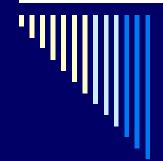




- 🗖 مقدمه
- □ سيستم مجوز كار
  - 🗖 خطرات برق
- □ روشهای جلوگیری از برق گرفتگی
  - □ کمکهای اولیه به حادثه دیده



## تعریف ایمنی:

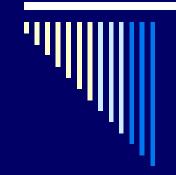
□عبار تست کلیه مواردی که جهت حفظ سلامتی شخص یا تجهیزات باید انجام گیرد.





□ تحت کنترل در آوردن فعالیتهای جاری در سایت

ر عایت موارد ایمنی مشخص شدن مسولیتها مستند سازی قابلیت ردیابی



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_ Complem	entary Permit	S The follo	wing complement:	ary nermits are rec	uired for the works	Area Authority t	o check and confirm.		
5		1110 10110	7 H	newal No.	and for the works.	a sour idinointy i	o chock and commi	Renev	val No.
Confined Spa	ace Entry	Yes No CE -			Sanction for 7	Test	Yes No CS -		
Radiography		Yes No CR -	8	1	HV Electrical	solation	Yes No CH -	S	
Excavation Yes No CX -				LV Electrical	Isolation	Yes No CL -			
Mechanical Isolation Yes No CP -				Limitation of A	Access	Yes No CA-	S		
Authorisation  By signing the section below the Area Authority authorises the work to proceed, as detailed in this permit and any attached complementary permits.									
Area Authority:		Name;		Signed:		Dat	ré:	Time:	
7 Permit Co	Permit Control  By signing the section below the Permit Controller has checked this permit and the work may proceed, as detailed in this permit and any attached complementary permits.								
Permit Controller	Permit Controller: Name; Signed: Date: Time:								
By signing the section below the Task Supervisor accepts the responsibility for carrying out the work, as detailed in this permit and any attached complementary permits, and in accordance with all requirements specified therein.									
Approval Handback									
Date	Task Supervisor	Area Authority	Permit Controller	Valid Until	Task Supervisor	Area Authority	Permit Controller	Site/Equip Status	Time
9 Cancellation / Suspension  The Work has been COMPLETED / SUSPENDED and the site inspected. No unauthorised modifications have been carried out, all tools and equipment have been removed and the work area is clean and tidy.									
Fire and Gas S	Fire and Gas Systems are returned to normal Yes No ESD Systems are returned to normal Yes No								
Task Supervisor, Na	ame/Date :	***************************************	Area Authority	/, Name/Date :	l Carri 2 Barrai	Per	mit Controller, Nam		



