

Reference(s) :

T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

Megatiker M3 electronic (no display) with earth leakage circuit breakers



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1. USE

Megatiker M3 platform has been developed to give a new solution of protection devices for a more precise approach in power installations in order to offer the correct answer for different project needs.

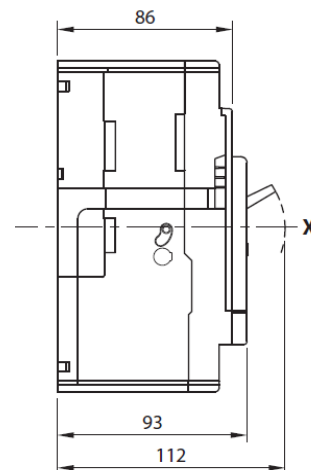
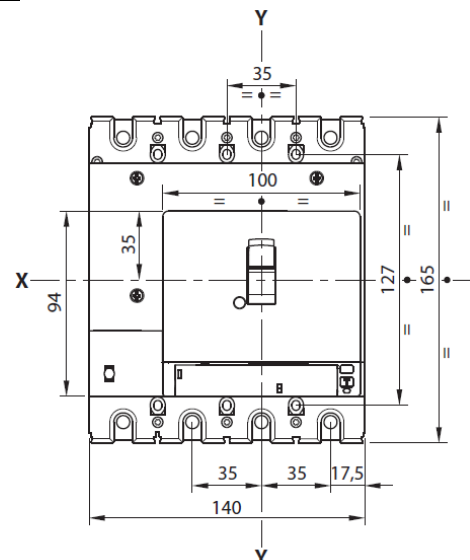
Megatiker M3 platform provide a complete project approach in premium market segment, offering a range completely suitable for high power application with high performance breakers in compact dimensions and at a competitive costs.

2. RANGE

Megatiker M3 electronic (no display) + earth leakage version		
	36 kA	50 kA
In (A)	4P	
40	T734F40EBD	T734N40EBD
100	T734F100EBD	T734N100EBD
160	T734F160EBD	T734N160EBD
250	T734F250EBD	T734N250EBD

3. DIMENSIONS AND WEIGHTS

3.1 Dimensions

Lateral view

Frontal view


**T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;**

The technical drawing shows two views of a mechanical component:

- Front View (Left):** Shows a symmetrical profile with a central rectangular cutout. Dimensions include overall height of 136, top section height of 125.5, middle section height of 116.5, bottom section height of 92.5, and a central cutout height of 47. The width at the top is divided into segments of 34.8, 35, 35, and 34.8. The base has a total width of 70, split into three 35-unit sections.
- Side View (Right):** Shows the depth of the component. Key dimensions include a total depth of 168, a main body depth of 144.5, a top flange thickness of 81.3, a central section height of 116.5, a lower section height of 92.5, a rear flange thickness of 48, and a small protrusion height of 96. A base offset of 1.2 is also indicated.

Technical drawing of the 234 TEST unit, showing front and side views with dimensions.

Front View Dimensions:

- Overall width: 215,5
- Internal width: 197
- Height from base to top of unit: 116
- Height from base to bottom of unit: 93

Side View Dimensions:

- Overall height: 264
- Height from base to top of unit: 136
- Height from base to bottom of unit: 112
- Width from left side to center of unit: 248
- Width from center of unit to right side: 223
- Width from left side to center of unit (split): 27, 17, 35, 35, 35, 17
- Width from center of unit to right side (split): 35, 35, 35, 17, 57

Legend:

- 245,5 →
- 234 TEST
- 215,5 →

Technical drawing of a two-person vehicle (likely a small truck or van) showing dimensions in millimeters. The overall width is 415 mm and the overall height is 340 mm. The vehicle has a central door and two side doors. The side doors are 140 mm wide and 58 mm high. The central door is 60 mm wide and 165 mm high. The side doors are 38 mm wide and 90 mm high. The central door is 140 mm wide and 165 mm high. The side doors are 38 mm wide and 90 mm high. The central door is 60 mm wide and 165 mm high. The side doors are 38 mm wide and 90 mm high.

[illegible]

Technical drawing of the 100mm x 116.1mm x 8.9mm module, showing top, side, and front views with dimensions.

Top View Dimensions:

- Overall width: 100mm
- Overall height: 116.1mm
- Top flange thickness: 8.9mm
- Internal width (between side rails): 94mm
- Bottom flange thickness: 11.1mm

Side View Dimensions:

- Overall height: 8.9mm
- Internal height (between top and bottom flanges): 116.1mm
- Bottom flange thickness: 11.1mm

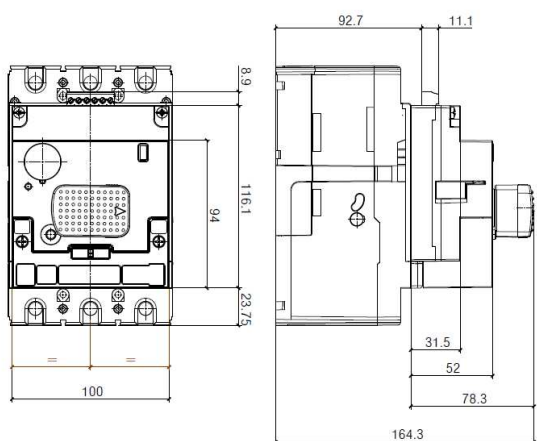
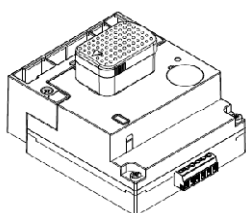
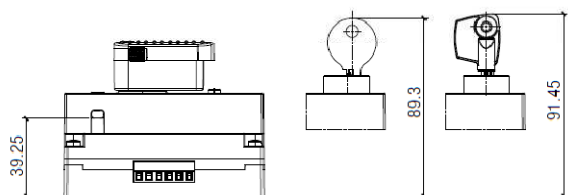
Front View Dimensions:

- Overall width: 100mm
- Overall height: 116.1mm
- Internal width (between side rails): 94mm
- Bottom flange thickness: 11.1mm

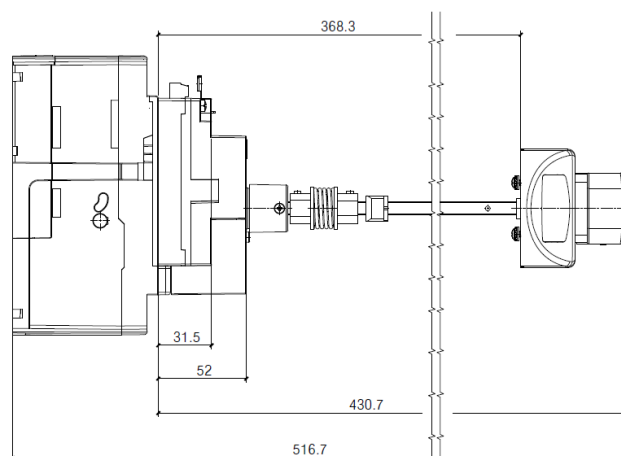
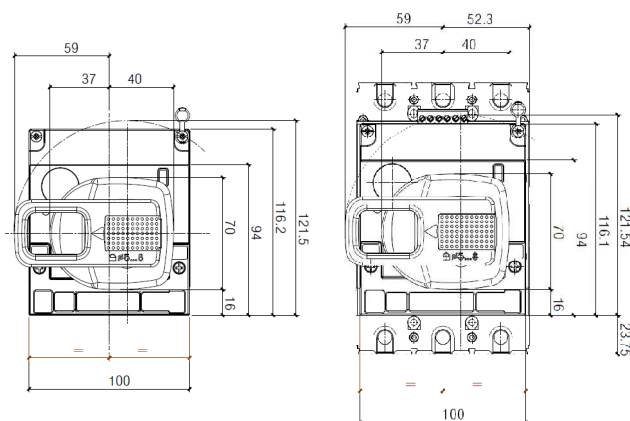
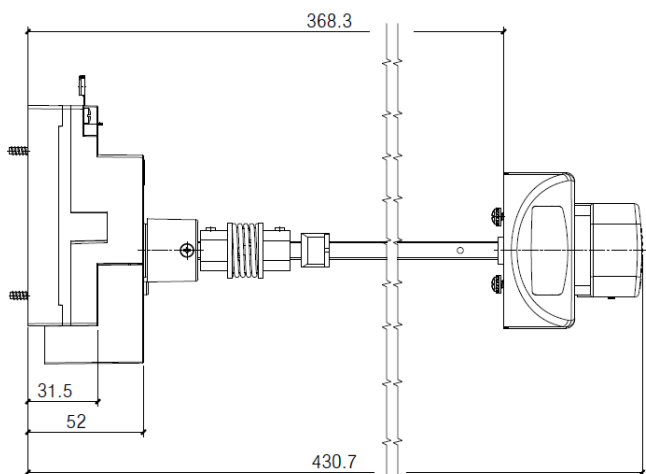
Megatiker M3 electronic (no display) with earth leakage circuit breakers

Reference(s) :

T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;



