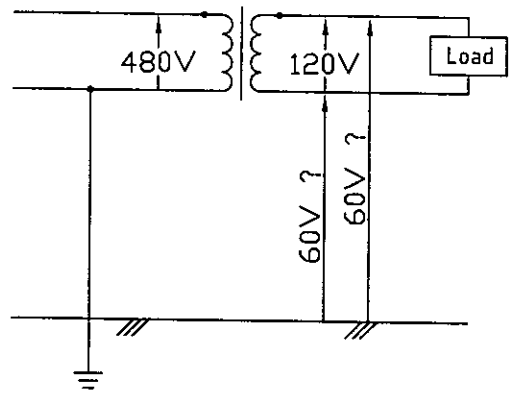
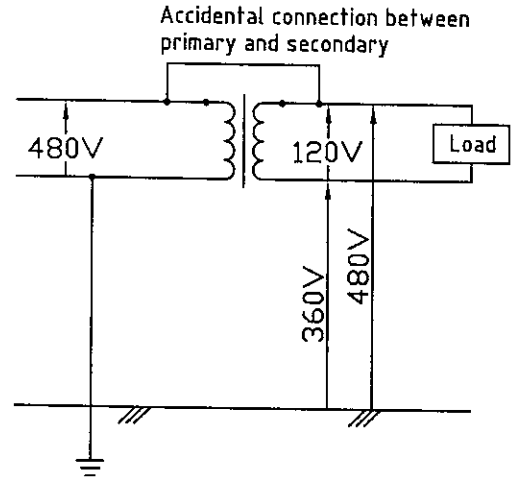


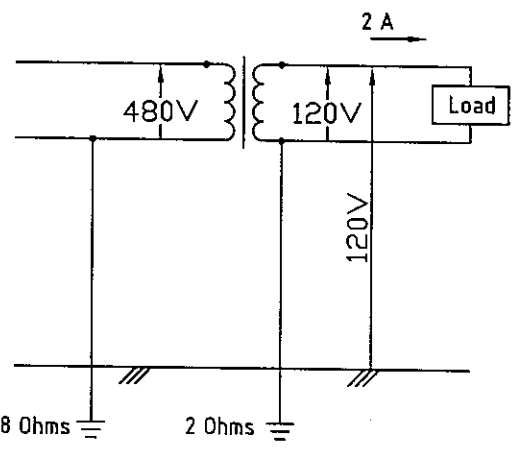
NOT PERMITTED



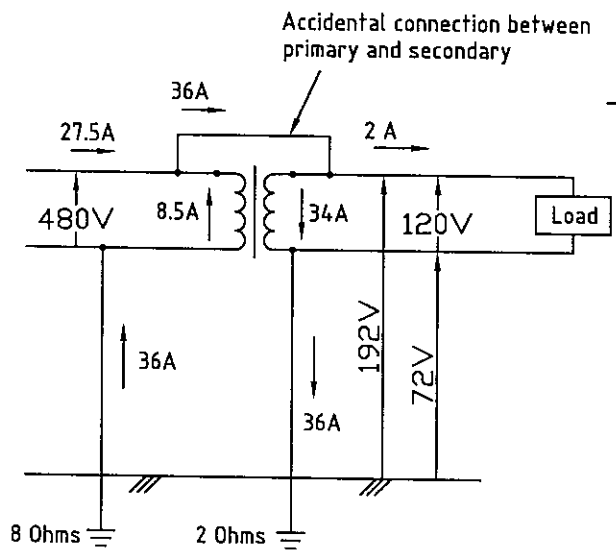
Ungrounded Circuit, Normal
Fig. 1



Ungrounded Circuit, Fault
Fig. 2



Grounded Circuit, Normal
Fig. 3

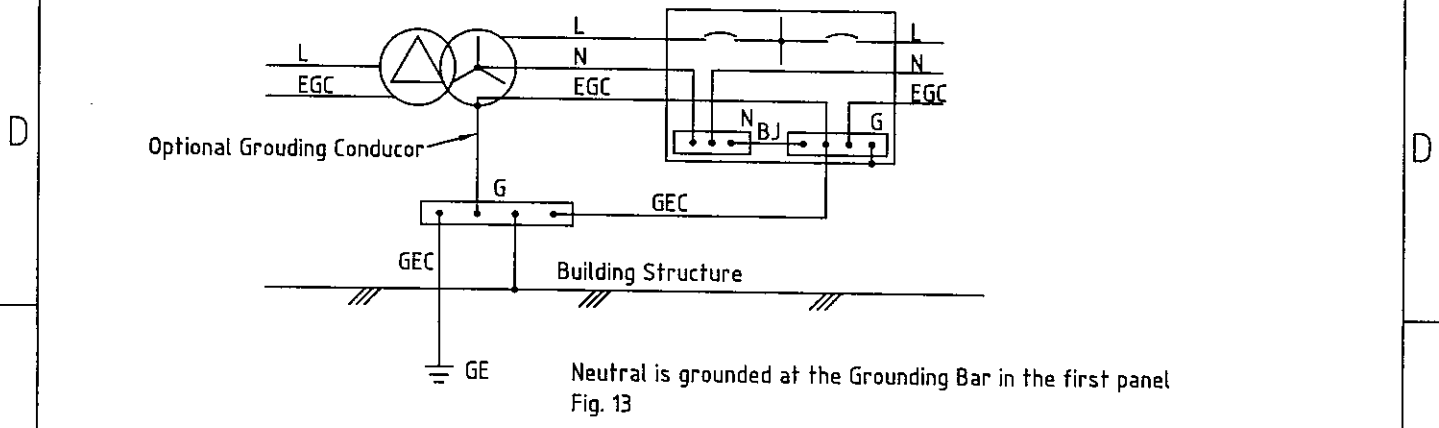
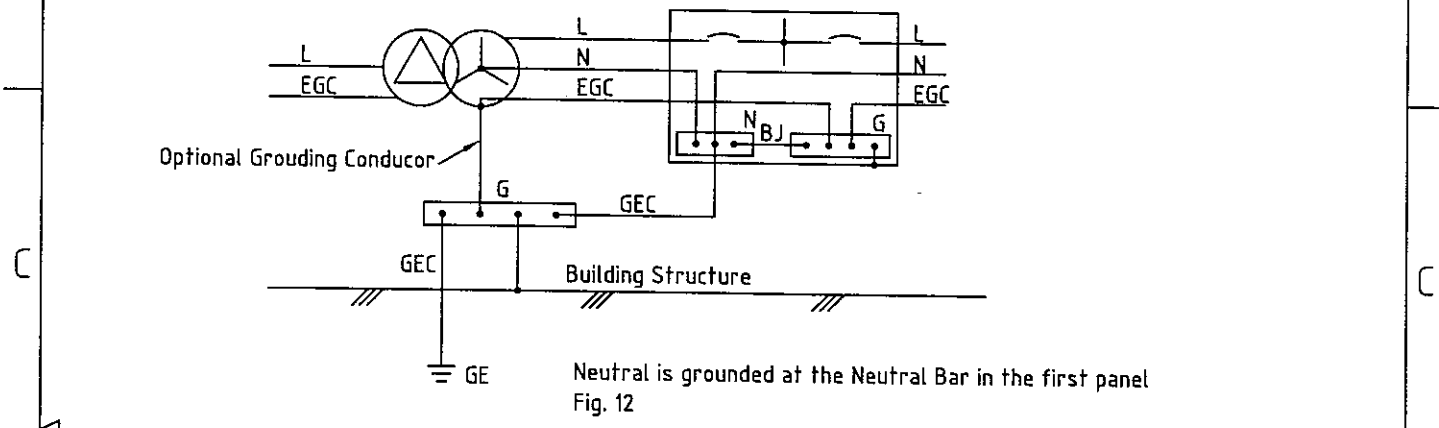
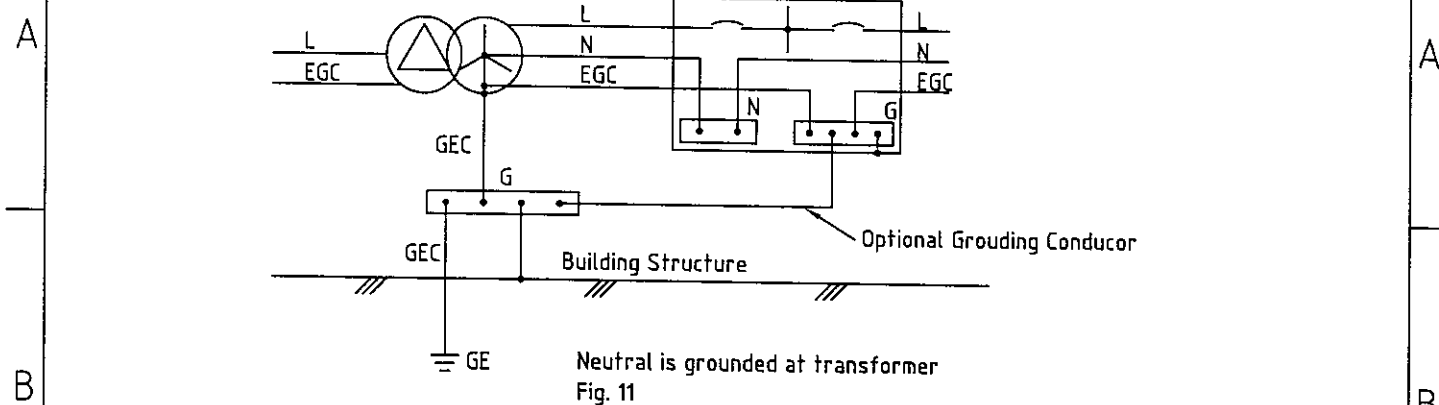


