## SIEMENS

## Data sheet

## 6AV7863-4MA00-2AA0

SIMATIC IFP2200 V2, 22" multi-touch display (16:9) with 1920x1080 pixel resolution, built-in unit, for 24 V DC, display port/DVI interface, including DP/USB cable 1.8 m, on the rear USB, standard design



Figuresimilar

General information	
Product type designation	IFP2200 V2
Short designation	SIMATIC IFP2200 V2
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	21.5 in; 22"
Screen diagonal [cm]	56 cm
Display width	476 mm
Display height	268 mm
On Screen Display (OSD) configuration	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit
Viewing angle	170° x 170°
Resolution (pixels)	
Image resolution	1 920 x 1 080
<ul> <li>Horizontal image resolution</li> </ul>	1 920 pixel
Vertical image resolution	1 080 pixel
Pixel size, horizontal	0.2475 mm
Pixel size, vertical	0.2475 mm
General features	
<ul> <li>Brightness/contrast</li> </ul>	250 cd/m² / 1 000:1
Detachable from computer unit	5 m
Luminance	250 cd/m <sup>2</sup>
Backlighting	
<ul> <li>Type of backlighting</li> </ul>	LED
<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	50 000 h; At 25°C
Backlight dimmable	Yes; 0-100 %
Control elements	
Control elements	multi-touch screen
Input device	
<ul> <li>Integrated mouse cursor control</li> </ul>	Yes; Also externally via USB
Touch operation	
<ul> <li>Design as touch screen</li> </ul>	Yes; Projective-capacitive
<ul> <li>Design as multi-touch screen</li> </ul>	Yes; Projective-capacitive
Monitor keyboard	Yes; If supported by operating system
Installation type/mounting	
Design	Built-in unit
Front mounting	Yes
VESA mounting	Yes; VESA 100 x 100 integrated
Mounting in portrait format possible	Yes

Inconting in allocable formal possible         Yes           maximum permitted forward fit angle from vertical         45°           maximum permitted forward fit angle from vertical         45°           Standard vertical         43           Standard vertical         43           Corrent consumption (mode value)         1 A           Corrent consumption (max         1 A           Corrent consumption (max         2 A           Standard corrent (max)         2 A           Standard corrent (max)         2 A           Power toos (max         30 W           Interfaces         -           Number of USB Interfaces         2 USB 2 A type A           - USB 2 Morena         2 S           - USB 2 Morena		V
maxmum permited forward Bangle from vertical 45° Supply voltage Type at supply voltage Type at supply voltage D C Rader value (Cc) mit (CC) 24 V permissible range, lower find (CC) 248 V Input consumption, max. 10 A Current consumption, max. 13 A Prover foas. 14 Prover foas. 15 A Prover foas. 16 A 20 W 16 A 20 W 16 A 20 W 16 A 20 W 16 A 20 W 16 A 20 W 20 W	Mounting in landscape format possible	Yes
maximum permitted backward till angle from vertical         45°           Sinppl vicitage         DC           Rated value (DC)         24 V           permissible range, upper limit (DC)         28 8 V           Partice of value (DC)         28 8 V           Current consumption (add value)         1 A           Current consumption (add value)         1 A           Current consumption (add value)         2 A           Starting current invalue IP         0.5 A* s           Power loss max.         2 A           Starting current invalue IP         0.5 A* s           Power loss max.         3 W           Invince of USB Interfaces         2. USB 2.0 type A           Number of USB Interfaces         2. USB 2.0 type A           Value ISB Interfaces         2. USB 2.0 type A           Value ISB Interfaces         2. USB 2.0 type A           • USB On the rear         Yes; 2x onboard           Video Interfaces         Yes; 2x onboard           • USB On the rear         Yes; 2x onboard           • USB on the rear         Yes; 2x onboard           • USB on the rear         Yes; 2. USB 2.0 type A           • Exclosuer Type 4 at the front         Yes; 2. USB 2.0 type A           • Exclosuer Type 4 at the front         Yes		
Supply voltage         UC           Rated value (DC)         24 V           Permasobe range, lower finit (DC)         19.2 V           permasobe range, lower finit (DC)         28.8 V           Permasobe range, lower finit (DC)         28.8 V           Insule current         Unrent consumption (rated value)         1 A           Current consumption, max.         13.4         Insule current           Unrent consumption, max.         2 A         Stating current insule IP           Power foss. typ.         2 AW         Power foss. typ.           Power foss. typ.         2 AW         Power foss. typ.           Valid Statematic         2 USI 2.0 typ.6 A         USI 10 the fraces           • USI 0 the fraces         - Valid 2.0 typ.6 A         USI 10 the fraces           • UVD 0         Yes. Yes. Yes. Yes.         Yes. Yes.           Order Infraces         - Valid 2.0 typ.6 A         Yes.           • VID 0         Yes.         Yes.         Yes.           • USI 0 the fraces         - Valid 2.0 typ.6 A         Yes.           • Probar loss. the front         Yes. Yes.         Yes.           • Probar loss. Type 1 at the front         Yes.         Yes.           • Enclosuer Type 4 at the front         Yes.         Yes. <t< td=""><td></td><td></td></t<>		
Type of supply voltage         DC           Preder Value (CO)         24 V           permissible range, toper limit (DC)         28.8 V           Insulation of the consumption (rated value)         1.4           Current consumption (rated value)         1.4           Current consumption (rated value)         2.4           Standing current match IP         0.6 A*n           Power loss, Ip, D.         2.4 W           Power loss, Ip, D.         Yes: X corboard           Video interfaces		45°
Field value (DC)         24 V           permissible range, lower limit (DC)         19.2 V           permissible range, lower limit (DC)         28.8 V           Insut current		
permissible range, lower limit (DC)     19.2 V       permissible range, upper limit (DC)     28.8 V       Current consumption (raid value)     1 A       Current consumption (raid value)     1 A       Current consumption (raid value)     2 A       Starring current mush P     0.6 A*s       Power loss, typ.     2 4 W       Power loss, typ.     2 8 W       Power loss, typ. </td <td></td> <td></td>		
permissible range, upper finil (OC)         28.8 V           Input current         28.8 V           Current consumption, max.         1.3.A           Current consumption, max.         2.A           Starting current linusih 1°         0.5 6 /s 6           Power loss.         30 W           Intrash current linusih 1°         0.5 6 /s 6           Power loss.         30 W           Interfaces         21 USB 2.0 type A           VUDD         4% W           Power loss.         30 W           Interfaces         21 USB 2.0 type A           VUDD         4% S           OVDD         4% S           Objective         Yes           S		
Juguet current.         A           Our rent consumption, max.         1.A           Current consumption, max.         1.3.A           Innah current, max.         2.A           Stating current (mash H         0.5.K*s           Power loss, typ.         2.A W           Power loss, typ.         2.A W           Power loss, max.         30 W           Interfaces         Vest 2x onboard           Video interfaces         2.USB Z.O type A           • USB on the rear         Yes; 2x onboard           Video interfaces         -           • DisplayPort         Yes; 2x onboard           Video interfaces         -           • USB on the rear         Yes; 2x onboard           Video interfaces         -           • DisplayPort         Yes           • DisplayPort         Yes           • DisplayPort         Yes           • DisplayPort         Yes           • Endosure Type 4 at the front		
Current consumption (individue)       1 A         Current consumption, max.       1 3 A         Invish current (max.       2 A         Starting current (max.)       0.5 A*s         Power loss.       30 W         Invish current (max.)       2 A         Power loss.       30 W         Invish current (max.)       2 WS 2.0 type A         Work loss.       30 W         Invishe of USB Interfaces.       2 USB 2.0 type A         VUBD of thereare       Yes: 2x onboard         VUVD O       Yes.         OV-D O       Yes.         DisplayPort       Yes: 2x onboard         Vision Interfaces       -         • UVD O       Yes.         DisplayPort       Yes.         Power loss.       Yes         DisplayPort       Yes.         Power loss.       Yes         DisplayPort       Yes.         Power loss.       Yes         DisplayPort       Yes.         Standards, approvals.       Yes.         Standards, approvals.       Yes.         Standards, approval.       Yes.         Cartificato of suitability       Heacurdous zone 2/22, shapbuilding.         CC mark.       Yes. <td></td> <td>28.8 V</td>		28.8 V
Current max.     1.8 A       Innush current, max.     2.4       Skaring current invish P     0.5 A*s       Power loss, fyp.     2.4 W       Power loss, fyp.     2.4 W       Power loss, ranz.     30 W       Interfaces     2.1 USB 2.0 type A       USB on the rear     Yes; 2x onboard       Victor interfaces     2.1 USB 2.0 type A       USB on the rear     Yes; 2x onboard       Victor interfaces     -       • DisplayPort     Yes       • DisplayPort     Yes       • USB     Yes       • DisplayPort     Yes       • USB     Yes       • DisplayPort     IP (at the font)       IP (at the font)     IP 20       NEMA (fron)     IP 20       • Encloaue Type 4 at the front     Yes       • Encloaue Type 4 at the front		
Insh current, max.         2.4           Starting current innush Pt         0.5.4*s           Power loss, typ.         2.4 W           Power loss, rank.         30 W           Interfaces         2.1 USB 2.0 type A           USB on the rear         Yes; X comboard           VUED         Yes; X comboard           VUED.         Yes; X comboard           VUSB on the rear         Yes; X comboard           VUED.         Yes; X comboard           VUSB.         Yes; X comboard           Ves; X comboard         Yes; X comboard           Ves; X comboard         Yes; X comboard           Ves; X comboard         Yes           Standards, approvals, comflicates         Yes           Certificate of suitability         In azardous zone 2/22; shipbuilding           Cer mark         Yes           Ves (Class ID.V. 2         Ye		
Starting current innuch IP     0.6 A*s       Power loss, typ.     24 W       Wites interfaces     Yes: 2x onboard       Video interfaces     Yes       • USB     Yes       DisplayPort     Yes       Pagees and class of protection     Peopre loss       IP (ath front)     IPs0       • Enclosure Type 4x ath the front     Yes       • Enclosure Type 4x ath front     Yes       • Enclosure Type 4x ath front     Yes       • Enclosure Type 4x ath front <td< td=""><td>Current consumption, max.</td><td></td></td<>	Current consumption, max.	
Power Loss         24 W           Power Loss, max.         24 W           Power Loss, max.         30 W           Interfaces         2; USB 2.0 type A           USB on the rear         Yes; 2x onboard           Viceo interfaces         2; USB 2.0 type A           USB on the rear         Yes; 2x onboard           Viceo interfaces         Yes; 2x onboard           Viceo interfaces         Yes; Display Port V1.2           Totach interfaces         Yes; Display Port V1.2           Plate factor         Yes; Display Port V1.2           Totach interfaces         Yes; Display Port V1.2           IP (at the front)         IP65           IP (at the front)         IP65           IP (at the front)         Yes           Enclosure Type 4 at the front         Yes           Certificate of suitability         hearatous zone 2/22; shipbuilding           Certificate of suitability         hearatous zone 2/22; shipbuilding           Certificate of suitability         hearatous zone 2/22; shipbuilding           Certificate of suitability         hearatous zone 2/22; shipbuilding <td></td> <td></td>		
Power loss, typ.     24 W       Power loss, max.     30 W       Power loss, max.     30 W       Power loss, max.     30 W       Number of USB interfaces     2: USB 2.0 type A       USB on the rear     Yes; 2x onboard       Wideo interfaces     Yes; 2x onboard       • DblpPohr     Yes; 2x onboard       • USB 0     Yes       • USB 0     Yes       • DsgleyPort     Yes       • USB 0     Yes       • DsgleyPort     Yes       • USB 0     Yes       Dagree and class of protocolon     IP       IP (ret heron)     IP20       NetM (ront)     Yes       • Enclosure Type 4 at the front     Yes       • Enclosure Type 12 at the front     Yes       • Enclosure Type 12 at the front	-	0.5 A <sup>2</sup> ·s
Power loss, max.     30 W       Interfaces     2: USB 2: 0 type A       Winber of USB interfaces     2: USB 2: 0 type A       Video interfaces     Yes; 2x onboard       Video interfaces     Yes; DisplayPort V1:2       Touch interfaces     Yes       • USB     Yes       • Dagree and class of protection     Pfe5       IP (at the front)     IP65       IP (rear)     IP20       NEMA (front)     Yes       • Enclosure Type 4: at the front     Yes       • Leclex cone 2     Yes       • Marecaproval     Yes <td>Power loss</td> <td></td>	Power loss	
Interfaces         2: USB 2.0 type A           USB on the rear         Yes; 2x onboard           Video interfaces         ************************************	Power loss, typ.	24 W
Number of USB interfaces         2: USB 2.0 type A           USB on the rear         Yes; 2x onboard           Wilce interfaces         Yes; DisplayPort V1.2           Touch interfaces         Yes; Display port V1.2           • USB 0         Yes; Display port V1.2           Touch interfaces         Yes; Display port V1.2           • USB 0         Yes           • USB 0         Yes           • Optrop and class of protection         IP (earth front)           IP (rear)         IP20           NEMA (front)         IP20           • Enclosure Type 4 at the front         Yes           Use phyproval         Yes; Class I Div. 2           EAC         Cef (fromerty Gost-R)	Power loss, max.	30 W
USB on the rear       Yes; 2x onboard         Video interfaces       Yes; Display port V1.2         Touch interfaces       Yes         USB on interfaces       Yes         USB on the rear       Yes         Degree and class of protection       IP80         IP (at the front)       IP20         NEMA (front)       IP20         NEMA (front)       IP20         NEMA (front)       Yes         Enclosure Type 4 at the front       Yes         Enclosure Type 4 at the front       Yes         Standards, approvals, certificates       Certificate of suitability         Certificate of suitability       hazardous zone 2/22, shipbuilding         CE mark       Yes; Class I Div. 2         Li approval       Yes; Class I Div. 2         EAC (formerly Cost-R)       Yes         EMAC       Yes         I hazardous areas       Yes         • ATEX Zone 2       Yes         • IECEX Zone 2       Yes         • ECEX Cone 22       Yes         • IECEX Zone 2       Yes      <	Interfaces	
Video interfaces       Yes         • DVFD       Yes         • DisplayPort       Yes         • USB       Yes         • Objeto and class of protection       Pes         IP (ear)       IP65         IP (rear)       IP20         NRMA (front)       IP65         • Enclosure Type 4 at the front       Yes         Standards, approvals, cortificates       Yes         Certificate of suitability       hazardous zone 2/22, shipbuilding         CE mark       Yes; Cluss, clust, clust         U. approval       Yes; Clust, clust         Certificate of suitability       hazardous areas         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • ECEX Zone 2       Yes	Number of USB interfaces	2; USB 2.0 type A
• DVI-D Yes     • DisplayPort Yes     • Enclosure Type 4 at the front Yes     • Enclosure Type 7 at the front Yes     • ATEX Zone 2 Yes     • Enclosure 22 Yes	USB on the rear	Yes; 2x onboard
• DisplayPort         Tusch interfaces             • USB             • USB             Perse and class of protection             IP (at the front)             Enclosure Type 4 at the front             IP (at the front)             Enclosure Type 4 at the front             Enclosure Type 4 at the front             Certificate of suitability	Video interfaces	
