

Boards, adaptor panels and bases for metering equipment

OEC Product Catalogue

Boards Series TAE/CE1

ADAPTOR PANEL T2A2 for MONOPHASE ELECTRONIC METERING EQUIPMENT

Article Code: **NOCE0023**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	166	400	30

Technical characteristics of the adaptor panel:

- BMC (Fibreglass) Grey RAL 7040.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification: DH 2402 National - Enel n. 286102.

Technical characteristics of the case (base and cover of the terminal block):

- Nylon PA 66.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panel T2A2 is used to install the monophasic Electronic Meter.
- The adaptor panel includes: a bi-polar terminal block with a 63 A nominal current made of a case (base – cover), elastic contacts (female) to hold the bayonet connector of the electronic meters, and pillar terminals which allow tightening the copper or aluminium wires from 6 mm² to 16 mm²-section, three cap seals in fibreglass, a PVC conical cable duct, a mounting plate and an adaptor panel mounting screw.

Accessory for Series:

- TAE/Z1 (pag. 265).
- TAE/Z2 (pag. 266).
- TAE/Z3 (pag.267).
- TAE/Z6 (pag. 268).



TAE/CE1

Boards Series TAE/CE2

**ADAPTOR PANEL T4A4 for MONOPHASE ELECTRONIC
METERING EQUIPMENT up to 15Kw**

Article Code: NOCE0012

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	333	400	30

Technical characteristics of the adaptor panel:

- BMC (Fibreglass) Grey RAL 7040.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification: DH 2411 National - Enel n. 286141.

Technical characteristics of the case (base and cover of the terminal block):

- Nylon PA 66.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panel includes: a bi-polar terminal block with a 63 A nominal current made of a case (base – cover), elastic contacts (female) to hold the bayonet connector of the electronic meters, and pillar terminals which allow tightening the copper or aluminium wires from 6 mm² to 16 mm²-section.

Accessory for Series:

- TAE/Z1 (pag. 265).
- TAE/Z2 (pag. 266).
- TAE/Z3 (pag. 267).
- TAE/Z6 (pag. 268).



TAE/CE2

Boards Series TAE/CE3

ADAPTOR PANEL T5 for the INSTALLATION of MONOPHASE or THREE-PHASE ELECTRONIC METERING EQUIPMENT up to 15 Kw on GMI/Y and GTI/Y ENCLOSURES and QY-QL BOARDS

Article Code: See Table

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	160	300	30

Code	Description
NOCE0044	Adaptor panel T5A2 - for monophase meter GEM-type
NOCE0046	Adaptor panel T5A4 - for three-phase meter GET-1-tyoe
NOCE0009	Adaptor panel T5B2 – monophase on boards QY and QL
NOCE0047	Adaptor panel T5B4 - three-phase on boards QY and QL

Technical characteristics of the adaptor panel:

- BMC (Fibreglass) Grey RAL 7040.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification:
 - SIDEBOARD T5A2: DH 2403 National - Enel n. 286103.
 - SIDEBOARD T5A4: DH 2412 National - Enel n. 286142.
 - SIDEBOARD T5B2: DH 2404 National - Enel n. 286104.
 - SIDEBOARD T5B4: DH 2413 National - Enel n. 286143.

Technical characteristics of the case (base and cover of the terminal block):

- Nylon PA 66.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panels include: a bipolar or four pole terminal block with nominal current of 63 A, made of a case (base – cover), elastic contacts (female) to hold bayonet connector of the electronic meters, plugs for the connection to the cavity terminals of the branch unit of QY and QI boards whose sizes comply with Enel indications DY 4390/1.

T5A2 and T5A4 are ACCESSORIES for Serie:

- ARE/GMI-Y (pag. 65/66).
- ARE/GTI/Y (pag. 67).



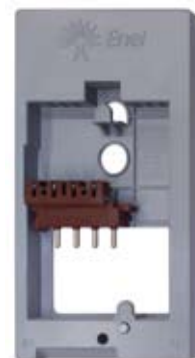
T5A2



T5A4



T5B2



T5B4

Boards Series TAE/CE4

ADAPTOR PANEL T1 for the INSTALLATION of MONOPHASE or THREE-PHASE ELECTRONIC METERING EQUIPMENT up to 15 Kw on WALLS

Article Code: See Table

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	160	300	30

Code	Description
NOCE0029	Adaptor panel T1A2 - for monophase meter GEM-type
NOCE0127	Adaptor panel T1SA2 - for monophase meter GEM-type
NOCE0030	Adaptor panel T1A4 - for three-phase meter GET-1-type

Technical characteristics of the adaptor panel:

- BMC (Fibreglass) o Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification:
SIDEBOARD T1A2: DH 2401 National - Enel n. 286101.
SIDEBOARD T1SA2: DH 2407 National - Enel n. 286107.
SIDEBOARD T1A4: DH 2410 National - Enel n. 286140.

Technical characteristics of the case (base and cover of the terminal block):

- Nylon PA 66.
- Fire resistance in accordance with UL 94, class VO.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panels include: a bipolar or four pole terminal block with nominal current of 63 A, made of a case (base – cover), elastic contacts (female) to hold bayonet connector of the electronic meters.
- The adaptor panel T1A2, T1SA2 are used to install the monophase Electronic Meter (GEM etc).
- The adaptor panel T1A4 is used to install the monophase Electronic Meter (GET-1 etc.).



T1A2



T1SA2



T1A4

Boards Series TAE/CE5

MODULAR-TYPE LOW VOLTAGE BOARD for CENTRALIZATIONS

Article Code: NOCE0035P

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	450	240	40

Technical characteristics of the adaptor panel:

- Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification: DH 2408/1 National - Enel n.286108.

