VERTIV.

Vertiv™ PowerBar iMPB IEC- Tap Off Units

Vertiv™ PowerBar iMPB Tap Off Units

Our data center customers benefit from unparalleled flexibility to adapt as their needs evolve, thanks to the innovative overhead power distribution system of the Vertiv™ PowerBar iMPB, offering seamless integration and scalable design. Supported by our robust global manufacturing network and efficient inter-regional product transfers, we effectively mitigate supply chain disruptions. This streamlined approach accelerates deployment, minimizing delays and ensuring smooth operations. With Vertiv's expertise, we simplify the design and integration of your entire power chain, delivering a tailored solution that sets us apart in offering unmatched, customized power solutions in the market.

Key Product Features

- Scalable: works in centers of any size.
- Flexible: supports myriad connection configs.
- Low Lead Times: Leaner lead times.
- Eco-Friendly: Lighter, easy to recycle aluminum conductor.
- Modular: Add tap-off boxes anywhere.
- Open track: Changes made easy.
- Integration: Works with Vertiv™ Switchgear and power products.
- Safe: IP2X/3X finger-safe rated.
- Easy install: thanks to sandwich-style joints.
- IEC 61439-6 compliant.

Overview

The Vertiv™ Powerbar iMPB is a medium power encased track busway system offering a variety of capacity and connection configurations to match your IT rack equipment requirements. With a range of 160A - 1000A, this aluminium chassis IP2X-rated busway provides optimal flexibility.

Ideally Suited For:

- Data centers of any size.
- Data centers with frequent or planned configuration changes.
- Single or dual-bus configurations.
- Raised and non-raised floors.

Benefits:

- Finger / touch safe IP2X certified.
- Live plug-n-play with the add-on capability of tap-off boxes.
- Solid Joint Pack construction.
- Open-face track allows for tap-off boxes to be placed anywhere along the busway.
- Tap-off boxes have mechanical and electrical interlocks utilizing an earth-first, break-last safety feature.
- Industry's most reliable and user friendly plug-in tap-off box design.

Tap Off Units

iMPB tap off units are engineered with the safety of the installer and user as the key criteria.

All tap off units have an 'earth first, break last' safety feature and can be safely installed using Powerbar's SafeWork Technology.

1. The units interlock onto the busway with a ground strip. This ensures that the ground is the first point of contact with the busbar system during installation.
2. The mechanical interlock secures the unit to the bar using high tensile strength lockable hardware which cannot be fitted incorrectly.
3. Once fitted to the bar, the engager handle can be turned. This lifts the contacts into the busway and has a positive lock once fully rotated.

Tap-off Box Benefits:

- Change power requirements easily.
- Plug and play to rack/rack PDU.
- No interruption to existing critical loads.
- No electrician required for installation.
- Amps and receptacles sized to meet server needs.
- Relocate and reuse tap-off boxes anywhere along the busway to maximize investment.

Tap-off Box Features:

- Up to 125A per tap off Box.
- Up to 600VAC.
- 15 to 25kA short circuit breaking capacity with higher kA circuit breakers available upon request.
- Accommodates up to 5 receptacles per box.
- Flush-mounted receptacles or drop cords with connectors.
- Can be placed anywhere along the busway.
- Tap-off boxes are easily installed on energized busway and are fully interchangeable.
- Tap-off units can be fitted with IEC 309 receptacles, NEMA receptacles or whip cords as required.

Metering

Vertiv™ PowerBar iMPB offers advanced metering which allows the user to monitor, integrate and display data centre power information via RJ45 Ethernet plug-in connections.

Final circuit monitoring is integrated into the busway to measure the total load of the busbar and tap off units. Power calculations of total input power for each busway run can also be provided.

Options:

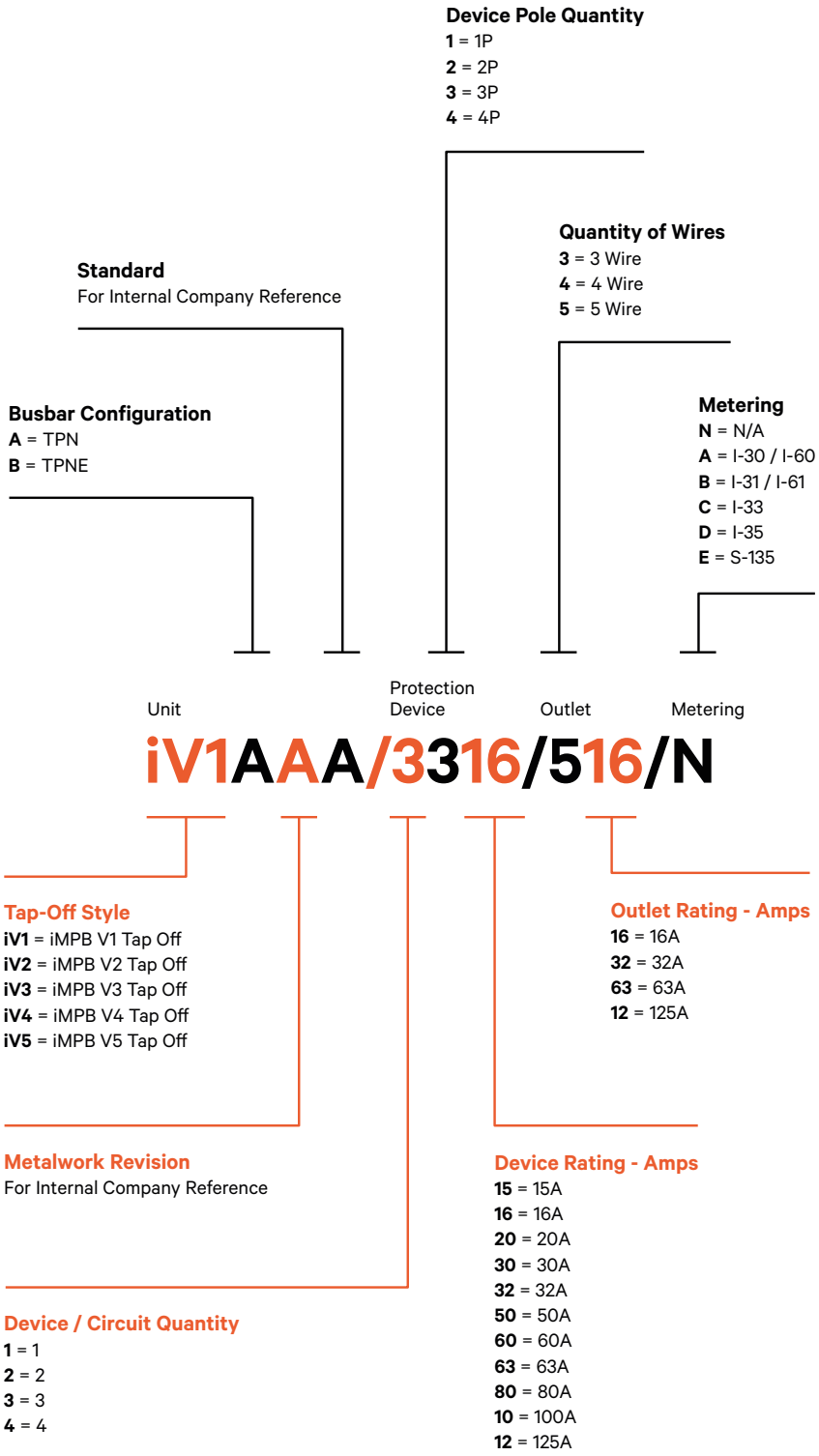
- Voltage for all three phases
- Current - phase, ground and neutral
- kW, KVa, kVAR, power factor, kWH

Advanced options:

- Voltage total harmonic distortion
- Overvoltage/ undervoltage alarm threshold
- Minimum and maximum current
- Demand and percentage load current
- Crest factor
- Warning and alarm threshold

It is also possible to monitor closed and trip status for each MCB. The status signals are fed back to the end feed using the integrated Ethernet cabling. The modules run in a daisy chain from meter to meter utilising the side channel in the housing for cabling.

Part Code Structure



iMPB Range V1

iMPB-TOB-V1

- In steel enclosure
- Outgoing device - MCB

Tap-off with MCB

			Dimensions (mm)		
Current (A)	**Voltage (V)**	**Approx. Weight (kg)**	**a**	**b**	**c**
32	440	4.5	130	232.5	233

Tap-off Style	Busbar Config	Metalwork Revison	Standard	Device/ Circuit Quantity	Device Pole Quantity	Device Rating (A)	Quantity of Wires	Outlet Rating (A)	Metering	Part No.
iMPB V1 Tap Off	A	A	A	1	3	15	5	16	N	iV1AAA[1]/1315[2]/516[3]/N
					1	16	3	16		iV1AAA[1]/1116[2]/316[3]/N
					3	20	5	32		iV1AAA[1]/1320[2]/532[3]/N
					3	30	5	32		iV1AAA[1]/1330[2]/532[3]/N
					1	32	3	32		iV1AAA[1]/1132[2]/332[3]/N

[1] : Specify busbar configuration and standard

[2] : Specifiy circuit quantity, device pole quantity, device rating

[3] : Specify quantity of wires and outlet rating

iMPB Range V2

iMPB-TOB-V2

- In steel enclosure
- Outgoing device - MCB

Tap-off with MCB

			Dimensions (mm)		
Current (A)	**Voltage (V)**	**Approx. Weight (kg)**	**a**	**b**	**c**
32	440	6	130	232.5	323

Tap-off Style	Busbar Config	Metalwork Revison	Standard	Device/ Circuit Quantity	Device Pole Quantity	Device Rating (A)	Quantity of Wires	Outlet Rating (A)	Metering	Part No.
iMPB V2 Tap Off	A	A	A	2	3	15	5	16	N	iV2AAA[1]/2315[2]/516[3]/N
					1	16	3	16		iV2AAA[1]/2116[2]/316[3]/N
					3	20	5	32		iV2AAA[1]/2320[2]/532[3]/N
					3	30	5	32		iV2AAA[1]/2330[2]/532[3]/N
					4	32	5	32		iV2AAA[1]/2432[2]/532[3]/N

[1] : Specify busbar configuration and standard

[2] : Specifiy circuit quantity, device pole quantity, device rating

[3] : Specify quantity of wires and outlet rating

iMPB Range V3

iMPB-TOB-V3

- In steel enclosure
- Outgoing device - MCB

Tap-off with MCB

			Dimensions (mm)		
Current (A)	**Voltage (V)**	**Approx. Weight (kg)**	**a**	**b**	**c**
63	440	7	130	232.5	413

Tap-off Style	Busbar Config	Metalwork Revison	Standard	Device/ Circuit Quantity	Device Pole Quantity	Device Rating (A)	Quantity of Wires	Outlet Rating (A)	Metering	Part No.
iMPB V3 Tap Off	A	A	A	3	3	15	5	16	N	iV3AAA[1]/3315[2]/516[3]/N
					2	16	3	16		iV3AAA[1]/3216[2]/316[3]/N
					3	20	5	32		iV3AAA[1]/3320[2]/532[3]/N
					3	30	5	32		iV3AAA[1]/3330[2]/532[3]/N
					1	32	3	32		iV3AAA[1]/3132[2]/332[3]/N

[1] : Specify busbar configuration and standard

[2] : Specifiy circuit quantity, device pole quantity, device rating

[3] : Specify quantity of wires and outlet rating

iMPB Range V4

iMPB-TOB-V4

- In steel enclosure
- Outgoing device - MCB

Tap-off with MCB

			Dimensions (mm)		
Current (A)	**Voltage (V)**	**Approx. Weight (kg)**	**a**	**b**	**c**
63	440	8	130	232.5	503

Tap-off Style	Busbar Config	Metalwork Revison	Standard	Device/ Circuit Quantity	Device Pole Quantity	Device Rating (A)	Quantity of Wires	Outlet Rating (A)	Metering	Part No.
iMPB V4 Tap Off	A	A	A	4	1	15	3	16	N	iV4AAA[1]/4115[2]/316[3]/N
	A	A	A	4	1	16	3	16	N	iV4AAA[1]/4116[2]/316[3]/N
	A	A	A	4	1	20	3	32	N	iV4AAA[1]/4120[2]/332[3]/N
	A	A	A	4	1	30	3	32	N	iV4AAA[1]/4130[2]/332[3]/N
	A	A	A	4	1	32	3	32	N	iV4AAA[1]/4132[2]/332[3]/N

[1] : Specify busbar configuration and standard

[2] : Specifiy circuit quantity, device pole quantity, device rating

[3] : Specify quantity of wires and outlet rating

iMPB Range V5

iMPB-TOB-V5

- In steel enclosure
- Outgoing device - MCB

Tap-off with MCB

			Dimensions (mm)		
Current (A)	**Voltage (V)**	**Approx. Weight (kg)**	**a**	**b**	**c**
63	440	9	130	232.5	593

Tap-off Style	Busbar Config	Metalwork Revison	Standard	Device/ Circuit Quantity	Device Pole Quantity	Device Rating (A)	Quantity of Wires	Outlet Rating (A)	Metering	Part No.
iMPB V5 Tap Off	A	A	A	5	1	15	3	16	N	iV5AAA[1]/5115[2]/316[3]/N
	A	A	A	5	1	16	3	16	N	iV5AAA[1]/5116[2]/316[3]/N

[1] : Specify busbar configuration and standard

[2] : Specifiy circuit quantity, device pole quantity, device rating

[3] : Specify quantity of wires and outlet rating

Unique Part Code Order

Catalogue Part Number - 17 Characters

Unit | Protection Device | Outlet | Metering

iV1AAA/3316/516/N

Further detailed information

High Level Unit Details
- TOB Metalwork Size
- Busbar Configuration
- (TPN/TPNE)
- Metalwork Revision
- Standard

Further clarifications required
- System Voltage for the Busbar Run
- Crank Arm Position

High Level Protection Device Details
- Circuit Quantity
- MCB Poles
- MCB Amp Rating

Further clarifications required
- Device Manufacturer
- Curve Type
- Fault rating [Icu according to IEC 60974-2]

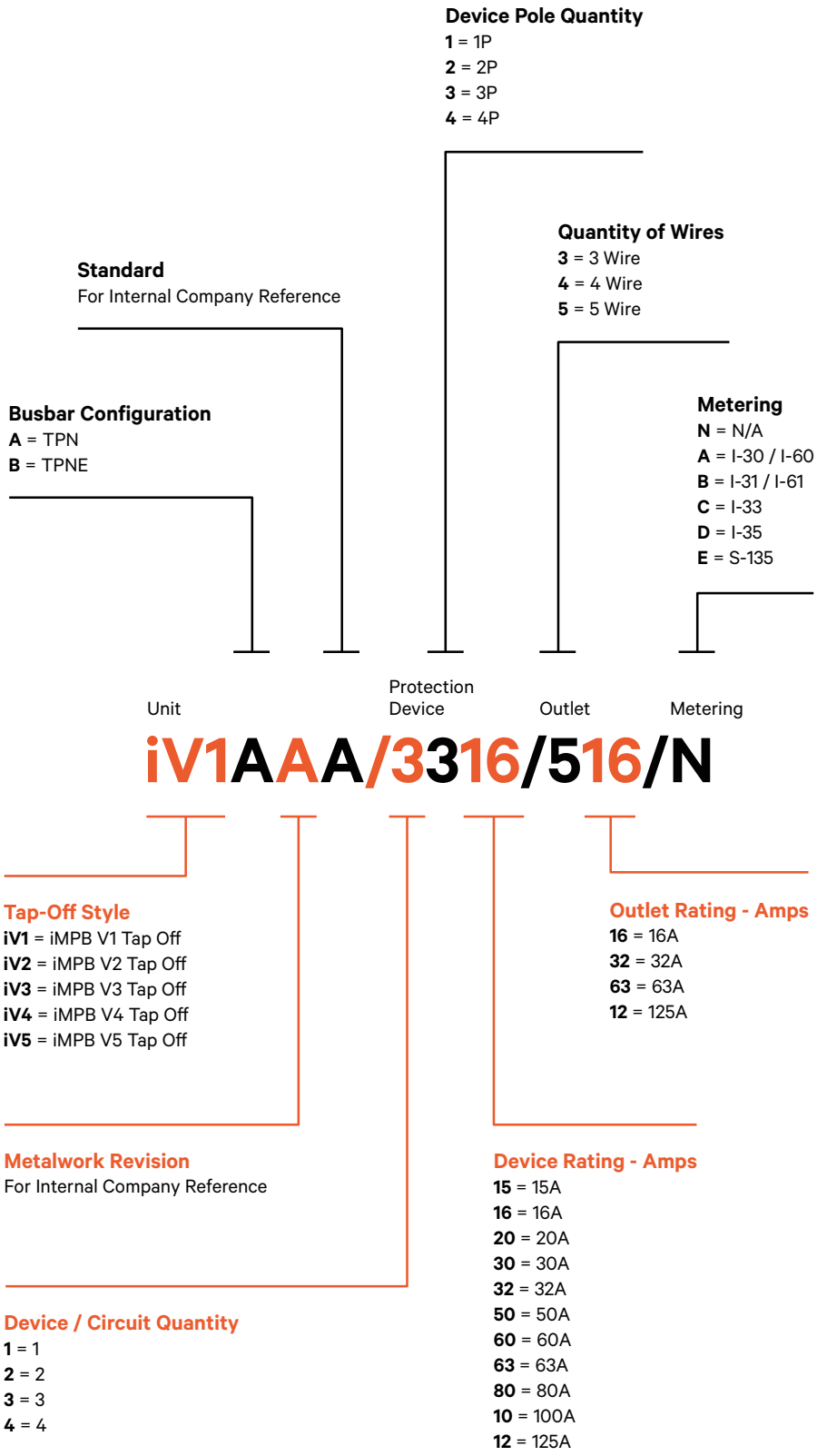
Metering Requirement
*Metering Required &
Metering Type

