

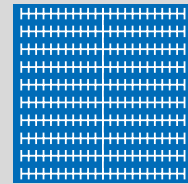
Invicta 63 Mk2 range overview



Invicta 63Mk2

(250A incoming 63A outgoing)

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- 5 *A boards SP&N distribution boards*
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- (250A in 63A out)*
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- (125A in 63A out)*
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Invicta 63Mk2

Invicta 63Mk2 is a new concept in distribution board technology with many new and innovative features. It is designed with the installer, specifier and architect in mind.



Performance

- busbar rated up to 250A.
- busbar short circuit withstand 15kA / 0.7 secs.
- insulation tested at 2.5kV.



Safety

- first ASTA approved distribution board (please consult us for conditions).
- fully insulated chassis backplate.
- shrouded neutral bars.



Innovation

- vertical and horizontal stacking facility.
- fifth keyhole slot for easy wall hanging.
- site adaptable for clean earthing.
- standard incomer kits include MCCB, fuse, changeover switch and contactors.



Installation

- dual earth and neutral bars.
- up to 40% more space.
- 40mm space behind pan assembly.
- most incomers fit without connection links.

description

Three phase and neutral distribution boards with 4,6,8,12,16, 20 or 24 TP&N ways.

construction

New rigid box construction. Manufactured from 1.25mm CR steel (end plates 1.5mm). Phosphate pre-treated and powder coated to 00A01 to BS 4800. All unpainted steel components are manufactured from Z2 G275 pre galvanised steel. All fasteners are zinc passivated or plated.

installation

New easy removable door provided. Door, end plates, front cover and chassis are removable. Dual earth and neutral bars are provided, earth bars have additional bonding terminals and neutral bars are shrouded.

configurations

One of the range of incoming devices must be selected to complete the distribution board. The choice of the twenty three incoming devices and fourteen distribution boards give 322 possible configurations.

specification

Complies with BS EN 60439-3
ASTA approved
(note conditions)
400V AC 3ph 50HZ
up to 250A I_n
Ambient temperature:
-5°C to +40°C
24 hour period average: +35°C
atmospheric conditions 50%
relative humidity at 40°C
90% relative humidity at 20°C
altitude up to 2000 metres
IP rating: IP3X

See page 14 for dimensions





Distribution Boards

- 4 - 24 TP&N ways
- glazed or plain doors
- ASTA approved
- standard or split load types
- IP65 option, metal or GRP



IP65 TP&N distribution boards

See page 12 for the new range information.



Incoming devices

- switch disconnectors - up to 250A
- MCCB's - up to 250A
- non-automatic MCCB's (MCS) - up to 250A
- direct connection - 250A
- RCCB's - up to 100A
- fuse switch - up to 200A
- changeover switch - up to 125A
- contactor (AC3) - up to 100A

Outgoing devices

- MCB's 1 and 3 pole 0.5 - 63A type B,C and D
- RCBO - 1 module 6-50A type B and C
- RCBO - 2 module 6-40A type B and C (switched neutral)
- fuse carriers BS 1361 - 30A BS 88 - 32A



New insulated DIN clip on 10kA MCBs and 1 module RCBO



Extension Boxes

- standard glazed door
- full or half chassis or plain cover
- free standing option
- composite panel option



Accessories

- flush mounting kits
- padlock and door kits
- brass end plate
- digital meter pack
- earth extension kits
- neutral uprate kits

A boards - SP&N distribution boards

SP&N distribution boards

SP&N distribution boards are available from 4-16 outgoing ways. The range comes with a choice of either 100A 2P switch disconnecter, 63A 30mA 2P RCCB or 100A 30mA 2P RCCB, or a range of split load versions.

The range has the following features:

- ample wiring space, with provision to accept RCBO's
- Full complement of earth and neutral terminal bars to accept up to 25mm² incoming and 16mm² outgoing cable.
- optional door lock kit - IKL1
- accepts most vision consumer unit accessories
- suitable for cable entry/exit on all sides and back.

construction

Manufactured from 1.25mm CR4 cold reduced mild steel, phosphate pretreated and powder coated to 00A01 BS 4800.

range complies with BS EN 60-439 part 3



JK55-6H

<i>description</i>	<i>total ways</i>	<i>RCCB controlled ways</i>	<i>switch disconnecter controlled ways</i>	<i>cat. ref.</i>
100A switch disconnecter incomer				
	4		4	JK04-01
	6		6	JK06-01
	8		8	JK08-01
	12		12	JK12-01
	16		16	JK16-01
63A 30mA RCCB incomer				
	4	4		JK04-6H
	6	6		JK06-6H
	8	8		JK08-6H
	12	12		JK12-6H
	16	16		JK16-6H
100A 30mA RCCB incomer				
	4	4		JK04-10H
	6	6		JK06-10H
	8	8		JK08-10H
	12	12		JK12-10H
	16	16		JK16-10H
split load with 100A switch disconnecter and 63A 30mA RCCB				
	6	2	4	JK24-6H
	6	3	3	JK33-6H
	6	4	2	JK42-6H
	10	5	5	JK55-6H
	12	4	8	JK48-6H
	12	6	6	JK66-6H
	14	7	7	JK77-6H

Invicta 63Mk2 TP&N distribution boards -
250A incoming, 63A outgoing - JK



JK206P



JK1003S



JK0634RH



JK1253S

<i>designation</i>	<i>number of TP ways</i>	<i>glazed door cat. ref.</i>	<i>plain door cat. ref.</i>
primary boards	4	JK204P	JK204P1
Supplied without incoming and outgoing devices	6	JK206P	JK206P1
	8	JK208P	JK208P1
One of the incoming kits listed below must be fitted.	12	JK212P	JK212P1
See page 14 for dimensions	16	JK216P	JK216P1
	20	JK220P	JK220P1
	24	JK224P	JK224P1
split load boards	12 ways 4 RCCB protected	JK248P	JK248P1
for split load both the incomer and RCCB must be selected.	12 ways 6 RCCB protected	JK266P	JK266P1
	12 ways 8 RCCB protected	JK284P	JK284P1
incoming kits	100A 3P switch disconnecter	JK1003S	
* small spreader box recommended if conductors are over 35mm ²	125A 3P switch disconnecter*	JK1253S	
	250A 3P switch disconnecter**	JK2503S	
** fitted in large extension box for cable spreading	100A 4P switch disconnecter	JK1004S	
	250A 4P switch disconnecter**	JK2504S	
	125 3P MCCB**	JK1253M	
ASTA please consult us for conditions	160A 3P MCCB**	JK1603M	
	250A 3P MCCB**	JK2503M	
	125 4P MCCB**	JK1254M	
	160A 4P MCCB**	JK1604M	
	250A 4P MCCB**	JK2504M	
	250A 4P direct connection kit*	JK2504D	
	125A 4P + 4P manual change over switch**	JK1254CO	
	200A 3P fuse combination switch**	JK2003F	
	200A 3P + SwN fuse combination switch**	JK2004F	
	63A 4P (AC3) contactor c/w 63A switch disconnecter**	JK0634C	
	100A 4P (AC3) contactor c/w 100A switch disconnecter**	JK1004C	
	63A 30mA 4P RCCB	JK0634RH	
	100A 30mA 4P RCCB	JK1004RH	
	100A 100mA 4P RCCB	JK1004RM	
	100A 300mA 4P RCCB	JK1004RL	
	100A 100mA time delayed 4P RCCB	JK1004RMD	
	100A 300mA time delayed 4P RCCB	JK1004RLD	

**Invicta 63Mk2 TP&N distribution boards -
250A incoming, 63A outgoing - JK**



JK222A



JK2Plate

<i>designation</i>	<i>characteristics</i>	<i>cat. ref.</i>
accessories		
	250A single phase conversion kit	JK250SP
	blanking module (SP MCB way)	VG01B
	blanking module (Din rail way)	VG01C
	keylock for door	JK222A
	spare key for JK222A	JK222KEY
	door padlock kit (padlock not included)	JK222B
	MCB, RCCB, RCBO padlock kit	MZ175
	touch up paint	JK95A
	spare label pack	JK241A
	painted steel end plate - 1.5mm	JK2Plate
	unpainted brass end plate - 2mm	JK2BPlate