NOTES







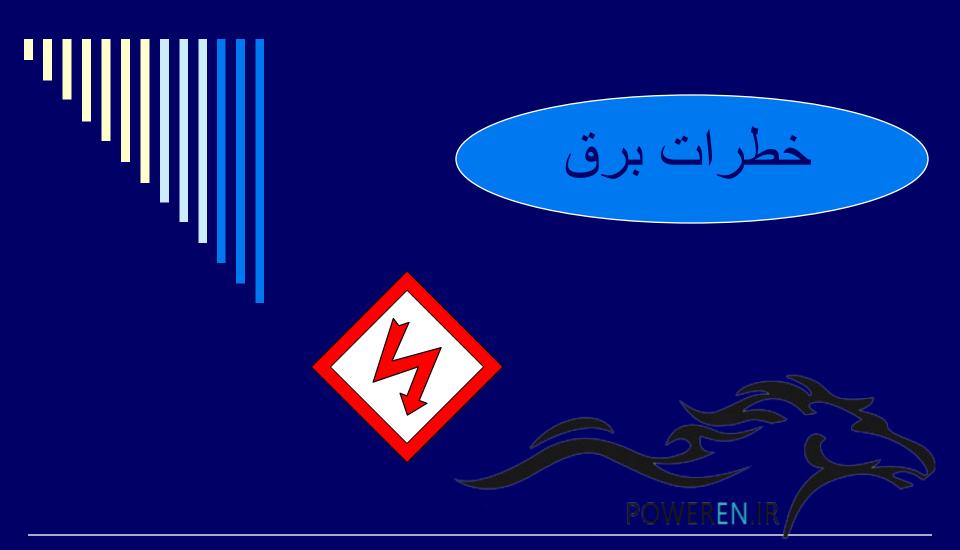




Permit No. CA

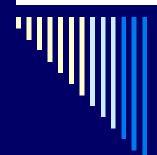
#### SOUTH PARS GAS FIELD, PHASES 6, 7 AND 8 COMPLEMENTARY PERMIT FOR LIMITATION OF ACCESS AUTHORISATION for COMPLETION and ISSUE Main Permit No. Date Time Senior Authorised Name Signature Elect Person WORK DESCRIPTION Issued to In charge of the work. Equipment Tag No. Work/testing to be carried out. NO WORK ON EQUIPMENT OR ACCESS TO AREA OTHER THAN STATED ABOVE IS PERMITTED Limits of work/testing to be carried out, or work area and firecautions to be applied. Senior Authorised Name Signature Date Time Elect Person RECEIPT I hereby declare that I accept my responsibility under TUD Electrical Safety Rules and in accordance with the requirements specified on the permit and acknowledge receipt of the terrio in Section 2 of this permit to work. Task supervisor Name Signature Date Time CLEARANCE I hereby declare that work / testing under my control of the Limitation of Access Permit to Work has been COMPLETED / SUSPENDED and that it is no longer safe to work on the plant specified above and that all tools and equipment have been removed. Name: Signature Date Time Task supervisor CANCELLATION I hereby declare that work / testing to be carried out under this Limitation of Access Permit to Work has been COMPLETED / SUSPENDED and that this Limitation of Access permit has been cancelled. Senior Authorised Date Time Name: Signature: Elect Person

1 This Limitation of Access Certificate is an authority in writing for issue to a person about to work in the vicinity of live electrical

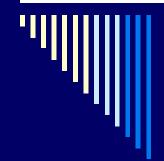


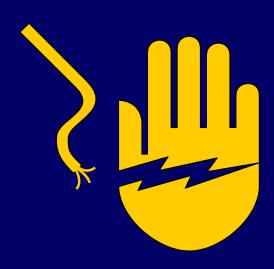




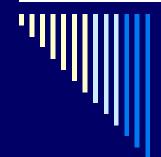








- 🗖 خطر برق گرفتگی
- 🗖 صدمه به تجهیزات
- □ ایجاد آتش سوزی یا انفجار



# خطرات برق گرفتگی بستگی به:

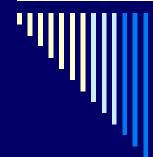
- □ مسیر جریان
- □ میزان جریان
- □ طول زمان برقراری جریان



#### امپدانس بدن انسان

□ امپدانس پوست در قسمت و رودی و خروجی

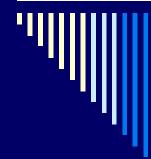
🗖 امپدانس داخلی بدن



#### امپدانس پوست بدن

مقاومت پوست بدن را میتواند به صورت تعداد بیشماری مقاومت و خازن موازی تصور نمود.

- امپدانس پوست بدن بستگی به:
  - ۱. ولتاژ
  - ۲. فرکانس
  - ر مان برقراری <del>جریان ا</del>
    - ۱. سطح کنتاکت
    - ۵. فشار کنتاکت
    - ۶ درجه رطوبت پوست
      - ٧ دما