Technical characteristics of the case (base and cover of the terminal block):

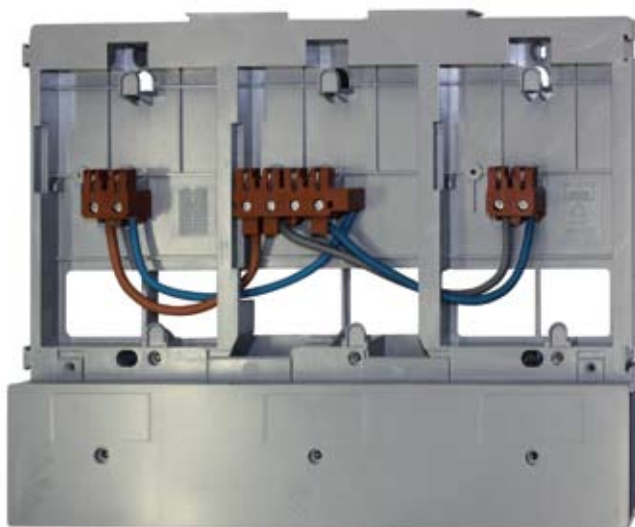
- Nylon PA 66.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The centralized board B3M is predisposed for the installation of two monophasic electronic meters and a three-phase one GEM - GET1 – GET2A-types, etc.
- The lower compartment is used to house the M6M terminal block and ENEL supply cables. It is protected by a special cover which prevents access to cables. Once CE marked components are installed access is no longer possible because of the anti tampering mechanism.
- The upper compartment is used to house customers' cables, with side exits. It is protected by a cover fixed by three visible screws.
- ACCESSORIES listed below allow different types of distributions of 3 – 6 – 9 – 12 modules.

Accessory for Series:

- ARE/B (also compatible with base-mounted and stacked versions) (pag. 74).
- ARE/C (also compatible with base-mounted and stacked versions) (pag.80).
- ARE/ST1 (pag. 127).



TAE/CE5

Boards Series TAE/CE6

MODULAR THREE PHASE DISTRIBUTION BOARD B3T up to 15 kw

Article Code: **N0CE0157**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	450	240	40

Technical characteristics of the adaptor panel:

- Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >175 Volt.
- Reference to Enel Technical Specification: DMI31041 - Enel n. 286113.

Technical characteristics of the case (base and cover of the terminal block):

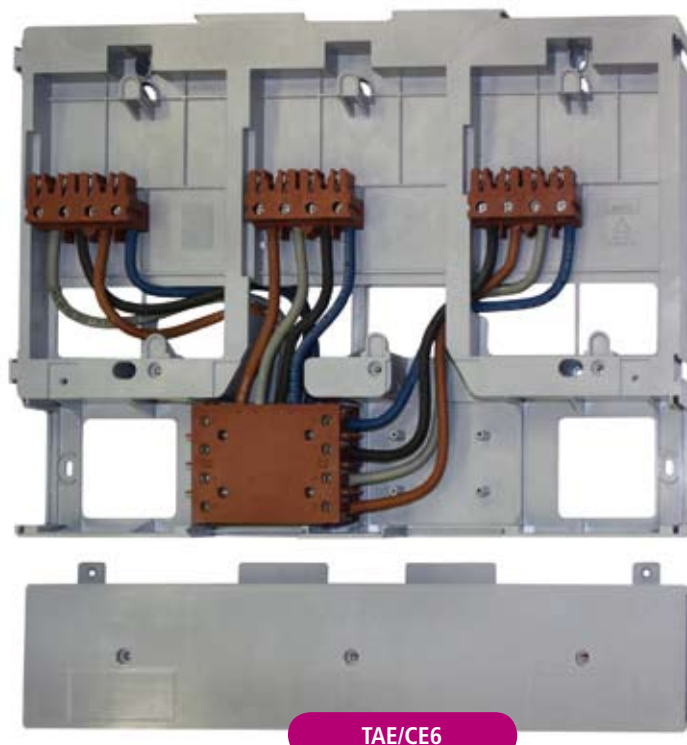
- Nylon PA 66.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The B3T distribution board is predisposed for the installation of three electronic meters GET2A – GIST-types.
- The lower compartment is used to house the M6M terminal block and ENEL supply cables. It is protected by a special cover which prevents access to cables. Once CE marked components are installed access is no longer possible because of the anti tampering mechanism.
- The upper compartment is used to house customers' cables, with side exits. It is protected by a cover fixed by three visible screws.

Accessory for Series:

- ARE/B (also compatible with base-mounted and stacked versions) (pag. 74).
- ARE/C (also compatible with base-mounted and stacked versions) (pag. 80).
- ARE/ST1 (pag. 127).