Vari-depth rotary handle

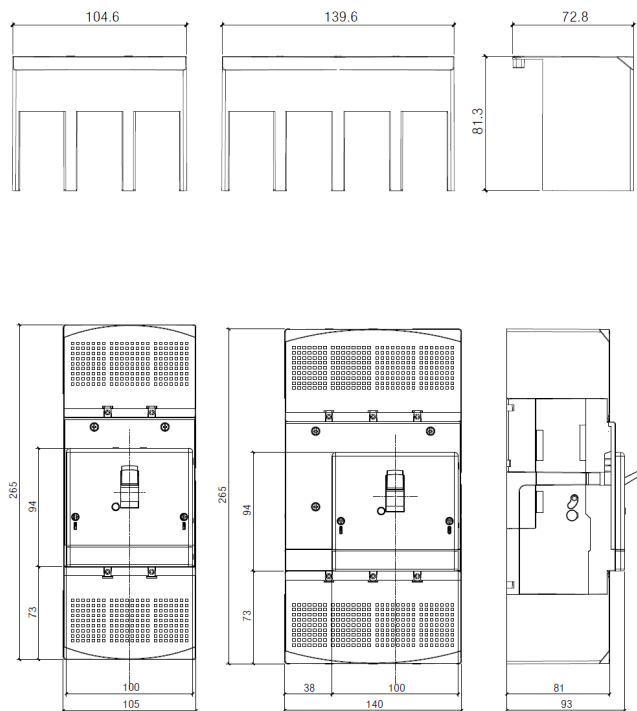


Megatiker M3 electronic (no display) with earth leakage circuit breakers

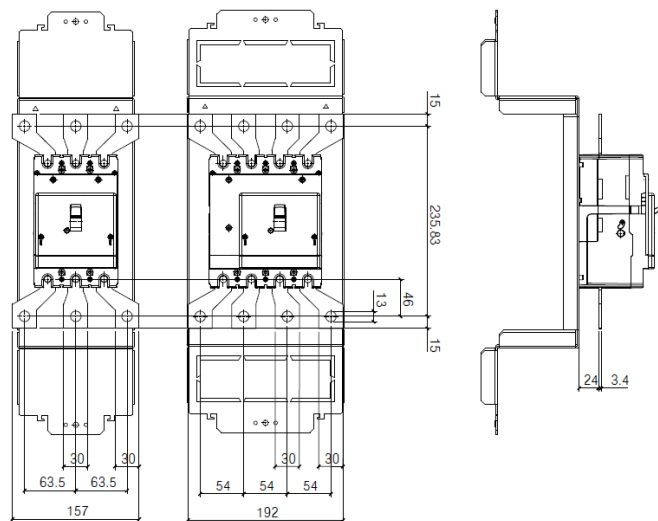
Reference(s) :

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T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

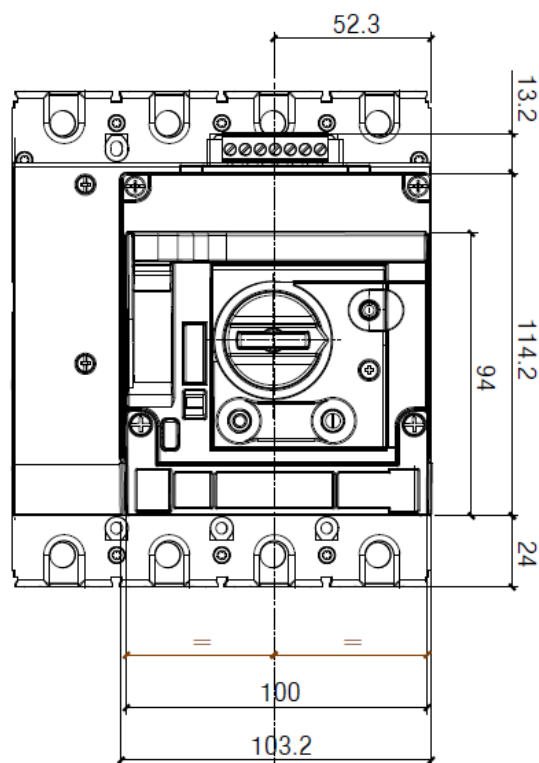
Sealable terminal shields



Spreaders

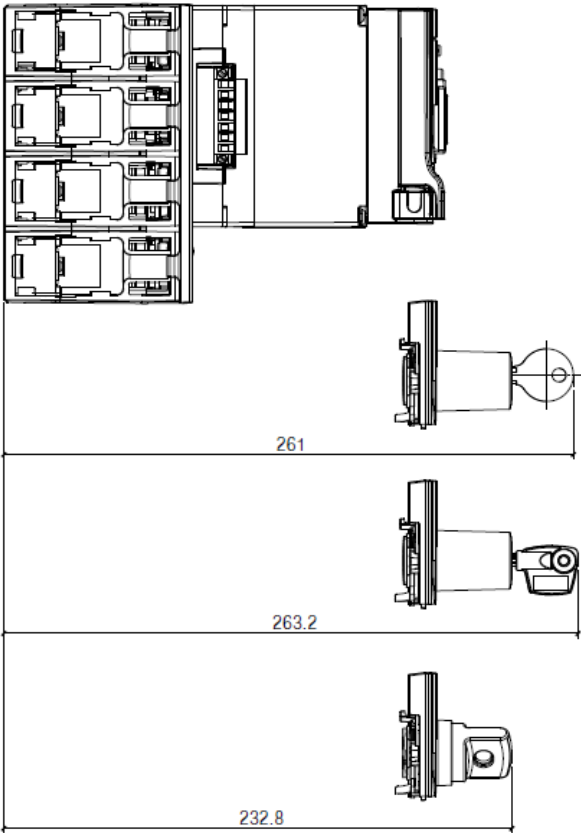
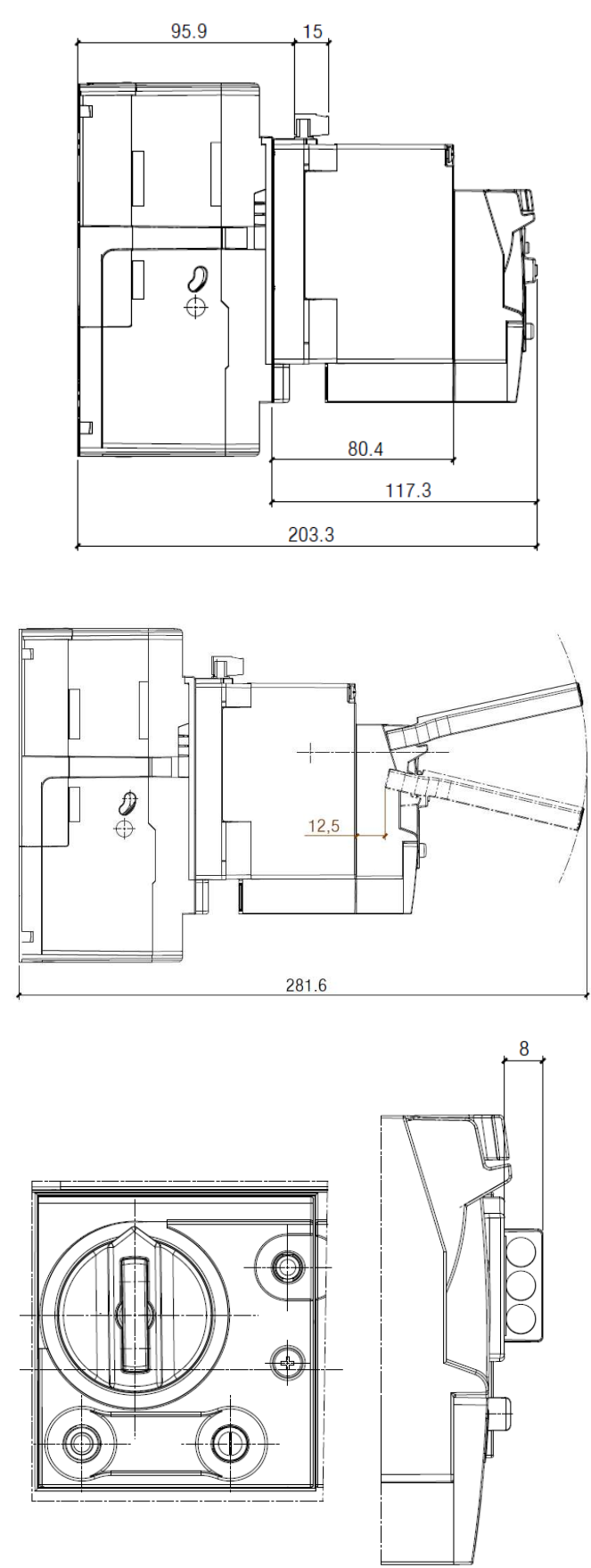


Motor operator



Megatiker M3 electronic (no display) with earth leakage circuit breakers

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T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;



3.2 Weights

Configuration	Weights (Kg)
Circuit breaker	2.5
Plug-in*	4.5
Draw-out**	2.5
Interlock*	0.35
Rear interlock (for plug-in/draw-out version)*	5
Motor operator*	1
* to add to device weight	
* to add to device and plug-in weights	

4. OVERVIEW

4.1 Supplied with:

- 4 fixing screws
- 8 screws for connections
- 3 phase insulators

5. ELECTRICAL CONNECTIONS

5.1 Mounting possibilities

On plate:

- Vertical
- Horizontal
- Supply inverter type

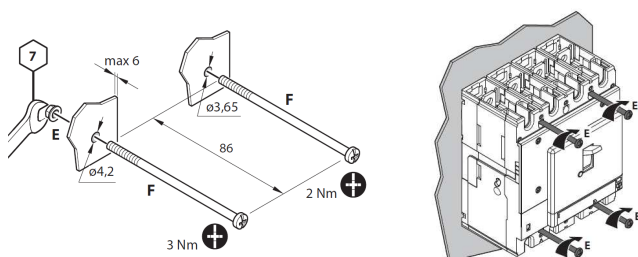
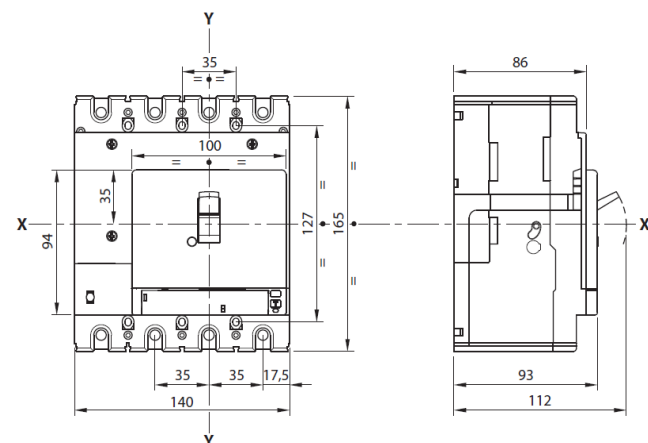
Megatiker M3 electronic (no display) with earth leakage circuit breakers

Reference(s) :

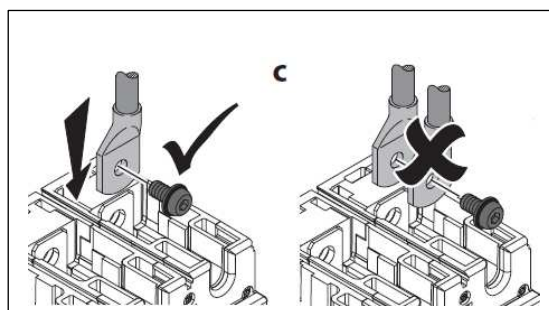
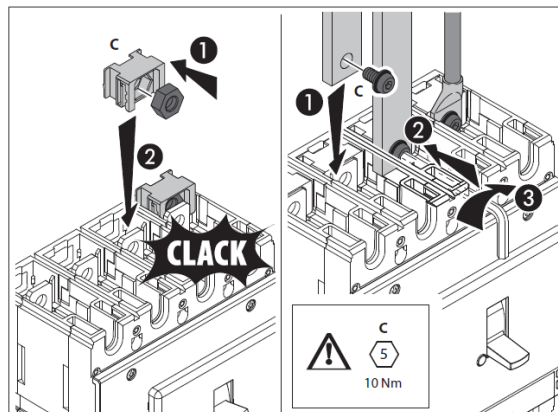
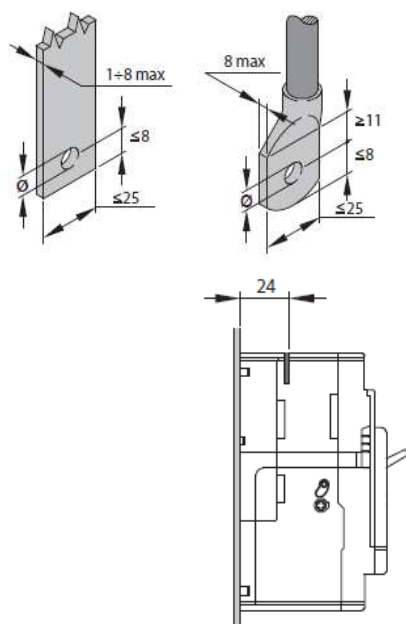
T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

5.2 Mounting

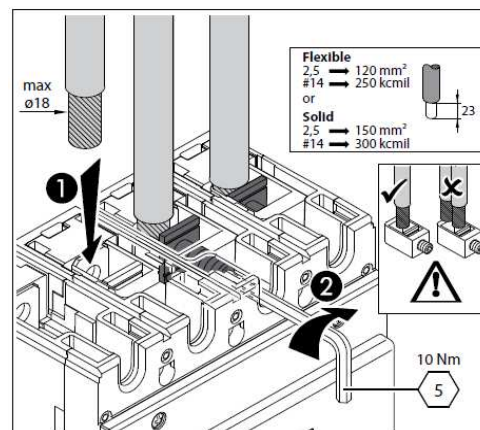
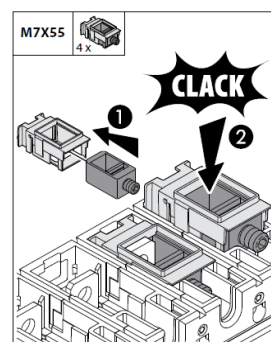
(see instruction sheet for detailed mounting procedures)



Busbars/cable lugs:



Cables:



Megatiker M3 electronic (no display) with earth leakage circuit breakers

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6. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Circuit Breaker	Megatiker M3 + RCD F/N (36kA, 50kA)
Rated current (A)	40-100-160-250
Poles	4
Pole pitch (mm)	35
Rated insulation voltage (50/60Hz) U_i (V)	500
Rated operating voltage (50/60Hz) U_n (V)	500
Rated impulse withstand current I_{imp} (kV)	6
Reference ambient temperature (°C)	40 - 50
Operating temperature (°C)	-25 ÷ 70
Mechanical endurance (cycles)	12000
Mechanical endurance with motor control (cycles)	12000
Electrical endurance at I_n (cycles)	6000
Electrical endurance at 0.5 I_n (cycles)	6000
Utilization category	A
Suitable for Isolation	Yes
Type of protection	Electronic (with knobs)
Thermal adjustment I_t	$(0.4 \div 1) \times I_n$
Magnetic adjustment $I_{\Delta d}$ (**)	$(1.5 \div 10) \times I_t$
Neutral protection for 4P (% I_n of phase pole)	0FF-50 ^(*) -100
Dimensions (W x H x D) (mm)	140 x 165 x 86 (4P)
Earth leakage type	A - integrated
Adjustable sensitivity (A)	0.03 - 0.3 - 1 - 3
Adjustable tripping (s)	0 - 0.3 - 1 - 3 (with 0.03 possible only 0s)
Dimensions (W x H x D) (mm)	140 x 165 x 86 (4P)

(*) if $I_n=40A$, then 50% regulation is allowed only if $I_r \geq 0,8$

(**) Regulations not adjustable:

- $t_r=5s$
- $t_{sd}=0.1s$
- $I_i=3250A$

When $I_r < 0.8$, knob setting marked with 50% equals to a 100% value.

Protection against overloads:

- I_r adjustable from 0.4 to $1 \times I_n$
- t_r adjustable from 3 to 15s

Protection against short circuits:

- I_{sd} adjustable from 1.5 to $10 \times I_r$
- t_{sd} adjustable from 0 to 0.5s

Equipped with earth leakage module with knobs

Adjustable sensitivity: 0.03 - 0.3 - 1 - 3 A

Adjustable tripping: 0 - 0.3 - 1 - 3s (with 0.03 A possible only 0s)

The maximum admissible (absolute) temperature is 125°C
(for detail, see IEC 60947-1 and 60947-2)

DPX³ product line has the possibility to supply both in "direct" and "reverse" feed.

If "direct", the word "LINE" needs to be marked on supply terminals (normally the top ones), as well as "LOAD" has to

be written on the output terminals to be connected to the load (normally the bottom ones).

If "reverse", any indications about LINE / LOAD are NOT expected on the product.

General remarks on protection unit

The protection units S1 are normally supplied by the internal current transformers (CTs).

When the current flowing through the circuit breaker is lower than 12% of the maximum power (20% of I_n for single phase load), the internal voltage supply ensures the following basic functions of protection unit: RCD protection, LED status and RCD diagnostic trip test (T button).

Instead, over the 12% of the maximum power (20% of I_n for single phase load), the additional power provided by current transformers ensures the complete functions of the protection unit, like diagnostic functions (e.g. trip test).

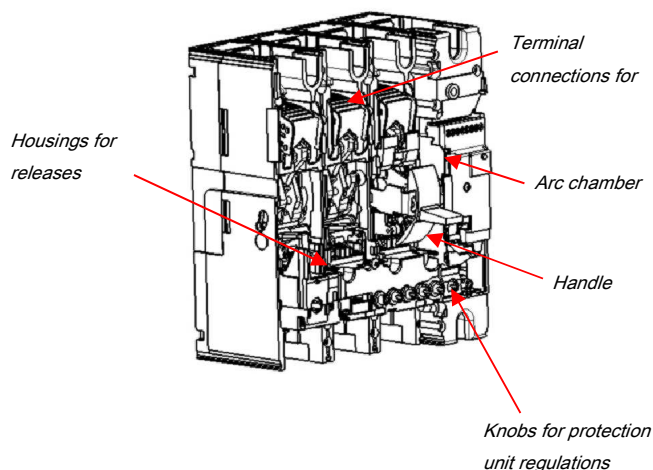
To ensure the same performance when the load is less than 12% of the maximum power (20% of I_n for single phase load) to grant complete functions, the following optional power supply can be used:

- power supply temporarily connected to frontal Service port, connected to specific adapter for PC (Legrand use only).

Together with above protections, activated in case of electric faults, the trip unit also integrates self-protection for:

- Over temperature : in case the internal temperature of protection unit exceed 95°C;
- Auto diagnostics: in case embedded watchdog circuit detects internal malfunctions, which could compromise the correct working of microcontroller.
-
- Auto diagnostics: in case embedded watchdog circuit detects internal malfunctions, which could compromise the correct working of microcontroller.

6.1 Main parts constituting the circuit breaker



Megatiker M3 electronic (no display) with earth leakage circuit breakers

Reference(s) :

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T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

6.2 Breaking capacity (kA)

		Breaking capacity (kA) & I_{cs}	
		4P	
	U_e/I_{cu} (I_{cu} letter)	36kA (F)	50kA (N)
IEC 60947-2	220/240 V AC	70	90
	380/415 V AC	36	50
	440/460 V AC	25	30
	480/500 V AC	16	18
	$I_{cs}(\% I_{cu})$	100	100
Rated making capacity under short circuit I_{cm}			
	I_{cm} (kA) at 415V	76.5	105
NEMA AB-1	220/240 V AC	70	90
	480/500 V AC	16	18

6.3 Rated current (I_n)

I_n (A)	Phases limit trip current			
	thermal (I_t)		magnetic (I_{sd})	
	$0.4 \times I_n$	$1 \times I_n$	min	max
40	16	40	60	400
100	40	100	150	1000
160	64	160	240	1600
250	100	250	375	2500

6.4 Load operations

Force on handle	N
Opening operation	63,5
Closing operation	66
Restore operation	86,5

6.5 Electrodynamic forces

The table below shows an indication of suggested distances to keep between the breaker and the first fixing point of the conductor and bars in order to reduce the effects of the electrodynamic stresses that may be created during a short circuit. In the realization of anchorage system it is recommend the use of isolators suitable for the type of conductor used and the operating voltage.

I_{cc} (kA)	Maximum Distance (mm)
36	350
50	300

According to conductor type and bar system (except Legrand bar kits), the choice of the distance to keep is to be calibrated by the installer. Also installer must take into account the weight of the conductors so that this does not affect the electrical junction between the conductor itself and the connection point.

6.6 Power losses per pole under I_n

Circuit breaker

I_n (A)	Power losses per pole (W)			
	40	100	160	250
Cage terminals	0.54	3.37	8.63	21.07
Lugs	0.49	3.08	7.88	19.25
Spreaders	0.41	2.59	6.64	16.21
Rear terminals	0.51	3.18	8.13	19.86

Note: power losses in the table above are referred and measured as described in the standard IEC 60947-2 (Annex G) for circuit-breakers. Values in the table are referred to a single phase.

6.7 DERATINGS

according to IEC/EN 60947-1

6.7.1 Temperature

Rated current and his adjustment has to be considered relating to a rise or fall of ambient temperature and to a different version or installation conditions. The table below indicates the maximum long-time (LT) protection setting depending on the ambient temperature.

I_n (A)	Temperature T_a (°C)			
	40	50	60	70
40	40	40	40	40
100	100	100	100	95
160	160	160	160	155
250	250	250	210	190

For derating temperature with other configurations, see table A.

6.7.2 Specific condition use

Climatic conditions

according to IEC/EN 60947-1 Annex Q, Cat. F subject to temperature, humidity, vibration, shock and salt mist.

Pollution degree

for Megatiker M3 circuit breakers, degree 3, according to IEC/EN 60947-2

6.7.3 Altitude

Altitude derating for Megatiker M3

Altitude (m)	2000	3000	4000	5000
U_e (V)	500	430	380	330
I_n (A)	$1 \times I_n$	$0.98 \times I_n$	$0.93 \times I_n$	$0.9 \times I_n$

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7. CONFORMITY

Megatiker M3 range of product concerning circuit-breakers and switch-disconnectors exceed compliance with the IEC/EN standard 60947-2 and 60947-3 respectively. Certification available by IECEE CB-scheme or LOVAG Compliance scheme.

Megatiker M3 respect the European Directives REACH, RoHS, RAEE.

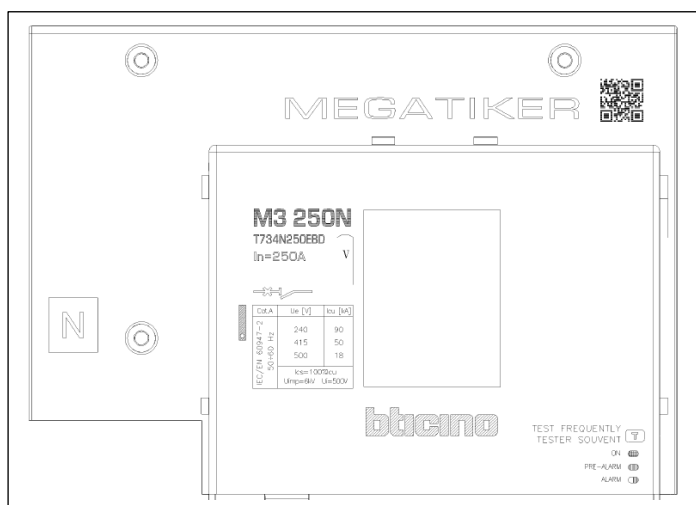
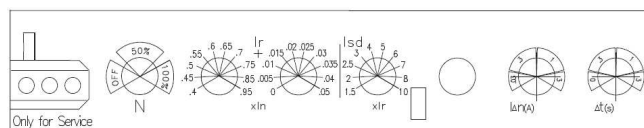
For specific information, please contact Legrand support.

7.1 Marking

Product (circuit breakers) are provided with labelling in full conformity to the referred standard and directives requirements by laser or sticker labels (for illustrative purposes only) as:

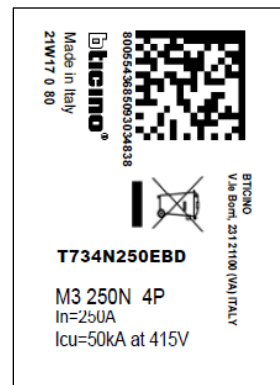
Product laser label on front

- Manufacturer responsible
- Denomination, type product, code
- Standard conformity
- Standard characteristics declared
- Coloured identification of I_{CU} at 415V

**Electronic release label**

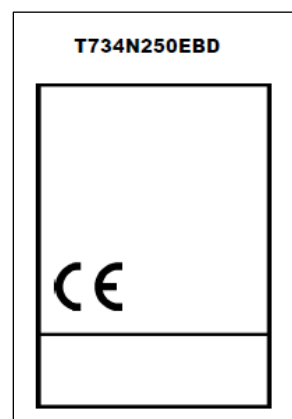
Product sticker label on side

- Manufacturer responsible
- Denomination and type product
- Standard conformity
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product
- Manufacturing Country



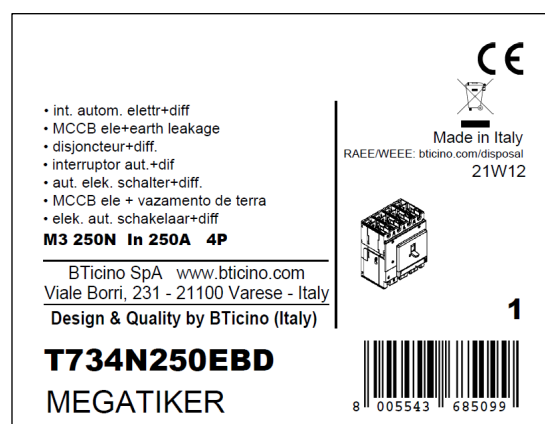
Mark sticker label on side

- Product code
- Mark/Licence (if any)
- Country deviation, if any



Packaging sticker label

- Manufacturer responsible
- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product



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T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

8. EQUIPMENTS AND ACCESSORIES

8.1 Releases (for Megatiker M3 125/250, M1 and M2)

- shunt releases with voltage:

12 Vac and dc
24 Vac and dc
48 Vac and dc
110+130 Vac
220+277 Vac
380+480 Vac

ref. M7S012
ref. M7S024
ref. M7S048
ref. M7S110
ref. M7S230
ref. M7S415

Maximum power = 400 VA / W

- undervoltage releases with voltage:

12 Vac and dc
24 Vac and dc
48 Vac and dc
110+130 Vac and dc
220+240 Vac
277 Vac
380+415 Vac
440+480 Vac

ref. M7U012
ref. M7U024
ref. M7U048
ref. M7U110
ref. M7U230
ref. M7U277
ref. M7U415
ref. M7U480

Maximum power = 4 VA

Circuit breaker opening time < 50 ms

UVR releases can be used on Megatiker M3 125/250 starting from batch 19W15

- time-lag undervoltage releases (800 ms)

Time-lag modules with voltage:

230 V ac
400 V ac

ref. M7000MR/230
ref. M7000MR/400

Release

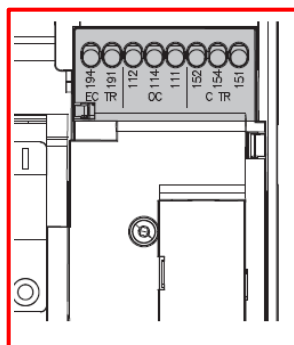
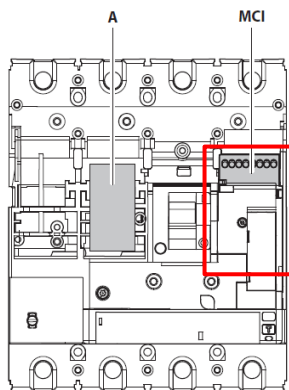
ref. M7UEM

(to be equipped with a time-lag module M7000MR/230 and M7000MR/400)

8.2 Auxiliary contacts

For version of DPX³ 250 HP electronic version, with earth leakage module, auxiliary contacts are integrated inside module M.C.I (see instruction sheet for details).

