



Wires and Cables



Salzer Group is India's leading manufacturer of low voltage switch gear products with international presence. **Salzer** has five world class manufacturing facilities with ISO 9001, ISO 14001 and ISO 18001 accreditation. The group has a diverse product portfolio ranging from Cam switches, Load Break switches, Wiring ducts, Toroidal Transformers, Modular Switches etc.



Salzer has a great vision and power of innovation in the field of wires and cables.

Our wires and cables are manufactured to International Standards such as IEC, BS, UL, CSA, VDE also conforms to ISI-India. **Salzer** offers extensive standard product range as well as speciality cables to suit any industry for any known application.

Salzer draws its strength and quality from the state of art manufacturing facilities. The multi wire drawing machines are fitted with 'resistance annealer' which gives better flexibility on the conductors.



Salzer has the latest double twist bunching machines with PLC controllers, that ensures the perfect lay length for ever millimeter.

Top of the line Insulation and sheathing machines are fitted with high voltage tester and on-line diameter gauge which ensures the uniform double cover insulation. **Salzer** has the modern lab to test the cables and the insulating compounds as per the international standards.

Conductors are manufactured from 99.997% pure ETP grade annealed bare/ tinned Copper.

Salzer has formulated a special grade of insulation / sheathing compounds to meet the requirements such as Flame Retardant, Zero halogen, Low Smoke, Oil resistance while maintaining the most important characteristics of flexibility.



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Application

H05V-R/H05V-V, H07V-R/H07V-U is suitable for power and lighting circuits and building wiring.

Reference Standards:

BS 6004, IEC 60227

Conductor:

H07V-R: Class 2 stranded plain copper conductors to BS EN 60228 H07V-U: Class 1 solid plain copper conductor to BS EN 60228:2005

Insulation:

PVC (Polyvinyl Chloride)

Insulation Colour:

Red, Black, Blue, Yellow, Brown, White, Green/Yellow, Grey

Voltage Rating:

450/750V

Temperature Rating:

0°C to +70°C

Harmonised Code:

Upto 1.00 mm² solid wire H05V-U
1.5 mm² and 2.5 mm² solid wire H07V-U
1.5 mm² and 240 mm² stranded wire H07V-R

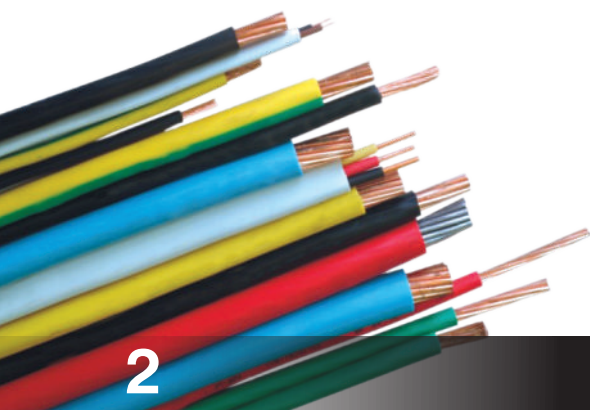
PVC-insulated single wires: single strand for fixed installation

Designation Cross-section (mm ²)	Conductor design nominal value (n x Ø mm)	Insulation wall thickness nominal value (mm)	Outer diameter nominal value (mm)	Rated voltage U ₀ / U (V)
H05V-U 0.5	1 x 0.80	0.6	2.0	300/500
H05V-U 0.75	1 x 0.98	0.6	2.2	300/500
H05V-U 1.0	1 x 1.13	0.6	2.4	300/500
H07V-U 1.5	1 x 1.38	0.7	2.8	450/750
H07V-U 2.5	1 x 1.78	0.8	3.4	450/750

PVC-insulated single wires: multistrand for fixed installation

H05V-R 0.5	7 x 0.30	0.6	2.1	300/500
H05V-R 0.75	7 x 0.37	0.6	2.3	300/500
H05V-R 1.0	7 x 0.43	0.6	2.5	300/500
H07V-R 1.5	7 x 0.52	0.7	2.8	450/750
H07V-R 2.5	7 x 0.66	0.8	3.4	450/750