<i>designation</i>		<i>glazed door cat. ref.</i>	<i>plain door cat. ref.</i>
cable spreader boxes	small 250mm height - plain door		JK201E
	large 500mm height - plain door		JK202E



JK204E

vertical mounted extension boxes			
for fitting DIN rail mounted modular devices.	accepts 18 modules (1 row)	JK204E	JK204E1
Will accept 1 x Vision size 5 pan assembly per row. Supplied with earth terminal bar.	accepts 36 modules (2 row)	JK206E	JK206E1

Extension boxes can be used free standing by adding 2 x JK2Plate gland plates

meter pack comprises of: digital multi function meter 3 x control circuit fuse carrier wiring harness extension boxes CTs		JK240A
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Note: meter pack uses 2 extension boxes, one for the device, and one for the measurement CTs

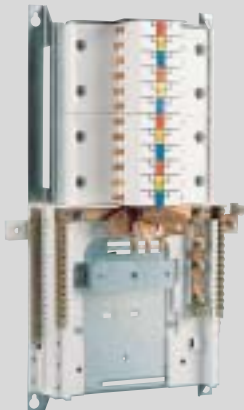
Please consult us for BMS compatible devices

Invicta 63Mk2 TP&N distribution boards - 250A incoming, 63A outgoing - JK

<i>designation</i>	<i>characteristics</i>	<i>cat. ref.</i>
mounting plate	suitable for use with non DIN mount device	JK218A
flush mounting kits	4 way distribution boards	JK204FK
	6 way distribution boards	JK206FK
	8 way distribution boards	JK208FK
	12 way distribution boards	JK212FK
	16 way distribution boards	JK216FK
	20 way distribution boards	JK220FK
	24 way distribution boards	JK224FK
connecting kits		
vertical stacking kit	allows vertical stacking of Invicta 63Mk2 distribution boards and extension boxes	JK203K
horizontal stacking kit	allows horizontal stacking of Invicta 63Mk2 distribution boards and extension boxes Note: enclosures must be same height	JK202K
pan assemblies		
Suitable as replacement for distribution board pan assembly or for panelbuilding applications.	4 way	JK204PA
	6 way	JK206PA
Note: supplied with terminal bars fitted	8 way	JK208PA
	12 way	JK212PA
See page 14 for dimensions	16 way	JK216PA
	20 way	JK220PA
	24 way	JK224PA
electrical connection	allows 100A tap off from distribution board or pan assembly outgoing way	KR50U
earth terminal bars		
Additional terminal bars can be fitted within distribution boards for high integrity earthing.	2 x 6 outgoing connections (4 way)	JK204EB
	2 x 9 outgoing connections (6 way)	JK206EB
Where only a small quantity of additional terminals are required the spare larger terminal bar can be used to replace the standard one fitted on the pan assembly	2 x 12 outgoing connections (8 way)	JK208EB
	2 x 18 outgoing connections (12 way)	JK212EB
	2 x 24 outgoing connections (16 way)	JK216EB
	2 x 30 outgoing connections (20 way)	JK220EB
	2 x 36 outgoing connections (24 way)	JK224EB



JK202K



JK208PA



JK204EB

**Invicta 63Mk2 TP&N distribution boards -
250A incoming, 63A outgoing - JK**

<i>designation</i>	<i>characteristics</i>	<i>cat. ref.</i>
neutral uprating kits		
Neutral kits are provided to uprate the neutral bars for a duty of $1.73 \times I_n$.	4 way kit	JK204NB
	6 way kit	JK206NB
These may be suitable where harmonics are present	8 way kit	JK208NB
	12 way kit	JK212NB
	16 way kit	JK216NB
	20 way kit	JK220NB
	24 way kit	JK224NB
Side extension boxes		
Side extension boxes provide a new concept for distribution boards to allow DIN rail mounted devices or cable ways to be fitted on site.	plates*, or they can be horizontally attached to equal width distribution boards using 1 x JK202K per extension box.	Note: half width side extension boxes can be fitted with Vision size 2 pan assemblies (1 per row).
These are available in either half or full distribution board width. They can be used free standing by using 2 x JK2Plate gland	For vertical stacking please use 1 x JK203K. *Note: half width extension boxes supplied with 2 x end plates	Full width side extension boxes can be fitted with Vision size 5 pan assemblies (1 per row).

