



RESIDENTIAL CATALOGUE



RYEFIELD ELECTRIC

Ryefield Engineering

Ryefield Engineering Company Limited is the leader in electrical manufacturing goods with over 25 years operating experience. Ryefield has a long standing history of being the market leader for quality, reliability and safety in the electrical manufacturing field.

Specialising in fuse boards, isolators, fuse switches and SPD's, Ryefield provide solutions to wholesalers, SML organisations and individuals. Based in Hertfordshire and London, we guarantee the highest standards of products by working with only top suppliers. We take pride in always creating a product and solution that fits, so our technical team are on hand to work with and advise our customers.

As the leading specialists, we are always evolving our product offering by introducing new innovative products and intelligent solutions to our customers.

What we can offer



A new fuse board range with integral Type 1 & 2 and Type 2 SPDs from DEHN. Our fuse boards have been tested and are BS EN 61439-2 certified. Our retrofit kits are still available for our standard boards.



MCCB Panel boards (400A) - choice of incomers and 125A maximum outgoing. MCCBs 6,8,12,16 or 18 TP ways or 800A. Panel boards - choice of incomers but can accept outgoing. MCCBs up to 250A in various combinations. Available as surge ready using DEHN SPD units and can be fitted with incoming and outgoing KWH meters (display or MID approved).



B Type distribution boards - 125A or 250A in 4, 6, 8, 12, 16, 18 or 24 TP ways. A type boards to compliment the B range are also available. The boards accept our standard 15kA MCBs SP or TP, 10kA RCBOs and are now offered surge ready using DEHN SPD units.



Floor standing cubicle switchboards - available in form 4 type 2, or form 4 type 6, with a choice of incomers starting at 400A and ending with 3000A, using fuse switches or MCCBs.



Wall mounted fuse-gear - Isolators (20A up to 800A), fuse switches (32A up to 800A) and manual change-over switches (63A up to 800A), all of which are IP65 and have a range of complimentary floor standing isolators up to 2000A.



For basic switchboards (incomer several outgoers and limited metering) using CUBIC panels, delivery on this product can be as short as four to five weeks. Bespoke switchboards are also available.

Automatic Transfer Switches either basic or for Life Safety applications, with the facility to have both single or dual line by-pass added, along with MIMIC panels for remote visual display of the ATS status. These units offer either the ABB compact or the ABB TruOne ATS modules and are fully compliant to BS EN 8519:2020.



Busbar chambers - 200A, 400A 630A and 800A variants.



RYEFIELD ELECTRIC

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Residential Consumer Units



18TH EDITION
COMPLIANT



CE CERTIFIED



ENHANCED
PROTECTION



COMPREHENSIVE
WARRANTIES

18th Edition Consumer Units c/w 100A DP Isolator and 2 No. 63A A type RCDs

*Non 18th Edition Amendment 2

| Part Number | Isolator | RCDs | SPD | Usable ways |
|-------------|----------|---------|-----|-------------|
| RYE4/4-6330 | 100A | 63A x 2 | NO | 4 & 4 |
| RYE5/5-6330 | 100A | 63A x 2 | NO | 5 & 5 |
| RYE6/6-6330 | 100A | 63A x 2 | NO | 6 & 6 |
| RYE7/7-6330 | 100A | 63A x 2 | NO | 7 & 7 |



18th Edition Consumer Units c/w 100A DP Isolator and 2 No. 80A A type RCDs

*Non 18th Edition Amendment 2

| Part Number | Isolator | RCDs | SPD | Usable ways |
|-------------|----------|---------|-----|-------------|
| RYE4/4-8030 | 100A | 80A x 2 | NO | 4 & 4 |
| RYE5/5-8030 | 100A | 80A x 2 | NO | 5 & 5 |
| RYE6/6-8030 | 100A | 80A x 2 | NO | 6 & 6 |
| RYE7/7-8030 | 100A | 80A x 2 | NO | 7 & 7 |



18th Edition Consumer Units c/w 100A DP Isolator and 2 No. 63A A type RCDs & SPD

| Part Number | Isolator | RCDs | SPD | Usable ways |
|----------------|----------|---------|-----|-------------|
| RYE4/4-6330SPD | 100A | 63A x 2 | YES | 4 & 4 |
| RYE5/5-6330SPD | 100A | 63A x 2 | YES | 5 & 5 |
| RYE6/6-6330SPD | 100A | 63A x 2 | YES | 6 & 6 |
| RYE7/7-6330SPD | 100A | 63A x 2 | YES | 7 & 7 |



18th Edition Consumer Units c/w 100A DP Isolator and 2 No. 80A A type RCDs & SPD

| Part Number | Isolator | RCDs | SPD | Usable ways |
|----------------|----------|---------|-----|-------------|
| RYE4/4-8030SPD | 100A | 80A x 2 | YES | 4 & 4 |
| RYE5/5-8030SPD | 100A | 80A x 2 | YES | 5 & 5 |
| RYE6/6-8030SPD | 100A | 80A x 2 | YES | 6 & 6 |
| RYE7/7-8030SPD | 100A | 80A x 2 | YES | 7 & 7 |



18th Edition Consumer Units c/w 100A DP Isolator and Type 2 SPD for use with RCBOs & AFDDs

| Part Number | Isolator | RCDs | SPD | Usable ways |
|---------------|----------|------|-----|-------------|
| RYE-06-100SPD | 100A | NO | YES | 6 |
| RYE-08-100SPD | 100A | NO | YES | 8 |
| RYE-10-100SPD | 100A | NO | YES | 10 |
| RYE-12-100SPD | 100A | NO | YES | 12 |
| RYE-14-100SPD | 100A | NO | YES | 14 |
| RYE-16-100SPD | 100A | NO | YES | 16 |
| RYE-18-100SPD | 100A | NO | YES | 18 |
| RYE-20-100SPD | 100A | NO | YES | 20 |



Ryefield Consumer Units

Ryefield Engineering have a range of consumer units all of which are 18th Edition compliant and can be supplied with or without DEHN surge arresters fitted. The incomer is a two pole 100A isolator, if the boards are dual RCD, they can be supplied with either 63A or 80A type A two pole RCDs.

If a RCBO board is required, this is supplied with a type 2 SPD as standard.

For information on the number of available outgoing ways in each board please turn to pages 15, 16 and 17.

All UK standards are adhered to in manufacturing these products.



MCBs for use in Ryefield Consumer Units

B Curve 6kA MCBs



| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYE-6MB1006 | Single pole MCB | 6A | B | 6 |
| RYE-6MB1010 | Single pole MCB | 10A | B | 6 |
| RYE-6MB1016 | Single pole MCB | 16A | B | 6 |
| RYE-6MB1020 | Single pole MCB | 20A | B | 6 |
| RYE-6MB1025 | Single pole MCB | 25A | B | 6 |
| RYE-6MB1032 | Single pole MCB | 32A | B | 6 |
| RYE-6MB1040 | Single pole MCB | 40A | B | 6 |
| RYE-6MB1050 | Single pole MCB | 50A | B | 6 |
| RYE-6MB1063 | Single pole MCB | 63A | B | 6 |

C Curve 6kA MCBs

| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYE-6MC1006 | Single pole MCB | 6A | C | 6 |
| RYE-6MC1010 | Single pole MCB | 10A | C | 6 |
| RYE-6MC1016 | Single pole MCB | 16A | C | 6 |
| RYE-6MC1020 | Single pole MCB | 20A | C | 6 |
| RYE-6MC1025 | Single pole MCB | 25A | C | 6 |
| RYE-6MC1032 | Single pole MCB | 32A | C | 6 |
| RYE-6MC1040 | Single pole MCB | 40A | C | 6 |
| RYE-6MC1050 | Single pole MCB | 50A | C | 6 |
| RYE-6MC1063 | Single pole MCB | 63A | C | 6 |



RCBOs for use in Ryefield Consumer Units

B Curve RCBOs for use in Consumer Units

| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYE-6RB1006 | Single pole MCB | 6A | B | 6 |
| RYE-6RB1010 | Single pole MCB | 10A | B | 6 |
| RYE-6RB1016 | Single pole MCB | 16A | B | 6 |
| RYE-6RB1020 | Single pole MCB | 20A | B | 6 |
| RYE-6RB1025 | Single pole MCB | 25A | B | 6 |
| RYE-6RB1032 | Single pole MCB | 32A | B | 6 |
| RYE-6RB1040 | Single pole MCB | 40A | B | 6 |



C Curve RCBOs for use in Consumer Units

| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYE-6RC1006 | Single pole MCB | 6A | C | 6 |
| RYE-6RC1010 | Single pole MCB | 10A | C | 6 |
| RYE-6RC1016 | Single pole MCB | 16A | C | 6 |
| RYE-6RC1020 | Single pole MCB | 20A | C | 6 |
| RYE-6RC1025 | Single pole MCB | 25A | C | 6 |
| RYE-6RC1032 | Single pole MCB | 32A | C | 6 |
| RYE-6RC1040 | Single pole MCB | 40A | C | 6 |



AFDDs for use in Ryefield Consumer Units

B Curve AFDDs for use in Consumer Units



| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYEAFDD06B | Single Mod AFDD | 6A | B | 6 |
| RYEAFDD10B | Single Mod AFDD | 10A | B | 6 |
| RYEAFDD16B | Single Mod AFDD | 16A | B | 6 |
| RYEAFDD20B | Single Mod AFDD | 20A | B | 6 |
| RYEAFDD25B | Single Mod AFDD | 25A | B | 6 |
| RYEAFDD32B | Single Mod AFDD | 32A | B | 6 |
| RYEAFDD40B | Single Mod AFDD | 40A | B | 6 |

C Curve AFDDs for use in Consumer Units



| Part Number | Description | Current | Curve | Rating kA |
|-------------|-----------------|---------|-------|-----------|
| RYEAFDD06C | Single Mod AFDD | 6A | C | 6 |
| RYEAFDD10C | Single Mod AFDD | 10A | C | 6 |
| RYEAFDD16C | Single Mod AFDD | 16A | C | 6 |
| RYEAFDD20C | Single Mod AFDD | 20A | C | 6 |
| RYEAFDD25C | Single Mod AFDD | 25A | C | 6 |
| RYEAFDD32C | Single Mod AFDD | 32A | C | 6 |
| RYEAFDD40C | Single Mod AFDD | 40A | C | 6 |



Technical Information 6kA MCBs

B & C Curve 6kA Single Pole MCB RYE-6MB... and RYE-6MC....



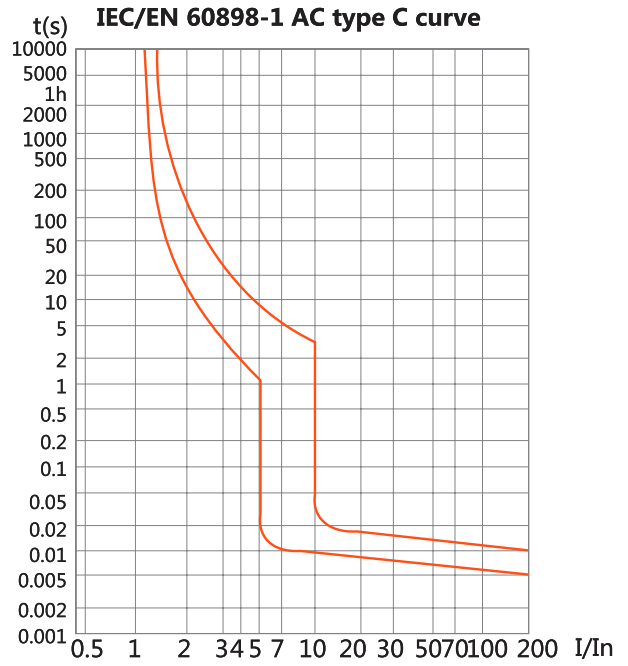
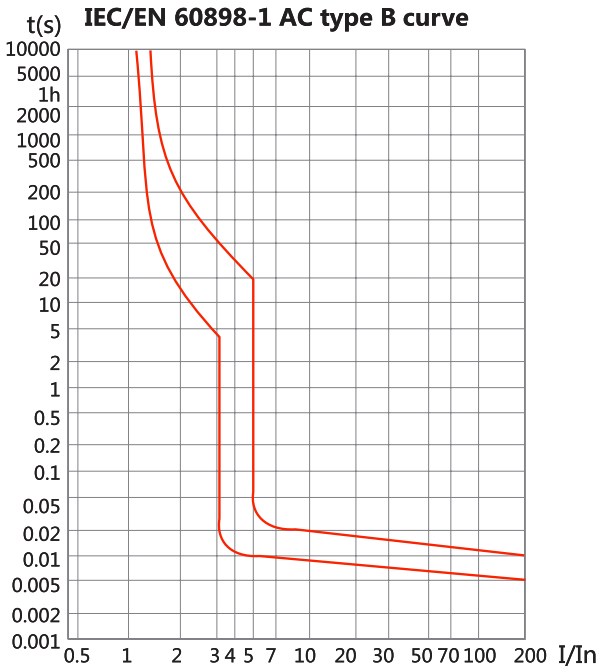
Technical Data

| | |
|---|---------------------------------|
| Rated current | 6A - 63A |
| Rated voltage | 230/400 V AC, 60V DC |
| Frequency | 50/60 Hz |
| Rated short-circuit capacity | 6 kA |
| Tripping characteristic | B, C |
| Running breaking capacity $I_{cs} \%I_{cm}$ | 100% / 75% |
| Rated insulation voltage U_{imp} | 500V |
| Degree of protection | IP20 |
| Terminals | 1-35mm ² , max 2.5Nm |
| Built-in width..mm | 17.8mm (per pole) |
| Height..mm | 82mm |
| Depth..mm | 72.6mm |
| Net weight | 116.5g |
| Ambient temperature (C) | -30.....+70 |
| Storage temperature (C) | -35.....+55 |
| Over-voltage category | III |
| Pollution Level | 3 |
| Electrical endurance (op. c.) | 10,000 |
| Mechanical endurance (op. c.) | 20,000 |
| Trip Type | Thermomagnetic |
| Locking device | Available |
| Mounting on the rail | EN 60715 |
| Standards | EN 60898-1, IEC 60898-1 |

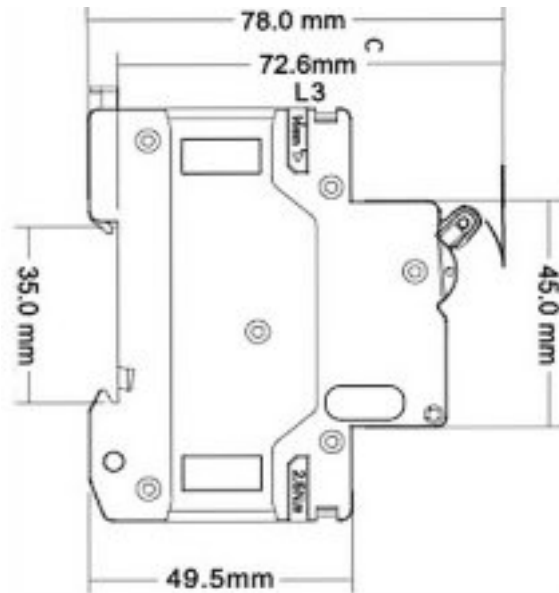
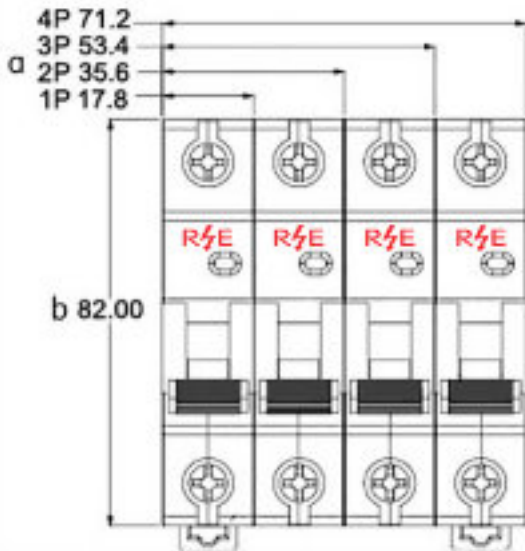
Tripping characteristic

| Characteristic | Test Current | Tripping Time Results | Results |
|----------------|--------------------|-----------------------|-------------|
| B, C | 1,13I _n | t < 3600 s | No tripping |
| B, C | 1,45I _n | t < 3600 s | Tripping |
| B, C | 2,55I _n | 1s < t < 60 s | Tripping |
| B, C | 3,00I _n | t ≤ 0,1 s | No tripping |
| B, C | 5,00I _n | t ≤ 0,1 s | Tripping |

Tripping Characteristics



Dimensions



Technical Information 6kA RCBOs

B & C Curve 6kA Single Pole RCBOs RYE-6RB... and RYE-6RC...

Technical Data

| | |
|--|-------------------|
| Rated current | 6A - 40A |
| Rated voltage | 230 V AC |
| Frequency | 50 Hz |
| Rated residual operating current ($I_{\Delta n}$) | 30mA |
| Rated residual non tripping current ($I_{\Delta no}$) | $0.5I_{\Delta n}$ |
| Back up fuse | 100A gG |
| DC Component | A Type |
| Poles | 1 |
| Tripping characteristic | B, C |
| Type | A |
| Rated short circuit breaking capacity (I_{cn}) | 6000A |
| Rated residual making & breaking capacity ($I_{\Delta m}$) | 6000A |
| Mechanical & Electrical life | See Diagram 5 |
| Connection wire | See Diagram 6 |
| Tightening torque | 2.8 Nm |
| Nominal Temperature | 30°C |
| Operation temperature Max humidity 95% | -25°C - 45°C |
| Storage Temperature | -25°C - 75°C |
| Pollution Level | 2 |
| Protection Level | IP20 |
| Standard | IEC 61009-1 |



Breaking time of A type

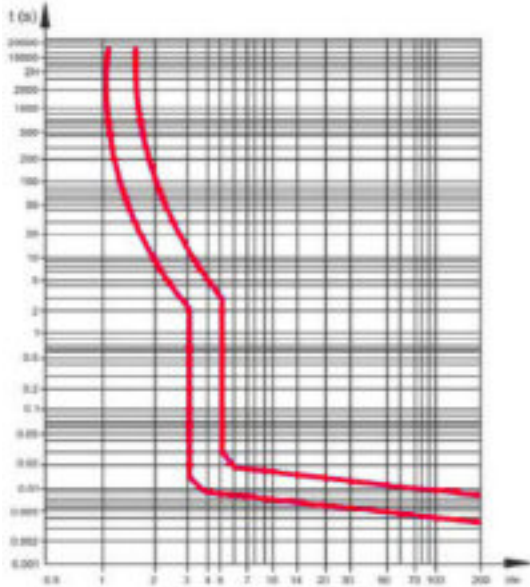
| Type | $I_n(A)$ | $I_{\Delta n}(A)$ | Breaking time(s) when I_{Δ} equals to the below values | | | | |
|------|----------|-------------------|---|-------------------|-----------------|-------|------|
| | | | $1.4I_{\Delta n}$ | $2.8I_{\Delta n}$ | $7I_{\Delta n}$ | 0.35A | 350A |
| A | 6~40 | 0.03 | 0.3 | 0.15 | | 0.04 | 0.04 |
| A | 6~40 | 0.1,0.3 | 0.3 | 0.15 | 0.04 | | 0.04 |

Overcurrent protection properties (nominal temperature 30°C)

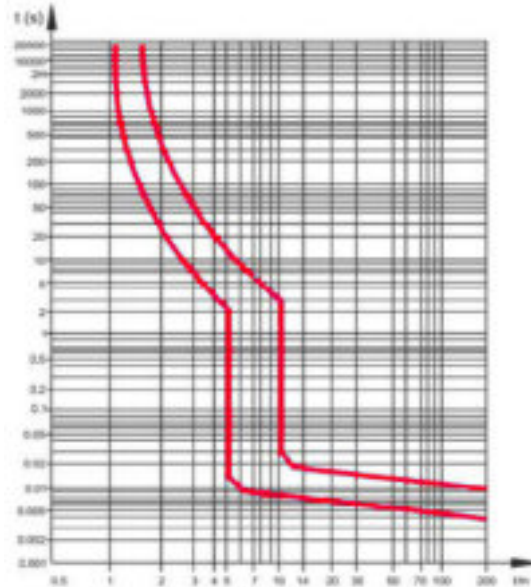
| Item | Type | Test Current | Initial Status | Tripping or non-tripping limit | Expected Result | Remarks |
|------|--------|-------------------|----------------|--|-----------------|---|
| a | B,C | $1.13I_n$ | Cold | $t \leq i_h$ | Non tripping | |
| b | | $1.45I_n$ | | $t < 1h$ | Trip | Current increases to stipulated value within 5s |
| c | | $2.55I_n$ | Cold | $1s < t < 60s$ ($I_n \leq 32A$) $1s < t < 120s$ ($I_n > 32A$) | Trip | |
| d | B C | $3I_n$ $5I_n$ | Cold | $t \leq 0.1s$ | Non tripping | Connection of current by opening auxiliary switch |
| e | B C | $5I_n$ $10I_n$ | Cold | $t \leq 0.1s$ | Trip | Connection of current by opening auxiliary switch |

Tripping characteristic

IEC/EN 60898-1 AC type B curve



IEC/EN 60898-1 AC type C curve



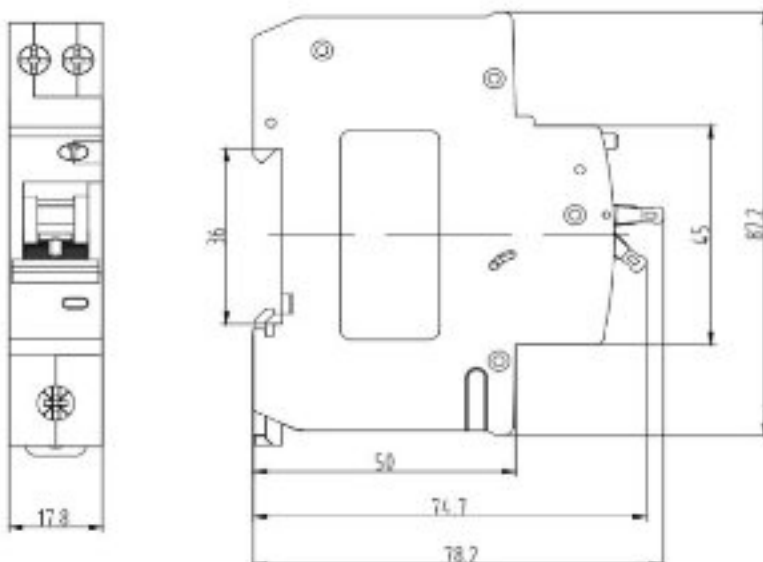
Mechanical & Electrical Life

| Category | Time | Operation Time (time/hour) |
|-----------------|-------|------------------------------|
| Mechanical life | 10000 | 240 |
| Electrical life | 4000 | 120 |

Cable size

| Rated Current In Amps | Solid & Stranded (mm ²) | Finely Stranded (mm ²) |
|----------------------------|--------------------------------------|-------------------------------------|
| 6, 10, 16, 20, 25, 32 & 40 | 0.75 - 35 | 0.75 - 25 |

Dimensions



Technical Information 6kA AFDDs

B & C Curve 6kA Single Module AFDDs RYEAFFDDxx (6-40A)

RCBO AFDDS With Arc Fault Protection

Standard - IEC62606
IEC61009



Protection

- ① Arc Fault Protection
- ② Overload Protection
- ③ Short-Circuit Protection
- ④ Earth-Leakage Protection

Technical Data

Electrical Features

| | |
|--|----------------------|
| Mode | Electronic |
| Type | A |
| Rated current In | 6,10,16,20,25,32,40A |
| Poles | 1P+N |
| Rated voltage Ue | 230V~ |
| Insulation voltage Ui | 400V |
| Rated frequency | 50Hz |
| Rated residual operating current(I Δ n) | 30mA |
| Break time under I Δ n | ≤ 0.1 s |
| Rated breaking capacity | 6,000A |
| Energy limiting class | 3 |
| Rated impulse with stand voltage(1.5/50)Uimp | 4,000V |
| Dielectric test voltage at ind.Freq.for 1min | 2kV |
| Pollution degree | 2 |
| Thermo-magnetic release characteristic | B,C |

Mechanical Features

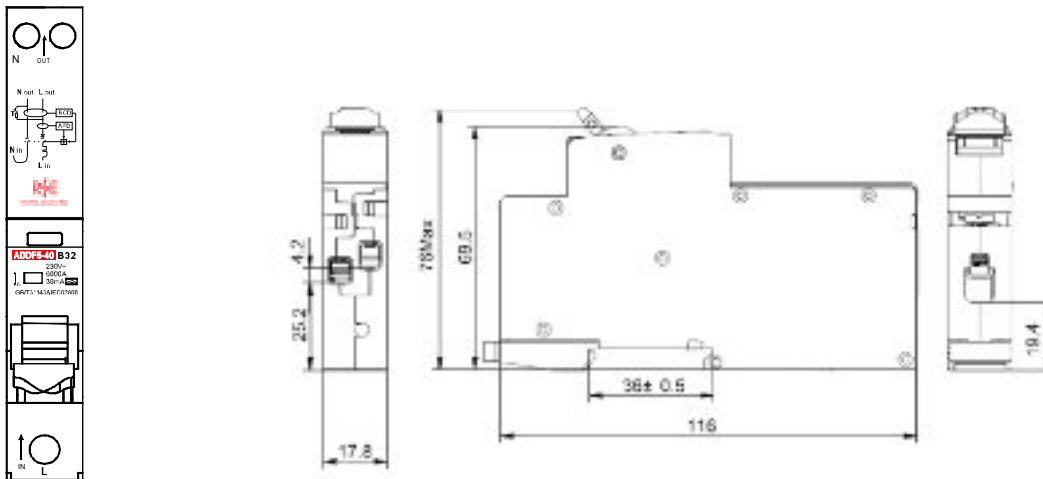
| | |
|---|--|
| Electrical life | 4,000 Cycles |
| Mechanical life | 10,000 Cycles |
| Contact position indicator | Yes |
| Protection degree | IP 40 in Ryefield MCU & Enclosures |
| Reference temperature for setting of thermal element | 30°C |
| Ambient temperature (with daily average $\leq 35^{\circ}\text{C}$) | $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ |
| Storage temperature | $-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$ |

B & C Curve 6kA Single Module AFDDs RYEAFFDDxx (6-40A)

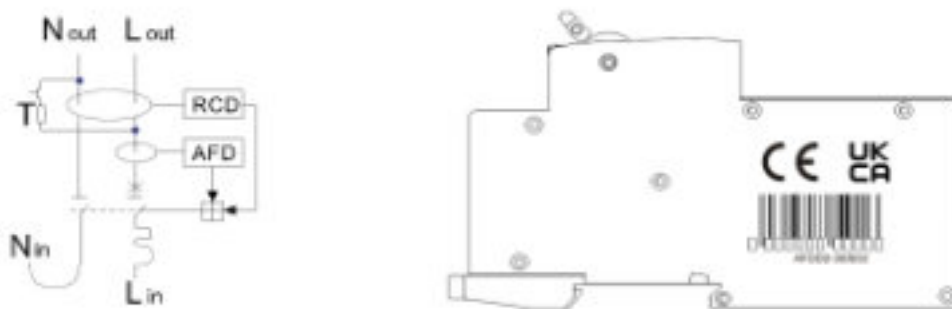
Installation

| | |
|---|---|
| Terminal connection type | Cable/Pin type busbar |
| Tightening torque for L-LINE | 2.5Nm |
| Tightening torque for L&N-LOAD | 1.2Nm |
| Mounting | On DIN rail EN60715 (35mm) by means of fast clip device |
| Connection | Power supply from bottom |

Dimensions



Operation and Certification



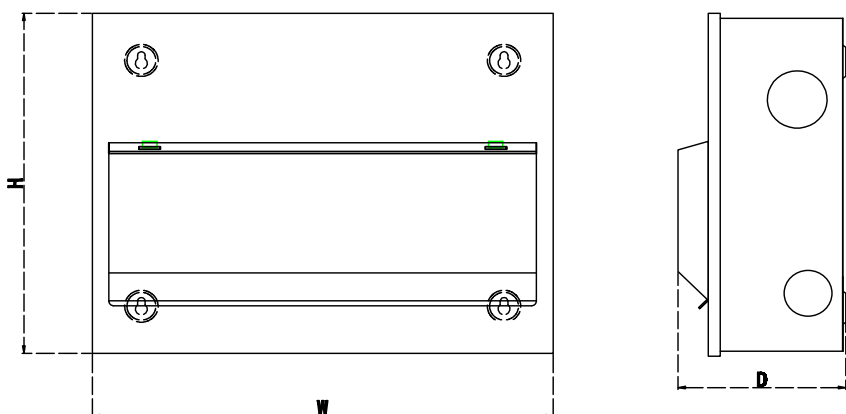
Technical and Dimensions

18th Edition Consumer Unit RYEx/x-6330 and RYEx/x-8030



Technical Data

| | |
|--------------------------------------|--|
| Rated current | 100A |
| Rated voltage | 230 V AC |
| Frequency | 50/60 Hz |
| Rated short-circuit capacity | 4 kA |
| Main Device | Double Pole Isolator 100A |
| Additional Devices | 63A or 80A RCCB x 2, 30mA Type A 10kA |
| Surge Protection | NO |
| Degree of protection | IP40 |
| Total number of ways | 14, 16, 18 and 20 |
| Total Number of free ways | 8, 10, 12 and 14 |
| Ambient temperature (C) | -25.....+55 |
| Storage temperature (C) | -35.....+55 |
| Terminals | 35mm |
| Maximum Backup Protection (A) | 100A depending on consumer unit |
| Standard | BS EN 60989, BS EN 61008 and BS EN 61439-3 |
| Compliance | BS 7671 |

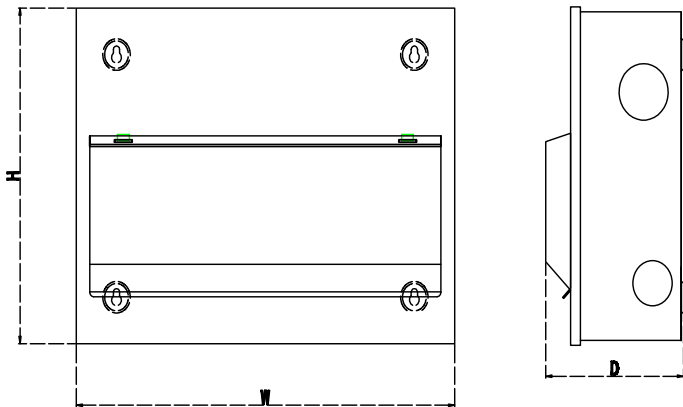


| Part Number | Height | Width | Depth |
|---------------------------|---------------|--------------|--------------|
| RYE4/4-6330 & RYE4/4-8030 | 240mm | 348mm | 105mm |
| RYE5/5-6330 & RYE5/5-8030 | 240mm | 384mm | 105mm |
| RYE6/6-6330 & RYE6/6-8030 | 240mm | 420mm | 105mm |
| RYE7/7-6330 & RYE7/7-8030 | 240mm | 456mm | 105mm |



Technical Data

| | |
|--------------------------------------|--|
| Rated current | 100A |
| Rated voltage | 230 V AC |
| Frequency | 50/60 Hz |
| Rated short-circuit capacity | 4 kA |
| Main Device | Double Pole Isolator 100A |
| Additional Devices | 63A or 80A RCCB x 2, 30mA Type A 10kA |
| Surge Protection | YES 952070 to IEC 61643-11 |
| Degree of protection | IP40 |
| Total number of ways | 16, 18, 20 and 22 |
| Total Number of free ways | 8, 10, 12 and 14 |
| Ambient temperature (C) | -25.....+55 |
| Storage temperature (C) | -35.....+55 |
| Terminals | 35mm |
| Maximum Backup Protection (A) | 100A depending on consumer unit |
| Standard | BS EN 60989, BS EN 61008 and BS EN 61439-3 |
| Compliance | BS 7671 |

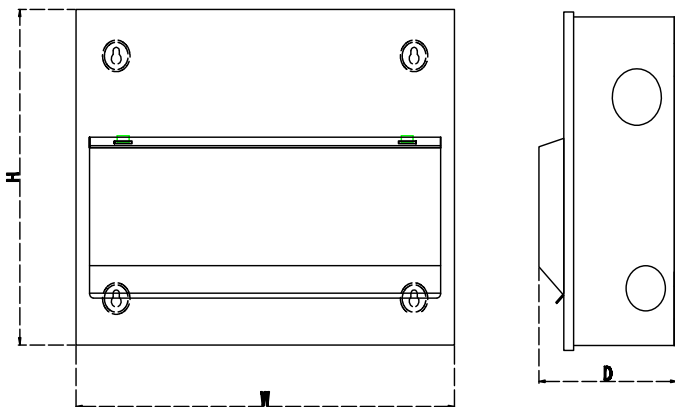


| Part Number | Height | Width | Depth |
|---------------------------------|---------------|--------------|--------------|
| RYE4/4-6330SPD & RYE4/4-8030SPD | 240mm | 384mm | 105mm |
| RYE5/5-6330SPD & RYE5/5-8030SPD | 240mm | 420mm | 105mm |
| RYE6/6-6330SPD & RYE6/6-8030SPD | 240mm | 456mm | 105mm |
| RYE7/7-6330SPD & RYE7/7-8030SPD | 240mm | 492mm | 105mm |