Maximum size upto 240 mm²



PVC-insulated single core wires: fine wire for flexible installation

Designation Cross-section (mm ²)	Conductor design nominal value (n x Ø mm)	Insulation wall thickness nominal value (mm)	Outer diameter nominal value (mm)	Rated voltage U ₀ / U (V)
H05V-K 0.5	15 x 0.20	0.6	2.2	300/500
H05V-K 0.75	22 x 0.20	0.6	2.4	300/500
H05V-K 1.0	29 x 0.20	0.6	2.5	300/500
H07V-K 1.5	28 x 0.25	0.7	3.0	450/750
H07V-K 2.5	45 x 0.25	0.8	3.6	450/750
H07V-K 4.0	51 x 0.30	0.8	4.2	450/750
H07V-K 6.0	77 x 0.30	0.8	4.6	450/750
H07V-K 10.0	76 x 0.40	1.0	6.2	450/750
H07V-K 16.0	119 x 0.40	1.0	7.1	450/750
H07V-K 25.0	182 x 0.40	1.2	8.7	450/750
H07V-K 35.0	272 x 0.40	1.2	9.9	450/750

Maximum size upto 240 mm²

**SINGLE CORE HALOGEN FREE
INSULATED BUILDING WIRE**

Reference Standards:

BS 6360

Conductor:

Plain annealed copper conductor

0.20 mm² to 2.5 mm² solid complying to BS 6360

Class1

1.5 mm² to120 mm² stranded complying to BS 6360

Class2

Insulation:

Zero Halogen

Code Colours:

Red, Black, Blue, Yellow, Green/Yellow

Voltage Rating:

1.5 mm² to16 mm² - 450/750V

Temperature Rating:

0°C to +90°C

Harmonised Code :

H07Z-R

Nominal Cross Section (mm ²)	Nominal Insulation Thickness mm	Conductor Detail			Max DC Resistance @20°C (ohms/km)	Nominal Overall Diameter (mm)	Approx. Net Weight Kg/Km	Current Carrying Capacity (A)
		Number of Strands	Nominal Strand Diameter (mm)					
0.5	0.6	16	0.20	39	2.65	9	8	
0.75	0.6	24	0.20	26	2.85	12	10	
1.0	0.6	32	0.20	19.5	3.00	15	14	
1.5	0.7	30	0.25	13.3	3.30	21	18	
2.5	0.8	50	0.25	7.98	3.75	33	24	
4.0	0.8	56	0.30	4.95	4.40	49	32	
6.0	0.8	84	0.30	3.30	5.10	69	42	
10	1.0	80	0.40	1.91	6.70	116	55	
16	1.0	126	0.40	1.21	9.00	181	75	

Maximum size upto 240 mm²





Application:

Designed for use in the switch control, relay and instrumentation panels of power switchgear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers.

Reference Standards:

UL 758

Conductor:

Class 5 flexible plain copper conductor to IEC 60228

Insulation:

HR PVC (Polyvinyl Chloride)

Insulation Colour:

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

Voltage Rating:

300/500V, 450/750V

Temperature Rating:

0°C to +90°C

Harmonised Code:

Upto 1.00 mm² flexible wire H05V2-K
From 1.5 mm² to 240 mm² flexible wire H07V2-K

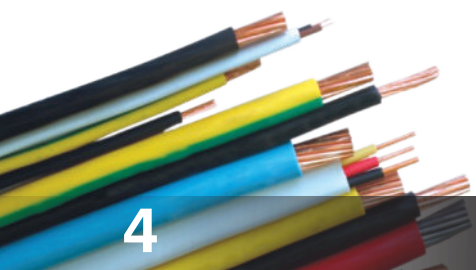
PVC-insulated single core cables as per UL

Overview of UL approved single core wires

Diameter AWG No.	Conductor design	UL Style	Rated voltage		Rated voltage	
			UR	CSA	UR	CSA
AWG 26 to AWG 16	Stranded	AWM 1007 TR 64	300 V AC	600 Vss	80°C	90°C
AWG 26 to AWG 16	Stranded	AWM 1061	300 V	-	80°C	-
AWG 26 to AWG 16	Stranded	AWM 1569 TR 64	300 V AC	600 Vss	105°C	90°C
AWG 24 to AWG 1/0	Stranded	AWM 1015 TEW	600 V AC	600 V	105°C	105°C
AWG 24 to AWG 1/0	Stranded	AWM 10269 TEW	1000 V AC	-	105°C	105°C

