

Fire alarm

CLIENT CONSULTANT:

مونکو ایران
Monenco Iran



PROJECT:
KOFESHEH
132 KV SUBSTATION

CLIENT:



FIRE ALARM AND DETECTION AND ALARM SYSTEM TECHNICAL DATA SHEET

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**FIRE ALARM AND DETECTION SYSTEM
TECHNICAL DATA SHEET**



ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
1	FACP (FIRE ALARM CONTROL PANEL)			
1.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-25°C to 50°C
1.2	Amb. Relative Hummidity Max.	%	95%	95%
1.3	Normal operation temperature	°C	-20 TO 50C	-20°C to 50°C
1.4	Input voltage	V	220 VAC	220 VAC
1.5	Output voltage	V	24VDC	24 VDC
1.6	Output current			0.95 A
1.7	Manufactured to which standard			EN54 - EN12094 - EN60950
1.8	Dimensions			H x W x D 300 x 370 x 118 mm
1.9	Weight			2 kg
1.10	Color			Black RAL7035
1.11	Fully programmable	Yes/No	Yes	Yes
1.12	Password protection	Yes/No	Yes	Yes
1.13	Event History	Yes/No	Yes	Yes
1.14	RS 232 / RS 485	Yes/No	Yes	Yes
1.15	Isolation facility	Yes/No	Yes	Yes
1.16	Paging System interface	Yes/No	Yes	Yes
1.17	Net work facility			
1.18	Ingress protection		IP42	IP40

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
1.19	Temperature rating	°C	MAX. 50C	MAX 60°C
1.20	MOUNTING		Recessed	Recessed - Wall-mounted
1.21	cable access		Bottom	Bottom
1.22	Quantity	No.	According To Design	-1-
1.23	Other specifications			In conformity with 3KS of CEI 74
1.24	Loop number	No.	According To Design	According to design
1.25	Backup Battery	Yes/No	YES (According To NFPA)	Yes
1.26	DISPLAY		LCD	LED
1.27	LED ZONE (INDICATOR)	Yes/No	Yes	Yes
1.28	Charger	Yes/No	Yes	Yes
1.29	Type	Addressable/ Conventional	ADDRESSABLE	ADDRESSABLE
1.30	Certificate			ATEX 2088
1.31	Relay card			Yes
1.32	Model No.			ALPHA 4/8/12
1.33	Manufacturer			MD3 - France
1.34	Requisition No.			
1.35	P.O. No.			

**FIRE ALARM AND DETECTION SYSTEM
TECHNICAL DATA SHEET**



ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
2	FIX HEAT DETECTOR			
2.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-10 to 50°C
2.2	Amb. Relative Humidity Max.	%	95%	% 93
2.3	Normal operation temperature	°C	-20 TO 50C	-10 to 50°C
2.4	Type and model	Addressable/Conventional	ADDRESSABLE	ADDRESSABLE
2.5	Function		Heat Detector	Heat detector
2.6	Supply voltage	V	17-28 v dc	20V dc
2.7	Current at 24 vdc			20-30 mA
2.8	Alarm current at 24vdc			32 mA
2.9	Humidity	%	0-95%	0-93%
2.10	Manufactured to which standard			EN54-5 For 2000
2.11	Dimensions			H:55 D:104
2.12	Weight			130g
2.13	Color		WHITE	White
2.14	Ingress protection		IP53	IP32
2.15	Sensibility range for		SENSITIVITY IS AUTOMATICALLY ADJUST	OK
2.16	Alarm indicator	Color/type	Red LED	LED
2.17	Grade		1	

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
2.18	Response time	Low/Fast	Fast	Fast
2.19	Initiating temperature			-10 to +50
2.20	Mounting		Base	Base
2.21	Body & housing material			ABS
2.22	Output signal		Serial out put	
2.23	Detector type			
2.24	Material		Fire Retardant Plastic	
2.25	Sensor Type		fixed temperature	Fixed
2.26	Certificate			
2.27	Model No.			TRC05
2.28	Manufacturer			MO3
2.29	Requisition No.			
2.30	P.O. No.			
3	RATE OF RISE HEAT DETECTOR			
3.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-10 to 50°C
3.2	Amb. Relative Hummidity Max.	%	95%	93%
3.3	Normal operation temperature	°C	-20 TO 50C	-10 to 50°C
3.4	Type and model	Addressable/Conventional	ADDRESSABLE	Addressable

