



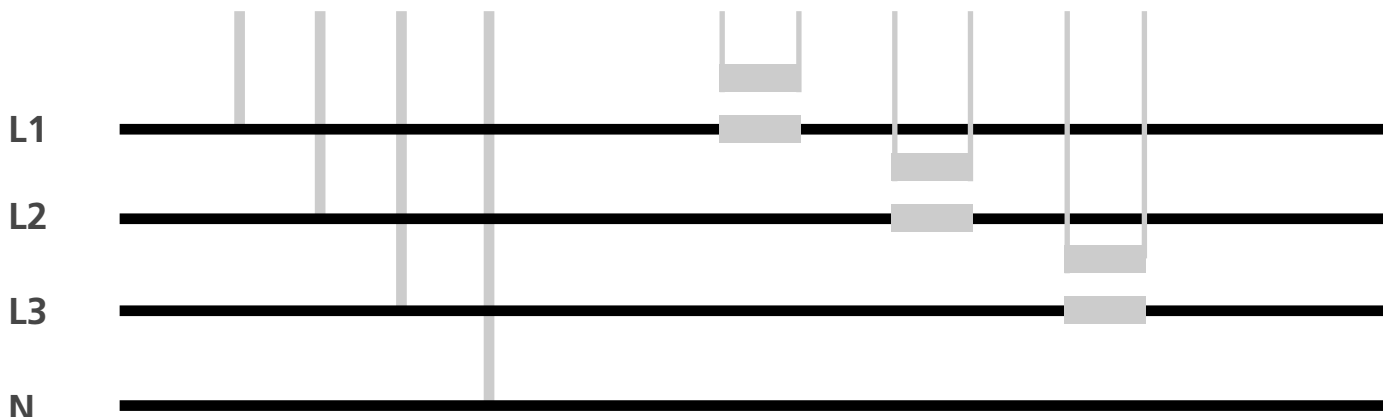
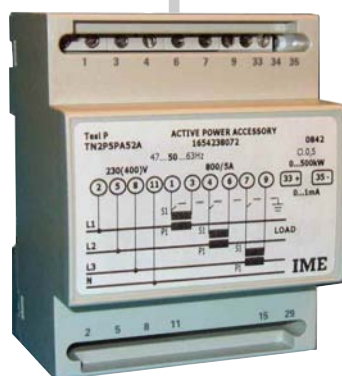
**Indicatori Analogici  
RQ - AQ  
48x48mm  
72x72mm  
96x96mm**

**Analog Meters  
RQ - AQ  
48x48mm  
72x72mm  
96x96mm**

**AN**

Indicatori analogici di potenza  
con accessorio separato  
Misura di potenza attiva o reattiva,  
monofase o trifase  
Lettura diretta della potenza, lato primario  
Inserzione tensione diretta fino a 440V o da TV  
esterno /100V o /110V  
Ingresso corrente da TA esterno /5A o /1A

Analog power meters with separate accessory  
Single-phase or three-phase, active or reactive  
power measuring  
Direct power reading, primary side  
Direct voltage connection up to 440V or by  
external VT/100V or /110V  
Current input by external CT /5A or /1A



**INDICATORE ANALOGICO**
**ANALOG METER**

CODICI DI ODINAZIONE

ORDERING CODE

| MODELLO<br>MODEL                                 | RQ48M      | RQ72M      | RQ96M      | AQ48M      | AQ72M      | AQ96M      |
|--|------------|------------|------------|------------|------------|------------|
| Ampiezza scala<br>Scale length                   | 90°        |            |            | 240°       |            |            |
| Dimensione<br>Dimensions                         | 48 x 48    | 72 x 72    | 96 x 96    | 48 x 48    | 72 x 72    | 96 x 96    |
| 0...1mA<br>Zero laterale<br>Lateral zero         | AN132A1001 | AN232A1001 | AN332A1001 | AN532A1001 | AN632A1001 | AN732A1001 |
| 1...0...1mA<br>Zero centrale<br>Central zero     | AN133A1001 | AN233A1001 | AN333A1001 | AN533A1001 | AN633A1001 | AN733A1001 |
| - x...0...1mA<br>Zero spostato<br>Displaced zero | AN13SA1001 | AN23SA1001 | AN33SA1001 | AN53SA1001 | AN63SA1001 | AN73SA1001 |

**ACCESSORIO**
**ACCESSORY**

CODICI DI ODINAZIONE

ORDERING CODE

| Modello / Model  |    | Tesi P potenza attiva / active power |                                     |                                       |                                     |                                       |
|------------------|----|--------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|
| Linea<br>Network |    | Monofase<br>Single-phase             | Trifase 3 fili / Three-phase 3 wire |                                       | Trifase 4 fili / Three-phase 4 wire |                                       |
|                  |    |                                      | Carico equilibrato<br>Balanced load | Carico squilibrato<br>Unbalanced load | Carico equilibrato<br>Balanced load | Carico squilibrato<br>Unbalanced load |
| Schema / Diagram |    | S200/3                               | S200/4                              | S200/6                                | S200/5                              | S200/7                                |
| 100V             | 1A | TN2P1PA11A                           | TN2P2PA11A                          | TN2P4PA11A                            | TN2P3PA11A                          | TN2P5PA11A                            |
| 100V             | 5A | TN2P1PA12A                           | TN2P2PA12A                          | TN2P4PA12A                            | TN2P3PA12A                          | TN2P5PA12A                            |
| 110V             | 1A | TN2P1PA21A                           | TN2P2PA21A                          | TN2P4PA21A                            | TN2P3PA21A                          | TN2P5PA21A                            |
| 110V             | 5A | TN2P1PA22A                           | TN2P2PA22A                          | TN2P4PA22A                            | TN2P3PA22A                          | TN2P5PA22A                            |
| 230V             | 1A | TN2P1PA31A                           |                                     |                                       |                                     |                                       |
| 230V             | 5A | TN2P1PA32A                           |                                     |                                       |                                     |                                       |
| 240V             | 1A | TN2P1PA41A                           |                                     |                                       |                                     |                                       |
| 240V             | 5A | TN2P1PA42A                           |                                     |                                       |                                     |                                       |
| 400V             | 1A |                                      | TN2P2PA51A                          | TN2P4PA51A                            | TN2P3PA51A                          | TN2P5PA51A                            |
| 400V             | 5A |                                      | TN2P2PA52A                          | TN2P4PA52A                            | TN2P3PA52A                          | TN2P5PA52A                            |
| 415V             | 1A |                                      | TN2P2PA61A                          | TN2P4PA61A                            | TN2P3PA61A                          | TN2P5PA61A                            |
| 415V             | 5A |                                      | TN2P2PA62A                          | TN2P4PA62A                            | TN2P3PA62A                          | TN2P5PA62A                            |
| 440V             | 1A |                                      | TN2P2PA71A                          | TN2P4PA71A                            | TN2P3PA71A                          | TN2P5PA71A                            |
| 440V             | 5A |                                      | TN2P2PA72A                          | TN2P4PA72A                            | TN2P3PA72A                          | TN2P5PA72A                            |

| Modello / Model  |    | Tesi Q potenza reattiva / reactive power |                                     |                                       |                                     |                                       |
|------------------|----|--|-------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|
| Linea<br>Network |    | Monofase<br>Single-phase                 | Trifase 3 fili / Three-phase 3 wire |                                       | Trifase 4 fili / Three-phase 4 wire |                                       |
|                  |    |  | Carico equilibrato<br>Balanced load | Carico squilibrato<br>Unbalanced load | Carico equilibrato<br>Balanced load | Carico squilibrato<br>Unbalanced load |
| Schema / Diagram |    | S200/4                                   | S200/6                              | S200/5                                | S200/7                              |                                       |
| 100V             | 1A | TN2Q2PA11A                               | TN2Q4PA11A                          | TN2Q3PA11A                            | TN2Q5PA11A                          |                                       |
| 100V             | 5A | TN2Q2PA12A                               | TN2Q4PA12A                          | TN2Q3PA12A                            | TN2Q5PA12A                          |                                       |
| 110V             | 1A | TN2Q2PA21A                               | TN2Q4PA21A                          | TN2Q3PA21A                            | TN2Q5PA21A                          |                                       |
| 110V             | 5A | TN2Q2PA22A                               | TN2Q4PA22A                          | TN2Q3PA22A                            | TN2Q5PA22A                          |                                       |
| 230V             | 1A |  |                                     |                                       |                                     |                                       |
| 230V             | 5A |  |                                     |                                       |                                     |                                       |
| 240V             | 1A |  |                                     |                                       |                                     |                                       |
| 240V             | 5A |  |                                     |                                       |                                     |                                       |
| 400V             | 1A | TN2Q2PA51A                               | TN2Q4PA51A                          | TN2Q3PA51A                            | TN2Q5PA51A                          |                                       |
| 400V             | 5A | TN2Q2PA52A                               | TN2Q4PA52A                          | TN2Q3PA52A                            | TN2Q5PA52A                          |                                       |
| 415V             | 1A | TN2Q2PA61A                               | TN2Q4PA61A                          | TN2Q3PA61A                            | TN2Q5PA61A                          |                                       |
| 415V             | 5A | TN2Q2PA62A                               | TN2Q4PA62A                          | TN2Q3PA62A                            | TN2Q5PA62A                          |                                       |
| 440V             | 1A | TN2Q2PA71A                               | TN2Q4PA71A                          | TN2Q3PA71A                            | TN2Q5PA71A                          |                                       |
| 440V             | 5A | TN2Q2PA72A                               | TN2Q4PA72A                          | TN2Q3PA72A                            | TN2Q5PA72A                          |                                       |

## INGRESSO

Rete monofase o trifase 3 - 4 fili, carico equilibrato o squilibrato

Ingresso tensione: inserzione diretta o da TV esterno

Tensione nominale Un: 100 - 110 - 230 - 240 - 400 - 415 - 440V (fase-fase)

Ingresso corrente: inserzione da TA esterno

Corrente nominale In: 1 - 5A

Frequenza nominale fn: 50Hz

Frequenza di funzionamento: 47...63Hz

Opzione: frequenza nominale fn 40Hz

Sovraccarichi di breve durata (EN60051): In e 2Un/5s - Un e 2In/0,5s

Autoconsumo (per ogni fase): tensione  $\leq 1VA$  - corrente  $\leq 0,5VA$

## CAMPI NOMINALI DI UTILIZZO

(EN60051)

Tensione: 85...115%Un (max. 450V)

Corrente: 0...120%In

Fattore di potenza:  $\cos\phi$  0,5 induttivo...1 (potenza attiva)

Fattore di potenza:  $\sin\phi$  0,5 induttivo...1 (potenza reattiva)

Forma d'onda: sinusoidale, fattore di distorsione  $< 20\%$

## INTERVALLO DI MISURA

Potenza attiva: - Pn...0...Pn

Potenza reattiva: - Qn...0...Qn

Coefficiente di conversione (Potenza di calibratura): a richiesta, da specificare in sede di ordine

Potenza di calibratura Pc (Qc): 0,6...1,2Pn(Qn)

Dove:

Pn potenza attiva nominale

Qn potenza reattiva nominale

Pc potenza attiva di calibratura

Qc potenza reattiva di calibratura

Un tensione nominale (diretta o primario TV)

In corrente nominale (primario TA)

Es. potenza attiva trifase, linea 400V TA800/5A

$Pn = Un \times In \times \sqrt{3} = 400 \times 800 \times \sqrt{3} = 554,24kW$

potenza di calibratura  $Pc = 0,6...1,2Pn = 332,544...665,088kW$

## ALIMENTAZIONE AUSILIARIA

Derivata dalla misura (autoalimentato)

## VISUALIZZAZIONE

Ampiezza scala: 90° (modelli RQ...) - 240° (modelli AQ...)