PVC-insulated fine wire single conductors for flexible application

UL Style	Cross Section		Conductor design nominal value (n x Ø mm)	Outer diameter nominal value (mm)
	(AWG No)	mm ²		
AWM 1007 TR64	AWM 26	0.13	7 x 0.16	1.3
	AWM 24	0.21	7 x 0.20	1.5
	AWM 22	0.33	7 x 0.25	1.6
	AWM 20	0.52	11 x 0.25	1.9
	AWM 18	0.82	17 x 0.25	2.1
	AWM 16	1.31	19 x 0.30	2.4
AWM 1569 TR64	AWM 26	0.13	7 x 0.16	1.3
	AWM 24	0.21	7 x 0.20	1.5
	AWM 22	0.33	7 x 0.25	1.6
	AWM 20	0.52	11 x 0.25	1.9
	AWM 18	0.82	17 x 0.25	2.1
	AWM 16	1.31	19 x 0.30	2.4
AWM 1015 / 10269 TEW	AWM 24	0.21	7 x 0.20	2.3
	AWM 22	0.33	11 x 0.25	2.7
	AWM 20	0.52	7 x 0.16	1.3
	AWM 18	0.82	17 x 0.25	2.9
	AWM 16	1.31	19 x 0.30	3.2
	AWM 14	2.08	19 x 0.38	3.6
	AWM 12	3.32	19 x 0.48	4.0
	AWM 10	5.26	19 x 0.60	4.5



SINGLE CORE HEAT RESISTANT PVC FLEXIBLE CABLES - TRI-RATED CABLES



Application;

Designed for use in the switch control, relay and instrumentation panels of power switchgear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers.

Reference Standards:

BS 6231-CK, IEC 60227, HD21.3

Conductor:

Plain annealed copper conductor
0.5 mm² to 300 mm² flexible copper complying to BS EN 60228:2005 (earlier BS 6360)

Insulation:

Heat Resistant PVC
PVC (Polyvinyl Chloride)

Insulation Colour:

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

Voltage Rating:

BS 6231: 600/1000V
UL, CSA: 600V

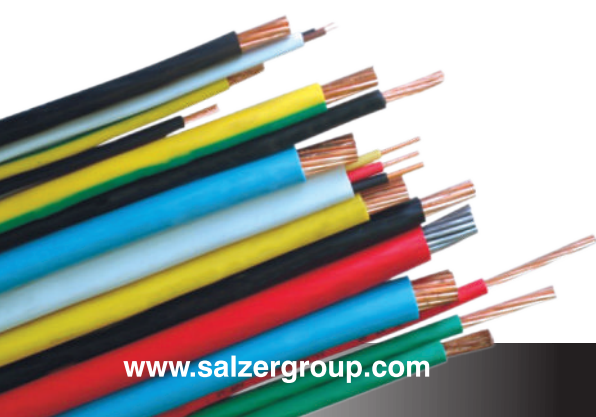
Temperature Rating:

BS 6231: 90°C (105°C for 15000 hours)
UL, CSA: 105°C for 15000 hours

Harmonised Code:

Upto 1.00 mm² flexible wire H05V2-K
From 1.5 mm² to 240 mm² flexible wire H07V2-K

Nominal Cross Section (mm ²)	AWG	Nominal Thickness of Insulation (mm)	Conductor Detail		Nominal Overall Diameter (mm)	Conductor Resistance Ohms/km @20°C	Approx. Net Weight Kg/Km	Current Carrying Capacity (A)
			Number of Strands	Nominal Strand Diameter (mm)				
1 x 0.50	22	0.80	16	0.20	2.50	39.00	12	8
1 x 0.75	20	0.80	24	0.20	2.70	26.00	15	10
1 x 1.00	18	0.80	32	0.20	2.95	19.50	18	14
1 x 1.50	16	0.80	30	0.25	3.20	13.30	23	18
1 x 2.50	14	0.80	50	0.25	3.65	7.98	34	24
1 x 4.00	12	0.80	56	0.30	4.20	4.95	48	32
1 x 6.00	10	0.80	84	0.30	4.70	3.30	67	42
1 x 10.00	8	1.14	80	0.40	6.50	1.91	119	55
1 x 16.00	6	1.52	126	0.40	8.00	1.21	187	75
1 x 25.00	4	1.52	196	0.40	9.40	0.78	291	100
1 x 35.00	3	1.52	276	0.40	10.60	0.55	406	125
1 x 50.00	1	2.02	396	0.40	12.90	0.38	580	165
1 x 70.00	2/0	2.02	360	0.50	14.60	0.27	780	240
1 x 95.00	3/0	2.02	475	0.50	16.10	0.20	1055	300
1 x 120.00	4/0	2.02	608	0.50	17.90	0.16	1175	325
1 x 150.00	250 MCM	2.41	750	0.50	20.20	0.12	1425	352
1 x 185.00	350 MCM	2.41	925	0.50	22.85	0.10	1735	400
1 x 240.00	450 MCM	2.41	1200	0.50	24.40	0.08	2310	475



AWM 2464



Construction / Materials

Application:

Designed for use in Appliances and Machine Tools.

Reference Standards:

BS 6500, UL 758

Conductor:

Plain annealed copper flexible stranded
Circular conductor to BS EN 60228:2005
(earlier BS 6360)

Insulation :

PVC Insulation complying with UL 758. Black cores
printed/ Colour cores.

Outer Sheath:

PVC compound as per UL 758

Special versions:

Tin-coated copper conductors to Canadian
standard (CSA) available on request.

Voltage Rating:

Nominal voltage U0/U 300/500 V

Test voltage 2 kV ~

Temperature Rating:

Maximum permissible temperature

UL 80 °C (continuous load)

IEC 60 °C (continuous load)

150 °C (short circuit)

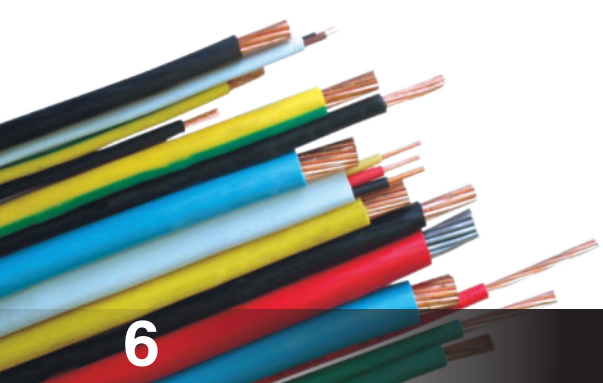
Temperature during installation/ handling:
min. +5 °C

Harmonised Code:

H05V2V2-F, H05VV-F

Specification	Nominal Strands Ø. mm	No. of Strands	Nominal Cross Section of a core (mm ²)	No. of core	Approx. Conductor Ø. mm	Radial Thickness of Insulation (mm)	Radial Thickness of Sheath (mm)	Mean Overall Ø		Approx. Net Weight Kg/Km	Max. Conductor Resistance @20°C (Ohms/Km)	Current Carrying Capacity (A)
								Lower Limit (mm)	Upper Limit (mm)			
0.5x 2C	0.20	16	0.50	2	1.02	0.6	0.8	5.4	6.8	52	39	6
0.5x 3C	0.20	16	0.50	3	1.02	0.6	0.8	5.7	7.2	60	39	6
0.5x 4C	0.20	16	0.50	4	1.02	0.6	0.8	6.2	7.9	72	39	6
0.5x 5C	0.20	16	0.50	5	1.02	0.6	0.9	7.1	8.6	89	39	6
0.75x 2C	0.20	24	0.75	2	1.14	0.6	0.8	5.7	7.2	63	26	9
0.75x 3C	0.20	24	0.75	3	1.14	0.6	0.8	6.0	8.3	74	26	9
0.75x 4C	0.20	24	0.75	4	1.14	0.6	0.8	6.6	7.5	83	26	9
0.75x 5C	0.20	24	0.75	5	1.14	0.6	0.9	7.6	9.2	113	26	9
1.0x 2C	0.20	32	1.00	2	1.31	0.6	0.8	5.9	8.0	73	19.5	14
1.0x 3C	0.20	32	1.00	3	1.31	0.6	0.8	6.3	8.0	86	19.5	14
1.0x 4C	0.20	32	1.00	4	1.31	0.6	0.9	7.0	9.0	101	19.5	14
1.0x 5C	0.20	32	1.00	5	1.31	0.6	0.9	7.8	9.6	130	19.5	14
1.5x 2C	0.25	30	1.50	2	1.59	0.7	0.8	6.8	8.6	95	13.3	16
1.5x 3C	0.25	30	1.50	3	1.59	0.7	0.9	7.4	9.4	120	13.3	16
1.5x 4C	0.25	30	1.50	4	1.59	0.7	1.0	8.4	10.5	141	13.3	16
1.5x 5C	0.25	30	1.50	5	1.59	0.7	1.0	9.3	11.2	171	13.3	16
2.5x 2C	0.25	50	2.50	2	2.05	0.8	1.0	8.4	10.6	145	7.98	25
2.5x 3C	0.25	50	2.50	3	2.05	0.8	1.1	9.2	11.4	180	7.98	25
2.5x 4C	0.25	50	2.50	4	2.05	0.8	1.1	10.3	12.5	214	7.98	25
2.5x 5C	0.25	50	2.50	5	2.05	0.8	1.2	11.7	13.4	265	7.98	25