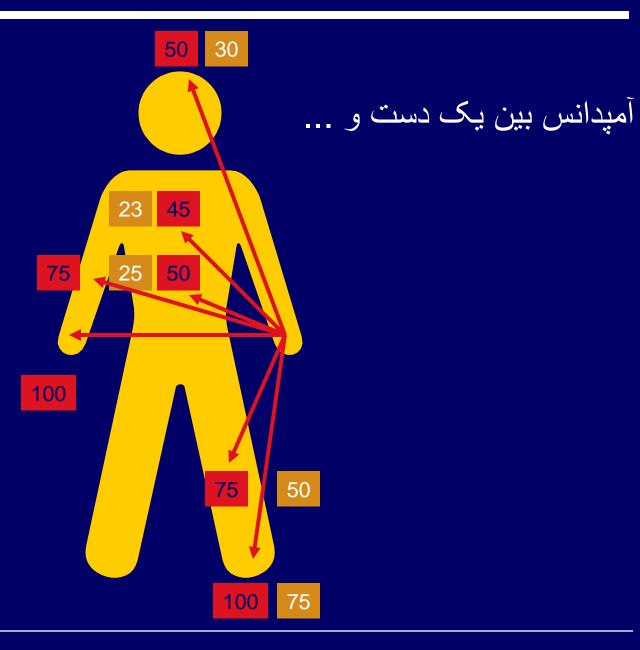


#### امپدانس داخلی بدن

مولفه آمپدانس داخلی بدن بزرگتر از مولفه خازنی آن است و میتوان آن را تنها مقاومت دانست

- 🗖 امپدانس داخلی بدن بستگی به:
  - ۱. مسیر عبور جریان
  - ۲. سطح تماس کنتاکتهای







#### مقادیر امپدانس کل بدن انسان

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1440	١
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### تاثیرات فیزیولوژیک جریان برق بر بدن

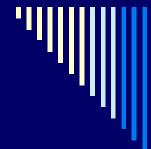
- 🗖 قفل شدگی عضلات
  - □ اشکال در تنفس
- □ بالا رفتن فشار خون
- □ اختلال در ضربان قلب
  - □ فيبريلاسيون
    - 🗖 سوختگی



# برق گرفتگی در نتیجه تماس با برق به دو صورت زیر پیش می آید:

🗖 تماس مستقيم

🗖 تماس غير مستقيم



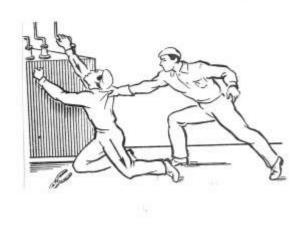
## روشهای ایمنی در برابر برق گرفتگی

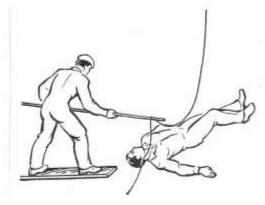
- □ رعایت حریم دسترسی به تجهیزات برقی, هادیهای برقدار
  - □ حفاظت با استفاده از عایق بندی
- □ قطع سریع مدار در صورت بروز اتصالی فاز با بدنه هادی
  - 🗖 همبندی بر ای هم ولتاژ کر دن

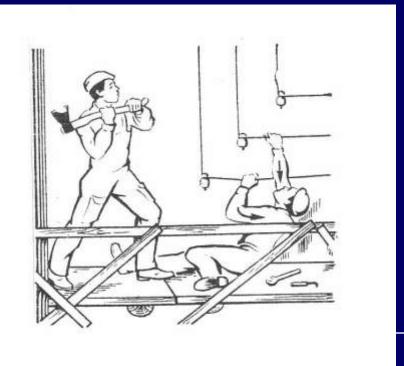


## کمک های اولیه در برق گرفتگی

ال قطع برق یا جدا کردن مصدوم از مداربا رعایت اصول ایمنی.

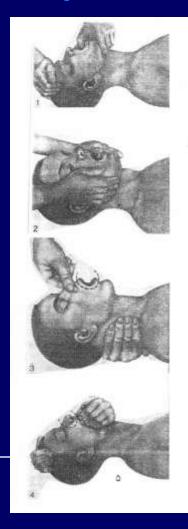


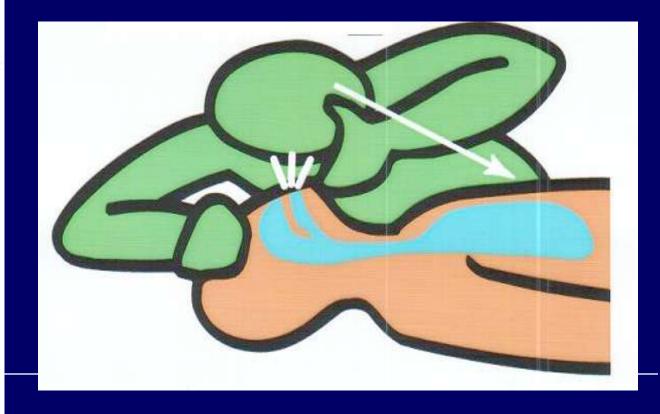






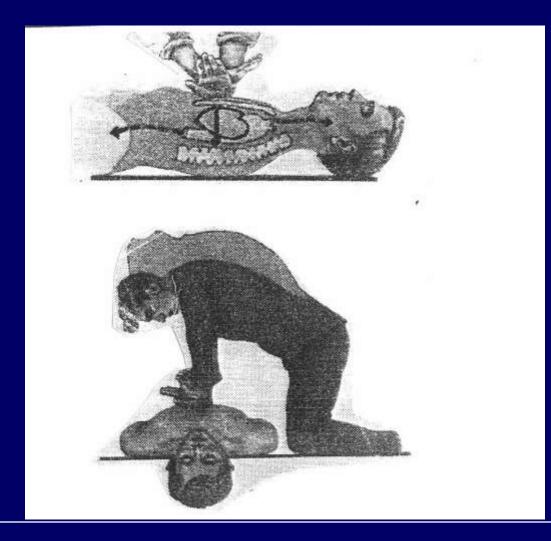






## ۳- ماساژ قلبی







### پرمیت کمکی ایزوله برقی

INITIATOR		Main Work Permit No.:		nuation t No.:	
guipment :		() The CONSTITUTION ()		t NO.:	
			ray iv		
lature of Work :					
lame : :			Signat	ure :	
Company / Dept :			Date		
AUTHORISATION f	or ISOLATION			_	
AREA AUTHORITY	Name :	Signature :		Date :	
DECLARATION				108 900	100000000000000000000000000000000000000
Issued To :	W-	9000 000000		_ in charge	of Work.
Equipment TAG No.:	2	Description :		-07	
Type of Isolation required :		NORMAL:	OWN:		
solation of the above men	tioned electrical equipment by			87 86	
2000 000000 At 10190 S00 500A1	YES N			YES	N:
Breaker Switched Off	1	Removal of Control	l Fuses		
Racking Out / Down Break	er	Padlock (s) and Tol	ken (s) applied		
Shutters Locked			sted on all Cubicles		
witching Main Isolator to	Off	Lock Off Extinguish	ant system		
ocked Off C.B. / Isolator		Heater Isolation			
Removal of Main Fuses	3	Motor disconnected	Ŗ		
No Voltage Checking					
Earthing at Cubicle		* Additional earthi	ng	$\overline{}$	
(Earthing Position (s) and	d No (s) etc.	3	6		
Details :				ock (s)	
Ma			Number	Locatio	n:
2			5		
95			4		
	NO AND DOMESTIC WOOD CONTAIN OF THE PERSON.	NOCONAL EL CONTRA AMERICA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL LA CONTRA DE LA CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL LA CONTRA DEL CONTRA DE LA CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DE	yero yero		<u> </u>
I hereby declare that the is s safe to work on, is isolat	solation of the equipment mer sed from all. live conductors	ntioned in box 1, Tag No, , and is connected to earth, :	has according to the requi	s been checked rements of TSP	by me, Bectrical
Safety Rules.					
SEN, AUTH, ELECT, PER	SON Name :	Signature :	<u> </u>	Date :	
		ring out work on the plant deta Il be made by me or persons			
TASK SUPERMSOR	Name :	Signature :		Date :	
CLEARANCE			V 495	.,,	
	withdrawn and instructed tha	permit has been COMPLETE tit is no longer safe to work o			
TASK SUPERVISOR	Name :	Signature :	0 275	Date :	
CANCELLATION	Clare Contract	1 0000000000000000000000000000000000000			
I hereby declare that t		er this permit has been COM equested by the Area Authority		ED. No futher w	ork may
EN. AUTH. ELECT. PER	SON Name :	Signature :	1000°	Date :	
AUTHORISATION F	or DE-ISOLATION				
AREA AUTHORITY	Name :	Signature :		Date :	
	3/2555// <del>/2</del>			782008	
COMPLETION	e e e e e e e e e e e e e e e e e e e		a baar baar a aan aa a		
		en removed and that the perm	it has been cancelled	Date:	