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
3.5	Function		Heat Detector	Heat detector
3.6	Supply voltage	V	17-28 v dc	20 vdc
3.7	Current at 24 vdc			20-30 mA
3.8	Alarm current at 24vdc			32 mA
3.9	Humidity	%	0-95%	0-93%
3.10	Manufactured to which standard			EN54-5 Gd 2000
3.11	Dimensions			65.55 D104
3.12	Weight			130 g
3.13	Color		White	white
3.14	Ingress protection		IP53	IP32
3.15	Sensibility range for		Sensitivity Is Automatically Adjust	OK
3.16	Alarm indicator	Color/type	Red LED	LED
3.17	Grade		1	1
3.18	Response time	TEMP.RISE °C/min	1, 3, 5, 10, 20, 30	9°C/min
		GRADE1:min/sec s	34:11, 9:33, 5:24, 2:52, 1:42, 1:17	
3.19	Initiating temperature			-10 to 50°C
3.20	Mounting		Base	Base
3.21	Body & housing material			ABS

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
3.22	Output signal		Serial out put	
3.23	Detector type			Heat ROR
3.24	Material		Fire Retardant Plastic	OK
3.25	Sensor Type		Rate of rise	ROR
3.26	Certificate			
3.27	Model No.			TRC05-0R
3.28	Manufacturer			M03
3.29	Requisition No.			
3.30	P.O. No.			
4	SMOKE DETECTOR			
4.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-10 to 50°C
4.2	Amb. Relative Humidity Max.	%	95%	93%
4.3	Normal operation temperature	°C	-20 TO 50C	-10 to 50°C
4.4	Type and model	Addressable/ Conventional	ADDRESSABLE	Addressable
4.5	Supply voltage	V	17-28 v dc	20 vdc
4.6	Current at 24 vdc			25 mA
4.7	Alarm current at 24vdc			32mA

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
4.8	Humidity	%	0-95%	0-97%
4.9	Manufactured to which standard			GS54-7 Ed 2000
4.10	Dimensions			H855 D8104
4.11	Weight		WHITE	White - 130g
4.12	Color			White
4.13	Ingress protection		IP43	IP32
4.14	Sensibility range for		SENSITIVITY IS AUTOMATICALLY ADJUST	OK
4.15	Alarm indicator	Color/type	Red LED	LED
4.16	Response time	Low/Fast	FAST	fast
4.17	Initiating temperature			-10 to 50°C
4.18	Temperature rating	°C	MAX. 50C	Max 50°C
4.19	Quantity (CON.-ADD.-EX.-ISO.)		ACCORDING TO DESIGN	OK
4.20	Detector type		OPTICAL	Optical
4.21	Material		Fire Retardant Plastic	ABS - Fire Retardant
4.22	Certificate			
4.23	Model No.			OCO5
4.24	Manufacturer			MD3
4.25	Requisition No.			
4.26	P.O. No.			

**FIRE ALARM AND DETECTION SYSTEM
TECHNICAL DATA SHEET**



ITEM	DESCRIPTION	UNIT	OFFERED DATA	REQUIRED DATA	OFFERED DATA
5	BEAM DETECTOR				
5.1	Amb. Temp. Min / Max	°C		-25 TO 50C	-10°C to 50°C
5.2	Amb. Relative Hummidity Max.	%		0.95	92%
5.3	Normal operation temperature	°C		-20 TO 50C	-10 to 50°C
5.4	Type and model	Addressable/ Conventional		ADDRESSABLE	Addressable
5.5	Supply voltage	V		17-28 v dc	13-28 Vdc
5.6	Current at 24 vdc				Potato 22mA starting up then 50-60 mA max
5.7	Alarm current at 24vdc				0 mA
5.8	Humidity	%		0-95%	92%
5.9	Manufactured to which standard				GSY-12 CE0722Ex II
5.10	Dimensions				L:160 H:160 D:140
5.11	Weight				
5.12	Color			WHITE	White
5.13	Ingress protection			IP53 (Indoor) , IP65 (Outdoor)	IP66
5.14	Diameter of infra-red	m		min:3m	3-30 m
5.15	Alarm indicator	Color/type		Red LED	LED
5.16	maximum distance	m		100	
5.17	Normal operation temperature	°C		-20 TO 60C	-10°C to 50°C