Available size upto 35 mm² x 5 core





Features :

- A two layer construction with a smoke halogen-free, flame retardant and sunlight resistant cross-linked compound outer layer and halogen-free thermoset polyolefin inner layer.
- Sunlight Resistant.
- Vertical Flame Performance : EN 60332-1
- Excellent UV and Ozone resistant.
- Suitable for wet, damp and humid locations.
- Specially designed for excellent flexibility.

Applications :

This single conductor cable is designed to meet the varying needs of the Solar Industry. Applications include connection to module junction boxes: required cable routing in balance of system (BOS) integration.

Reference Standards :

EN 60332-1

Conductor :

Soft annealed tin-coated/Bare Flexible Stranded Copper as per EN60228

Insulation :

Halogen-free, thermoset polyolefin specifically designed for maximum flexibility. Low smoke non-halogenated, flame retardant, oil, abrasion, chemical and sunlight resistant cross-linked compound meeting UL 44, UL 854.

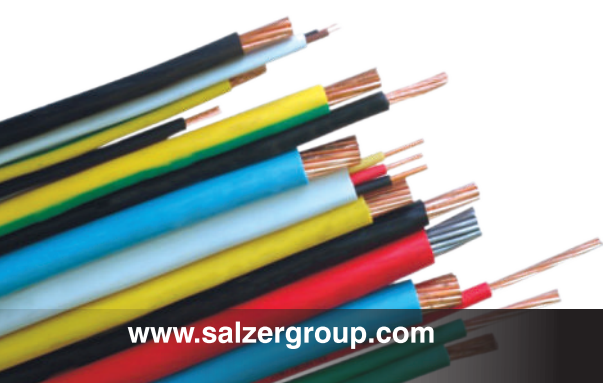
Voltage Rating :

600V/1000V/2000V

Temperature Rating :

From -40°C to 105°C, 125°C and 150°C continuous operating temperature

Size AWG	Nominal Cross Section (mm ²)	Conductor Construction No. of Strands X Nominal Strand Ø (mm)	Outer diameter	
			600V	1000V/2000V
22	0.50	16 x 0.20	3.30	3.70
20	0.75	24 x 0.20	3.50	3.90
18	1.00	32 x 0.20	3.75	4.15
16	1.50	30 x 0.25	4.00	4.40
14	2.50	50 x 0.25	4.45	4.85
12	4.00	56 x 0.30	5.00	5.40
10	6.00	84 x 0.30	5.50	5.90
8	10.00	80 x 0.40	7.30	7.70
6	16.00	126 x 0.40	9.00	9.60



FIRE FLEX



Application:

For fixed installation typically in fire alarm and emergency lighting circuits where circuit integrity must be maintained. For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment.

Reference Standards:

BS 7629-1, BS 6387 C W Z, BS 5839-1 clause 26.2
BS EN 50200 PH30, BS 8434-1

Conductor:

Class 1 solid plain copper conductors

Insulation:

Special compound silicone and rubber mix

Drain Wire:

Tinned Copper / Bare Copper

Sheath:

LSZH (Low Smoke Zero Halogen)

Sheath Colour:

Red or White

Core Identification:

2 Cores: Brown, Blue,
4 Cores: Blue, Brown, Black, Grey

Voltage:

300/500V

Temperature Rating:

30°C to +70°C

Minimum Bending Radius:

6 x overall diameter

No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Maximum Overall Diameter mm	Nominal Weight kg/km
2 x 1.50	0.7	1.4	8.07	8.07
2 x 2.50	0.8	1.4	9.09	9.09
4 x 1.50	0.7	1.4	9.08	9.08
4 x 2.50	0.8	1.4	11.05	11.05

WELDING CABLES



Application:

For the transmission of high currents from the electric welding machine to the welding tool. Suitable for flexible use under rough conditions, on assembly lines and conveyor systems, in machine tool and motor car manufacturing, ship building for manually and automatically operated line and spot welding machines.