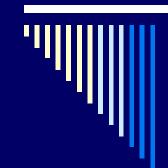
Copy 1: Work Site Copy 2: Safety Authority Copy 3: Sen. Auth. Elect. Person Copy 4: Electrical Switchroom

#### PERMIT No. CL

INITIATOR		Main Work Permit No. :		nuation it No. :
Equipment :				lo.:
Nature of Work :				**
			252200580	NOTE - 1, 200
Name:				ture:
Company / Dept :	GLOWERS WALLOW		Date	2 2
AUTHORISATION for AREA AUTHORITY	Name :	Signature :		Date :
DECLA RATION				
Issued To:		con Advinct complete concern		in charge of Work
Equipment TAG No .:		Description :	35	5m 20
Type of Isolation required:	∃NC	RMAL:	OWN:	
Isolation of the above mentio	ned electrical equipment by:	•		P
S DE DESERVE PRESE	YES NO	n nem in herm n	28	YES NO
Breaker Switched Off		Removal of Control		
Racking Out / Down Breaker	E 16	Padlock (s) and Tok		k k
Shutters Locked	so le <u> </u>	TO 100 CONTRACTOR 100	ted on all Cubicles	
Switching Main Isolator to Ot	T.	Lock Off Extin guisha	int system	
Locked Off C.B. / Isolator	9	Heater Isolation		
Removal of Main Fuses	le le	Motor disconnected		
No Voltage Checking				
Earthing at Cubicle	E E	* Additional earthin	ig	6
* (Earthing Position (s) and I		_		
Details:	300			ock (s)
			Number	Location
87				
***				
86				
-				
I he reby de clare that the iso	lation of the equipment mentione	dinbox 1, Tag No		s been checked by me,
is safe to work on, is isolateo Safety Rules.	from all live conductors, and	is connected to earth, a	ccording to the requi	rements of TSP Electric
86	VEX.002500000	0.000		YHOROTO
AUTH, ELECT, PERSON	Name :	Signature :		Date :
RECEIPT				
I hereby declare that I a	ccept responsibility for carrying o	ut work on the plant deta	led on this permit in	accordance with the
requirements specified (	on the permit; no attempt will be i	made by me or persons u	nder my control to w	ork on any other plant.
TASK SUPERVISOR	Name :	Signature :		Date :
CLEARANCE				
I hereby declare that the	work carried out under this pern	nit has been COMPLETE	D / SUSPENDED an	d that all persons under
my charge have been w	ithdrawn and instructed that it is	no longer safe to work on	the plant specified a	bove and that all
e quipment and tools ha		Signature :		Date:
TASK SUPERVISOR	Name :			
TASK SUPERVISOR				
TASK SUPERVISOR AUTHORISATION for		**************************************		
TASK SUPERVISOR		Signature :	in the second	Date:
TASK SUPERVISOR AUTHORISATION for AREA AUTHORITY	DE-IS OLATION	Signature :	12	Date :
TASK SUPERVISOR AUTHORISATION for AREA AUTHORITY COMPLETION	DE-IS OLATION	28 SEA CHE 1	t has been cancelled	21
TASK SUPERVISOR  AUTHORISATION for  AREA AUTHORITY  COMPLETION	DE-IS OLATION	28 SEA CHE 1	t has been cancelled	21



INITIATOR	Main Work Permit No. :	Continuation Permit No.:
Equipment :	<del>.</del>	Tag No. :
NATIONAL PROPERTY OF THE PARTY		
Name :		Signature :
Company / Dept :		Date :
2 AUTHORISATION for ISOLATION AREA AUTHORITY Name:	Signature :	Date :
3 DECLARATION Issued To :	î	in charge of Work.
Equipment TAG No.:	Description :	75: 1570 506 (940-4a368343)
Type of Isolation required :	NORMAL:	OWN:
Isolation of the above mentioned electrical equiparts of the above mentioned electrical equiparts of the series of	N Removal of Control Fuses Padlock (s) and Token (s) Warning Notice Posted on Lock Off Extinguishant sys Heater Isolation Motor disconnected * Additional earthing	applied all Cubicles stem
10		Number Location
I hereby declare that the isolation of the equipm is safe to work on, is isolated from all. Live corn Safety Rules.		
SEN. AUTH. ELECT. PERSON Name :	Signature :	Date :
RECEIPT I hereby declare that I accept responsibility	for carrying out work on the plant detailed on tempt will be made by me or persons under n	
	Signature :	Date :



