Product data sheet
Characteristics

BDL46090LU
Circuit breaker, PowerPacT B, 90A, 4 pole, 600Y/347VAC, 14kA, lugs, thermal magnetic, 80%, control wire ON end



Main

Range	PowerPact
Product name	PowerPact B
Device short name	BD 090
Product or component type	Circuit breaker
Device application	Distribution

Complementary

[In] rated current	90 A
Poles description	4P
Protected poles description	4t
Control type	Toggle
Breaking capacity code	D
Breaking capacity	25 KA at 208Y/120 V AC 50/60 Hz conforming to UL 489 18 KA at 240 V AC 50/60 Hz conforming to UL 489 Icu 25 kA at 480/277 V AC 50/60 Hz conforming to UL 489 Icu 14 kA at 480 V AC 50/60 Hz conforming to UL 489 18 KA at 600Y/347 V AC 50/60 Hz conforming to UL 489 14 KA at 250 V DC conforming to UL 489 25 KA Icu 18 kA
[Ue] rated operational voltage	525 V AC 50/60 Hz conforming to UL 489
Network frequency	50/60 Hz
[Ics] rated service breaking capacity	25 KA at 220...240 V AC 50/60 Hz conforming to IEC 60947-2 14 KA at 500...525 V AC 50/60 Hz conforming to IEC 60947-2 18 KA at 380...415 V AC 50/60 Hz conforming to IEC 60947-2 18 KA at 440 V AC 50/60 Hz conforming to IEC 60947-2
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947-2
Trip unit technology	Thermal-magneticTM-D,
Continuous current rating	80 %
[Ui] rated insulation voltage	800 V conforming to IEC 60947-2
Trip unit name	TM-D
Suitability for isolation	Yes conforming to IEC 60947-2
Utilisation category	Category A
Mechanical durability	15000 Cycles conforming to IEC 947-1 Annex K ed 5.2
Electrical durability	10000 Cycles conforming to IEC 947-1 Annex K ed 5.2 at 440 V In
Connection pitch	27 Mm
AWG gauge	6 AWG...2/0 AWG fine stranded aluminium/copper 14 AWG...3/0 AWG rigid or stranded aluminium/copper
Local signalling	Presence of auxiliary contacts: flag (green)

Mounting mode	Clip-on (35 mm symmetrical DIN rail) By screws (plate)
Electrical connection	Everlink lug, line Everlink lug, load
Tightening torque	5 N.M for 2.5…16 mm² (14 AWG...4 AWG) 9 N.M for 25…95 mm² (3 AWG...3/0 AWG)
Number of slots	1 slot(s) for auxiliary switch OF (plug-in) 1 slot(s) for voltage release MN or MX (plug-in) 1 slot(s) for alarm switch SD (plug-in)
Wire stripping length	20 Mm
Colour	Grey (RAL 7016)
9 mm pitches	12
Height	137 Mm
Width	108 Mm
Depth	80 Mm
Net weight	1.441 Kg
Quantity per set	Set of 1
Circuit breaker application	HACR rated

Environment

Quality labels	CE
Standards	EN/IEC 60947-2 EN/IEC 60947-5-1 UL 489 NEMA AB1 GB 14048.2 NMX J-266 CSA C22.2 No 5
Product certifications	UL[RETURN]IEC[RETURN]CCC[RETURN]EAC[RETURN]CSA[RETURN]NOM
IP degree of protection	Front cover: IP40 conforming to IEC 60529
IK degree of protection	IK07 conforming to IEC 62262
Pollution degree	3 conforming to IEC 60947-1
Ambient air temperature for operation	-25…70 °C
Ambient air temperature for storage	-50…85 °C
Operating altitude	2000 m without derating 5000 m with derating

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.43 Cm
Package 1 Width	12.7 Cm
Package 1 Length	20.32 Cm
Package 1 Weight	1.814 Kg
Unit Type of Package 2	S03
Number of Units in Package 2	8
Package 2 Height	30 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	5.800 Kg

Offer Sustainability

Recyclability potential, in %	55
Total lifecycle Carbon footprint	232 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	8.926027641774093
Carbon footprint of the manufacturing phase [A1 to A3]	9 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.48657929220696505

Carbon footprint of the installation phase [A5]	0.5 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	219.6041394604409
Carbon footprint of the use phase [B2, B3, B4, B6]	220 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	2.8403278929436455
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	232
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	42816a74-6c29-4456-9183-8c3fa59a5a4c
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
Halogen-free status	Halogen free product
PVC free	Yes
End of life manual availability	No need of specific recycling operations
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised