lead free PVC soft insulation
- Colour of Insulation core: Various colour with printed number
- Material & Colour of jacket: High quality cold proof & lead free elastic PVC, gray (or black)
- Burining test: Comply with IEC60332-1 Single Vertical burning requirement
- DC resistance of conductor at 20℃: Comply with GB/T3956-2008 （IEC60228 : 2004）
- Insulation resistance at 70℃: Comply with GB/T5023.6-2006(IEC60227-6:2001) and CNCA-01C-002：2007
- Finished product voltage proof test：300/500V：2.0KV(AC)/5min，no break-down
- Finished mechanical specification：free suspension length：≤80m； travel height :≤160m；
Rated speed：≤4.0m/s；free bending diamete：≤700mm；
Minimum bending diameter：80mm；flexibility test：>3000,000 times (insulation core has no broken circuit and short circuit)
- When rated speed is 4.0m/s<v≤10.0m/s，free suspension length exceeds 80m；the cable should be added with reinforced component made of galvanized steel wire or fiber wire.
- Reinforced component must be required when traveling cable is built in with optical fiber.

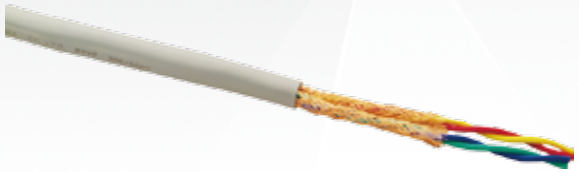
Typical Nonstandard Cable Parameter

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm) e1	e2	e3	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
TVVBP 300/500V	30×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	51.0×9.5	840
	36×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	57.0×9.5	970
	42×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	64.0×9.5	1090
	48×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	69.0×9.5	1220
TVVBPG 300/500V	30×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	63.0×9.5	1040
	36×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	69.0×9.5	1170
	42×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	75.0×9.5	1290
	48×0.75+2×2P×0.75	0.4	2.0	1.2	1.4	≥0.011	≤26.0	81.0×9.5	1410

Typical Nonstandard Cable Parameter (built in with optical fiber)

Type Voltage class	Cores×Section (mm^2)	Type of Conductor (mm)	Thickness of Insulation (mm) e1	e2	e3	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
TVVBG-O 300/500V	2×0.75+2×OF	0.6	1.0	0.9	1.5	≥0.011	≤26.0	24.5×5.0	196
	18×0.75+4×OF	0.4	2.0	1.2	1.4	≥0.011	≤26.0	44.0×9.5	730
TVVBPG-O 300/500V	18×0.75+2×2P×0.75+4×OF	0.4	2.0	1.4	1.6	≥0.010	≤26.0	56.0×9.5	920
	18×0.75+HF75+4×OF	0.4	2.0	1.4	1.6	≥0.010	≤26.0	50.0×9.5	825
	18×0.75+2×2P×0.75+HF75+4×OF	0.4	2.0	1.4	1.6	≥0.010	≤26.0	63.0×9.5	1028

Oil-proof PVC Jacket Shield Cable



Lead free enviromental protection performance: Product is fully complied with the requirement of heavy metal quantity in EU RoHS. Testing data is as follw:

Sequence number	Element	Unit	RoHS standard	Actual inspected Unit data of cable
1	Pd	ppm	<1000	2
2	Hg	ppm	<1000	2
3	Cr^{+6}	ppm	<1000	2
4	Cd	ppm	<100	2
5	PBB	ppm	<1000	5
6	PBDE	ppm	<1000	5

Main Specification of Product

- Product Name: PVC insulation jacket soft wire
- Product standard：GB/T5023.7-2008(IEC60227-7:2003) JB/T8734.5-1998
- Type of cable：60227IEC74（RVVYP）； RVVP
- Specification of cable： 60227IEC74（RVVYP）300/500V 0.5~2.5mm2（2~7cores）；
RVVP 300/300V 0.2~2.5mm2（1core）0.2~1.5mm2（2~3 cores）0.2~0.4mm2（4~7 cores）
- Operating temperature: 0℃~40℃ (Max. allowed temperature of conductor is 70℃)
- Type of Conductor: class 5
- Meterial of Conductor: Anaerobic soft copper wire
- Meterial of Insulation: High quality lead free PVC soft insulation
- Colour of Insulation core：Comply with GB/T5023.7-2008(IEC60227-7:2003) and JB/T8734.5-1998
- Material & Colour of jacket：60227IEC74（RVVYP）：High quality lead free & oil proof PVC soft jacket;
RVVP：High quality lead free PVC soft jacket；gray (or black)
- Burining test: Comply with IEC60332-1 Single vertical burning requirement
- DC resistance of conductor at 20℃:Comply with GB/T3956-2008（IEC60228:2004）and JB/T8734.5-1998
- Insulation resistance at 70℃:Accord with GB/T5023.7-2008(IEC60227-7:2003) and JB/T8734.5-1998
- Finished product voltage proof test：300/500V：2.0KV(AC)/5min，no breakdown
300/300V：1.5KV(AC)/5min，no breakdown
- Product certificate : 3C certificate No：2004010105119789，2004010105119784

60227IEC74（RVVYP）Product Parameter

Type Voltage class	Cores ×Section (mm^2)	Thickness of insulation (mm)	Type of Conductor (mm)	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
60227IEC74 (RVVYP) 300/500V	2×0.5	0.6	0.7	0.9	≥ 0.013	≤ 39.0	8.30	104.4
	2×0.75	0.6	0.7	0.9	≥ 0.011	≤ 26.0	8.90	119.0
	2×1.0	0.6	0.7	0.9	≥ 0.010	≤ 19.5	9.10	130.1
	2×1.5	0.7	0.7	1.0	≥ 0.010	≤ 13.3	10.30	164.4
	2×2.5	0.8	0.7	1.1	≥ 0.009	≤ 7.98	11.80	223.9
	3×0.5	0.6	0.7	0.9	≥ 0.013	≤ 39.0	8.70	116.0
	3×0.75	0.6	0.7	0.9	≥ 0.011	≤ 26.0	9.20	134.1
	3×1.0	0.6	0.7	1.0	≥ 0.010	≤ 19.5	9.70	152.0
	3×1.5	0.7	0.7	1.0	≥ 0.010	≤ 13.3	10.70	187.8
	3×2.5	0.8	0.7	1.1	≥ 0.009	≤ 7.98	12.40	258.8
	4×0.5	0.6	0.7	0.9	≥ 0.013	≤ 39.0	9.30	132.8
	4×0.75	0.6	0.7	1.0	≥ 0.011	≤ 26.0	10.00	158.6
	4×1.0	0.6	0.7	1.0	≥ 0.010	≤ 19.5	10.40	176.4
	4×1.5	0.7	0.7	1.1	≥ 0.010	≤ 13.3	11.70	228.0
	4×2.5	0.8	0.8	1.2	≥ 0.009	≤ 7.98	13.70	323.6
	5×0.5	0.6	0.7	1.0	≥ 0.013	≤ 39.0	10.00	157.9
	5×0.75	0.6	0.7	1.0	≥ 0.011	≤ 26.0	10.70	184.7
	5×1.0	0.6	0.7	1.1	≥ 0.010	≤ 19.5	11.30	210.9
	5×1.5	0.7	0.8	1.2	≥ 0.010	≤ 13.3	12.90	275.8
	5×2.5	0.8	0.8	1.3	≥ 0.009	≤ 7.98	15.00	397.2
	6×0.5	0.6	0.7	1.0	≥ 0.013	≤ 39.0	10.50	179.0
	6×0.75	0.6	0.7	1.1	≥ 0.011	≤ 26.0	11.70	214.8
	6×1.0	0.6	0.7	1.1	≥ 0.010	≤ 19.5	12.10	240.7
	6×1.5	0.7	0.8	1.2	≥ 0.010	≤ 13.3	13.90	327.9
	6×2.5	0.8	0.8	1.4	≥ 0.009	≤ 7.98	16.30	464.9
	7×0.5	0.6	0.7	1.1	≥ 0.013	≤ 39.0	10.70	188.7
	7×0.75	0.6	0.7	1.2	≥ 0.011	≤ 26.0	11.70	221.2
	7×1.0	0.6	0.8	1.2	≥ 0.010	≤ 19.5	12.10	260.9
	7×1.5	0.7	0.8	1.3	≥ 0.010	≤ 13.3	13.90	346.9
	7×2.5	0.8	0.8	1.5	≥ 0.009	≤ 7.98	16.50	492.6