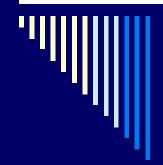
TASK SUPERVISOR Name :	Signature :	Date :
CONCELL OTION		
take place. The isolations may be removed when requise. SEN. AUTH. ELECT. PERSON Name:	ested by the Area Authority. Signature :	Date :
6 AUTHORISATION for DE-ISOLATION	West and the second	
AREA AUTHORITY Name :	Signature :	Date :



1 INITIATOR		Main Work Permit No. :	Continua Permit N	
Equipment :		4.00	Tag No.:	
Nature of Work :			- 5	
Name :			Signature	
Company / Dept :			Date:	90
2 AUTHORISATION for AREA AUTHORITY		Signature :		ate:
3 DECLARATION Issued To :				in charge of Work.
Equipment TAG No.:		Description :	1.2	
Type of Bolation required :		NORMAL:	OWN:	- 3
Isolation of the above mention	ned electrical equipmen	nt by :	525	
Racking Out / Down Breaker Shutters Looked Switching Main Isolator to Of Looked Off C.B. / Isolator Removal of Main Fuses No Voltage Checking Earthing at Cubicle "(Earthing Position (s) and N Details:	lo (s) etc.	Padlock (s) and Token ( Warning Notice Posted Lock Off Extinguishant's Heater Isolation Motor disconnected  * Additional earthing	on all Cubicles system	(s) Location
is safe to work on, is isolated Safety Rules. AUTH, ELECT, PERSON		mentioned in box 1, Tag. No. ors , and is connected to earth, according to the second	rding to the requirem	
		arrying out work on the plant detailed t will be made by me or persons under		



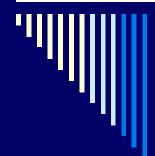
	withdrawn and instructe	er this permit has been COMPLETED / ed that it is no longer safe to work on the	SUSPENDED and that all persons under e plant specified above and that all
TASK SUP ERVISOR	Name :	Signature :	Date :
AUTHORISATION O	or DE-IS OLATION Name:	Signature :	Date :
COMPLETION  Thereby declare that  AUTH, ELECT, PERSON	the above Isolations hav	we been removed and that the permit ha	s been cancelled.  Date :
av 1 : Work Site Copy	2 : Safety Authority	Copy 3 : Sen. Auth. Elect . Person	Copy 4 : Electrical Switchroom