Colore scala: fondo bianco, divisioni e numerazione nere

Tracciatura scala: a richiesta

Precisione: cl.1,5 (indicatore analogico) - cl.0,5 (accessorio)

## ISOLAMENTO

(EN61010-1)

Categoria di installazione: III

Grado di inquinamento: 2

Tensione di riferimento per l'isolamento: 300V (Fase-neutro)

Prova di tensione a impulso 5kV 1,2/50 $\mu$ s 0,5J

Circuiti considerati<sup>1</sup>: ingresso corrente verso ingresso tensione e uscita

Prova a tensione alternata 2,5kV valore efficace 50Hz/1min

Circuiti considerati<sup>1</sup>: ingresso corrente verso ingresso tensione e uscita

Prova a tensione alternata 4kV valore efficace 50Hz/1min

Circuiti considerati<sup>1</sup>: tutti i circuiti e massa

Ingresso tensione - uscita accessorio non isolati

<sup>1</sup> circuiti accessorio

## PROVE DI COMPATIBILITÀ ELETTRONICA

Prove di emissione e immunità in accordo con EN62052-11

## INPUT

Single-phase, three-phase network, 3 and 4-wire, balanced and unbalanced load

Voltage input: direct connection or by external VT

Voltage rating Un: 100 - 110 - 230 - 240 - 400 - 415 - 440V (phase-phase)

Current input: connection by external CT

Current rating In: 1 - 5A

Frequency rating fn: 50Hz

Working frequency: 47...63Hz

Option: frequency rating fn 40Hz

Overloads of short duration (EN60051): In and 2Un/5s - Un and 2In/0,5s

Rated burden (each phase): voltage  $\leq 1VA$  - current  $\leq 0,5VA$

## NOMINAL RANGE OF USE

(EN60051)

Voltage: 85...115%Un (max. 450V)

Current: 0...120%In

Power factor:  $\cos\phi$  0,5 inductive...1 (active power)

Power factor:  $\sin\phi$  0,5 inductive...1 (reactive power)

Waveform: sinusoidal, distortion factor  $< 20\%$

## MEASURING RANGE

Active power: - Pn...0...Pn

Reactive power: - Qn...0...Qn

Conversion coefficient (Power of calibration): on request, data to be shown in addition to ordering code

Power of calibration Pc(Qc): 0,6...1,2Pn(Qn)

Where:

Pn active power rating

Qn reactive power rating

Pc active power of calibration

Qc reactive power of calibration

Un voltage rating (direct or VT primary)

In current rating (CT primary)

Ex. three-phase active power, network 400V TA800/5A

$Pn = Un \times In \times \sqrt{3} = 400 \times 800 \times \sqrt{3} = 554,24kW$

power of calibration  $Pc = 0,6...1,2Pn = 332,544...665,088kW$

## AUXILIARY SUPPLY

Taken from measurement (selfsupplied)

## DISPLAY

Scale length: 90° (models RQ...) - 240° (models AQ...)

Scale colour: white background, black divisions and numbering

Scale marking: upon request

Accuracy: cl.1,5 (analog meter) - cl.0,5 (accessory)

## INSULATION

(EN61010-1)

Installation category: III

Pollution degree: 2

Insulation voltage rating: 300V (Neutral-phase)

Impulse voltage test 5kV 1,2/50 $\mu$ s 0,5J

Considered circuits<sup>1</sup>: current input towards voltage input and output

A.C. voltage test 2,5kV r.m.s. 50Hz/1min

Considered circuits<sup>1</sup>: current input towards voltage input and output

A.C. voltage test 4kV r.m.s. 50Hz/1min

Considered circuits<sup>1</sup>: all circuits and earth

No voltage input to accessory output isolation

<sup>1</sup> accessory circuits

## TESTS OF ELECTROMAGNETIC COMPATIBILITY

Emission and immunity tests according to EN62052-11

**CONDIZIONI AMBIENTALI**

(EN60051)

Temperatura di riferimento: 23°C ± 2°C  
 Temperatura di impiego: 0...40°C  
 Condizione limite di temperatura: -10...55°C  
 Temperatura di magazzino: -25...70°C  
 Massima potenza dissipata<sup>2</sup>: ≤ 3,6W

<sup>2</sup>Per il dimensionamento termico dei quadri, riferita all'accessorio

**CUSTODIA INDICATORE ANALOGICO**

Dimensioni: vedi tabella

Conessioni: morsetti a vite / faston 6,3 x 0,8mm

Custodia: a incasso

Foratura pannello: vedi tabella

Profondità: vedi tabella

Materiale custodia: policarbonato autoestinguente

Grado di protezione (EN60529): IP52 (frontale), IP20(morsetti, con coprimorsetto)

Opzione: protezione frontale IP54

Peso: vedi tabella

**ENVIRONMENTAL CONDITIONS**

(EN60051)

Reference temperature: 23°C ± 2°C

Nominal temperature range: 0...40°C

Limit temperature range: -10...55°C

Limit temperature range for storage: -25...70°C

Max. power dissipation<sup>2</sup>: ≤ 3,6W

<sup>2</sup>For switchboard thermal calculation, referred to accessory

**ANALOG METER HOUSING**

Dimensions: see table

Connections: screw terminal / fast-on 6,3 x 0,8mm

Housing: flush mounting

Panel cutout: see table

Profondità: see table

Housing material: self-extinguishing polycarbonate

Protection degree (EN60529): IP52 (front frame), IP20(terminal, with protection)

Option: protection IP54 (front frame)

Weight: see table

| Modello<br>Model | A     | B     | C    | Peso<br>Weight |
|------------------|-------|-------|------|----------------|
| RQ48M            | 48x48 | 45x45 | 75   | 120gr.         |
| RQ72M            | 72x72 | 68x68 | 69   | 190gr.         |
| RQ96M            | 96x96 | 92x92 | 69   | 260gr.         |
| AQ48M            | 48x48 | 45x45 | 85,5 | 140gr.         |
| AQ72M            | 72x72 | 68x68 | 84   | 240gr.         |
| AQ6M             | 96x96 | 92x92 | 84   | 320gr.         |

**CUSTODIA ACCESSORIO**

Dimensioni: 4 moduli DIN 43880

Conessioni: morsetti a vite

Portata morsetti: cavo rigido min.0,05mm<sup>2</sup> / max. 4mm<sup>2</sup>  
 cavo flessibile min.0,05mm<sup>2</sup> / max. 2,5mm<sup>2</sup>

Montaggio: a incastro su profilato 35mm

Tipo profilato: a cappello TH35-15 (EN60715)

Materiale custodia: policarbonato autoestinguente

Grado di protezione (EN60529): IP50 (frontale), IP20(morsetti)

Peso: 250 grammi

**ACCESSORY HOUSING**

Dimensions: 4 module DIN 43880

Connections: screw terminals

Terminal range: rigid cable min.0,05mm<sup>2</sup> / max. 4mm<sup>2</sup>  
 flexible cable min.0,05mm<sup>2</sup> / max. 2,5mm<sup>2</sup>

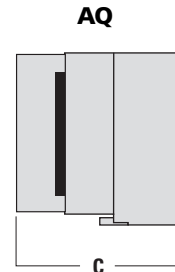
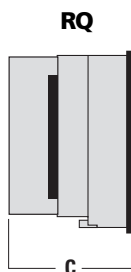
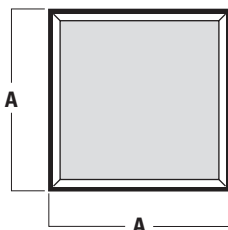
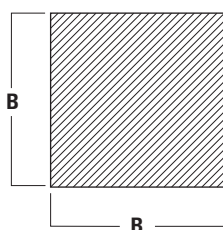
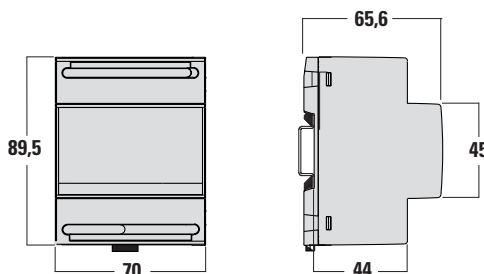
Mounting: snap-on 35mm rail

Rail type: top hat TH35-15 (EN60715)

Housing material: self-extinguishing polycarbonate

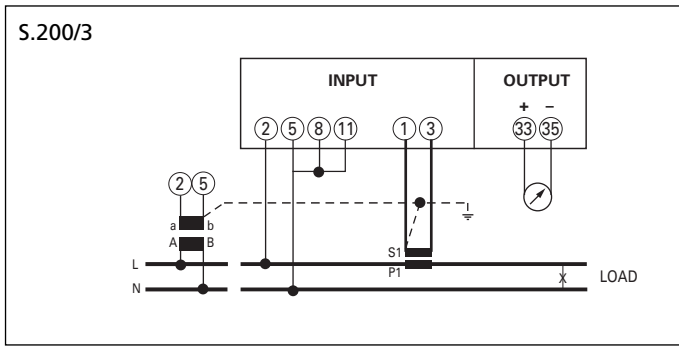
Protection degree (EN60529): IP50 (front frame), IP20(terminal)

Weight: 250 grams

**DIMENSIONI DIMENSIONS****Accessorio 4 Moduli**

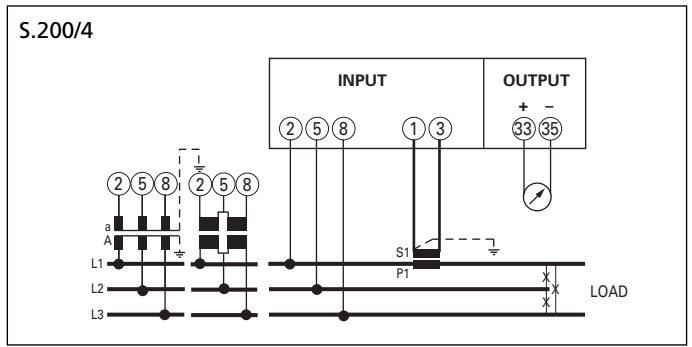
**Tesi P**

**TN2P1...**



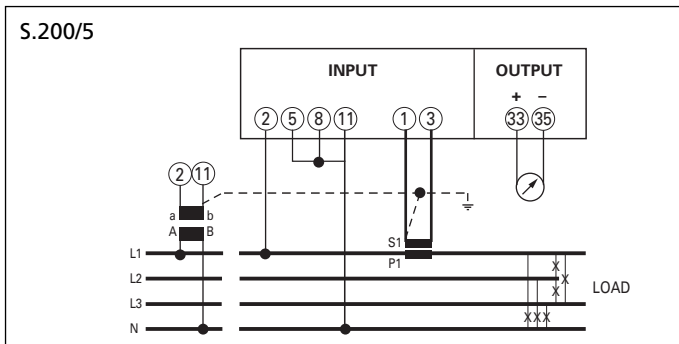
**Linea monofase  
Single-phase**

**TN2P2... / TN2Q2...**



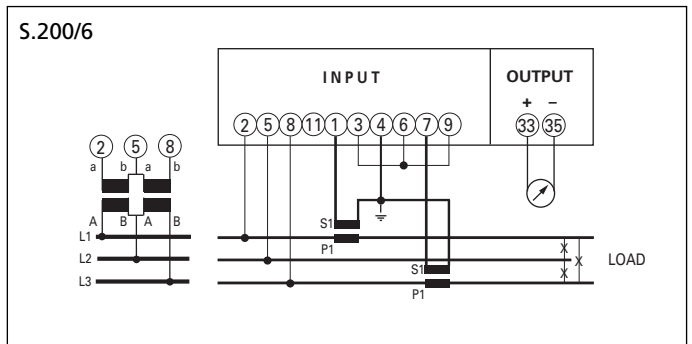
**Linea trifase 3 fili, carico equilibrato  
Three-phase 3-wire, balanced load**

**TN2P3... / TN2Q3**



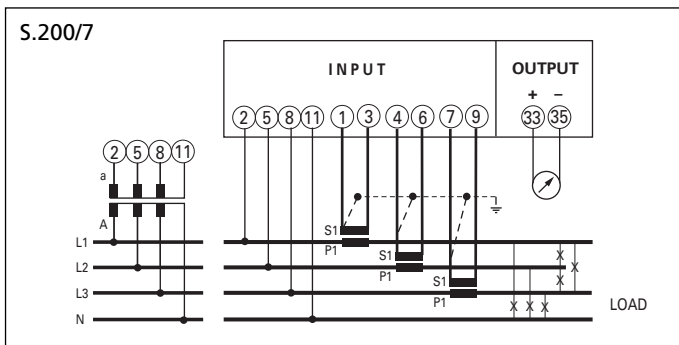
**Linea trifase 4 fili, carico equilibrato  
Three-phase 4-wire, balanced load**

**TN2P4... / TN2Q4...**



**Linea trifase 3 fili, carico squilibrato ARON  
Three-phase 3-wire, unbalanced load ARON**

**TN2P5... / TN2Q5**



**Linea trifase 4 fili, carico squilibrato  
Three-phase 4-wire, unbalanced load**



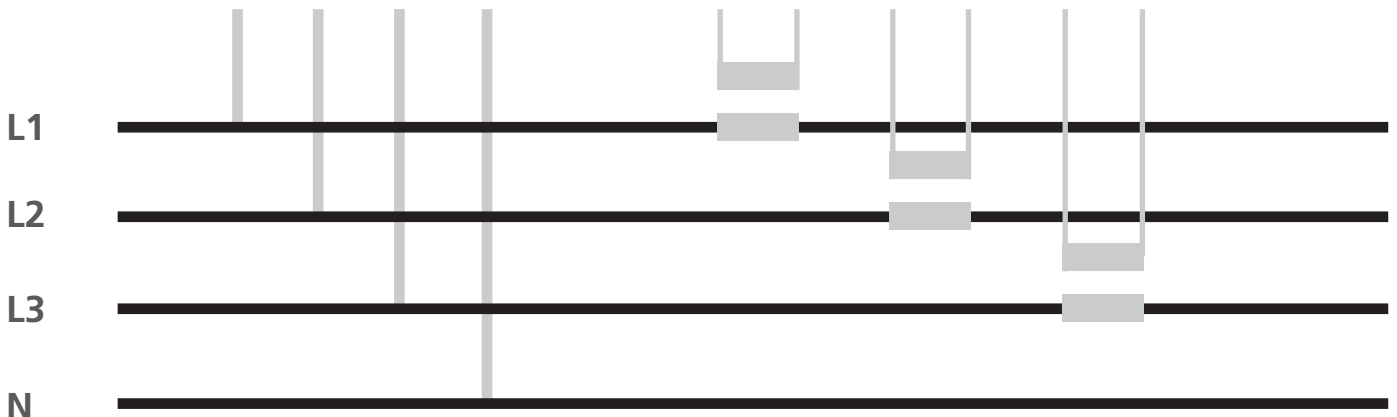
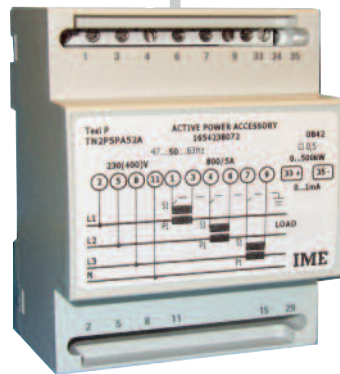
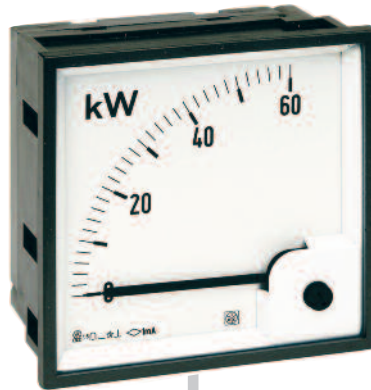
**Indicateurs analogiques**  
**RQ - AQ**  
**48x48mm**  
**72x72mm**  
**96x96mm**

**Analog Meters**  
**RQ - AQ**  
**48x48mm**  
**72x72mm**  
**96x96mm**

**RQ - AQ**

Indicateurs analogiques de puissance  
avec accessoire séparé  
Mesure de puissance active ou réactive,  
monophasé ou triphasé  
Lecture directe de la puissance, selon primaire  
Raccordement tension direct jusqu'à 440V  
ou sur TT externe /100V ou /110V  
Entrée courant sur TT externe /5A ou /1A

*Analog power meters with separate accessory*  
*Single-phase or three-phase, active or reactive*  
*power measuring*  
*Direct power reading, primary side*  
*Direct voltage connection up to 440V or by*  
*external VT/100V or /110V*  
*Current input by external CT /5A or /1A*



## INDICATEUR ANALOGIQUE

## ANALOG METER

Référence

ORDERING CODE

| MODELE<br>MODEL                                 | RQ48M   | RQ72M   | RQ96M   | AQ48M   | AQ72M   | AQ96M   |
|---|---------|---------|---------|---------|---------|---------|
| Longueur échelle<br>Scale length                | 90°     |         |         | 240°    |         |         |
| Dimensions<br>Dimensions                        | 48 x 48 | 72 x 72 | 96 x 96 | 48 x 48 | 72 x 72 | 96 x 96 |
| 0...1mA<br>Zéro latéral<br>Lateral zero         |         |         |         |         |         |         |
| 1...0...1mA<br>Zéro central<br>Central zero     |         |         |         |         |         |         |
| - x...0...1mA<br>Zéro déplacé<br>Displaced zero |         |         |         |         |         |         |

## ACCESSOIRE

## ACCESSORY

Référence

ORDERING CODE

| Modèle<br>Model   |    | Tesi P puissance active / active power |                                      |   |                                      |   |
|-------------------|----|--|--------------------------------------|---|--------------------------------------|---|
| Réseau<br>Network |    | Monophasé<br>Single-phase              | Triphasé 3 fils / Three-phase 3 wire |   | Triphasé 4 fils / Three-phase 4 wire |   |
|                   |    |  | Réseau équilibré<br>Balanced load    | Réseau non équilibré<br>Unbalanced load | Réseau équilibré<br>Balanced load    | Réseau non équilibré<br>Unbalanced load |
| Schéma<br>Diagram |    | S200/3                                 | S200/4                               | S200/6                                  | S200/5                               | S200/7                                  |
| 100V              | 1A |  |                                      |   |                                      |   |
| 100V              | 5A |  |                                      |   |                                      |   |
| 110V              | 1A |  |                                      |   |                                      |   |
| 110V              | 5A |  |                                      |   |                                      |   |
| 230V              | 1A |  |                                      |   |                                      |   |
| 230V              | 5A |  |                                      |   |                                      |   |
| 240V              | 1A |  |                                      |   |                                      |   |
| 240V              | 5A |  |                                      |   |                                      |   |
| 400V              | 1A |  |                                      |   |                                      |   |
| 400V              | 5A |  |                                      |   |                                      |   |
| 415V              | 1A |  |                                      |   |                                      |   |
| 415V              | 5A |  |                                      |   |                                      |   |
| 440V              | 1A |  |                                      |   |                                      |   |
| 440V              | 5A |  |                                      |   |                                      |   |

| Modèle<br>Model   |    | Tesi Q puissance réactive / reactive power |   |                                      |   |
|-------------------|----|--|---|--------------------------------------|---|
| Réseau<br>Network |    | Triphasé 3 fils / Three-phase 3 wire       |   | Triphasé 4 fils / Three-phase 4 wire |   |
|                   |    | Réseau équilibré<br>Balanced load          | Réseau non équilibré<br>Unbalanced load | Réseau équilibré<br>Balanced load    | Réseau non équilibré<br>Unbalanced load |
| Schéma<br>Diagram |    | S200/4                                     | S200/6                                  | S200/5                               | S200/7                                  |
| 100V              | 1A |  |   |                                      |   |
| 100V              | 5A |  |   |                                      |   |
| 110V              | 1A |  |   |                                      |   |
| 110V              | 5A |  |   |                                      |   |
| 230V              | 1A |  |   |                                      |   |
| 230V              | 5A |  |   |                                      |   |
| 240V              | 1A |  |   |                                      |   |
| 240V              | 5A |  |   |                                      |   |
| 400V              | 1A |  |   |                                      |   |
| 400V              | 5A |  |   |                                      |   |
| 415V              | 1A |  |   |                                      |   |
| 415V              | 5A |  |   |                                      |   |
| 440V              | 1A |  |   |                                      |   |
| 440V              | 5A |  |   |                                      |   |

## ENTREE

Réseau monophasé ou triphasé 3 - 4 fils, équilibré ou non équilibré

Entrée tension: raccordement direct ou sur TT externe

Tension nominale Un: 100 - 110 - 230 - 240 - 400 - 415 - 440V (phase-phase)

Entrée courant: raccordement sur TC externe

Courant nominal In: 1 - 5A

Fréquence nominale fn: 50Hz

Fréquence de fonctionnement : 47...63Hz

Option : fréquence nominale fn 400Hz

Surcharge de brève durée (EN60051): In et 2Un/5s - Un et 2In/0,5s

Autoconsommation (pour chaque phase): tension  $\leq 1VA$  - courant  $\leq 0,5VA$

## DOMAINE D'UTILISATION

(EN60051)

Tension: 85...115%Un

Courant: 0...120%In

Facteur de puissance:  $\cos\varphi$  0,5 inductif...1 (puissance active)

Facteur de puissance:  $\sin\varphi$  0,5 inductif...1 (puissance réactive)

Forme d'onde: sinusoïdale, facteur de distorsion < 20%

## ETENDUE DE MESURE

Puissance active: - Pn...0...Pn

Puissance réactive: - Qn...0...Qn

Coefficient de conversion (Puissance de calibration): sur demande, à préciser lors de la commande

Puissance de calibration Pc (Qc): 0,6...1,2Pn(Qn)

Lorsque:

Pn puissance active nominale

Qn puissance réactive nominale

Pc puissance active de calibration

Qc puissance réactive de calibration

Un tension nominale (direct ou primaire TT)

In courant nominale (primaire TT)

Es. puissance active triphasée, réseau 400V TT800/5A

$Pn = Un \times In \times \sqrt{3} = 400 \times 800 \times \sqrt{3} = 554,24kW$

puissance de calibration  $Pc = 0,6...1,2Pn = 332,544...665,088kW$

## ALIMENTATION AUXILIAIRE

Dérivée de la mesure (autoalimentée)

## AFFICHAGE

Longueur de l'échelle: 90° (modèle RQ...) - 240° (modèle AQ...)

