

**Answers of the webinar on fire due to short circuit dt 22 Jan 2022.**

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#	Question	Asker Name	Answer
1	In case building area installed the smoke detector but how to controll the fire because in residential building area not available for fire man?	Sandip Parmar	High Rise Buildings are required to have certain built-in Facilities like Hose Reel or Down comers. hose Reel is to be used by the Occupants. But High rise Building in Delhi is a 15 m and above, where as in Mumbai it is 24 Meters.
2	Sir, In a Hospital or in a High Rise Building, having HT Supply, If the Transformer Yard is faraway located from the Load Centre, to satisfy the condition of TNS Earthing System, is it required to run the protective conductor up to the transformer ? OR the Armour of the cable is sufficient, if it is connected to earth at both ends. please clarify.	NARASINGA RAO PUJARI	not enough as cable armour is not tested for fault current
3	How diluting of statutory provisions for electrical safety are resulting in fire accidents.	Punit Agrawal	Almost all fire accidents are due to non compliance to safety requirements. Installations where compliance is made properly, resulted in minor cases.
4	Apart from detection & firefighting, wont you recommend the design of fault level be made mandatory along with periodicity for electrical audit by TPI off course except govt. agencies	Anil Sharma	This is one of the several requirements. Shall be taken care during design and erection of an installation.
5	Thank you so much May i get the first part of Electrical Safety	Ravinder Kumar	<a href="https://youtu.be/YXk2zD7j_g">https://youtu.be/YXk2zD7j_g</a>
6	rravinder77kumar@gmail.com	Ravinder Kumar	<a href="https://youtu.be/YXk2zD7j_g">https://youtu.be/YXk2zD7j_g</a>
7	as informed, the major culprit in electrical fires is the power supply. why these power supply companies are not held liable?	ajay Sharma	These webinars are to create awareness in this subject.
8	what is reason ,not tripping mccb&mcb during fire in circuit/equipment.lfor avoiding what to do?	Shakti Prasad	Over sized protective device not suitable for the wiring, undersized wiring or higher impedance in the wiring leading to no sufficient fault current to disconnect. There are several other subjects as well
10	As a consumer how to identify Class 5 and Class 2 copper conductor?	Indhumathi Jothinathan	Check with shops, check the packing of the wires.
11	please post RC Sharma sir mail address	Hemanth Kumar Irrinki	live answered
12	Like Cu & Al, Should the standard mention appropriate cross section for a particular current, for Class 2 and 5 Cu too sir?	Senthil Kumar	Refer IS732 clause 52 for this
13	Sir, Good Morning ☺, what is range of Medium Voltage panel? Though in NBC it is mentioned that MV panel should be installed with automatic fire suppression (tracetube type), any other regulation mandate the same?	Prabash Parida	live answered

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14	Gopa sir can you explain about the fundamentals test	Ajay Kumar	We will make one or two exclusive program for these fundamental tests
15	can PAT be explained in detail?	Deep Chand Thakur	PAT means Portable Appliance Test
16	which type electrical earthing required at building area?	Sandip Parmar	Inside buildings TN-S
17	is gfci used in installations. how important is it - ur expert views	Shashish Ashu	Refer IS732 and IS3043. For certain application RCCB's are mandatory as an additional protective device
18	Sir, can you please explain some more in 300mA fire protection	sasidhar Krishna varma	A leakage current of >60 watts could ignite fire, based on this assumption 300 mA RCD is recommended for 230/400 volt application
19	can we use RCBO?	Mala Vithlani	live answered
20	Please explain more about AFDD.	Abdul Zalam M. K	live answered
21	how many resistent pass through the human body?	Sandip Parmar	live answered
22	In my premises electrical distributing by delta star transformer 11kv to 230v 3phase supply without using neutral as a result we are using only two phase everywhere to use a 220v by two live wire to operate light and machines. Please confim by one single phase switch how can protect the electric shock if any leakage happen . Because both pahse is a live wire. earthing is available every where.	Pramod dwivedi	This is a specific case of unearthing system in industrial application. We will answer after careful analysis
26	For Under Ground Installation any BD requirement like sub-station or any such installation	Anonymous Attendee	live answered
27	In the slide, where power for ignition is discussed, my understanding from the explanation is, that fire ignition can be avoided if the fault can be contained within 3 seconds for loads within 15 kW and within 5 sec for 15 to 100 kW. But ideally it has to be lower time for higher loads isn't it? Kindly clarify.	Senthil Kumar	live answered
28	what are the test required to identify root cause of fire is electrical short circuit ?	Dr Rakesh Chaturvedi	refer IS 732 clause 6
29	earthing in ups- practical issues- your expert views	Shashish Ashu	There are several. We explained this in one of our last webinar. Will be taken up again in future programs.