Boards Series TAE/CE5-CE6

ACCESSORIES

Terminal block M6M		
Code		Number Enel
NOCE0036P	Terminal block M6M with nominal current of 240 A	286109



Entrance cable mounting support		
Code		Number Enel
NOCE0037P	The cable support is used facilitate feeding and connection of the 25-and-50-mm ² diameter, four pole supply cable to the M6M terminal block	286110



Cable kit		
Code		Number Enel
NOCE0038P	Cable kit 16 mm ² L= 1000 mm <ul style="list-style-type: none"> The kit includes n° 4 single pole copper cables 16 mm N07G9-K-type 	286111
NOCE0039P	Cable kit 35 mm ² L= 1000 mm <ul style="list-style-type: none"> The kit includes n° 4 single pole copper cables 35 mm N07G9-K-type 	286112

Article Code: **NOCE0133**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	450	240	40

Technical characteristics of the adaptor panel:

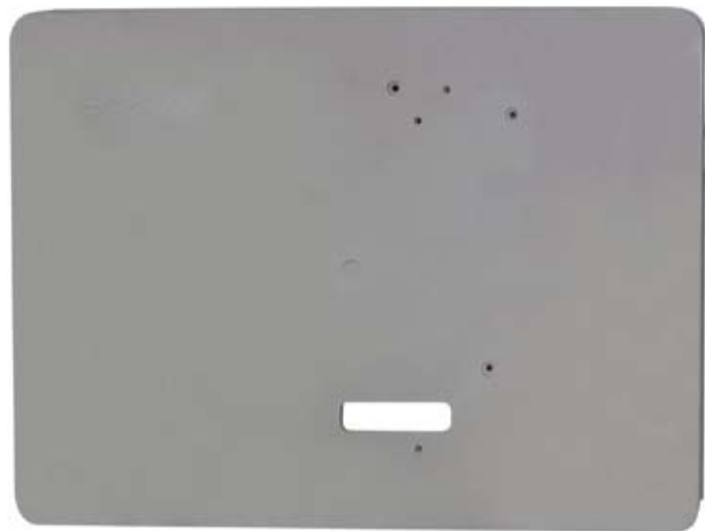
- Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class V0 Resistance to electrical breakdown in accordance with regulations IEC 60112 CTI >175 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.
- Reference to Enel Technical Specification: DMI 0 31036 National.

General characteristics:

- The adaptor panel is designed to install a poly phase direct measurement electronic meter GIST-type on an existing TFD adaptor panel by means of a T5A4 adaptor panel (not included). The board includes installation plates and screws.
- Threaded inserts are in brass P Cu Zn 40 Pb 2.
- Screws and plate are in zinc-plated steel.

Accessory for Series:

- TAE/TFD1 (pag. 269).
- TAE/TFD2 (pag. 270).



TAE/CE7

Boards Series TAE/CE8

ADAPTOR PANEL A-TFD for the INSTALLATION of GET3A

Article Code: **NOCE0062**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	50

Technical characteristics of the adaptor panel:

- Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class V0 Resistance to electrical breakdown in accordance with regulations IEC 60112 CTI >175 Volt.
- Reference to Enel Technical Specification: DMI 0 31009 National -.N. ENEL 280131.

Technical characteristics of the case (base and cover of the terminal block):

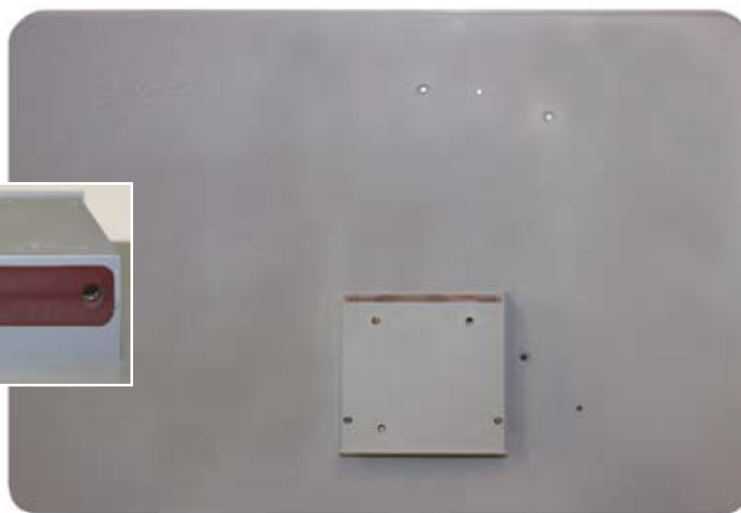
- Nylon PA 66.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panel is predisposed to install a poly phase direct measurement electronic meter GET3A-type on a TFD adaptor panel.
- The adaptor panel includes preinstalled N07G9-K cables to make installation easier. The board includes installation plates and screws.
- Threaded inserts are in brass P Cu Zn 40 Pb 2.
- Screws and plate are in zinc plated steel.

Accessory for Series:

- TAE/TFD1 (pag. 269).
- TAE/TFD2 (pag. 270).



TAE/CE8

Boards Series TAE/CE9

**ADAPTOR PANEL A-TFS for the INSTALLATION of GISS on CT
ASSEMBLY AEM MILAN-TYPE**

Article Code: NOCE0138

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	50

Technical characteristics of the adaptor panel:

- Polycarbonate Grey RAL 7040.
- Fire resistance in accordance with UL 94, class V0 Resistance to electrical breakdown in accordance with regulations IEC 60112 CTI >175 Volt.
- Reference to Enel Technical Specification: DMI 0 31025 National - N. ENEL 280133.

Technical characteristics of the case (base and cover of the terminal block):

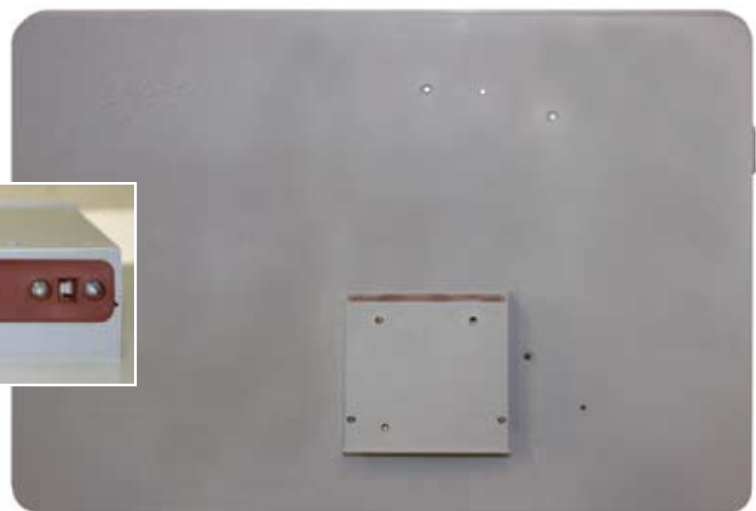
- Nylon PA 66.
- Fire resistance in accordance with UL 94, class V0.
- Resistance to electrical breakdown in accordance with regulations IEC 60112 - CTI >500 Volt.
- Protection level: IP 20 in accordance with CEI EN 60529 with no electronic meter installed.
- Protection level: IP 40 in accordance with CEI EN 60529 with electronic meter installed.

General characteristics:

- The adaptor panel is predisposed for the installation of a semi direct measurement poly phase electronic meter GISS-type on existing TA adaptor panel.
- The adaptor panel includes preinstalled N07G9-K cables to make installation easier. The board includes installation plates and screws.
- Threaded inserts are in brass P Cu Zn 40 Pb 2.
- Screws and plate are in zinc plated steel.

Accessory for Series:

- TAE/TFS (pag. 272).



TAE/CE9

Boards Series TAE/AM1

**ADAPTOR PANEL for MONOPHASE METERING EQUIPMENTES
GMI/Y-TYPE**

Article Code: T280071M

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	166	400	30

Technical characteristics:

- PC (Polycarbonate) Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board 2800 A (DS 4419 May.2000) Enel n. 280071.

General characteristics:

- The monophase adapter board is used to mount an integrated monophase unit, GMI – GMY-type. It can also be applied on bases Z1M, Z2M, Z3M, Z6M (pag. 265/268) and on gauge stations or directly on walls by means of screw anchors.
- The board includes an installation plate, a mounting screw that can be sealed, four plugs to close access windows, a conical cable duct for square ones.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Screws and plate are in zinc plated steel, plugs in PVC.

Accessory for Series:

- TAE/Z1 (pag. 265).
- TAE/Z2 (pag. 266).
- TAE/Z3 (pag. 267).
- TAE/Z6 (pag. 268).



TAE/AM1

Boards

Series TAE/MC

BLANK MONOPHASE PANEL

Article Code: **TOTMFC0K**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	166	400	30

Technical characteristics:

- PC (Polycarbonate) Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board 282970 - Number 282970 Enel Piedmont; Board 280201 - Number 280201 Enel Lombardy; Board 2802-C - Number 280202 Enel Triveneto; Board 2802-C – Number 280212 Enel Lazio.

General characteristics:

- The blank monophase panel replaces the monophase metering equipment in case of circumvented supply and in gauge stations.
- The board includes a connection plate for installation and a mounting screw that can be sealed.

Accessory for Series:

- TAE/Z1 (pag. 265).
- TAE/Z2 (pag. 266).
- TAE/Z3 (pag. 267).
- TAE/Z6 (pag. 268).



TAE/MC

Boards Series TAE/AT1

**HIGH ADAPTER BOARD for THREE-PHASE METERING
EQUIPMENT GTI/Y up to 15 kw**

Article Code: T280074K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	333	400	50

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board DS 4429/2 National (May.2000) Enel n. 280074.

General characteristics:

- The high three-phase adapter board is used to mount an integrated three-phase unit, GTI – GTY-type. It can also be applied on base Z1T (pag. 256) and on gauge stations or directly on walls by means of screw anchors. The board includes an installation plate, a mounting screw that can be sealed, four plugs to close access windows, a conical cable duct for square ones.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Zinc-coated screws and plates, PVC plugs.

Accessory for Series:

- TAE/Z2 (pag. 266).
- TAE/Z6 (pag. 268).



TAE/AT1

Boards Series TAE/AT2

**LOW ADAPTER BOARD for THREE-PHASE METERING
EQUIPMENT GTI/Y up to 15 kw**

Article Code: T280073K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	333	400	30

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board DS 4429/1 (May. 2000) National - Enel n. 280073.

General characteristics:

- The low three phase adapter board is used to mount an integrated monophase unit, GTI – GTY-type. It can also be applied on base Z2M (Z1T), Z6M (pag. 266-268) and on gauge stations or directly on walls by means of screw anchors.
- The board includes an installation plate, a mounting screw that can be sealed, four plugs to close access windows, a conical cable duct for square ones.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Zinc-coated screws and plates, PVC plugs.

Accessory for Series:

- TAE/Z2 (pag. 266).
- TAE/Z6 (pag. 268).



TAE/AT2

Boards

Series TAE/TC

BLANK THREE-PHASE BOARD

Article Code: **T280202M**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	333	400	30/50

Technical characteristics:

- PC (Polycarbonate) di Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board 2802/02 Lombardy.

General characteristics:

- The BLANK THREE-PHASE BOARD replaces the three-phase metering equipment in case of circumvented supply and gauge stations.
- The board includes an installation plate, a mounting screw that can be sealed, three small and one big plugs.
- Screws and plate are in zinc plated steel, PVC plugs.

Accessory for Series:

- TAE/Z2 (pag. 266).
- TAE/Z6 (pag. 268).



TAE/TC

Boards

Series TAE/AT3

HIGH ADAPTER BOARD for THREE-PHASE METERING EQUIPMENT GTI/Y from 15 kw to 30 kw

Article Code: T280011K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	418	510	19

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 09 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: DS 4464/1 National - Enel n. 280011.