Couleur de l'échelle: fond blanc, divisions et numérotation noir

Marquage de l'échelle: sur demande

Précision: cl.1,5 (indicateur analogique) - cl.0,5 (accessoire)

## ISOLEMENT

(EN61010-1)

Catégorie de l'installation: III

Degré de pollution: 2

Tension de référence pour l'isolement: 300V (Neutre-phase)

Tension d'essai 5kV impulsion normalisée 1,2/50µs 0,5J

Circuits considérés<sup>1</sup>: entrée courant vers entrée et sortie tension

Tension d'essai 2,5kV valeur efficace 50Hz/1min

Circuits considérés<sup>1</sup>: entrée courant vers entrée et sortie tension

Tension d'essai 4kV valeur efficace 50Hz/1min

Circuits considérés<sup>1</sup>: tous les circuits et la masse

Entrée tension - accessoire sortie non isolé

<sup>1</sup> circuits accessoires

## TESTS DE COMPATIBILITE ELECTROMAGNETIQUE

Tests d'émission et d'immunité selon la norme EN62052-11

## INPUT

Single-phase, three-phase network, 3 and 4-wire, balanced and unbalanced load

Voltage input: direct connection or by external VT

Voltage rating Un: 100 - 110 - 230 - 240 - 400 - 415 - 440V (phase-phase)

Current input: connection by external CT

Current rating In: 1 - 5A

Frequency rating fn: 50Hz

Working frequency : 47...63Hz

Option : frequency rating fn 400Hz

Overloads of short duration (EN60051): In and 2Un/5s - Un and 2In/0,5s

Rated burden (each phase): voltage  $\leq 1VA$  - current  $\leq 0,5VA$

## NOMINAL RANGE OF USE

(EN60051)

Voltage: 85...115%Un

Current: 0...120%In

Power factor:  $\cos\varphi$  0,5 inductive...1 (active power)

Power factor:  $\sin\varphi$  0,5 inductive...1 (reactive power)

Waveform: sinusoidal, distortion factor < 20%

## MEASURING RANGE

Active power: - Pn...0...Pn

Reactive power: - Qn...0...Qn

Conversion coefficient (Power of calibration): on request, data to be shown in addition to ordering code

Power of calibration Pc(Qc): 0,6...1,2Pn(Qn)

Where:

Pn active power rating

Qn reactive power rating

Pc active power of calibration

Qc reactive power of calibration

Un voltage rating (direct or VT primary)

In current rating (CT primary)

Ex. three-phase active power, network 400V TA800/5A

$Pn = Un \times In \times \sqrt{3} = 400 \times 800 \times \sqrt{3} = 554,24kW$

power of calibration  $Pc = 0,6...1,2Pn = 332,544...665,088kW$

## AUXILIARY SUPPLY

Taken from measurement (selfsupplied)

## DISPLAY

Scale length: 90° (models RQ...) - 240° (models AQ...)

Scale colour: white background, black divisions and numbering

Scale marking: upon request

Accuracy: cl.1,5 (analog meter) - cl.0,5 (accessory)

## INSULATION

(EN61010-1)

Installation category: III

Pollution degree: 2

Insulation voltage rating: 300V (Neutral-phase)

Impulse voltage test 5kV 1,2/50µs 0,5J

Considered circuits<sup>1</sup>: current input towards voltage input and output

A.C. voltage test 2,5kV r.m.s. 50Hz/1min

Considered circuits<sup>1</sup>: current input towards voltage input and output

A.C. voltage test 4kV r.m.s. 50Hz/1min

Circuiti considerati<sup>1</sup>: all circuits and earth

No voltage input to accessory output isolation

<sup>1</sup> accessory circuits

## TESTS OF ELECTROMAGNETIC COMPATIBILITY

Emission and immunity tests according to EN62052-11

**CONDITIONS D'UTILISATION**

(EN60051)

Température de référence: 23°C ± 2°C

Température d'utilisation: 0...40°C

Température limite de fonctionnement : -10...55°C

Température de stockage: -25...70°C

Puissance max. dissipée<sup>2</sup>: ≤ 3,6W<sup>2</sup>Pour le dimensionnement thermique du coffret, référé aux accessoires**ENVIRONMENTAL CONDITIONS**

(EN60051)

Reference temperature: 23°C ± 2°C

Nominal temperature range: 0...40°C

Limit temperature range: -10...55°C

Limit temperature range for storage: -25...70°C

Max. power dissipation<sup>2</sup>: ≤ 3,6W<sup>2</sup>For switchboard thermal calculation, referred to accessory**BOITIER DE L'INDICATEUR ANALOGIQUE**

Dimensions: voir tableau

Raccordement: bornes à vis / faston 6,3 x 0,8mm

Boîtier: à encastrer

Découpe du panneau: voir tableau

Profondeur: voir tableau

Matériau du boîtier: polycarbonate autoextinguible

Degré de protection (EN60529): IP52 (face avant), IP20(bornes, avec protection)

Option: protection face avant IP54

Poids: voir tableau

**ANALOG METER HOUSING**

Dimensions: see table

Connections: screw terminal / fast-on 6,3 x 0,8mm

Housing: flush mounting

Panel cutout: see table

Profondità: see table

Housing material: self-extinguishing polycarbonate

Protection degree (EN60529): IP52 (front frame), IP20(terminal, with protection)

Option: protection IP54 (front frame)

Weight: see table

| Modèle<br>Model | A     | B     | C    | Poids<br>Weight |
|-----------------|-------|-------|------|-----------------|
| RQ48M           | 48x48 | 45x45 | 75   | 120gr.          |
| RQ72M           | 72x72 | 68x68 | 69   | 190gr.          |
| RQ96M           | 96x96 | 92x92 | 69   | 260gr.          |
| AQ48M           | 48x48 | 45x45 | 85,5 | 140gr.          |
| AQ72M           | 72x72 | 68x68 | 84   | 240gr.          |
| AQ6M            | 96x96 | 92x92 | 84   | 320gr.          |

**BOITIER ACCESSOIRE**

Dimensions: 4 modules DIN 43880

Raccordement: bornier à vis

Capacité des bornes : fil rigide min.0,05mm<sup>2</sup> / max. 4mm<sup>2</sup>  
fil souple min.0,05mm<sup>2</sup> / max. 2,5mm<sup>2</sup>

Montage: rail 35mm

Type de profil: TH35-15 (EN60715)

Matériau du boîtier: polycarbonate autoextinguible

Degré de protection (EN60529): IP50 (face avant), IP20(bornes)

Poids: 250 grammes

**ACCESSORY HOUSING**

Dimensions: 4 module DIN 43880

Connections: screw terminals

Terminal range: rigid cable min.0,05mm<sup>2</sup> / max. 4mm<sup>2</sup>  
flexible cable min.0,05mm<sup>2</sup> / max. 2,5mm<sup>2</sup>

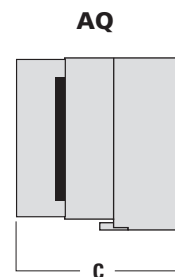
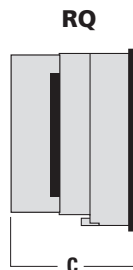
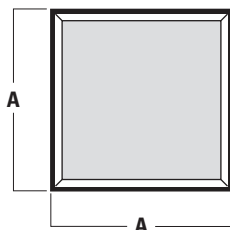
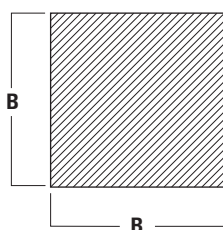
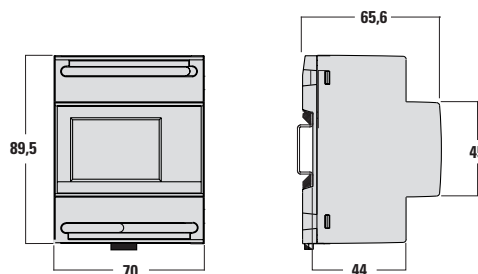
Mounting: snap-on 35mm rail

Rail type: top hat TH35-15 (EN60715)

Housing material: self-extinguishing polycarbonate

Protection degree (EN60529): IP50 (front frame), IP20(terminal)

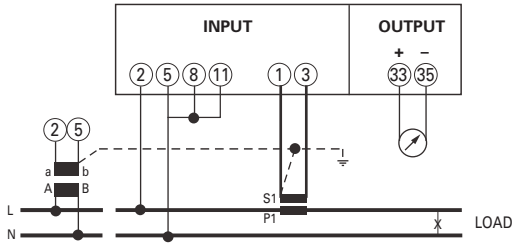
Weight: 250 grams

**DIMENSIONS DIMENSIONS****Accessoire 4 Modules**

**Tesi P**

**TN2P1...**

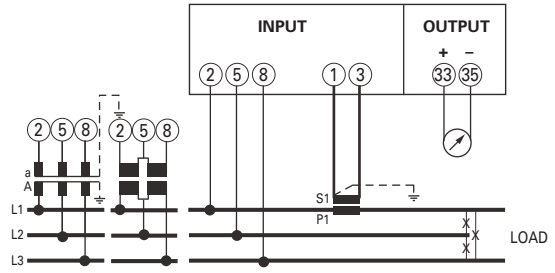
S.200/3



Réseau monophasé  
Single-phase

**TN2P2... / TN2Q2...**

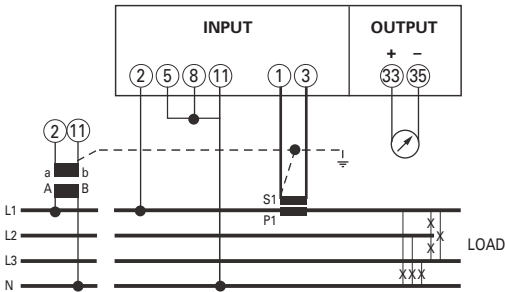
S.200/4



Réseau triphasé 3 fils, équilibré  
Three-phase 3-wire, balanced load

**TN2P3... / TN2Q3**

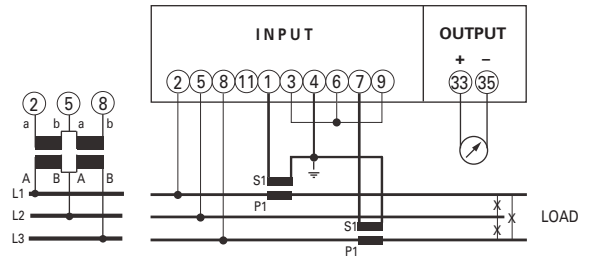
S.200/5



Réseau triphasé 4 fils, équilibré  
Three-phase 4-wire, balanced load

**TN2P4... / TN2Q4...**

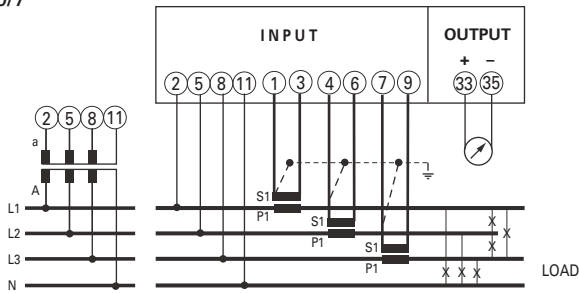
S.200/6



Réseau triphasé 3 fils, non équilibré ARON  
Three-phase 3-wire, unbalanced load ARON

**TN2P5... / TN2Q5**

S.200/7



Réseau triphasé 4 fils, non équilibré  
Three-phase 4-wire, unbalanced load

IMESYS se réserve à chaque moment de modifier les caractéristiques sans préavis écrit / IMESYS reserves the right to modify the technical characteristics without notice.