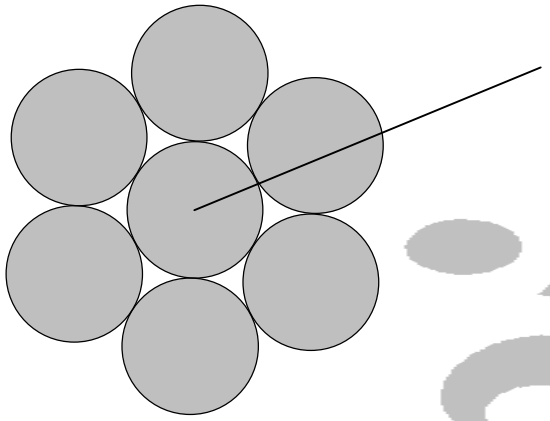
PRYSMIAN

Prysmian Australia Pty. Ltd.
A.C.N. 096 594 080 A.B.N. 36 096 594 080
Locked Bag 7042
Liverpool Business Centre 1871 NSW, Australia

A brand of the Prysmian Group

This document remains the property of Prysmian Australia Pty.Ltd
The copying or distribution of this document or any information
it contains, by anyone other than Prysmian is strictly prohibited.





MECHANICAL / PHYSICAL PROPERTIES & DATA	UNITS	VALUE
CONDUCTOR TYPE:	-	AAAC (1120)
CONDUCTOR CODE NAME:	-	FLUORINE
CONDUCTOR STRANDING:	No./mm	7 / 3.00
TOTAL CONDUCTOR C.S.A. (NOMINAL):	mm²	49.48
CONDUCTOR DIAMETER (NOMINAL):	mm	9.0
CALCULATED BREAKING LOAD (CBL)	kN	11.8
FINAL MODULUS OF ELASTICITY (Calculated):	GPa	65
COEFFICIENT OF LINEAR EXPANSION:	/ °C x 10^{-6}	23
MINIMUM BENDING RADIUS (DURING INSTALLATION):	mm	180
MINIMUM BENDING RADIUS (INSTALLED SET IN POSITION):	mm	110
MINIMUM DRUM BARREL DIAMETER:	mm	215
MINIMUM RECOMMENDED BENDING (SHEAVE) DIAMETER:	mm	180
CONDUCTOR MASS (NOMINAL):	kg/km	135.4

NOTES:
• The value provided for CBL is calculated as per AS1531, and is a nominal value only.

ELECTRICAL PROPERTIES AND DATA	UNITS	VALUE
DC RESISTANCE (MAXIMUM):	Ω/km @20°C	0.599
AC RESISTANCE (MAXIMUM):	Ω/km @75°C	0.731
EQUIVALENT ALUMINIUM AREA (NOMINAL):	mm²	47.2
EQUIVALENT COPPER AREA (NOMINAL):	mm²	29.6
CURRENT RATING WINTER NIGHT (RURAL WEATHERED) STILL:	A	157
CURRENT RATING WINTER NIGHT (RURAL WEATHERED) 1 m/s WIND:	A	261
CURRENT RATING WINTER NIGHT (RURAL WEATHERED) 2 m/s WIND:	A	303
CURRENT RATING SUMMER NOON (RURAL WEATHERED) STILL:	A	118
CURRENT RATING SUMMER NOON (RURAL WEATHERED) 1 m/s WIND:	A	232
CURRENT RATING SUMMER NOON (RURAL WEATHERED) 2 m/s WIND:	A	275
CURRENT RATING WINTER NIGHT (INDUSTRIAL WEATHERED) STILL:	A	171
CURRENT RATING WINTER NIGHT (INDUSTRIAL WEATHERED) 1 m/s WIND:	A	270
CURRENT RATING WINTER NIGHT (INDUSTRIAL WEATHERED) 2 m/s WIND:	A	311
CURRENT RATING SUMMER NOON (INDUSTRIAL WEATHERED) STILL:	A	110
CURRENT RATING SUMMER NOON (INDUSTRIAL WEATHERED) 1 m/s WIND:	A	228
CURRENT RATING SUMMER NOON (INDUSTRIAL WEATHERED) 2 m/s WIND:	A	272
INDUCTIVE REACTANCE TO 0.3 m:	Ω/km	0.285
INTERNAL REACTANCE:	Ω/km	0.0202
FAULT CURRENT RATING:	kA².sec	17.6
GEOMETRIC MEAN RADIUS:	mm	3.27

NOTES:
• The value provided for DC Resistance is calculated as per AS1531, and is a nominal value only.
CURRENT RATINGS:
(a) Values given are calculated only.
(b) **Summer Day** based on 35°C Ambient Air Temperature, Temperature Rise by 40°C to 75°C, Emissivity = 0.5, Absorbance = 0.5, Solar Radiation Intensity = 1000W/m², Wind Velocity = 1.0 m/s, and Angle Of Wind = 90°.
(c) **Winter Night** based on 10°C Ambient Air Temperature, Temperature Rise by 40°C to 50°C, Emissivity = 0.5, Absorbance = 0, Solar Radiation Intensity = Nil, Wind Velocity = 1.0 m/s, and Angle Of Wind = 90°.

Customer Approval:
Name*:
Signature*:
Position*:
Company*:
Date*:
***To be completed & returned at order.**

TITLE:

FLUORINE AAAC (1120) To AS 1531.

All Aluminium Alloy Conductor (AAAC) 1120 Bare Aluminium Overhead Conductor

Reason For Re-Issue:
Change of 3D drawing

Scale: NTS Colours are for illustration only and may not necessarily reflect actual colours in final product.

Drawn by: A. Vasta
Issue Date: 28-06-2022
Issue No.: 2

Drawing Ref No.:
20199270 FLUORINE AAAC 1120