General characteristics:

- The board is used to mount integrated three-phase metering equipment GTWD, GTWS and GTWM. It is predisposed to be mounted directly on walls with included dowel screws.
- The board includes two plates, four nylon dowel screws for wall installation, and mounting screws for the board and meters.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- zinc-coated screws and plates.

Accessory for Series:

- ARE/B (also compatible with base-mounted and stacked versions) (pag. 74).



TAE/AT3

Boards Series TAE/AT4

**LOW ADAPTER BOARD for THREE-PHASE METERING
EQUIPMENT GTI/Y from 15 kw to 30 kw**

Article Code: T280012K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	418	312	19

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: > 80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 09 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: DS 4464/2 National - Enel n. 280012.

General characteristics:

- The board is used to mount integrated three-phase groups GTWD, GTWS and GTWM-type, and is predisposed to be mounted directly on walls with the included dowel screws.
- The board includes two plates, four nylon dowel screws for wall installation, and mounting screws for the board and meters.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- zinc-coated steel screws and plates.

Accessory for Series:

- ARE/B (also compatible with base-mounted and stacked versions) (pag. 74).
- ARE/C (also compatible with base-mounted and stacked versions) (pag. 80).



TAE/AT4

Boards

Series TAE/AT5

ADAPTER BOARD for GTWD METERING EQUIPMENT

Article Code: **T0GTWD0M**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	610	420	110

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification Lombardy.

General characteristics:

- The adapter board is made for the installation of GTWD metering equipment to be inserted in an ARE/C-type enclosure (700 x 700) (pag. 46/47).
- The board, made in compliance with Enel Lombardy Technical Specification and Designs is made of: a SMC base as shown on drawing #1, a meter board as per Table DS 4464 modified as shown on drawing #2, a four pole terminal block for cables of maximum section 25 mm² with the possibility of simultaneous branching on all poles as shown on the drawing, and a GTWD plug as per Table UE 2801E-DY 4412.
- The plug is connected to the exit terminals of the four pole terminal block by means of 4 single pole cables N07V-K-type section 16 mm² brown, grey and black for the phases, blue for the neutral, all contained in a heavy flexible PVC tube. All parts are assembled as shown on drawing #3.
- Branch terminals are provided with two conical PVC cable ducts for the entrance and exit of cables.
- Zinc-coated steel nuts and bolts.

Accessory for Series:

- ARE/C (also compatible with base- and stacked-mounted versions (pag. 80).



Boards Series TAE/AM2

**REDUCED ADAPTER BOARD for WALL INSTALLATION of
MONOPHASE METERING EQUIPMENT GMI/Y**

Article Code: T280072M

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	166	312	30

Technical characteristics:

- PC (Polycarbonate) di Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Board 2800 A (DS 4419/2 Dec. 88) Enel n. 280072.

General characteristics:

- The reduced monophase adapter board is used to mount an integrated monophase unit, GMI – GMY-type. It can also be applied directly on walls by means of screw anchors.
- The board includes an installation bracket, a mounting screw that can be sealed, four plugs to close access windows, a conical cable duct for square ones.
- Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Screws and brackets in zinc plated steel, plugs in PVC.



TAE/AM2

Boards Series TAE/IS1

**REDUCED ADAPTER BOARD with PLUG CONNECTION for WALL
INSTALLATION of MONOPHASE METERING EQUIPMENT GMI-Y**

Article Code: T280026K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	166	312	30/64

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: DS 4471 National - Enel n. 280026.

General characteristics:

- The board with plug connection is used to mount integrated monophase metering equipment GMI – GMY-type bayonet connectors and can be mounted directly on walls with the included dowel screws.
- The board includes: a bipolar plug with 63 A nominal current and Enel 4390/1-type cavity terminals for 6 to 16 mm² cable ducts, a cable clamp, two closing plugs, a conical cable duct, two nylon screw anchors, mounting screws and plate.
- The terminals and threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Screws and plate are in zinc plated steel, PVC plugs, cable clamps and the terminal block base are in Nylon.



TAE/IS1

Boards Series TAE/IS2

REDUCED ADAPTER BOARD with PLUG CONNECTION for WALL INSTALLATION fo THREE-PHASE METERING EQUIPMENT GMI-Y up to 15 kw

Article Code: T280016K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	326	312	30/64

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 07 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: DS 4472 National - Enel n.280016.

General characteristics:

- The board with plug connection is used to mount integrated monophase metering equipment GMI – GMY-type with bayonet connetctors and can be mounted directly on walls with the included dowel screws.
- The board includes a bi-polar plug with nominal current of 63 A and cavity terminals Enel 4390/1-type for 6 to 16 mm² - cables, a cable clamp, two plugs, a conical cable duct, three nylon screw anchors, mounting screws and plate.
- The terminals and threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Screws and plate are in zinc plated steel, PVC plugs, cable clamps and the terminal block base are in Nylon.



TAE/IS2

Boards

Series TAE/Z1

BASE MONOFASE TIPO Z1M

Article Code: **T0Z1TMFK**

	Width (mm)	Heigh (mm)	Depth (mm)
Overall dimensions	166	400	16/25

Technical characteristics:

- PC (Polycarbonate) in Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529.
- Reference to Enel Technical Specification: Board 284526 - Number 284526 Enel Piedmont; Board 2824-D - Number 282430 Enel Lombardy; Board 2809-A - Number 280982 Enel Triveneto; Board 2822-B – Number 282215 Enel Lazio.

General characteristics:

- The insulating base Z1M-type is designed to mount a monophasic meter board, a blank monophasic panel or an adapter one for GMI-Y. it is predisposed for wall mounting or on enclosures.
- Reference to Enel Technical Specification:
- The complete board includes: a bipolar connection and branch terminal block with nylon plug, zinc-coated steel mounting screws.
- the active parts of terminal blocks and threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.

Accessory for Series:

- ARE/C1M (pag. 64).
- ARE/A (also compatible with base-mounted and stacked versions) (pag. 69).
- ARE/C (also compatible with base-mounted and stacked versions) (pag. 80).



TAE/Z1

Boards

Series TAE/Z2

THREE PHASE BASE TIPO Z2M (Z1T)

Article Code: **T0Z1TTFK**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	333	400	25/60

Technical characteristics:

- PC (Polycarbonate) di Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529.
- Reference to Enel Technical Specification: Board 284530 - Number 284530 Enel Piedmont; Board 2824-B - Number 282425 Enel Lombardy; Board 2809-D - Number 280985 Enel Triveneto; Board 2822-J – Number 282218 Enel Lazio.

General characteristics:

- The insulating base Z2M (Z1T)-type is to mount a three-phase meter board, a three-phase blank board or an adapter one for GTI-Y. It is predisposed for wall mounting or on enclosures.
- The complete board includes: the board itself, a four pole connection and branch terminal block with nylon plug, zinc-coated mounting screws, and two PVC slot plugs.
- The active parts of terminal blocks and threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Alternatively the base can be supplied with:
Terminal block Enel Milano cod. 19000714.
Terminal block Enel Roma cod. 19000655.

Accessory for Series:

- ARE/A (also compatible with base-mounted and stacked versions) (pag. 69).
- ARE/C (also compatible with base-mounted and stacked versions) (pag. 80).



TAE/Z2

Boards

Series TAE/Z3

BASE MONOFASE TIPO Z3M

Article Code: **TOZ3TMFK**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	501	400	25/60

Technical characteristics:

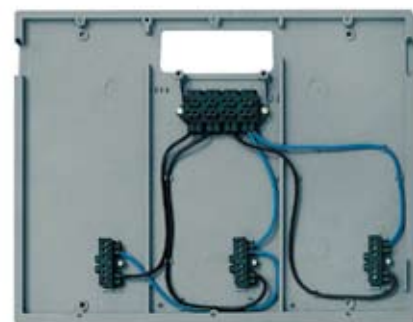
- PC (Polycarbonate) di Grey RAL 7040.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529.
- Reference to Enel Technical Specification: Board 284528 - Number 284528 Enel Piedmont; Board 2824-D - Number 282431 Enel Lombardy; Board 2809-B - Number 280983 Enel Triveneto; Board 2822-C – Number 282216 Enel Lazio.

General characteristics:

- The insulating base Z3M-type is to mount three, three-phase meter boards, or three adapter boards for GMI-Y. It is predisposed for wall mounting or on enclosures.
- The complete board includes: the board itself, a four pole connection and branch terminal block with nylon plug, three nylon bipolar terminals, six connection single pole cables blue and black of 6 mm², two PVC slot plugs and zinc-coated steel mounting screws.
- The active parts of terminal block and Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.
- Alternatively the base can be supplied with:
Terminal block Enel Milano cod. 19000714.
Terminal block Enel Roma cod. 19000655.

Accessory for Series:

- ARE/A (also compatible with base-mounted and stacked versions) (pag. 69).
- ARE/C (also compatible with base-mounted and stacked versions) (pag. 80).



TAE/Z3

Boards Series TAE/Z6

MODULAR ELEMENT TYPE E6M

Article Code: TZ6TMTFK

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	1002	501	45/100

Technical characteristics:

- PC (Polycarbonate) colour Nero RAL 8022.
- Fire resistance, self-extinguishing in accordance with Indications ASTM D 635-88.
- Protection level: IP 40 in accordance with CEI EN 60529.
- Reference to Enel Technical Specification: Board 282205 - Number 282205 Enel Piedmont; Board 2822-A - Number 282211 Enel Lazio.

General characteristics:

- The E6M modular element for gauge stations is predisposed for the installation of meter boards, of blank boards and adapter panels, both for monophase and three-phase meters and GMI-Y and GTI-Y-type. It is wall-mounted and can be combined with other elements both horizontally and vertically.
- The board includes: the board itself, two four pole connection and branch terminal blocks with nylon plugs, four 16 mm² cables black, brown and grey for the phases, blue for the neutral, IEMMEQU-marked, two wire cavities, six slot closing plugs, connection screws and inserts.
- The active parts of terminal block and Threaded inserts are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N and are machined.



TAE/Z6

Boards

Series TAE/TFD1

DIRECT SUPPLY BOARD

Article Code: T0FDTU0M with no verification terminals

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	65

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- BMC (Pressure Moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 10 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Tab. DS 4432 (National) n. 280130 with no terminals, n. 280131 con test terminals.

General characteristics:

- The board is predisposed for two three-phase meters and switch for low voltage supplies up to 80 A, direct measurement (for three-phase supplies over 15 KW up to 30 Kw with 380 V and over 15 KW up to 20 KW with 220 V) suitable to be applied inside enclosures of C4M-type.
- The complete board includes: a supply four pole terminal block, an exit terminal block, a terminal block space cover and a limiter-holding plate including sealable screws; bottom and right side eyelet caps, a conical cable duct or terminal block eyelet cap; caps for panel mounting screws ready to be sealed. Cables are installed between the terminal plug and the point where meters are mounted, and between the limiter and the exit terminal block.
- The active parts of terminal blocks are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N, stamped for the entrance, and machined for the exit.
- The entrance terminal block with the possibility of isolation is mounted on an SMC adaptor panel provided with separating tabs.
- The exit terminal block is included in a BMC adaptor panel with isolated screws for end users.
- All cables are quality-marked and approved by the Italian Institute of Quality Mark (IMQ).
- Stainless-steel nuts and bolts.
- The boards are predisposed for the installation of a current-limiter that can be applied before the meters.

Accessories:

- T064340K - Closing plate with no limiter Series TAE/AL (pag. 278).
- 19000152 - Closing plate for Low Voltage panels Series TAE/AC (pag. 277).
- T064346K - Base Series TAE/Z (pag. 268).
- T064368K - Terminal blocks Series MST/S-A16 (pag. 145).
- T064358K - Terminal blocks Series MST/D-C16 (pag. 144).

Accessory for Series:

- ARE/C (also compatible with base-mounted and stack versions) (pag.80).



TAE/TFD1

Boards

Series TAE/TFD2

TFD BOARD with TESTER TERMINALS

Article Code: **T0FDTU0R**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	65

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- BMC (pressure moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 10 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Tab. DS 4432 (National).

General characteristics:

- The board is predisposed for two three-phase meters and switch for low voltage supplies up to 80 A, direct measurement (for three-phase supplies over 15 KW up to 30 Kw with 380 V and over 15 KW up to 20 KW with 220 V) suitable for C4M enclosures.
- The complete board includes: a supply four pole terminal block, an exit terminal block, a terminal block space cover and a limiter-holding plate including sealable screws; bottom and right side eyelet caps, a conical cable duct or terminal block eyelet cap; caps for panel mounting screws ready to be sealed. Cables are installed between the terminal plug and the point where meters are mounted, and between the limiter and the exit terminal block.
- The active parts of terminal blocks are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N, stamped for the entrance, and machined for the exit.
- The entrance terminal block with the possibility of isolation is mounted on an SMC adaptor panel provided with separating tabs.
- The exit terminal block is included in a BMC adaptor panel with isolated screws for end users.
- All cables are quality-marked and approved by the Italian Institute of Quality Mark (IMQ).
- Stainless-steel nuts and bolts.
- Tester terminals are included.
- The boards are predisposed for the installation of a current-limiter that can be applied before the meters.

Accessories:

- T064340K - Closing plate with no limiter Series TAE/AL (pag. 278).
- 19000152 - Closing plate for Low Voltage boards Series TAE/AC (pag. 277).
- T064346K - Base Series TAE/Z (pag. 268).
- T064368K - Terminal blocks Series MST/S-A16 (pag. 145).
- T064358K - Terminal blocks Series MST/D-C16 (pag. 144).

Accessory for Series:

- ARE/C (also compatible with base- and stacked-mounted versions) (pag. 80).



TAE/TFD2

Boards

Series TAE/TFI

INDIRECT SUPPLY BOARD

Article Code: **TOTFI00W**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	65

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- BMC (Pressure Moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 10 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Tab. 2822 M.

General characteristics:

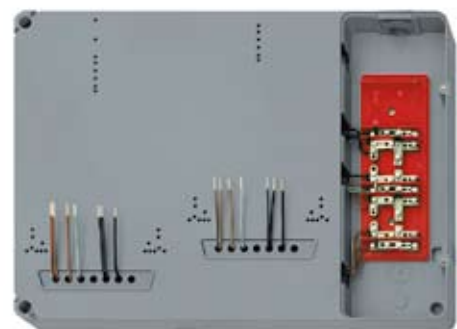
- Suitable for Medium Voltage three-phase supply with indirect measurement, the board is to be used with the applicable step-down Current Transformer or Voltage Transformer. Installation can be external or flush mounted, or inside the Enel C8M enclosure. The board is supplied with preinstalled cables.
- The complete board includes a double branch tester terminal for indirect measurement, a terminal block cavity cover with sealable screws, two plates with holes to pass cables to meters, bottom and right side eyelet caps, a conical cable duct or terminal block eyelet cap; caps for panel mounting screws ready to be sealed. Cables are installed between the terminal plug and the point where meters are mounted, and between the limiter and the exit terminal block.
- Board cables are IEMMEQU-marked and laid between the tester terminal and the plate exits for meter connection.
- The active parts of terminal blocks are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N machine stamped and tin plated.
- The tester terminal is mounted on a SMC adaptor panel provided with separating tabs and each phase is marked with letters R • R1 • R2, S, T • T1 • T2.
- Zinc-coated steel nuts and bolts.

Accessories:

- T064346K - Panel Base Series TAE/Z (pag. 274).
- 19000152 - Meter Substitution Plate Series TAE/AC (pag. 277).

Accessory for Series:

- ARE/C-SS (pag. 82).



TAE/TFI

Boards

Series TAE/TFS

SEMIDIRECT SUPPLY BOARD

Article Code: **T0FSVT0R**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	400	65

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- BMC (Pressure Moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 10 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification: Tab. 2822 L.