RVVP Product Parameter

Type Voltage class	Cores ×Section (mm^2)	Thickness of insulation (mm)	Type of Conductor (mm)	Thickness of Insulation (mm)	Insulation Resistance at 70℃ (MΩ·km)	Conductor DCResistance at 20℃ (Ω/km)	Size (mm)	Reference Weight (kg/km)
RVVP 300/3 00V	1×0.2	0.4	0.1	0.4	≥ 0.013	≤ 92.3	2.70	12.5
	1×0.3	0.5	0.1	0.4	≥ 0.014	≤ 69.2	3.00	15.4
	1×0.4	0.5	0.1	0.4	≥ 0.013	≤ 48.2	3.30	18.0
	1×0.5	0.5	0.1	0.4	≥ 0.012	≤ 39.0	3.30	19.2
	1×0.75	0.5	0.1	0.4	≥ 0.010	≤ 26.0	3.50	23.2
	1×1.0	0.6	0.1	0.6	≥ 0.010	≤ 19.5	4.20	31.5
	1×1.5	0.6	0.1	0.6	≥ 0.009	≤ 13.3	4.50	38.3
	1×2.5	0.7	0.15	0.6	≥ 0.008	≤ 7.98	5.20	53.1
	2×0.2	0.4	0.1	0.6	≥ 0.013	≤ 92.3	4.50	26.1
	2×0.3	0.5	0.15	0.6	≥ 0.014	≤ 69.2	5.30	38.2
	2×0.4	0.5	0.15	0.6	≥ 0.013	≤ 48.2	5.70	44.2
	2×0.5	0.5	0.15	0.6	≥ 0.012	≤ 39.0	5.80	46 .8
	2×0.75	0.5	0.15	0.6	≥ 0.010	≤ 26.0	6.30	55.9
	2×1.0	0.6	0.15	0.6	≥ 0.010	≤ 19.5	6.90	68.0
	2×1.5	0.6	0.15	0.8	≥ 0.009	≤ 13.3	7.90	89.1
	3×0.2	0.4	0.15	0.6	≥ 0.013	≤ 92.3	4.90	36.5
	3×0.3	0.5	0.15	0.6	≥ 0.014	≤ 69.2	5.50	45.2
	3×0.4	0.5	0.15	0.6	≥ 0.013	≤ 48.2	6.00	53.5
	3×0.5	0.5	0.15	0.6	≥ 0.012	≤ 39.0	6.10	56.8
	3×0.75	0.5	0.15	0.6	≥ 0.010	≤ 26.0	6.60	69.1
	3×1.0	0.6	0.15	0.8	≥ 0.010	≤ 19.5	7.70	92.2
	3×1.5	0.6	0.20	0.8	≥ 0.009	≤ 13.3	8.50	122.8
	4×0.2	0.4	0.15	0.6	≥ 0.013	≤ 92.3	5.30	42.9
	4×0.3	0.5	0.15	0.6	≥ 0.014	≤ 69.2	6.00	53.5
	4×0.4	0.5	0.15	0.6	≥ 0.013	≤ 48.2	6.50	63.9
	5×0.2	0.4	0.15	0.6	≥ 0.013	≤ 92.3	5.80	49.3
	5×0.3	0.5	0.15	0.6	≥ 0.014	≤ 69.2	6.50	62.5
	5×0.4	0.5	0.15	0.6	≥ 0.013	≤ 48.2	7.00	74.9
	6×0.2	0.4	0.15	0.6	≥ 0.013	≤ 92.3	6.10	58.5
	6×0.3	0.5	0.15	0.6	≥ 0.014	≤ 69.2	7.00	74.5
	6×0.4	0.5	0.15	0.8	≥ 0.013	≤ 48.2	8.00	96.8
	7×0.2	0.4	0.15	0.6	≥ 0.013	≤ 92.3	6.10	60.1
	7×0.3	0.5	0.15	0.8	≥ 0.014	≤ 69.2	7.00	76.6
	7×0.4	0.5	0.15	0.8	≥ 0.013	≤ 48.2	8.00	100.4