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30	Most of wall fans in the market come with 2 pins, with no provision for earth connection and made of plastic body. If the fan is in ON condition, especially in oscillation mode, and if the starting capacitor is weak fan may not restart once power resumes. This is one of the causes of fire in industrial /office buildings. Can u please discuss this point?	Anonymous Attendee	pl sent a detailed mail to gk@capeindia.net, answer will be made after careful analysis
31	Can RCCB provide in UPS output used in IT installations?. Normally, this is another cause of fire.	Abdul Zalam M. K	Thanks for the comment. We will discuss during future webinars
33	Good Afternoon sir: Thank you for the informative session. My queries are as follows:	DHIRAJ ULLAL	
34	1. is it mandatory to install Smoke Detectors in Electrical panel rooms.	DHIRAJ ULLAL	live answered
35	What type of cable is recommended for fire and life safety system? Fire survival cable vs Armoured FRLS cable	Manimaran N	Fire survival installation. Its not wire alone
36	2. IS 1646 also a relevant code.	DHIRAJ ULLAL	didn't understood
37	Sir, is it advisable to use only Nitrogen Injection system for power Transformer. Or Both HVWS and Nitrogen injection is mandatory	smita Shah	our program is strictly for LV application. Hence no answers.
38	What should be qualification of electrical safety auditor. Now a days every body is doing the same	Vinay Nagdeo	live answered
39	3. I came across an article mentioning in DGA of Transformer oil the ratio of CO to CO2 should be 11. any significance as far fire safety is concerned.	DHIRAJ ULLAL	live answered
40	Thank you	DHIRAJ ULLAL	
41	We want to know about the cost of the software SOLVE	Subash P	we will inform once when it is launched
42	How safe it is to link neutral and earth at user point in India, where our neutral from utilities is not healthy as well as our earthing at user point is also high resistive	Ashok Rane	Do it if your electricity supplier agrees. Do it strictly only at mains incoming. Inside your house, Neutral and protective conductors shall strictly have 1 Mega Ohm insulation resistance
43	Reffering to regulation 33 (15)	Ashok Rane	
44	Whether we can go for PVC (or) other materials for insulation purpose? Kindly share your suggestions/	Vinodh B	YES, refer the applicable standard

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45	Whether we can go for wire with copper (or) aluminium for three phase power supply especially the domestic area near to industrial area?	Vinodh B	Smaller sizes (e.g up to 10 sqmm) shall be strictly copper
46	Mr Dominic & Mr Sharma told chances of electric shock as electricity is live in some cases, which is dangerous/risky to the fire fighters too. Whether the fire/smoke detection system cant be connected to Power isolators like MCCB, ACB etc. for suply solation in case of fire - Bhavanishankar SW Railway	रा.कु.शर्मा R SHAR-MA	The question is not understood well, pl write to us
47	Reffering to regulation 33 (15) How safe it is to link neutral and earth at user point in India, where our neutral from utilities is not healthy as well as our earthing at user point is also high resistive	Anonymous Attendee	Do it if your electricity supplier agrees. Do it strictly only at mains incoming. Inside your house, Neutral and protective conductors shall strictly have 1 Mega Ohm insulation resistance
48	Sir safe is it to use aluminium cables for 3 phase AC units????	Anshul Jain	Smaller sizes (e.g up to 10 sqmm) shall be strictly copper
49	Sir how safe is it to use aluminium cables for 3 phase AC units????	Anshul Jain	Smaller sizes (e.g up to 10 sqmm) shall be strictly copper
50	Sir, what is the minimum voltage to get fire in LT installations, in the even of MCB failure	रा.कु.शर्मा R SHAR-MA	The energy and duration decid this. Its not only related to voltage.
51	For control cables do we use PVC or XLPE insulation and why .	Shweta Khare	depends upon the application. For industrial, exposed areas, generally XLPE is used.
52	i mean should we go with PVC or XLPE insulation and why	Shweta Khare	
53	Let them install sensing CTs in both phases and find the residual current, then connect ELR device. I think this method is applied for 11kV without neutral.	Jameskutty Thomas	The question is specific about an industry, where they use IT system for LV distribution.
54	What to do when earthing of 1 ohm not getting in industrial arena due to poor soil conditions eventhough plenty of water giving to earth pits.	Sourabh JJ	You don't need 1 ohm for any reasons. Make a proper TN-S system with touch voltage reduction measures and functional earthing if necessary. You can use foundation earth electrodes. In all these cases 1 ohm resistance of an earth electrode is not necessary
55	what is reason ,not tripping mccb&mcb during fire in circuit/equipment.lfor avoiding what to do?  Almost all rly installations are provided with protections : MCB/MCCB , but it is observed that circuit breaker not tripped even after fire . is it due to faulty breaker only ?	Anonymous Attendee	Over sized protective device not suitable for the wiring, undersized wiring or higher impedance in the wiring leading to no sufficient fault current to disconnect. There are several other subjects as well

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56	What are all the precautionary measures need to be followed for UPS to prevent short circuit dueing the summer times?	Vinodh B	we will explin this in the next webinars
57	sir, How to investigate that any fire incident occurred due to electric Short circuit.	Amit Kumar	We have experts to carry out this. Please get in touch with us
58	What type of fire extinguisher can be installed in domestic houses to use during electrical fire accidents? Kindly share your comments?	Vinodh B	not valid question
59	Sir, It has been explained that in several cases electrical supply available which causes difficulty to fire fighters. why fire /smoke detector can't be connected to trip the electrical switch gears like MCCBs or ABCs.	रा.कृ.शर्मा R SHARMA	These protective devices are supposed to trip much faster, the principles of protection are different. Don't wait to trip until the smoke is detected.
60	For Underground installation what additional Fire Norms are there.	Mahesh Ambarderkar	pl sent a detailed mail to <a href="mailto:gk@capeindia.net">gk@capeindia.net</a> , answer will be made after careful analysis
62	I came across an article mentioning in DGA of Transfomer oil the ratio of CO to CO2 should be 11. any significance as far fire safety is concerned.	DHIRAJ ULLAL	our program is strictly for LV application. Hence no answers.
63	I Anil Sharma (AS). lost connectivity. whether my question is answered?	Anil Sharma	pl sent a detailed mail to <a href="mailto:gk@capeindia.net">gk@capeindia.net</a> , answer will be made after careful analysis
64	Hi Sir, when the isolation transformer to be installed along with UPS. As some manufacturers does not recommended isolation transformer such as Mitushubi etc. some by default recommended	Ramesh Thokala	we will explin this in the next webinars
65	Sharma sir I recommend that any fire incident due to electrical short circuit shall be investigated along with experienced electrical engineer	Vinay Nagdeo	Thanks for the comment. Investigate, find out the actual problem and make solutions not to repeat such mistakes is what we recommend.