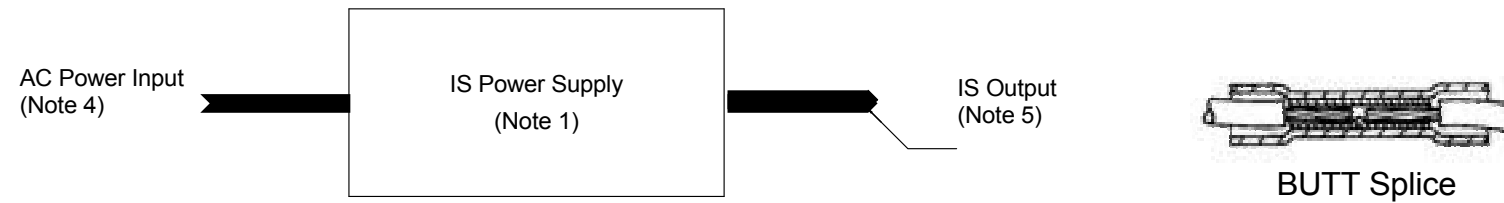


POWER SUPPLY TYPE PSU



REV	DESCRIPTION	DATE	REVISED BY	APPROVED BY
A	New drawing.	28 May 2004	R J Parsons	M Ward
B	Note changes	20 Aug 2004	A Masuskapoe	M Ward
C	Deleted SMC P/S, added cable p/n's	06 Jan 2005	A Masuskapoe	M Ward
D	Added cable p/n's for non-MSHA version	14 Oct 2005	A Masuskapoe	M Ward
E	Changed cable max L/R ratio in Note 5	14 Oct 2008	A Masuskapoe	M Ward
F	Changed document title for product branding	05 Feb 2009	A Masuskapoe	A Masuskapoe
G	Added Control PS-1558, deleted notes 2, 3 & 6.	14 Aug 2007	A Masuskapoe	M Ward
H	Note 4 added unlimited AWG14 cable length. Note 8.	20 Dec 2007	M Ward	M Ward
I	Added Control Acceptance #, limit AWG14 to 500'. 15A breaker iso 20A.	15 Apr 2009	M Ward	M Ward
J	Note 4: Add GFCI to breaker requirement. Note 5: specify 14/2C, 10'.	19 May 2009	M Ward	M Ward
K	Note 5: specify 14/2C, 500'.	03 Jun 2009	M Ward	M Ward
L	Specifying connection between PS and DC power cable. Note 5: Delete 23327-04-08	30 Jul 2009	A Masuskapoe	A Masuskapoe
M	Note 5: Changing DC power cable p/n's.	14 Aug 2009	A Masuskapoe	A Masuskapoe
N	Note 5: Removing cable L/R ratio.	2 Sept 2009	A Masuskapoe	A Masuskapoe
O	Note 5: Removing 22227 and 22228. Specifying 22426 cable, #16/4C and connection details.	8 Sept 2009	A Masuskapoe	A Masuskapoe
P	Note 4: Changing AC power cable requirements.	22 Nov 2010	A Masuskapoe	A Masuskapoe
Q	Note 4: AC power cable connections/conduit/installation.	6 Apr 2011	A Masuskapoe	A Masuskapoe
R	Note 4: Adding plug/receptacle, splice w/ junction box.	10 May 2011	A Masuskapoe	A Masuskapoe
S	Note 4: Add metallic junction box and grounding. Note 8: Add junction box/plug/receptacle in fresh air.	12 May 2011	A Masuskapoe	A Masuskapoe
T	Note 1: Adding Control power supply PS-1571.	7 Jun 2011	A Masuskapoe	A Masuskapoe
U	Note 4: Adding cable details. Note 5: Changing cable types, adding cable details.	1 Jul 2011	A Masuskapoe	A Masuskapoe
V	Note 5: Clarifying inductance, min capacitance, resistance.	12 Sep 2011	A Masuskapoe	A Masuskapoe
W	Note 1: Removing 1558 Power supply	4 Oct 2011	A Masuskapoe	A Masuskapoe

Note 1 Permissible IS Power Supply

IS Power Supply Mfr.	IS Power Supply P/N	MSHA Acceptance No.
Control International	PS-1558A	18-ISA080008-0
Control International	PS-1571	18-ISA110001-0

Note 2 Deleted, revision E.

Note 3 Deleted, revision E.

Note 4 AC Power Input 100-250V AC, 47-63Hz through approved, maximum instantaneous rated 15A GFCI circuit breaker. AC Power Cable: #14/3C, #12/3C, #14/3C SOOW, or #12/3C SOOW. MSHA approved flame-resistant or run in MSHA approved flame-resistant hose conduit. Temperature rating: -40 to 90 degrees C, Minimum voltage rating: 600 Vrms, Minimum current rating: 18A. Maximum cable length 600 feet. Cable must be protected from damage using one of the following methods: MSHA approved flame-resistant hose conduit, or suspended from the roof. AC power cable must connect to the power supply AC power input using one of the following methods: 1) through a 15A double insulated locking plug/receptacle. The receptacle must be on the cable side coming from the power center and the plug must be on the power supply end, or 2) through a splice as shown above. This splice must be housed in a metallic 4"x4" junction box with lid. The junction box must provide insulated cable strain relief for the incoming/outgoing AC cable and must also be grounded to the AC input cable ground wire.

Note 5 DC Power Cable, #14/2C or #16/2C. Maximum length 500 feet. MSHA approved flame-resistant or run in MSHA approved flame-resistant hose conduit. Minimum Voltage Rating: 600 Vrms. Maximum Loop Inductance: 0.220 uH/ft. Minimum Capacitance: 13 pF/ft. Minimum Loop Resistance: 2.5 ohms/500 ft. DC power cable connects to power supply through a Splice Unit type SPL.

Note 6 Deleted, revision E.

Note 7 WARNING - Any changes in the intrinsically safe circuits or components may result in an unsafe condition.

Note 8 Power Supply and AC power cable junction box or AC power cable plug/receptacle must remain in FRESH AIR during normal mining operations.

DO NOT CHANGE
WITHOUT
APPROVAL OF
MSHA

TITLE Smart Com 150IS Leaky Feeder System Layout		
SHEET 2 of 2	DRAWN BY M. Ward	DATE 28-May-04
CAD FILE NAME MSHA-IS-01		Varis Mine Technology Ltd.