<i>designation</i>	<i>characteristics</i>	<i>cat. ref. 1/2 width</i>	<i>cat. ref. full width</i>
extension boxes for DIN rail mounting devices			
Enclosures have glazed door and DIN rail chassis.	4 way height	JK204PDH	JK204PDF
	6 way height	JK206PDH	JK206PDF
Half width enclosure provided with 6 modular ways per row.	8 way height	JK208PDH	JK208PDF
	12 way height	JK212PDH	JK212PDF
Full width enclosure provided with 18 modular ways per row.	16 way height	JK216PDH	JK216PDF
	20 way height	JK220PDH	JK220PDF
See page 14 for dimension	24 way height	JK224PDH	JK224PDF
	250mm filler box	JK201PDH	JK201PDF
Filler boxes are used to fill gap when vertical and horizontal extension boxes are used.	400mm filler box	JK202PDH	JK202PDF
	extension boxes with plain door		
Enclosures have plain door and plain cover with no internal DIN rail chassis.	4 way height	JK204PSH	JK204PSF
	6 way height	JK206PSH	JK206PSF
Extension boxes can be used as co-ordinated cable ways, or to fit surface mounted equipment.	8 way height	JK208PSH	JK208PSF
	12 way height	JK212PSH	JK212PSF
Please consult us for glazed door option.	16 way height	JK216PSH	JK216PSF
	20 way height	JK220PSH	JK220PSF
	24 way height	JK224PSH	JK224PSF
Filler boxes are used to fill gap when vertical and horizontal extension boxes are used.	250mm filler box	JK201PSH	JK201PSF
	400mm filler box	JK202PSH	JK202PSF



JK220PDH

Invicta 63Mk2

Invicta 63Mk2 provides a new concept for distribution boards. Both distribution boards and extension boxes can be used free standing, vertically or horizontally.



Vertical stacking

To vertically stack any equal width distribution boards or extension boxes use:
1 x vertical connection kit cat. ref. JK203K.

Note: kit provided with JK201E, JK202E, JK204E, JK204E1, JK206E and JK206E1

Example JK216P and JK206E vertically stacked.



Horizontal stacking

To horizontally stack any equal height distribution boards or extension boxes use:
1 x horizontal connection kit cat. ref. JK202K.

Example JK266P and JK216PSH

Free standing

Extension boxes can be used free standing by using 2 x end plates cat. ref. JK2Plate

Example JK224PDF





Composite panel

Invicta 63Mk2 also provides the possibility of extending both vertically and horizontally by use of filler boxes. Use either 250mm or 400mm filler boxes, e.g. JK202PSH

The Invicta 63 Mk2 system, allows flexible on site adaptation of distribution boards.

The system has great benefit where products will be visible, and a neat compact installation is necessary



Please consult our Technical Helpline for advice on Invicta 63Mk2 system possibilities

*Example
JK216P, JK206E, JK202PSH,
JK216PSH, JK266P, JK202E*

IP65 TP&N distribution boards 125A incoming, 63A outgoing

IP65 TP&N distribution boards

Hager IP65 distribution boards are suitable for three phase applications where a high IP rating is required.

The distribution boards are available with either a steel or GRP enclosure.

Incoming devices are supplied separately, and with a choice of 10 primary distribution boards up to 110 possible TP&N configurations are possible.

Available up to 250A direct connection with outgoing distribution through 4, 6, 8, 12 or 16 ways, rated for MCBs from 0.5A to 63A

Complies with BS EN 60439-3

for dimensional information, see page 14.

*dimensions (mm)
(HxWxD)*

ways

*cat.
ref.*



JK208D

IP65 distribution boards - metal

800 x 600 x 300	4	JK204D
800 x 600 x 300	6	JK206D
800 x 600 x 300	8	JK208D
950 x 600 x 300	12	JK212D
950 x 600 x 300	16	JK216D



JK208F

IP65 distribution boards - insulated

800 x 600 x 300	4	JK204F
800 x 600 x 300	6	JK206F
800 x 600 x 300	8	JK208F
1150 x 850 x 300	12	JK212F
1150 x 850 x 300	16	JK216F

incoming kits

100A 3P switch disconnecter	JK1003S
125A 3P switch disconnecter	JK1253S
100A 4P switch disconnecter	JK1004S
250A 4P switch disconnecter	JK2504S
250A 4P direct connection kit	JK2504D
63A 30mA 4P RCCB	JK0634RH
100A 30mA 4P RCCB	JK1004RH
100A 100mA 4P RCCB	JK1004RM
100A 300mA 4P RCCB	JK1004RL
100A 100mA 4P RCCB - time delayed	JK1004RMD
100A 300mA 4P RCCB - time delayed	JK1004RLD



JK1003S



NC116



NC320



AD119



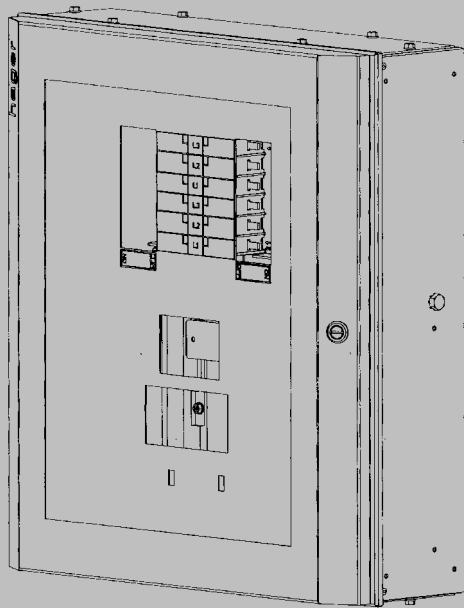
	MCBs			RCBOs						fuse carriers		
	type B	type C	type D	1 mod type B 30mA	1 mod type C 30mA	1 mod type B 10mA	1 mod type C 10mA	2 mod type B 30mA	2 mod type C 30mA	BS1361 fuse carrier	BS88 fuse carrier	direct tap off
single pole												
0.5A	NB100	NC100	ND100									
1A	NB101	NC101	ND101									
2A	NB102	NC102	ND102									
4A	NB104	NC104	ND104									
6A	NB106	NC106	ND106	AD104	AD119	AC104	AC119	AD906U	AD956U	L113(5A)	L501 45(5A)	
10A	NB110	NC110	ND110	AD105	AD120			AD910U	AD960U			
16A	NB116	NC116	ND116	AD107	AD122	AC107	AC122	AD916U	AD966U	L115(15A)	L501 45(15A)	
20A	NB120	NC120	ND120	AD108	AD123			AD920U	AD970U	L116(20A)	L501 45(20A)	
25A	NB125	NC125	ND125	AD109	AD124	AC109	AC124	AD925U	AD975U			
32A	NB132	NC132	ND132	AD110	AD125	AC110	AC125	AD932U	AD982U	L118(30A)	L501 45(30A)	
40A	NB140	NC140	ND140	AD111	AD126			AD940U	AD990U			
45A				AD112	AD127							
50A	NB150	NC150	ND150	AD113	AD128							
63A	NB163	NC163	ND163									
100A												KR50U
three pole												
0.5A		NC300										
1A		NC301										
2A		NC302										
4A		NC304										
6A	NB306	NC306	ND306									
10A	NB310	NC310	ND310									
16A	NB316	NC316	ND316									
20A	NB320	NC320	ND320									
25A	NB325	NC325	ND325									
32A	NB332	NC332	ND332									
40A	NB340	NC340	ND340									
50A	NB350	NC350	ND350									
63A	NB363	NC363	ND363									

1 pole outgoing blank - VG01B

1 module DIN rail blank - VG01C

Note: please refer to individual device pages in the catalogue for benefits of 2 module RCBO's for other RCBO sensitivities please consult us.

Invicta 63Mk2



dimensions

cat. ref.	height	width	depth
JK204P / JK204P1	500	475	160
JK206P / JK206P1	560	475	160
JK208P / JK208P1	620	475	160
JK212P / JK212P1	750	475	160
JK216P / JK216P1	1050	475	160
JK220P / JK220P1	1150	475	160
JK224P / JK224P1	1250	475	160
JK248P / JK248P1	1050	475	160
JK266P / JK266P1	1050	475	160
JK284P / JK284P1	1050	475	160

pan assemblies

cat.ref.	height H	width W	depth D
JK204PA	382	248	115
JK206PA	435	248	115
JK208PA	489	248	115
JK212PA	596	248	115
JK216PA	852	248	115
JK220PA	959	248	115
JK224PA	1066	248	115

terminals

no. of TP ways	neutral	earth
4	4 x 16mm ²	4 x 16mm ²
6	6 x 16mm ²	6 x 16mm ²
8	8 x 16mm ²	8 x 16mm ²
12	12 x 16mm ²	12 x 16mm ²
16	16 x 16mm ²	16 x 16mm ²
20	20 x 16mm ²	20 x 16mm ²
24	24 x 16mm ²	24 x 16mm ²

IP65 TP&N distribution boards

cat. ref.	height	width	depth
JK204D / JK204F	800	600	300
JK206D / JK206F	800	600	300
JK208D / JK208F	800	600	300
JK212D / JK216D	1150	600	300
JK212F / JK216F	1150	850	300

extension boxes

cat. ref.	height	width	depth
for DIN rail mounting devices - 1/2 width			
JK204PDH	500	237.5	160
JK206PDH	560	237.5	160
JK208PDH	620	237.5	160
JK212PDH	750	237.5	160
JK216PDH	1050	237.5	160
JK220PDH	1150	237.5	160
JK224PDH	1250	237.5	160
filler boxes			
JK201PDH	250	237.5	160
JK202PDH	400	237.5	160
full width			
JK204PDF	500	475	160
JK206PDF	560	475	160
JK208PDF	620	475	160
JK212PDF	750	475	160
JK216PDF	1050	475	160
JK220PDF	1150	475	160
JK224PDF	1250	475	160
filler boxes			
JK201PDF	250	475	160
JK202PDF	400	475	160
plain door - 1/2 width			
JK204PSH	500	237.5	160
JK206PSH	560	237.5	160
JK208PSH	620	237.5	160
JK212PSH	750	237.5	160
JK216PSH	1050	237.5	160
JK220PSH	1150	237.5	160
JK224PSH	1250	237.5	160
filler boxes			
JK201PSH	250	237.5	160
JK202PSH	400	237.5	160
full width			
JK204PSF	500	475	160
JK206PSF	560	475	160
JK208PSF	620	475	160
JK212PSF	750	475	160
JK216PSF	1050	475	160
JK220PSF	1150	475	160
JK224PSF	1250	475	160
filler boxes			
JK201PSF	250	475	160
JK202PSF	400	475	160

Hager regional centres

To call directly to one of our five Regional Centres

Bristol Regional Centre

135 Aztec West
Almondsbury
Bristol
BS32 4UB
Tel: 01454 616245
Fax: 01454 617172

Falkirk Regional Centre

5a Callendar Business Park
Callendar Road
Falkirk
FK1 1XR
Tel: 01324 632128
Fax: 01324 631294

London Regional Centre

Warwick House
65-66 Queen Street
London
EC4R 1EB
Tel: 0207 3293891
Fax: 0207 3293893

Midlands Regional Centre

Hortonwood 50
Telford
Shropshire
TF1 7FT
Tel: 01952 675615
Fax: 01952 675626

Wakefield Regional Centre

Brindley Way
Wakefield 41 Ind. Estate
Wakefield
West Yorkshire
WF2 0XQ
Tel: 01924 871103
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