General characteristics:

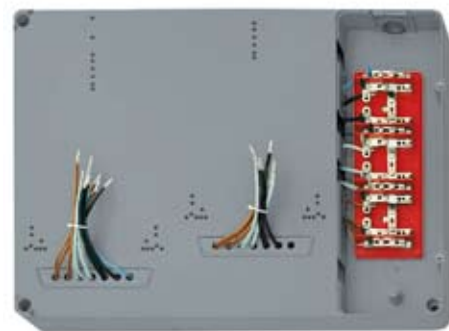
- Suitable for Medium Voltage three-phase supply with semi direct measurement, the board is to be used with the applicable Low Voltage step-down Current Transformer mounted on TTA boards. Installation can be external or flush mounted, or inside the Enel C8M enclosure. The board is supplied with preinstalled cables.
- The complete board includes a three branch tester terminal for indirect measurement, a terminal block cavity cover with sealable screws, two plates with holes to pass cables to meters, bottom and right side eyelet caps, a conical cable duct or terminal block eyelet cap; caps for panel mounting screws ready to be sealed. Cables are installed between the terminal plug and the point where meters are mounted, and between the limiter and the exit terminal block.
- Board cables are IEMMEQU-marked and laid between the tester terminal and the plate exits for meter connection.
- The active parts of terminal blocks are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N machine stamped and tin plated.
- The tester terminal is mounted on a SMC adaptor panel provided with separating tabs and each phase is marked with letters R • R1 • R2, S1 • S2, T1 • T2, N.
- Zinc-coated steel nuts and bolts.

Accessories:

- T064346K - Panel Base Series TAE/Z (pag. 274).
- 19000152 - Meter Substitution Plate Series TAE/AC (pag. 277).

Accessory for Series:

- ARE/C-SS (pag. 82).



TAE/TFS

Boards

Series TAE/TTA

SEMIDIRECT SUPPLY BOARD

Article Code: **T0FSVTOR**

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	560	465	110

Technical characteristics:

- SMC (Fibreglass) Grey RAL 7001.
- BMC (Pressure Moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529 - IK 10 in accordance with CEI EN 50102.
- Reference to Enel Technical Specification Triveneto: Tab.2822 E.

General characteristics:

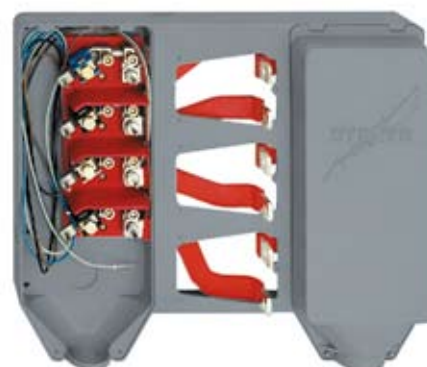
- Current Transformer Board for Low Voltage semi direct three phase supply (up to 115 KW at 380 V and 35 KW at 220 V).
- Installation can be external or flush mounted, or inside the Enel C8M enclosure. The board is supplied with preinstalled cables.
- The complete board includes: two snap-fitted covers with PVC cable ducts and sealable screws, a four pole isolation and supply terminal block for copper cables up to 95 mm² or aluminium ones up to 150 mm², CT connector bars in tin-plated copper with self-extinguishing PVC coating, cables for end user connection IEMMEQU-marked, a mobile diaphragm to pass cables on the left side, zinc-coated steel nuts and bolts and a base for the board according to the Enel design NC 048.
- The entrance bars are mounted directly on the terminal block while the exit ones are mounted on SMC spacers that are mounted to the board and predisposed via bolts to connect cables with terminal rings.
- The active parts of terminal blocks are in brass P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N stamped and tin plated, mounted on a SMC adaptor panel provided with separating tabs and each phase is marked by letters R,S,T, N. Adhesion screws secure cables via pressure plates and terminals are elastic so to compensate thermal expansion of aluminium. Terminals are black, grey and brown for the phases and blue for the neutral.
- Entrance terminals and M10 screws for the connection of CT bars are provided with tester connectors, formed by 6x22 mm plugs.
- Jumpers are manoeuvred via M10 Allen screws.
- all screws are in zinc plated steel.
- The terminal block has a max capacity of 270 A.

Accessories:

- T064346K - Board base Series TAE/Z (pag. 274).
- M65624VK - Terminal block Series MST/S-D95 (pag. 153).

Accessory for Series:

- ARE/C-SS (pag. 82).



TAE/TTA

Boards

Series TAE/Z

INSULATING BASE for TFD BOARDS

Article Code: T064346K

	Width (mm)	Height (mm)	Depth (mm)
Overall dimensions	561	401	20

Technical characteristics:

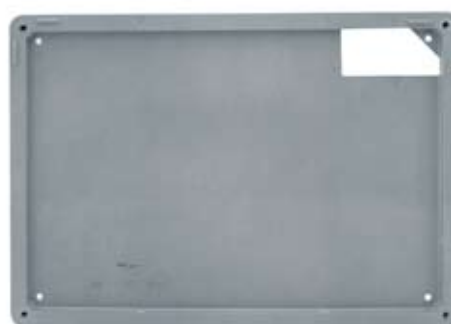
- SMC (Fibreglass) Grey RAL 7001.
- BMC (Pressure Moulded Fibreglass) Grey RAL 7001.
- Fire resistance, in accordance with Indications Enel DS 4974: >80 Points.
- Superficial draught resistance in accordance with regulations IEC 60112 - POINTS 500.
- Protection level: IP 40 in accordance with CEI EN 60529.
- Reference to Enel Technical Specification: Design NC 048 Triveneto.

General characteristics:

- The insulating base is used as a base support for three-phase Low Voltage supply meter boards with direct, indirect and semi direct measurement and semi direct TA boards; as well as Medium Voltage supply with indirect measurement, predisposed for wall mounting.
- For board mounting there are four brass threaded inserts P Cu Zn 40 Pb 2 in accordance with regulations UNI EN 12165 CW 617 N that are machined.

Accessory for Series:

- TAE/TFD1 (pag. 269).
- TAE/TFD2 (pag. 270).
- TAE/TFI (pag. 271).
- TAE/TFS (pag. 272).
- TAE/TTA (pag.273).



TAE/Z