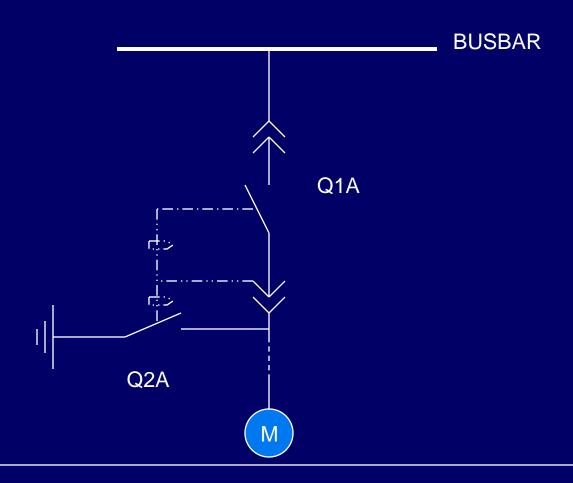


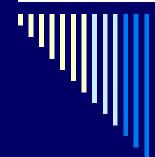
چه زمانی استفاده میشود؟

توسط چه کسی انجام میگیرد؟

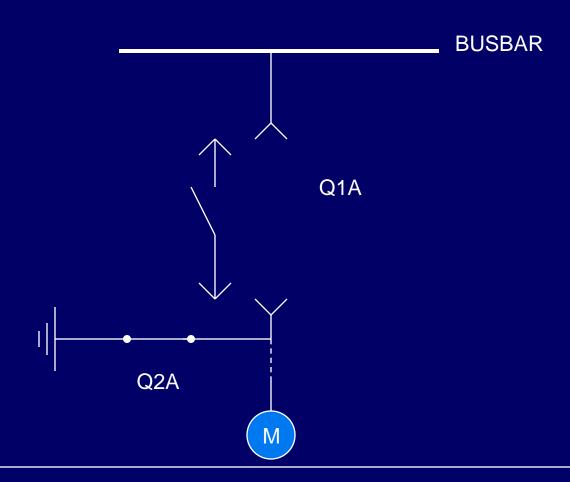


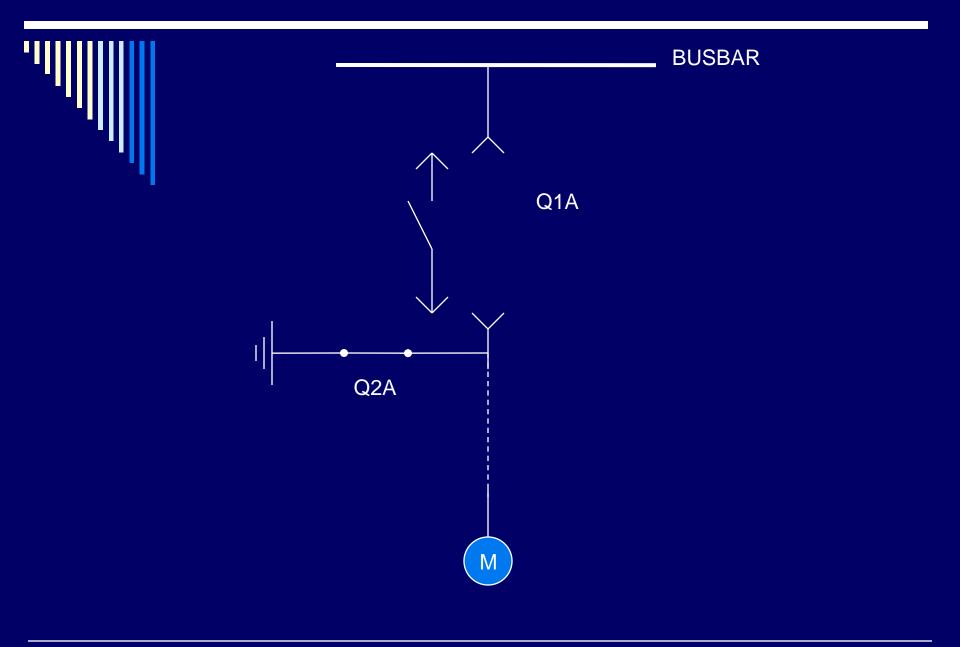
### نمای تک خطی

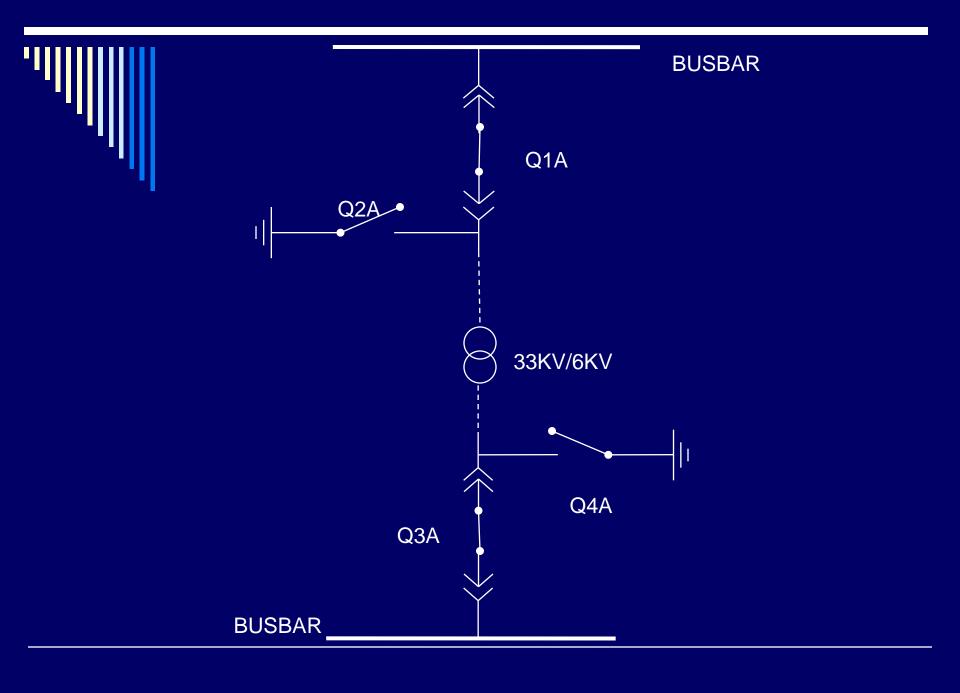


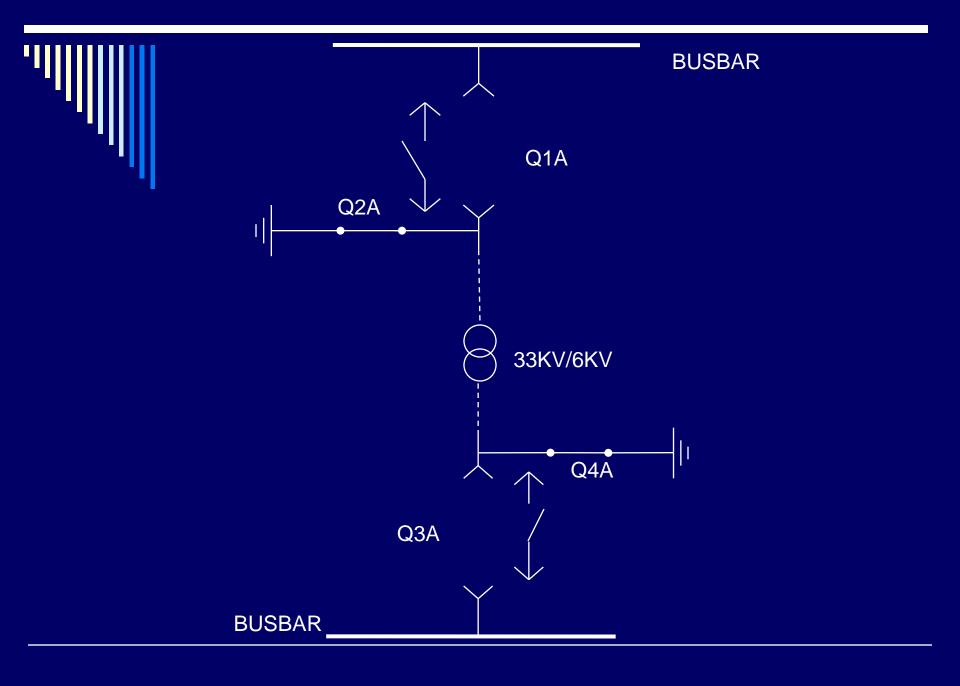


### نمای تک خطی



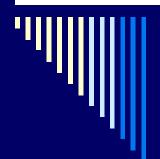




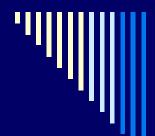




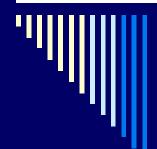
















## DANGER

#### **ELECTRICAL ISOLATION TAG**

Equipment Tag No.

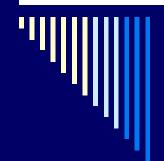
Padlock							
Number	Location						

Permit No.

Comp.No.

Signed by:

Date:





**ELECTRICAL ISOLATION TAG** 



## DO NOT TOUCH

دست نزنید



## DANGER

#### **ELECTRICAL ISOLATION TAG**

Equipment Tag No.

Padlock						
Number	Location					

LTI No.:

Comp.No.:

Signed by:

Change to LTI date:

