

SIEMENS

Product data sheet

6AV3688-3EH47-0AX0

SIMATIC HMI KP32F PN, KEY PANEL,
32 SHORT-STROKE KEYS WITH MULTI-COLOR
LED'S,
PROFINET INTERFACES WITH PROFISAFE,
16DI+16DI/DO, 4 SAFETY DI PINS,
24V DC LOOP THROUGH CONFIGURABLE FROM
STEP7 V5.5



Display	
Number of colors	5
Control elements	
Keyboard fonts	
freely inscribable membrane keys	Yes
Short stroke keys	
Number of short-stroke keys	32
Installation type/mounting	
Mounting rail installation possible	No
Wall mounting/direct mounting possible	No
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
Mounting technology	
Clamp terminals	Yes
Supply voltage	

Type of supply voltage	DC
Rated voltage/DC	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	900 A ; Caution - value invalid!
Inrush current A²s	900 A²·s ; Caution - value invalid!
Power	
Power consumption, typ.	900 W ; Caution - value invalid!
Type of output	
LED colors	
Red	Yes
Yellow	Yes
Green	Yes
white	Yes
blue	Yes
Digital inputs	
Number/binary inputs	32 ; Max. 32 inputs and outputs (total)
Voltage (DC)	24 V
Digital outputs	
Number/binary outputs	16 ; Max. 32 inputs and outputs (total)
Load "resistive"	100 mA
Load "inductive"	100 mA ; Caution - value invalid!
Load "capacitive"	100 mA ; Caution - value invalid!
Voltage (DC)	24 V ; Non-isolated
Total power	12 kW ; Caution - value invalid!
In groups of	Caution - value invalid!
Output current (per output) max.	100 mA
Total current (per group), max.	800 mA
Short-circuit protection	Yes
Interfaces	
Industrial Ethernet	
Industrial Ethernet status LED	2 ; Per port

Number of ports of the integrated switch	2
Protocols	
PROFINET	Yes ; Incl. shared device
Supports protocol for PROFINET IO	Yes
IRT supported	Yes
MRP supported	Yes
PROFINET CBA	No
Supports protocol for PROFIsafe	Yes ; Mode V2.0; 4 inputs can be used
PROFIBUS	No
MPI	No
Protocols (Ethernet)	
TCP/IP	No
Further protocols	
AS-i	No
Supports protocol for AS-Interface Safety at Work	No
Supports protocol for SafetyBUS p	No
CAN	No
INTERBUS	No
Supports protocol for INTERBUS-Safety	No
EIB/KNX	No
MODBUS	No
Data highway	No
DeviceNet	No
Supports protocol for DeviceNet Safety	No
Supports protocol for EtherNet/IP	No
Local Operating Network	No
SUCOnet	No
Foundation Fieldbus	No
SERCOS	No
other bus systems	No
Test commissioning functions	
Illuminant test	Yes ; During switch on
Pushbutton and lamp test	Yes ; During switch on

EMC	
Emission of radio interference acc. to EN 55 011	
Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes ; Group 1, measured at a distance of 10 m
Emission of radio interference acc. to EN 55 011 (limit class B)	No
Degree and class of protection	
Type of protection	IP20
IP (at the front)	IP65
Enclosure Type 4 at the front	No
Enclosure type 4x at the front	Yes ; Incl. NEMA12
Standards, approvals, certificates	
CE	Yes
KC approval	Yes
cULus	Yes
C-TICK	Yes
GL	No
ABS	No
BV	No
DNV	No
LRS	No
Class NK	No
PRS	No
Suitable for safety functions	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	Yes
FM Class I Division 2	Yes
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	30° ; To the front/rear

Operating temperature	
Operation (vertical installation)	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	55 °C
Operation (max. tilt angle)	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	45 °C
Operation (vertical installation, portrait format)	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	45 °C
Operation (max. tilt angle, portrait format)	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	45 °C
Storage/transport temperature	
Min.	-20 °C
max.	60 °C
Relative humidity	
max. relative humidity	95 %
Configuration	
Configuration software	
STEP 7 Basic (TIA Portal)	Yes
STEP 7 Professional (TIA Portal)	Yes
Functionality under WinCC flexible	
Process coupling	
S7-1200	Yes
S7-200	No
S7-300/400	Yes
	No
Win AC	Yes
SINUMERIK	No
SIMOTION	No
Allen Bradley (EtherNet/IP)	No
Allen Bradley (DF1)	No

Mitsubishi (MC TCP/IP)	No
Mitsubishi (FX)	No
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	No
Modicon (Modbus TCP/IP)	No
Modicon (Modbus)	No
I/O / Options	
Number of I/O pins	32 ; +4 SIL 2/3 inputs
Mechanics/material	
Type of housing (front)	
Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	295 mm
Height of housing front	155 mm
Depth/installation dimension	69 mm ; Incl. angled SIMATIC Ethernet connector
Mounting cutout, width	277 mm ; Max. thickness of mounting plate 2-6 mm
Mounting cutout, height	137 mm
Weight	
Weight without packaging	1220 g
Status	Jul 20, 2012