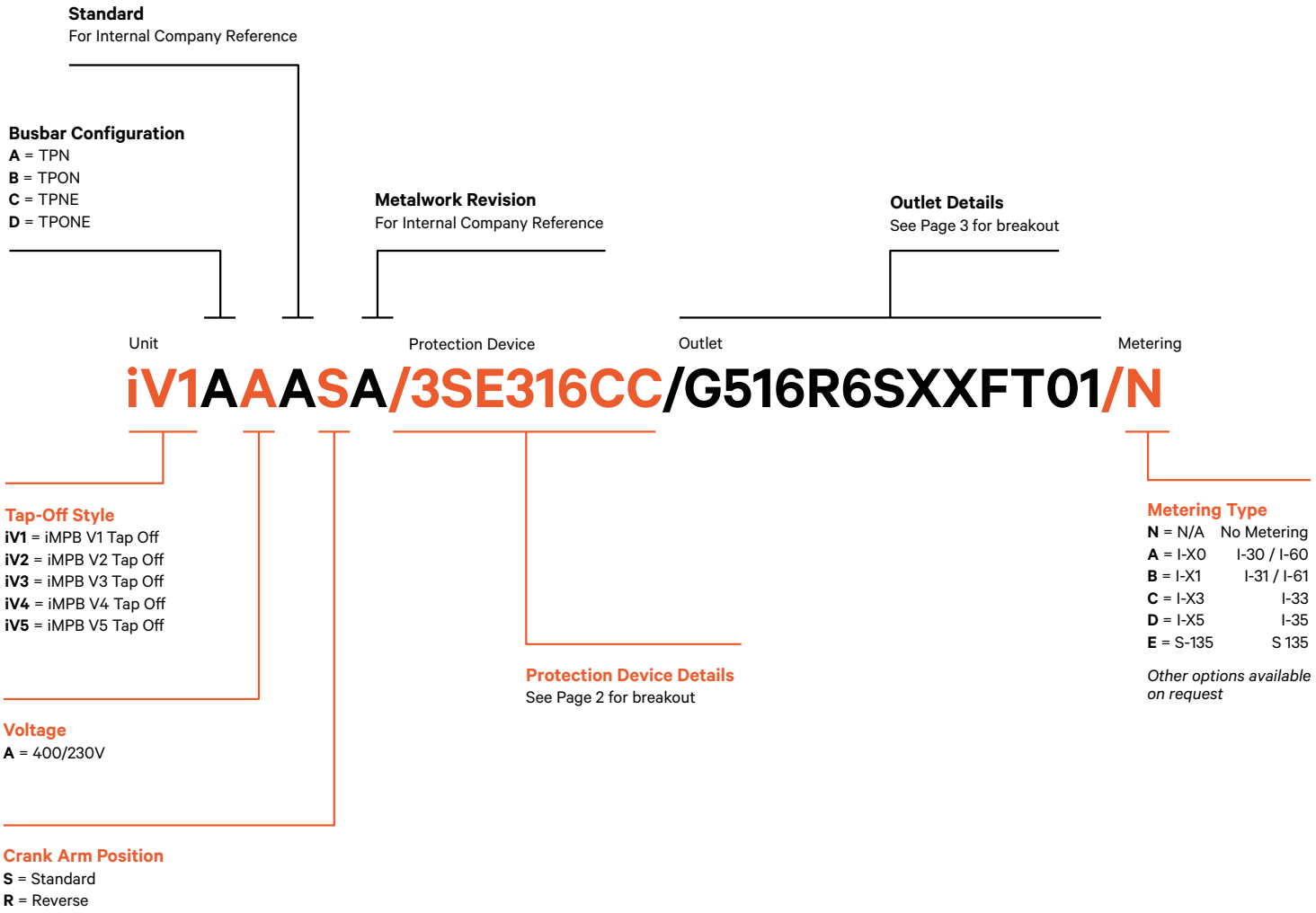
High Level Outlet Details
- Outlet Phasing
- Outlet Amp Rating

Further clarifications required
- Device Manufacturer
- Splash Proof or Waterproof
- Length of Drop Cord (if applicable)
- Outlet Mounting Position
- Phase configuration
- Outlet Wiring Configuration

Unique Part Order Code - 34 Characters

iV1AAASA/3SE316CC/G516R6SXXFT01/N


Device Pole Quantity
1 = 1P
2 = 2P
3 = 3P
4 = 4P
Quantity of Wires
3 = 3 Wire
4 = 4 Wire
5 = 5 Wire
Standard
For Internal Company Reference
Metering
N = N/A
A = I-30 / I-60
B = I-31 / I-61
C = I-33
D = I-35
E = S-135
Busbar Configuration
A = TPN
B = TPNE
Unit
Protection Device
Outlet
Metering
iV1AAA/3316/516/N
Tap-Off Style
iV1 = iMPB V1 Tap Off
iV2 = iMPB V2 Tap Off
iV3 = iMPB V3 Tap Off
iV4 = iMPB V4 Tap Off
iV5 = iMPB V5 Tap Off
Outlet Rating - Amps
16 = 16A
32 = 32A
63 = 63A
12 = 125A
Metalwork Revision
For Internal Company Reference
Device Rating - Amps
15 = 15A
16 = 16A
20 = 20A
30 = 30A
32 = 32A
50 = 50A
60 = 60A
63 = 63A
80 = 80A
10 = 100A
12 = 125A
Device / Circuit Quantity
1 = 1
2 = 2
3 = 3
4 = 4


Standard
For Internal Company Reference
Busbar Configuration
A = TPN
B = TPON
C = TPNE
D = TPONE
Metalwork Revision
For Internal Company Reference
Outlet Details
See Page 3 for breakout
Unit
Protection Device
Outlet
Metering
iV1AAASA/3SE316CC/G516R6SXXFT01/N
Tap-Off Style
iV1 = iMPB V1 Tap Off
iV2 = iMPB V2 Tap Off
iV3 = iMPB V3 Tap Off
iV4 = iMPB V4 Tap Off
iV5 = iMPB V5 Tap Off
Voltage
A = 400/230V
Crank Arm Position
S = Standard
R = Reverse
Protection Device Details
See Page 2 for breakout
Metering Type
N = N/A No Metering
A = I-X0 I-30 / I-60
B = I-X1 I-31 / I-61
C = I-X3 I-33
D = I-X5 I-35
E = S-135 S 135
Other options available on request

Drop Cord Length (If applicable)
XX = XX
05 = 0.5m
10 = 1m
15 = 1.5m
20 = 2m
25 = 2.5m
30 = 3m
35 = 3.5m
40 = 4m

