HONGSA MINE MOUTH POWER PROJECT
Material Handling System Package

AUTOMATION
TECHNICAL DATA SHEET OF VVVF DRIVE
FOR
WINCH DRIVE - WASTE LINE2 - M6, M7 & M8
(Electrical - Group 30)

SANDVIK ASIA PRIVATE LIMITED
SANDVIK MINING SYSTEMS

ISSUED FOR ERECTION

DHRUBA JYOTI SARKAR
Date...29/08/14....

Rev	Date	Description	Prepared	Checked	Approved
A	16.12.2013	ISSUED FOR APPROVAL	AP-D/LV	ARR	ARR

CLIENT

HONGSA POWER

HONGSA POWER COMPANY LIMITED

DRG. NO.

Released for Approval

Date	04.12.2013				
Signed	ARR				
	Date	Name	Scale		
Designed	04.12.2013	AP-D/LV			
Drawn	04.12.2013	AP-D/LV	Material		
Checked	04.12.2013	ARR			
Signed	04.12.2013	ARR	Mass		
Sandvik Drg. No. 1043C00M-30-822-01			Sheets Encl.	Rev.	Size
ABB DRG.NO. 3BYN463001-DGU			1	A	A4

ABB LTD, Bangalore

Sandvik Mining and Construction Materials Handling

Title WINCH DRIVE - WASTE LINE2 - M6, M7 & M8

C1043-HONGSA MINE MOUTH POWER PROJECT-COAL HANDLING SYSTEM

TECHNICAL DATA SHEET OF VVVF DRIVE

	Project: M/S HONGSA MINE MOUTH POWER PROJECT	
	DRAWING NO.	
	ABB DOC NO.	3BYN463001-DGU
	DATA SHEET for winch M6,M7,M8	
Sl.No	**Description**	**45 kW**
Variable Voltage Variable Speed Drives Systems		
1	Manufacturer's Name	M/s ABB ltd.
2	Type & FrameSize	ACS800-04-0070-5
3	Quantity	3
4	Application	Winch
5	Enclosure Protection Rating	IP-42
6	Output Current Rating at ambient temperature (45 Deg. C)	91.2 (I cont)
7	% Derating considered for specific ambient	1% every 1 °C above 40 °C
8	Rated Voltage (volts)	500V
9	Output Frequency Range (Hz)	0-300Hz
10	Number of Phases and frequency (Hz)	3Phase, 50 Hz
11	Rectifier type & Design	6 Pulse Diode bridge
12	Inverter type & Design	IGBT based
13	Min/Recommended/Max switching frequencies (kHz)	3kHz
14	Filters	
	a) Lineside	Inbuilt
	b) Loadside	NA
15	Drive input	SFU-125A
16	Output Modulation method	PWM/DTC
17	Speed Accuracy (+/- %)	10% of motor slip
18	Response Time (Speed)	<5ms with nominal Torque
19	Response Time (Torque)	<5ms with nominal Torque
20	Degree of Protection for enclosure	IP42
21	Type of Cooling	Drive module internal
22	Cooling Air/Fluid flow required (L/S)	250 m^3/h
23	Load Cycle - Continuous or otherwise	150% OL for 60s every 300s
24	Whether VVFC suitable for outdoor location	No
25	Drive control capabilities	
	a) Start/Stop Push Buttons.	On CDP
	b) Profibus control	Yes
	c) Describe VVFC display (colour or B&W, # of lines, # of charecters per line, graphics. Attatch sample image.)	4 line, 20 character AlphaNumeric detachable display
26	Permisible % variation in	
	a) Voltage	10%
	b) Frequency	5%
27	Load Parameters at rated voltage & frequency	
	a) Output Frequency (Hz)	0-300Hz
	b) Full Load Current (Amps)	Same as Motor FLC
	c) No load current	Same as Motor No Load Current
	d) VVFC heat dissipation (kW)	1440W
28	VVFC Efficiency	
	At 100% Speed	
	a) at full rated torque	approx 98%
	b) at 75% of full load torque	approx 96%
	c) at 50% of full load torque	approx 94%
29	Drive Power Factor range	
	a) at rated speed, torque	0.98 (Fundamental)
30	Space Heaters for Anticondensation	Considered
31	Dimensions: (width)X(height)X(depth) (m) if broke down for shipping, list total size & size off largest single piece)	
	a) VVFC	0.5m*0.6m*2.24m (Width*Depth*Height)
32	Weight (kg)	
	a) VVFC	Approx 200
33	Maximum recommended cable length	300 meter
SIGN:		