Voltage Rating :

100V (450V for non-welding applications if suitably protected from mechanical damage)

Temperature Rating:

-20°C to +85°C

Minimum Bending Radius:

6 x overall diameter

Cross Sectional Area	Maximum Conductor resistance @20°C	Nominal Thickness of Sheath	Minimum Overall Diameter	Maximum Overall Diameter	Current Rating					
					Welding Application					Non Welding Application
					Duty Cycle					
(mm ²)	ohm/km	mm	mm	mm	100%	85%	60%	30%	20%	amp
10	1.91	2.0	7.8	10.0	105	115	135	190	235	110
16	1.21	2.0	9.0	11.5	135	145	175	245	302	138
25	0.78	2.0	10.0	13.0	180	195	230	330	402	187
35	0.55	2.0	11.5	14.5	225	245	290	410	503	233

Maximum size upto 240 mm²

PRODUCT RANGE

Rotary Switches

AC Switch Range: 6 Amps - 400 Amps
DC Switch Range: 16 Amps to 500 Amps up to 250 V DC



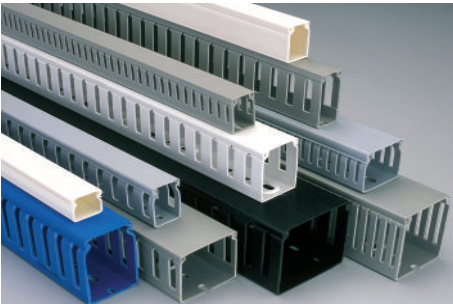
Load Break Switches

Load Break (Isolator) range from 16 - 125 Ampere
Changeover switches up to 4 pole from 25 to 125 Amps



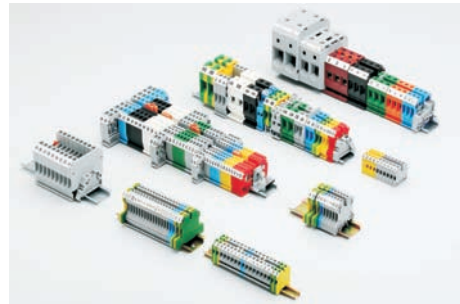
Cable Ducts

Wide range from (15x15mm) up to (150x150mm)
Flame retardant UL 94 V0 grade material



Terminal Connectors

Standard Ranges from 2.5 - 95 sq. mm
connectors with Electronic components & Distribution terminal Blocks



Toroidal Transformers

Range: Single Phase 15 VA - 30 KVA
Three Phase 1 KVA - 120 KVA

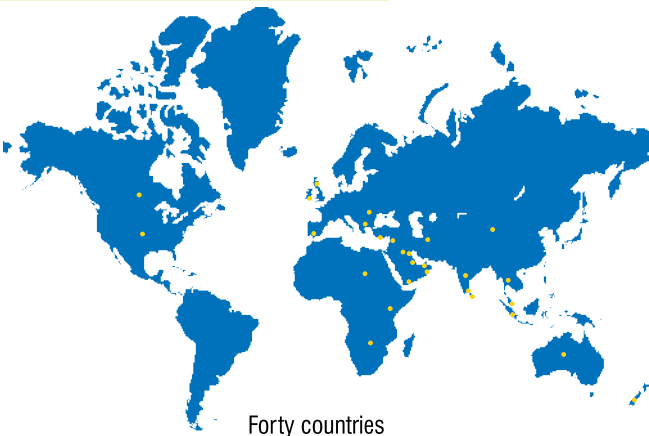


Relays & Contactors

AC & DC relays ranging from 3 to 100 Ampere from 1 to 4 pole
Status indication through LED



Global Presence



International approvals:



- Canadian Standards Association (CSA)
- Underwriters' Laboratory USA (UL)
- Conformite Europeane (CE)
- Semko Mark (S)
- Restriction of Hazardous substances (RoHS)



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