Wiring Config

S01	L1	Single (1P+N+E)
S02	L2	
S03	L3	
S04	L1 - L2	
S05	L3 - L1	
S06	L2 - L3	
S07	L1 - L2 - L3	
S08	L1 - L2 - L3 - L1	
S09	L2 - L3 - L1 - L2	
S10	C - A - B - C	
S11	A - B - C - A - B	
S12	B - C - A - B - C	
S13	C - A - B - C - A	
S14	A - All Circuits	
S15	B - All Circuits	
S16	C - All Circuits	
T01	A/B/C - All Circuits	Three (3P+N+E)

Outlet Manufacturer
H = HUBBELL
G = GEWISS
C = CEENORM
B = BULGIN
M = MK ELECTRIC
N = No Outlet (HARDWIRED)
A = ABB
L = LEVITON

Outlet

G516R6SXXFT01

Outlet Config / Type - *Wire Qty / Amp / Type / Reference h / IP (IEC only)*

IEC Config / Type	
316R6S	IEC309 - 16A 1P3W 6Hr Blue IP44 Receptacle
516R6S	IEC309 - 16A 3P5W 6Hr Blue IP44 Receptacle
316C6S	IEC309 - 16A 1P3W 6Hr Blue IP44 Connect
516C6S	IEC309 - 16A 3P5W 6Hr Blue IP44 Connector
316R6W	IEC309 - 16A 1P3W 6Hr Blue IP66 Receptacle
516R6W	IEC309 - 16A 3P5W 6Hr Blue IP66 Receptacle
316C6W	IEC309 - 16A 1P3W 6Hr Blue IP66 Connector
516C6W	IEC309 - 16A 3P5W 6Hr Blue IP66 Connector
332R6S	IEC309 - 32A 1P3W 6Hr Blue IP44 Receptacle
532R6S	IEC309 - 32A 3P5W 6Hr Blue IP44 Receptacle
332C6S	IEC309 - 32A 1P3W 6Hr Blue IP44 Connector
532C6S	IEC309 - 32A 3P5W 6Hr Blue IP44 Connector
332R6W	IEC309 - 32A 1P3W 6Hr Blue IP66 Receptacle
532R6W	IEC309 - 32A 3P5W 6Hr Blue IP66 Receptacle
332C6W	IEC309 - 32A 1P3W 6Hr Blue IP66 Connector
532C6W	IEC309 - 32A 3P5W 6Hr Blue IP66 Connector
363R6W	IEC309 - 63A 1P3W 6Hr Blue IP66 Receptacle
563R6W	IEC309 - 63A 3P5W 6Hr Blue IP66 Receptacle
363C6W	IEC309 - 63A 1P3W 6Hr Blue IP66 Connector
563C6W	IEC309 - 63A 3P5W 6Hr Blue IP66 Connector
3125R6W	IEC309 - 125A 1P3W 6Hr Blue IP66 Receptacle
5125R6W	IEC309 - 125A 3P5W 6Hr Blue IP66 Receptacle
3125C6W	IEC309 - 125A 1P3W 6Hr Blue IP66 Connector
5125C6W	IEC309 - 125A 3P5W 6Hr Blue IP66 Connector

Outlet Position
F = Front
E = Earth Side

Device Rating - Amps

15 = 15A
16 = 16A
20 = 20A
30 = 30A
32 = 32A
50 = 50A
60 = 60A
63 = 63A
80 = 80A
10 = 100A
12 = 125A

Device kA Rating (Icu according to IEC 60974-2)

A = 10kA
B = 14kA
C = 15kA
D = 16kA
E = 22kA
F = 25kA
G = 36kA
H = 50kA
J = 200kA

Device Manufacturer

AB = ABB
SE = Schneider
AB = ABB

Protection Device

3SE316CC

Device Quantity

1 = 1
2 = 2
3 = 3
4 = 4

Device Curve Type

B = B
C = C
D = D
K = K
Z = Z
N = N/A

Device Pole Quantity

1 = 1P
2 = 2P
3 = 3P
4 = 4P

Vertiv.com | **Vertiv Headquarters,** 505 N Cleveland Ave, Westerville, OH 43082, USA

SL-71368 (11/24)