Touch interfaces       Yes         0 USB       Yes         Degroe and class of protection       IP (at the front)         IP (rear)       IP20         NEMA (front)       Enclosure Type 4 at the front         • Enclosure Type 4 at the front       Yes         • Enclosure Type 4 at the front       Yes         • Enclosure Type 4 at the front       Yes         • Enclosure Type 12 at the front       Yes         Certificate of suitability       hazardous zone 2/22; shipbuilding         CE mark       Yes         UL approval       Yes; Class I Div. 2         EAC (formerly Cost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas       Yes         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • LECEx Zone 2       Yes         • IECEx Zone 2       Yes         • FM Class I Division 2       No         Maine approval       Yes         • Det Norske Veritas (DV)       Yes         • Det Norske Veritas (DV)       Yes         • Niepon Kaili Kyoka (Class NK)       Yes         • Niepon Kaili Kyoka (Class NK)       Yes         • Niepon Kaili Kyoka (Class NK)       Yes </td <td>• DVI-D</td> <td>Yes</td>	• DVI-D	Yes
• USB         Yes           Degree and class of protection         IP (at the front)         IP (at the front)           IP (at the front)         IP20           NEMA (front)         IP20           NEMA (front)         Yes           • Enclosure Type 4 at the front         Yes           • Enclosure Type 12 at the front         Yes           • Enclosure Type 12 at the front         Yes           Certificate of suitability         hazardous zone 2/22; shipbuilding           CE mark         Yes           UL approval         Yes; cULus, cUL           FM approval         Yes; Cluss I Div. 2           EAC (formerly Cost-R)         Yes           EMC         CE as I Div. 2           Use in hazardous areas         -           • ATEX Zone 2         Yes           • ATEX Zone 2         Yes           • IECEx Zone 2         Yes           • IECEx Zone 2         Yes           • IECEx Zone 2         Yes           • Endes u Origing (ABS)         Yes           • IECEx Zone 2         Yes           • Endes u Origing (ABS)         Yes           • Division 2         No           Marine approval         Yes           • Diverse (of Shipping (LRS)<	<ul> <li>DisplayPort</li> </ul>	Yes; Display port V1.2
Degree and class of protection           IP (at the front)         IP65           IP (rear)         IP20           NEMA (front)         IP20           • Enclosure Type 4 at the front         Yes           Standards, approvals, certificates         Yes           Certificate of suitability         fbazardous zone 2/22; shipbuilding           CE mark         Yes           UL approval         Yes; Class I Div. 2           EAC (formerly Gost-R)         Yes           EAC (formerly Gost-R)         Yes           EAC (armed y Gost-R)         Yes           IE CEX Zone 2         Yes           • ATEX Zone 22         Yes           • IECEX Zone 2         Yes           • IECEX and exact of Shipping (ABS)         Yes           • Bureau Veritas (DNV)         Yes           • Bureau Veritas (DNV)         Yes           • Loyds Register	Touch interfaces	
IP (at the front)       IP65         IP (rear)       IP20         NEMA (front)       IP20         • Enclosure Type 4 at the front       Yes         • Enclosure Type 12 at the front       Yes         • Certificate of suitability       hazardous zone 2/22; shipbuilding         CErark       Yes         UL approval       Yes; cULus, cUL         FM approval       Yes; Class I Div. 2         EAC (formerly Gost-R)       Yes         EAC (dormerly Gost-R)       Yes         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • LECEX Zone 2       Yes         • IECEX Zone 2       Yes         • ECECX Zone 2       Yes         • ECEX Zone 2       Yes         • Enclosus IDivision 2       No         Marine approval       Yes         • Det Norske Verita	• USB	Yes
IP (rear)       IP20         NEMA (front)       Yes <ul> <li>Enclosure Type 4 at the front</li> <li>Yes</li> <li>Enclosure Type 12 at the front</li> <li>Yes</li> </ul> Standards, approvals, certificates       Certificate of suitability       hazardous zone 2/22; shipbuilding         Cet mark       Yes         UL approval       Yes; cllus, cll         FM approval       Yes; class I Div. 2         EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas       Yes <ul> <li>ATEX Zone 2</li> <li>Yes</li> <li>ECE zone 2</li> <li>FM class I Division 2</li> <li>No</li> </ul> <li>Marine approval</li> <li>Standards (BV)</li> <li>Ves</li> <li>Bureau Veritas (BV)</li> <li>Yes</li> <li>Nippi</li>	Degree and class of protection	
NEMA (ront) <ul> <li>Enclosure Type 4 at the front</li> <li>Yes</li> <li>Enclosure Type 2 at the front</li> <li>Yes</li> <li>Enclosure Type 2 at the front</li> <li>Yes</li> <li>Standards, approvals, certificates</li> <li>Certificate of suitability</li> <li>hazardous zone 2/22; shipbuilding</li> <li>CE mark</li> <li>Use approval</li> <li>Yes; Cluss, CUL</li> <li>FM approval</li> <li>Yes; Cluss, CUL</li> <li>FM approval</li> <li>Yes; Cluss, CUL</li> <li>FM approval</li> <li>Yes; Class I Div. 2</li> <li>EAC (formerly Gost-R)</li> <li>Yes</li> <li>EMC</li> <li>CE, EN 55011, EN 61000-6-4, EN 61000-6-2</li> <li>Use in hazardous areas</li> <li>ATEX Zone 2</li> <li>Yes</li> <li>ATEX Zone 2</li> <li>Yes</li> <li>ATEX Zone 2</li> <li>Yes</li> <li>ECEX Zone 2</li> <li>Yes</li> <li>Use Vo</li></ul>	IP (at the front)	IP65
• Enclosure Type 4 at the front       Yes         • Enclosure Type 12 at the front       Yes         Standards, approvals, certificates	IP (rear)	IP20
• Enclosure Type 4x at the front       Yes         Standards, approvals, certificates	NEMA (front)	
Enclosure Type 12 at the front Yes  Standards, approvals, certificates  Certificate of suitability hazardous zone 2/22; shipbuilding  CE mark Yes UL approval Yes; CULus, CUL FM approval Yes; Class I Div. 2 EAC (formerly Gost-R) Yes EMC CE (formerly Gost-R) Yes EMC CE EN 55011, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas      • ATEX Zone 2     Yes     • ATEX Zone 2     Yes     • ECEx Zone 2     Yes     • FM Class I Division 2      Marine approval     Germanischer Lloyd (GL) Yes     • Bureau Veritas (BV) Yes     • Bureau Veritas (BV) Yes     • Det Norske Veritas (DNV) Yes     • Nippon Kaiji Kyokai (Class NK) Yes     • Nippon Kaiji Kyokai (Class NK) Yes     • Nippon Kaiji Kyokai (Class NK) Yes     • Nipen Kaiji Kyokai (Class NK) Yes     • Mathent temperature during storage/transportation     • min.     • of "C     • max.       60 "C	<ul> <li>Enclosure Type 4 at the front</li> </ul>	Yes
Standards, approvals, certificates         Certificate of suitability       hazardous zone 2/22; shipbuilding         CE mark       Yes         UL approval       Yes; cULus, cUL         FM approval       Yes; cLass I Div. 2         EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas          • ATEX Zone 2       Yes         • IECEx Zone 2       Yes         • FM class I Division 2       No         Marine approval       Yes         • Bureau Veritas (BV)       Yes         • Bureau Veritas (BV)       Yes         • Lloyds Register of Shipping (LRS)       Yes         • Nippon Kaij Kyokai (Class NK)       Yes         Ambient temperature during storage/transportation       0 °C         • max.       45 °C	<ul> <li>Enclosure Type 4x at the front</li> </ul>	Yes
Certificate of suitability       hazardous zone 2/22; shipbuilding         CE mark       Yes         UL approval       Yes; CULus, CUL         FM approval       Yes; Class I Div. 2         EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas       -         • ATEX Zone 2       Yes         • ATEX Zone 2       Yes         • IECEx Zone 2       Yes         • IECEX Zone 2       Yes         • IECEX Zone 2       Yes         • FM Class I Division 2       No         Marine approval       Yes         • Germanischer Lloyd (GL)       Yes         • Germanischer Lloyd (GL)       Yes         • Bureau Veritas (BV)       Yes         • Det Norske Veritas (DNV)       Yes         • Lloyds Register of Shipping (LRS)       Yes         • Nippon Kaiji Kyokai (Class NK)       Yes         Ambient temperature during operation       0 °C         • max.       45 °C         Ambient temperature during storage/transportation       -20 °C         • max.       60 °C	<ul> <li>Enclosure Type 12 at the front</li> </ul>	Yes
CE mark       Yes         UL approval       Yes; CULus, CUL         FM approval       Yes; Class I Div. 2         EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas       -         • ATEX Zone 2       Yes         • ATEX Zone 22       Yes         • ATEX Zone 22       Yes         • IECEx Zone 22       Yes         • IECEx Zone 22       Yes         • FM Class I Division 2       No         Marine approval       -         • Germanischer Lloyd (GL)       Yes         • American Bureau of Shipping (ABS)       Yes         • Bureau Veritas (BV)       Yes         • Det Norske Veritas (DNV)       Yes         • Nophonskaiji Kyokai (Class NK)       Yes         • Nippon Kaiji Kyokai (Class NK)       Yes         Ambient conditions       45 °C         Ambient temperature during storage/transportation       -         • min.       -20 °C         • max.       60 °C	Standards, approvals, certificates	
UL approvalYes; CULus, CULFM approvalYes; Class I Div. 2EAC (formerly Gost-R)YesEMCCE EN 55011, EN 61000-6-4, EN 61000-6-2Use in hazardous areas	Certificate of suitability	hazardous zone 2/22; shipbuilding
FM approval       Yes; Class I Div. 2         EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas          • ATEX Zone 2       Yes         • ATEX Zone 22       Yes         • IECEX Zone 2       Yes         • IECEX Zone 2       Yes         • IECEX Zone 2       Yes         • FM Class I Division 2       No         Marine approval	CE mark	Yes
EAC (formerly Gost-R)       Yes         EMC       CE, EN 55011, EN 61000-6-4, EN 61000-6-2         Use in hazardous areas       -         • ATEX Zone 2       Yes         • ATEX Zone 22       Yes         • IECEx Zone 22       Yes         • IECEx Zone 22       Yes         • FM Class I Division 2       No         Marine approval       -         • Germanischer Lloyd (GL)       Yes         • Bureau of Shipping (ABS)       Yes         • Bureau Veritas (BV)       Yes         • Det Norske Veritas (DNV)       Yes         • Lloyds Register of Shipping (LRS)       Yes         • Nippon Kaiji Kyokai (Class NK)       Yes         Ambient temperature during operation       0 °C         • max.       45 °C         Ambient temperature during storage/transportation       -20 °C         • max.       60 °C	UL approval	Yes; cULus, cUL
EMCCE, EN 55011, EN 61000-6-2, EN 61000-6-2Use in hazardous areas• ATEX Zone 2Yes• ATEX Zone 22Yes• IECEx Zone 2Yes• IECEx Zone 22Yes• FM Class I Division 2NoMarine approval• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient temperature during operation0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	FM approval	Yes; Class I Div. 2
Use in hazardous areas• ATEX Zone 2Yes• ATEX Zone 22Yes• IECEx Zone 2Yes• IECEx Zone 22Yes• FM Class I Division 2NoMarine approval• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient temperature during operation0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• min20 °C• max.60 °C	EAC (formerly Gost-R)	Yes
• ATEX Zone 2Yes• ATEX Zone 22Yes• IECEx Zone 2Yes• IECEx Zone 22Yes• FM Class I Division 2NoMarine approval	EMC	CE, EN 55011, EN 61000-6-4, EN 61000-6-2
• ATEX Zone 22Yes• IECEx Zone 2Yes• IECEx Zone 22Yes• FM Class I Division 2NoMarine approvalYes• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient temperature during operation0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation• min20 °C• max.60 °C	Use in hazardous areas	
• IECEx Zone 2Yes• IECEx Zone 22Yes• FM Class I Division 2NoMarine approvalYes• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient conditions0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• min.60 °C	ATEX Zone 2	Yes
IECEx Zone 22YesFM Class I Division 2NoMarine approvalYesGermanischer Lloyd (GL)YesAmerican Bureau of Shipping (ABS)YesBureau Veritas (BV)YesDet Norske Veritas (DNV)YesLloyds Register of Shipping (LRS)YesNippon Kaiji Kyokai (Class NK)YesAmbient conditions0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation	ATEX Zone 22	Yes
• FM Class I Division 2NoMarine approval• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient conditionsO °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• min20 °C• max.60 °C	IECEx Zone 2	Yes
Marine approval         • Germanischer Lloyd (GL)       Yes         • American Bureau of Shipping (ABS)       Yes         • Bureau Veritas (BV)       Yes         • Det Norske Veritas (DNV)       Yes         • Lloyds Register of Shipping (LRS)       Yes         • Nippon Kaiji Kyokai (Class NK)       Yes         Ambient conditions       Yes         Ambient temperature during operation       0 °C         • max.       45 °C         Ambient temperature during storage/transportation       -20 °C         • min.       -20 °C         • max.       60 °C	IECEx Zone 22	Yes
• Germanischer Lloyd (GL)Yes• American Bureau of Shipping (ABS)Yes• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient conditions• Minon temperature during operation0 °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• min.60 °C	FM Class I Division 2	No
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• Bureau Veritas (BV)Yes• Det Norske Veritas (DNV)Yes• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient conditionsO °C• min.0 °C• max.45 °CAmbient temperature during storage/transportation• min20 °C• max.60 °C	Germanischer Lloyd (GL)	Yes
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• Lloyds Register of Shipping (LRS)Yes• Nippon Kaiji Kyokai (Class NK)YesAmbient conditions• Ambient temperature during operation0 °C• max.0 °C• max.45 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	• Bureau Veritas (BV)	Yes
• Nippon Kaiji Kyokai (Class NK)     Yes       Ambient conditions        Ambient temperature during operation     0 °C       • max.     45 °C       Ambient temperature during storage/transportation     -20 °C       • max.     60 °C	<ul> <li>Det Norske Veritas (DNV)</li> </ul>	Yes
Ambient conditions         Ambient temperature during operation         • min.       0 °C         • max.       45 °C         Ambient temperature during storage/transportation         • min.       -20 °C         • max.       60 °C	<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	Yes
Ambient temperature during operation         • min.       0 °C         • max.       45 °C         Ambient temperature during storage/transportation         • min.       -20 °C         • max.       60 °C	<ul> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes
• min.       0 °C         • max.       45 °C         Ambient temperature during storage/transportation       -20 °C         • min.       -20 °C         • max.       60 °C	Ambient conditions	
• max.     45 °C       Ambient temperature during storage/transportation     -20 °C       • max.     60 °C	Ambient temperature during operation	
Ambient temperature during storage/transportation         • min.       -20 °C         • max.       60 °C	• min.	0 °C
• min20 °C • max. 60 °C	• max.	45 °C
• max. 60 °C	Ambient temperature during storage/transportation	
	• min.	-20 °C
Altitude during operation relating to sea level	• max.	60 °C
	Altitude during operation relating to sea level	

<ul> <li>Installation altitude above sea level, max.</li> </ul>	3 500 m
Relative humidity	
Operation, max.	90 %; no condensation
Vibrations	
<ul> <li>Vibration load in operation</li> </ul>	10 m/s²
<ul> <li>Vibration load during transport/storage</li> </ul>	10 m/s²
Shock testing	
<ul> <li>Shock load during operation</li> </ul>	150 m/s²
<ul> <li>shock acceleration during storage/transport</li> </ul>	250 m/s <sup>2</sup>
Mechanics/material	
Enclosure material (front)	
Aluminum	Yes
Aluminum casting	Yes
• Glass	Yes; at front
Enclosure material (rear)	aluminum
Dimensions	
Width of the housing front	529 mm
Height of housing front	331 mm
Mounting cutout, width	513 mm; Tolerance: +1 mm
Mounting cutout, height	315 mm; Tolerance: +1 mm
Overall depth	63.4 mm
Weights	
Weight (without packaging)	6.4 kg
Weight (with packaging)	8.4 kg

last modified:

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