$$(480V - 120V) / (8\text{ Ohm} + 2\text{ Ohm}) = 36\text{ A}$$

Grounded Circuit, Fault
Fig. 4

NO	Q'TY	ITEM	REFERENCE
DESIGNED BY	CHECKED BY	APPROVED BY	FILE NAME
AS	AS	N/A	SafeGnd01
			DATE
			25/JAN/03
			SCALE
			N/A
N/A		TITLE	
		Safe Grounding	
PT. ANI INTERNATIONAL		DWG. NO.	REV
		SafeGnd01	0
		SHT	01
		CONT SHT	02

1	2	3	4
REV	REVISION NOTE	DATE	BY CHKED



EGC : Equipment Grounding Conductor
 GEC : Grounding Electrode Conductor
 GE : Grounding Electrode
 BJ : Bonding Jumper

Note: Transformer neutral is only grounded at one point between transformer and the first panel.

ALL THREE ARRANGEMENTS ARE PERMITTED

NO	Q'TY	ITEM	REFERENCE
DESIGNED BY	CHECKED BY	APPROVED BY	FILE NAME
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			DATE
			25/JAN/03
			SCALE
			N/A
N/A		TITLE	
		Safe Grounding	
PT. ANIS INTERNASIONAL		DWG. NO.	REV
		SafeGnd02	0
		SHT	CONT SHT
		02	03

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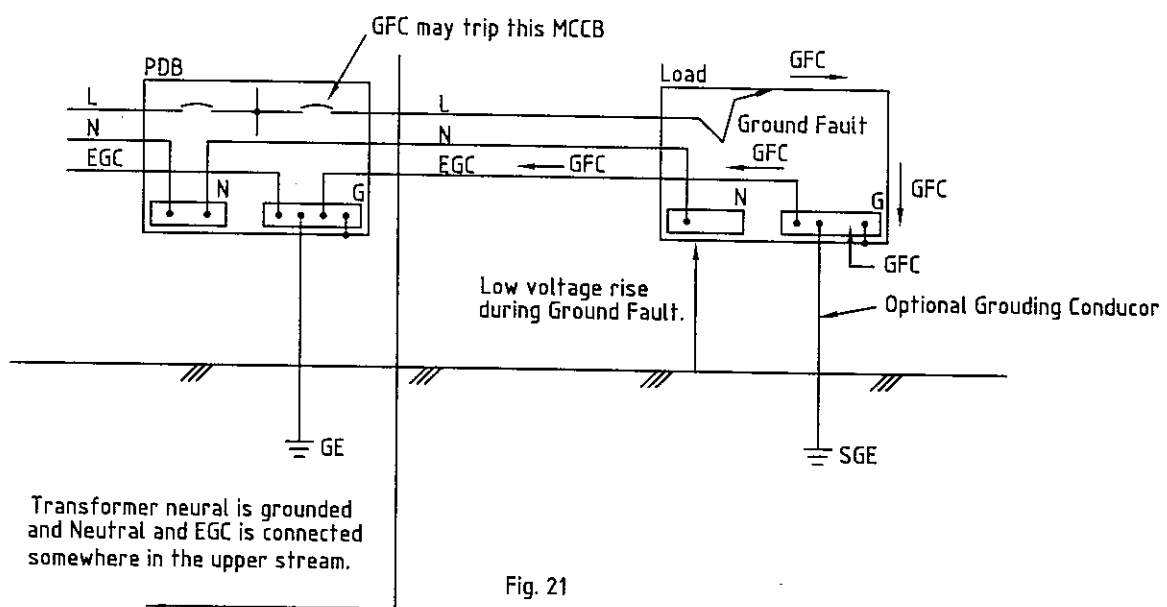
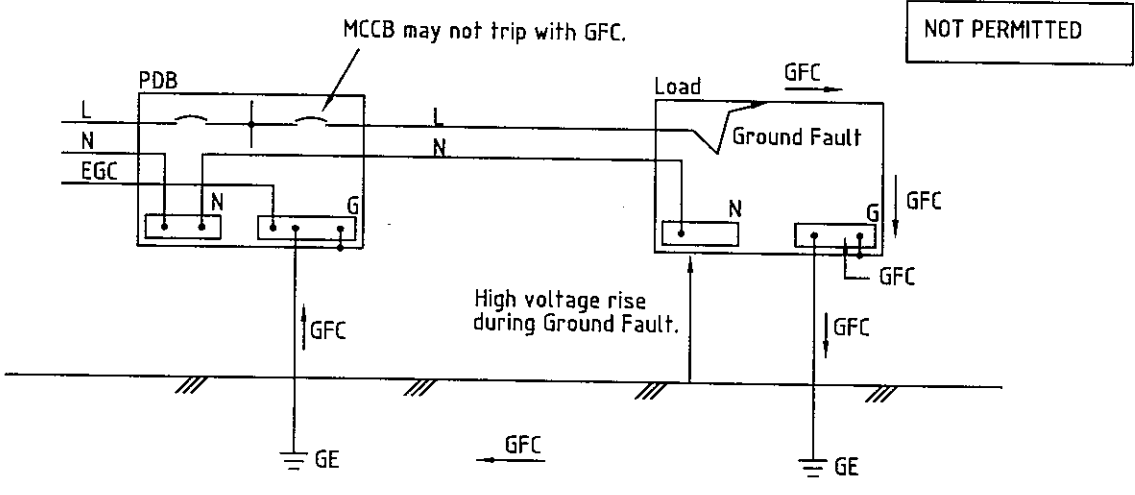


Fig. 21



This arrangement is never accepted since ECS is missing.

Fig. 22

EGC : Equipment Grounding Conductor
 GE : Grounding Electrode
 SGE : Supplementary Grounding Electrode
 GFC : Grounding Fault Current

NO	Q'TY	ITEM	REFERENCE
DESIGNED BY	CHECKED BY	APPROVED BY	FILE NAME
AS	AS	N/A	SafeGnd03
			DATE
			25/JAN/03
			SCALE
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N/A		TITLE	
		Safe Grounding	
PT. ANI INTERNATIONAL		DWG. NO.	REV
		SafeGnd03	0
		SHT	03
		CONT SHT	04

1	2	3	4
REV	REVISION NOTE	DATE	BY
			CHKED

A

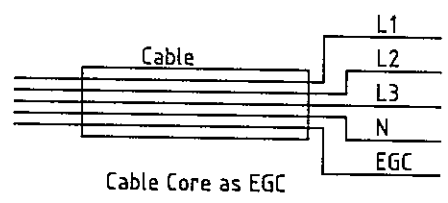
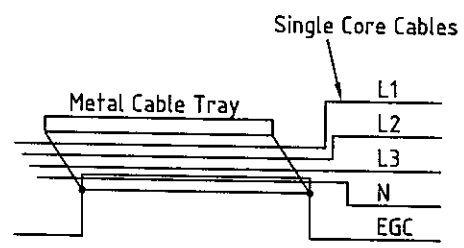


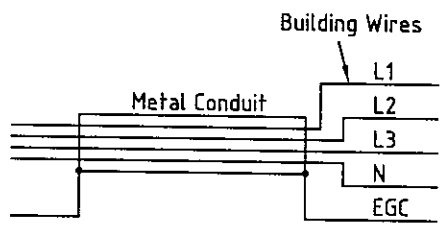
Fig. 31



Metal Cable Tray as EGC

Fig. 34

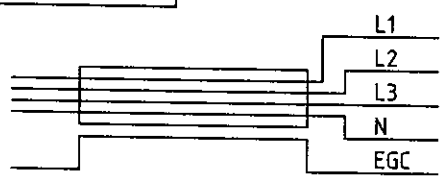
B



Metal Conduit as EGC

Fig. 32

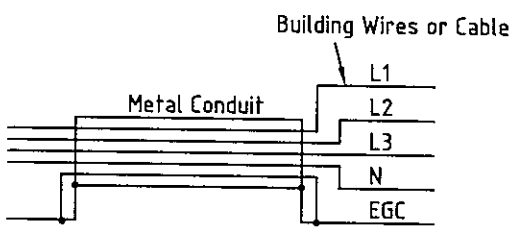
NOT PERMITTED



EGC external to cable or conduit is prohibited.

Fig. 35

C



EGC in Metal Conduit

Fig. 33

D

E

NO	Q'TY	ITEM	REFERENCE
DESIGNED BY	CHECKED BY	APPROVED BY	FILE NAME
AS	AS	N/A	SafeGnd04
			DATE
			25/JAN/03
			SCALE
			N/A
N/A		TITLE	
		Safe Grounding	
		DWG. NO.	REV
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		SHT	04
		CONT SHT	05

1

4

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NOT PERMITTED

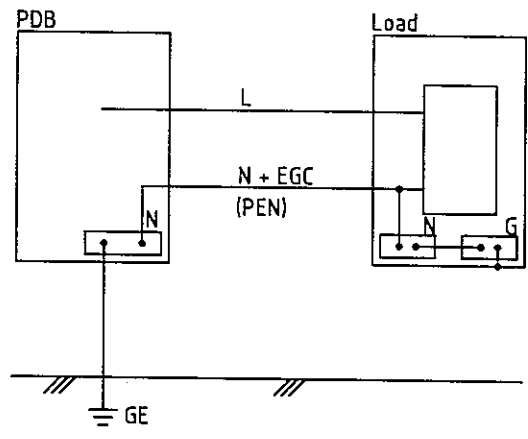


Fig. 41

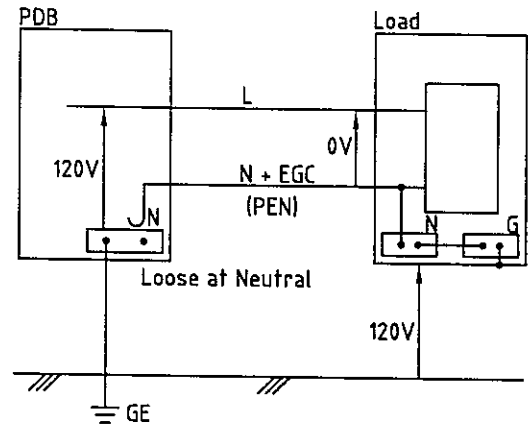


Fig. 42

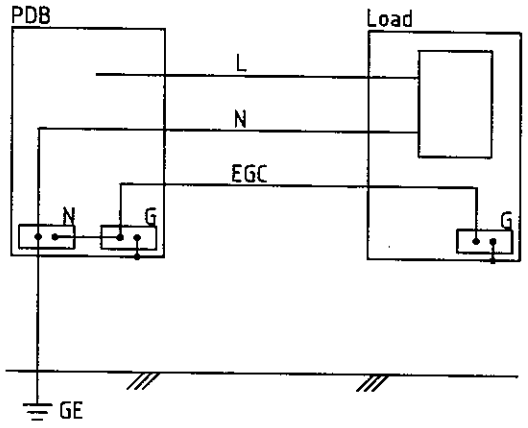


Fig. 43

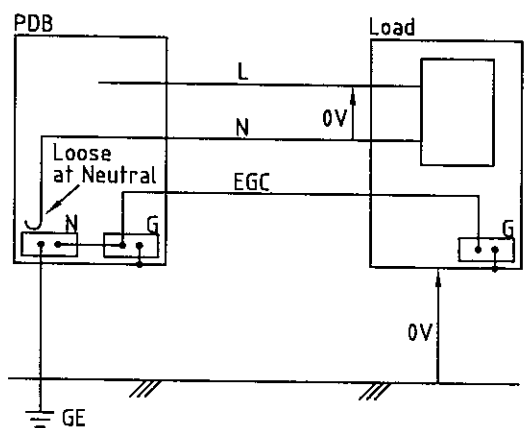


Fig. 44

NO	Q'TY	ITEM	REFERENCE
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			25/JAN/03
			SCALE
			N/A
N/A		TITLE	
		Safe Grounding	
PT. ANIS INTERNASIONAL		DWG. NO.	REV
		SafeGnd05	0
		SHT	CONT SHT
		05	11