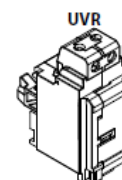
Here a connection scheme to get auxiliary functionality:



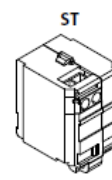
TRIP STATUS (CTR)	151 Common contact	154
	152 Normal close contact	151
	154 Normal open contact	152
OPEN/CLOSE STATUS (OC)	111 Common contact	114
	112 Normal close contact	111
	114 Normal open contact	112
TRIP RCD (EC TR)	191 Common contact	194
	194 Normal open contact	191

CTR	152-151	154-151
OFF		
TRIP		
ON		

OC	112-111	114-111
OFF		
TRIP		
ON		



M7U012...M7U480
M7UEM



M7S012...M7S415



	A
UVR	✓
ST	(max 1)

To get more information on auxiliary mounting procedures, please refer to product instruction sheet.

8.3 Universal keylocks

These keylocks must be used for all the accessories that can be locked:

- rotary handle
- motor operator
- plug-in mechanism
- draw-out mechanism

For each of these, a specific accessory (indicated in the specific section of this datasheet) must be added in order to get the complete locking kits for the specific application.

- 1 lock + 1 flat key with random mapping ref. M7R24
- 1 lock + 1 flat key with fixed mapping (EL43525) ref. M7R25
- 1 lock + 1 flat key with fixed mapping (EL43363) ref. M7R26
- 1 lock + 1 star key with random mapping ref. M7R27

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Reference(s) :

T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

8.4 Rotary handles

Direct on DPX³ (with auxiliary option)

- Standard (black) ref. M7R24
- For emergency use (red / yellow) ref. M7R25

Vari-depth handle IP55 (with auxiliary option)

- Standard (black) ref. M7R26
- For emergency use (red / yellow) ref. M7R27

Locking accessories (for rotary handle with auxiliary option)

- Key lock accessory for direct rotary handle ref. M7R30
- Key lock accessory for vari-depth rotary handle ref. M7R31
(ref. M7R31 is compatible with Megatiker M3 125 also)

Ref. M7R30 and M7R31 must be used with universal keylocks to get the complete locking kit for rotary handle

8.5 Motor operators

For synchronized operations (energy storage type):

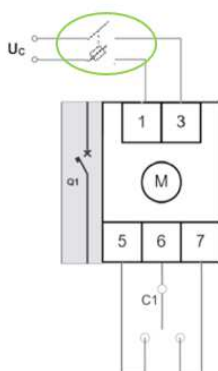
- 24 Vac and dc ref. M7M024
- 48 Vac and dc ref. M7M048
- 110 Vac ref. M7M110
- 230 Vac ref. M7M230

Technical parameters:

Voltage	Property	AC		DC	
		Opening	Closing	Opening	Closing
24V ac/dc	Maximum inrush power (VA)	75	430	55	320
	Rated power (VA)	45	-	20	-
	Absorption time (s)	2.8	0.01	3.3	0.01
	Operating current time (s)	1.1	0.03	1.2	0.03
48V ac/dc	Maximum inrush power (VA)	85	1000	70	690
	Rated power (VA)	65	-	15	-
	Absorption time (s)	3.3	0.006	3.8	0.006
	Operating current time (s)	1.1	0.02	1.3	0.02
110V ac	Maximum inrush power (VA)	95	600	-	-
	Rated power (VA)	60	-	-	-
	Absorption time (s)	3	0.02	-	-
	Operating current time (s)	1.0	0.03	-	-
230V ac	Maximum inrush power (VA)	125	460	-	-
	Rated power (VA)	70	-	-	-
	Absorption time (s)	2.5	0.08	-	-
	Operating current time (s)	0.9	0.03	-	-

It is necessary to foresee a protection device (e.g. fuse) along the motor operator power line. The correct size of the fuse depends on the motor version and on the number of users.

Here a schematic example:



Locking accessory (for motor operator)

- Padlock (for motor operator locking) ref. M7M61
- Key lock accessory for motor operator ref. M7M60

Ref. M7M60 must be used with universal keylocks to get the complete locking kit for motor operator

8.6 Mechanical accessories

- Padlock (for locking in "OPEN" position) ref. M7X02
(ref. M7X02 is compatible with Megatiker M3 125 / M1 / M2)

- Sealable terminal shields:
 - Set of 3 (for 4P) ref. M7C23

- Insulated shields:
 - Set of 3 (for 4P) ref. M7F02

(ref. M7F02 are compatible with Megatiker M3 125 also)

8.7 Connection accessories

Cage terminals

- Set of 4 terminals for cables 150 mm² max (rigid) ref. M7X55
or 120 mm² max (flexible) Cu/Al

Spreaders (incoming or outgoing):

- Set of 4 (for 4P) ref. M7A53

Rear terminals (incoming or outgoing):

- Set of 4 (for 4P) ref. M7A57

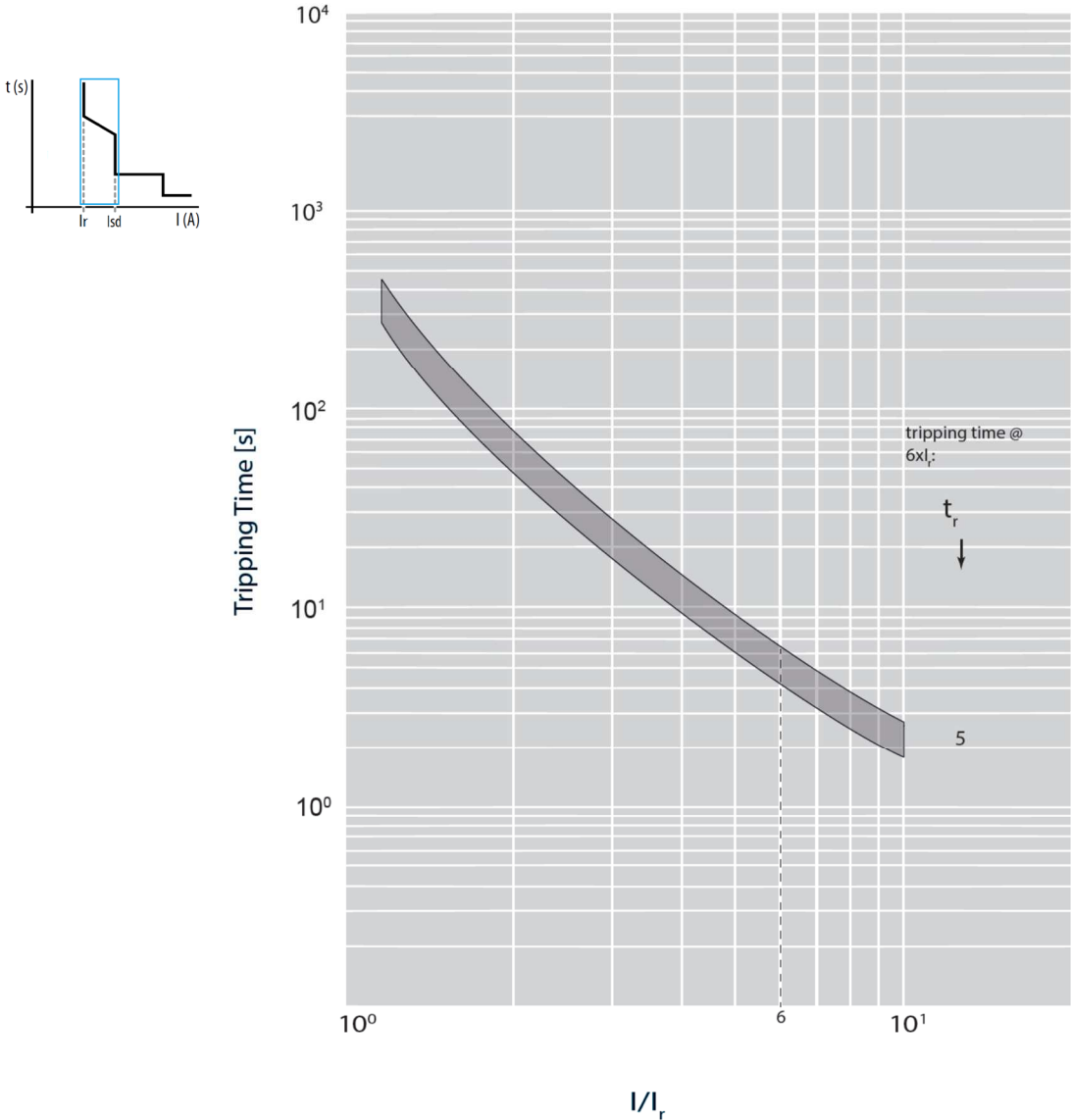
Cage terminal use specifications

Megatiker M3 250							
Type of cage terminal	Cable standard suggested cross section (mm²)*			Dimensions limits of cable for cage terminals			
	In (A)	Cu	Al	MIN cross section (mm²)		MAX cross section (mm²)	
				Flexible	Rigid	Flexible	Rigid
Standard	16	2,5	4	2,5	2,5	120	150
	20	2,5	4				
	25	4	6				
	32	6	10				
	40	10	16				
	50	10	16				
	63	16	25				
	80	25	35				
	100	35	50				
	125	50	70				
	160	70	\				
	200	95	\				
	250	120	\				
* The suggested cross section are in compliance with standard IEC60947-1 (ed.6 2020/04) and IEC60947-2 (ed.5.1 2019/07)							

Megatiker M3 electronic (no display) with earth leakage circuit breakers		Reference(s) : T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD; T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;
8.8 Plug-in version (A plug-in is a Megatiker M3 250 fitted with special terminals and mounted on a plug-in base) Bases (for plug-in and draw-out versions for Megatiker M3 250 and MS3 250) - Plug-in/draw-out base for 4P ref. M7B51 - Plug-in/draw-out mobile part kit for 4P ref. M7B53 Plug-in accessories <i>Locking accessory (for plug-in)</i> - Key lock accessory for plug-in ref. M7B64 <u>Ref. M7B64 must be used with universal keylocks to get the complete locking kit for plug-in version</u>	8.9 Draw-out version (A Megatiker M3 250 draw-out version is a plug-in Megatiker M3 250 fitted with a "Debro-lift" mechanism which can be used to withdraw the breaker while keeping it on its base) "Debro-lift" mechanism (supplied with a rigid slide and handle for drawing-out) - transformation kit for 4P ref. M7B55 Frontal masks for draw-out version (to provide in addition to debro-lift mechanism according to accessory mounted) - Frontal module, with frontal mask (3P and 4P) ref. M7B60 (if neither motor operator nor rotary handle are mounted) - Frontal mask for motor operator (3P and 4P) ref. M7B61 Locking accessory (for draw-out) - Padlock for draw-out position ref. M7B65 - Key lock accessory for draw-out ref. M7B63 <u>Ref. M7B63 must be used with universal keylocks to get the complete locking kit for draw-out version</u> Auxiliary contacts - Automatic auxiliary contacts for draw-out version ref. M7B05 6 contact connector (under sliding contacts) ref. F15/7500P6 (Ref. F15/7500P6 can be used with both plug-in and draw-out version)	
	8.10 Interlock mechanism (for interlocking 2 Megatiker M3 125 HP or 2 Megatiker M3 250) No frame mixing in interlock mechanism - Interlock mechanism – standard version ref. M7I01 (for fixed version Megatiker M3 125 and 250) - Interlock mechanism – for electronic module ref. M7I02 (for fixed version Megatiker M3 125 and 250) - Interlock plate for Megatiker M3 250 ref. M7I05 - Rear interlock mechanism ref. M7I03 (for Megatiker M3 250 plug-in and/or draw-out version) If used ref. F15/7500P6, maximum 1 set	
Technical sheet: IDP001600EN/02Update: 24/07/2024Creation: 08/09/2021		

9. CURVES
9.1.1 Tripping curve [1/3]

Update: 11/06/2019

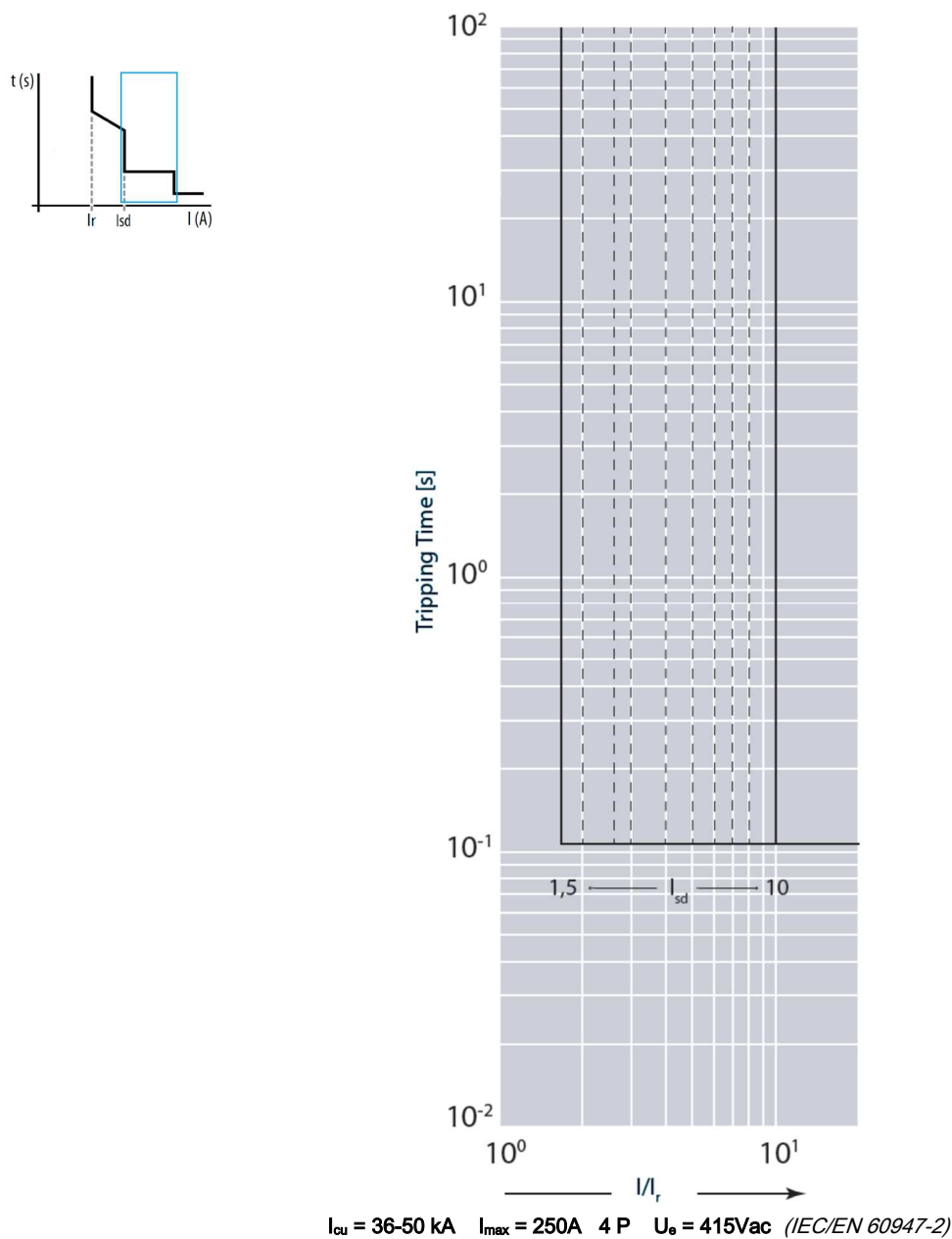


I_{cu} = 36-50 kA I_{max} = 250A 4 P U_e = 415Vac (IEC/EN 60947-2)

Value	Description
t	time
I	current
I _r	long time setting current
t _r	long time delay
I _{sd}	short time setting current
t _{sd}	short time delay
I _i	instantaneous release
I _{cu}	rated ultimate short-circuit breaking capacity
I ² t = K	constant pass-through energy setting
t = K	constant tripping time setting
—————	long time trip curve
-----	short time trip curve
Current tolerance	10% up to I _{sd} ; 20% up to I _i

9.1.2 Tripping curve [2/3]

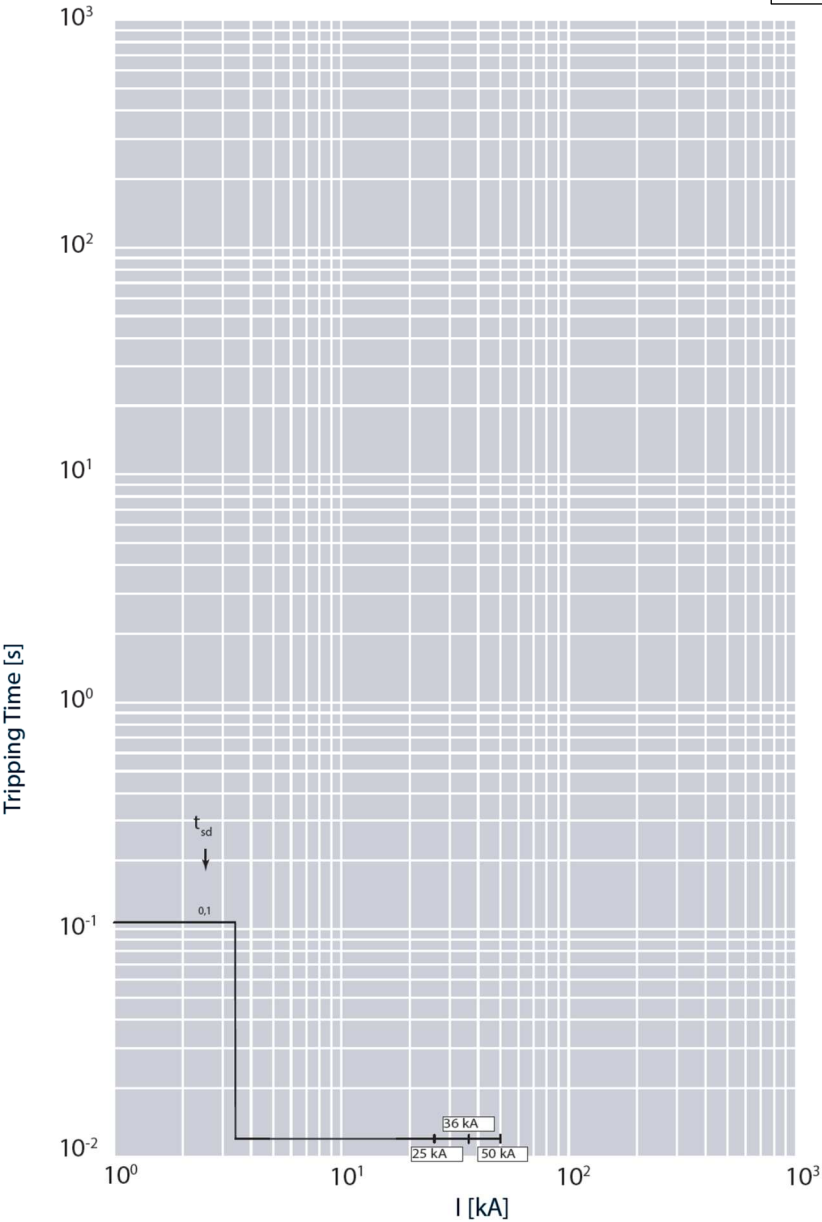
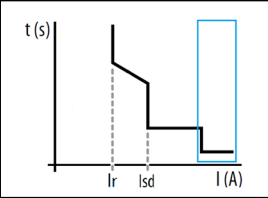
Update: 11/06/2019