**FIRE ALARM AND DETECTION SYSTEM
TECHNICAL DATA SHEET**



ITEM	DESCRIPTION	REQUIRED DATA	UNIT	REQUIRED DATA	OFFERED DATA
5.18	Quantity			ACCORDING TO DESIGN	OK
5.19	Automatic Gain Control		Yes/No	Yes	Yes
5.20	Fault alarm indication		Yes/No	Yes	Yes
5.21	Material			Fire Retardant Plastic	ABS - Fire Retardant
5.22	Certificate				
5.23	Model No.				DLF B30 R Ex
5.24	Manufacturer				MO3
5.25	Requisition No.				
5.26	P.O. No.				
6	LHD (LINEAR HEAT DETECTOR)				
6.1	Amb. Temp. Min / Max		°C	-25 TO 50C	-10 to 50°C
6.2	Amb. Relative Humidity Max.		%	95%	92%
6.3	Normal operation temperature		°C	-20 TO 50C	-10 to 50°C
6.4	Type and model		Addressable/ Conventional	ADDRESSABLE	Addressable
6.5	Supply voltage		V	17-28 v dc	
6.6	Current at 24 vdc				
6.7	Maximum Ambient Install Temperature				65°C - 105°C
6.8	Manufactured to which standard				

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
6.9	Ingress protection		IP53 (Indoor) , IP65 (Outdoor)	IP66
6.10	Alarm Temp.	°C	60-70c	68°C Alarm
6.11	Manufactured to which standard			
6.12	Sheating		Advanced Polymer Thermal Reactant. twisted pair	Extruded thermoplastic - Red
6.13	Metallic Core		Tin For Corrosion Resistance. steel provides tensile strength copper increases conductivity	Copper covered steel wire
6.14	Outer Covering		Chemical and UV Resistant	OK
6.15	Quantity		According To Design	OK
6.16	Certificate			
6.17	Model No.			HC68
6.18	Manufacturer			MD3
6.19	Requisition No.			
6.20	P.O. No.			
7	GD (GAS DETECTOR)			
7.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-10 to 50°C
7.2	Amb. Relative Humidity Max.	%	95%	93%
7.3	Normal operation temperature	°C	-20 TO 50C	-10 to 50°C

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
7.4	Type and model		Electro Chemical (Domestic gas)	
7.5	Supply voltage	V	17-28 v dc	20 vdc
7.6	Current at 24 vdc			
7.7	Sensor life			
7.8	Humidity	%	0-95%	93%
7.9	Manufactured to which standard		proper type suitable for area classification	OK!
7.10	Weight			
7.11	Dimensions			
7.12	Color		WHITE	white
7.13	Manufactured to which standard			
7.14	Ingress protection		IP54	IP55
7.15	Body material		316 stainless steel	Stainless steel
7.16	Alarm indication	Yes/No	Yes	Yes
7.17	Set point adjustment	PPM	0-50 PPM	
7.18	Normal operation temperature	°C	-20 TO 60C	-10 to 50°C
7.19	Quantity		According To Design	OK
7.20	output signal	No.	1 No SPDT, 1Amp-24VDC	10-24 vdc
7.21	Material		Fire Retardant Plastic	Fire Retardant

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	REQUIRED DATA	UNIT	REQUIRED DATA	OFFERED DATA
7.22	Certificate				
7.23	Model No.				GD100-A
7.24	Manufacturer				MD3
7.25	Requisition No.				
7.26	P.O. No.				
8	H2 GAS DETECTOR				
8.1	Amb. Temp. Min / Max		°C	-25 TO 50C	-15 to 50°C
8.2	Amb. Relative Hummidity Max.		%	95%	93%
8.3	Normal operation temperature		°C	-20 TO 50C	-10 to 50°C
8.4	Type and model			Electro Chemical (H2 Gas)	H2 Gas
8.5	Supply voltage		V	17-28 v dc	18-28 vdc
8.6	Alarm current at 24vdc				
8.7	Current at 24 vdc				32 mA
8.8	Sensor life		Year	at least 3 years	3 years
8.9	Manufactured to which standard				
8.10	Dimensions				
8.11	Weight				
8.12	Color			WHITE	White

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
8.13	Ingress protection		IP54	IP55
8.14	Body material			
8.15	Alarm indication	Yes/No	Yes	Yes
8.16	Set point adjustment	PPM	0-50 PPM	OK
8.17	Normal operation temperature	°C	-20 TO 60C	-10 to 55°C
8.18	Quantity		According To Design	OK 1.
8.19	output signal		1 No SPDT, 1Amp-24VDC	OK
8.20	Material		Fire Retardant Plastic	OK
8.21	Certificate			
8.22	Area Classification		Explosion proof	OK 1.
8.23	Model No.			GD104A
8.24	Manufacturer			MD3
8.25	Requisition No.			
8.26	P.O. No.			
9	BEACONE			
9.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-20 to 50°
9.2	Amb. Relative Hummidity Max.	%	95%	93%
9.3	Normal operation temperature	°C	-20 TO 50C	-15 to 50°C

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
9.4	Type and model	Addressable/Conventional	ADDRESSABLE	Addressable
9.5	Current at 24 vdc			
9.6	Alarm current at 24vdc			
9.7	Nominal voltage			
9.8	Manufactured to which standard			EN54-3
9.9	Dimensions			
9.10	Color		Red	Red
9.11	Weight			
9.12	Ingress protection		IP53 (Indoor) , IP65 (Outdoor)	IP66
9.13	Temperature rating	°C	-25 TO 55C	-20 to 50°C
9.14	Flash rate			
9.15	Quantity		According To Design	OK
9.16	Response time		Immediate Response	
9.17	MOUNTING		Wall Mounted	Wall-mounted
9.18	Nominal voltage	V	6-25VDC	OK
9.19	Initiating temperature			
9.20	Material		Fire Retardant Plastic	OK
9.21	Certificate			
9.22	Model No.			85wx

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
9.23	Manufacturer			MD3
9.24	Requisition No.			
9.25	P.O. No.			
10	SOUNDER			
10.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-20 to 50°C
10.2	Amb. Relative Humidity Max.	%	95%	93%
10.3	Normal operation temperature	°C	-20 TO 50C	-15 to 50°C
10.4	Type and model	Addressable/Conventional	ADDRESSABLE	Addressable
10.5	Nominal voltage			
10.6	Current at 24 vdc			
10.7	Alarm current at 24vdc			
10.8	Manufactured to which standard			
10.9	Adjustable Volume Control	Yes/No	Yes	Yes
10.10	Dimensions			
10.11	Weight			
10.12	Ingress protection		IP53 (Indoor) , IP65 (Outdoor)	IP66
10.13	Temperature rating	°C	-25 TO 55C	-20°C to 50°C

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
10.14	Flash rate			
10.15	Quantity		According To Design	OK
10.16	Response time		Immediate Response	OK
10.17	Nominal voltage	V	6-25VDC	OK
10.18	Initiating temperature		Wall Mounted	Wall-mounted
10.19	MOUNTING			
10.20	SOUND LEVEL		105 db (with volume control)	100 dB @ 1m
10.21	Material			
10.22	Certificate			
10.23	Model No.			8500 X
10.24	Manufacturer			MDS
10.25	Requisition No.			
10.26	P.O. No.			
11	POWER SUPPLY			
11.1	Amb. Temp. Min / Max	°C	-25 TO 50C	-20°C to 50°C
11.2	Amb. Relative Humidity Max.	%	95%	93%
11.3	Normal operation temperature	°C	-20 TO 50C	-20°C to 50°C
11.4	Input voltage	V	220 VAC	220VAC