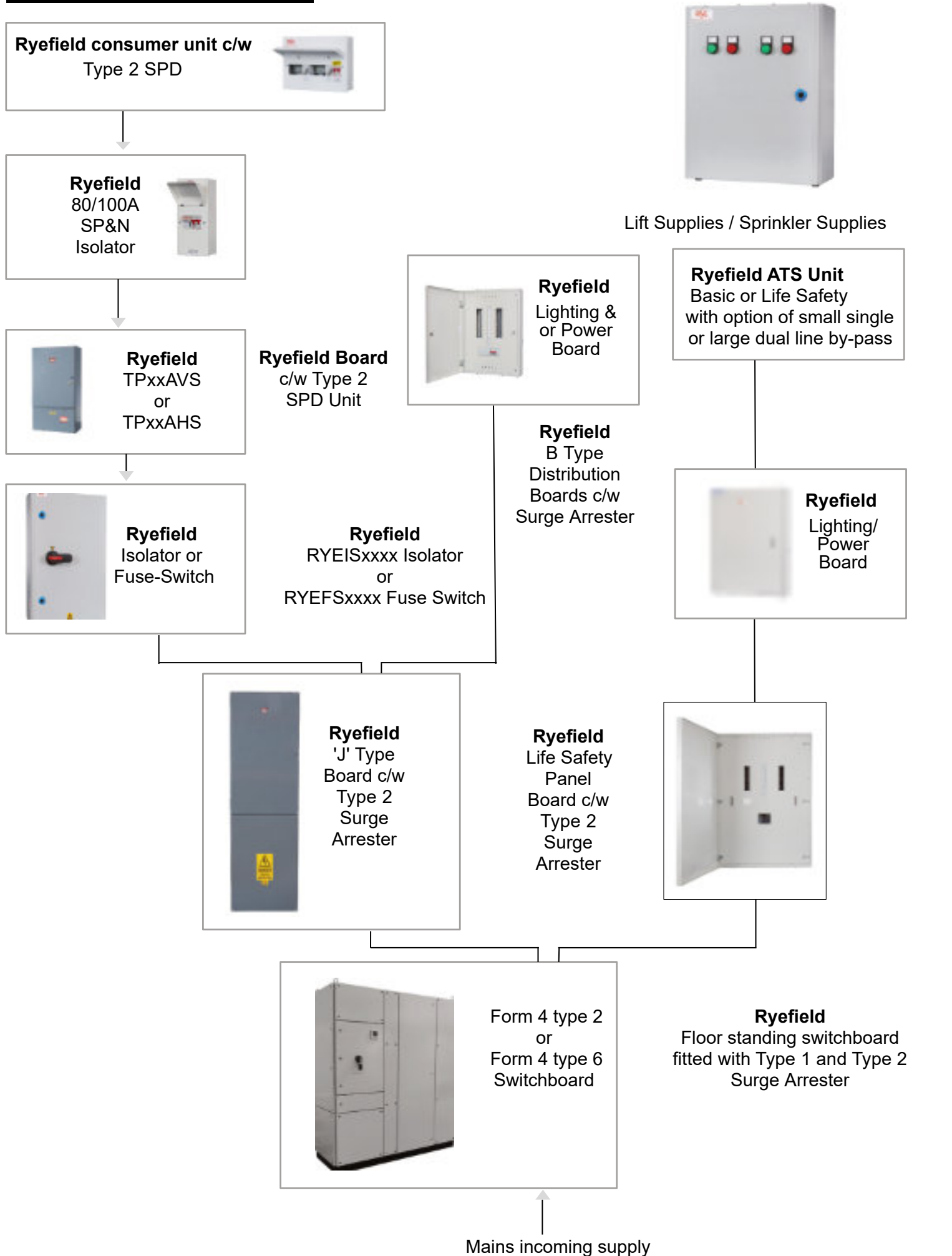
Technical Data

| | |
|--------------------------------------|---|
| Rated current | 100A |
| Rated voltage | 230 V AC |
| Frequency | 50/60 Hz |
| Rated short-circuit capacity | 4 kA |
| Main Device | Double Pole Isolator 100A |
| Additional Devices | DP DEHN Type 2 SPD Unit |
| Surge Protection | YES 952070 |
| Degree of protection | IP40 |
| Total number of ways | 10, 12, 14, 16, 18, 20, 22 and 24 |
| Total Number of free ways | 6, 8, 10, 12, 14, 16, 18 and 20 |
| Ambient temperature (C) | -25.....+55 |
| Storage temperature (C) | -35.....+55 |
| Terminals | 35mm |
| Maximum Backup Protection (A) | 100 |
| Standard | BS EN 60989, BS EN 61439-3 and IEC 61643-11 |
| Compliance | BS 7671 |



| Part Number | Height | Width | Depth |
|--------------------|---------------|--------------|--------------|
| RYE-06-100SPD | 240mm | 276mm | 105mm |
| RYE-08-100SPD | 240mm | 312mm | 105mm |
| RYE-10-100SPD | 240mm | 348mm | 105mm |
| RYE-12-100SPD | 240mm | 384mm | 105mm |
| RYE-14-100SPD | 240mm | 420mm | 105mm |
| RYE-16-100SPD | 240mm | 456mm | 105mm |
| RYE-18-100SPD | 240mm | 492mm | 105mm |
| RYE-20-100SPD | 240mm | 528mm | 105mm |

Product Flow Chart



Notes



RYEFIELD ELECTRIC



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