Value	Description
t	time
I	current
I_r	long time setting current
t_r	long time delay
I_{sd}	short time setting current
t_{sd}	short time delay
I_i	instantaneous release
I_{cu}	rated ultimate short-circuit breaking capacity
$I^2t = K$	constant pass-through energy setting
$t = K$	constant tripping time setting
—	long time trip curve
-----	short time trip curve
Current tolerance	10% up to I_{sd} ; 20% up to I_i

9.1.3 Tripping curve [3/3]

Update: 11/06/2019



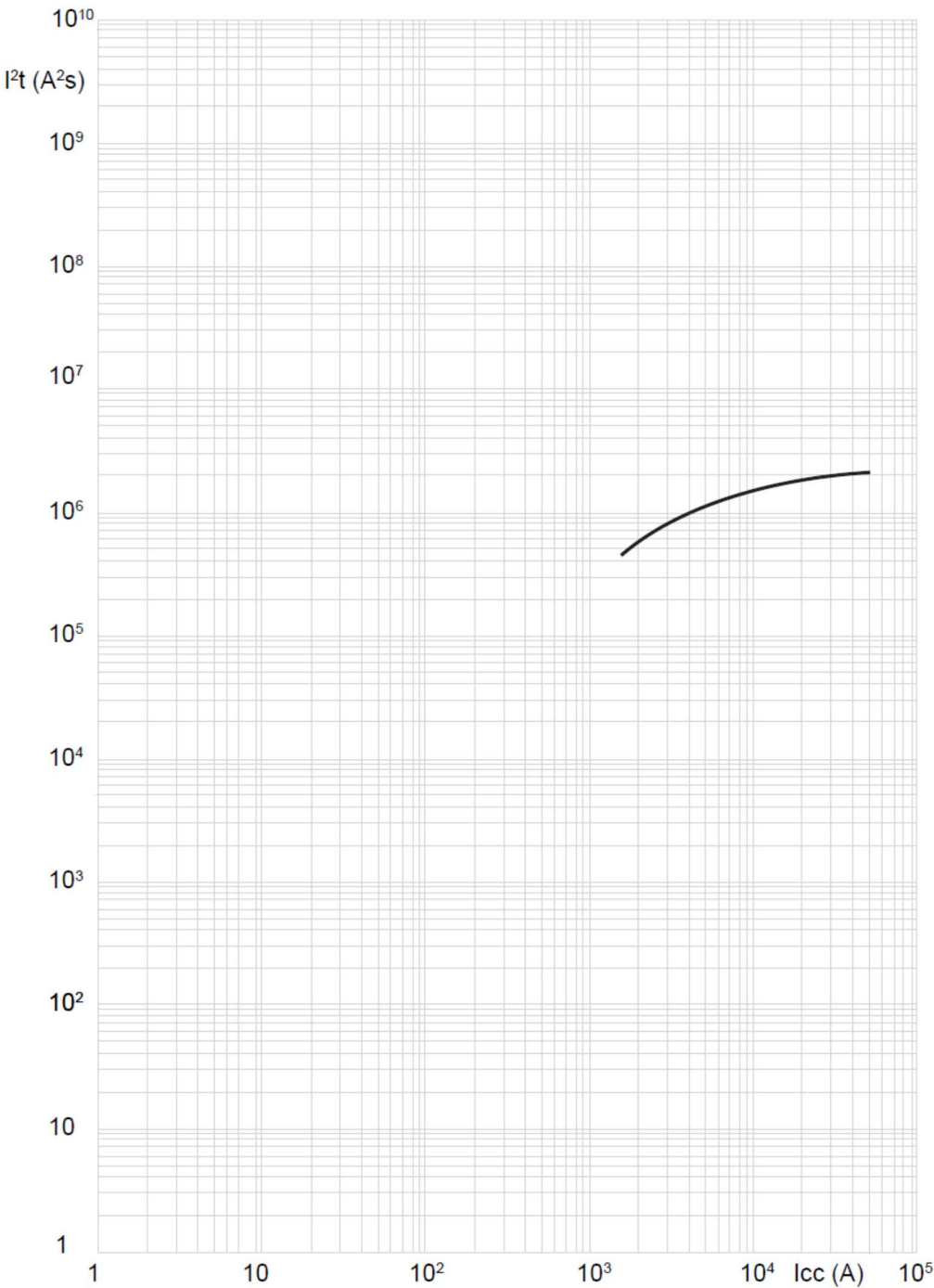
I_{cu} = 36-50 kA I_{max} = 250A 4 P U_o = 415Vac (IEC/EN 60947-2)

Fixed Instantaneous override I_{sf} = 3.25kA

Value	Description
t	time
I	current
I _r	long time setting current
t _r	long time delay
I _{sd}	short time setting current
t _{sd}	short time delay
I _i	instantaneous release
I _{cu}	rated ultimate short-circuit breaking capacity
I ² t = K	constant pass-through energy setting
t = K	constant tripping time setting
-----	long time trip curve
-----	short time trip curve
Current tolerance	10% up to I _{sd} ; 20% up to I _i

9.2 Pass-through specific energy characteristic curve

Update: 30/08/2019



I_{cu} = 36-50 kA I_{max} = 250A 4 P U_e = 415Vac (IEC/EN 60947-2)

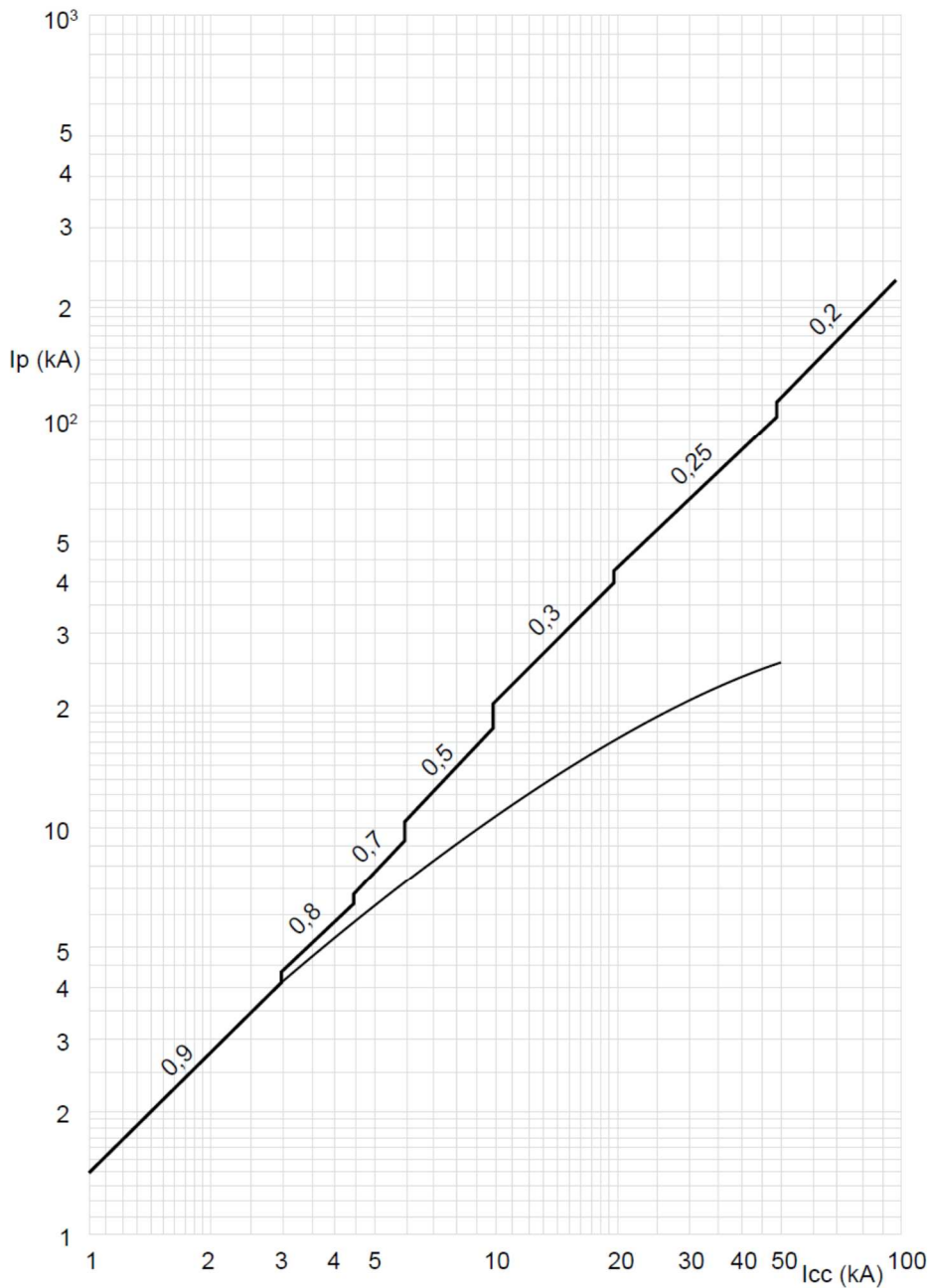
Value	Description
I_{cc}	short circuit current
I^2t (A^2s)	pass-through specific energy