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	REQUIRED DATA	UNIT	REQUIRED DATA	OFFERED DATA
11.5	Output voltage		V	24VDC	24VDC
11.6	Output current				
11.7	Manufactured to which standard				
11.8	Dimensions				
11.9	Weight				
11.10	Color				
11.11	Ingress protection			IP42	IP42
11.12	Temperature rating		°C	MAX. 50C	Max 50
11.13	Quantity			According To Design	OK
11.14	Other specifications				
11.15	Backup Battery			Yes (According To NFPA)	Yes
11.16	Quantity			According To Design	OK
11.17	Other specifications			For Details Refer To Detail Design	
11.18	LED (INDICATOR)		Yes/No	Yes	Yes
11.19	Charger		Yes/No	Yes	Yes
11.20	Certificate				
11.21	Model No.				
11.22	Manufacturer				
11.23	Requisition No.				

**FIRE ALARM AND DETECTION SYSTEM
TECHNICAL DATA SHEET**



ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
11.24	P.O. No.			
12	CALL POINT			
12.1	Amb. Temp. Min / Max	°C	-25 TO 50C	25°C to 70°C
12.2	Amb. Relative Hummidity Max.	%	95%	95%
12.3	Normal operation temperature	°C	-20 TO 50C	-10 to 50°C
12.4	Type and model	Addressable/Conventional	ADDRESSABLE	Addressable
12.5	Nominal voltage	V	15-28VDC	13-28Vdc
12.6	Current at 24 vdc			
12.7	Alarm current at 24vdc			5mA+/-1mA
12.8	Manufactured to which standard			
12.9	Dimensions			120 x 120 x 87
12.10	Weight			300g
12.11	color		Red	Red
12.12	Ingress protection		IP53 (Indoor) , IP65 (Outdoor)	IP08 - IP65
12.13	Temperature	°C	-10 To 50c	-10 to 50°C
12.14	Quantity		According To Design	OK
12.15	Other specifications		Fast Response Operation In Two Wires On Line Test Facility - Break Glass	OK

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	UNIT	REQUIRED DATA	OFFERED DATA
12.16	MOUNTING		Wall Mounted	Wall-mounted
12.17	LED INDICATOR	Yes/No	Yes	Yes
12.18	Material		Fire Retardant Plastic	ABS - Fire Retardant
12.19	Breaking glass type	Yes/No	Yes	Yes
12.20	Certificate			
12.21	Model No.			DMA05E
12.22	Manufacturer			MOS
12.23	Requisition No.			
12.24	P.O. No.			
NOTE:				
1 - It shall be possible to test the sensitivity of a gas detector in the field.				
2 - The sensor shall be suitable for easy on site calibration.				
3 - Each gas detector shall be provided with its associated connection box.				
4 - The gas detectors shall still work after an extended period in operation, without any low concentration of the specific gas, or none at all.				
5 - The detector shall be designed in such a way that ambient conditions, humidity temperature and wind cannot affect the sensor signal.				
6 - The gas detectors must be resistant against high concentration of gases, which may be present, when serious leaks occur .The full scale reading shall not turn down, when full scale gas concentration is exceeded.				
7 - Cable Gland is included in vendor scope of supply.				

**FIRE ALARM AND DETECTION SYSTEM
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ITEM	DESCRIPTION	REQUIRED DATA	UNIT	REQUIRED DATA	OFFERED DATA
	8 - Mounting Accessories is included in vendor scope of supply.				
	9 -The detector shall be inserted into or removed from the base by a simple push twist				
	10 - The detector shall be designed for fast and simple laboratory cleaning.				
	11 - All circuitry must be protected against electrical transients and electromagnetic interferences.				
	12 - There should be provided an alarm indicator lamp on detector.				
	13 - The detector shall be procurement by relevant base.				
	14 - Fire alarm system shall provide for all buildings (control building, guard house, All BCRs, Shelter and all other buildings).				
	15 – Fire alarm system shall equip with Auto dialer system.				