Megatiker M3 electronic (no display) with earth leakage circuit breakers

Reference(s) :
T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

9.3 Cut-off peak current characteristic curve

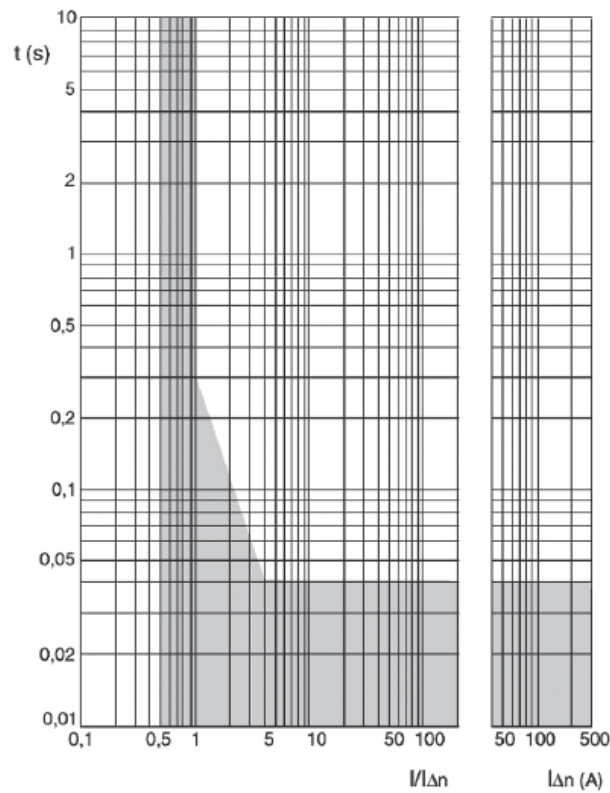
Update: 30/08/2019



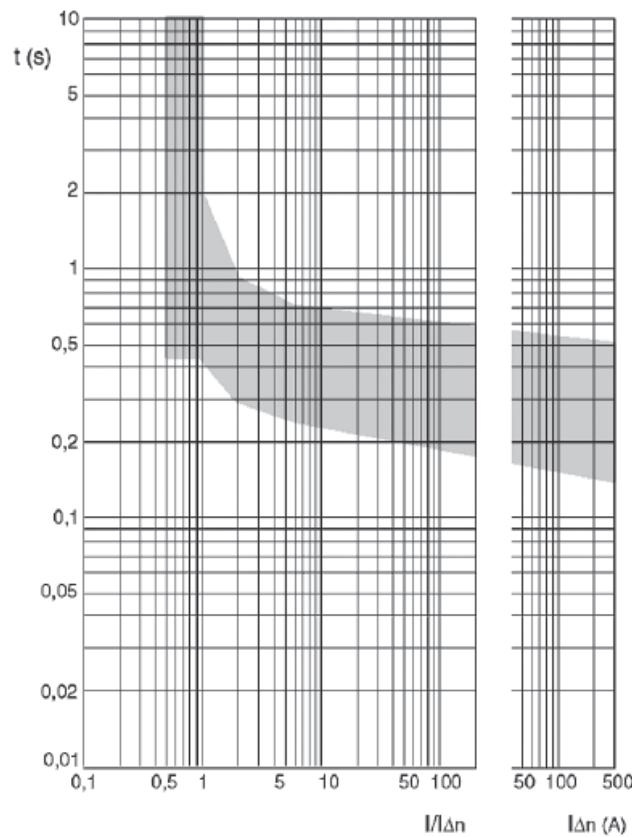
$I_{cu} = 36-50 \text{ kA}$ $I_{max} = 250A$ 4 P $U_o = 415Vac$ (IEC/EN 60947-2)

Value	Description
I_{cc}	estimated short circuit symmetrical current (RMS value)
I_p	maximum short circuit peak current
	maximum prospective short circuit peak current corresponding at the power factor
	maximum real peak short circuit current

9.4.1 Earth leakage curves, instantaneous



9.4.2 Earth leakage curves, time delay = 0.3 s

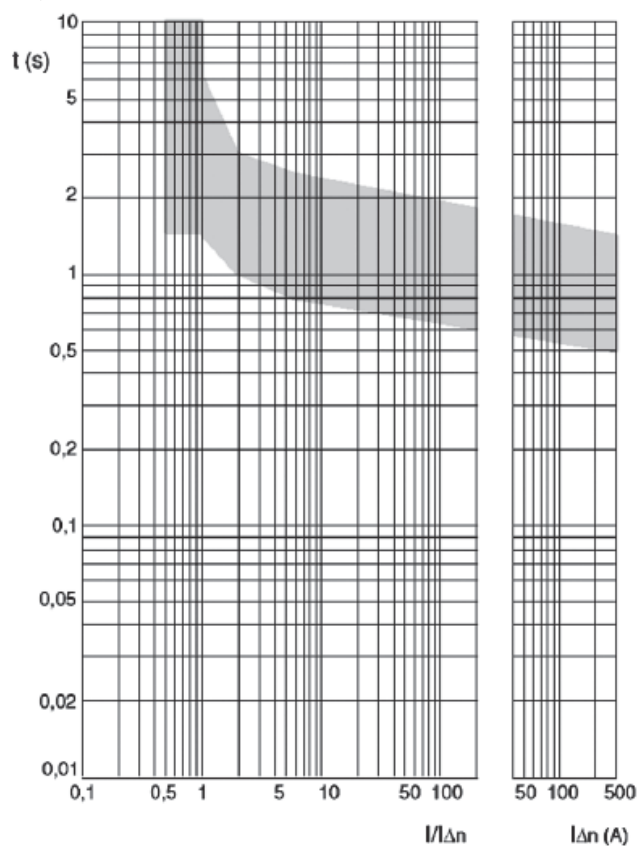


Megatiker M3 electronic (no display) with earth leakage circuit breakers

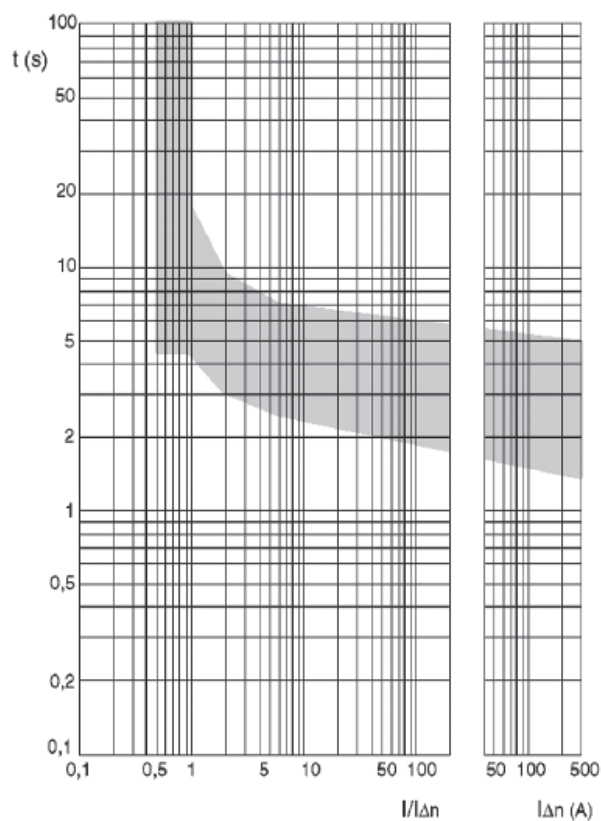
Reference(s) :

T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

9.4.3 Earth leakage curves, time delay = 1 s



9.4.4 Earth leakage curves, time delay = 3 s



Megatiker M3 electronic (no display) with earth leakage circuit breakers

Reference(s) :

T734F40EBD; T734F100EBD; T734F160EBD; T734F250EBD;
T734N40EBD; T734N100EBD; T734N160EBD; T734N250EBD;

A) Derating Temperature and configurations

	Ambient temperature									
	30 °C		40 °C		50 °C		60 °C		70 °C	
Fixed version	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n
Cage terminals, flexible cable	238	0.95	225	0.90	200	0.80	175	0.70	163	0.65
Cage terminals, flexible cable + sealable terminal shields	238	0.95	225	0.90	200	0.80	175	0.70	163	0.65
Spreaders, flexible cable	250	1	213	0.85	200	0.80	175	0.70	163	0.65
Rear terminals, flexible cable	238	0.95	200	0.80	188	0.75	163	0.65	150	0.60
Plug-in/draw-out version	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n	I_{max} (A)	I_r / I_n
Cage terminals, flexible cable	250	1	238	0.95	238	0.95	233	0.93	225	0.90

For further technical information, please contact Legrand technical support.

Data indicated in this document refers exclusively to test conditions according to product standards, unless otherwise indicated in the documentation.

For the different conditions of use of the product, inside electrical equipment or in any case inserted in the installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system